



TOWNSHIP OF KING

10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN

FINAL REPORT (REVISED)



NOVEMBER 26, 2020



10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN – FINAL REPORT (REVISED)

TOWNSHIP OF KING

PROJECT NO.: 19M-01017-05
DATE: NOVEMBER 26, 2020

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November 26, 2020

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Dear Mr. David Van Veen:

Subject: 10 Year Paving Strategy and Pavement Management Plan for the Township of King Roads

We are pleased to submit our Final Paving Strategy and Pavement Management Plan Report (Revised) as part of the assignment to develop a 10-year paving and pavement management strategy for the Township of King.

The report is based on information obtained from visual pavement condition surveys completed on the roads included in this assignment, conducted in June to July of 2020, as well as addressing feedback and comments provided by various city staff in meetings and from review of the draft and final reports.

We trust that this report meets your present requirements. Please contact us if you have any questions.

Yours sincerely,

Aswan Assadi, B.Sc., M.Sc., P.Eng., AVS, IAM Cert
Chief Specialist, Pavements

LW/aa

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1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by the Township of King to provide pavement engineering services to complete an assessment of a portion of the Township's existing asphalt and gravel roads that were identified for improvements in the 2016 Roads Needs Study report and by the Township's road operations staff. It is understood that the Township will be resurfacing a number of paved roads and upgrading the existing surface-treated and gravel roads to a hot mix asphalt flexible pavement structure.

The purpose of this assignment is to develop a **data-driven**, evidence-based approach paving plan that is augmented by the 2016 Roads Needs Study (RNS) and the updated 2020 Transportation Master Plan (TMP). This approach will utilize the available traffic data, road usage information, and the results of a visual condition survey of the subject roads to determine how the Township should prioritize the paving of the asphalt, surface-treated and gravel roads included in this project for paving over a ten (10) year period between 2021 and 2031.

This paving strategy and pavement management report summarizes the results of the visual condition survey, and details the methodology used in the development of the ten (10) year paving strategy and a summary of the paving strategy for the Township.

This paving strategy and pavement management plan report makes frequent use of several pavement engineering abbreviations that are defined in Table 1-1 below.

Table 1-1 – Glossary of Abbreviations

Term	Definition
AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Official
CWSI	Can We Save It (Road Priority Rating Multiplier)
DMI	Distress Manifestation Index
G/S	Gravel Surfaced Road
HCB	High Class Bitumen (Hot Mix Asphalt) Road
HMA	Hot Mix Asphalt
IRI	International Roughness Index
LCB	Low Class Bitumen (Surface Treatment) Road
MTO	Ontario Ministry of Transportation
PCI	Pavement Condition Index
PCR	Pavement Condition Rating
PMS	Pavement Management System
Recon	Reconstruction
Rehab	Rehabilitation
RNS	Roads Need Study
TMP	Transportation Master Plan

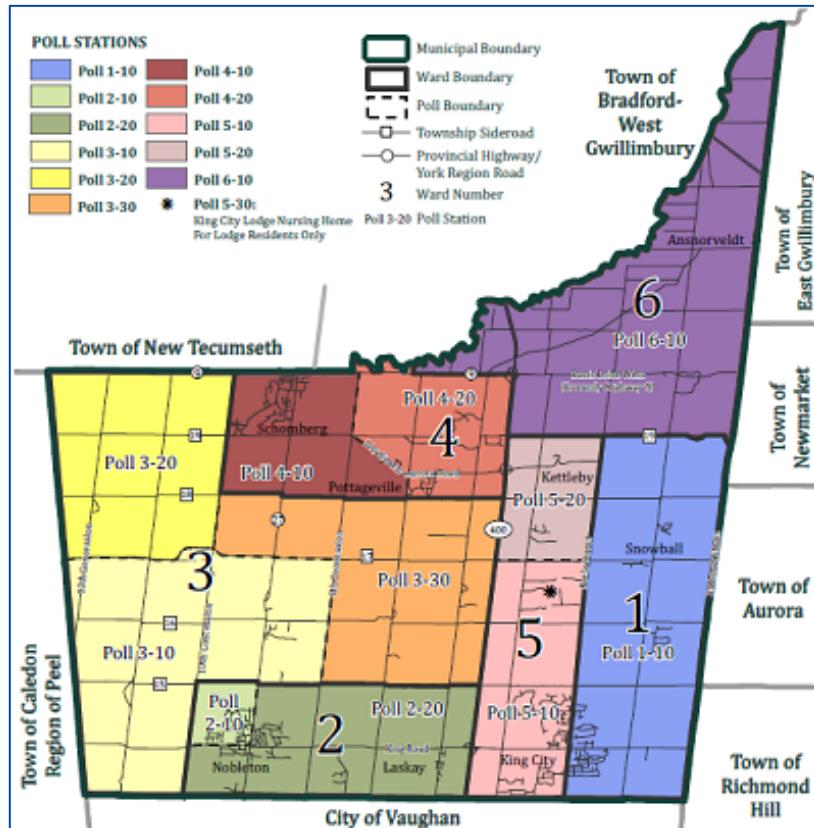
2 SITE DESCRIPTION

The Township of King is located within the Regional Municipality of York and was incorporated in 1850, and with a present area of approximately 333 km², is one of the largest political divisions within the Greater Toronto Area. King Township is bordered to the east by Bathurst Street, to the south by a line north of the King-Vaughan Road, to the west by the Caledon/King Townline, and in the north by Highway 9 from the Caledon/King Townline to slightly east of Highway 27 and cutting north following branches of the Holland River until it meets Bathurst Street.

The Township consists of a number of communities including King City, Nobleton, and Schomberg. The majority of the Township is located on the Oak Ridges Moraine and is the origin for a number of rivers including the Humber River. The Township is also known for its horse and cattle farms, and the Holland Marsh which is considered to be Ontario's "vegetable basket" straddles the township and Bradford West Gwillimbury. Due to its extensive land area, the township has a large road network consisting of a mixture of paved hard surface (asphalt) roads and unpaved gravel roads, of which a portion is the subject of this assignment.

A map of the Township of King showing the township's six (6) Wards and polling areas are presented in Figure 2.1 below. A full map highlighting all roads included in this project is presented in Appendix A under Map 1.

Figure 2.1: Township of King Ward Map



Source: King Township

3 PROJECT BACKGROUND

As noted in the introduction, it is understood that the Township wants to upgrade its network of gravel roads to hard (asphalt) surface while maintaining its existing inventory of asphalt paved roads. Based on discussions with the Township staff, Councillors and the Mayor, WSP understands that the Township would like to utilize an empirical approach to develop a strategy for prioritizing their gravel roads upgrade program while also balancing it with the needs of maintaining its existing asphalt paved roads.

To develop the 10-year paving strategy and pavement management plan for the Township, WSP completed the following tasks as part of the project scope;

- Complete a desktop study of available existing road data and review the 2011 and 2016 Roads Needs Study reports, and the 2020 Transportation Master Plan;
- Conduct a visual pavement condition survey, including video collection, for the paved and unpaved Township roads included in this project to assess their existing surficial condition and drainage;
- Obtain traffic data for the project roads and identify roads that experiences high traffic loading such as detour and goods movement routes;
- Acquire and review the typical paving and road construction costs based on local conditions from the Township;
- Receive input from the end users of the roads including members of the public (Township residents) and government staff such as Councillors and the Mayor of the Township.

Input and feedback from end users including local residents, Councillors and the Mayor was noted to be particularly important and useful during the project. For example, while the Township's goal is upgrade its unpaved gravel roads, it is understood that some residents have communicated a desire to keep the gravel roads in their areas unpaved and be excluded from the Township's upgrade program.

In addition, Township residents and staff have also identified some roads with operational deficiencies and hazards. For example, some roads have sections with steep grades that often become iced over in winter, vegetation extending into the roadway and obstructing visibility, or poor sight lines as a result of geometric design (sharp curves). As a result, this input was determined to be an integral component to the development of the paving strategy and pavement management plan.

Based on the information provided by the Township, it is understood that the paved asphalt and unpaved gravel roads to be included in this 10 Year Paving Strategy and Pavement Management Plan were derived from the *King 2016 Roads Needs Report*, excluding the roads identified in Table 4-4 of the *King Township 2020 Transportation Master Plan – The Way Forward* prepared by WSP and dated March 2020. Roads that were also recently paved in 2019 and 2020, or included in recent developments were also excluded from this project. The approximate total length of asphalt and gravel roads included in this project are presented in Table 3-1 follows.

Table 3-1 – Project Length

Road Type	Length (km)	No. of Roads
Asphalt (Paved) Roads	201.8	354
Surface-Treated (Paved) Roads	29.81	31
Gravel (Unpaved Roads)	63.71	51
Total	295.32	436

It should be noted that the total 295.32 km of roads included in this project does not include the full Township road network. The list of roads included in this project were based on the results of the 2016 Roads Need Study, feedback provided by the Township's road operations staff.

The methodology for the visual pavement survey completed to assessment the condition of the existing asphalt and gravel roads included in this project, and determination of the strategy for road resurfacing and upgrade prioritization are outlined in the report below.

4 PROJECT METHODOLOGY

Based on the requirements of this project, the following methodologies were utilized to fulfill the project scope and for the development of the 10-year paving strategy and pavement management plan for the Township.

4.1 DESKTOP STUDY AND REVIEW

A desktop study and review of the available pavement and road data provided by the Township was completed by the WSP pavement engineering team to facilitate the field work and project set-up, completion of the fieldwork and development of the paving strategy and pavement management plan.

An updated Transportation Master Plan (TMP) was developed by the Township in partnership WSP in 2019-2020, this study is summarized in a report titled *King Township – 2020 Transportation Master Plan: The Way Forward* and dated March 2020. It is understood that this is a refinement of the previous TMP developed in 2015 to better suit the Township's needs to the year 2031 and to reflect continued community growth and changes to policies across multiple levels of government. The 2020 TMP was reviewed as part of this assignment's scope in order to develop a paving strategy and pavement management plan that will better align with the objectives of the 2020 TMP.

The 2011 and 2016 Roads Need Study (RNS) reports were also reviewed alongside the 2020 TMP to augment the background information used to develop the paving strategy. As part of the 2011 study, a number of crossing culverts and bridge structures were identified as requiring repair work or replacement. The culverts and bridges identified in the 2011 report that fell on roads included in this project are indicated in the paving strategy and management plan to denote that there may be potential culvert or bridge work as part of that road's rehabilitation. The complete list of culverts and bridges from the 2011 RNS are attached to this report under Appendix B.

Traffic data was provided by the Township in the form of 2016 Average Annual Daily Traffic (AADT) values for each of the road sections included in this project. The AADT values are generally representative of the traffic loads experienced by a roadway on a daily basis. The traffic data was correlated to the class of the roadway, pavement type and condition and is used as one of the metrics to determine the paving strategy and management plan, as traffic loads will have a significant impact on the deterioration rate and service life of a roadway.

For information on road construction and paving prices, the Township provided several recent paving packages for examples of local costs in the Township. Construction costing information was also extrapolated from recent pavement projects completed in the City of Toronto and City of Vaughan to supplement the available figures, and to provide more representative pricing for the development of the 10-year paving strategy and pavement management plan. The pricing information used is further detailed in section 5.4 of this report.

Another important component of the desktop study was reviewing the input provided by the various Councillors and the Mayor of the Township. Their input and feedback included identifying gravel roads that local residents and users did not want paved, identifying roadways with operational deficiencies, and noting several roads that run parallel to Highway 400 which are often used as detours by rush-hour traffic and therefore experience higher traffic volumes and loading than what was expected. These issues were reviewed and included in the assessment process so that they will be identified and addressed by the paving strategy and management plan.

4.2 VISUAL CONDITION SURVEY

A visual condition survey of the Township's paved asphalt and unpaved gravel roads included in this project was performed by a qualified WSP Pavement Technician from June to July of 2020.

The visual condition survey was completed in accordance with the Ontario Ministry of Transportation's (MTO) SP-024, *Manual for Condition Rating of Flexible Pavements* for the asphalt surfaced (paved)

roads, MTO's SP-021, *Manual for the Condition Rating of Surface-Treated Pavements* for the surface treated (paved) roads, and the MTO's SP-025, *Manual for Condition Rating of Gravel Surface Roads* for the gravel (unpaved) roads. In accordance with the MTO manuals, an MTO Flexible, Surface Treated, or Gravel Surface Pavement Evaluation Form was completed for each of the paved and unpaved roads to determine the Pavement Condition Rating (PCR) for each road. Samples of the evaluation forms are presented in Appendix C.

The procedure for classifying, and rating the severity and density of the pavement distress manifestations are outlined in the SP-024, SP-21, and SP-025 manuals. Examples of typical distresses that were observed on the Township's paved and unpaved roads during our pavement assessment are provided below.

Site photos showing the representative pavement condition for all roads included in the project were taken during the visual condition assessment. In addition, video was collected for the paved and unpaved roads as part of the visual assessment. The video was collected by using a two-camera system mounted onto a WSP vehicle and recording while the technician drove the full length of each road section in both directions of travel, with one camera mounted on the front-center of the vehicle to record surficial pavement distresses, and the second camera mounted on the front-right to record curb, shoulder or ditch condition as applicable.

Due to the large number of video, photo, and spreadsheet files involved, as well as the size of the files, the completed MTO Flexible, Surface Treated, and Gravel Surface Pavement Evaluation Forms, site photos and videos for the project streets will be provided to the Township in an electronic submission.

4.2.1

TYPICAL ASPHALT SURFACE (PAVED ROAD) DISTRESSES

A brief description of the typical surficial distresses that were observed on the asphalt paved Township roads, as extracted from the SP-024 *Manual for Condition Rating of Flexible Pavements*, and representative photos of the distresses are provided as follows. The severity and density of these distresses were used to calculate the PCR values for each of the paved roads.

RAVELLING AND AGGREGATE LOSS

Ravelling and loss of coarse aggregates is a surficial distress that appears as though the pavement surface is breaking up into small pock-marks as aggregate particles are lost from the surface. This type of distress have a variety of possible causes including lack of bond and poor adhesion between the aggregates and asphalt binder, fracturing or disintegration of the aggregates from repeated freezing and thawing action, insufficient asphalt content, asphalt hardening due to aging and poor compaction or construction practices. An example of ravelling and aggregate loss is presented in Figure 4.1.

Figure 4.1: Moderate Ravelling – Russell Snider Drive, Nobleton (Section No. 2116)



Source: WSP (July 2020)

RUTTING AND DEFORMATION

Deformations in the asphalt pavement such as wheel-track rutting are longitudinal depressions left in the wheel-path after repeated load applications. Rutting results from densification and permanent deformation under the load, combined with displacement of pavement materials. Possible causes of rutting include poorly-compacted pavement structural layers, unstable granular layers or asphalt mixes, or an overstressed subgrade.

Pavement distortion was another type of deformation that was observed, which typically results from settlement slope failure, and/or frost heaving. Distortions may take the form of dishing, bumps, dips, tenting, stepping at cracks which creates a rougher driving surface for vehicles. An example of wheel-track rutting is presented in Figure 4.2.

Figure 4.2: Wheel-Track Rutting – Magnum Drive, Schomberg (Section No. 3002)



Source: WSP (June 2020)

LONGITUDINAL CRACKING

Pavement cracks which follow a course approximately parallel to the direction of travel. Cracks situated at or near the centre of the wheel tracks are considered to be wheel-track longitudinal cracking, centerline longitudinal cracks are situated at or near the centerline of the roadway, and mid-lane cracks are typically at or near the middle of the lane between the wheel-tracks. Longitudinal cracks may be caused by heavy traffic loading, frost action, and poor construction (particularly at the longitudinal construction joint). An example of longitudinal cracking is presented in Figure 4.3.

Figure 4.3: Longitudinal and Transverse Cracking – Old King Road, Nobleton (Section No. 2000)



Source: WSP (July 2020)

TRANSVERSE CRACKING

A type of pavement cracking which follows a course approximately at right angles to the pavement centreline. Full transverse cracks extending across the full width of the road tend to be regularly spaced along the length of the road, while cracks that extends half or part-way occur at shorter distances. Natural shrinkage caused by low temperatures, the susceptibility of the asphalt to high temperatures and frost action may produce transverse cracks.

Another common source of transverse cracking are reflection cracks. This is when cracks in the lower layers of the asphalt gradually reflect through the surface layer to the top of the pavement, and typically occurs on roadways following a “shave and pave” where the milling depth was not deep enough to fully remove the existing cracks. Reflection cracking is also common in composite pavements where a layer of asphalt has been paved over concrete slabs. The movement between slabs at the joints will cause the asphalt above to crack through to the surface at these locations. An example of transverse cracking is presented in Figure 4.3.

PAVEMENT EDGE CRACKING

Cracks that are parallel to and generally within 30 cm of the roadway’s edge of pavement, and are either fairly continuous or consists of crescent-shaped crack patterns in a wave formation. On some thin asphalt surfaces, pavement edge cracking progressively encroaches onto the outer wheel-tracks through the middle of the lane or further. Pavement edge cracking are generally a result of insufficient bearing support and/or excessive traffic loading at the pavement edge (due to inadequate pavement width or substandard geometry), or poor drainage at the pavement edge and shoulder. An example of pavement edge cracking is presented in Figure 4.4.

Figure 4.4: Pavement Edge Cracking – Strawberry Lane (Section No. 307)



Source: WSP (June 2020)

ALLIGATOR CRACKING

This type of pavement cracking forms a network of polygon blocks resembling the skin of an alligator. The block size, which can range from a few millimetres to about a metre, is indicative of the level (depth) at which failure is taking place. Alligator cracking is often accompanied by large depressions together with lateral movement of the pavement edge outwards and upwards resulting in water-ponding during rains.

Alligator cracking is caused by the inability of a part of the pavement structure to support the traffic loads. Other types of cracking such as transverse and longitudinal may allow surface water to infiltrate the pavement structure and weaken the granular or subgrade support. Therefore, alligator cracking is considered the final stage of crack development and is often an indicator of pavement failure. An example of alligator cracking is presented in Figure 4.5.

Figure 4.5: Alligator Cracking – Robb Drive, Nobleton (Section No. 2084)



Source: WSP (July 2020)

ASPHALT PATCHING

Patching is the placing and spreading of premixed asphaltic materials to repair potholes, bumps, depressions, alligator cracking, wheel-track rutting, distortions and other pavement distresses. Deteriorated patches are a concern as it may produce a rough driving surface. Pavement patching may also involve removing the existing pavement via saw-cutting prior to patching, and it is common for cracks to develop and spread at these saw-cut joints. If these joints are not sealed, water and moisture will also penetrate the pavement and increase the rate of pavement deterioration. Improper or inadequate compaction during placement of the patch may further result in settlement or raised grades of the patched area, this will result in water-ponding during rains and an uneven driving surface. An example of asphalt patching is presented in Figure 4.6.

Figure 4.6: Pavement Patch – Blue Beech Trail, Nobleton (Section No. 2137)



Source: WSP (July 2020)

4.2.2

TYPICAL SURFACE-TREATED DISTRESSES

A brief description of the typical surficial distresses that were observed on the surface-treated Township roads, as extracted from the SP-0215 *Manual for Condition Rating of Surface-Treated Pavements*, including representative photos of the distresses are provided as follows. The severity and density of these distresses were used to calculate the PCR values for each of the surface-treated roads.

SURFACE DEFECTS

Some of the surface defects that were observed on the surface-treated Township roads include ravelling and coarse aggregate loss, and potholes.

Ravelling and loss of coarse aggregates on surface-treated pavements is similar to as on asphalt paved roads, and is when aggregate particles are lost from the surface treatment due to poor bonding or adhesion between the aggregates and asphalt emulsion, fracturing or disintegration of the aggregates or insufficient asphalt content in the emulsion.

Potholes are bowl-shaped depressions in the pavement surface that penetrates through the surface-treatment layer into the underlying base course, typically with sharp edges and vertical sides. As surface-treatments are usually composed of thin layers, it is susceptible to potholing where chunks of the pavement become dislodged by traffic after the surface-treatment has cracked. An example of surface-treated defects is presented in Figure 4.7.

Figure 4.7: Ravelling and Aggregate Loss, Potholes – 16th Sideroad between Bathurst Street and West End (Section No. 21)



Source: WSP (June 2020)

SURFACE DEFORMATIONS

The types of surface deformations observed on the Township's surface-treated roads include rippling, wheel-track rutting and distortion.

Rutting and distortion on surface-treated roads are similar to those on asphalt-paved roads, as previously outlined. Rutting results from permanent deformation of the pavement under load, due to insufficient strength in the surface-treated pavement, granular layers, subgrade or some combination of all the layers. As with asphalt pavements, distortions on surface-treated pavements results from settlement slope failure, and/or frost heaving. Distortions may take the form of dishing, bumps, dips, tenting, stepping at cracks which creates a rougher driving surface for vehicles.

Rippling are regular transverse undulations on the pavement surface, consisting of closely-spaced, alternate valleys and crest of singular or multiple waves or humps located transversely or longitudinally on the road surface. An example of surface-treated deformations is presented in Figure 4.81.

Figure 4.8: Surface-Treated Pavement Distortion – Lorne Avenue, Kettleby (Section No. 109)



Source: WSP (June 2020)

CRACKING

Surface-treated pavement cracking are similar to cracking on asphalt-paved roads, the types of cracks observed on the Township's surface-treated roads include longitudinal, transverse, and alligator.

Longitudinal cracks on surface-treated roads are parallel to the direction of travel and can be located near the centerline of the roadway, in the middle of the lane between the wheel-tracks or on the wheel cracks. Causes of longitudinal cracking include but are not limited to, traffic loading, frost action and poor construction. Conversely, transfer cracks run at right angles to the road's direction of travel and are a result of temperature changes (heating and cooling), frost action and reflection cracking.

Alligator cracking on surface-treated pavements also form a network of polygon blocks similar to the skin of an alligator with depressions. Alligator cracking are produced due to insufficient strength or support in the pavement structure to accommodate the traffic loads on the road. Longitudinal and transverse cracking may develop into alligator cracking as they continue to deteriorate and allow water to infiltration into the base or subgrade material, thereby further weakening the pavement structure and leading to failure. An example of these cracking types is presented in Figure 4.9.

Figure 4.9: Alligator Cracking on Surface-Treated – Wist Road (Section No. 287)



Source: WSP (June 2020)

4.2.3

TYPICAL GRAVEL SURFACE (UNPAVED ROAD) DISTRESSES

A brief description of the typical surficial distresses that were observed on the unpaved gravel Township roads, as extracted from the SP-025 *Manual for Condition Rating of Gravel Surface Roads*, including representative photos of the distresses are provided as follows. The severity and density of these distresses were used to calculate the PCR values for each of the unpaved roads.

SURFACE DEFECTS

Surface defects on gravel surface roads include loose gravel, dust, potholes and breakup.

Loose gravel is when the gravel surface is loosely compacted with the gravel in wind-rows along the centre of the road, alongside the wheel-track or along the shoulder parallel to the direction of traffic. Loose gravel is a result of insufficient compaction during construction or placement, and traffic action segregating coarse aggregates from the fine particles and then moves loosened aggregates away from the wheel-tracks.

Dust clouds are produced by traffic action and impairs visibility for drivers, and stems from loose gravel surface and segregation of fine aggregate particles from the coarse aggregates.

Potholes in gravel roads are bowl-shaped depressions in the road surface, and are produced by a combination of excessive moisture, traffic action, frost action and inadequate structural strength in the roadway.

Breakups are distresses where the subgrade soils have punched through the gravel surface, usually with the broken surficial area surrounded by depression or dishing type of distortion. Breakups are most likely to occur at the wheel-tracks where any inadequacies in structural strength is exacerbated by the traffic loading. Other causes include poor drainage and frost action. An example of these surface defects is presented in Figure 4.10.

Figure 4.10: Potholes, Loose Gravel and Breakups – Toll Road (Section No. 345)



Source: WSP (June 2020)

SURFACE DEFORMATIONS

The types of surface deformations on gravel surface roads include washboard, rutting, flat/reverse crown, and distortion.

Washboard is a series of closely-spaced crests and valleys which resembles a “washboard” surface, and always occurs with the ripples perpendicular to the direction of travel and are more pronounced at the wheel-tracks. This type of distress may be caused by traffic loading combined with loose gravel, areas of acceleration and deceleration such as curves, downhill or uphill and at intersections, and insufficient pavement structural strength.

Rutting in gravel roads is similar to rutting in paved roads, and are surface depressions in the wheel-track. As with paved roads, gravel road rutting is a product of inadequate structural strength due to design or deterioration.

Flat or reverse crown is such that the cross-sectional slope of the road is flat, or is reversed with the road edges higher than the centreline. This issue is indicative of poor construction or maintenance.

Distortion is any deviation of the gravel road surface from its original shape other than rutting or washboard, and usually takes the form of dishing, bumps or dips that creates a rougher driving surface. As distortion can take many forms, it can be caused by a variety of factors such as differential frost heaving and settlement, poor drainage, lack of subgrade support or embankment slope failure. An example of these surface deformations is presented in Figure 4.11.

Figure 4.11: Washboard and Rutting – Concession Road 7 (Section No. 233)



Source: WSP (June 2020)

4.3 PAVEMENT CONDITION INDEX

Pavement Condition Index (PCI) is a form of pavement analysis that depends on mapping the severity and frequency of distresses found on a pavement surface combined with the riding quality of the road to make an approximate evaluation of the overall condition of the pavement structure.

The equations presented below were all extracted from the MTO Pavement Design Manual.

The following formula under Equation (1) is used to calculate the PCI value of an asphalt pavement:

$$(1) \quad PCI = \text{Max}(0, \text{Min}(100, 13.75 + 9 \times DMI - 7.5 \times IRI))$$

PCI is Pavement Condition Index

DMI is the subjective Distress Manifestation Index ranging from 0 (worst condition) to 10 (excellent condition)

IRI is the International Roughness Index

This formula is used in conjunction with provided weighting values based on the severity (slight to very severe) and the density of distress (few (<10%) to throughout (80-100%)), used to calculate DMI. The formula used to calculate DMI is as follows under Equation (2) for asphalt pavement:

$$(2) \quad DMI = 10 \times (208 - \sum_k^N (S_k + D_k) \times W_k) / 208$$

N is the number of distresses related to a given pavement type

S_k represents the severity rate of distress k

D_k represents the density rate of distress k

W_k represents the weighting factor of distress k

IRI is back-calculated from the Ride Comfort Rating (RCR) using the following formula under Equation (3) for asphalt pavements:

$$(3) \quad IRI = 10^{(8.52 - RCR)/7.49}$$

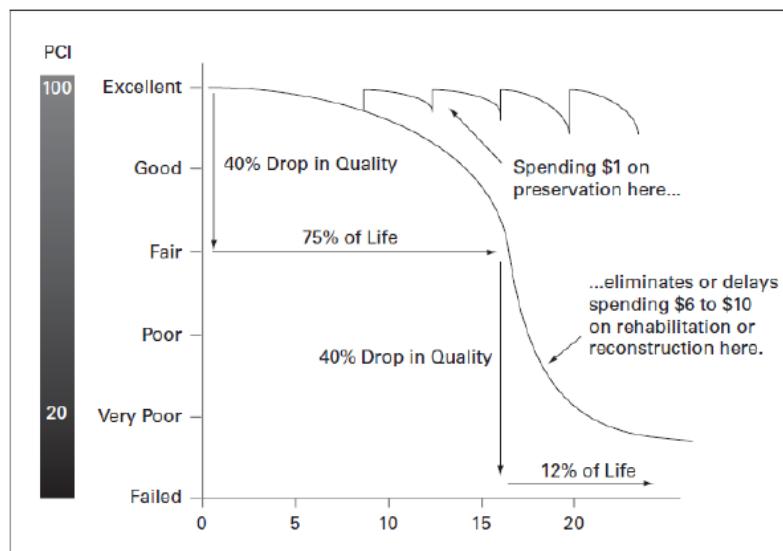
PCI can be used for planning pavement rehabilitation as part of an overall pavement management strategy. It can be used to arrange rehabilitation priority and obtain condition data over time, which can be used to find the rate at which pavement in a specific area under specific conditions deteriorates over time. This data can be valuable for planning and costing purposes.

4.4

TYPICAL PAVEMENT DISTRESS MODEL

According to (Investigation of Aggregate and binder types effects on the micro-surfacing rutting properties, A.Shafaghat, 2015), the condition of a pavement asset can be modeled over time to produce an approximate estimate of the condition of pavement over its design life. Figure 4.12 below shows a comparison of PCI versus time for a pavement asset.

Figure 4.12: PCI Deterioration Curve



As shown in Figure 4.12, the rate of downward progression of PCI increases greatly after a certain period of time. Based on this model, the first 40% drop in PCI occurs over the first 75% of life, and the next 40% drop in PCI occurs over the next 12% of life. This acceleration of deterioration indicates that there is a compounding of distresses that occurs over time. This observed behaviour can be used to form the basis for an efficient pavement management model. It should be noted that routine preventative maintenance as shown in Figure 4.12 can be used to delay the need for rehabilitation or reconstruction if completed regularly and early in the life of the pavement's service life.

5 PAVEMENT MANAGEMENT STRATEGIES

5.1 BASICS OF PAVEMENT MANAGEMENT

Pavement Management Systems (PMS) are defined by the American Association of State Highway and Transportation Official (AASHTO) as “the effective and efficient directing of the various activities involved in provided and sustaining pavements in a condition acceptable to the traveling public at the least life cycle cost.” (AASHTO, 1985)

A quality PMS is able to provide timely treatments to extend the life of a pavement at the lowest cost possible while maintaining an acceptable service level. These systems are linked with lifecycle cost analysis and data management.

Components of a successful pavement management system include:

1. **Pavement Condition Surveys:** Using a low-cost but informative survey method to keep track of the condition and stage of life of pavement assets.
2. **Pavement Information Database Management:** Having the pavement condition survey data be stored in an accessible, sortable and searchable data set that enables information retrieval for analysis.
3. **Data Analysis:** Algorithms or analysis procedures that are able to interpret the sorted data. These procedures are able to provide aggregated data such as lifecycle costing, performance prediction, and rehabilitation optimization.
4. **Decision Making Criteria:** The set of rules that guide pavement management decision making. These rules are determined based on the operating needs of the road network, as well as scheduling limitations.
5. **Implementation:** Budgetary and procedural concerns that apply and realise the recommendations based on the decision-making criteria

5.2 PCI IN PAVEMENT MANAGEMENT

In the findings and analysis portion of this report, PCI was used as a basis for condition evaluation and comparison. Roads were broken up into five categories in two road classification sections:

Local Roads

- **Very Good (PCI 80+):** Roads at the beginning of their service life. No action required, possible candidate for maintenance.
- **Good (PCI 66 to 80):** Roads with signs of wear and tear starting to appear. Candidate for no action or maintenance.
- **Fair (PCI 46 to 65):** Roads with visible deficiencies. Ready for rehabilitation.
- **Poor (PCI 40 to 45):** Roads with major deficiencies. More extensive rehabilitation necessary.
- **Very Poor (PCI <40):** Roads needing more extensive rehabilitation such as reconstruction.

Collector/Arterial Roads

- **Very Good (PCI 80+):** Roads at the beginning of their service life. No action required. No action required, possible candidate for maintenance.

- **Good (PCI 71 to 80):** Roads with signs of wear and tear starting to appear. Candidate for no action or maintenance.
- **Fair (PCI 51 to 70):** Roads with visible deficiencies. Ready for rehabilitation.
- **Poor (PCI 45 to 50):** Roads with major deficiencies. More extensive rehabilitation necessary.
- **Very Poor (PCI <45):** Roads needing more extensive rehabilitation such as reconstruction.

These categories are used to recommend rehabilitation and maintenance procedures for roads in the study area, and are based on the recommendations found in Pavement Condition 101, developed by the Ontario Good Roads Association (OGRA) in December 2009.

The condition rating category of each road included in this project, based on their PCI rating, is presented on a map attached in Appendix A under Map 2.

5.3 GRAVEL ROAD PAVING AND PAVEMENT REHABILITATION OPTIONS

The gravel road paving and pavement rehabilitation activities included in the paving strategy and management plan for the Township are as follows:

5.3.1.1 GRAVEL ROAD PAVING WITH HOT MIX ASPHALT (HMA)

One of the primary objectives of the Township is to upgrade its unpaved gravel roads network to paved hard surfaces using Hot Mix Asphalt (HMA). For the gravel roads paving, it is anticipated that the required work will include regrading the existing gravel road surface with new Granular A up to 150 mm, in order to provide a proper cross-section profile for drainage and granular base layer for the paved road.

For the gravel roads paving with asphalt on local and collector/arterial roads for this paving strategy and management plan, the roads should be regraded with Granular A as noted and surfaced as outlined in Table 5-1 below.

Table 5-1 – Asphalt Thickness for Gravel Road Paving with HMA

Layer	Local	Collector/Arterial
HMA – Surface Course	50 mm	50 mm
HMA – Upper Binder Course	50 mm	50 mm
HMA – Lower Binder Course	-	50 mm
Total	100 mm	150 mm

The paving of existing granular collector/arterial roads will also include fully-paved shoulders or upgrade to fully-paved shoulders.

For the asphalt mixes, if Marshall mix is to be utilized, it is recommended that HL3 (or HL4 for higher traffic volumes) and HL8 be used for the surface and binder courses respectively. If SuperPave mix is to be utilized, then SP12.5 (or SP12.5 FC1 for higher traffic volumes) and SP19.0 is recommended for the surface and binder courses respectively.

Prime coat should be placed on the granular base prior to paving, and tack coating should be completed between the placement of each course of asphalt to ensure good bonding between the layers.

It should be noted that the asphalt design thicknesses presented in Table 5-1 are based on WSP's experience in designing asphalt surfacing for local and collector/arterial roads with similar levels of traffic, and are primarily used for the high-level cost estimation needed to develop the 10-year paving plan. It is recommended that a geotechnical investigation and laboratory testing program should be completed on any roads earmarked for paving to confirm the in-situ subsurface material conditions and validate the asphalt design thicknesses.

5.3.1.2

GRAVEL ROAD PAVING WITH SURFACE TREATMENT

In addition to paving gravel roads with hot mix asphalt, an alternative option is surface treatment. Surface treatment is a less expensive alternative, but the typical layer thickness is ~20 mm, provides less strength and durability than hot mix asphalt with the resultant shorter service life and less traffic capacity for the pavement. Therefore, upgrading an unpaved gravel road to a surface-treated road surface is only suitable for local roads with very low traffic volumes due to the lower service level of a surface-treated road.

Similar to paving with hot mix asphalt, regrading of the existing gravel road surface with up to 150 mm of Granular A is also required prior to placement of the surface-treatment in order to provide a proper cross-section profile for drainage and a granular base layer for the hard-surfaced road.

5.3.1.3

ASPHALT MILLING AND OVERLAY

For the existing asphalt paved roads that are noted to be in fair condition with primarily surficial distresses that are not considered to have penetrated beyond the top lift, a mill and overlay treatment may be considered to extend the service life and restore the driving surface of the existing pavement. For this rehabilitation treatment, the top 50 mm of asphalt is to be milled and removed, the exposed surface is tack coated and then paved over with an overlay of 50 mm of new HMA surface course. The asphalt milling depth may be less than 50 mm or the thickness of the HMA overlay if grade-raises are allowed.

It should be noted that if the pavement distresses such as cracking has penetrated beyond the surface course of the existing pavement, then milling an additional 50 mm and paving with an additional 50 mm of HMA (two-lift mill and overlay) is recommended to either fully remove the distress or increase the time it takes the distress to reflect through to the new pavement surface.

Resurfacing of collector/arterial roads will also include fully-paved shoulders.

A two-lift mill and overlay rehabilitation treatment may also be more suitable for roadways that experiences high levels of truck traffic such as collectors/arterials or goods movement roads.

For Marshall mix, HL3 or HL4 for higher traffic volumes is recommended for the resurfacing, and SP12.5 or SP12.5 FC1 for higher traffic volumes for SuperPave mix.

5.3.1.4

RECONSTRUCTION

For the existing paved and unpaved roads that are noted to be in poor to very poor condition, more extensive rehabilitation will be required in order to ensure that an adequate pavement structure is provided to carry future traffic loading.

Reconstruction involves removing most or all of the existing pavement structure on a roadway, and rebuilding the pavement structure with new materials. As such, reconstruction is the most intensive and typically the most expensive rehabilitation option but should produce a pavement structure with the longest service compared to other rehabilitation options, allows for at-depth pavement structure issues or deficiencies to be addressed, and drainage improvements to be made (regrading of cross-sectional profile, installation of subdrains etc.).

For the reconstruction design of local and collector/arterial roads for this paving strategy and pavement management plan, the following designs presented in Table 5-2 were utilized.

Table 5-2 – Pavement Structure Thickness for Reconstruction

Layer	Local	Collector/Arterial
HMA – Surface Course	50 mm	50 mm
HMA – Upper Binder Course	50 mm	50 mm
HMA – Lower Binder Course	-	50 mm
Granular A Base	150 mm	150 mm
Granular B Subbase	250 mm	300 mm
Total	500 mm	600 mm

Reconstruction of collector/arterial roads will also include fully-paved shoulders or upgrade to fully-paved shoulders.

For the asphalt mixes, if Marshall mix is to be utilized, it is recommended that HL3 (or HL4 for higher traffic volumes) and HL8 be used for the surface and binder courses respectively. If SuperPave mix is to be utilized, then SP12.5 (or SP12.5 FC1 for higher traffic volumes) and SP19.0 is recommended for the surface and binder courses respectively.

Tack coating should be completed between the place of each course of asphalt to ensure good bonding between the layers.

It should be noted that the design thicknesses presented in Table 5-2 are based on WSP's experience in designing local and collector/arterial roads with similar levels of traffic, and are primarily used for the high-level cost estimation needed to develop the 10-year paving plan. It is recommended that a geotechnical investigation and laboratory testing program should be completed on any roads earmarked for reconstruction to confirm the in-situ subsurface material conditions and validate the pavement design.

5.4 ROAD PAVING & CONSTRUCTION PRICING

The unit prices for the different road paving and construction activities under consideration for the paving strategy and pavement management plan are presented in Table 5-3 below, and are based on examples of road paving contracts or projects recently completed in the Township, as well as the cities of Toronto and Vaughan between the years 2017 and 2019.

Table 5-3 – Road Paving and Construction Unit Pricing

Material/Activity	Price (\$)	Unit
Asphalt Paving – Surface Course	120.00	Tonne
Asphalt Paving – Binder Course	95.00	Tonne
Surface Treatment	75.00	Tonne
Granular A Base	35.00	Tonne
Granular B Subbase	17.00	Tonne
Tack Coating	0.50	m ²
Concrete Curb and Gutter	120.00	m
Subdrain Installation	40.00	m
Asphalt Milling (50 mm)	5.00	m ²
Asphalt Milling (80 mm)	8.00	m ²
Excavation and Removals	50.00	m ³

Based on the above unit prices, the gravel road paving and pavement rehabilitation options described in Section 5.3, the estimated cost of each of the gravel road paving and pavement rehabilitation options were calculated in terms of \$ per square metre of road. This metric was used for the development of the paving strategy and pavement management plan for the Township. The cost of each treatment/option in \$ per m² of road is presented in Table 5-4 below.

The conversion factors provided in the MTO Contract Documentation, Estimating & Documentation (CDED) Manual were used to convert the hot mix asphalt and granular quantities from \$ per tonnes to \$ per metre.

Table 5-4 – Paving and Pavement Rehabilitation Unit Cost Per Square Metre

Activity Type	Cost Per m ²	With Subdrain Installation	With Subdrain + Curb and Gutter
Gravel Road Paving with HMA (Local)	\$41.40	\$44	\$60
Gravel Road Paving with HMA (Collector/Arterial)	\$50.60	\$56	\$72
Gravel Road Paving with Surface Treatment	\$25.60	\$31	-
Asphalt Milling and Overlay (One Lift)	\$20	-	-
Asphalt Milling and Overlay (Two Lifts)	\$34.70	-	-
Reconstruction (Local)	\$74.70	\$80	\$96
Reconstruction (Collector/Arterial)	\$94	\$99	\$115

The cost per m² presented in Table 5-4 is based on average unit prices as previously noted and is intended for high-level cost estimations. It should also be noted that the average unit prices are for the

initial pavement rehabilitation or reconstruction activities only, and do not represent total life-cycle costs, or include costs for peripheral items such as but not limited to watermains, curbs and sidewalks, utility relocation, culvert replacements or bridge repairs.

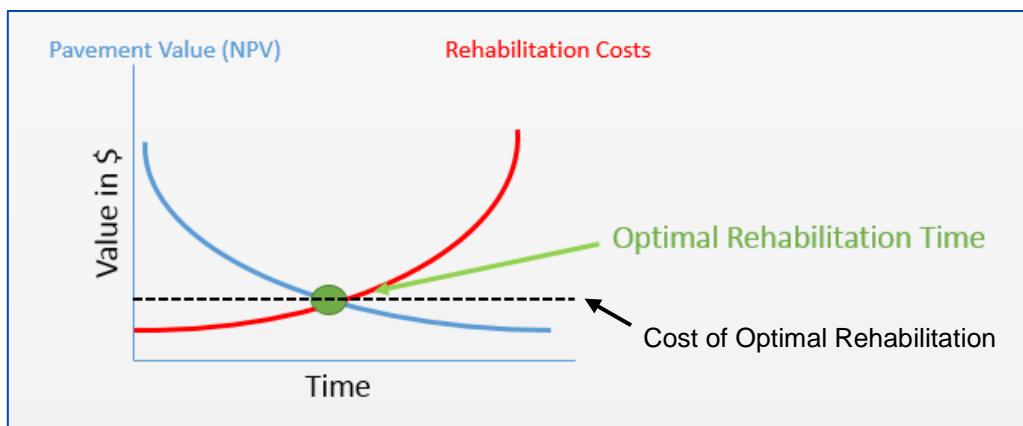
The actual cost of the paving and construction activities for a roadway and the total life-cycle costs will be dependent on the pavement performance, maintenance activities, actual traffic levels, total material quantities during detailed design, availability of the material, any peripheral items that are included, and the contractor itself.

5.5 PAVEMENT IMPROVEMENT SCHEDULING

Most pavement management systems strive to find a balance of maintenance and rehabilitative procedures based on reducing the total lifecycle cost of the pavement. Timely treatments must be based on the condition of the pavement in question, and certain treatments are only applicable during certain time periods over the life of the pavement. A treatment applied too late in the service life or, alternatively, too early in the service life, will be ineffective on a cost-control basis.

The optimal timing for pavement improvement scheduling follows a model that is similar to the Cost-Benefit Model. As Shown in Figure 5.1, a successful pavement management system maximizes the useful life of the asset while minimizing the cost of the asset to the user (in this case, the taxpayer). The intersection of the asset value and the cost of rehabilitation, when evaluated in conjunction with the project risk, is noted as the optimal rehabilitation time.

Figure 5.1: General Optimal Rehabilitation Time



5.6 ADDITIONAL CLASSIFICATION METRICS

With any pavement management system, there are additional factors that are considered when deciding road rehabilitation priority. Some of these factors (which are used as multiplier values to determine the priority scoring) are;

- Strategic Importance: As the funding to resurface, rehabilitate and reconstruct roads ultimately comes from the taxpayers, their voices must be heard. A multiplier must be introduced to prioritize those roads that are most requested by the tax payers and their representatives. WSP has included a factor/multiplier value of 1 to 4 to capture these requests, with 4 beginning highest, that were brought forth in meetings with the counsellors of King Township.
 - Goods Movement Routes: These routes are those destined to receive the highest percent of commercial/truck traffic. Goods Movement Routes may change over time, and they should be noted in the consideration for road rehabilitation and pavement monitoring; and

- Future Use: Some roads that are currently low volume may, in the future, receive increased volume (residential or commercial) or vice versa, due to changes in land use and developments. Roads that are deemed to have their designation changed due to a changing environment should be evaluated with care and either be increased or decreased on the priority ranking based on this analysis.
- Hard Surfacing/HMA-Paving Strategy: King Township has expressed a desire to convert their gravel roads to hard-surface roads, and upgrade its surface-treated roads to fully paved with hot mix asphalt. The multiplier values used are as follows;
 - Existing gravel roads, value of 1.1 and value of 1.0 if not; and
 - Existing surface-treated roads, value of 1.25 and value of 1.0 if not.
- Optimal Rehabilitation Timing (“Can We Save It?"): If roads are in poor condition but haven't deteriorated to the point which reconstruction is necessary, there may be an opportunity to complete a medium-severity treatment in order to extend the life of the pavement structure and avoid reconstruction. These opportunities exist in a “window” and must be acted upon in order to realise the network level cost savings. These roads are weighed heavily by WSP in their evaluation and are assigned a multiplier value of 1.35 instead of 1.0; and
- Traffic Volume: Higher traffic volume roads are generally more critical, as a higher volume of residents who drive on them. This fact means that higher volume roads (usually at higher speed) have more stringent condition and safety requirements, and will naturally receive more truck traffic. The traffic factor is calculated with the equation $1 + (2016 \text{ AADT} / 2000)$.

All of the above factors have the ability to bump a road or road section up on the priority list. An effective pavement management plan has the flexibility to accommodate inputs such as those listed, and must be aware of the context that they provide.

For King Township, PCI was used as a baseline in a custom-developed flow chart to achieve a “Priority Score” for each road section.

The baseline PCI is subjected to a series of multipliers, that can be set for each road individually. These multipliers are, in effect, a direct increase to the priority of a road. Roads may increase their Priority Ranking above that indicated by their baseline PCI score with this method, and, in turn, can capture influence from non-technical decision making and provide an optimal outcome.

- Is the road gravel surfaced or surface-treated?
- Does the Road have strategic value to Council/The Township (Goods Movement, Active Transportation, Area of Concern, Future-Use).
- Is the road on the edge of needing to be reconstructed? Can we save the road as a quick win?
- The traffic level for the road.

It must be noted that PCI is still the dominant factor in this equation, and general pavement management practice indicates that PCI is the most dominant driver of cost-saving in pavement management.

The multiplier values and priority scores for each road included in this project are presented in Appendix D.

6 KING TOWNSHIP ROAD NETWORK – CONDITION FINDINGS

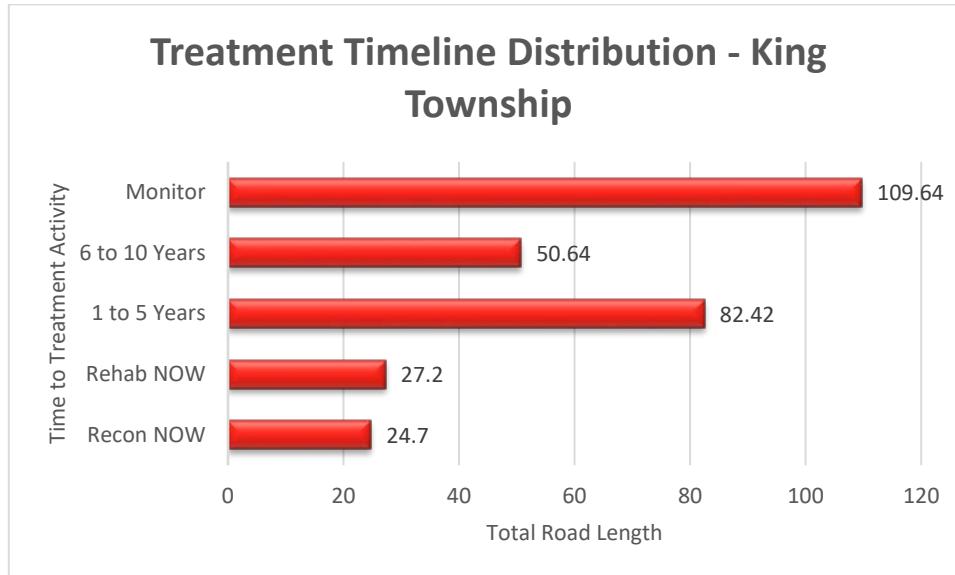
6.1 TOWNSHIP CONDITION SUMMARY – OVERALL RESULTS

Approximate 295 km of roads within the township, excluding roads that were recently paved or in new developments, were visually assessed and it is important to summarize, on a macro level, the general condition of the road network. The pavement condition survey carried out over the summer of 2020 by WSP's team resulted in a network-level average PCI of 71. This indicates a fair to good overall network condition. Samples of the pavement condition survey evaluation forms are presented in Appendix C.

The gravel road network was in the worst condition, on average, with a network-level PCI of 51, which falls in the poor to fair category. Slightly better fared those roads paved with Low Class Bitumen (Surface Treatment), with the average PCI measuring 67 over the network, indicating fair to good condition.

Roads paved with High Class Bitumen (Hot Mix Asphalt) were the most dominant surface type, with 201.8 km out a total surveyed network length of 295.32 (~68%) being paved as such. These roads averaged a PCI of 75, indicating good network-level condition. The findings including lane-kilometers of each condition category and refined categories for local and collector/arterial are shown in Figure 6.1 below:

Figure 6.1: Treatment Timeline Distribution – All Surveyed Roads



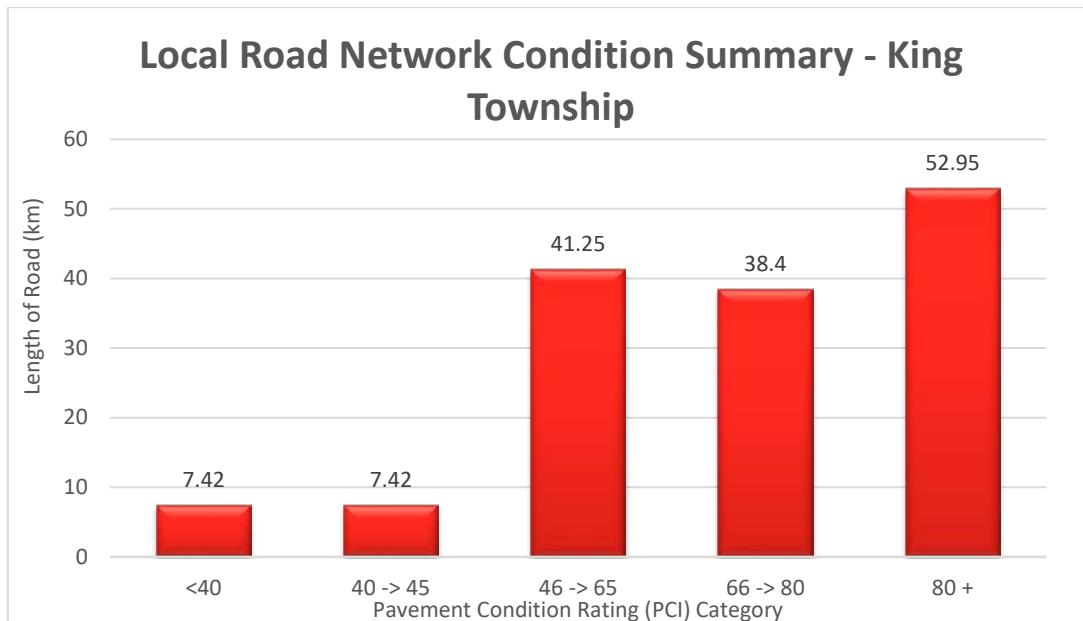
The above figure presents the approximate total length of all surveyed roads that requires immediate rehabilitation or reconstruction (Rehab NOW or Recon NOW), treatment in the next 1 to 5 years, treatment in 6 to 10 years, or “monitor and maintain” which means no anticipated treatment in the next 10 years. As shown in Figure 6.1, the majority (approximately 68%) of the surveyed roads will require some sort of rehabilitation, hard surfacing or reconstruction. Another significant finding is that approximately 18% of surveyed road lengths were determined on a PCI basis to require immediate attention, whether it be treated with hard-surfacing upgrade, rehabilitation or reconstruction.

It should be noted that the list of approximately 295 km of surveyed roads was derived from the *King 2016 Roads Needs Report*, excluding the roads identified in Table 4-4 of the *King Township 2020*

Transportation Master Plan – The Way Forward prepared by WSP and dated March 2020, or roads that were also recently paved in 2019 and 2020, and included in recent developments.

The surveyed local road network was evaluated separately from collectors/arterials, with the difference in volume and speed slightly altering the threshold for rehabilitation. Figure 6.2 below shows the distribution of condition in lane – km for all the local road sections that were surveyed in King Township:

Figure 6.2: Surveyed Local Road Network Condition Summary

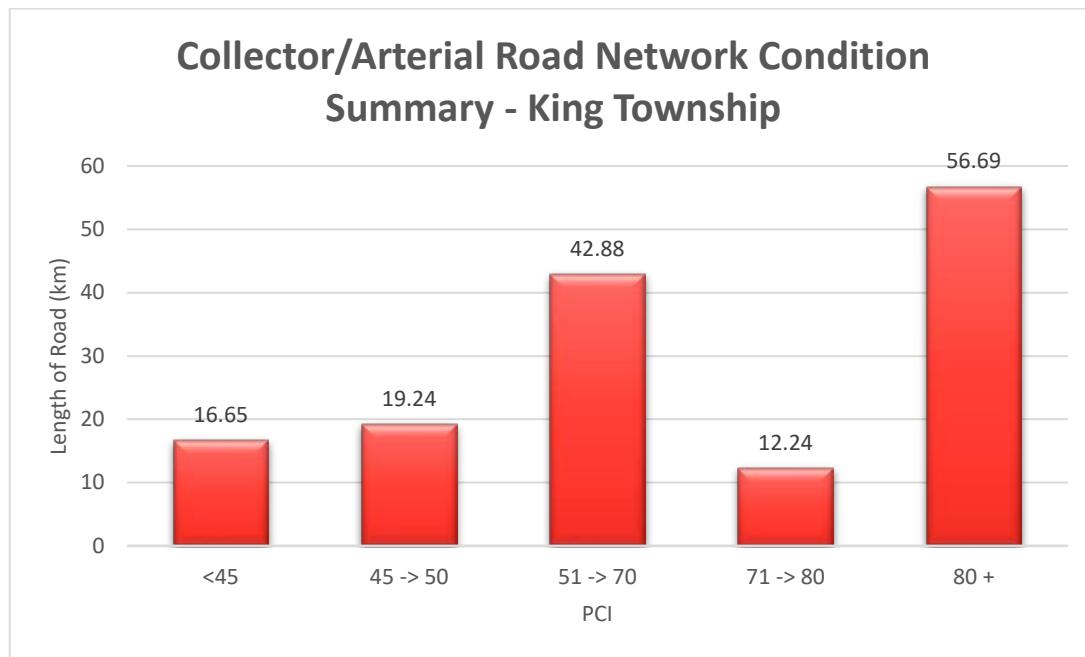


The above Figure 6.2 indicates that the local road condition is dominantly fair or better (PCI 46+). Approximately 52.95 lane km (36% of total road length), are considered to be in very good condition, which pushes their likely rehabilitation time beyond the planned 10-year time horizon. The focus will be on the 15.8 lane-km of roads that are less than PCI of 45, of which approximately 55% are HMA-paved roads, 28% are gravel-surfaced and the remaining 17% are surface-treated.

The surveyed collector/arterial road network paints a slightly different picture, with Figure 6.3 below showing the distribution of lane-kilometers in each PCI range. Figure 6.3 indicates that the collector/arterial road condition is generally in a fair to good condition (PCI 50+) with approximately 75% of road length falling under this category, with the remaining 25% of Roads requiring action now.

Approximately 56.69-lane km (38% of total road length) of the surveyed collector/arterial roads were observed to be in very good condition and will likely not require any rehabilitation within the planned 10-year time horizon. The focus for the collector/arterial roads will be on the 35.89 lane-km of roads that are less than PCI of 50, of which approximately 75% are gravel-surfaced, 20% are HMA-paved, and the remaining 5% are surface-treated.

Figure 6.3: Surveyed Collector/Arterial Road Condition Summary



Specific sections of concern in the local road network include:

- **Section 91 – 18th Sideroad from Concession Road 7 to 0.38 km East of Concession Road 7 (PCI 20):** This road section is in very poor condition. This particular paved section of 18th Sideroad shows extensive severe distresses and is a candidate for reconstruction. This section of 18th Sideroad shows curb-to-curb alligator cracking, indicating subgrade failure, likely due to poor drainage (poor, overgrown ditching and insufficient crown).
- **Section 131 – Carrying Place, Simcoe Road from Brule Trail to North End Turnaround (PCI 47):** This road section suffers from extensive severe distresses throughout. The roadway shows signs of structure failure including alligator cracking and some rutting, with poor ditching on either side. This road is currently paved with hot mix asphalt, and is a candidate for major road repair.
- **Section 193 - Diana Drive from Regional Road 27 to End of road (PCI 29):** Diana Drive was observed to have extensive potholing and severe distresses.
- **Section 195 - Hilda Drive from Diana Drive to North End (PCI 31):** Adjacent to Diana Drive above, Hilda drive is similarly distressed, and in need of attention
- **Section 199 - Nobleton Lakes Drive from Regional Road 27 to End Cul-de-Sac (PCI 22):** Extensive severe distresses including alligator cracking, indicative of structural failure. The urban section shows signs of poor drainage. Adjacent Loch Erne Lane, Earlwood Crescent and Hilliard Grove are also concerns.
- **Section 246 – Old Regional Road 16 from Lloydtown/Aurora Road East to Lloydtown/Aurora Road West (PCI 20):** This surface-treated road is almost completely deteriorated, with significant pavement edge overgrowth and little to no ditching. Significant work will be required to bring this road up to standard. Some sections of the road are completely peeled back with the granular material exposed, and the existing road platform width is narrow.
- **Section 287 – Wist Road from South Canal Road to Woodchopper's Lane (PCI 43):** This section of Wist Road is in poor condition, with its surface-treated topping showing significant deterioration.

- **Section 1124 – McKellar Lane from Kingscross Drive to End (PCI 37):** This road shows extensive severe distresses, including some localized areas with very severe cracking and distortion. Ditching was observed to be fair on both side.
- **Section 1138, 1140 – Manitou Drive from 0.45 km South of Kingscross Drive to End (PCI 39-43):** Manitou Drive exhibits extensive severe to very severe alligator cracking. There are sections of severe potholing including large exposed granular potholes and ditching is present. This road is a candidate for reconstruction.
- **Section 1145 – Kingsworth Road from Westgate Blvd to Watch Hill Road (PCI 41):** With curb to curb alligator cracking in sections, Kingsworth road shows indications of structural failure, and is a candidate for reconstruction. Ditching is present, but is inconsistent in depth, sometimes with overgrown vegetation.
- **Section 1149 – Snowberry Lane from Kingscross Drive to End (PCI 41):** This road has some significant twists and turns, with severe distresses focused around the corners. Alligator cracking and very severe transverse and pavement edge cracking was observed.
- **Section 1154 – Station Road from Keele Street to 0.2 km West of Keele Street (PCI 32):** Severe Transverse alligator cracking and the significant deterioration of a utility trench are features of this road section.
- **Section 2082 – McCutcheon Avenue from Sheardown Drive to 0.17 km north of Sheardown Drive (PCI 35):** Frequent severe transverse, longitudinal multiple and alligator cracking indicative of structure failure in this urban section. Adjacent Sheardown Drive, Robb Drive, and Holden Drive also concerns.
- **Section 3050 – Brownsville Court from Western Avenue to End of Cul-de-Sac (PCI 28):** This road sections shows extensive severe road distresses, with wide, open cracks and distorted roadway.

Specific areas of concern in the collector/arterial road network include:

- **Section 15 and 16 - 15th Sideroad from Concession Road 6 (Weston Road) to Regional Road 27 (PCI 13-16):** This section is surface-treated and shows very severe distresses including alligator cracking and potholing. Lack of ditching and poor drainage as well as a thin asphalt surface mark these sections as candidates rehabilitation/reconstruction.
- **Section 19 – 15th Sideroad from Concession Road 11 to End (PCI 45):** This gravel road section shows extensive moderate to severe distresses, including loose gravel, washboarding, and reverse crown. The road lacks ditching and has a steep grade in certain areas. The gravel surface is a candidate to be hard-surfaced, but may require extensive work to address ditching and grading.
- **Sections 31, 39 – 16th Sideroad from Concession Road 7 to 8 and 11 to 12 (PCI 40, 45):** In these gravel sections of 16th Sideroad, there is extensive thin gravel cover, ponding areas, loose gravel, and intermittent washboarding, as well as overgrown or non-existent ditching.
- **Section 59 – 17th Sideroad from Jane Street to West of Highway 400 (PCI 55):** This section is gravel surfaced and is a candidate for the upgrade to an asphalt-pave road. It shows extensive moderate loose grave and some potholing. Ditch is of variable depth with overgrown vegetation extending onto the road.
- **Sections 63, 65, 67, 75 – 17th Sideroad (PCI 39 – 43):** 17th Sideroad suffers from extensive loose gravel, poor ditching, and some poor road grade in sections, outside of section 75 from Concession Road 12 to Caledon/King Townline South, which is paved. Washboarding and reverse crown is also present, as wells washed-out areas due to lack of ditching. Icing issues have been noted by road users, and sections such as Dufferin to Keele are in need top-coat asphalt.

- **Section 85 – 18th Sideroad from Jane Street to West End (PCI 55):** This section is gravel surfaced and is a candidate for upgrading to asphalt-paved road. This road shows some potholing. Ditch is of variable depth with overgrown vegetation extending onto the road.
- **Section 191 – Concession Road 10 from Queen Street to Highway 9 (PCI 7):** This road section showed extensive severe distresses including alligator cracking and ride quality was noted to be very poor.
- **Section 306 – Aileen Avenue from Edward Avenue to Strawberry Lane (PCI 28):** This road section is severely deteriorated, especially along the pavement edge (very severe alligator cracking). The distress manifestations indicate severe structural failure. This road is a candidate for reconstruction.
- **Section 307 – Strawberry Lane from Aileen Avenue to Keele Street (PCI 43):** This road section is severely deteriorated, especially along the pavement edge and centerline (very severe alligator cracking). The pavement edge cracking may be induced partially by heavy vehicles. This road is a candidate for reconstruction.
- **Section 323 – Dufferin Street from Emma Road to Juliana Road (PCI 44):** This road section is severely deteriorated in sections, especially along the pavement edge (very severe alligator cracking in sections). The pavement edge cracking may be induced partially by heavy vehicles riding along the pavement edge. This road is a candidate for reconstruction.

7 RECOMMENDATIONS

7.1 10-YEAR PAVING PLAN

Based on the pavement condition summary discussed in Section 6 of the report, and the paving and rehabilitation option cost inputs discussed in Section 5.4, the following tables present the 10-year paving plan from Year 1 to Year 10 for the roads included in this program, assuming a \$2.5 million operating budget per year as provided by the Township. It should be noted that the following costs are presented as paving only, and do not include costs for other infrastructure or peripheral work such as curb and sidewalk, utility relocation, culvert replacement, bridge repairs or sewer/watermain work.

In addition, the 10-year paving plan assumes that road maintenance activities such as crack-sealing and patch-repairs will be performed on all roads included in this project as required to address localized distresses. Roads that are designated as monitor and maintain are not included in the Year 1 to 10 tables below, but are included in the Master Summary Table in Appendix D.

The culvert and bridge work identified for some of the roads in the paving plan are based on information extracted from the 2011 Roads Need Study report, and is to indicate that there may be potential culvert or bridge work as part of that road's rehabilitation, although some of the work may have already been completed. It should be noted that the cost of the culvert and bridge work estimated in the 2011 report are obsolete and as a result, were excluded from the estimated road rehabilitation cost.

7.1.1 YEAR 1

Table 7-1 – Year 1 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
1	199 - Nobleton Lakes Drive from RR27 to End of Cul-de Sac	1.09	Reconstruction	\$1,065,475	
2	191 - Concession Road 10 from Queen Street to Hwy 9	1.61	Reconstruction	\$769,709	Culvert Replacement required (2011 RNS)
3	322 - Dufferin Street from King Street to Emma Road	1.02	Two Lift Mill and Overlay	\$310,080	
4	323 - Dufferin Street from Emma Road to Juliana Road	0.88	Reconstruction	\$494,912	
Total Length		4.6	Total Cost for Year 1	\$2,640,176	

7.1.2

YEAR 2**Table 7-2 – Year 2 Paving Plan**

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
5	324 - Dufferin Street from Juliana Road to Graham Sideroad	0.55	Two Lift Mill and Pave	\$169,400	
6	320 - Dufferin Street from Millers Sideroad to 0.7 km North of Millers Sideroad	0.7	Top Coat Asphalt	\$110,600	Quick Win
7	61 - 17 th Sideroad from Weston Road to Hwy 400	0.94	Gravel Road Paving	\$291,400	
8	3050 - Brownsville Court, Schomberg	0.27	Reconstruction	\$190,080	
9	89 - 18 th Sideroad from Weston Road to End	0.70	Gravel Road Paving	\$172,200	
10	235 - Concession Road 7 from 15 th Sideroad to 16 th Sideroad	2.18	Gravel Road Paving	\$757,550	
11	229 - Concession Road 7 from Vaughan/King Boundary to North End	0.5	Gravel Road Paving	\$135,000	
12	103 - Kettleby Road, Kettleby from Keele Street to Lorne Avenue	0.8	Two Lift Mill and Overlay	\$201,600	
13	297 – Woodchopper's Lane from Jane Street to 1.1 km	1.10	Top Coat Asphalt	\$168,300	Quick Win

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
	East of Jane Street				
14	295 - Woodchopper's Lane from Wist Road to Jane St East	1.21	Top Coat Asphalt	\$174,240	Quick Win
15	299 - Woodchopper's Lane from 1.1 km East of Jane to Keele	1.37	Top Coat Asphalt	\$204,130	Quick Win
Total Length		10.32	Total Cost for Year 2	\$2,574,500	

7.1.3 YEAR 3

Table 7-3 – Year 3 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
16	39 - 16 th Sideroad from Concession 11 to Concession 12	2.09	Gravel Road Paving	\$726,275	Culvert Replacement Required (2011 RNS)
17	91 - 18 th Sideroad from Concession Road 7 to 0.38 km east of Concession Road 7	0.38	Two Lift Mill and Overlay	\$203,680	
18	193 - Diana Drive from RR27 to West End	0.67	Reconstruction	\$337,680	
19	15 - 15 th Sideroad from Concession 8 to 0.6 km West	0.6	Reconstruction	\$433,620	
20	285 - Davis Road from 2 nd Concession to Schomberg River	0.94	Gravel Road Paving	\$231,240	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
21	177 - Concession Road 11 from 19 th Sideroad to Hwy 9	2.05	Top Coat Asphalt	\$385,400	Quick Win
22	137 - 19 th Sideroad from Concession Road 10 to Concession Road 11	2.05	Two Lift Mill and Overlay	\$246,000	Quick Win
23	209 - Concession Road 8 from King Road to South End	0.80	Gravel Road Paving	\$183,680	
24	37 - 16 th Sideroad from Concession Road 10 to Concession Road 11	2.05	Gravel Road Paving	\$584,148	
Total Length		11.63	Total Cost for Year 3	\$2,681,723	

7.1.4 YEAR 4

Table 7-4 – Year 4 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
25	16 - 15 th Sideroad from 0.6 km West of Concession Rd 8 to RR27	1.45	Reconstruction	\$1,144,811	
26	149 - Caledon/King Townline South from Concession Road 12 to 17 th Sideroad	2.70	One Lift Mill and Overlay	\$464,000	
27	283 - Davis Road from South Canal	0.94	Gravel Road Paving	\$267,853	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
	Bank Rd to 2 nd Concession Rd				
28	313 - Keele Street from Strawberry Lane to King Street	0.74	One Life Mill and Overlay	\$113,960	
29	211 - Concession Road 8 from King Road to 15 th Sideroad	2.09	One Lift Mill and Overlay	\$313,500	
30	1154 - Station Road, King City from Keele Street to 0.2 km West	0.2	Reconstruction	\$197,760	
Total Length		8.12	Total Cost for Year 4	\$2,501,884	

7.1.5 YEAR 5

Table 7-5 – Year 5 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
31	33 - 16 th Sideroad from Concession 8 to RR27	2.06	Reconstruction	\$1,529,550	Culvert Replacement Required (2011 RNS)
32	345 - Toll Road from Bathurst Street to Hwy 11	2.03	Gravel Road Paving	\$332,920	
33	85 - 18 th Sideroad from Jane Street to West End	0.95	Gravel Road Paving	\$241,490	
34	55 - 17 th Sideroad from Dufferin to 0.8 km West of Dufferin	0.8	One Lift Mill and Overlay	\$243,200	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
35	57 - 17 th Sideroad from Keele to Jane	2.02	One Lift Mill and Overlay	\$327,240	
	Total Length	7.86	Total Cost for Year 5	\$2,674,400	

7.1.6

YEAR 6**Table 7-6 – Year 6 Paving Plan**

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
36	31 - 16 th Sideroad from Concession 7 to Concession 8	2.11	Gravel Road Paving	\$575,292	
37	301 - Jane Street from Woodchopper's Lane to Edward Avenue	0.68	Reconstruction	\$484,704	
38	56 - 17 th Sideroad from 0.8 km West of Dufferin to Keele	1.32	One Lift Mill and Overlay	\$213,840	
39	127 - Carrying Place Trail from Weston Road to Brule Trail	1.77	Two Lift Mill and Overlay	\$601,800	
40	246 - Old Regional Road 16 from Lloydtown/Aurora East to Lloydtown/ Aurora West	0.38	Reconstruction	\$143,640	
41	261 - Keele Street from Lloydtown to Kettleby Road	1.23	One Lift Mill and Overlay	\$186,960	
42	92 - 18 th Sideroad from 0.38 km East of Concession Road 7 to East End	0.40	One Lift Mill and Overlay	\$48,000	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
43	3056 - Main Street, Schomberg from Dr. Kay Drive to Hwy 9	0.52	One Lift Mill and Overlay	\$104,000	Bridge Replacement Required (2011 RNS)
44	3054 - Main Street, Schomberg from Church Street to Dr. Kay Drive	0.48	One Lift Mill and Overlay	\$96,000	Bridge Replacement Required (2011 RNS)
45	293 - Jane Street from Davis Drive West to South Canal Bank Road	0.82	One Lift Mill and Overlay	\$137,760	
46	275 - Rupke Road from Hwy 9 to Schomberg River	0.43	One Lift Mill and Overlay	\$66,650	
47	250 - Second Street, Laskay from Mill Street to South End	0.07	Reconstruction	\$30,240	
Total Length		10.21	Total Cost for Year 6	\$2,688,886	

7.1.7 YEAR 7

Table 7-7 – Year 7 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
48	247 - Old Church Road from Weston Road to South End	0.19	Reconstruction	\$61,560	
49	249 - Mill Street, Laskay from Weston Road to Second Street	0.07	Reconstruction	\$30,240	
50	269 - Dufferin Street from 19 th Sideroad to Davis Drive	1.99	Gravel Road Paving	\$620,880	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
51	71 - 17 th Sideroad from Concession 10 to Concession 11	2.28	Two Lift Mill and Overlay	\$793,440	
52	1146 - Watch Hill Road, King City, from Kingsworth Road to Kingscross Drive	0.64	Reconstruction	\$312,576	
53	2082 - McCutcheon Avenue, Nobleton from Sheardown to 0.17 km North	0.17	Reconstruction	\$115,600	
54	225 - Mill Road from Elmpine Trail to King Road	1.28	Gravel Road Paving	\$476,672	
55	227 - Elmpine Trail from Mill Road to West End	0.48	Gravel Road Paving	\$143,424	
Total Length		7.1	Total Cost for Year 7	\$2,554,392	

7.1.8 YEAR 8

Table 7-8 – Year 8 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
56	233 - Concession Road 7 from King Road to 15 th Sideroad	2.11	Gravel Road Paving	\$856,660	
57	113 - 19 th Sideroad from Dufferin Street to Keele Street	2.14	Gravel Road Paving	\$814,912	
58	331 - Wilhelmina Road from Dufferin Street to West End	0.86	Gravel Road Paving	\$240,800	
59	306 - Aileen Avenue from	0.70	Reconstruction	\$505,890	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
	Edward Avenue to Strawberry Lane				
60	1144 - Kingscross Drive, King City, from Watch Hill Road to Westgate Blvd	0.83	Two Lift Mill and Overlay	\$265,600	Culvert Replacement Required (2011 RNS)
Total Length		6.64	Total Cost for Year 8	\$2,608,636	

7.1.9 YEAR 9

Table 7-9 – Year 9 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
61	239 - Concession Road 7 from 18 th Sideroad to South End	2.11	Gravel Road Paving	\$506,400	
62	337 - Dufferin Street from Graham Sideroad to North End	0.5	Gravel Road Paving	\$165,984	
63	9 - 15 th Sideroad from Weston Road to Hwy 400	0.91	Gravel Road Paving	\$254,800	
64	217 - Concession Road 8 from 17 th Sideroad to 18 th Sideroad	2.05	Reconstruction	\$1,359,765	
65	3002 - Magnum Drive, Schomberg from Proctor Road to East End Turnaround	0.39	Reconstruction	\$210,678	
66	2076 - Hazelbury Drive, Nobleton from Wilson Road to Sheardown Drive	0.28	Two Lift Mill and Overlay	\$95,200	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
67	19 - 15 th Sideroad from Concession Road 11 to West End	0.81	Gravel Road Paving	\$254,016	Culvert Recon Required
Total Length		7.05	Total Cost for Year 9	\$2,846,843	

7.1.10 YEAR 10

Table 7-10 – Year 10 Paving Plan

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
68	139 - 19 th Sideroad from Concession Road 11 to Concession Road 12	2.08	Gravel Road Paving	\$691,600	
69	151 - Caledon/King Townline North from 19 th Sideroad to Highway 9	2.03	Gravel Road Paving	\$822,150	
70	237 - Concession Road 7 from 16 th Sideroad to North End	1.05	Gravel Road Paving	\$267,750	
71	73 - 17 th Sideroad from Concession Road 11 to Concession Road 12	2.09	One Lift Mill and Overlay	\$363,660	
72	45 - Burrows Road from Weston Road to Weston Road	0.51	Gravel Road Paving	\$69,003	
73	21 - 16 th Sideroad from Bathurst Street to West End	0.59	Two Lift Mill and Overlay	\$129,800	
74	1136 - Manitou Drive, King City, Kingscross Drive to 0.45 km South	0.45	Two Lift Mill and Overlay	\$120,600	

Paving Order	Road Section	Length (km)	Type of Rehab	Estimated Cost	Notes
	of Kingscross Drive				
Total Length		8.8	Total Cost for Year 10	\$2,464,563	

7.1.11

SURFACE-TREATED ROAD UPGRADE

As part of this project, six (6) surface-treated roads outside of the 2016 Roads Need Study report were identified by the Township for inclusion into the paving strategy and management plan, for consideration to upgrading these roads to Hot Mix Asphalt paved roads. It is understood that these six (6) roads were recently surface-treated in 2019, with four (4) being noted to be in generally good condition. Due to this, the upgrade paving for the four (4) recently surface-treated roads noted to be in good condition could not be fitted into the 10-year paving plan due to the scoring for the priority ranking.

If there is a preference to complete upgrade paving for the four (4) good condition roads within the 10-year paving strategy, then it is recommended that the upgrade paving activities be considered for inclusion into the paving plan starting in Year 6 or beyond, but only if there's sufficient budget remaining after the other priority sections have been addressed. The location and limits of the four (4) roads are presented in Table 7-11, along with the estimated cost of the upgrading it to HMA paving.

It is further recommended that these four (4) roads be surveyed and reassessed every 2 years to monitor them for deterioration, and to determine if the upgrade paving for these roads can be re-prioritized to an earlier year within the paving program.

Table 7-11 – Recently Surface-Treated Roads Upgrade Paving

Road Section	Length (km)	Type of Rehab	Estimated Cost
Bell's Lake Road from Hwy 27 (South) to Hwy 27 (North)	0.38	Surface-Treated Conversion	\$56,240
Laskay Lane from Weston Road to End of Road	0.14	Surface-Treated Conversion	\$22,400
Dearbourne Avenue from Keele Street to End	0.75	Surface-Treated Conversion	\$168,000
Dearbourne Avenue from Jane Street to End	1.12	Surface-Treated Conversion	\$286,720

7.1.12

SUMMARY OF 10-YEAR PLAN

The following Table 7-12 summarizes the paving plan and its impact on the King Township roads that are included in this project. The roads included in the 10-year paving plan are presented on a map attached in Appendix A under Map 4. The remaining roads from the program not included within the first 10 years of paving are presented under Map 5 in Appendix A.

Table 7-12 – Summary of 10-Year Plan

Year	Length of Yearly Paving (km)	Number of Roads	Total Cost	Additional Work
Year 1 - 2021	4.6	4	\$2,640,176	Culvert Replacement required (2011 RNS) – (191) Concession Road 10 from Queen Street to Hwy 9
Year 2 - 2022	10.32	11	\$2,574,500	
Year 3 - 2023	11.63	9	\$2,681,723	Culvert Replacement Required (2011 RNS) – (39) 16 th Sideroad from Concession 11 to Concession 12
Year 4 - 2024	8.12	6	\$2,501,884	Culvert Replacement Required (2011 RNS) - (33) 16 th Sideroad from Concession 8 to RR27
Year 5 - 2025	7.86	5	\$2,674,400	
Year 6 - 2026	10.21	12	\$2,688,886	2 x Bridge Replacement Required (2011 RNS) – (3054) Main Street, Schomberg from Church Street to Dr. Kay Drive and (2056) Main Street, Schomberg from Dr. Kay Drive to Hwy 9
Year 7 - 2027	7.1	8	\$2,554,392	
Year 8 - 2028	6.64	5	\$2,608,636	Culvert Replacement Required (2011 RNS) – (1144) Kingscross Drive, King City, from Watch Hill Road to Westgate Blvd
Year 9 - 2029	7.05	7	\$2,846,843	
Year 10- 2030	8.8	7	\$2,464,563	Bridge Replacement Required (2011 RNS) – (321) Dufferin Street from 0.7 km North of Miller's Sideroad to King Street, Culvert Reconstruction Required – (19) 15 th Sideroad from Concession 11 to West End
Total	82.33	74	\$26,236,003	

As is shown above, 82.33 km of road are recommended to be rehabilitated and/or reconstruction within the 10-Year plan given the current budgetary restraints, amounting to approximately 28% of the surveyed road network.

7.1.13

TOTAL COST OF ALL PAVING ACTIVITIES

The following table summarizes the total estimated cost to complete the required paving activities including gravel road paving, rehabilitation, or reconstruction for all collector/arterial and local roads that were surveyed and included in this project within the next 10 years assuming no annual budgetary constraints. A map showing the treatments required for all roads within the program is presented in a map attached to Appendix A under Map 3.

Table 7-13 – Total Paving Costs for All Surveyed Roads

Paving Activity	Total Length of Roads (km)	Estimated Total Cost (\$)	Approximate Cost per km (\$/km)
Gravel Road Paving	63.71	\$17.98 Million	\$282,216 per km
Rehabilitation	100.64	\$22.45 Million	\$223,042 per km
Reconstruction	15.54	\$10.6 Million	\$682,000 per km
Total Cost Estimate	179.89	\$51.03 Million	

It should be noted that the estimated expenditures decrease along the timeline, and is generally front-heavy with a larger up-front investment required to ameliorate the network condition. Pavement reconstruction and more significant rehabilitation activities require more significant investment.

With the data above, a notable cost comes from conversions of the gravel road network, which will cost an estimated \$17.98 million if all gravel roads are to be converted. The pavement reconstruction has the most expensive cost per km at \$682,000 per km as it is the most comprehensive and complicated activity requiring the usage of large quantities of virgin construction materials. The rehabilitation activity includes all mill and overlay treatments, as well as top-coat asphalt paving.

Based on Table 7.13, to complete all required paving activities for the entire surveyed road network within 10 years, it is estimated that an increase in the budget in the order of approximately \$2.6 million per annum is required. This would bring the total paving program budget to approximately \$5.1 million per year (an increase of ~100%). If the budget is not increased, then a number of roads identified as requiring rehabilitation or reconstruction within 10 years will be pushed out beyond the 10-year timeframe and may fall below acceptable serviceability or condition levels as a result.

7.2

ADDITIONAL RECOMMENDATIONS

WSP recognizes the need for the Township of King to update this 10-year paving strategy and pavement management plan as frequently as is feasible. A recommended frequency to update the road condition survey is two (2) years. It is noted that paving costs and the Township's annual budget may change and road conditions and traffic/usage levels can fluctuate based on development, therefore re-examining and updating the paving and management plan every two (2) years will keep it relevant.

It is important to note that the estimated prices of the paving, rehabilitation, and reconstruction options in this report may not be reflective of actual road paving costs due to variable pricing of materials and paving activities, but are intended to be high-level estimations to compare the different options and to provide an idea of what the paving work will entail.

It is recommended to complete a geotechnical investigation and laboratory test program before any road rehabilitation or reconstruction projects to confirm the in-situ subsurface materials and condition. The results of these findings may be used to validate the treatment design be used to develop suitable alternative recommendations for the specific road section. The Township is advised to create an in-house geotechnical investigation standard for its roads and incorporate industry-standard information-gathering techniques to optimize its pavement works, and ensure that the Township can maximize the design life of its capital pavement assets.

WSP also recommends the development of paving standards (cross sections etc.) that may serve as a guideline for paving operations (new construction or rehabilitation) in the future, and serve as mandatory minimums for construction. These standards can be developed based on traffic levels and road usage case, and aid in the development of a reliable and durable road network.

Due to budget limitations, it is noted that the 10 Year paving plan captures 80.82 km of road on the 10-Year paving horizon out of the recommended 185 km of road that is anticipated to need rehabilitation/reconstruction over this time frame. At a 25-million-dollar operating budget over a 10-Year period, multi-strategic development is estimated to cost ~\$320,000 per linear kilometer of road. This value is weighted toward the reconstruction projects first.

Additional investment into the road network in the 10-Year plan will, in general, lead to an overall service level improvement in King's road network and lessen the future requirements for extensive road programming.

LIMITATIONS

The rehabilitation options presented in this report were estimated and developed using visual surface condition observations only and may not be representative of the true in-situ subsurface conditions. Upon undertaking a road rehabilitation project, a pavement engineer should be retained to conduct any necessary pavement and geotechnical investigations and gather the requisite information to provide a proper rehabilitation/reconstruction design and program.



APPENDIX

A

PROJECT MAPS

KING TOWNSHIP 10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN

MAP 1
2020 PROGRAM ROADS

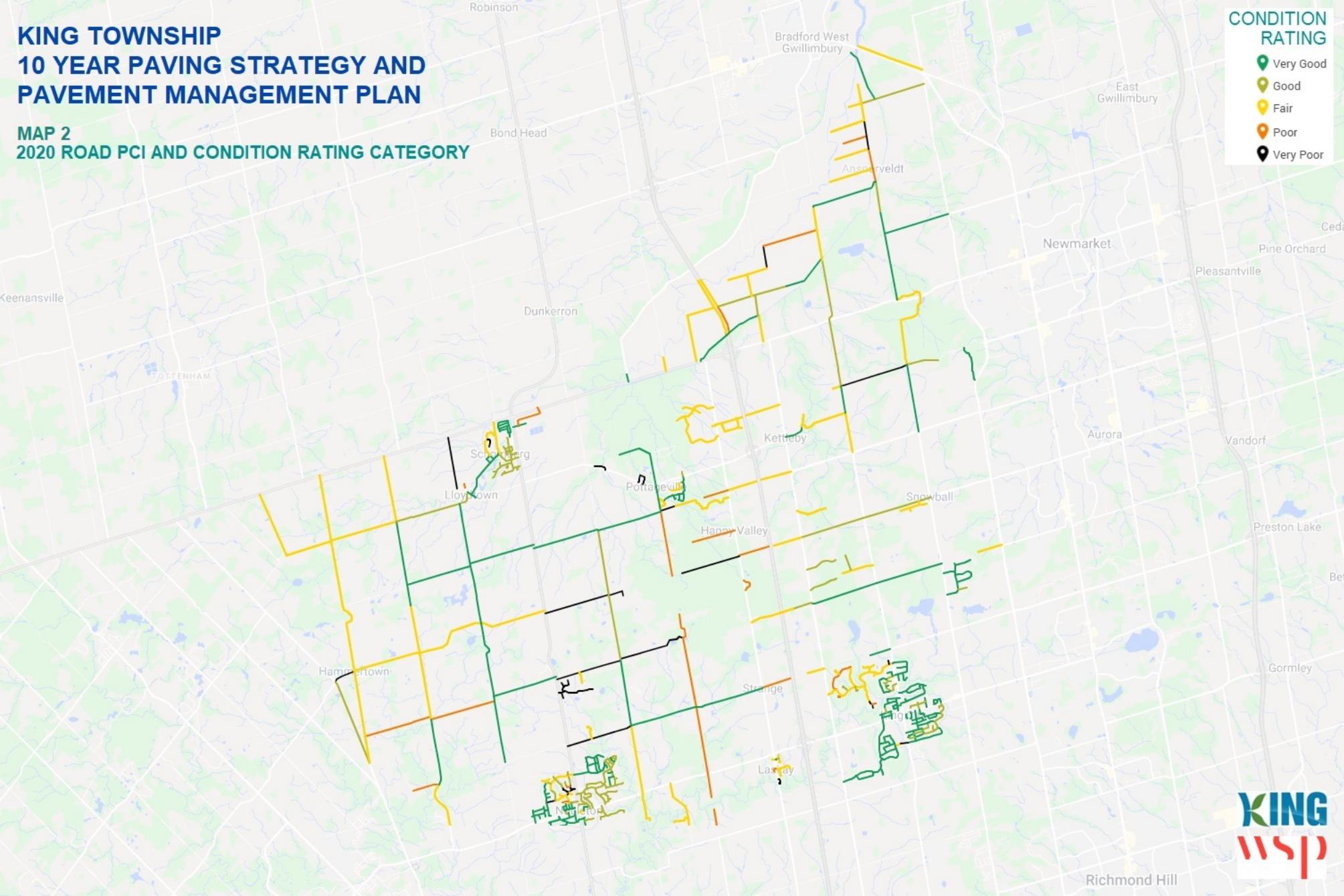


KING TOWNSHIP

10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN

MAP 2

2020 ROAD PCI AND CONDITION RATING CATEGORY

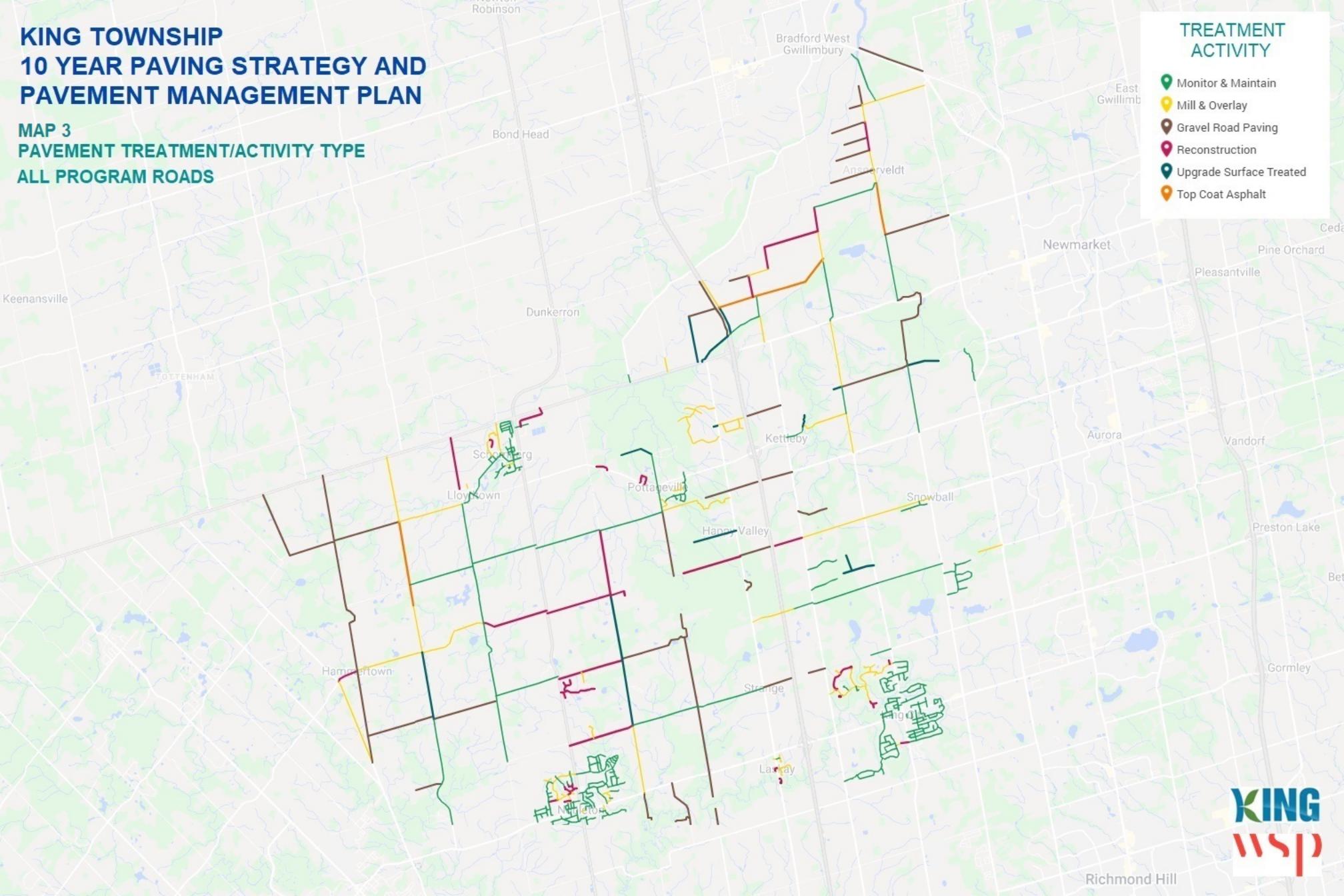


KING TOWNSHIP 10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN

MAP 3
PAVEMENT TREATMENT/ACTIVITY TYPE
ALL PROGRAM ROADS

TREATMENT ACTIVITY

- Monitor & Maintain
- Mill & Overlay
- Gravel Road Paving
- Reconstruction
- Upgrade Surface Treated
- Top Coat Asphalt



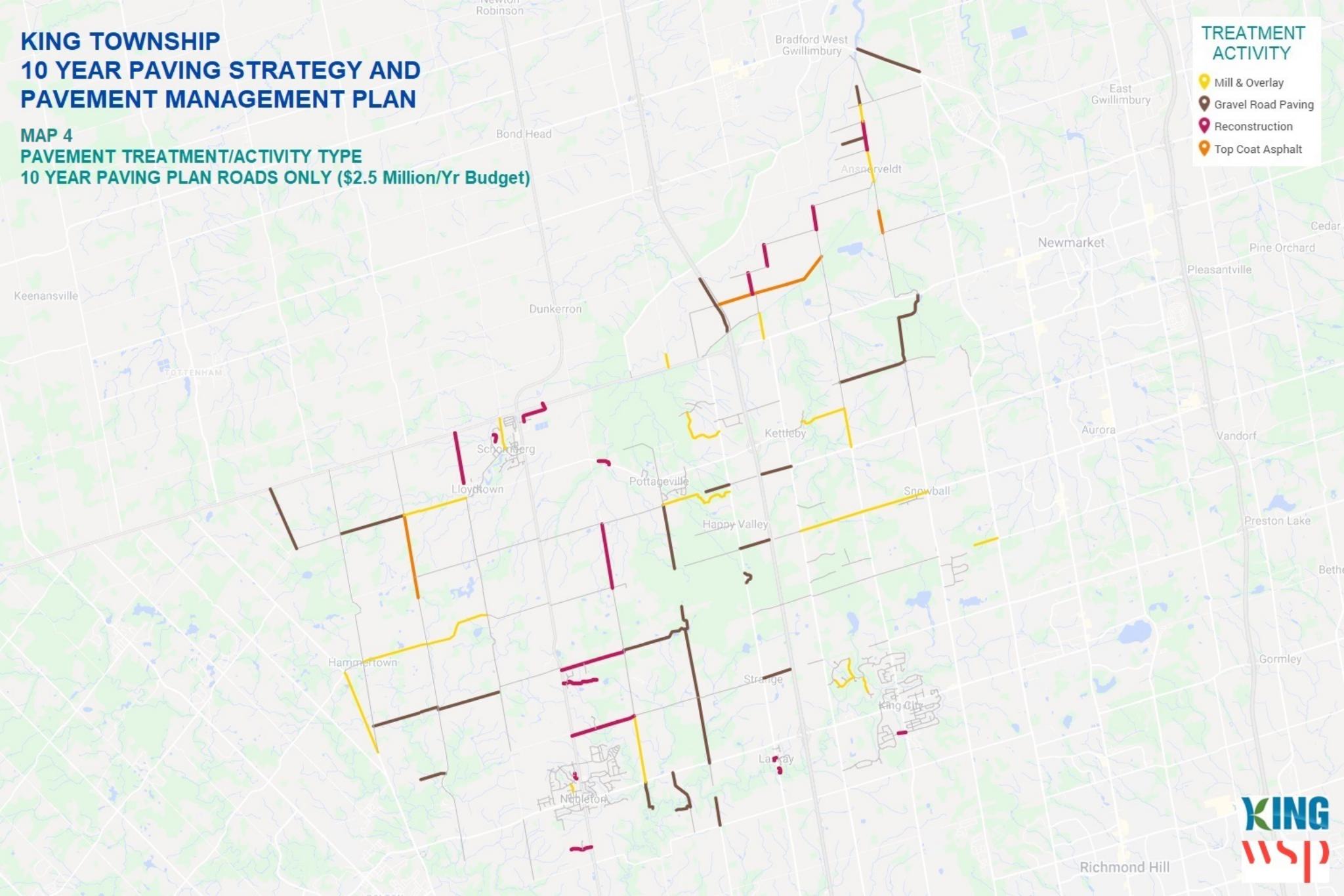
KING TOWNSHIP 10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN

MAP 4

PAVEMENT TREATMENT/ACTIVITY TYPE

10 YEAR PAVING PLAN ROADS ONLY (\$2.5 Million/Yr Budget)

- TREATMENT ACTIVITY**
- Mill & Overlay
 - Gravel Road Paving
 - Reconstruction
 - Top Coat Asphalt



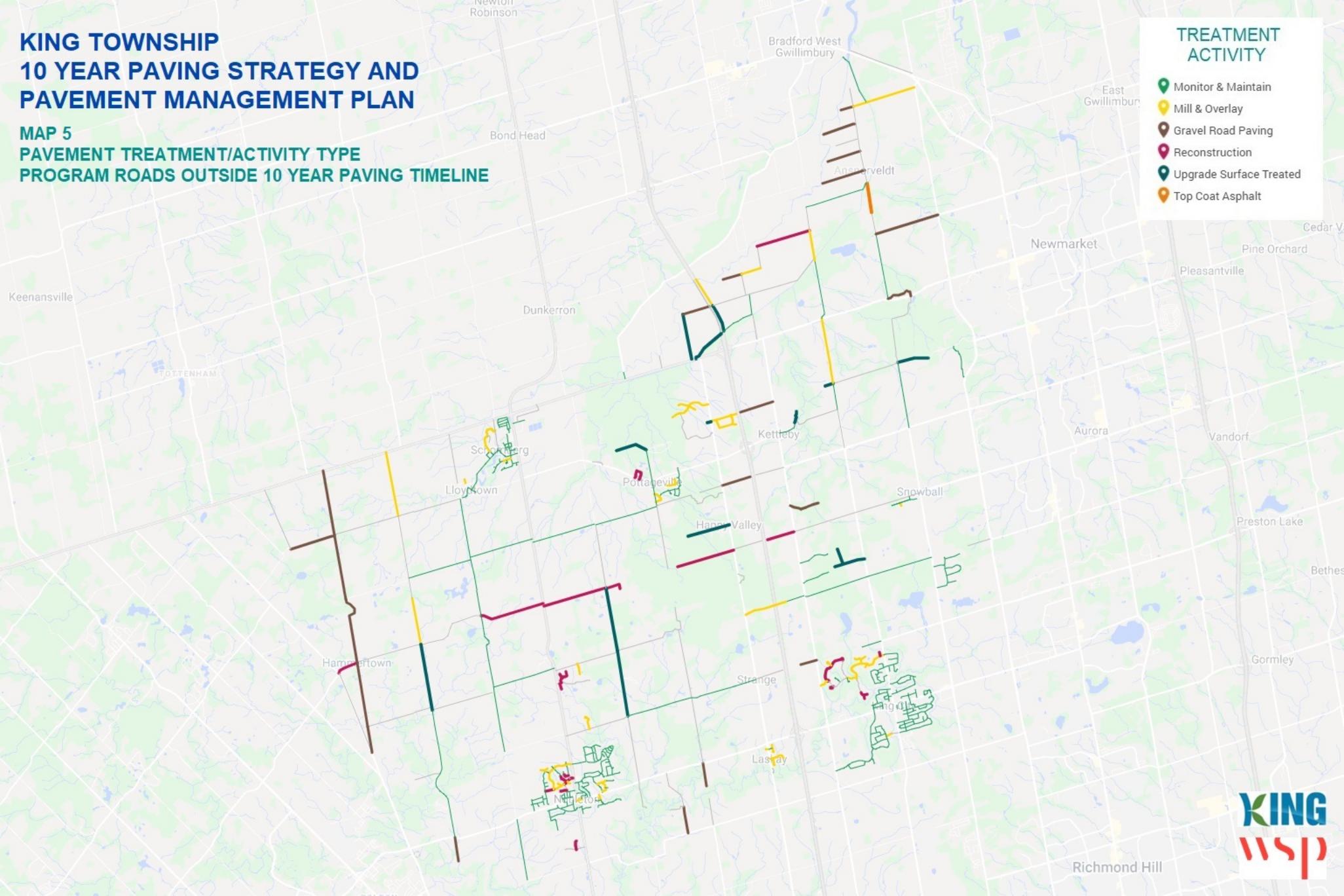
KING TOWNSHIP 10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN

MAP 5

PAVEMENT TREATMENT/ACTIVITY TYPE PROGRAM ROADS OUTSIDE 10 YEAR PAVING TIMELINE

TREATMENT ACTIVITY

- Monitor & Maintain
- Mill & Overlay
- Gravel Road Paving
- Reconstruction
- Upgrade Surface Treated
- Top Coat Asphalt





APPENDIX

B

2011 ROADS NEED STUDY
CULVERT & BRIDGE LIST

APPENDIX E

Listing of Major Culverts

GLOSSARY OF ABBREVIATIONS

(Culverts)

CULVERT MATERIAL

CPR	- CAST-IN-PLACE REINFORCED CONCRETE
CPS	- CORRUGATED PLATE STEEL
CST	- CORRIGATED STEEL
PCC	- PRECAST CONCRETE

CULVERT IMPROVEMENTS

EIR	- EMBANKMENT IMPROVEMENTS/REHABILITATION
IAG	- INSTALL APPROACH GUiderail
REC	- REMOVE EXISTING CULVERT
RIO	- REHABILITATE INLET / OUTLET TREATMENTS
RIR	- RAILING IMPROVEMENT / REPLACEMENT
RRW	- REHABILITATE / REPLACE RETAINING WALLS
RSL	- REPLACE CULVERT - SAME LOCATION
RSP	- REHABILITATE SUPERSTRUCTURE
SPI	- SCOUR PROTECTION IMPROVEMENTS

ENGINEERING INVESTIGATIONS

DCS	- DECK CONDITION SURVEY
LCE	- LOAD CAPACITY EVALUATION
UWI	- UNDERWATER INVESTIGATION
HS	- HYDROLOGY STUDY

TOWNSHIP OF KING

CULVERT INVENTORY BY CULVERT NUMBER - MASTER LISTING

DATE February 16, 2012

Culvert Number	Section Number	Culvert Name	Location	MTO Site Road No.	posting Env.	X-ing Typa	Body Year Const.	Material	Type	Skew	No. Cells	Cell Width	Total Width	Max. Height	Length	Filt/Type Depth	Total Project Cost (\$000)	Eligible for Subsidy	Municipal Share of Cost (\$000)
0002022	1082	LOT 7, CONC 3	0.01 km E. of 6. KEELE STREET	037_1184	O - VAT U	1980	CPS	PRU	O	2	3.7	7.4	3.7	43.9	E 3.5	0	0	0	
0002023	1080	LOT 7, CONC 3	0.90 km E. of KEELE STREET	037_1185	O - VAT N	1984	PCC	BOX	O	3	3.0	9.0	2.1	28.8	E 1.0	63	63	63	
0002024	11	LOTS 10 & 11, CONC 8	0.50 km E. of 7TH CONCESSION ROAD	037_0000	O - VAT N	1988	CPS	PRU	L	27	2	4.3	10.8	4.3	36.0	E 1.0	0	0	
0002025	233	LOT 8, CONC 8/7	0.85 km N of 11-KING ROAD	037_0000	O - VAT N	1980	CPS	PAV	O	1	3.6	3.5	2.2	19.5	E 0.6	93	93	93	
0002026	233	LOT 7, CONC 6/7	0.55 km N of 11-KING ROAD	037_0000	O - VAT N	1980	CPS	PAV	O	1	3.1	2.3	17.1	E 0.8	74	74	74		
0002027	233	LOT 8, CONC 6/7	0.35 km N of 11-KING ROAD	037_0000	O - VAT N	1980	CPS	PAV	L	35	2	3.4	2.2	21.3	E 0.4	86	86		
0002028	233	LOT 6, CONC 6/7	0.10 km N of 11-KING ROAD	037_0000	O - VAT N	1980	CPS	PAV	O	1	3.5	2.3	17.1	E 0.9	260	260			
0002029	209	LOT 5, CONC 7/8	0.25 km N of 11-KING ROAD	037_0000	O - VAT N	1970	CPS	PAV	R	10	1	5.1	3.2	20.1	E 0.3	106	106		
000210	146	LOT 10, CONC 11	1.55 km N of KING ROAD	037_0073	O - VAT N	1970	CPS	PAV	L	5	1	6.2	4.0	29.3	E 1.9	654	654		
000211	167	LOT 10, CONC 10/11	0.40 km S. of 15TH SIDEROAD	037_0000	O - VAT N	1980, 1970	CPS	PAV	O	1	4.1	2.4	20.8	E 2.5	362	362			
000212	19	LOT 10/11, 11	0.40 km W. of 11TH CONC ROAD	037_0000	O - VAT U	1980	CPS	PAV	R	10	1	3.9	3.9	12.3	E 0.9	86	86		
000214	217	LOT 24, CONC 7/8	0.30 km S. of 18TH SIDEROAD	037_0000	O - VAT N	1980	CPS	PHE	O	1	3.4	2.0	18.6	E 0.9	63	63			
000215	93	LOT 25 & 26, CONC 7	0.60 km E. of 8TH CONC ROAD	037_0000	O - VAT N	1970	CPS	PAV	O	1	3.6	2.3	18.6	E 0.6	0	0			
000216	95	LOT 25 & 26, CONC 8	1.40 km W. of 8TH CONC ROAD	037_0000	O - VAT N	1980	CPS	PAV	O	1	3.7	2.1	12.5	E 1.2	197	197			
000217	221	LOT 35, CONC 7/8	0.20 km S. of HIGHWAY 9	037_0000	O - VAT N	2006	CPS	PAV	O	1	3.4	2.0	19.0	E 1.0	0	0			
000219	135	LOTS 30 & 31, CONC 9	0.30 km W. of REGIONAL ROAD 27	037_0000	O - VAT N	1970	CPS	PAV	R	10	1	3.3	2.1	18.0	E 0.7	156	156		
000220	3022	LOT 31, CONC 9	0.05 km E. of LITTLE REBEL ROAD	037_0000	O - VAT N	2007	POC	FRR	O	1	4.3	2.4	17.0	E 0.2	0	0			
000221	136	LOT 31, CONC 9	0.10 km E. of 10TH CONC, SCHOMBURG	037_0000	O - VAT N	1980	CPS	PAV	L	10	1	4.3	2.3	12.3	E 0.7	63	63		
000222	177	LOT 31, CONC 10/11	0.25 km N of 19TH SIDEROAD	037_0000	O - VAT U	2006	POC	BOX	O	1	3.0	2.4	28.3	E 4.0	17	17			
000223	3038	LOT 32, CONC 9	0.20 km E. of REBELLION WAY	037_0000	O - VAT U	1980	CPS	PAV	R	15	1	3.2	2.1	15.0	E 0.4	10	10		
000224	3052	LOT 33, CONC 9	0.40 km W. of REGIONAL ROAD 27	037_0000	O - VAT N	1988	PCC	BOX	O	1	4.3	2.3	27.4	E 0.8	0	0			
000225	3040	LOT 32, CONC 9	0.90 km S. of WESTERN AVENUE	037_0000	O - VAT U	1988	CPS	PHE	O	1	4.2	2.5	18.5	E 1.0	0	0			
000226	3011	ROSELEA DRIVE, SCHOMBURG	0.25 km W. of MOORE PARK DRIVE	037_0000	O - VAT U	1988	PCC	FRR	R	13	1	6.1	1.4	33.8	E 1.8	0	0		
000227	3048	WESTERN AVENUE, SCHOMBURG	0.03 km W. of MAIN STREET	037_0000	O - VAT N	2007	PCC	FRP	L	10	1	6.3	2.4	26.2	E 0.4	0	0		
000301	13	LOT 10 & 11, CONC 7	1.00 km E. of CONCESSION 8	037_0000	O - VAT N	1970	CPS	PAV	L	30	1	2.7	1.8	11.6	E 0.6	0	0		
000302	213	LOT 12, CONC 7/8	0.30 km N of 15TH SIDEROAD	037_0000	O - VAT N	1988	CPS	PHE	O	1	2.4	2.4	1.8	17.0	E 0.3	0	0		
000303	15	LOT 10/11, CONC 8	1.00 km W. of CONCESSION 8	037_0000	O - VAT N	1970	CPS	PAV	O	1	1.8	1.8	1.1	20.0	E 3.0	63	63		
000304	15	LOT 10/11, CONC 8	1.40 km W. of CONCESSION 8	037_0000	O - VAT N	1970	CST	PRU	R	0	1	1.2	1.2	18.0	E 1.2	71	71		
000305	33	LOT 15/16, CONC 8	0.10 km E. of REGIONAL ROAD 27	037_0000	O - VAT N	1970	CPR/CPS	BOP/PAV	R	0	1	1.4	0.9	20.0	E 5.0	162	162		
000306	169	LOT 15, CONC X/XI	0.15 km S. of 18TH SIDEROAD	037_0000	O - VAT N	2010	CPS	PRU	R	0	1	1.8	1.8	13.8	E 2.0	63	63		
000307	37	LOT 15/18, CONC X	0.05 km E. of CONCESSION 11	037_0000	O - VAT N	1980	CPS	PRU	R	0	1	1.8	1.8	30.0	E 8.0	237	237		
000308	39	LOT 15/16, CONC XI	1.00 km W. of CONCESSION 11	037_0000	O - VAT N	1970	CPS	PRU	R	0	1	1.4	0.9	9.3	E 0.2	58	58		
000309	171	LOT 18, CONC X/XI	0.80 km N of 16TH SIDEROAD	037_0000	O - VAT N	1970	CPS	PRU	R	0	1	2.2	2.2	28.0	E 3.6	0	0		
000310	171	LOT 19, CONC X/XI	1.20 km N of 16TH SIDEROAD	037_0000	O - VAT N	1970	CPS	PRU	R	0	1	1.2	1.2	22.0	E 1.5	117	117		
000311	97	LOT 26/28, CONC IX	0.70 km E. of CONCESSION 10	037_0000	O - VAT N	1970	CST	PRU	R	0	1	1.5	1.5	22.0	E 2.0	211	211		
000312	95	LOT 25/26, CONC VIII	0.10 km W. of CONCESSION 8	037_0000	O - VAT N	1980	CPS	PAV	R	0	1	2.1	1.6	22.0	E 1.2	6	6		
000313	93	LOT 25/26, CONC VII	0.30 km W. of CONCESSION 7	037_0000	O - VAT N	1970	CST	PRU	R	0	1	1.4	1.4	14.0	E 0.3	0	0		
000314	92	LOT 25/26, CONC VI	0.60 km E. of CONCESSION 7	037_0000	O - VAT N	1980	CST	PAV	L	15	1	1.8	1.8	12.0	E 1.5	97	97		
000315	261	LOT 27, CONC III/IV	0.80 km N of 18TH SIDEROAD	037_0000	O - VAT N	1980	CPS	PAV	L	15	1	2.9	2.9	20	19.4	E 0.3	0		
000316	117	LOT 30/31, CONC V	0.80 km W. of CONC 6 (ANE STREET)	037_0000	O - VAT N	1980	CPS	PAV	R	0	1	1.2	1.2	9.6	E 0.3	66	66		
000317	135	LOT 31/31, CONC IX	1.00 km W. of CONCESSION 27	037_0000	O - VAT N	1950	CST	PRU	R	0	1	1.5	1.5	13.8	E 0.4	94	94		
000318	191	LOT 33, CONC IX/X	1.00 km S. of HIGHWAY 9	037_0000	O - VAT N	1980	CPS	PRU	R	0	1	1.8	1.8	20.4	E 2.0	0	0		
000319	191	LOT 35, CONC IX/X	0.30 km S. of HIGHWAY 9	037_0000	O - VAT N	1980	CPR	BDX	R	0	1	1.8	1.8	14.0	E 2.4	248	248		
000320	189	LOT 28, CONC IX/X	0.80 km S. of 19TH SIDEROAD	037_0000	O - VAT N	1970	CPS	PHE	R	30	1	1.8	1.1	16.0	E 0.3	0	0		

TOWNSHIP OF KING

CULVERT INVENTORY BY CULVERT NUMBER - MASTER LISTING

February 16, 2012

Culvert Number	Culvert Name	Location	MTO Site No.	Road Env.	Posting (tonnes)	X-ing Type	Bay	Year Const.	Material	Type	Skew	No. Cells	Cell Width	Total Width	Max. Height	Length	Fall/Type Depth	Total Project Cost (\$000)	Municipal Share of Cost (\$000)
000321	137 LOT 30/31, CONC X	1.40 km. E. of CONCESSION 11	037 0000	O - WAT	N	CPS	PR/	L 0	1	1.2	1.2	20.0	E 1.5	51	51				
000322	137 LOT 30/31, CONC X	0.90 km. E. of CONCESSION 11	037 0000	O - WAT	N	CPS	PR/	L 0	1	1.5	1.5	15.0	E 0.6	0	0				
000323	177 LOT 34, CONC 10/11	1.60 km. S. of HIGHWAY 9	037 0000	O - WAT	N	CPS	PR/	0	1	1.5	1.5	0.8	E 14.0	49	49				
000324	139 LOT 30/31, CONC 11	1.50 km. E. of CONCESSION 12	037 0000	O - WAT	N	CPS	PR/	L 0	1	1.6	1.6	13.8	E 0.1	47	47				
000325	161 LOT 28, CONC 11/12	0.70 km. S. of 19TH SIDEROAD	037 0000	O - WAT	N	CPS	PR/	L 35	1	1.6	1.6	14.0	E 0.1	55	55				
000326	309 LOT 2, CONC 1/3	0.50 km. N. of HIGHWAY 9	037 0000	O - WAT	N	CPS	PR/	0	1	1.6	1.6	15.8	E 1.2	73	73				
000327	319 LOT 3, CONC 2/3	1.10 km. N. of HIGHWAY 9	037 0000	O - WAT	N	CPS	PR/	R 10	1	2.2	1.5	18.0	E 1.5	63	63				
000328	325 LOT 5/6, CONC 2	0.20 km. W. of CONC 2, BATHURST STREET	037 0000	O - WAT	N	CPS	PR/	0	1	1.8	1.8	1.1	E 12.0	0	0				
000329	1144 KINGS CROSS DRIVE, KING CITY	0.15 km. E. of CRANBERRY LANE	037 0000	O - WAT	N	CPS	PR/	0	1	2.1	2.1	36.0	E 4.5	376	376				
000330	1134 KINGS CROSS DRIVE, KING CITY	1.50 km. W. of CONC 6, KEELE STREET	037 0000	O - WAT	N	CPS	PR/	R 35	1	2.7	2.7	23.0	E 0.6	0	0				
000331	1145 KINGSWORTH ROAD, KING CITY	0.20 km. S. of BLUEBERRY LANE	037 0000	O - WAT	N	CPS	PR/	L 5	1	2.0	2.0	19.0	E 0.4	0	0				
000332	2064 CHINOOK DRIVE, NOBLETON	0.10 km. N. of KING ROAD WEST	037 0000	O - WAT	N	CPS	PR/	R 15	1	1.5	1.5	47.0	E 0.3	0	0				
000333	3062 SHOWA COURT	0.04 km. S. of HIGHWAY 9	037 0000	O - WAT	N	CPS	PR/	0	1	2.4	2.4	1.8	E 0.8	0	0				
000334	3062 DR KAY DRIVE	0.26 km. W. of HIGHWAY 27	037 0000	O - WAT	N	PCC	BOX	R 10	2	1.8	4.2	0.9	E 0.5	0	0				

NUMBER OF CULVERTS
TOTAL NOW NEEDS 58
TOTAL 1-5 YEAR NEEDS \$1,415,048
TOTAL 6-10 YEAR NEEDS \$2,081,147
TOTAL PROJECT COSTS \$1,086,454
TOTAL MUNICIPAL SHARE OF COSTS \$4,532,648

TOWNSHIP OF KING

CULVERT INVESTIGATION AND CONSTRUCTION NEEDS - MASTER LISTING

CULVERT INVESTIGATION AND CONSTRUCTION NEEDS - MASTER LISTING													DATE								
Culvert Number	Section Number	Culvert Name	Bay	Type of Inv	Time of Inv (YEARS)	Cost (\$000)	Type of Impr	Time of Impr (YEARS)	Total Cost (\$000)	Apt* (\$000)	Detr* (\$000)	TCP* (\$000)	Utr* (\$000)	CTGS* (\$000)	Total Const. (\$000)	Engineering Assessment (\$EA) Study	Engineering Design and Supervision (\$000)	Total Project Cost (\$000)	Total Sub Cost (\$000)	Total Non Sub Cost (\$000)	Municipal Share of Cost (\$000)
000203	Lot 7, Conc 3	N	IAG	1-5	50	50	IAG	1-5	5	5	8	63	0	0	63	0	63	0	63	63	
000205	Conc 8, Conc 6/7	N	RSP	1-5	5	65	IAG	1-5	50	5	10	80	13	93	0	93	93	0	93	93	
000206	Lot 7, Conc 6/7	N	SPI	1-5	10		SPI	NOW	10	80	5	9	74	0	74	0	74	74	0	74	
000207	Lot 6, Conc 6/7	N	IAG	NOW	50		IAG	NOW	5	90	5	9	74	12	86	0	86	86	0	86	
000208	Lot 6, Conc 6/7	N	RSL	1-5	120	185	IAG	1-5	50	5	28	218	5	37	260	0	260	260	0	260	
000209	Lot 5, Conc 7/8	N	RSP	1-5	15	75	IAG	1-5	50	5	11	91	15	106	0	106	106	0	106	106	
000210	Lot 10, Conc 11	N	SPI	1-5	10		RSL	NOW	363	459	5	69	533	30	92	654	0	654	654	0	654
000211	Lot 10, Conc 10/11	N	REC	NOW	45		RSL	6-10	171	242	5	36	283	30	48	362	0	362	362	0	362
000212	Lot 10/11, 11	U	RSP	1-5	10	60	IAG	6-10	50	5	9	74	12	86	0	86	86	0	86	86	
000214	Lot 24, Conc 7/8	N	IAG	1-5	50	50	RSL	1-5	75	134	5	20	160	10	27	197	0	197	197	0	197
000216	Lot 25 & 26, Conc 8	N	REC	1-5	9		REC	1-5	50	5	8	63	0	63	0	63	63	0	63	63	
000219	Lot 30 & 31, Conc 9	N	REC	NOW	15	134	REC	NOW	15	134	5	20	159	10	27	196	0	196	196	0	196
000221	Lot 31, Conc 9	N	RSL	NOW	119		IAG	1-5	50	50	5	8	63	0	63	0	63	63	0	63	
000222	LOT 31, CONC 10/11	U	IAG	1-5	10	10	IAG	1-5	10	10	5	2	17	0	17	0	17	17	0	17	
000223	LOT 32, CONC 9	U	SPI	1-5	10	10	IAG	1-5	50	50	5	10	10	0	10	0	10	10	0	10	
000303	Lot 10/11, Conc 8	N	IAG	1-5	50	50	RSL	1-5	43	49	5	7	61	10	71	0	71	71	0	71	
000304	Lot 10/11, Conc 8	N	REC	1-5	5		RSL	6-10	53	113	5	17	134	5	23	162	0	162	162	0	162
000305	Lot 15/16, Conc 8	N	RSL	6-10	10		IAG	6-10	50	50	5	8	63	0	63	0	63	63	0	63	
000306	Lot 15, Conc X/X0	N	IAG	1-5	50	50	RSL	NOW	101	172	5	26	197	5	34	237	0	237	237	0	237
000307	Lot 15/16, Conc X	N	RSL	NOW	101																

DATE February 16, 2012

TOWNSHIP OF KING**CULVERT INVESTIGATION AND CONSTRUCTION NEEDS - MASTER LISTING**

DATE February 16, 2012

Culvert Number	Section Number	Culvert Name	Buy Type	Time of Inv	Cost (\$'000)	Type of Impr	Total Cost (\$'000)	Appr* (\$'000)	Det* (\$'000)	TCP* (\$'000)	Ult* (\$'000)	Oth* (\$'000)	CTGS* (\$'000)	Total Const. (\$'000)	Engineering Environmental Assessment (EA) Study (\$'000)	Engineering Design and Supervision (\$'000)	Total Project Cost (\$'000)	Total Non Subsid. Cost (\$'000)	Subsid. Cost (\$'000)	Municipal Share of Cost (\$'000)
000308	Lot 15/16, Conc XI	N	RSL	1-5	33	39	6	45	5	8	8	58	0	58	58	58	58	0	58	58
000310	Lot 19, Conc X/XI	N	REC	1-5	7		5	12	96	5	16	117	0	117	117	117	117	0	117	117
000311	Lot 25/26, Conc IX	N	RSL	1-5	66		5	22	176	5	30	211	0	211	211	211	211	0	211	211
000312	Lot 25/26, Conc VIII	N	SPI	NOW	5	5	1	6		0	6	0	6	6	6	6	6	0	6	6
000314	Lot 25/26, Conc VI	N	REC	6-10	11	65	5	10	80	5	13	97	0	97	97	97	97	0	97	97
000316	Lot 30/31, Conc V	N	RSL	6-10	54		5	6	53	5	8	66	0	66	66	66	66	0	66	66
000317	Lot 30/31, Conc IX	N	REC	6-10	10	62	5	9	76	5	12	94	0	94	94	94	94	0	94	94
000319	Lot 35, Conc IX/X	N	RSL	6-10	52		5	26	204	10	35	248	0	248	248	248	248	0	248	248
000321	Lot 30/31, Conc X	N	RSL	6-10	24	30	5	5	40	5	6	51	0	51	51	51	51	0	51	51
000323	Lot 34, Conc 10/11	N	REC	6-10	6		5	4	39	5	6	49	0	49	49	49	49	0	49	49
000324	Lot 30/31, Conc 11	N	SPI	6-10	6	28	5	4	37	5	6	47	0	47	47	47	47	0	47	47
000325	Lot 29, Conc 11/12	N	RSL	6-10	28	34	5	5	44	5	7	55	0	55	55	55	55	0	55	55
000326	Lot 2, Conc 1/3	N	REC	6-10	6		5	7	56	5	9	73	0	73	73	73	73	0	73	73
000327	Lot 3, Conc 2/3	N	IAG	1-5	50	50	5	8	63		63	0	63	63	63	63	0	63	63	63
000329	Kings Cross Drive, King City	N	RSL	1-5	189	267	5	40	312	10	53	376	0	376	376	376	376	0	376	376
			REC	1-5	28		\$0	\$3,174,163				\$4,803,885		\$4,532,648		\$4,532,648				

TOTAL NOW NEEDS
TOTAL 1-5 YEAR NEEDS
TOTAL 6-10 YEAR NEEDS

* APPROACHES - DETOURS - TRAFFIC CONTROL / PROTECTION - UTILITIES - OTHER - CONTINGENCIES

APPENDIX F

Listing of Major Bridges

GLOSSARY OF ABBREVIATIONS

(Bridges)

<u>BRIDGE MATERIAL</u>		<u>BRIDGE IMPROVEMENTS</u>		<u>BRIDGE INVESTIGATIONS</u>	
C	- CAST IN PLACE CONCRETE	CDR	- COMPLETE DECK REPLACEMENT	DCS	- DECK CONDITION SURVEY
P	- PRECAST CONCRETE	CDS	- CONCRETE DECK SOFFIT REPAIRS	LCE	- LOAD CAPACITY EVALUATION
S	- STEEL	CSS	- COAT STRUCTURAL STEEL	UWI	- UNDERWATER INVESTIGATION
T	- TIMBER / WOOD	EIR	- EMBANKMENT IMPROVEMENTS / REHABILITATION	HS	- HYDROLOGY STUDY
<u>BRIDGE TYPE</u>		<u>BRIDGE IMPROVEMENTS</u>		<u>BRIDGE INVESTIGATIONS</u>	
BC	- BOX - CLOSED FOOTING	OTH	- OTHER	OTH	- OTHER
BO	- BOX - OPEN FOOTING	OWP	- OVERLAY, WATERPROOF & PAVE	OWP	- OVERLAY, WATERPROOF & PAVE
BT	- BOX / TRAPEZOIDAL	PWP	- PATCH, WATERPROOF & PAVE	PWP	- PATCH, WATERPROOF & PAVE
FI	- FRAME - INCLINED LEGS	REB	- REMOVE EXISTING BRIDGE	REB	- REMOVE EXISTING BRIDGE
HT	- STEEL HALF-THROUGH TRUSS	RIR	- RAILING IMPROVEMENT / REPLACEMENT	RIR	- RAILING IMPROVEMENT / REPLACEMENT
IB	- I-BEAMS OR GIRDERS	RRW	- REHABILITATE / REPLACE RETAINING WALLS	RRW	- REHABILITATE / REPLACE RETAINING WALLS
OT	- OTHER	RSB	- REHABILITATE SUBSTRUCTURE	RSB	- REHABILITATE SUBSTRUCTURE
RF	- RIGID FRAME - VERTICAL LEGS	RSL	- REPLACE BRIDGE - SAME LOCATION	RSL	- REPLACE BRIDGE - SAME LOCATION
SS	- SOLID SLAB	RSP	- REHABILITATE SUPERSTRUCTURE	RSP	- REHABILITATE SUPERSTRUCTURE
TB	- T-BEAMS	SPI	- SCOUR PROTECTION IMPROVEMENT	SPI	- SCOUR PROTECTION IMPROVEMENT
SC	- CIRCULAR VOIDS	TJS	- TRANSVERSE EXPANSION JOINT SEAL REPLACEMENT	TJS	- TRANSVERSE EXPANSION JOINT SEAL REPLACEMENT
		WSR	- WEARING SURFACE REHABILITATION	WSR	- WEARING SURFACE REHABILITATION
<u>BRIDGE ARTICULATION</u>		<u>DECK TYPE</u>		<u>DECK TYPE</u>	
F	- FIXED	CC	- CONCRETE, CAST IN PLACE	CC	- CONCRETE, CAST IN PLACE
H	- HINGED	TP	- TRANSVERSE LAMINATED TIMBER, PRESTRESSED	TP	- TRANSVERSE LAMINATED TIMBER, PRESTRESSED
S	- SIMPLY SUPPORTED	WP	- TIMBER / WOOD PLANKS	WP	- TIMBER / WOOD PLANKS
C	- CONTINUOUS	CP	- CONCRETE, PRECAST SEGMENTS	CP	- CONCRETE, PRECAST SEGMENTS

TOWNSHIP OF KING

BRIDGE INVENTORY BY BRIDGE NUMBER - MASTER LISTING

DATE October 14, 2011

Bridge Number	Section Number	Bridge Name	Road Name	Location	MTO Site No.	Rd Env	Postings (tonnes)	X-ing Type	Body Const.	Year Built	Mat Type	Art Const.	No. of Spans	Span Length	Deck Type	Deck Width	Deck Length	Deck Area	Total Project Cost (\$'000)	Eligible for Subsidy (\$'000)	Municipal Share of Cost (\$'000)
000001	225	LOT 3, CONC 2, EAST HUMBER RIVER	MILL ROAD	1.00 km S of 11-KING ROAD	037 - 0088	O - WAT U	1975	P	IB	S	0	1	14.6	CC	15.2	10.0	152	0	0	0	
000003	145	LOT 3, CONC 2	ALBION VAUGHAN ROAD	0.15 km S of 11-KING ROAD	037 - 0079	O - WAT U	2003	P	BT	L	R	5	3	13.2, 20.2, 13; CC	47.7	20.8	987	0	0	0	
000004	146	LOT 6, CONC 2	CALEDON KING TOWNELINE SOUTH	0.20 km N of 11-KING ROAD	037 - 0077	O - WAT U	1982	C	RF	F	R	40	1	11.0	CC	12.2	17.4	210	0	0	0
000005	146	LOT 7, CONC 2	CALEDON KING TOWNELINE SOUTH	0.60 km N of 11-KING ROAD	037 - 0076	O - WAT U	1980	C	RF	F	L	30	1	10.0	CC	11.4	14.4	164	0	0	0
000006	146	LOT 7B, CONC 2	CALEDON KING TOWNELINE SOUTH	0.80 km N of 11-KING ROAD	037 - 0076	O - WAT U	1950	C	RF	F	F	0	1	7.6	CC	8.7	12.6	110	0	0	0
000007	146	LOT 7B, CONC 2	CALEDON KING TOWNELINE SOUTH	0.90 km S of 11-KING ROAD	037 - 0074	O - WAT U	1950	C	RF	F	L	35	1	9.4	CC	11.2	12.9	145	13	13	13
000009	105	KETTLEBY ROAD	0.10 km E of LORNE AVENUE	037 - 0061	O - WAT N	2000	P	RF	F	F	O	1	12.2	CP	13.3	7.7	102	21	21	21	
000010	283	LOT 1011, CONC 1 NEW SURVEY	JANE STREET	0.60 km S of WOODCHOPPERS LANE	037 - 0038	O - WAT N	2011	NEW BRIDGE UNDER CONSTRUCTION										0	0	0	0
000011	309	LOT 5, CONC 3, NEW SURVEY	KEELE STREET	0.30 km S of WOODCHOPPERS LANE	037 - 0037	O - WAT U	1971	P	SC	L	40	5	13.0	CC	26.4	9.8	259	71	71	71	
000012	321	LOT 8, CONC 2B, OLD SURVEY	OUFERIN STREET	0.20 km S of KING STREET	037 - 0038	O - WAT U	1970	S	B	C	L	38	3	8.3	CC	18.9	8.7	164	1054	1054	1054
000013	341	LOT 15/16, CONC 2, OLD SURVEY	GRAHAM SIDEROD	0.50 km E of DIFFERIN STREET	037 - 0039	O - WAT U	1986	S	IB	C	L	13	2	7.0	CC	14.3	8.5	122	870	870	870
000014	325	LOT 56, CONC 2	MILLER SIDEROD	0.10 km W of 38-BATHURST STREET	037 - 0000	O - WAT N	2005	C	IB	F	O	1	20.0	CC	22.7	13.9	316	0	0	0	
000018	1158	STATION ROAD, KING CITY	STATION ROAD	0.25 km W of KEELE ROAD	037 - 1146	O - WAT N	1986	C	BC	F	O	2	4.5	CC	10.0	16.0	160	45	45	45	
000019	265	LOT 35, CONC 3A	KEELE STREET	0.05 km S of REGIONAL ROAD 31	037 - 0000	O - WAT N	2002	C	BO	F	L	2	1	2.5	CC	3.1	16.6	51	6	6	6
000019	219	LOT 30, CONC 7B	8TH CONCESSION	0.40 km S of LLOYDTOWN/AURORA ROAD	037 - 0000	O - WAT N	1970	S	IB	H	L	18	1	5.4	CC	6.1	10.2	62	203	203	203
000021	3052	MAIN STREET, SCHOMBERG	MAIN STREET	0.54 km W of REGIONAL ROAD 27	037 - 0058	O - WAT N	1920	C	TB	F	O	1	7.0	CC	7.7	13.5	104	607	607	607	
000022	3054	MAIN STREET, SCHOMBERG	MAIN STREET	0.86 km W of REGIONAL ROAD 27	037 - 0024	O - WAT N	1920	C	TB	F	R	10	1	7.3	CC	7.9	14.0	111	650	650	650
000023	246	LOT 30, CONC 7	OLD REGIONAL ROAD 16	0.10 km N of LLOYDTOWN/AURORA ROAD	037 - 0000	O - WAT U	1916	C	TB	H	O	1	4.9	CC	5.4	6.8	36	284	284	284	
000024		PEDSTRAY BRIDGE, NETTLEY	TRWHITT CONSERVATION AREA	0.50 km E of JANE STREET	037 - 0000	O - WAT N	2000	T	IB	S	O	1	4.0	WP	5.0	1.5	8	0	0	0	
000025		PEDESTRIAN BRIDGE, KETTLEBY	TRWHITT CONSERVATION AREA	0.50 km E of JANE STREET	037 - 0000	O - WAT N	2000	S	H	T	S	O	1	11.2	WP	12.2	2.0	24	0	0	

NUMBER OF BRIDGES	20
TOTAL NOW NEEDS	\$405,200
TOTAL 1-5 YEAR NEEDS	\$2,542,025
TOTAL 6-10 YEARS NEEDS	\$873,700
TOTAL PROJECT COSTS	\$3,821,725
TOTAL MUNICIPAL SHARE OF COSTS	\$3,821,725

TOWNSHIP OF KING

BRIDGE INVESTIGATION AND CONSTRUCTION NEEDS - MASTER LISTING

DATE February 16 2012

Bridge Number	Section Number	Bridge Name	Type of Inv	Time of Inv	Cost (\$000)	Type of Improvement	Time of Improvement (YEARS)	Total Cost (\$000)	Appr* (\$000)	Date* (\$000)	TCP* (\$000)	UH* (\$000)	OH* (\$000)	CTGS* (\$000)	Total Constr. Cost (\$000)	Right of Way (\$000)	EIA Study (\$000)	Engineering Design & Supervision (\$000)	Total Project Cost (\$000)	Subsid. Cost (\$000)	Non Subsid. Cost (\$000)	Munic. Share of Cost (\$000)	
000007	Lot 7/8, Conc 2	Kettleby Bridge	DCS	10	1AG	NOW	1-5	10	10	15	15	2	17	3	13	13	0	13	13	0	21	21	
000009	Lot 5, Conc 3, New Survey		DCS	10	1AG	NOW	1-5	8	45	10	7	62	9	71	9	2t	0	2t	0	21	21		
000011	Lot 9, Conc 2/3, Old Survey		DCS	10	1AG	NOW	1-5	8	8	8	25	25	25	25	25	25	25	25	25	25	25		
000012	Lot 15/16, Conc 2, Old Survey		DCS	7	1REB	1-5	82	744	20	112	875	30	149	1054	0	1054	0	1054	0	1054	0	1054	
000013	Station Road, King City	UWI	DCS	15	1RSL	1-5	662	662	30	90	720	30	120	870	0	870	0	870	0	870	0	870	
000016	Lot 35, Conc 3/4		DCS	7	1REB	1-5	539	539	5	40	40	5	45	45	0	45	0	45	0	45	0	45	
000018	Lot 30, Conc 7/8		DCS	7	1AG	NOW	1-5	5	5	40	132	10	15	20	177	26	203	0	203	0	203	0	203
000019	Main Street, Schomberg		DCS	5	1RSL	1-5	364	364	1	6	6	6	6	6	6	6	6	6	6	6	6	6	
000021	Main Street, Schomberg	LCE	DCS	7	1REB	1-5	52	416	15	62	493	30	83	607	0	607	0	607	0	607	0	607	
000022	Main Street, Schomberg	LCE	DCS	7	1REB	1-5	56	445	20	67	531	30	89	650	0	650	0	650	0	650	0	650	
000023	Lot 30, Conc 7		LCE	5	1RSL	1-5	389	389	15	27	219	30	35	284	0	284	0	284	0	284	0	284	

\$70,000 **\$2,627,900**

\$3,821,72

TOTAL NOW NEEDS	\$405,200
TOTAL 1-5 YEAR NEEDS	\$2,542,820
TOTAL 6-10 YEAR NEEDS	\$2,577,700

APPROACHES - DETOURS - TRAFFIC CONTROL / PROTECTION - UTILITIES - OTHER - CONTINGENCIES



APPENDIX

C

SAMPLE PAVEMENT
CONDITION EVALUATION
FORMS



FLEXIBLE PAVEMENT CONDITION EVALUATION FORM

Section From: Kingscross Drive

LHRS km Section 0.45 km
BEGINS OFFSET

Survey Date 2020 June
YEAR MONTH

Contract No. 19M-01017-03

Ride Condition Rating (at 80 km/h)	10 EXCELLENT Smooth and pleasant
	8 GOOD Comfortable
	6 FAIR Uncomfortable
	4 POOR Very rough and bumpy
	2 VERY POOR Dangerous at 80 km/h
	0

WP No.

Pavement	Distress Type	Severity of Distress						Density of Distress (Extent of Occurrence, %)					
		Weighting (wi)	Very Slight	Slight	Moderate	Severe	Very Severe	Few	Intermittent	Frequent	Extensive	Throughout	
Surface Defects	Raveling & C. Agg. Loss	1	3.0				X						X
	Flushing	2	1.5										
Surface Deformations	Rippling and Shoving	3	1.0				X						
	Wheel Track Rutting	4	3.0				X						
	Distortion	5	3.0										
Cracking	Longitudinal Wheel Track	6	1.5				X						X
	Alligator	7	3.0										
	Centre Line	8	0.5				X						X
	Alligator	9	2.0				X						
	Pavement Edge	10	0.5				X						X
	Alligator	11	1.5				X						
	Transverse	12	1.0				X						X
	Alligator	13	3.0										
	Long Meander and Midlane	14	1.0										
	Random	15	0.5				X						X

IRI from Ride Comfort Rating (RCR): 4.0

Back-calculated PCI Value: 46

DMI 6.947

Distress comments (Items not covered above): _____

No curbs, shoulders are 0.5m wide. frequent severe pavement edge, centre line and longitudinal cracking with intermittent severe wheel track rutting and rippling

To: 0.45 km South of Kingscross Drive

Traffic Direction B
B: BOTH DIRECTIONS
N: NORTH BOUND
S: SOUTH BOUND
E: EAST BOUND
W: WEST BOUND

District

Highway

Facility A
A: ALL LANES
C: COLLECTOR
E: EXPRESS
O: OTHERS

Class L
F: FREEWAY
A: ARTERIAL
C: COLLECTOR
L: LOCAL
S: SECONDARY

Shoulders		Severity of Distress				Density of Distress (Extent of Occurrence, %)			
Dominant Type	Distress	Right		Left		Right		Left	
		Mod	Severe	Mod	Severe	10-30	>30	10-30	>30
Paved Full	Cracking								
Paved Partial	Pavement Edge/Curb Separation								
	Distortion								
Surface Treated	Breakup/Separation								
	Edge Break								
Primed	Breakup								
	Gravel								

Maintenance Treatment	Extent of Occurrence, %				
	<10	10-20	20-50	50-80	>80
Pavement	1	2	3	4	5
	Manual Patching				
	Machine Patching				
	Spray Patching				
	Rout and Seal Cracks				
	Chip Seal				
Shoulders	Manual Patching				
	Machine Patching				
	Rout and Seal Cracks				
	Chip Seal				

Other Comments (e.g. subsections, additional contracts): _____

Evaluated by Sara Benali



SURFACE TREATED PAVEMENT EVALUATION FORM

Section From: South Canal Bank Road

LHRS km
BEGINS OFFSET

Section 0.89 km
LENGTH

Survey Date 2020 June
YEAR MONTH

PCR 43 RCR 5.0

Contract No. 19M-01017-05

Ride Condition Rating (at 80 km/h)

10	EXCELLENT	Smooth and pleasant
8	GOOD	Comfortable
6	FAIR	Uncomfortable
4	POOR	Very rough and bumpy
2	VERY POOR	Dangerous at 80 km/h
0		

WP No.

Weighting (wi)	Severity of Distress			Density of Distress (Extent of Occurrence)		
	Slight	Moderate	Severe	Intermittent	Frequent	Extensive
				<20	20-50	>50
(wi)	1	2	3	1	2	3

Pavement	Distress Type	1	2	3	1	2	3
Surface Defects	Ravelling & C. Agg. Loss	1	3.0		x		x
	Streaking	2	1.0				
	Flushing	3	2.0				
	Potholes	4	1.0				
	Pavement Edge Break	5	2.0				
Surface Deformation	Rippling	6	2.0	x		x	
	Wheel Track Rutting	7	3.0		x	x	
	Distortion	8	3.0	x		x	
Cracking	Longitudinal	9	1.0	x		x	
	Transverse	10	0.5	x		x	
	Pavement Edge Break	11	1.0				
	Alligator	12	3.0	x		x	

Back-calculated PCI Value: 43 DMI 5.111

Distress comments (Items not covered above) _____

No curbs, shoulders are 1m wide. Several potholes were Manual patched

To: Woodchopper's Lane

Traffic Direction B
B: BOTH DIRECTIONS
N: NORTH BOUND
S: SOUTH BOUND
E: EAST BOUND
W: WEST BOUND

District

Facility A
A: ALL LANES
C: COLLECTOR
E: EXPRESS
O: OTHERS

Highway

F: FREEWAY
A: ARTERIAL
C: COLLECTOR
L: LOCAL
S: SECONDARY

Shoulders	Severity			Density					
	Right		Left		Right	Left			
	Distress	Mod	Severe	Mod	Severe	10-30	>30	10-30	>30
Encroaching Growth									
Poor Cross-Fall									

Maintenance Treatment	Extent of Occurrence, %		
	<20	20-50	>50
	1	2	3
Manual Patching			
Machine Patching		x	
In Situ Recycling			
Manual Spray Patching			
Manual Chip Seal			
Machine Chip Seal			
Fog Seal			
Manual Burn & Seal			

Other Comments (e.g. subsections, additional contracts) _____

Evaluated by Sara Benali



GRAVEL SURFACE PAVEMENT CONDITION EVALUATION FORM

Location From: Concession Road 8

To: 27 - Regional Road 27

LHRS km

Section 2.04 km

District

Highway

BEGINS

OFFSET

LENGTH

Survey Date YEAR MONTH

PCR 39

Traffic Direction B

B: BOTH DIRECTIONS
N: NORTH BOUND
S: SOUTH BOUND
E: EAST BOUND
W: WEST BOUND

Contract No. 19M-01017-03

WP No.

Roadway Surface Distress Manifestation

			Severity of Distress			Density of Distress (Extent of Occurrence, %)		
			Slight	Moderate	Severe	Intermittent	Frequent	Extensive
						10-20	20-50	50-80
			1	2	3	1	2	3
Surface Defects	Loose Gravel	1		x			x	
	Dust	2		x			x	
	Potholes	3						
	Breakup	4						
Surface Deformations	Washboard	5	x			x		
	Rutting	6	x			x		
	Flat / Reverse Crown	7	x			x		
	Distortion	8	x			x		

Distress comments (Items not covered above)

Some parts of this road are steep. Some slight distortion on the edges. Road has frequent moderate loose gravel with some intermittent slight washboard, distortion and reverse crown

Shoulder Distress Manifestation	Severity of Distress						Density of Distress (Extent of Occurrence, %)					
	Right			Left			Right			Left		
	Slight	Moderate	Severe	Slight	Moderate	Severe	Intermittent	Frequent	Extensive	Intermittent	Frequent	Extensive
	1	2	3	1	2	3	< 20	20-50	> 50	< 20	20-50	> 50
							1	2	3	1	2	3
Excessive Height												
Ponding												
Overgrowth												

Suggested Maintenance Treatment:

Evaluated by: Sara Benali



APPENDIX

D

MASTER SUMMARY TABLE

TOWNSHIP OF KING
10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN (2020 PROGRAM)
APPENDIX D: MASTER SUMMARY TABLE

Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
199	Nobleton Lakes Drive	27 - Regional Road 27	East End Cul-de-Sac	HCB	2	8.5	8.5	0	963	1.09	-	22	L	3	4	240.36	1	1	1	1	240.36	Recon	9,265	\$115.00	\$1,065,475	Curbed. Extensive severe centre line, pavement edge, transverse cracking with frequent moderate distortion and alligator
191	Concession Road 10	Queen Street	Hwy. 9	HCB	2	8.9	6.4	1.25	214	1.61	GRA	7	L	3/4	3	214.55	1	1	1	1	214.55	Recon	10,304	\$74.70	\$769,709	No curbs, shoulders are 1m wide. Extended severe longitudinal, pavement edge, transverse multiple and alligator cracking with few moderate distortion. HMA recon. Culvert replacement C000319 required ~250k
322	Dufferin Street	King Street	Emma Road	HCB	2	8.5	6.7	0.9	1895	1.02	GRA	46	C	6	2	148.37	1	1.35	1	1	200.29	Rehab	7,752	\$40.00	\$310,080	No curbs, shoulders are 0.5m wide . Frequent severe longitudinal, centre line, pavement edge, transverse cracking with moderate alligator. Two lift rec
61	17th Sideroad	56 - Weston Road	East of Highway 400	G/S	2	6.7	5.7	0.5	171	0.94	GRA	50	C	3	4	134.28	1.1	1.35	1	1	199.40	Rehab	5,828	\$50.00	\$291,400	road has extensive moderate loose gravel with some intermittent slight washboard and rutting as function of grade
3050	Brownsville Court, Schomberg	Western Avenue	South End Cul-de-Sac	HCB	2	8.8	8.8	0	47	0.27	-	28	L	4	4	188.89	1	1	1	1	188.89	Recon	2,376	\$80.00	\$190,080	Curbed. frequent longitudinal cracking with intermittent moderate pavement edge cracking. Recon w subdrains
91	18th Sideroad	Concession Road 7	0.38 km East of Concession Road 7	HCB	2	8.1	6.7	0.7	197	0.38	GST	20	L	3/4	3	183.88	1	1	1	1	183.88	Recon	2,546	\$80.00	\$203,680	No curbs, shoulders are 1m wide. Road had extensive severe longitudinal and center line and transverse alligator cracking with few slight distortion
89	18th Sideroad	56 - Weston Road	West End	G/S	2	7.3	6	0.65	28	0.70	GRA	45	L	3/4	3	121.77	1.1	1	1.35	1	180.83	Rehab	4,200	\$41.00	\$172,200	road has extensive moderate loose gravel with some intermittent slight washboard and rutting and few moderate potholes
235	Concession Road 7	15th Sideroad	16th Sideroad	G/S	2	7.9	6	0.95	322	2.18	GRA	50	C	3	3	118.05	1.1	1.35	1	1	175.30	Rehab	15,151	\$50.00	\$757,550	Severe paving deformation at the begining of this section. HMA Recon
39	16th Sideroad	Concession Road 11	Concession Road 12	G/S	2	7.9	6	0.95	492	2.09	GST	45	C	3	2	112.53	1.1	1.35	1	1	167.11	Rehab	14,526	\$50.00	\$726,275	road has extensive severe loose gravel, some moderate breakups on edges, slight washboard and rutting. Culvert Replacement C000307 required ~240k.
229	Concession Road 7	Vaughan/King Boundary	North End	G/S	2	6.4	5.4	0.5	28	0.50	GST	50	L	2/3	3	110.70	1.1	1	1.35	1	164.39	Rehab	2,700	\$50.00	\$135,000	extensive severe loose gravel with intermittent slight washboard, rutting and breakup
193	Diana Drive	27 - Regional Road 27	West End Checkerboard	HCB	2	8.7	6.3	1.2	50	0.67	GRA	29	L	2	3	157.98	1	1	1	1	157.98	Recon	4,221	\$80.00	\$337,680	Some potholes around 81 Diana rd. No curbs shoulders are 0.5m wide
323	Dufferin Street	Emma Road	Juliana Road	HCB	2	8.5	6.7	0.9	1895	0.88	GRA	44	C	6	2	153.86	1	1	1	1	153.86	Recon	6,688	\$74.00	\$494,912	No curbs, shoulders are 0.5m wide. frequent severe longitudinal multiple and alligator cracking, severe centre line and pavement edge cracking
103	Kettleby Road, Kettleby	Keele Street	Lorne Avenue	HCB	2	8.3	6.3	1	944	0.80	GST	51	L	5	4	150.53	1	1	1	1	150.53	Monitor & Maintain	5,040	\$40.00	\$201,600	ral speed humps on the road. No curbs shoulders are 1m wide. Road has frequent severe single and multiple longitudinal wheel track, centre line and pavement edge cracking . some moderate distortion. Council priority
16	15th Sideroad	0.6 km West of Concession Road 8	27 - Regional Road 27	LCB	2	9.95	6	1.975	642	1.45	GRA	13	C	2/3		114.93	1	1	1	1.25	143.66	Recon	11,564	\$99.00	\$1,144,811	No curbs, shoulders are 1m wide. this section has frequent severe distortion, longitudinal, transverse and alligator cracking, extensive severe ravelling and aggregate loss and frequent moderate potholes. No ditching and poor drainage
15	15th Sideroad	0.6 km West of Concession Road 8	LCB	2	8.2	6.4	0.9	642	0.60	GRA	16	C	2/3		110.96	1	1	1	1.25	138.71	Recon	4,380	\$99.00	\$433,620	No curbs, shoulders are 1m wide. this section has frequent severe distortion, longitudinal and alligator cracking, extensive severe ravelling and aggregate loss and frequent moderate potholes. No ditching and poor drainage	
285	Davis Road	2nd Concession Road	Schomberg River	G/S	2	7.9	6	0.95	386	0.94	GST	55	L	6	4	125.69	1.1	1	1	1	138.25	Monitor & Maintain	5,640	\$41.00	\$231,240	frequent moderate loose gravel with intermittent slight washboard and rutting
37	16th Sideroad	Concession Road 10	Concession Road 11	G/S	2	7.9	6	0.95	455	2.05	GRA	45	C	3	1	89.51	1.1	1.35	1	1	132.93	Rehab	14,248	\$41.00	\$584,148	road has extensive severe loose gravel and dust ,Some slight potholes and breakups
209	Concession Road 8	11 - King Road	South End	G/S	2	6.1	5.1	0.5	150	0.80	GRA	55	C	2	4	120.38	1.1	1	1	1	132.41	Monitor & Maintain	4,480	\$41.00	\$183,680	Steep at the beginning of section, ferquent loose gravel, few potholes
149	Caledon/King Townline South	Concession Road 12	17th Sideroad	HCB	2	9.85	7.35	1.25	6265	2.70	GST	68	C	3		132.24	1	1	1	1	132.24	Monitor & Maintain	23,220	\$20.00	\$464,400	No curbs. Shoulders are 1m wide. All cracks were sealed except for few . Frequent severe longitudinal, centre line, pavement edge, transverse cracking
324	Dufferin Street	Juliana Road	Graham Sideroad	HCB	2	8.7	6.7	1	1895	0.55	GRA	52	C	6	2	131.88	1	1	1	1	131.88	Monitor & Maintain	4,235	\$40.00	\$169,400	No curbs, shoulders are 0.5m wide. frequent severe centre line, pavement edge and alligator cracking with intermittent moderate transverse multiple and alligator cracking
283	Davis Road	South Canal Bank Road	2nd Concession Road	G/S	2	7.9	6	0.95	386	0.94	GST	58	C	6	4	117.31	1.1	1	1	1	129.04	Monitor & Maintain	6,533	\$41.00	\$267,853	frequent moderate loose gravel with intermittent washboard
33	16th Sideroad	Concession Road 8	27 - Regional Road 27	HCB	2	8.5	6.5	1	391	2.06	GRA	22	C	3	1	124.45	1	1	1	1	124.45	Recon	15,450	\$99.00	\$1,529,550	No curbs, shoulders are 1m wide . road has frequent severe multiple longitudinal/ center line/ transverse/ pavement edge crackings with moderate alligator cracking,moderate ravelling and rippling. Culvert C000305 needs replacement ~165k.
211	Concession Road 8	11 - King Road	15th Sideroad	LCB	2	8.5	6.5	1	837	2.09	GRA	69	C	2	4	93.57	1	1	1	1.25	116.97	Monitor & Maintain	15,675	\$20.00	\$313,500	Shoulders are 1m wide. Frequent moderate pavement edge break, rippling and flushing with some slight distortion
311	Keele Street	Drainage Canal	Strawberry Lane	HCB	2	8.5	6.5	1	1420	0.76	GRA	54	C	6	2	115.46	1	1	1	1	115.46	Monitor & Maintain	5,700	\$40.00	\$228,000	Some potholes on this section, no curbs. Shoulders are 1m wide
1154	Station Road, King City	6 - Keele Street	0.2 km West of 6 - Keele Street	HCB	3	10.3	10.3	0	1291	0.20	-	32	L	5		111.89	1	1	1	1	111.89	Recon	2,060	\$96.00	\$197,760	Curbed. Extensive transverse, longitudinal, centre line cracking
85	18th Sideroad	55 - Jane Street	West End	G/S	2	6.7	5.7	0.5	72	0.95	GRA	55	C	5	3	100.62	1.1	1	1	1	110.68	Monitor & Maintain	5,890	\$41.00	\$241,490	road has extensive moderate loose gravel with some intermittent slight washboard and rutting and few moderate potholes
345	Toll Road	38 - Bathurst Street	Highway 11	G/S	2	5	4	0.5	65	2.03	GRA	55	L	6	3	100.46	1.1	1	1	1	110.51	Monitor & Maintain	8,120	\$41.00	\$332,920	Some potholes around 650 toll rd, used as bypass, may want RR crossing closed
87	18th Sideroad	56 - Weston Road	East End	G/S	2	7.3	6	0.65	43	0.94	GRA	55	L	3/4	3	99.97	1.1	1	1	1	109.96	Monitor & Maintain	5,640	\$41.00	\$231,240	Slight breakup near 3605 18th rd. Road has frequent moderate loose gravel with some intermittent slight rutting and few slight breakup

TOWNSHIP OF KING
10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN (2020 PROGRAM)
APPENDIX D: MASTER SUMMARY TABLE

Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
55	17th Sideroad	53 - Dufferin Street	0.8 km West of 53 - Dufferin Street	HCB	2	8.5	6.7	0.9	5056	0.80	GST	69	C	1	1	109.37	1	1	1	1	109.37	Monitor & Maintain	6,080	\$40.00	\$243,200	No curbs, shoulders are 1m wide partially paved. Road has frequent moderate wheel track rutting, transverse cracking, and some moderate alligator cracking with slight flushing and wheel track rutting
31	16th Sideroad	Concession Road 7	Concession Road 8	G/S	2	7.3	6	0.65	392	2.11	GRA	40	C	3	1	95.76	1.1	1	1	1	105.34	Recon	14,032	\$41.00	\$575,292	road has extensive moderate loose gravel, frequent moderate washboard and rutting, some slight shoulders ponding
301	Jane Street	Woodchopper's Lane	Edward Avenue	HCB	2	7.8	6.6	0.6	523	0.68	GST	58	C	6	3	103.38	1	1	1	1	103.38	Monitor & Maintain	4,896	\$99.00	\$484,704	Shoulders are 1m wide. Frequent moderate alligator and transverse cracking with intermittent severe distortion, slight centre line and pavement edge cracking. Structural issues. Recon
57	17th Sideroad	6 - Keele Street	55 - Jane Street	HCB	2	9.5	6.7	1.4	5632	2.02	GST	73	C	5		103.03	1	1	1	1	103.03	Monitor & Maintain	16,362	\$20.00	\$327,240	No curbs, shoulders varies from 0.5m to 1.5m wide. Road has frequent severe single and multiple pavement edge cracking, intermittent moderate longitudinal and transverse cracking
56	17th Sideroad	0.8 km West of 53 - Dufferin Street	5 - Keele Street	HCB	2	9.5	6.7	1.4	5056	1.32	GST	71	C	1		102.31	1	1	1	1	102.31	Monitor & Maintain	10,692	\$20.00	\$213,840	No curbs, shoulders are 1m wide and partially paved. Road has frequent moderate centre line and pavement edge multiple cracking. Intermittent moderate alligator cracking and slight distortion
127	Carrying Place Trail	56 - Weston Road	Brule Trail	HCB	2	8.5	8.5	0	464	1.77	-	64	L	4	4	101.95	1	1	1	1	101.95	Monitor & Maintain	15,045	\$40.00	\$601,800	Curbed. Frequent severe multiple centre line and transverse cracking, moderate alligator
246	Old Regional Road 16	16 - Lloydtown/Aurora Road (East Intersection)	16 - Lloydtown/Aurora Road (West Intersection)	LCB	1	5.2	4.2	0.5	7	0.38	GST	20	L	4		80.28	1	1	1	1.25	100.35	Recon	1,596	\$90.00	\$143,640	Shoulders varies from 0.5m to 1.5m. Frequent severe ravelling and aggregate loss, severe rippling, longitudinal and transverse cracking and severe alligator cracking
313	Keele Street	Strawberry Lane	King Street	HCB	2	8.7	6.7	1	1543	0.74	GST	61	C	6	2	100.29	1	1	1	1	100.29	Monitor & Maintain	5,698	\$20.00	\$113,960	no curbs, shoulders are 1m wide. frequent moderate longitudinal, pavement edge and transverse cracking with intermittent alligator
269	Dufferin Street	19th Sideroad	31 - Davis Drive	G/S	2	9.6	6	1.8	436	1.99	GRA	55	C	1	2	90.81	1.1	1	1	1	99.89	Monitor & Maintain	15,522	\$40.00	\$620,880	Section has some blind spots . extensive loose gravel with intermittent washboard and rutting
92	18th Sideroad	0.38 km East of Concession Road 7	East End	HCB	2	7	6	0.5	197	0.40	GST	57	L	3/4	3	98.84	1	1	1	1	98.84	Monitor & Maintain	2,400	\$20.00	\$48,000	Some bumps on this section. Intermittent severe multiple and alligator longitudinal cracking, intermittent severe pavement edge cracking
3056	Main Street, Schomberg	Dr. Kay Drive	Hwy. 9	HCB	2	10	10	0	3980	0.52	-	67	L	4		98.67	1	1	1	1	98.67	Monitor & Maintain	5,200	\$20.00	\$104,000	Curbed. frequent severe transverse multiple and alligator cracking
293	Jane Street	31 - Davis Drive West	South Canal Bank Road	HCB	2	8.4	8.4	0	648	0.82	GST	61	L	6	3	98.44	1	1	1	1	98.44	Monitor & Maintain	6,888	\$20.00	\$137,760	No curbs, shoulders are 1m wide. frequent moderate longitudinal cracking with transverse moderate alligator. Structural issues, recon
71	17th Sideroad	Concession Road 10	Concession Road 11	HCB	2	8.5	8.7	0	2558	2.28	GST	57	C	3		98.00	1	1	1	1	98.00	Monitor & Maintain	19,836	\$40.00	\$793,440	Shoulders are 1m wide. Road has frequent severe longitudinal wheel track cracking , severe multiple pavement edge and transverse cracking. Intermittent severe transverse alligator
275	Rupke Road	Hwy. 9	Schomberg River	HCB	2	9.3	6.2	1.55	243	0.43	GRA	64	C	6	4	97.97	1	1	1	1	97.97	Monitor & Maintain	3,333	\$20.00	\$66,650	No curbs, shoulders are 0.5m wide. Some potholes near 'stop ahead' sign. Paving needed - DVD
250	Second Street, Laskay	Mill Street	South End	LCB	2	9.7	6	2	72	0.07	G/S	45	L	2		56.98	1	1	1.35	1.25	96.15	Recon	420	\$72.00	\$30,240	No curbs. Frequent moderate pavement edge break with extensive severe ravelling and few severe rippling
1146	Watch Hill Road, King City	Kingsworth Road	Kingscross Drive	HCB	2	8.2	6.6	0.8	676	0.64	GST	47	L	5		70.91	1	1	1.35	1	95.73	Rehab	4,224	\$74.00	\$312,576	No curbs, shoulders are 0.5m wide. Frequent severe pavement edge alligator crack. Frequent moderate centre line, longitudinal and transverse single multiple and alligator crackings
233	Concession Road 7	11 - King Road	15th Sideroad	G/S	2	8.5	6	1.25	322	2.11	GRA	45	C	2		63.86	1.1	1.35	1	1	94.82	Rehab	15,298	\$56.00	\$856,660	Severe paving deformation at the end of this section. Needs 2 culverts replaced (C000208 CSP Arch)
261	Keele Street	16 - Lloydtown/Aurora Road	Kettleby Road	HCB	2	8.5	6.7	0.9	1755	1.23	GST	65	C	5	2	93.71	1	1	1	1	93.71	Monitor & Maintain	9,348	\$20.00	\$186,960	No curbs. Shoulders are 1m wide.Frequent moderate longitudinal, centre line, pavement edge, transverse cracking with intermittent distortion and pavement edge cracking
2082	McCutcheon Avenue, Nobleton	Sheardown Drive	0.17 km North of Sheardown Drive	HCB	2	8.5	8.5	0	863	0.17	-	35	L	2		93.05	1	1	1	1	93.05	Recon	1,445	\$80.00	\$115,600	Curbed. frequent severe transverse, longitudinal, multiple and alligator cracking
227	Elmpine Trail	Mill Road	West End	G/S	2	5	4	0.5	153	0.48	GRA	55	L	2	2	84.44	1.1	1	1	1	92.89	Monitor & Maintain	1,920	\$74.70	\$143,424	Some severe washboard at the end cul de sac, geometric problems
225	Mill Road	Elmpine Trail	11 - King Road	G/S	2	7.3	6	0.65	500	1.28	GRA	50	C	2		62.50	1.1	1.35	1	1	92.81	Rehab	8,512	\$56.00	\$476,672	Moderate breakup at the edges residents don't want paved
113	19th Sideroad	Dufferin Street	Keele Street	G/S	2	7.3	6.3	0.5	764	2.14	GRA	40	C	1/6		82.92	1.1	1	1	1	91.21	Recon	14,552	\$56.00	\$814,912	The road is paved from to the koffler scientific reserve to Dufferin st, with severe longitudinal and transverse cracks, moderate alligators and rippling.
331	Wilhelmina Road	Dufferin Street	West End	G/S	2	6.1	5.1	0.5	223	0.86	GRA	45	C	6		61.13	1.1	1.35	1	1	90.78	Rehab	4,816	\$50.00	\$240,800	Right side slope is lower than left side . Extensive loose gravel with intermittent washboard and frequent moderate flat/ reverse crown
306	Aileen Avenue	Edward Avenue	Strawberry Lane	HCB	2	7.9	6.7	0.6	518	0.70	GST	28	C	6		90.65	1	1	1	1	90.65	Recon	5,110	\$99.00	\$505,890	extensive severe longitudinal, centre line, transverse, pavement edge multiple and alligator cracking with few slight distortion
1144	Kingscross Drive, King City	Watch Hill Road	Westgate Blvd	HCB	2	11	8	1.5	681	0.83	GST	50	L	5		67.03	1	1	1.35	1	90.48	Rehab	6,640	\$40.00	\$265,600	No curbs, shoulders are 1m wide . frequent severe transverse multiple and alligator cracking, frequent moderate distortion. Culvert C000329 requires replacement
217	Concession Road 8	17th Sideroad	18th Sideroad	LCB	2	8.5	6.7	0.9	128	2.05	GST	73	L	3	4	71.93	1	1	1	1.25	89.91	Monitor & Maintain	13,735	\$99.00	\$1,359,765	Shoulders are 1m wide. Extensive slight pavement edge break with frequent slight longitudinal cracking
239	Concession Road 7	18th Sideroad	South End	G/S	2	9.1	6	1.55	191	2.11	GRA	45	L	3		60.25	1.1	1	1.35	1	89.47	Rehab	12,660	\$40.00	\$506,400	18th side rd to 15685 concession rd is recently paved. The rest is gravel . Some distortion on the edges
337	Dufferin Street	Graham Sideroad	North End	G/S	2	6.7	5.7	0.5	14	0.52	GRA	55	L	6	2	81.32	1.1	1	1	1	89.45	Monitor & Maintain	2,964	\$56.00	\$165,984	The road has some potholes
9	15th Sideroad	56 - Weston Road	West of Highway 400	G/S	2	6.1	5.1	0.5	164	0.91	GRA	45	C	2/3		59.51	1.1									

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Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m2)	Cost/m2	Pavement Paving, Rehab, or Recon Cost	Comments
139	19th Sideroad	Concession Road 11	Concession Road 12	G/S	2	7.3	6	0.65	355	2.08	GRA	50	C	3		58.88	1.1	1.35	1	1	87.43	Rehab	13,832	\$50.00	\$691,600	Some moderate breakup on edges. Extensive moderate loose gravel, intermittent moderate breakup and slight washboard and rutting
247	Old Church Road, Laskay	Weston Road	South End	LCB	2	5.5	4.5	0.5	26	0.19	G/S	31	L	2		69.90	1	1	1	1.25	87.37	Recon	855	\$72.00	\$61,560	Extensive moderate ravelling and aggregate loss with frequent moderate pavement edge cracking
2076	Hazelbury Drive, Nobleton	Wilson Road	Sheardown Drive	HCB	2	8.5	8.5	0	381	0.28	-	46	L	2		64.29	1	1	1.35	1	86.79	Rehab	2,380	\$40.00	\$95,200	Curbed. Speed hump in this road . frequent severe longitudinal, centre line, pavement edge and transverse cracking
151	Caledon/King Townline North	19th Sideroad	Hwy. 9	G/S	2	8.5	7.7	0.4	1492	2.03	GRA	55	C	3		78.57	1.1	1	1	1	86.43	Monitor & Maintain	16,443	\$50.00	\$822,150	Moderate break up on the edges. Extensive moderate loose gravel and breakup, intermittent washboard and rutting
7	Concession Road 7	16th Sideroad	North End	G/S	2	6.1	5.1	0.5	111	1.05	GRA	45	L	3		58.05	1.1	1	1.35	1	86.21	Rehab	5,355	\$50.00	\$267,750	extensive severe loose gravel with intermittent slight rutting and breakup. Poor Vertical Grades
321	Dufferin Street	0.7 km North of Miller's Sideroad	King Street	HCB	2	10.2	6.9	1.65	1618	0.92	GST	75	C	6	4	85.23	1	1	1	1	85.23	Monitor & Maintain	7,866	\$20.00	\$157,320	Shoulders are 1m wide. Frequent moderate centre line cracking with intermittent moderate pavement edge and transverse cracking. Needs Top Coat Asphalt. Quick Win. Bridge replacement required 000012 ~1 million
265	Keele Street	19th Sideroad	31 - Regional Road 31	HCB	2	8.5	6.7	0.9	1697	2.05	GST	68	C	6	2	84.75	1	1	1	1	84.75	Monitor & Maintain	15,580	\$20.00	\$311,600	No curbs. Shoulders are 1m wide. Frequent severe transverse multiple and alligator cracking with moderate pavement edge and longitudinal cracking
3054	Main Street, Schomberg	Church Street	Dr. Kay Drive	HCB	2	10	10	0	3453	0.48	-	69	L	4		84.52	1	1	1	1	84.52	Monitor & Maintain	4,800	\$20.00	\$96,000	Curbed. frequent severe transverse cracking with intermittent pavement edge, centre line, severe longitudinal cracking. Bridge replacement 000022 ~650k
327	Bernhardt Road	Dufferin Street	West End	G/S	2	6.7	5.7	0.5	272	1.40	GST	50	C	6		56.80	1.1	1.35	1	1	84.35	Rehab	8,680	\$56.00	\$486,080	The paved section has potholes, longitudinal and transverse cracks, alligators
73	17th Sideroad	Concession Road 11	Concession Road 12	HCB	2	8.5	8.7	0	2421	2.09	GST	62	C	3		84.00	1	1	1	1	84.00	Monitor & Maintain	18,183	\$20.00	\$363,660	Shoulders are 1m wide. Road has frequent severe longitudinal centre line cracking, severe multiple pavement edge and transverse cracking and few rippling
19	15th Sideroad	Concession Road 11	West End	G/S	2	6.1	5.1	0.5	28	0.81	GRA	45	C	3		55.77	1.1	1.35	1	1	82.82	Rehab	4,536	\$56.00	\$254,016	road has extensive moderate loose gravel and some slight breakups, washboard, rutting and reverse crown. Culvert recon needed.
45	Burrows Road	56 - Weston Road (North Intersection)	56 - Weston Road (South Intersection)	G/S	2	4.3	3.3	0.5	7	0.51	GRA	45	L	3		55.19	1.1	1	1.35	1	81.96	Rehab	1,683	\$41.00	\$69,003	No curbs. Frequent moderate loose gravel with intermittent slight breakups, washboard, rutting and frequent moderate excessive shoulders height
21	16th Sideroad	38 - Bathurst Street	West End	LCB	2	6	5	0.5	22	0.59	GST	54	C	1	1	64.91	1	1	1	1.25	81.13	Monitor & Maintain	3,245	\$40.00	\$129,800	Shoulders are 0.5m wide, road has frequent severe transverse and pavement edge break cracking, frequent moderate ravelling and aggregate loss, frequent moderate streaking and some moderate rippling
287	Wist Road	South Canal Bank Road	Woodchopper's Lane	LCB	2	8	6.5	0.75	253	0.89	GST	43	L	6		64.21	1	1	1	1.25	80.26	Rehab	5,785	\$74.00	\$428,090	No curbs, shoulders are 1m wide. Several potholes were Manuel patched
141	19th Sideroad	Concession Road 12	Caledon/King Townline	G/S	2	7.3	7.3	0	131	1.51	GRA	50	C	3		53.28	1.1	1.35	1	1	79.11	Rehab	11,023	\$56.00	\$617,288	Some moderate breakup on edges. Extensive moderate loose gravel, intermittent moderate breakup and slight washboard and rutting
69	17th Sideroad	27 - Regional Road 27	Concession Road 10	HCB	2	8.5	6.7	0.9	2648	2.05	GST	66	C	3		79.02	1	1	1	1	79.02	Monitor & Maintain	15,580	\$50.00	\$779,000	Shoulders are 1m wide. Road has frequent severe longitudinal wheel track, multiple pavement edge and transverse cracking. Intermittent moderate transverse alligator
1136	Manitou Drive, King City	Kingscross Drive	0.45 km South of Kingscross Drive	HCB	2	9.7	6.7	1.5	167	0.45	GRA	46	L	5		58.51	1	1	1.35	1	78.99	Rehab	3,015	\$40.00	\$120,600	No curbs, shoulders are 0.5m wide. frequent severe pavement edge, centre line and longitudinal cracking with intermittent severe wheel track rutting and rippling
67	17th Sideroad	Concession Road 8	27 - Regional Road 27	G/S	2	6.7	5.7	0.5	333	2.04	GRA	39	C	3		71.16	1.1	1	1	1	78.27	Recon	12,648	\$56.00	\$708,288	Some parts of this road are steep. Some slight distortion on the edges. Road has frequent moderate loose gravel with some intermittent slight washboard, distortion and reverse crown
197	Keewaydin Drive	15th Sideroad	North End Turnaround	HCB	2	8.5	6.7	0.9	200	0.45	GRA	48	L	3		57.20	1	1	1.35	1	77.22	Rehab	3,015	\$40.00	\$120,600	No curbs shoulders are 0.5m wide. Frequent severe longitudinal, centre line, transverse cracking with few slight distortion
205	Earlwood Crescent, Nobleton Lakes	Nobleton Lakes Drive	South End Cul-de-Sac	HCB	2	8.5	8.5	0	115	0.18	-	27	L	3		77.20	1	1	1	1	77.20	Recon	1,530	\$96.00	\$146,880	Curbed. Extended severe longitudinal and center line cracking with severe alligator cracking, frequent moderate pavement edge cracking
207	Trainor Court, Nobleton Lakes	16th Sideroad	South End Cul-de-Sac	HCB	2	8.5	8.5	0	228	0.33	-	49	L	3		56.81	1	1	1.35	1	76.70	Rehab	2,805	\$40.00	\$112,200	Curbed. extended severe centre line, longitudinal and pavement edge cracking with few distortion
294	Jane Street	South Canal Bank Road	Woodchopper's Lane	HCB	2	9.2	6.8	1.2	870	0.65	GST	71	L	6	3	76.42	1	1	1	1	76.42	Monitor & Maintain	4,420	\$15.00	n/a	Shoulders are 1m wide. No curbs. Frequent severe pavement edge and transverse multiple cracking with moderate centre line and longitudinal cracking, structural issues, recon
1147	Westgate Blvd, King City	Kingscross Drive	55 - Jane Street	HCB	2	8.2	6	1.1	219	0.32	GST	49	L	5		56.58	1	1	1.35	1	76.39	Rehab	1,920	\$40.00	\$76,800	No curbs, shoulders are 0.5m wide. Frequent severe longitudinal, centre line, transverse cracking, with alligator cracking
3052	Main Street, Schomberg	27 - Regional Road 27	Church Street	HCB	2	10	10	0	3414	0.68	-	72	L	4		75.80	1	1	1	1	75.80	Monitor & Maintain	6,800	\$15.00	n/a	Curbed. frequent severe centre line and transverse cracking with intermittent transverse alligator cracking. Bridge replacement 000021 ~600k
248	Laskay Mills Drive, Laskay	56 - Weston Road	East End Cul-de-Sac	HCB	2	8.5	8.5	0	243	0.17	-	50	L	2		56.08	1	1	1.35	1	75.70	Rehab	1,445	\$40.00	\$57,800	Curbed. Extensive severe pavement edge and transverse cracking with frequent moderate alligator cracking
1156	Station Road, King City	0.2 km West of 6 - Keel Street	Burns Boulevard	HCB	2	9.8	9.8	0	1291	0.22	-	54	C	5		75.69	1	1	1	1	75.69	Monitor & Maintain	2,156	\$40.00	\$86,240	Curbed. Frequent severe longitudinal, transverse and centre line cracking with intermittent moderate alligator and distortion
231	Concession Road 7	11 - King Road	South End	G/S	2	6.7	5.7	0.5	28	0.78	GRA	50	L	2		50.70	1.1	1	1.35	1	75.29	Rehab	4,446	\$41.00	\$182,286	Some slight breakups on edges
131	Simcoe Road, Carrying Place	Brule Trail	North End Turnaround	HCB	2	9.7	6.7	1.5	100	0.35	GRA	47	L	4		55.65	1	1	1.35	1	75.13	Rehab	2,345	\$40.00	\$93,800	No curbs, shoulders are 0.5m wide. Frequent severe multiple longitudinal, pavement edge, transverse cracking, alligator cracking
3034	Rebellion Way, Lloydtown	Queen Street	North End	HCB	2	5.5	4.5	0.5	22	0.10	GRA	45	L	4		55.61	1	1	1.35	1	75.07	Rehab	450	\$40.00	\$18,000</	

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201	Loch Erne Lane, Nobleton Lakes	Nobleton Lakes Drive	North End Cul-de-Sac	HCB	2	8.5	8.5	0	319	0.48	-	38	L	3		71.89	1	1	1	1	71.89	Recon	4,080	\$96.00	\$391,680	Curbed. Extended severe multiple longitudinal, centre line, transverse and alligator cracking with few moderate distortion
4018	Bachly Crescent, Pottageville	Concession Road 7	Concession Road 7	HCB	2	8	6	1	126	0.47	GST	50	L	4		53.15	1	1	1.35	1	71.75	Rehab	2,820	\$40.00	\$112,800	No curbs, shoulders are 1m wide, some potholes are Manuel patches on this section
195	Hilda Road	Diana Drive	North End Turnaround	HCB	2	8.5	6.7	0.9	72	0.27	GRA	31	L	2		71.48	1	1	1	1	71.48	Recon	1,809	\$74.00	\$133,866	No curbs. Shoulders are 1m wide. Extended severe multiple longitudinal, pavement edge, transverse cracking, few moderate distortion and alligator cracking
179	Concession Road 10	Vaughan/King Boundary	11 - King Road	HCB	2	8	6.7	0.65	690	1.58	GST	72	L	2/3	3	71.26	1	1	1	1	71.26	Monitor & Maintain	10,586	n/a	n/a	The road is generally ok except from ranch trail rd to king Vaughan rd. Shoulders are 0.5m wide partially treated
79	Spruce Hill Road	King Hills Lane	East End	G/S	2	8	6	1	72	0.63	GRA	55	L	5	1	64.62	1.1	1	1	1	71.08	Monitor & Maintain	3,780	\$41.00	\$154,980	road has extensive moderate loose gravel with some intermittent slight washboard and rutting. Do not want paved. HOLD OFF
65	17th Sideroad	Concession Road 8	East End	G/S	2	6.1	5.1	0.5	148	0.40	GRA	40	C	3		64.44	1.1	1	1	1	70.88	Recon	2,240	\$50.00	\$112,000	Severe distortion on the right side edge. road has extensive moderate loose gravel with some intermittent slight washboard, distortion and breakup
171	Concession Road 11	17th Sideroad	16th Sideroad	LCB	2	8.5	6.7	0.9	375	2.09	G/S	54	C	3		54.63	1	1	1	1.25	68.28	Monitor & Maintain	15,884	\$16.00	\$254,144	Extensive moderate flushing with frequent moderate pavement edge cracking, longitudinal and wheel track rutting
137	19th Sideroad	Concession Road 10	Concession Road 11	HCB	2	8	6	1	219	2.05	GST	75	L	3	4	67.74	1	1	1	1	67.74	Monitor & Maintain	12,300	\$20.00	\$246,000	No curbs. Shoulders are 1m wide. Few severe longitudinal and transverse cracking, few severe alligator cracking . Quick Win multiplier.
4020	Edward Pottage Crescent, Pottageville	16 - Lloydtown/Aurora Road (East Intersection)	Lloydtown/Aurora Road (West Intersection)	HCB	2	8.5	8.5	0	215	0.68		39	L	4		67.56	1	1	1	1	67.56	Recon	5,780	\$96.00	\$554,880	Curbed. extensive severe longitudinal and transverse cracking with frequent severe centre line and pavement edge cracking
307	Strawberry Lane	Alleen Avenue	Keele Street	HCB	2	7.9	6.7	0.6	366	1.74	GST	43	C	6		67.43	1	1	1	1	67.43	Recon	12,702	\$94.00	\$1,193,988	No curbs, shoulders are 0.5m wide. Some potholes at 255 strawberry ln
63	17th Sideroad	56 - Weston Road	West End	G/S	2	5.5	4.5	0.5	28	1.84	GRA	40	C	3		60.84	1.1	1	1	1	66.92	Recon	9,200	\$50.00	\$460,000	road has extensive moderate loose gravel with some intermittent slight washboard, distortion and breakup
215	Concession Road 8	16th Sideroad	17th Sideroad	LCB	2	8.5	6.7	0.9	101	2.04	GRA	80	L	3	4	53.01	1	1	1	1.25	66.26	Monitor & Maintain	13,668	n/a	n/a	Shoulders are 1m wide. Frequent slight longitudinal cracking
1138	Manitou Drive, King City	0.45 km South of Kingscross Drive	South End Turnaround	HCB	2	9.7	6.7	1.5	167	0.28	GRA	39	L	5		66.09	1	1	1	1	66.09	Recon	1,876	\$74.70	\$140,137	No curbs, shoulders are 0.5m wide. frequent severe longitudinal, centre line, single, multiple and alligator cracking with frequent severe pavement edge cracking
1122	Kingscross Drive, King City	6 - Keele Street	Manitou Drive	HCB	2	9.7	6.7	1.5	1303	1.62	GST	60	L	5		66.06	1	1	1	1	66.06	Monitor & Maintain	10,854	\$20.00	\$217,080	Severe surface deformation at 81, 131,141, 181 kings cross. No curbs on this section. Shoulders are 0.5m wide
1145	Kingsworth Road, King City	Westgate Blvd	Watch Hill Road	HCB	2	8.2	6.6	0.8	236	1.01	GST	41	L	5		65.96	1	1	1	1	65.96	Rehab	6,666	\$74.00	\$493,284	Severe deformation and pothole at 75 kings worth rd. No curbs, shoulders are 0.5m wide
2084	Robb Drive, Nobleton	0.15 km North of McCutcheon Avenue	McCutcheon Avenue	HCB	2	8.5	8.5	0	215	0.15	-	41	L	2		65.34	1	1	1	1	65.34	Rehab	1,275	\$74.00	\$94,350	Curbed. frequent severe transverse cracking with intermittent severe longitudinal multiple and alligator cracking
213	Concession Road 8	15th Sideroad	16th Sideroad	LCB	2	8.5	6.5	1	892	2.05	GRA	83	C	2	4	51.78	1	1	1	1.25	64.73	Monitor & Maintain	15,375	n/a	n/a	Shoulders are 1m wide . Intermittent moderate rippling and pavement edge break with slight distortion
175	Concession Road 11	1.5 km North of 17th Sideroad	19th Sideroad	HCB	2	9	6.5	1.25	938	2.59	GST	56	C	3		64.64	1	1	1	1	64.64	Monitor & Maintain	20,073	\$40.00	\$802,900	Extended severe centre line alligator cracking with frequent moderate longitudinal, pavement edge and transverse cracking
297	Woodchopper's Lane	Jane Street	1.1 km East of Jane Street	HCB	2	8.4	6.9	0.8	919	1.10	GST	79	C	6	4	64.25	1	1	1	1	64.25	Monitor & Maintain	8,415	\$20.00	\$168,300	No curbs, shoulders are 1m wide. frequent moderate longitudinal and pavement edge cracking with few alligators. Requires top-coat asphalt
1124	McKellar Lane, King City	Kingscross Drive	North End Turnaround	HCB	2	9.7	6.7	1.5	36	0.14	GRA	37	L	5		64.13	1	1	1	1	64.13	Recon	938	\$74.00	\$69,412	No curbs, shoulders are 0.5m wide . frequent severe centre line, longitudinal cracking, pavement edge, transverse multiple and alligator cracking with intermittent moderate distortion
2078	Cain Court, Nobleton	Hazelbury Drive	West End Cul-de-Sac	HCB	2	8.5	8.5	0	143	0.21	-	41	L	2		63.22	1	1	1	1	63.22	Rehab	1,785	\$80.00	\$142,800	Curbed. frequent severe transverse cracking with rippling and shoving. intermittent severe longitudinal, pavement edge and transverse cracking
295	Woodchopper's Lane	Wist Road	Jane Street (East Intersection - South Branch)	HCB	2	7.7	6.7	0.5	288	1.21	GST	77	C	6	4	63.11	1	1	1	1	63.11	Monitor & Maintain	8,712	\$20.00	\$174,240	Shoulders are 1m wide. Frequent moderate longitudinal and centre line cracking. Requires top-coat asphalt
30	16th Sideroad	0.62 km West of 55 - Jane Street	56 - Weston Road	HCB	2	9.7	6.7	1.5	1011	1.36	GST	67	L	3	1	62.88	1	1	1	1	62.88	Monitor & Maintain	9,112	\$20.00	\$182,240	Road is closed under Highway 400. No curbs, shoulders are 1m wide, section has mostly frequent moderate multiple centre line cracking, multiple and alligator pavement edge and transverse cracking
223	Mill Road	Vaughan/King Boundary	Elmpine Trail	G/S	2	7.3	6	0.65	500	0.52	GRA	55	C	2		56.25	1.1	1	1	1	61.88	Monitor & Maintain	3,458	\$56.00	\$193,648	Frequent moderate loose gravel with intermittent slight washboard and rutting , residents don't want paved
1140	Manitou Drive, King City	Drive (Main Branch)	East End Cul-de-Sac	HCB	2	9.7	6.7	1.5	167	0.09	GST	43	L	5		61.76	1	1	1	1	61.76	Rehab	603	\$74.70	\$45,044	No curbs, shoulders are 0.5m wide . extensive severe longitudinal single, multiple and alligator cracking with frequent moderate centre line and pavement edge cracking
153	Concession Road 12	Caledon/King Townline South	16th Sideroad	G/S	2	7.3	6.3	0.5	456	0.85	GST	55	L	3		55.26	1.1	1	1	1	60.79	Monitor & Maintain	5,355	\$44.00	\$235,620	Extensive moderate loose gravel , intermittent washboard and rutting
1149	Snowberry Lane, King City	Kingscross Drive	South End Turnaround	HCB	2	9	7	1	58	0.07	GST	41	L	5		60.71	1	1	1	1	60.71	Rehab	490	\$74.70	\$36,603	No curbs, shoulders are 0.3m wide. frequent severe pavement edge and transverse cracking with frequent moderate longitudinal and centreline cracking
2026	Greenside Drive, Nobleton	11 - King Road	0.46 km North of 11 - King Road	HCB	2	9.8	9.8	0	1912	0.46	-	69	L	2		60.64	1	1	1	1	60.64	Monitor & Maintain	4,508	n/a	n/a	Curbed. Speed humps on road . extensive severe centre line with frequent severe transverse cracking with frequent moderate longitudinal cracking

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APPENDIX D: MASTER SUMMARY TABLE

Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
75	17th Sideroad	Concession Road 12	Caledon/King Townline South	HCB	2	8.7	6.5	1.1	109	0.69	GST	43	C	3	60.11	1	1	1	1	60.11	Recon	5,244	\$94.00	\$492,936	shoulders are 1m wide. Road has frequent severe longitudinal wheel track and centre line cracking, severe multiple pavement edge and transverse cracking, frequent severe alligator cracking and few rippling	
2093	MacTaggart Drive, Nobleton	0.35 km North of Sheardown Drive	27 - Regional Road 27	HCB	3	10	10	0	481	0.99	-	52	L	2	59.54	1	1	1	1	59.54	Monitor & Maintain	9,900	\$40.00	\$396,000	Curbed. frequent severe transverse and centre line cracking with frequent moderate longitudinal, pavement edge cracking	
279	2nd Concession Road	Holancin Road	Davis Road	G/S	2	7.5	6	0.75	372	0.85	GRA	55	C	6	53.37	1.1	1	1	1	58.71	Monitor & Maintain	5,738	\$40.00	\$229,500	Frequent loose gravel with intermittent slight washboard and rutting	
109	Lorne Avenue, Kettleby	Kettleby Road	North End	LCB	1	5	4	0.5	83	0.22	GST	55	L	5	46.87	1	1	1	1.25	58.58	Monitor & Maintain	880	\$40.00	\$35,200	No curbs, shoulders are 0.3m wide. road has frequent moderate distortion, transverse, pavement edge break and alligator cracking	
3010	Roselena Drive, Schomberg	Moore Park Drive	0.28 km West of Moore Park Drive	HCB	2	8.5	8.5	0	1441	0.28	-	66	L	4	58.50	1	1	1	1	58.50	Monitor & Maintain	2,380	\$20.00	\$47,600	Curbed. frequent severe transverse, centre line, longitudinal cracking	
3048	Western Avenue, Schomberg	Elmwood Avenue	Main Street	HCB	2	8.5	8.5	0	842	1.06	-	59	L	4	58.26	1	1	1	1	58.26	Monitor & Maintain	9,010	\$40.00	\$360,400	Curbed. frequent severe longitudinal, centre line, pavement edge and transverse cracking with alligator cracking	
161	Concession Road 12	18th Sideroad	19th Sideroad	G/S	2	8.3	7.5	0.4	339	2.03	GRA	55	L	3	52.63	1.1	1	1	1	57.89	Monitor & Maintain	15,225	\$40.00	\$609,000	Moderate break up on the edges. Extensive moderate loose gravel and breakup, intermittent washboard and rutting	
339	Graham Sideroad	Dufferin Street	Pumphouse Road	HCB	2	9.1	6.7	1.2	1344	0.47	GRA	67	L	6	55.18	1	1	1	1	55.18	Monitor & Maintain	3,149	\$20.00	\$62,980	No curbs, shoulder are 0.5m wide . Extensive severe multiple longitudinal, centre line, pavement edge and transverse cracking with frequent moderate alligator	
341	Graham Sideroad	Pumphouse Road	Bathurst Street	HCB	2	8.6	7.2	0.7	1344	1.57	GRA	67	L	6	55.18	1	1	1	1	55.18	Monitor & Maintain	11,304	\$20.00	\$226,080	No curbs, shoulders are 1m wide . Frequent moderate center line, transverse multiple and alligator cracking with intermittent severe longitudinal and pavement edge cracking. Includes Bridge rehab 000019 ~200k	
59	17th Sideroad	55 - Jane Street	West of Highway 400	G/S	2	5.5	4.5	0.5	229	0.92	GST	55	C	5	50.15	1.1	1	1	1	55.17	Monitor & Maintain	4,600	\$50.00	\$230,000	road has extensive moderate loose gravel with some intermittent slight washboard and rutting	
333	Juliana Road	Dufferin Street	West End	G/S	2	6.1	5.2	0.45	223	1.09	GRA	55	C	6	50.02	1.1	1	1	1	55.02	Monitor & Maintain	6,159	\$50.00	\$307,925	extensive loose gravel with intermittent washboard, rutting and flat/ reverse crown	
335	Graham Sideroad	Dufferin Street	West End	G/S	2	6.1	5.1	0.5	223	0.38	ETH	55	L	6	50.02	1.1	1	1	1	55.02	Monitor & Maintain	1,938	\$50.00	\$96,900	extensive loose gravel with intermittent washboard, rutting and flat/ reverse crown	
329	Emma Road	Dufferin Street	West End	G/S	2	6.1	5.1	0.5	223	0.98	GRA	55	C	6	50.02	1.1	1	1	1	55.02	Monitor & Maintain	5,488	\$50.00	\$274,400	extensive loose gravel with intermittent washboard and rutting	
320	Dufferin Street	Miller's Sideroad	0.7 km North of Miller's Sideroad	HCB	2	8.8	7	0.9	1618	0.70	GST	84	C	6	4	54.54	1	1	1	1	54.54	Monitor & Maintain	5,530	\$20.00	\$110,600	frequent moderate longitudinal, transverse and pavement edge cracking with few slight alligator cracking. Needs topcoat asphalt. Quick Win
155	Concession Road 12	16th Sideroad	17th Sideroad	G/S	2	7.3	6	0.65	339	2.03	GST	58	L	3	49.12	1.1	1	1	1	54.03	Monitor & Maintain	12,180	\$20.00	\$243,600	Some moderate break ups on the edges Extensive moderate loose gravel and intermittent moderate washboard	
121	19th Sideroad	56 - Weston Road	0.1 km West of 56 - Weston Road	LCB	2	6	5	0.5	215	0.10	GRA	61	C	4	43.19	1	1	1	1.25	53.99	Monitor & Maintain	550	\$40.00	\$22,000	No curbs, shoulders are 0.5m wide. Frequent moderate pavement edge break with longitudinal, transverse cracking	
2083	McCutcheon Avenue, Nobleton	0.17 km North of Sheardown Drive	MacTaggart Drive	HCB	2	8.5	8.5	0	1808	0.31	-	72	L	2	53.31	1	1	1	1	53.31	Monitor & Maintain	2,635	n/a	n/a	Curbed. frequent severe transverse, longitudinal, multiple and alligator cracking	
163	Concession Road 12	19th Sideroad	Hwy. 9	G/S	2	9	9	0	153	2.05	GRA	55	L	3	48.44	1.1	1	1	1	53.29	Monitor & Maintain	18,450	\$20.00	\$369,000	Some moderate edge breakups close to 16960 19th sideroad	
105	Kettleby Road, Kettleby	55 - Jane Street	Lorne Avenue	HCB	2	9.4	6.5	1.45	1049	1.39	GST	83	C	5	4	53.12	1	1	1	1	53.12	Monitor & Maintain	11,051	n/a	n/a	No curbs, shoulders are 1m wide. Road has few slight to moderate single and multiple pavement edge and transverse cracking
2027	Greenside Drive, Nobleton	0.46 km North of 11 - King Road	Hill Farm Road	HCB	2	9.8	9.8	0	1912	0.16	-	73	C	2	52.81	1	1	1	1	52.81	Monitor & Maintain	1,568	n/a	n/a	Curbed. extensive severe centre line cracking with intermittent severe transverse cracking and moderate pavement edge cracking	
41	Cavell Avenue	6 - Keele Street	West End	LCB	2	8	6.5	0.75	411	0.71	GST	65	L	5	42.19	1	1	1	1.25	52.74	Monitor & Maintain	4,615	\$20.00	\$92,300	Several potholes close to 263 cavell ave, extensive moderate pavement edge break with intermittent severe distortion and slight roping. No curbs, shoulders are 0.3m wide	
277	Holancin Road	Hwy. 9	2nd Concession Road	LCB	2	8	6.7	0.65	163	1.48	GST	61	C	6	42.18	1	1	1	1.25	52.72	Monitor & Maintain	10,878	\$40.00	\$435,120	Some potholes around the greenhouses	
1034	Warren Road, King City	11 - King Road	Patricia Drive	HCB	2	8.5	8.5	0	2210	0.74	-	75	L	1	52.63	1	1	1	1	52.63	Monitor & Maintain	6,290	n/a	n/a	2 utility cross cuts and speed control bumps/ Some settlement/depression and moderate to severe cracking radiating from manholes	
157	Concession Road 12	17th Sideroad	18th Sideroad	G/S	2	8.2	7.2	0.5	112	2.28	GRA	55	L	3	47.52	1.1	1	1	1	52.27	Monitor & Maintain	16,416	\$20.00	\$328,320	Moderate break up on the edges. Extensive moderate loose gravel and breakup, intermittent washboard and rutting	
305	Edward Avenue	Jane Street	Strawberry Lane	HCB	2	8.7	6.3	1.2	656	0.81	GST	61	C	6	51.79	1	1	1	1	51.79	Monitor & Maintain	6,075	\$40.00	\$243,000	Shoulders are 1m wide . Frequent moderate longitudinal and alligator cracking with severe pavement edge cracking and few moderate distortion	
115	19th Sideroad	Keele Street	West End - 0.3 km West of Keele Street	LCB	2	6.1	5.1	0.5	15	0.30	GRA	59	L	5	41.31	1	1	1	1.25	51.63	Monitor & Maintain	1,530	\$74.00	\$113,220	road has frequent moderate rippling, wheel track rutting and intermittent distortion	
77	King Hills Lane	55 - Jane Street	Spruce Hill Road	G/S	2	6.1	5.1	0.5	86	0.30	GRA	55	L	5	46.94	1.1	1	1	1	51.63	Monitor & Maintain	1,530	\$40.00	\$61,200	road has extensive moderate loose gravel with some intermittent slight washboard and rutting	
29	16th Sideroad	55 - Jane Street	0.62 km West of 55 - Jane Street	HCB	2	8	6.4	0.8	1011	0.62	GST	73	L	5	51.45	1	1	1	1	51.45	Monitor & Maintain	3,968	n/a	n/a	No curbs. Shoulders are 0.5m wide, road has mostly frequent moderate transverse cracking, frequent slight pavement edge multiple and alligator cracking and few slight rippling	
2028	Noblewood Drive, Nobleton	Greenside Drive (North Intersection)	Greenside Drive (South Intersection)	HCB	2	9	6.4	1.3	1547	0.58	-	71	C	2	51.43	1	1	1	1	51.43	Monitor & Maintain	4,466	\$20.00	\$89,320	No curbs. Shoulders are 1m wide . frequent severe longitudinal, centre line, transverse cracking with moderate pavement edge cracking No curbs. Shoulders are 1m wide	
317	Glenville Road	31 - Davis Drive West	Dufferin Street	G/S	2	6.7	5.7	0.5	75	0.90	GST	55	L	6	46.69	1.1	1</td									

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Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
303	Edward Avenue	Jane Street	West End	G/S	2	7.9	6	0.95	50	0.61	GST	55	C	6		46.13	1.1	1	1	1	50.74	Monitor & Maintain	4,240	\$41.00	\$173,820	Frequent loose gravel with intermittent slight potholes, washboard
2116	Russell Snider Drive, Nobleton	Witherspoon Way	North End Cul-de-Sac	HCB	2	8.5	8.5	0	199	0.12	-	54	L	2		50.58	1	1	1	1	50.58	Monitor & Maintain	1,020	\$40.00	\$40,800	Curbed. More cracks in the cul de sac. frequent severe transverse alligator cracking with pavement edge and longitudinal cracking
1152	Blueberry Lane, King City	Kingsworth Road	North End Turnaround	HCB	2	9	7.3	0.85	100	0.14	GRA	52	L	5		50.40	1	1	1	1	50.40	Monitor & Maintain	1,022	\$40.00	\$40,880	No curbs, shoulders are 1m wide. Frequent moderate pavement edge and transverse cracking
117	19th Sideroad	55 - Jane Street	East of Highway 400	G/S	2	7.3	6	0.65	28	1.07	GRA	55	L	5/6		45.63	1.1	1	1	1	50.19	Monitor & Maintain	6,420	\$41.00	\$263,220	road has frequent moderate loose gravel with some intermittent slight washboard and rutting and washboard
2090	Dobson Court, Nobleton	Sheardown Drive	North End Cul-de-Sac	HCB	2	8.5	8.5	0	86	0.13	-	52	L	2		50.06	1	1	1	1	50.06	Monitor & Maintain	1,105	\$40.00	\$44,200	Curbed. frequent severe centre line, longitudinal cracking with intermittent moderate centre line and severe transverse cracking
173	Concession Road 11	17th Sideroad	1.5 km North of 17th Sideroad	HCB	2	9.1	6.7	1.2	1226	1.50	GST	69	C	3		50.00	1	1	1	1	50.00	Monitor & Maintain	11,850	\$20.00	\$237,000	Shoulders are 1m wide. Frequent moderate longitudinal, centre line and transverse cracking with some slight alligator cracking
7	15th Sideroad	55 - Jane Street	East of Highway 400	G/S	2	9.1	6	1.55	15	0.92	GRA	55	L	5		45.34	1.1	1	1	1	49.87	Monitor & Maintain	5,520	\$41.00	\$226,320	Bumps at the end of section, road has mostly extended moderate loose gravel and dust, some slight breakdowns, washboard and rutting
1132	Chelsea Lane, King City	Chelsea Lane (North-south branch)	Northwest Turnaround	HCB	2	9.7	6.7	1.5	43	0.22	GST	52	L	5		49.03	1	1	1	1	49.03	Monitor & Maintain	1,474	\$40.00	\$58,960	No curbs, shoulders are 0.5m wide . extensive severe transverse cracking and moderate alligator cracking with extensive moderate pavement edge multiple and alligator cracking
299	Woodchopper's Lane	1.1 km East of Jane Street	Keele Street	HCB	2	9.1	5.8	1.65	919	1.37	GRA	84	C	6	4	48.95	1	1	1	1	48.95	Monitor & Maintain	10,207	\$20.00	\$204,130	No curbs, shoulders are 1m wide. Few slight pavement edge and transverse cracking. Requires - top-coat asphalt
252	Rolling Court, Laskay	Laskay Mills Drive	South End Cul-de-Sac	HCB	2	8.5	8.5	0	171	0.21	-	55	L	2		48.85	1	1	1	1	48.85	Monitor & Maintain	1,785	\$40.00	\$71,400	Curbed. Frequent moderate centre line, pavement, transverse cracking with few slight distortion
130	Brule Trail, Carrying Place	Simcoe Road	West End Turnaround	HCB	2	9.7	6.7	1.5	123	0.67	GST	54	L	4		48.83	1	1	1	1	48.83	Monitor & Maintain	4,489	\$40.00	\$179,560	Important distortion near 168 Brule trail. No curbs, shoulders are 1m wide
1142	Kingscross Drive, King City	Manitou Drive	Watch Hill Road	HCB	2	9.7	6.7	1.5	681	0.30	GST	64	L	5		48.26	1	1	1	1	48.26	Monitor & Maintain	2,010	\$20.00	\$40,200	No curbs, shoulders are 1m wide. frequent moderate pavement edge, transverse and longitudinal cracking with intermittent slight distortion
53	King View Crescent, Snowball	17th Sideroad	East/West Turnaround	HCB	2	11	6.7	2.15	286	0.95	GST	58	L	1		48.01	1	1	1	1	48.01	Monitor & Maintain	6,365	\$40.00	\$254,600	No curbs shoulders are 1m wide. Frequent severe centre line, longitudinal and pavement edge multiple cracking. Intermittent moderate distortion, alligator cracking and rippling
1128	Keri Court, King City	Kingscross Drive	South End Turnaround	HCB	2	9.7	8.7	0.5	22	0.12	GRA	53	L	5		47.52	1	1	1	1	47.52	Monitor & Maintain	1,044	\$40.00	\$41,760	No curbs, shoulders are 0.5m wide . frequent severe longitudinal and transverse cracking with moderate centre line and pavement edge cracking
165	Concession Road 11	11 - King Road	South End	G/S	2	6.7	5.7	0.5	54	1.28	GRA	58	L	3		43.13	1.1	1	1	1	47.45	Monitor & Maintain	7,296	\$41.00	\$299,136	Moderate break up on the edges. Extensive moderate loose gravel and breakup, intermittent washboard and rutting
123	Hodgson Avenue, Carrying Place	19th Sideroad (East Intersection)	19th Sideroad (West Intersection)	HCB	2	9.8	6.7	1.55	300	0.98	GST	60	L	4		46.00	1	1	1	1	46.00	Monitor & Maintain	6,566	\$20.00	\$131,320	No curbs, shoulders are 1m wide. Frequent severe multiple longitudinal and pavement edge cracking with frequent moderate distortion and alligator
120	19th Sideroad	Hodgson Crescent (West Leg)	East End Turnaround	HCB	2	7.9	6.7	0.6	222	0.66	GST	59	C	4		45.55	1	1	1	1	45.55	Monitor & Maintain	4,818	\$40.00	\$192,720	No curbs, shoulders are 1m wide. Extended severe pavement edge and longitudinal wheel track cracking, with moderate transverse and center line cracking
177	Concession Road 11	19th Sideroad	Hwy. 9	HCB	2	10.1	8.7	0.7	412	2.05	GST	84	C	3	4	44.90	1	1	1	1	44.90	Monitor & Maintain	19,270	\$20.00	\$385,400	No curbs. Shoulders are 1m wide, some parts are partially paved. Few moderate transverse cracking. Required Topcoat. QUICK WIN
125	Williams Court, Carrying Place	Hodgson Crescent	East End Turnaround	HCB	2	9.7	6.7	1.5	86	0.12	GST	57	L	4		44.85	1	1	1	1	44.85	Monitor & Maintain	804	\$40.00	\$32,160	No curbs, shoulders are 1m wide. Frequent severe transverse cracking with frequent moderate longitudinal, centre line and pavement edge cracking
1130	Chelsea Lane, King City	Kingscross Drive	Northeast Turnaround	HCB	2	9.7	6.7	1.5	128	0.31	GST	58	L	5		44.69	1	1	1	1	44.69	Monitor & Maintain	2,077	\$40.00	\$83,080	No curbs, shoulders are 0.5m wide . frequent severe longitudinal, centre line and transverse cracking with frequent moderate pavement edge cracking
111	19th Sideroad	Newmarket Boundary	Dufferin Street	LCB	2	9.1	7.1	1	1192	1.98	GST	78	C	1/6		35.11	1	1	1	1	43.89	Monitor & Maintain	16,038	n/a	n/a	No curbs, shoulders are 0.3m wide, road has frequent moderate wheel track rutting, Intermittent slight distortion and alligator cracking
2000	Old King Road, Nobleton	27 - Regional Road 27	11 - King Road	HCB	2	9.6	6.8	1.4	436	0.18	GRA	64	L	2		43.85	1	1	1	1	43.85	Monitor & Maintain	1,224	\$20.00	\$24,480	No curbs. Shoulders are 1m wide . Frequent moderate longitudinal, centre line, pavement edge cracking
2034	Hill Farm Road, Nobleton	27 - Regional Road 27	Greenside Drive	HCB	2	8.5	8.5	0	1654	0.64	-	76	L	2		43.85	1	1	1	1	43.85	Monitor & Maintain	5,440	n/a	n/a	Curbed. Speed humps on rd. extensive severe centre line cracking with frequent severe transverse cracking
319	Dufferin Street	31 - Davis Drive West	Miller's Sideroad	HCB	2	8.5	6.5	1	1253	2.06	GRA	82	C	6	2	43.68	1	1	1	1	43.68	Monitor & Maintain	15,450	n/a	n/a	Gravelly dusty section from Davis rd to Dufferin st. No curbs shoulders are 1m wide
129	Brule Trail, Carrying Place	56 - Weston Road	Simcoe Road	HCB	2	9.7	6.7	1.5	123	0.65	GST	59	L	4		43.52	1	1	1	1	43.52	Monitor & Maintain	4,355	\$40.00	\$174,200	No curbs, shoulders are 0.5m wide. Frequent moderate pavement edge cracking, transverse and alligator cracking, few severe rippling
251	Old Forge Road, Laskay	56 - Weston Road	West End Cul-de-Sac	HCB	2	9.4	6.8	1.3	72	0.06	GRA	58	L	2		43.51	1	1	1	1	43.51	Monitor & Maintain	408	\$40.00	\$16,320	No curbs. Shoulders are 1m wide. intermittent severe alligator cracking with moderate centre line, pavement edge and transverse cracking
289	Wist Road	Woodchopper's Lane	Schomberg River	HCB	2	7.7	6.7	0.5	170	0.96	GRA	60	L	6		43.40	1	1	1	1	43.40	Monitor & Maintain	6,432	\$20.00	\$128,640	No curbs, shoulders are 1m wide. Extensive severe pavement edge, transverse and alligator cracking with intermittent moderate longitudinal, centre line cracking
2118	Woodhill Avenue, Nobleton	King Road	Farmerest Court	HCB	3	10.2	10.2	0	704	0.24	-	68	L	2		43.26	1	1	1	1	43.26	Monitor & Maintain	2,448	\$40.00	\$97,920	Curbed. intermittent moderate longitudinal, transverse cracking
42	Fog Road	Cavell Avenue	North End	LCB	2	6.5	5.5	0.5	147	0.52	GRA	68	L	5		34.35	1	1	1	1	42.94	Monitor & Maintain	2,860	n/a	n/a	Several potholes at 18, 95 fog

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Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
2035	Hill Farm Road, Nobleton	Greenside Drive	North End	HCB	2	8.5	8.5	0	1654	0.85	-	77	L	2		42.02	1	1	1	1	42.02	Monitor & Maintain	7,225	n/a	n/a	Curbed. Speed humps on road . frequent severe transverse cracking with moderate longitudinal cracking
2114	Witherspoon Way, Nobleton	Russell Snider Drive	West End Cul-de-Sac	HCB	2	8.5	8.5	0	72	0.14	-	60	L	2		41.44	1	1	1	1	41.44	Monitor & Maintain	1,190	\$20.00	\$23,800	Curbed. intermittent severe transverse cracking with moderate pavement edge cracking
2064	Chinook Drive, Nobleton	11 - King Road	Hawman Avenue	HCB	2	8.7	6.3	1.2	774	0.11	GST	71	L	2		40.22	1	1	1	1	40.22	Monitor & Maintain	693	n/a	n/a	shoulders are 0.5m wide . Extensive slight transverse cracking with intermittent pavement edge and longitudinal cracking
256	Prince Adam Court, Laskay	North End Cul-de-Sac	South End Cul-de-Sac	HCB	2	9.5	7.5	1	171	0.22	GRA	63	L	2		40.16	1	1	1	1	40.16	Monitor & Maintain	1,650	\$20.00	\$33,000	No curbs, shoulders are 0.5m wide. Frequent moderate longitudinal, centre line, pavement edge and alligator cracking
4006	Cutting Crescent, Pottagerville	Archibald Road (East-West Branch)	Archibald Road (North-South Branch)	HCB	2	8.5	8.5	0	139	0.44		64	L	4		38.50	1	1	1	1	38.50	Monitor & Maintain	3,740	\$20.00	\$74,800	Curbed. frequent severe centre line cracking with moderate longitudinal, pavement edge and transverse cracking
54	Lane Road, Snowball	King View Crescent	South End	HCB	2	11	6.7	2.15	15	0.09	GST	62	L	1		38.29	1	1	1	1	38.29	Monitor & Maintain	603	\$20.00	\$12,060	No curbs , shoulders are 1m wide. Frequent severe longitudinal and transverse multiple cracking with frequent moderate alligator cracking
3064	Cooper Drive, Schomberg	0.22 km North of Main Street	0.56 km North of Main Street	HCB	2	8.5	8.5	0	1024	0.34	-	75	L	4		37.80	1	1	1	1	37.80	Monitor & Maintain	2,890	n/a	n/a	Curbed. extensive transverse cracking with frequent severe longitudinal and centre line cracking
119	19th Sideroad	56 - Weston Road	Hodgson Crescent (West Leg)	HCB	2	7.9	6.7	0.6	388	0.17	GST	69	C	4		37.01	1	1	1	1	37.01	Monitor & Maintain	1,241	\$20.00	\$24,820	No curbs, shoulders are 1m wide. Road has frequent moderate centre line, transverse and longitudinal cracking. some slight distortion
3008	Moore Park Drive, Schomberg	Main Street	South End Cul-de-Sac	HCB	2	8.5	8.5	0	730	0.73	-	73	L	4		36.86	1	1	1	1	36.86	Monitor & Maintain	6,205	n/a	n/a	Curbed. frequent severe transverse and longitudinal cracking with intermittent severe centre line and pavement edge cracking
2112	Witherspoon Way, Nobleton	MacTaggart Drive	Russell Snider Drive	HCB	2	8.5	8.5	0	518	0.17	-	71	L	2		36.51	1	1	1	1	36.51	Monitor & Maintain	1,445	n/a	n/a	Curbed.slight Alligators around sewer lids
2024	Wellar Avenue, Nobleton	Hill Farm Road	0.09 km North of Cross Avenue	HCB	2	8.5	8.5	0	343	0.25	-	69	L	2		36.32	1	1	1	1	36.32	Monitor & Maintain	2,125	n/a	n/a	Curbed. extensive severe centre line cracking, transverse cracking with frequent moderate longitudinal and pavement edge cracking
167	Concession Road 11	11 - King Road	15th Sideroad	HCB	2	8.5	6.3	1.1	134	2.19	GST	66	C	3		36.28	1	1	1	1	36.28	Monitor & Maintain	16,206	n/a	n/a	Shoulders are 1m wide. Frequent severe centre line and transverse cracking with moderate pavement edge cracking Culvert C000210 requires replacement CSP Arch. Culvert C000211 requires replacement.
3011	Roselena Drive, Schomberg	0.28 km West of Moore Park Drive	West End Turnaround	HCB	2	8.5	8.5	0	1441	0.53	-	79	L	4		36.13	1	1	1	1	36.13	Monitor & Maintain	4,505	n/a	n/a	Curbed. intermittent slight longitudinal and transverse cracking
2033	Hollywood Crescent, Nobleton	0.13 km East of Noblewood Drive	East End Turnaround	HCB	2	8.5	8.5	0	315	0.25	-	69	L	2		35.88	1	1	1	1	35.88	Monitor & Maintain	2,125	n/a	n/a	Curbed. extensive severe centre line with frequent severe longitudinal and transverse cracking
4004	Archibald Road (East- West Branch), Pottagerville	Cook Drive (Northeast Intersection)	0.42 km West of Cook Drive (Northeast Intersection)	HCB	2	8.5	8.5	0	563	0.42		72	L	4		35.88	1	1	1	1	35.88	Monitor & Maintain	3,570	n/a	n/a	Curbed. extensive severe centre line cracking with frequent pavement edge and transverse cracking
1057	Patricia Drive, King City	Clearview Crescent	McBride Crescent	HCB	2	9	7	1	432	0.20	GRA	71	L	1		35.26	1	1	1	1	35.26	Monitor & Maintain	1,400	n/a	n/a	No curbs. Shoulders are 1m wide. frequent severe centre line and transverse single and multiple cracking with intermittent longitudinal and transverse alligator cracking
2085	Robb Drive, Nobleton	0.15 Km North of McCutcheon Avenue	North End Cul-de-Sac	HCB	2	8.5	8.5	0	128	0.14	-	67	L	2		35.11	1	1	1	1	35.11	Monitor & Maintain	1,190	n/a	n/a	Curbed. frequent sever longitudinal and centre line cracking with intermittent severe transverse cracking
3004	Cooper Drive, Schomberg	Main Street	0.22 km North of Main Street	HCB	2	8.5	8.5	0	1024	0.22	-	77	L	4		34.78	1	1	1	1	34.78	Monitor & Maintain	1,870	n/a	n/a	Curbed. frequent transverse cracking with intermittent longitudinal and centre line cracking
2014	Lynwood Crescent, Nobleton	11 - King Road	460 m North of 11 - King Road	HCB	2	8.6	7	0.8	467	0.46	GST	72	L	2		34.54	1	1	1	1	34.54	Monitor & Maintain	3,220	n/a	n/a	No curbs. Shoulders are 0.5m wide. Speed humps on road. frequent moderate transverse cracking with severe centre line cracking
2139	Skyline Trail, Nobleton	Bluff Trail, North Leg	Bluff Trail, South Leg	HCB	2	8.6	8.6	0	466	0.22		72	L	2		34.52	1	1	1	1	34.52	Monitor & Maintain	1,892	n/a	n/a	Curbed. frequent moderate centre line cracking with intermittent moderate longitudinal and transverse cracking
2031	Goodfellow Crescent, Nobleton	Hill Farm Road West Junction	0.29 km West of Hill Farm Road	HCB	2	8.5	8.5	0	524	0.29	-	73	L	2		34.07	1	1	1	1	34.07	Monitor & Maintain	2,465	n/a	n/a	Curbed. intermittent severe centre line, tansverse cracking with slight pavement edge cracking
2036	Goodfellow Crescent, Nobleton	0.29 km West of Hill Farm Road West Junction	Hill Farm Road East Junction	HCB	2	8.5	8.5	0	508	0.42	-	73	L	2		33.86	1	1	1	1	33.86	Monitor & Maintain	3,570	n/a	n/a	Curbed. frequent severe longitudinal, centre line and transverse cracking with moderate pavement edge cracking
3014	Maynard Drive, Schomberg	27 - Regional Road 27	Moore Park Drive	HCB	2	8.5	8.5	0	766	0.23	-	76	L	4		33.19	1	1	1	1	33.19	Monitor & Maintain	1,955	n/a	n/a	Curbed. frequent severe transverse, pavement edge, centre line cracking
136	19th Sideroad	Little Rebel Road, Lloydtown	Concession Road 10	HCB	2	8	6	1	592	0.20	GST	75	L	4		32.40	1	1	1	1	32.40	Monitor & Maintain	1,200	n/a	n/a	No curbs. Shoulders are 1m wide. No curbs. Frequent severe multiple longitudinal, pavement edge, transverse cracking
81	Churchill Avenue	56 - Weston Road	West End	LCB	2	7.3	6	0.65	343	1.29	GRA	78	L	3		25.77	1	1	1	1.25	32.22	Monitor & Maintain	7,740	n/a	n/a	Some potholes near 345 Churchill ave, intermittent slight ravelling and moderate rippling. No curbs,shoulders are 1 m wide

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43	King Summit Road	55 - Jane Street	East End Turnaround	HCB	2	9	6.5	1.25	215	0.90	GRA	71	L	5	32.12	1	1	1	1	32.12	Monitor & Maintain	5,850	n/a	n/a	No curbs, shoulders are 0.5m wide , frequent severe centre line cracking, frequent moderate distortion, transverse multiple and alligator cracking	
2087	Holden Drive, Nobleton	0.29 km North of Sheardown Drive	MacTaggart Drive	HCB	2	8.5	8.5	0	294	0.33	-	72	L	2	32.12	1	1	1	1	32.12	Monitor & Maintain	2,805	n/a	n/a	Curbed. intermittent moderate longitudinal,centre line and transverse cracking	
3070	Dr. Jones Drive, Schomberg	Cooper Drive (North Intersection)	Cooper Drive (South Intersection)	HCB	2	8.5	8.5	0	456	0.36	-	74	L	4	31.93	1	1	1	1	31.93	Monitor & Maintain	3,060	n/a	n/a	Curbed. intermittent severe transverse cracking with few alligator cracking	
2108	McCutcheon Avenue, Nobleton	MacTaggart Drive	North End Cul-de-Sac	HCB	2	8.5	8.5	0	28	0.09	-	69	L	2	31.43	1	1	1	1	31.43	Monitor & Maintain	765	n/a	n/a	Curbed. frequent severe transverse cracking with slight pavement edge cracking	
2020	Cross Avenue, Nobleton	Elizabeth Drive	Wellar Avenue	HCB	2	8.7	7.3	0.7	163	0.20	GRA	71	L	2	31.36	1	1	1	1	31.36	Monitor & Maintain	1,460	n/a	n/a	No curbs. Shoulders are 1m wide . Extensive severe centre line with frequent longitudinal and transverse cracking	
25	16th Sideroad	6 - Keele Street	55 - Jane Street	HCB	2	8.9	6.6	1.15	614	2.08	GST	82	L	5	1	30.73	1	1	1	1	30.73	Monitor & Maintain	13,728	n/a	n/a	No curbs, shoulders are 0.5m wide .intermittent severe centre line with few longitudinal, pavement edge and transverse cracking
2110	Holden Drive, Nobleton	MacTaggart Drive	North End	HCB	2	8.5	8.5	0	43	0.10	-	70	L	2	30.65	1	1	1	1	30.65	Monitor & Maintain	850	n/a	n/a	Curbed. frequent transverse cracking and moderate pavement edge cracking	
2119	Woodhill Avenue, Nobleton	Farmcrest Court	Hawthorne Valley Road	HCB	2	8.5	8.5	0	1056	0.09	-	80	L	2	30.56	1	1	1	1	30.56	Monitor & Maintain	765	n/a	n/a	Curbed. frequent moderate transverse cracking	
2023	Wellar Avenue, Nobleton	0.09 km North of Cross Avenue	Cross Avenue	HCB	2	8.5	8.5	0	343	0.09	GST	74	L	2	30.46	1	1	1	1	30.46	Monitor & Maintain	765	n/a	n/a	Curbed. Extensive severe centre line cracking with frequent transverse cracking	
2018	Elizabeth Drive, Nobleton	11 - King Road	Cross Avenue	HCB	2	8.7	7.3	0.7	248	0.38	GST	73	L	2	30.35	1	1	1	1	30.35	Monitor & Maintain	2,774	n/a	n/a	No curbs. Shoulders are 1m, wide . extensive moderate centre line cracking with frequent moderate transverse cracking	
1068	Crossley Court, King City	Patricia Drive	North End	HCB	2	8.5	8.5	0	243	0.14	-	73	L	1	30.28	1	1	1	1	30.28	Monitor & Maintain	1,190	n/a	n/a	frequent moderate longitudinal, pavement edge, and transverse cracking with few severe distortion	
3066	Cooper Drive, Schomberg	0.56 km of Main Street	Dr. Kay Drive	HCB	2	8.5	8.5	0	1024	0.13	-	80	L	4	30.24	1	1	1	1	30.24	Monitor & Maintain	1,105	n/a	n/a	No curbs, shoulders are 1m wide. frequent severe centre line cracking with few slight centre line alligator and transverse cracking	
1150	Cranberry Lane, King City	Kingscross Drive	North End Turnaround	HCB	2	9	7.3	0.85	72	0.18	GST	71	L	5	30.04	1	1	1	1	30.04	Monitor & Maintain	1,314	n/a	n/a	No curbs, shoulders are 0.5m wide. Frequent moderate transverse and pavement edge cracking with intermittent moderate longitudinal alligator cracking	
3018	Marlynn Court, Schomberg	Moore Park Drive	North End Cul-de-Sac	HCB	2	8.5	8.5	0	58	0.04	-	71	L	4	29.84	1	1	1	1	29.84	Monitor & Maintain	340	n/a	n/a	Curbed. frequent severe longitudinal, centre line and transverse cracking	
1148	Champlain Crescent, King City	Kingscross Drive	South End Turnaround	HCB	2	10	7	1.5	58	0.12	GST	71	L	5	29.84	1	1	1	1	29.84	Monitor & Maintain	840	n/a	n/a	No curbs, shoulders are 0.5m wide .frequent moderate longitudinal and transverse cracking	
4005	Archibald Road (North- South Branch), Pottsgrove	0.36 km North of Cook Drive (Southwest Intersection)	Cook Drive (Southwest Intersection)	HCB	2	8.5	8.5	0	108	0.36		72	L	4	29.51	1	1	1	1	29.51	Monitor & Maintain	3,060	n/a	n/a	Curbed. frequent severe centre line and transverse cracking	
1058	Clearview Heights, King City	McBride Crescent	Elizabeth Grove	HCB	2	9	7	1	432	0.29	GST	76	C	1	29.18	1	1	1	1	29.18	Monitor & Maintain	2,320	n/a	n/a	No curbs. Shoulders are 0.5m wide. frequent severe transverse cracking with frequent moderate centre line and longitudinal cracking	
3000	Proctor Road, Schomberg	27 - Regional Road 27	East End Turnaround	HCB	2	9.7	7.3	1.2	2140	0.40	GRA	86	L	4	28.98	1	1	1	1	28.98	Monitor & Maintain	2,920	n/a	n/a	Curbed. No major deformations	
2039	Ellis Avenue, Nobleton	Wellington Street	Henry Gate	HCB	2	8.5	8.5	0	1216	0.55	-	82	L	2	28.94	1	1	1	1	28.94	Monitor & Maintain	4,675	n/a	n/a	Speed humps on this section. Curbed . few moderate transverse cracking and slight pavement edge cracking	
2012	Norman Avenue, Nobleton	27 - Regional Road 27	Lynwood Crescent	HCB	2	7.6	5.8	0.9	292	0.25	GRA	75	L	2	28.65	1	1	1	1	28.65	Monitor & Maintain	1,450	n/a	n/a	No curbs. Shoulders are 1m wide . ferquent severe centre line cracking with intermittent severe transverse and moderate longitudinal cracking	
1004	William Street, King City	11 - King Road	Dew Street	HCB	2	9.4	7.3	1.05	341	0.17	GRA	76	L	1	28.09	1	1	1	1	28.09	Monitor & Maintain	1,241	n/a	n/a	Half of the road is curbed, no curbs on the other half, shoulders are 0.5m wide	
1066	Patricia Drive, King City	Elizabeth Grove	Warren Road	HCB	2	8.5	8.5	0	659	0.68		79	C	1	27.92	1	1	1	1	27.92	Monitor & Maintain	5,780	n/a	n/a	Speed hump in this section, Frequent moderate single and multiple longitudinal cracking with intermittent moderate centre line and pavement edge cracking few slight distortion	
1002	Dew Street, King City	William Street	King Boulevard	HCB	2	9	7	1	203	0.24	GST	75	L	1	27.54	1	1	1	1	27.54	Monitor & Maintain	1,680	n/a	n/a	One side is curbed, shoulders are 0.5m wide on the other side. Frequent moderate centre line, pavement edge, transverse multiple and alligator cracking with few moderate distortion	
2122	Gilbert Fuller Drive	Woodhill Avenue	South End Checkerboard	HCB	2	8.5	8.5	0	36	0.29	-	73	L	2	27.49	1	1	1	1	27.49	Monitor & Maintain	2,465	n/a	n/a	Curbed . frequent transverse and centre line cracking	
2120	Farmcrest Court, Nobleton	Woodhill Avenue	West End Cul-de-Sac	HCB	2	8.7	8.7	0	86	0.17	-	74	L	2	27.12	1	1	1	1	27.12	Monitor & Maintain	1,479	n/a	n/a	Curbed. extensive severe transverse cracking with frequent longitudinal cracking	
1094	Martin Street, King City	Melrose Avenue	0.18 km North of Melrose Avenue	HCB	2	9	9	0	358	0.18	GST	77	L	5	27.12	1	1	1	1	27.12	Monitor & Maintain	1,620	n/a	n/a	No curbs, shoulders are 0.3m wide. frequent moderate center line and transverse cracking with intermittent moderate longitudinal multiple cracking	

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10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN (2020 PROGRAM)
APPENDIX D: MASTER SUMMARY TABLE

Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
1110	McClure Drive, King City	6 - Keele Street (North Intersection)	6 - Keele Street (South Intersection)	HCB	2	8.5	8.5	0	168	1.11	-	75	L	5		27.10	1	1	1	1	27.10	Monitor & Maintain	9,435	n/a	n/a	Severe distortion at 182 Mac Clure dr
3068	Jessop Avenue, Schomberg	Cooper Drive (North Intersection)	Cooper Drive (South Intersection)	HCB	2	8.5	8.5	0	456	0.28	-	78	L	4		27.02	1	1	1	1	27.02	Monitor & Maintain	2,380	n/a	n/a	Curbed. frequent moderate centre line and transverse cracking with slight pavement edge cracking
1006	Dew Street, King City	William Street	West End	HCB	2	9	7	1	203	0.27	GST	76	L	1		26.44	1	1	1	1	26.44	Monitor & Maintain	1,890	n/a	n/a	No curbs, shoulders are 0.5 m wide . Frequent moderate longitudinal, center line and pavement edge multiple and alligator cracking with few distortion
2006	Janet Avenue, Nobleton	Crestview Road	East End Cul-de-Sac	HCB	2	8.5	8.5	0	128	0.31	-	76	L	2		25.54	1	1	1	1	25.54	Monitor & Maintain	2,635	n/a	n/a	Curbed. Few slight longitudinal and centre line with few severe transverse cracking
1052	Banner Lane, King City	Elizabeth Grove	Warren Road	HCB	2	8.5	8.5	0	431	0.35	-	79	L	1		25.53	1	1	1	1	25.53	Monitor & Maintain	2,975	n/a	n/a	Blind spot at Elizabeth/ banner intersection. frequent moderate longitudinal cracking with intermittent moderate pavement edge and transverse cracking
4016	Weedon Court, Pottsville	16 - Lloydtown/Aurora Road	North End Turnaround	HCB	2	8.5	8.5	0	115	0.13		76	L	4		25.38	1	1	1	1	25.38	Monitor & Maintain	1,105	n/a	n/a	Curbed. intermittent moderate pavement edge and transverse cracking with centre line, longitudinal cracking
3012	McGuire Court, Schomberg	Roselena Drive	South End Cul-de-Sac	HCB	2	8.5	8.5	0	100	0.11	-	76	L	4		25.20	1	1	1	1	25.20	Monitor & Maintain	935	n/a	n/a	Curbed. frequent severe centre line and longitudinal cracking with intermittent severe transverse cracking
48	Kingswood Drive	55 - Jane Street	East End	HCB	2	8.5	8.5	0	86	0.96	-	76	L	5		25.03	1	1	1	1	25.03	Monitor & Maintain	8,160	n/a	n/a	Curbed. Frequent moderate longitudinal, centre line, pavement edge and transverse single and multiple cracking with some few slight alligator
3006	Rice Drive, Schomberg	Cooper Drive	East End	HCB	2	8.5	8.5	0	171	0.16	-	77	L	4		24.97	1	1	1	1	24.97	Monitor & Maintain	1,360	n/a	n/a	Curbed . frequent moderate centre line with intermittent longitudinal and transverse cracking
2135	Bluff Trail, Nobleton	Skyline Trail, North Roundabout	Skyline Trail, South Roundabout	HCB	2	8.7	8.7	0	361	0.71		79	L	2		24.79	1	1	1	1	24.79	Monitor & Maintain	6,177	n/a	n/a	Curbed . intermittent moderate centre line cracking with few severe transverse cracking
2104	Robinson Road, Nobleton	Ellis Avenue	Wilkie Avenue	HCB	2	8.5	8.5	0	603	0.54	-	81	L	2		24.73	1	1	1	1	24.73	Monitor & Maintain	4,590	n/a	n/a	Curbed. intermittent moderate transverse cracking with few moderate centre line and longitudinal cracking
1008	William Street, King City	Dew Street	North End	HCB	2	8.5	8.5	0	58	0.06	-	76	L	1		24.70	1	1	1	1	24.70	Monitor & Maintain	510	n/a	n/a	Curbed. Frequent moderate to severe centre line and transverse cracking
343	Pumphouse Road	Graham Sideroad	1.5 km North of Graham Sideroad	HCB	2	9.5	6.5	1.5	1514	1.50	GRA	86	L	6		24.60	1	1	1	1	24.60	Monitor & Maintain	9,750	n/a	n/a	No curbs, shoulders are 1m wide. few moderate pavement edge, transverse and centre line cracking
2074	Wilcox Drive, Nobleton	Hazelbury Drive	27 - Regional Road 27	HCB	2	8.5	8.5	0	450	0.29	-	80	L	2		24.50	1	1	1	1	24.50	Monitor & Maintain	2,465	n/a	n/a	No curbs. Shoulders are 1m wide . few slight pavement edge, longitudinal and transverse cracking
1036	Cadden Court, King City	Warren Road	West End	HCB	2	8.5	8.5	0	215	0.15	-	78	L	1		24.37	1	1	1	1	24.37	Monitor & Maintain	1,275	n/a	n/a	Active construction at end of court. extensive severe transverse cracking with intermittent slight centre line and moderate longitudinal cracking
1082	East Humber Drive, King City	6 - Keele Street	East End	HCB	2	8.5	8.5	0	1033	0.94	-	84	L	1		24.26	1	1	1	1	24.26	Monitor & Maintain	7,990	n/a	n/a	Curbed. Frequent moderate centre line cracking with intermittent moderate longitudinal, centre line cracking
1018	Patton Street, King City	Kings Lynn Drive	Elizabeth Grove	HCB	2	9.7	7	1.35	997	0.21	GST	84	L	1		23.98	1	1	1	1	23.98	Monitor & Maintain	1,470	n/a	n/a	No curbs, shoulders are 0.5m wide.Few moderate pavement edge cracking with frequent transverse multiple cracking
23	16th Sideroad	53 - Dufferin Street	6 - Keele Street	HCB	2	9.8	7.2	1.3	386	2.10	GST	85	C	1	1	23.90	1	1	1	1	23.90	Monitor & Maintain	17,850	\$16.00	\$285,600	No curbs. Shoulders are 1m wide . intermittent moderate longitudinal cracking with fe centre line, pavement edge and transverse cracking
1116	Pellatt Grove, King City	McClure Drive	East Cul-de-Sac	HCB	2	8.5	8.5	0	72	0.10	-	77	L	5		23.83	1	1	1	1	23.83	Monitor & Maintain	850	n/a	n/a	curbed. frequent moderate longitudinal, centre line, pavement edge cracking with few transverse cracking
2016	Lynwood Crescent, Nobleton	0.46 km North of 11 - King Road	Hill Farm Road	HCB	2	8.5	8.5	0	378	0.15	-	80	L	2		23.78	1	1	1	1	23.78	Monitor & Maintain	1,275	n/a	n/a	Curbed. Speed humps on road. frequent severe transverse cracking with severe centre line cracking
3015	Mill Dam Court, Schomberg	Roselena Drive	North End Cul-de-Sac	HCB	2	8.5	8.5	0	258	0.13	-	79	L	4		23.71	1	1	1	1	23.71	Monitor & Maintain	1,105	n/a	n/a	Curbed. frequent severe transverse cracking with intermittent moderate longitudinal and centre line cracking
1030	Warren Road, King City	0.1 km East of Patton Street	Banner Lane	HCB	2	8.5	8.5	0	456	0.18	-	81	L	1		23.33	1	1	1	1	23.33	Monitor & Maintain	1,530	n/a	n/a	Frequent moderate transverse cracking with longitudinal multiple cracking with few distortion
2037	Ellis Avenue, Nobleton	27 - Regional Road 27	Wellington Street	HCB	2	8.5	8.5	0	1076	0.15	-	85	L	2		23.07	1	1	1	1	23.07	Monitor & Maintain	1,275	n/a	n/a	Curbed. No major deformations . few transverse cracking
2145	Northcott Way, Nobleton	West End	East Cul-de-Sac	HCB	2	8.5	8.5	0		0.41	-	77	L	2		23.00	1	1	1	1	23.00	Monitor & Maintain	3,485	n/a	n/a	Curbed. Frequent moderate longitudinal, centre line and pavement edge cracking
349	Fairfield Drive	53 - Dufferin Street (North Intersection)	53 - Dufferin Street (South Intersection)	HCB	2	8.5	8.5	0	555	1.36	-	82	L	1		23.00	1	1	1	1	23.00	Monitor & Maintain	11,560	n/a	n/a	Curbed. intermittent moderate longitudinal, centre line, pavement edge and transverse cracking
3074	Willard Hunt Court, Schomberg	Dr. Jones Drive	North End	HCB	2	8.5	8.5	0	186	0.07	-	79	L	4		22.95	1	1	1	1	22.95	Monitor & Maintain	595	n/a	n/a	Curbed. intermittent severe centre line and longitudinal cracking
3013	Quaker House Lane, Schomberg	Roselena Drive	North End Cul-de-Sac	HCB	2	8.5	8.5	0	186	0.10	-	79	L	4		22.95	1	1	1	1	22.95	Monitor & Maintain	850	n/a	n/a	Curbed. frequent severe transverse and moderate centre line cracking
2055	Ellis Avenue, Nobleton	Henry Gate	West End Barricade/ Checkerboard	HCB	2	8.5	8.5	0	536	0.34	-	82	L	2		22.82	1	1	1	1	22.82	Monitor & Maintain	2,890	n/a	n/a	Curbed. intermittent moderate transverse cracking with few moderate centre line and longitudinal cracking
2038	Kaake Road, Nobleton	Hill Farm Road	South End Cul-de-Sac	HCB	2	8.5	8.5	0	72	0.19	-	78	L	2		22.79	1	1	1	1	22.79	Monitor & Maintain	1,615	n/a	n/a	Curbed. Curbed. intermittent moderate longitudinal, pavement edge and transverse cracking

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3016	Cutler Court, Schomberg	Maynard Drive	South End Cul-de-Sac	HCB	2	8.5	8.5	0	72	0.09	-	78	L	4		22.79	1	1	1	1	22.79	Monitor & Maintain	765	n/a	n/a	Curbed. frequent severe transverse with intermittent severe longitudinal and centre line cracking	
1060	Patricia Drive, King City	McBride Crescent	Elizabeth Grove	HCB	2	9.4	7	1.2	396	0.30	GST	81	L	1		22.76	1	1	1	1	22.76	Monitor & Maintain	2,100	n/a	n/a	No curbs, shoulders are 0.5m wide. Frequent moderate longitudinal and transverse cracking with intermittent severe centre line cracking	
2030	Forestave Crescent, Nobleton	Noblewood Drive	East End Turnaround	HCB	2	9.4	6.6	1.4	58	0.08	-	78	L	2		22.64	1	1	1	1	22.64	Monitor & Maintain	528	n/a	n/a	No curbs. Shoulders are 1m wide . few severe transverse with alligator cracking and moderate pavement edge cracking	
2019	Elizabeth Drive, Nobleton	Cross Avenue	North End	HCB	2	8.7	7.3	0.7	43	0.07	GRA	78	L	2		22.47	1	1	1	1	22.47	Monitor & Maintain	511	n/a	n/a	No curbs. Shoulders are 1m wide . intermittent moderate transverse, centre line and longitudinal cracking	
1096	Martin Street, King City	0.18 km North of Melrose Avenue	Hambly Avenue	HCB	2	8.5	8.5	0	358	0.43	-	81	L	5		22.40	1	1	1	1	22.40	Monitor & Maintain	3,655	n/a	n/a	Pothole near 104 Martin st. Intermittent moderate centre line cracking with few slight distortion and few moderate alligator	
351	Eversley Hall	Fairfield Drive	East End Turnaround	HCB	2	8.5	8.5	0	115	0.30	-	79	L	1		22.21	1	1	1	1	22.21	Monitor & Maintain	2,550	n/a	n/a	Curbed. Frequent moderate longitudinal and transverse cracking with frequent severe centre line	
2131	Anderson Cove Trail, Nobleton	Paradise Valley Trail	Parkheights Trail	HCB	2	8.7	8.7	0	458	0.45		82	L	2		22.12	1	1	1	1	22.12	Monitor & Maintain	3,915	n/a	n/a	Curbed. intermittent moderate longitudinal, centre line and transverse cracking	
3079	Ross Cottage Lane, Schomberg	Ben Boy Avenue	Dr. Kay Drive	HCB	2	8.6	8.6	0	593	0.32		83	L	4		22.04	1	1	1	1	22.04	Monitor & Maintain	2,752	n/a	n/a	Curbed. No major deformations, transverse cracks are sealed	
2141	Skyline Trail, Nobleton	Hill Farm Road	Northcott Way	HCB	2	8.7	8.7	0		0.48		78	L	2		22.00	1	1	1	1	22.00	Monitor & Maintain	4,176	n/a	n/a	Curbed . frequent severe transverse cracking with frequent moderate longitudinal and pavement edge cracking	
2144	Piper Court, Nobleton	Skyline Trail	East Cul-de-Sac	HCB	2	8.5	8.5	0		0.08		78	L	2		22.00	1	1	1	1	22.00	Monitor & Maintain	680	n/a	n/a	Curbed. frequent severe centre line and transverse cracking with intermittent severe longitudinal cracking	
1040	Bennet Drive, King City	0.23 km West of Warren Road	Forde Crescent	HCB	2	9.9	7.2	1.35	307	0.20	-	81	L	1		21.92	1	1	1	1	21.92	Monitor & Maintain	1,440	n/a	n/a	frequent moderate longitudinal multiple and slight alligator cracking with frequent centre line cracking	
254	Centre View Avenue, Laskay	0.1 km East of 56 - Weston Road	Prince Adam Court	HCB	2	9.5	7.5	1	171	0.04	GRA	80	L	2		21.71	1	1	1	1	21.71	Monitor & Maintain	300	n/a	n/a	No curbs, shoulders are 0.3m wide. Frequent moderate pavement edge cracking with intermittent moderate transverse and alligator cracking	
267	Dufferin Street	Lloydtown/Aurora Road	19th Sideroad	HCB	2	10.3	6.7	1.8	1333	2.60	G/S	87	C	1		21.66	1	1	1	1	21.66	Monitor & Maintain	22,100	\$16.00	\$353,600	Surface treated 2019	
1118	Gillham Circle, King City	McClure Drive	West Cul-de-Sac	HCB	2	8.5	8.5	0	58	0.07	-	79	L	5		21.61	1	1	1	1	21.61	Monitor & Maintain	595	n/a	n/a	Curbed. frequent moderate longitudinal and transverse cracking	
3072	Marchant Circle, Schomberg	Dr. Jones Drive	South End	HCB	2	8.5	8.5	0	158	0.08	-	80	L	4		21.58	1	1	1	1	21.58	Monitor & Maintain	680	n/a	n/a	Curbed. intermittent moderate centre line and transverse cracking	
2044	Faris Avenue, Nobleton	0.33 km West of Wellington Street	Wellington Street	HCB	2	8.2	6.2	1	260	0.33	GST	81	L	2		21.47	1	1	1	1	21.47	Monitor & Maintain	2,046	n/a	n/a	No curbs. Shoulders are 1m wide . intermittent moderate longitudinal and centre line cracking	
291	South Canal Bank Road	Davis Road	Jane Street	LCB	2	6.7	5.7	0.5	137	1.06	GST	84	L	6		17.10	1	1	1	1	12.5	21.37	Monitor & Maintain	6,042	n/a	n/a	frequent moderate centre line with few moderate transverse cracking
2136	Chapel Gully Trail, Nobleton	Bluff Trail, North Leg	Bluff Trail, South Leg	HCB	2	8.7	8.7	0		0.10		79	L	2		21.00	1	1	1	1	21.00	Monitor & Maintain	870	n/a	n/a	Curbed intermittent moderate transverse cracking with few moderate longitudinal and pavement edge cracking	
1088	John Street, King City	11 - King Road	Melrose Avenue	HCB	2	8.5	7	0.75	192	0.23	GRA	81	L	5		20.82	1	1	1	1	20.82	Monitor & Maintain	1,610	n/a	n/a	No curbs, shoulders are 0.5m wide, intermittent moderate pavement edge single and multiple with few distortion	
1038	Bennet Drive, King City	0.23 km West of Warren Road	Warren Road	HCB	2	8.5	8.5	0	307	0.23	-	82	L	1		20.76	1	1	1	1	20.76	Monitor & Maintain	1,955	n/a	n/a	frequent moderate multiple transverse and longitudinal cracking with few moderate centre line and pavement edge cracking	
1042	Bennet Drive, King City	Forde Crescent	Banner Lane	HCB	2	10	7	1.5	307	0.09	GRA	82	L	1		20.76	1	1	1	1	20.76	Monitor & Maintain	630	n/a	n/a	frequent moderate longitudinal cracking with intermittent centre line and transverse cracking	
3020	Little Rebel Road, Lloydtown	19th Sideroad	Rebellion Way	HCB	2	10	7	1.5	592	0.30	GRA	84	L	4		20.74	1	1	1	1	20.74	Monitor & Maintain	2,100	n/a	n/a	No curbs. Shoulders are 1m wide. few slight pavement edge cracking	
2068	Hawman Avenue, Nobleton	Chinook Drive (South Intersection)	East End Turnaround	HCB	2	9.5	6.3	1.6	760	0.29	GST	85	L	2		20.70	1	1	1	1	20.70	Monitor & Maintain	1,827	n/a	n/a	No curbs. Shoulders are 1m wide. intermittent moderate transverse cracking	
2010	Royal Avenue, Nobleton	Lynwood Crescent	11 - King Road	HCB	2	8	6	1	175	0.22	GST	81	L	2		20.66	1	1	1	1	20.66	Monitor & Maintain	1,320	n/a	n/a	No curbs. Shoulders are 1m wide. few moderate transverse cracking with few pavement edge and centre line cracking	
1044	Forde Crescent, King City	0.3 km East of Bennet Drive, West Intersection	Bennet Drive (West Intersection)	HCB	2	10	7	1.5	286	0.30	GST	82	L	1		20.57	1	1	1	1	20.57	Monitor & Maintain	2,100	n/a	n/a	frequent moderate longitudinal, centre line and transverse cracking with intermittent moderate pavement edge cracking	
1182	Carmichael Crescent, King City	Keele Street	East End	HCB	2	8.5	8.5	0	742	0.56	-	85	L	1		20.57	1	1	1	1	20.57	Monitor & Maintain	4,760	n/a	n/a	Curbed. frequent centre line and transverse cracking with few slight distortion	
1112	Curtis Crescent, King City	McClure Drive (North Intersection)	Drive (South Intersection)	HCB	2	8.5	8.5	0	567	0.90	-	84	L	5		20.54	1	1	1	1	20.54	Monitor & Maintain	7,650	n/a	n/a	Curbed . intermittent slight centre line and moderate transverse cracking	
1172	Langdon Drive	Walkington Way	North End	HCB	2	8.5	8.5	0	278	0.14	-	82	L	5		20.50	1	1	1	1	20.50	Monitor & Maintain	1,190	n/a	n/a	Curbed. Few moderate transverse cracking	
1032	Warren Road, King City	Banner lane	Patricia Drive	HCB	2	8.5	8.5	0	718	0.25	-	85	L	1		20.39	1	1	1	1	20.39	Monitor & Maintain	2,125	n/a	n/a	intermittent moderate transverse cracking with slight alligator and few distortion	
2072	Hazelbury Drive, Nobleton	Hawman Drive	Wilson Road	HCB	2	8.3	6.3	1	381	0.17	GST	83	L	2		20.24	1	1	1	1	20.24	Monitor & Maintain	1,071	n/a	n/a	No curbs. Shoulders are 1m wide. Speed humps on road . intermittent moderate transverse cracking with intermittent slight longitudinal cracking	

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2130	Paradise Valley Trail, Nobleton	Black Duck Trail	Samson Trail	HCB	2	8.7	8.7	0		0.31		80	L	2		20.00	1	1	1	1	20.00	Monitor & Maintain	2,697	n/a	n/a	Curbed . intermittent moderate transverse cracking
2133	Fairmount Ridge Trail, Nobleton	Samson Trail	Black Duck Trail	HCB	2	8.7	8.7	0		0.30		80	L	2		20.00	1	1	1	1	20.00	Monitor & Maintain	2,610	n/a	n/a	Curbed. intermittent moderate transverse cracking with few moderate longitudinal and centre line cracking
2138	Cape George Trail, Nobleton	Bluff Trail, North Leg	Bluff Trail, South Leg	HCB	2	8.7	8.7	0		0.20		80	L	2		20.00	1	1	1	1	20.00	Monitor & Maintain	1,740	n/a	n/a	Curbed. intermittent moderate transverse with few pavement edge, centre line, longitudinal cracking
1086	Charles Street, King City	11 - King Road	Melrose Avenue	HCB	2	9	9	0	346	0.23	GRA	83	L	5		19.94	1	1	1	1	19.94	Monitor & Maintain	2,070	n/a	n/a	No curbs, shoulders are 0.5m wide . few moderate pavement edge, transverse single and multiple cracking
3080	Waterlily Trail, Schomberg	Dufferin Vista Court	Rose Cottage Lane	HCB	2	8.6	8.6	0	329	0.85		83	L	4		19.80	1	1	1	1	19.80	Monitor & Maintain	7,310	n/a	n/a	Curbed. intermittent moderate transverse cracking with few moderate longitudinal alligator cracking
353	Eden Vale Drive	Fairfield Drive (North Intersection)	Fairfield Drive (South Intersection)	HCB	2	8.5	8.5	0	196	1.09	-	82	L	1		19.76	1	1	1	1	19.76	Monitor & Maintain	9,265	n/a	n/a	Curbed. frequent moderate longitudinal, centre line and transverse cracking
1090	James Street, King City	Charles Street	John Street	HCB	2	8.5	6.5	1	179	0.29	GRA	82	L	5		19.61	1	1	1	1	19.61	Monitor & Maintain	1,885	n/a	n/a	Small pothole at 210 James st. Intermittent slight transverse alligator cracking with few slight distortion
253	Centre View Avenue, Laskay	56 - Weston Road	0.1 km East of 56- Weston Road	HCB	2	8.5	8.5	0	171	0.10	-	82	L	2		19.54	1	1	1	1	19.54	Monitor & Maintain	850	n/a	n/a	Curbed. Intermittent moderate pavement edge, transverse and alligator cracking with few slight longitudinal cracking
1114	Aukland Lane, King City	McClure Drive	Northwest Cul-de-Sac	HCB	2	8.5	8.5	0	171	0.25	-	82	L	5		19.54	1	1	1	1	19.54	Monitor & Maintain	2,125	n/a	n/a	Curbed. frequent moderate transverse cracking with intermittent moderate longitudinal cracking
1084	Humber Valley Crescent, King City	East Humber Drive (East Intersection)	East Humber Drive (West Intersection)	HCB	2	8.5	8.5	0	603	0.62	-	85	L	1		19.52	1	1	1	1	19.52	Monitor & Maintain	5,270	n/a	n/a	Curbed. frequent moderate multiple transverse crackingwith intermittent moderate single and multiple centre line cracking
1024	Kingslynn Drive, King City	Patton Street	West End	HCB	2	9.2	6.5	1.35	294	0.13	GST	83	L	1		19.50	1	1	1	1	19.50	Monitor & Maintain	845	n/a	n/a	No curbs. Shoulders are 0.5m wide . intermittent alligator cracking
2050	Henry Gate, Nobleton	Ellis Avenue	11 - King Road	HCB	2	8.5	8.5	0	562	0.12	-	85	L	2		19.22	1	1	1	1	19.22	Monitor & Maintain	1,020	n/a	n/a	No curbs. Shoulders are 1m wide . Speed hump on road . few moderate longitudinal and transverse cracking
2129	Wedgeport Court, Nobleton	Black Duck Trail	East Cul-de-Sac	HCB	2	8.7	8.7	0		0.23		81	L	2		19.00	1	1	1	1	19.00	Monitor & Maintain	2,001	n/a	n/a	Curbed. few centre and transverse cracking
2066	Hawman Avenue, Nobleton	Chinook Drive (South Intersection)	Chinook Drive (North Intersection)	HCB	2	8.5	6.1	1.2	222	0.28	GST	83	L	2		18.89	1	1	1	1	18.89	Monitor & Maintain	1,708	n/a	n/a	No curbs. Shoulders are 1m wide . intermittent moderate transverse cracking with few slight longitudinal cracking
273	West Canal Bank Road	Hwy. 9	Schomberg River	HCB	2	8	5.5	1.25	215	0.33	GST	83	C	4/6		18.83	1	1	1	1	18.83	Monitor & Maintain	2,228	n/a	n/a	No curbs, shoulders are 0.5m wide. intermittent moderate centre line cracking with few slight longitudinal cracking
281A	South Canal Bank Road	Hwy. 9	Davis Road	LCB	2	8.1	5.3	1.4	137	0.18	GST	86	L	6		14.96	1	1	1	1.25	18.70	Monitor & Maintain	954	n/a	n/a	No curbs, shoulders are 1m wide. frequent moderate longitudinal cracking
2127	Black Duck Trail, Nobleton	Parkheights Trail	Fairmount Ridge Trail	HCB	2	8.7	8.7	0	329	0.31		84	L	2		18.63	1	1	1	1	18.63	Monitor & Maintain	2,697	n/a	n/a	Curbed. few moderate transverse and centre line cracking with slight pavement edge cracking
1092	Melrose Avenue, King City	John Street	West End	HCB	2	8.5	8.5	0	326	0.36	GRA	84	L	5		18.61	1	1	1	1	18.61	Monitor & Maintain	3,060	n/a	n/a	No curbs, shoulders are 0.5m wide. frequent moderate centre line, transverse multiple cracking
2048	Kinsley Street, Nobleton	Faris Avenue	11 - King Road	HCB	2	7.9	5.5	1.2	184	0.14	GST	83	L	2		18.56	1	1	1	1	18.56	Monitor & Maintain	770	n/a	n/a	No curbs. Shoulders are 1m wide . Speed hump on road
1120	Cambria Place, King City	McClure Drive	East Cul-de-Sac	HCB	2	8.5	8.5	0	58	0.08	-	82	L	5		18.52	1	1	1	1	18.52	Monitor & Maintain	680	n/a	n/a	Curbed. intermittent moderate centre line and longitudinal cracking with few moderate transverse alligator cracking
1184	Curran Court, King City	Carmicheal Crescent	South End Cul-de-Sac	HCB	2	8.5	8.5	0	171	0.18	-	83	L	1		18.45	1	1	1	1	18.45	Monitor & Maintain	1,530	n/a	n/a	Curbed. Frequent moderate longitudinal cracking with few moderate transverse alligator
5	15th Sideroad	6 - Keele Street	West End	HCB	2	8.9	7	0.95	458	1.07	GST	85	C	5		18.44	1	1	1	1	18.44	Monitor & Maintain	8,507	\$15.00	n/a	No curbs, shoulders are 1.3m wide. Some parts are curbed .section has mostly intermittent moderate centre line cracking with few slight longitudinal, transvere and alligator cracking
1014	Fisher Street, King City	11 - King Road	South End	HCB	2	8.5	8.5	0	286	0.20	-	84	L	1		18.29	1	1	1	1	18.29	Monitor & Maintain	1,700	n/a	n/a	Curbed. frequent moderate longitudinal, centre line and transverse cracking
2002	Parkview Avenue, Nobleton	0.15km East of 27 - Regional Road 27	27 - Regional Road 27 (East End Checkerboard)	HCB	2	8.4	6.4	1	423	0.14	GST	85	L	2		18.17	1	1	1	1	18.17	Monitor & Maintain	896	n/a	n/a	No curbs. Shoulders are 1m wide. few moderate transverse cracking
1000	King Boulevard, King City	11 - King Road	North End	HCB	2	9	6.6	1.2	423	0.24	GST	85	L	1		18.17	1	1	1	1	18.17	Monitor & Maintain	1,584	n/a	n/a	No curbs, shoulders are 0.5m wide. frequent moderate centre line, pavement edge and transverse cracking with few slight distortion
1076	Dennison Street, King City	6 - Keele Street	0.8 km East of 6 - Keele Street	HCB	2	8.5	8.5	0	132	0.80	-	83	L	1		18.12	1	1	1	1	18.12	Monitor & Maintain	6,800	n/a	n/a	Curbed. frequent moderate centre line, transverse cracking with intermittent moderate distortion
3076	Mapleton Mills Drive, Schomberg	Waterlily Trail, East Leg	Waterlily Trail, West Leg	HCB	2	8.6	8.6	0	588	0.29		86	L	4		18.12	1	1	1	1	18.12	Monitor & Maintain	2,494	n/a	n/a	Curbed. intermittent moderate transverse cracking
2042	Wellington Street, Nobleton	0.23 km South of King Road	HCB	2	7.9	5.7	1.1	253	0.23	GST	84	L	2		18.02	1	1	1	1	18.02	Monitor & Maintain	1,311	n/a	n/a	No curbs. Shoulders are 1m wide. Speed hump on the road . extensive moderate centre line cracking with intermittent slight transverse cracking	
2143	Tidnish Court, Nobleton	Skyline Trail	West Cul-de-Sac	HCB	2	8.7	8.7	0		0.11		82	L	2		18.00	1	1	1	1	18.00	Monitor & Maintain	957	n/a	n/a	Curbed. few slight pavement edge and transverse cracking
2132	Samson Trail, Nobleton	Paradise Valley Trail	Parkheights Trail	HCB	2	8.8	8.8	0		0.41		82	L	2		18.00	1	1	1	1	18.00	Monitor & Maintain	3,608	n/a	n/a	Curbed. few centre line and moderate transverse cracking

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Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
2126	Parkheights Trail, Nobleton	Samson Trail	Skyline Trail	HCB	2	11.7	11.7	0		0.68		82	L	2		18.00	1	1	1	1	18.00	Monitor & Maintain	7,956	n/a	n/a	Curbed. intermittent moderate transverse cracking
3075	Ben Boy Avenue, Schomberg	Waterlily Trail, East Leg	Waterlily Trail, West Leg	HCB	2	8.7	8.7	0	398	0.31		85	L	4		17.99	1	1	1	1	17.99	Monitor & Maintain	2,697	n/a	n/a	Curbed . intermittent moderate transverse cracking
1016	Patton Street, King City	11 - King Road	Kingslynn Drive	HCB	2	8.5	8.5	0	1208	0.37	-	89	C	1		17.64	1	1	1	1	17.64	Monitor & Maintain	3,145	n/a	n/a	Curbed. Intermittent centre line and transverse cracking with few longitudinal, centre line, and transverse cracking
1072	Burton Grove, King City	6 - Keele Street	Patricia Drive	HCB	2	8.5	8.5	0	497	1.31	-	86	L	1		17.48	1	1	1	1	17.48	Monitor & Maintain	11,135	n/a	n/a	Curbed, several speed humps on the road, frequent centre line and transverse cracking with few moderate distortion
1046	Forde Crescent, King City	0.3 km East of Bennet Drive, West Intersection	Bennet Drive (East Intersection)	HCB	2	8.5	8.5	0	286	0.13	-	85	L	1		17.15	1	1	1	1	17.15	Monitor & Maintain	1,105	n/a	n/a	frequent moderate longitudinal, and transverse cracking with intermittent moderate centre line and pavement edge cracking
2070	Henley Drive, Nobleton	Hawman Drive	Wilson Road	HCB	2	8.2	6	1.1	131	0.18	GST	84	L	2		17.05	1	1	1	1	17.05	Monitor & Maintain	1,080	n/a	n/a	No curbs. Shoulders are 1m wide. few moderate pavement edge cracking
1056	Clearview Crescent/Heights, King City	6 - Keele Street	McBride Crescent	HCB	2	8.5	7	0.75	432	0.28	GST	86	L	1		17.02	1	1	1	1	17.02	Monitor & Maintain	1,960	n/a	n/a	No curbs . Shoulders are 0.5m wide. frequent longitudinal, centre line, and trasverse cracking with few moderate pavement edge cracking
1048	Banner Lane, King City	11 - King Road	0.3 km South of 11 King Road	HCB	2	8.5	8.5	0	1403	0.30	-	90	L	1		17.02	1	1	1	1	17.02	Monitor & Maintain	2,550	n/a	n/a	Curbed. few moderate centre line and transverse cracking
2137	Blue Beech Trail, Nobleton	Bluff Trail, North Leg	Bluff Trail, South Leg	HCB	2	8.7	8.7	0		0.15		83	L	2		17.00	1	1	1	1	17.00	Monitor & Maintain	1,305	n/a	n/a	Curbed. intermittent moderate centre line and transverse cracking
2040	Wellington Street, Nobleton	0.1 km North of Ellis Avenue	Ellis Avenue	HCB	2	8.5	8.5	0	253	0.10	-	85	L	2		16.90	1	1	1	1	16.90	Monitor & Maintain	850	n/a	n/a	Curbed. Road has a speed hump. No major deformations . few slight longitudinal cracking
1098	Norman Drive, King City	6 - Keele Street	Martin Street	HCB	2	8.5	8.5	0	403	0.52	-	86	L	5		16.82	1	1	1	1	16.82	Monitor & Maintain	4,420	n/a	n/a	Curbed.frequent moderate longitudinal single and multiple cracking with few transverse and slight distortion
357	Scotch Valley Drive	Norcliffe Drive	East End Turnaround	HCB	2	8.5	8.5	0	16	0.46	-	84	L	1		16.13	1	1	1	1	16.13	Monitor & Maintain	3,910	n/a	n/a	Curbed. Frequent moderate pavement edge and transverse cracking
1158	Burns Blvd, King City	Station Road	Findlay Avenue	HCB	2	9.8	9.8	0	290	0.99	-	86	C	5		16.03	1	1	1	1	16.03	Monitor & Maintain	9,702	n/a	n/a	Curbed. Few moderate transverse cracking
2142	Westbrooke Blvd., Nobleton	Skyline Trail	Northcott Way	HCB	2	8.5	8.5	0		0.41		84	L	2		16.00	1	1	1	1	16.00	Monitor & Maintain	3,485	n/a	n/a	Curbed. intermittent moderate transverse and longitudinal cracking with few moderate centre line and pavement edge cracking
2134	Thomas Noble Court, Nobleton	Black Duck Trail	North Cul-de-Sac	HCB	2	8.6	8.6	0		0.12		84	L	2		16.00	1	1	1	1	16.00	Monitor & Maintain	1,032	\$16.00	\$16,512	Curbed. intermittent centre line and longitudinal cracking with few pavement edge and transverse cracking
2140	James Bowman Court, Nobleton	Parkheights Trail	South Cul-de-Sac	HCB	2	8.8	8.8	0		0.13		84	L	2		16.00	1	1	1	1	16.00	Monitor & Maintain	1,144	n/a	n/a	Curbed. intermittent moderate transverse cracking with few slight centre line and longitudinal cracking
1054	Elizabeth Grove, King City	0.5 km East of 6 - Keele Street	6 - Keele Street	HCB	2	9	7	1	900	0.50	GST	89	L	1		15.95	1	1	1	1	15.95	Monitor & Maintain	3,500	n/a	n/a	no curbs, shoulders are 1m wide. frequent severe transverse cracking with few moderate centre line cracking
1170	Walkington Way, King City	Dennis Drive	Burns Boulevard	HCB	2	8.5	8.5	0	240	0.43	-	86	L	5		15.68	1	1	1	1	15.68	Monitor & Maintain	3,655	n/a	n/a	Curbed. Intermittent moderate centre line cracking with few moderate transverse cracking
1168	Dennis Drive, King City	Findlay Avenue	Langdon Drive	HCB	2	8.5	8.5	0	408	0.57	-	87	L	5		15.65	1	1	1	1	15.65	Monitor & Maintain	4,845	n/a	n/a	Curbed. few slight transverse cracking
3077	Summit Ridge Drive, Schomberg	Dufferin Vista Court	Rose Cottage Lane	HCB	2	8.7	8.7	0		0.20		85	L	4		15.00	1	1	1	1	15.00	Monitor & Maintain	1,740	n/a	n/a	Curbed. intermittent moderate transvesre cracking
3078	Dufferin Vista Court, Schomberg	Ben Boy Avenue	Summit Ridge Drive	HCB	2	8.7	8.7	0		0.10		85	L	4		15.00	1	1	1	1	15.00	Monitor & Maintain	870	n/a	n/a	Curbed. intermittent moderate transverse cracking
2128	Black Duck Trail, Nobleton	Fairmount Ridge Trail	Wedgeport Court	HCB	2	8.7	8.7	0		0.16		85	L	2		15.00	1	1	1	1	15.00	Monitor & Maintain	1,392	n/a	n/a	Curbed. intermittent moderate transverse cracking
1102	Hamby Avenue, King City	30 m North of Humber Crescent, North Intersection	50 m South of Humber Crescent, South Intersection	HCB	2	8.4	7	0.7	300	0.18	GRA	87	L	5		14.95	1	1	1	1	14.95	Monitor & Maintain	1,260	n/a	n/a	No curbs, shoulders are 0.5m wide. intermittent moderate transverse alligator cracking
1080	Dennison Street, King City	0.3 km South of East Humber Drive	East Humber Drive	HCB	2	8.5	8.5	0	132	0.28	-	86	L	1		14.92	1	1	1	1	14.92	Monitor & Maintain	2,380	n/a	n/a	Curbed. frequent moderate transverse cracking with intermittent moderate longitudinal cracking
1164	Burns Blvd, King City	Findlay Avenue	North End Turnaround	HCB	2	8.5	8.5	0	290	0.55	-	87	L	5		14.89	1	1	1	1	14.89	Monitor & Maintain	4,675	n/a	n/a	Curbed. Few moderate transverse cracking
1162	Findlay Avenue, King City	Burns Boulevard (West Intersection)	Burns Boulevard (East Intersection)	HCB	2	8.5	8.5	0	264	0.52	-	87	L	5		14.72	1	1	1	1	14.72	Monitor & Maintain	4,420	n/a	n/a	Curbed. few slight centre line, longitudinal and alligator cracking
1160	Collard Drive, King City	Burns Boulevard	0.2 km West of Burns Boulevard	HCB	2	8.5	8.5	0	102	0.20	GST	86	L	5		14.71	1	1	1	1	14.71	Monitor & Maintain	1,700	n/a	n/a	Curbed. few moderate longitudinal cracking
1190	Di Nardo Court, King City	Carmichael Crescent	West Cul-de-Sac	HCB	2	8.5	8.5	0	100	0.35	-	86	L	1		14.70	1	1	1	1	14.70	Monitor & Maintain	2,975	n/a	n/a	Curbed. few moderate longitudinal, centre line, transverse cracking

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APPENDIX D: MASTER SUMMARY TABLE

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2065	Chinook Drive, Nobleton	Hawman Avenue	North End	HCB	2	8.7	6.3	1.2	94	0.18	GST	86	L	2		14.66	1	1	1	1	14.66	Monitor & Maintain	1,134	n/a	n/a	No curbs. Shoulders are 1m wide . few moderate transverse cracking
1050	Banner Lane, King City	0.3 km South of 11 - King Road	North of Bennet Drive	HCB	2	10.5	8.5	1	592	0.06	-	89	L	1		14.26	1	1	1	1	14.26	Monitor & Maintain	510	n/a	n/a	No curbs, shoulders are 0.5m wide. few moderate transverse alligator cracking
2125	Parkheights Trail, Nobleton	Highway 27	Samson Trail	HCB	2	11.8	11.8	0		0.41		86	L	2		14.00	1	1	1	1	14.00	Monitor & Maintain	4,838	n/a	n/a	Curbed. few longitudinal and moderate transverse cracking
1191	Alex Campbell Crescent, King City	11 - King Road (West Intersection)	11 - King Road (East Intersection)	HCB	2	8.6	8.6	0		0.56		86	L	1		14.00	1	1	1	1	14.00	Monitor & Maintain	4,816	n/a	n/a	Curbed. few moderate longitudinal and transverse cracking
2004	Crestview Road, Nobleton	Parkview Avenue	0.24km South of Parkview Avenue (South End Checkerboard)	HCB	2	8.4	6.4	1	312	0.24	GST	88	L	2		13.87	1	1	1	1	13.87	Monitor & Maintain	1,536	n/a	n/a	No curbs. Shoulders are 0.5m wide. No major deformations . Few slight random crackings
325	Miller's Sideroad	38 - Bathurst Street	Dufferin Street	HCB	2	7.3	6	0.65	1057	2.05	GST	91	C	6		13.76	1	1	1	1	13.76	Monitor & Maintain	13,633	n/a	n/a	The newly paved section has no major surface defects or cracking. No curbs shoulders are 1m wide
1078	Valleycrest Drive, King City	Dennison Street	North End Cul-de-Sac	HCB	2	8.5	8.5	0	58	0.09	-	87	L	1		13.38	1	1	1	1	13.38	Monitor & Maintain	765	n/a	n/a	Curbed.few moderate alligator
3042	Castlewood Avenue, Schomberg	Church Street	Elmwood Avenue	HCB	2	8.5	8.5	0	223	0.16	-	88	L	4		13.34	1	1	1	1	13.34	Monitor & Maintain	1,360	n/a	n/a	Curbed, no major deformations
2060	Cedarwood Crescent, Noblewood	North End	South End Cul-de-Sac	HCB	2	8.5	8.5	0	220	0.30	-	88	L	2		13.32	1	1	1	1	13.32	Monitor & Maintain	2,550	n/a	n/a	Curbed. No major deformations . few slight centre line cracking
3041	Church Street, Lloydtown	Western Avenue	Main Street	HCB	2	9.4	8.4	0.5	628	0.26	GRA	90	L	4		13.14	1	1	1	1	13.14	Monitor & Maintain	2,184	n/a	n/a	Curbed. No major deformations
2046	Faris Avenue, Nobleton	0.09 km East of Ellis Avenue	Ellis Avenue	HCB	2	8.5	8.5	0	184	0.09	-	88	L	2		13.10	1	1	1	1	13.10	Monitor & Maintain	765	n/a	n/a	Curbed. No major deformations
355	Norcliffe Drive	Fairfield Drive	North End Turnaround	HCB	2	8.5	8.5	0	16	0.26	-	87	L	1		13.10	1	1	1	1	13.10	Monitor & Maintain	2,210	n/a	n/a	Curbed. few moderate longitudinal, transverse cracking
3046	Western Avenue, Schomberg	Church Street	Elmwood Avenue	HCB	2	8.5	8.5	0	611	0.17	-	90	L	4		13.06	1	1	1	1	13.06	Monitor & Maintain	1,445	n/a	n/a	Curbed. No major deformations
2106	Wilkle Avenue, Nobleton	South End Cul-de-Sac	Ellis Avenue	HCB	2	8.5	8.5	0	302	0.30	-	89	L	2		12.66	1	1	1	1	12.66	Monitor & Maintain	2,550	n/a	n/a	Robinson rd to mcmurphy rd is re-paved. Curbed
3044	Elmwood Avenue, Schomberg	Western Avenue	Castlewood Avenue	HCB	2	8.5	8.5	0	104	0.14	-	88	L	4		12.62	1	1	1	1	12.62	Monitor & Maintain	1,190	n/a	n/a	Curbed, no major deformations
3047	Edwards Mill Lane, Schomberg	Church Street	North End	LCB	2	5	5	0	15	0.05	GRA	90	L	4		10.08	1	1	1	1.25	12.59	Monitor & Maintain	250	n/a	n/a	Curbed. No major deformations
4010	Cook Drive, Pottageville	0.95 km South of 16 - Lloydtown/A urora Road	Bachly Crescent	HCB	2	9.3	6.8	1.25	275	0.27	GRA	89	L	4		12.51	1	1	1	1	12.51	Monitor & Maintain	1,836	n/a	n/a	Curbed, no major defects except some sealed transverse cracks
1106	Heritage Street, King City	6 - Keele Street	Hambly Avenue	HCB	2	8.4	7	0.7	486	0.12	GRA	90	L	5		12.43	1	1	1	1	12.43	Monitor & Maintain	840	n/a	n/a	No curbs, shoulders are 0.5m wide. frequent moderate centre line cracking with few moderate transverse cracking
2052	Nobleview Drive, Nobleton	11 - King Road	North End	HCB	2		8.5	0	256	0.22	-	89	L	2		12.41	1	1	1	1	12.41	Monitor & Maintain	1,870	n/a	n/a	Curbed. no major deformations
259	Scott Crescent, King City	Collard Drive (East Intersection)	Collard Drive (West Intersection)	HCB	2	9.8	6.4	1.7	244	0.70	GST	89	L	5		12.34	1	1	1	1	12.34	Monitor & Maintain	4,480	n/a	n/a	No curbs, shoulders are 0.5m wide . Intermittent slight ravelling
1022	Hollingworth Crescent, King City	Patton Street	Kingslynn Drive	HCB	2	9.8	6.2	1.8	160	0.28	GST	89	L	1		11.88	1	1	1	1	11.88	Monitor & Maintain	1,736	n/a	n/a	No curb, shoulder is 0.5m wide. Few severe transverse cracking
4000	Cook Drive, Pottageville	16 - Lloydtown/A urora Road	Hambly Avenue (South Lloydtown/A urora Road)	HCB	2	8.5	8.5	0	922	0.95		92	L	3		11.69	1	1	1	1	11.69	Monitor & Maintain	8,075	n/a	n/a	Curbed. no major deformations
1104	Humber Crescent, King City	Hambly Avenue (North Intersection)	Hambly Avenue (South Intersection)	HCB	2	9.2	7	1.1	314	0.34	-	90	L	5		11.57	1	1	1	1	11.57	Monitor & Maintain	2,380	n/a	n/a	No curbs, shoulders are 0.5m wide. few moderate transverse carcking

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255	Collard Drive, King City	55 - Jane Street	1.5 km East of 55 - Jane Street	HCB	2	9.8	6.4	1.7	102	1.50	GST	89	L	5		11.56	1	1	1	1	11.56	Monitor & Maintain	9,600	n/a	n/a	No curbs, shoulders are 0.7m wide. few slight transverse cracking
1100	Hamby Avenue, King City	Norman Drive	0.14 km South of Norman Drive	HCB	2	8.5	8.5	0	300	0.14	-	90	L	5		11.50	1	1	1	1	11.50	Monitor & Maintain	1,190	n/a	n/a	No curbs, shoulders are 0.5m wide. few severe transverse cracking
245	19th Sideroad	Concession Road 7	West End	LCB	2	7.3	6	0.65	43	1.01	G/S	91	L	4		9.19	1	1	1	1.25	11.49	Monitor & Maintain	6,060	\$16.00	\$96,960	Surface Treated 2019
1020	Hollingsworth Crescent, King City	Patton Street	West End	HCB	2	9.7	7	1.35	72	0.13	GST	89	L	1		11.40	1	1	1	1	11.40	Monitor & Maintain	910	n/a	n/a	No curbs, shoulder is 0.3m wide. frequent moderate transverse cracking with few moderate longitudinal cracking
3040	Church Street, Lloydtown	Rebellion Way	Western Avenue	HCB	2	8.1	6.3	0.9	271	1.32	GST	90	L	4		11.36	1	1	1	1	11.36	Monitor & Maintain	8,316	n/a	n/a	Curbed except some parts on cemetery side. No major deformations
4002	Shanks Drive, Pottagerville	Cook Drive	East End	HCB	2	8.5	8.5	0	43	0.08		89	L	4		11.24	1	1	1	1	11.24	Monitor & Maintain	680	n/a	n/a	Curbed, no major defects. few slight distortion
2054	Hillside Drive, Nobleton	Nobleview Drive	West End	HCB	2	8.5	8.5	0	22	0.06	-	89	L	2		11.12	1	1	1	1	11.12	Monitor & Maintain	510	n/a	n/a	Curbed. No major deformations
1029	Warren Road, King City	Patton Street	0.1 km East of Patton Street	HCB	2	8.8	6.4	1.2	456	0.13	GST	91	L	1		11.05	1	1	1	1	11.05	Monitor & Maintain	832	n/a	n/a	intermittent moderate transverse cracking
2094	Russell Snider Drive, Nobleton	Sheardown Drive	0.32 km North of Sheardown Drive	HCB	2	8.5	8.5	0	199	0.32	-	90	L	2		11.00	1	1	1	1	11.00	Monitor & Maintain	2,720	n/a	n/a	Curbed. No deformations
2095	Russell Snider Drive, Nobleton	0.32 km North of Sheardown Drive	Witherspoon Way	HCB	2	8.5	8.5	0	199	0.33	-	90	L	2		11.00	1	1	1	1	11.00	Monitor & Maintain	2,805	n/a	n/a	Curbed. Some alligators around sewer's lids . frequent severe longitudinal cracking with intermittent transverse multiple and alligator cracking
2100	Russell Snider Drive, Nobleton	Sheardown Drive	South End Barricade/Checkerboard	HCB	2	8.5	8.5	0	199	0.47	-	90	C	2		11.00	1	1	1	1	11.00	Monitor & Maintain	3,995	n/a	n/a	Curbed. No Deformations
2102	Sunset Drive, Nobleton	Russell Snider Drive	Cedarwood Crescent	HCB	2	8.5	8.5	0	169	0.13	-	90	C	2		10.85	1	1	1	1	10.85	Monitor & Maintain	1,105	n/a	n/a	Curbed. No major deformations
1062	McBride Crescent, King City	Elizabeth Grove	Patricia Drive	HCB	2	8.5	7	0.75	375	0.20	GST	91	L	1		10.69	1	1	1	1	10.69	Monitor & Maintain	1,400	n/a	n/a	No curbs, shoulders are 0.3 m wide. few moderate transverse cracking
257	Winter Road, King City	Collard Drive	South Turnaround	HCB	2	9.8	6.4	1.7	86	0.20	GST	90	L	5		10.43	1	1	1	1	10.43	Monitor & Maintain	1,280	n/a	n/a	No curbs, shoulders are 0.4m wide . Few slight ravelling
2096	O'Neill Court, Nobleton	Russell Snider Drive	East End Cul-de-Sac	HCB	2	8.5	8.5	0	86	0.12	-	90	L	2		10.43	1	1	1	1	10.43	Monitor & Maintain	1,020	n/a	n/a	Curbed. Recently paved. No deformations
2098	Kehoe Court, Nobleton	Russell Snider Drive	East End Cul-de-Sac	HCB	2	8.5	8.5	0	86	0.12	-	90	L	2		10.43	1	1	1	1	10.43	Monitor & Maintain	1,020	n/a	n/a	Curbed. Recently paved. No deformations
1108	Hamby Avenue, King City	50 m South of Humber Crescent	South End Cul-de-Sac	HCB	2	8.5	8.5	0	72	0.06	-	90	L	5		10.36	1	1	1	1	10.36	Monitor & Maintain	510	n/a	n/a	few moderate longitudinal cracking
2053	Hillside Drive, Nobleton	Cedarwood Crescent	Nobleview Drive	HCB	2	8.5	8.5	0	70	0.34	-	90	L	2		10.35	1	1	1	1	10.35	Monitor & Maintain	2,890	n/a	n/a	Curbed. No major deformations
1012	Doctors Lane, King City	11 - King Road	South End	HCB	2	12.8	12.8	0	300	0.14	-	91	L	1		10.35	1	1	1	1	10.35	Monitor & Maintain	1,792	n/a	n/a	Curbed. few slight longitudinal cracks
2056	Simon-Henry Avenue, Nobleton	Nobleview Drive	Cedarwood Crescent	HCB	2	8.5	8.5	0	61	0.34	-	90	L	2		10.31	1	1	1	1	10.31	Monitor & Maintain	2,890	n/a	n/a	Curbed. No major deformations
1188	Tawes Trail, King City	Jenkinson Grove	East Cul-de-Sac	HCB	2	8.5	8.5	0	43	0.11	-	90	L	1		10.22	1	1	1	1	10.22	Monitor & Maintain	935	n/a	n/a	Curbed. Frequent moderate transverse cracking
2058	Midway Court, Nobleton	Hillside Drive	South End Cul-de-Sac	HCB	2	8.5	8.5	0	32	0.15	-	90	L	2		10.16	1	1	1	1	10.16	Monitor & Maintain	1,275	n/a	n/a	Curbed. No major deformations.
1186	Jenkinson Grove, King City	Carmichael Crescent	Tawes Trail	HCB	2	8.5	8.5	0	204	0.23	-	91	L	1		9.92	1	1	1	1	9.92	Monitor & Maintain	1,955	n/a	n/a	Curbed. few moderate centre line and transverse cracking
219	Concession Road 8	18th Sideroad	0.37km S of Lloydtown/Aurora Road	LCB	2	8.5	6.7	0.9	1141	1.65	GRA	95	C	4		7.85	1	1	1	1.25	9.82	Monitor & Maintain	12,540	\$16.00	\$200,640	Surface Treated 2019
220	Concession Road 8	0.37km S of Lloydtown/Aurora Road	Lloydtown/Aurora Road	LCB	2	8.1	6.1	1.0	1141	0.37	GRA	95	C	4		7.85	1	1	1	1.25	9.82	Monitor & Maintain	2,627	\$16.00	\$42,032	Surface Treated 2019
1028	Kingslynn Drive, King City	Banner Lane	Patton Street	HCB	2	9.8	7	1.4	294	0.30	GST	92	L	1		9.18	1	1	1	1	9.18	Monitor & Maintain	2,100	n/a	n/a	frequent slight transverse cracking with intermittent slight pavement edge cracking

TOWNSHIP OF KING
10 YEAR PAVING STRATEGY AND PAVEMENT MANAGEMENT PLAN (2020 PROGRAM)
APPENDIX D: MASTER SUMMARY TABLE

Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
4012	Armstrong Crescent, Pottsville	Cook Drive (West Intersection)	Cook Drive (East Intersection)	HCB	2	8.5	8.5	0	228	0.60		92	L	3		8.91	1	1	1	1	8.91	Monitor & Maintain	5,100	n/a	n/a	Curbed. The road has no major deformation except from two sealed transverse cracks
1064	Elizabeth Grove, King City	Patricia Drive	North of Banner Lane	HCB	3	8.5	8.5	0	180	0.20		92	L	1		8.72	1	1	1	1	8.72	Monitor & Maintain	1,700	n/a	n/a	intermittent moderate transverse cracking
221	Concession Road 8	Lloydtown/Aurora Road	Hwy 9	LCB	2	9	7	1.0	686	2.08	GRA	95	C	4		6.72	1	1	1	1.25	8.39	Monitor & Maintain	16,640	\$16.00	\$266,240	Surface Treated 2019
4014	Munshaw Court, Pottsville	Cook Drive	South End Cul-de-Sac	HCB	2	8.5	8.5	0	53	0.11		92	L	4		8.21	1	1	1	1	8.21	Monitor & Maintain	935	n/a	n/a	Curbed. No major deformations
2079	Sheardown Drive, Nobleton	27 - Regional Road 27	Hazelbury Drive	HCB	2	8.5	8.5	0	816	0.37	-	95	L	2		7.04	1	1	1	1	7.04	Monitor & Maintain	3,145	\$96.00	\$301,920	Curbed. frequent severe longitudinal, centre line, pavement edge and transverse multiple and alligator cracking. Being Completed as part of Sewer Recon.. Removed from plan
2080	Sheardown Drive, Nobleton	Hazelbury Drive	MacTaggart Drive	HCB	2	8.5	8.5	0	816	0.38	-	95	L	2		7.04	1	1	1	1	7.04	Monitor & Maintain	3,230	\$40.00	\$129,200	Curbed. Rippling around sewers lids. frequent severe pavement edge and transverse cracking. Intermittent severe distortion and centre line cracking. Removed from Pan as road reconstructed
2081	Sheardown Drive, Nobleton	MacTaggart Drive	Russell Snider Drive	HCB	2	8.5	8.5	0	816	0.26	-	95	L	2		7.04	1	1	1	1	7.04	Monitor & Maintain	2,210	\$80.00	\$176,800	Curbed. Pothole at 143 sheardown dr. Removed from plan as road reconstructed
49	Dearbourne Avenue West	Jane Street	East End Turnaround	LCB	2	7	6	1	128	1.12	G/S	95	L	5		5.32	1	1	1	1.25	6.65	Monitor & Maintain	6,720	\$16.00	\$107,520	Surface Treated 2019
47	Dearborne Avenue East	Keele Street	West	LCB	2	6.1	5.1	1	100	0.75	G/S	95	L	5		5.25	1	1	1	1.25	6.56	Monitor & Maintain	3,825	\$16.00	\$61,200	Surface Treated 2019
N/A	Bell's Lake Road	Highway 27 (South Intersection)	Highway 27 (North Intersection)	LCB	2	7.5	7.5	0		0.38	GST	95	L	3		5.00	1	1	1	1.25	6.25	Monitor & Maintain	2,850	\$16.00	\$45,600	Surface Treated 2019
1074	McBride Crescent, King City	Burton Grove	Patricia Drive	HCB	2	8.5	8.5	0	375	0.13	-	95	L	1		5.94	1	1	1	1	5.94	Monitor & Maintain	1,105	n/a	n/a	Curbed. few random cracking
263	Keele Street	Kettleby Road	19th Sideroad	HCB	2	7.9	6.1	0.9	2090	0.83	GST	98	C	1/5		4.09	1	1	1	1	4.09	Wait	5,810	\$16.00	\$92,960	
241	Concession Road 7	16 - Lloydtown/Aurora Road	18th Sideroad	HCB	2	9.4	7	1.2	983	0.76	GRA	98	C	4		2.98	1	1	1	1	2.98	Wait	6,232	\$16.00	\$99,712	Paved 2020
315	King Street	Keele Street	Dufferin Street	HCB	2	7.3	6.1	0.6	975	2.12	HCB	98	C	6		2.98	1	1	1	1	2.98	Wait	14,204	\$16.00	\$227,264	
243	Concession Road 7	16 - Lloydtown/Aurora Road	19th Sideroad	HCB	2	8.5	6.1	1.2	642	1.02	GRA	98	C	4		2.64	1	1	1	1	2.64	Wait	7,446	\$16.00	\$119,136	Paved 2020
11	15th Sideroad	0.6 km West of Weston Road	0.2 km East of Concession Road 7	HCB	2	8.5	6.5	1	529	1.20	GRA	98	C	2		2.53	1	1	1	1	2.53	Wait	9,000	\$16.00	\$144,000	
12	15th Sideroad	0.2 km East of Concession Road 7	Concession Road 7	HCB	2	8.5	7	0.75	529	0.20	GST	98	C	2		2.53	1	1	1	1	2.53	Wait	1,550	\$16.00	\$24,800	
181	Concession Road 10	11 - King Road	15th Sideroad	HCB		7.9	6.5	0.7	385	2.16	GST	98	C	3		2.39	1	1	1	1	2.39	Wait	15,552	\$16.00	\$248,832	
169	Concession Road 11	15th Sideroad	16th Sideroad	HCB	2	10.3	6.5	1.9	355	2.04	GST	98	C	3		2.36	1	1	1	1	2.36	Wait	17,136	\$16.00	\$274,176	
97	18th Sideroad	27 - Regional Road 27	Concession Road 10	HCB	2	8.5	6	1.25	291	2.03	GRA	98	C	3		2.29	1	1	1	1	2.29	Wait	14,718	\$16.00	\$235,480	
95	18th Sideroad	Concession Road 8	27 - Regional Road 27	HCB	2	7.9	6	0.95	236	2.04	GRA	98	C	3		2.24	1	1	1	1	2.24	Wait	14,178	\$16.00	\$226,848	
13	15th Sideroad	Concession Road 7	0.4 km West of Concession Road 7	HCB	2	8.5	6	1.25	235	0.40	GRA	98	C	2/3		2.24	1	1	1	1	2.24	Wait	2,900	\$16.00	\$46,400	
14	15th Sideroad	0.4km West of Concession Road 7	Concession Road 8	HCB	2	8.5	6.5	1	235	1.69	GRA	98	C	2/3		2.24	1	1	1	1	2.24	Wait	12,675	\$16.00	\$202,800	
183	Concession Road 10	15th Sideroad	16th Sideroad	HCB	2	7.9	6	0.95	234	2.05	GST	98	C	3		2.23	1	1	1	1	2.23	Wait	14,248	\$16.00	\$227,960	
185	Concession Road 10	16th Sideroad	17th Sideroad	HCB	2	6.7	5.7	0.5	151	2.40	GRA	98	C	3		2.15	1	1	1	1	2.15	Wait	14,880	\$16.00	\$238,080	
189	Concession Road 10	18th Sideroad	19th Sideroad	HCB	2	7.9	6.5	0.7	146	1.88	GRA	98	C	3/4		2.15	1	1	1	1	2.15	Wait	13,536	\$16.00	\$216,576	

TOWNSHIP OF KING
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Section No.	Name	From	To	Surface Type	No. Lanes	Platform Width (m)	Surface Width (m)	Shoulder Width (m)	2016 AADT	Length (km)	Shoulder Type	Pavement Condition Index (PCI)	Road Type	Ward	Strategic Importance Multiplier	Base Priority Score	Priority Multiplier Gravel Road	Priority Multiplier CWSI - Collector Rd	Priority Multiplier CWSI - Local Rd	Priority Multiplier LCB	Total Priority Score	Preferred Pavement Rehab Strategy	Right of Way Area (m ²)	Cost/m ²	Pavement Paving, Rehab, or Recon Cost	Comments
93	18th Sideroad	Concession Road 7	Concession Road 8	HCB	2	10.4	6	2.2	134	2.03	GRA	98	C	3/4		2.13	1	1	1	1	2.13	Wait	16,646	\$16.00	\$266,336	
101	18th Sideroad	Concession Road 11	Concession Road 12	HCB	2	9.2	7.4	0.9	112	2.08	GRA	98	C	3		2.11	1	1	1	1	2.11	Wait	17,264	\$16.00	\$276,224	
271	Old Bathurst Street	38 - Bathurst Street	0.72 km North of 38 - Bathurst Street	HCB	2	9.6	6	1.8	100	0.72	HCB	98	L	1		2.10	1	1	1	1	2.10	Wait	4,320	\$16.00	\$69,120	Paved 2020
272	Old Bathurst Street	0.72 km North of 38 - Bathurst Street	19th Sideroad	HCB	2	9.6	6	1.8	100	0.43	HCB	98	L	1/6		2.10	1	1	1	1	2.10	Wait	2,580	\$16.00	\$41,280	Paved 2020
187	Concession Road 10	17th Sideroad	18th Sideroad	HCB	2	7.9	6	0.95	100	1.87	GRA	98	C	3		2.10	1	1	1	1	2.10	Wait	12,997	\$16.00	\$207,944	
17	15th Sideroad	0.68 West of 27 - Regional Road 27	Concession Road 10	HCB	2	7.3	6.3	0.5	95	1.33	GRA	98	C	2/3		2.10	1	1	1	1	2.10	Wait	9,044	\$16.00	\$144,704	
18	15th Sideroad	0.68 km West of 27 - Regional Road 27	27 - Regional Road 27	HCB	2	7.3	6.3	0.5	95	0.68	GST	98	C	2/3		2.10	1	1	1	1	2.10	Wait	4,624	\$16.00	\$73,984	
99	18th Sideroad	Concession Road 10	Concession Road 11	HCB	2	7.9	6	0.95	76	2.05	GRA	98	C	3/4		2.08	1	1	1	1	2.08	Wait	14,248	\$16.00	\$227,960	
36	16th Sideroad	27 - Regional Road 27	Concession Road 10	HCB	2	8.5	6	1.25	64	2.02	HCB	98	L	3		2.06	1	1	1	1	2.06	Wait	12,120	\$16.00	\$193,920	

Notes: * The 2016 AADT traffic volumes, number of lanes, and road dimensions including platform, surface, and shoulder widths, and lengths were extracted from the King Township 2016 Roads Need Study Report.

** Right of Way Area calculated by multiplying the platform width and road length.

Glossary of Abbreviations

Term	Definition
AADT	Average Annual Daily Traffic
CWSI	Can We Save It – Priority factor/multiplier to rate if treatment now will delay or eliminate major pavement rehabilitation or reconstruction
G/S	Gravel Surfaced Road
HCB	High Class Bitumen (Hot Mix Asphalt) Road
HMA	Hot Mix Asphalt
LCB	Low Class Bitumen (Surface Treatment) Road
PCI	Pavement Condition Index
PCR	Pavement Condition Rating
Recon	Reconstruction
Rehab	Rehabilitation
RNS	Roads Need Study
TMP	Transportation Master Plan