INFRASTRUCTURE & ENVIRONMENTAL SERVICES COMMITTEE AGENDA

Thursday, August 24, 2023, at 9:00 a.m.
W & M Edelbrock Centre, Dufferin Room, 30 Centre Street, Orangeville ON
The meeting will be live streamed on YouTube at the following link:
https://www.youtube.com/channel/UCCx9vXkywflJr0LUVkKnYWQ

Land Acknowledgement Statement

We would like to begin by respectfully acknowledging that Dufferin County resides within the traditional territory and ancestral lands of the Tionontati (Petun), Attawandaron (Neutral), Haudenosaunee (Six Nations), and Anishinaabe peoples.

We also acknowledge that various municipalities within the County of Dufferin reside within the treaty lands named under the Haldimand Deed of 1784 and two of the Williams Treaties of 1818: Treaty 18: the Nottawasaga Purchase, and Treaty 19: The Ajetance Treaty.

These traditional territories upon which we live and learn, are steeped in rich Indigenous history and traditions. It is with this statement that we declare to honour and respect the past and present connection of Indigenous peoples with this land, its waterways and resources.

Roll Call

Declarations of Pecuniary Interest by Members

PUBLIC QUESTION PERIOD

Members of the public in attendance are able to ask a question. If you unable to attend and would like to submit a question, please contact us at info@dufferincounty.ca or 519-941-2816 x2500 prior to 4:30 p.m. on August 23, 2023.

REPORTS

1. INFRASTRUCTURE & ENVIRONMENTAL SERVICES – August 24, 2023 – ITEM #1
Updated Dufferin County Road Network Rationalization Plan

A report and presentation from the Director of Public Works/County Engineer, dated August 24, 2023, to provide an update on the Road Network Rationalization Plan.

Recommendation:

THAT the report of the Director of Public Works/County Engineer, dated August 24, 2023, Updated Dufferin County Road Network Rationalization Plan, be received;

AND THAT the Dufferin County Road Network Rationalization Plan be adopted;

AND THAT staff be directed to proceed with implementation.

2. INFRASTRUCTURE & ENVIRONMENTAL SERVICES – August 24, 2023 – ITEM #2
Speed & Passing Zone Review – Dufferin Road 11

A report from the Director of Public Works/County Engineer, dated August 24, 2023, to provide the results of a general review of Dufferin Road 11 between Dufferin Road 109 and 5 Sideroad Amaranth.

Recommendation:

THAT the report of the Director of Public Works/County Engineer, dated August 24, 2023, Speed and Passing Zone Review – Dufferin Road 11, be received;

AND THAT staff be directed to revise the posted speed limit of the southern portion of Dufferin Road 11 to 70 km/hr;

AND THAT Schedule H of the Consolidated Traffic By-Law 2005-32 be revised to include the following:

County Road Number	From	To
11	A point situated at the northern limit of Dufferin Road 109	A point situated 250 metres north of Shannon Court

3. INFRASTRUCTURE & ENVIRONMENTAL SERVICES – August 24, 2023 – ITEM #3
Dufferin County Forest – Oak Wilt Response

A report from the Director of Public Works/County Engineer, dated August 24, 2023, to update Council on expanded precautions and the public communication campaign regarding Oak Wilt.

Recommendation:

THAT the Report, Dufferin County Forest – Oak Wilt Response, dated August 24, 2023, from the Director of Public Works/County Engineer, be received.

4. INFRASTRUCTURE & ENVIRONMENTAL SERVICES – August 24, 2023 – ITEM #4
Household Hazardous Waste Services Update and Event Request

A report from the Director of Public Works/County Engineer, dated August 24, 2023, to provide an update on the Household Hazardous Waste service review and a request from the Township of Mulmur.

Recommendation:

THAT the report of the Director of Public Works/County Engineer, dated August 24, 2023, Household Hazardous Waste Services Update and Event Request, be received.

NOTICE OF MOTIONS

Next Meeting

Thursday, September 28, 2023
W & M Edelbrock Centre, Dufferin Room, 30 Centre Street, Orangeville ON

Dufferin county

A community that grows together

Report To: Chair Gerrits and Members of the Infrastructure and Environmental Services Committee

Meeting Date: August 24, 2023

Subject: **Updated Dufferin County Road Network Rationalization Plan**

From: **Scott Burns, Director of Public Work/County Engineer**

Recommendation

THAT the report of the Director of Public Works/County Engineer, dated August 24, 2023, Updated Dufferin County Road Network Rationalization Plan, be received;

AND THAT the Dufferin County Road Network Rationalization Plan be adopted;

AND THAT staff be directed to proceed with implementation.

Executive Summary

A Road Network Rationalization Plan aims to optimize a road network (roads and bridges/culverts) such that it holistically functions for the purpose it serves, and that infrastructure is maintained to the appropriate standard and by the appropriate agency. These Plans consist of the following two key phases:

- Phase 1 – Plan: based on a comprehensive study which provides the recommended road network, and;
- Phase 2 – Implementation: where a mechanism for transfer is chosen, subsequent financials are determined, and infrastructure transfers occur.

The County's most recent Plan was completed through 2014/15 and was terminated prior to implementation in 2016. In February 2022, Council directed staff to update the plan and move forward with Phase 2 – Implementation. The Plan has been updated (attached) and validates the previous recommendations.

At this stage, a decision is required as to whether Council wishes to proceed with implementation.

Background & Discussion

The purpose of a Road Network Rationalization Plan is to optimize a road network (roads and bridges/culverts) such that it holistically functions for the purpose it serves, and that infrastructure is being maintained to the appropriate standard and by the appropriate agency. Through optimizing a road network, associated expenses can align to these standards and costs can be borne accordingly by the subsequent level of government. This offers more efficient allocation of funds overall. A misaligned road network results in transportation gaps, varied service or maintenance response, inconsistent application of standards and best practice, etc., all of which result in inefficiencies, unnecessary costs, and exposure to risk. County roads and bridges are intended to function for higher levels of transportation than that of the local systems and therefore traditionally incur additional costs for construction, ongoing maintenance, and winter control. As road networks evolve over time, it is good practice to perform a detailed review approximately every 15 years.

For at least 10 years, rightsizing of the County Road Network has been an intermittent subject of discussion for County Council. During this time, the County's most recent Road Network Rationalization Plan was completed through 2014/15 and was terminated prior to implementation in 2016. Dufferin County's last successful road network review was completed 1998/99 with implementation in 2000.

In January 2022, the Infrastructure and Environmental Services Committee made a motion **THAT staff be directed to engage with the consultants of the Dufferin Road Network Rationalization Study, C.C. Tatham & Associates Ltd., to update the study and move forward with Phase 2.** The motion was endorsed by County Council at the February 2022 meeting.

The Plan (attached) was updated and validates the original recommendations regarding infrastructure transfers to and from the County. The updated Plan also includes infrastructure needs and related costs for proposed transfers from the County based on the most recent data. Should Council choose to proceed with Phase 2- Implementation, these representative costs will be confirmed on a case-by-case basis prior to transfer in line with the adopted mechanism.

At this stage, a decision is required to do nothing or proceed with Phase 2 – Implementation which includes:

- Determining the mechanism for transfer:
  - Transfer infrastructure in current state,
  - Transfer infrastructure in improved state,
  - Transfer infrastructure with concessions.
- Depending on the mechanism for transfer, infrastructure needs and costs will be reviewed in detail on a case-by-case basis
- Proceed with transfers.

Should Council choose not to proceed and leave the County Road Network as it is in its current state, staff will begin review of policies, procedures, practices, etc. to ensure that all infrastructure is maintained to an appropriate standard as best as reasonably possible. One example of a lacking policy pertains to County-owned bridges on local roads. As described in a June 25, 2020, report to Council, County Bridges on Local Roads – Jurisdictional Responsibilities, numerous bridges that do not serve a County function are within the County inventory and there is little in the way of determining whether structures can or should be added or removed. In addition to this, guidance is lacking with respect to the standards to which these low volume structures should be rehabilitated, replaced, or whether in some cases could simply be removed.

Financial, Staffing, Legal, or IT Considerations

Costs associated with transfers will be determined as part of Phase 2.

In Support of Strategic Plan Priorities and Objectives

Governance - identify opportunities to improve governance and service delivery/ improve the County's internal and external communication

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Respectfully Submitted By:

Scott C. Burns, P.Eng., C.E.T.
Director of Public Works/County Engineer

Attachments: Dufferin County Road Network Rationalization Plan

Reviewed by: Sonya Pritchard, Chief Administrative Officer

TATHAM ENGINEERING

Enhancing our communities

Dufferin County Road Network

RATIONALIZATION PLAN

County of Dufferin

File 114238 | August 16, 2023

Document Control

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114238

Date:

August 16, 2023

Prepared by:

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	 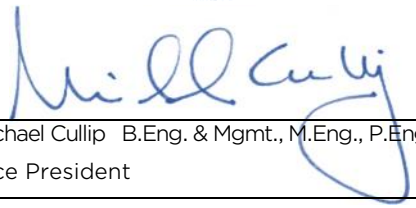
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Issue	Date	Description
1	August 16, 2023	Final report

Document Contents

Tables

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1 Introduction

Tatham Engineering Limited was retained by the County of Dufferin to prepare a Road Network Rationalization Plan, which is comprised of the following:

- Part 1 – Rationalization Study, the intent of which is to identify the most appropriate County transportation network (considering roads and structures); and
- Part 2 – Study Implementation, the intent of which is to develop strategies, policies and procedures to implement the recommendations from the Rationalization Study.

As implied, the network rationalization process is the first step towards rightsizing the County's transportation network. Where network roads or bridges do not meet the established criteria for designation as a County asset, several options have been explored with regard to the strategic transfer of these to the local municipalities while keeping in mind the needs and concerns of both the County and the municipalities. Through this process, it is intended that the resulting County transportation network will ensure appropriate and comprehensive corridors are provided throughout the County, to provide service within and beyond the County limits.

Rationalizing the transportation network, while acknowledged as a sensitive process given the financial implications to the parties involved, is a crucial step in ensuring that the County transportation network is serving its intended purpose and doing so as efficiently as possible. Certainly, to forgo the rationalization of the County's transportation network would also have financial implications going forward, whether by increased levies to raise the additional funds required to maintain the network to appropriate County standards or as a result of a deteriorating network. If County assets are not properly maintained, they will continue to deteriorate, compromising the overall road system's ability to achieve its primary objectives, including promoting and supporting economic growth within the County (which naturally benefits the local municipalities and the County as a whole). The economic reality facing counties and municipalities across Ontario is that the resources available to maintain the road system are finite, if not dwindling. Therefore it is imperative that the available resources are used with focused efficiency, recognizing that every dollar invested in a County road asset that does not serve a County purpose is a dollar that is not efficiently invested in the overall objectives of the County transportation network. The rationalization process will assist the County in defining a focused, effective and efficient transportation network while providing a means of prioritizing the allocation of resources. The aim is to facilitate the smart spend of County dollars which will allow the County to develop, maintain and sustain the transportation network in consideration of the overall objectives of the network, rather than misuse the available resources by maintaining roads that provide redundant or incomplete service.

2 Road Rationalization Process

2.1 OBJECTIVE

To ensure appropriate accountability to the road users and application of standards and practice that best suit the road classification, a road rationalization exercise has been completed for all Dufferin County roads, with the intent of confirming those roads that serve a through traffic function are designated as County roads, whereas those serving a local function are considered as potential candidates for transfer to the respective municipality. In addition, a number of local roads have also been considered, as identified through discussions between County and local municipal staff and through a cursory review of the existing local road network. The local roads identified may possibly provide a higher level function and thus will be reviewed for consideration as County roads.

2.2 LEGISLATION

Under the *Municipal Act*, and in addition to the *Public Transportation and Highway Improvement Act*, Dufferin County has been granted the power to establish, maintain, add or remove designated roads to or from their County road system as a means of maintaining a relevant and appropriate road network that serves the overall objectives of the County.

2.3 ROAD NETWORK

The road hierarchy is a division of the road network into road classifications, which reflect the functionality of the roads making up the network. Management of the road network must provide for the following (the degree to which dictates the classification):

- effective access to property;
- free flow of vehicles and pedestrians;
- management of traffic movements;
- protection of roadside amenities; and
- support of sustainable land development.

Within Dufferin County, the hierarchy reflects the following road classifications (as per Figure 1):

- provincial highways (intended to serve through traffic, greater volumes at higher speeds, with less opportunity for local access);
- County roads; and

- local roads (intended to serve local traffic, at lower speeds, with greater opportunity for local access).

In considering the County road designation, such roads are considered primary travel corridors within the County and are intended to provide efficient movement of traffic throughout. County roads should provide connectivity between the County's settlement areas and rural areas, and support the associated residential and commercial activities. In this respect, they are vital to the economic development and vitality of the County. Where feasible, County roads are intended to serve increased traffic volumes, at higher travel speeds, with reduced interruption.

The design of a road's physical attributes such as width, pavement structure, surface type and other design elements are determined by its road classification. Similarly, the road maintenance and capital programs employed by the County and the local municipalities are also based on the classification. It is recognized that the higher the road classification, the greater the road standard pertaining to design and construction, and also the greater the expectation and requirements with respect to road maintenance. When considering the cross-sectional differences between a typical County road and a typical local road (i.e. width, amount of gravel, pavement, etc.), it is estimated that the costs associated with a local road are approximately 30% less than those costs associated with a County road.

2.4 METHODOLOGY

The rationalization of the County's road network involved a systematic review comprised of the following steps:

- Step 1: Criteria Based Assessment;
- Step 2: Principle Based Assessment; and
- Step 3: Special Considerations Review.

2.4.1 Step 1: Criteria Based Assessment

In order to establish road rationalization scoring criteria applicable to Dufferin County, a background review of criteria published by the Ontario Good Roads Association (OGRA) was conducted in addition to the criteria employed in road rationalization studies conducted for Grey County (2006 and 2014); Oxford County (2007); Lanark County (2008); and Simcoe County (2008).

OGRA Criteria

The OGRA criteria are a standard starting point for jurisdictions to reference when undertaking a road rationalization study. They are considered as a guideline rather than a rule and can be modified as needed. The generic OGRA road rationalization criteria are noted below.

Criterion 1: Urban Centre Connector

This criterion is intended to identify roads providing service to and from urban centres having commercial / recreational and possibly industrial development. Urban centres are areas of concentrated development (typically with a combination of commercial/industrial and residential development), not "ribbon" or "strip" development. The criterion is not intended to be applied to residential subdivisions that are developing in rural areas. When the residential development grows to a sufficient size, upper tier road service may be considered through the application of all of the criteria.

This criterion is to connect urban centres to each other or to a King's Highway unless such a service is now provided by the King's Highway System.

Criterion 2: Kings Highway/ Upper Tier Connector

The intent of this criterion is to extend the King's Highway or upper tier road to connect to major commercial/industrial areas, universities, hospitals, international border crossings, provincial boundaries and other like facilities, and not to provide for lateral connections between the King's Highways/upper tier roads. Dufferin County and the municipalities within must ensure that local roads serve primarily the needs of the local population and the County roads serve as a continuous transportation network (i.e. extensions of the King's Highways or connections with external County roads). This criterion does not apply to lateral connections between highways/upper tier roads.

Criterion 3: Heavy Industrial Service

It is not intended that it be an upper tier responsibility to provide service to the entrance of every attractor or generator of heavy vehicles in an area. Rather, it is intended that upper tier service be provided within 4 km of locations that generate the movement of heavy trucks and vehicles on an ongoing basis. Types of operations being serviced would include quarries, gravel pits, logging and lumber production, large processing plants, feed mills, area landfill sites as well as industrial

parks. The operation must generate industrial activity for at least 9 months of the year and provide service within 4 km of consistent major attractions or generators of heavy vehicles.

Criterion 4: Barrier Service

The intent of this criterion is to alleviate traffic on local roads by providing service parallel to or across barriers to traffic movement where upper tier service is justified. The barrier must be an obstacle to traffic wishing to cross it and it must be feasible to cross (i.e. rivers by bridges). Service is provided parallel to only if there is no other upper tier road or King's Highway providing that service within a reasonable distance and only along roads that are used to reach barrier crossings.

Criterion 5: Resort /Recreation Service

The route would provide upper tier service within 4 km of the edge of major resort and/or recreational locations generating a minimum of 700 vehicle trips per day during normal season of operation.

Criterion 6: Urban Cell Service

The intent of this criterion is to provide service in urban areas within cells formed by Kings Highways and upper tier roads (as determined by Criteria 1 through 5), provided that the traffic demand on the street is for through traffic. It is noted that a weight of 0 is applied to this criterion in that it is typically considered after the initial rationalization process is complete and provides rationale for filling gaps in the County road network. OGRA notes that these criteria are seldom applied given the relatively good condition of most local roads which provide adequate service within urban cells.

Criterion 7: Urban Arterial Extension

The intent of this criterion is to provide for the extension of urban arterial streets into the rural areas to connect with an upper tier road or a King's Highway. Traffic counts should be taken on both sides of the intersection with the upper tier and the extension continued through the intersection, only if both AADTs equal or exceed 700 vehicles per day.

Criterion 8: Rural Cell Service

The intent of this criterion is to provide upper tier service within the cell formed by the application of Criteria 1 through 5 and 7, at spacing related to population density within the cells. Upper tier roads or King's Highways in the subject upper tier or in adjacent upper tiers act as rural

cell boundaries. As with Criterion 6, a weight of 0 is recommended initially and the criterion revisited following the initial road rationalization process. OGRA notes that these criteria are seldom applied given the relatively good condition of most local roads which provide adequate service within rural cells

Criterion 9: Traffic Speed

This criterion is intended to identify those roads which, for the majority of the road, have speed limits of 80 km/h. This is deemed to be a desirable speed limit allowing roads that predominately serve as inter-municipal links in a road network to do so efficiently.

Criterion 10: Road Surface

This criterion is intended to identify those roads with a hard top surface. These roads were deemed to be more appropriate to serve as upper tier roads as a hard top surface is more durable to withstand the greater traffic volumes, heavier vehicles and higher speeds as anticipated on upper tier roads.

Criterion 11: Traffic Volume

This criterion is intended to identify roads with current traffic volumes greater than 1000 vehicles per day.

Criterion 12: Road Right-of-Way

The intent of this criterion is to identify roads with a right-of-way width of 20 metres (66 ft). It is appropriate to be considered for an upper tier road designation that the road have at least a minimum right-of-way.

Other Criteria

Through a review of the previously referenced road rationalization studies for Simcoe County, Lanark County, Oxford County and Grey County, a number of other criteria were established and employed to reflect the local objectives and functions of the respective county road systems.

Criterion 13: Provides a Continuous Route through the County

This criterion identifies those road sections that provide continuous travel service through the County and thus have the potential to serve a higher function.

Criterion 14: Connects to a County Road in a Neighbouring Jurisdiction

This criterion identifies roads that provide continuity as a link with another upper tier road across the County boundary. This includes roads that form a boundary with an adjacent County with a similar County designation.

Criterion 15: Provides Urban Congestion Relief/By-pass	This criterion takes into consideration roads that can be effective in providing relief to urban congestion and act as a local by-pass.
Criterion 16: Emergency Detour Routes	This criterion recognizes roads that act as designated emergency detour routes for major provincial highways. The key to an effective emergency detour route is to efficiently accommodate diverted traffic. Simcoe County deemed this criterion important as it allows the County to protect detour corridors and ensure efficient traffic movements on the designated road.
Criterion 17: Peak Seasonal / Monthly Volumes	This criterion, employed in the Lanark County study, takes into account traffic volumes that increase substantially during particular months of the year. This would typically be associated with major recreational destinations.

Summary of Criteria

A summary of the criteria and weights for the standard OGRA approach and those employed in road rationalization studies for the noted counties is provided in Table 1. The Threshold Weight is the minimum number of points required for the road section to be considered a County road.

As previously noted, the OGRA criteria is a suggested approach and it is expected that jurisdictions will alter and develop the criteria to address specific issues and objectives they may have for their respective road network, as evident in Table 1.

Recommended Criteria for Dufferin County

Based on a review of the OGRA criteria and those modified for use by other similar jurisdictions, and in consideration of Dufferin County's specific conditions, the following criteria and respective weights have been considered in the assessment of Dufferin County's road network. Criteria deemed not applicable to Dufferin County are also noted. Each of the criteria to be considered in the assessment has been assigned a weight which reflects its relative importance with respect to the County's road network.

Table 1: Road Rationalization Criteria Review

CRITERIA		WEIGHTING					
		OGRA	Simcoe 2008	Lanark 2008	Oxford 2007	Grey 2006	Grey 2014
1	Urban Centre Connector	3	2	3	3	3	0 to 4
2	Kings Highway/Upper Tier Connector	2	included in above	2	3	3	included in above
3	Heavy Industry Service	2	1 to 5	2	2	2	0 to 2
4	Barrier Service	1	-	1	1	0.5	0 or 1
5	Resort/Recreation Service	1	1 or 2	-	1	1	-
6	Urban Cell Service	0	-	3	-	-	-
7	Urban Arterial Extension	3	1 or 3	-	3	3	-
8	Rural Cell Service	0	-	1	-	0.5	-
9	Traffic Speed	1	-	-	1	1	0 or 1
10	Road Surface	0.5	-	1 to 3	0.5	0.5 or 1	-
11	Traffic Volume	0.5	1 to 6	-	0.5	1 to 3.5	0 to 4
12	Road Right-of-Way	1	-	-	1	1	-
13	Continuity within County	-	-	-	-	-	0 or 2
14	Connects to neighbour County road	-	1	-	-	-	0 or 2
15	Provides urban by-pass function	-	2	-	-	-	0 or 2
16	Emergency detour route	-	6	-	-	-	-
17	Peak seasonal/monthly volumes	-	-	1 to 3	-	-	-
	Total Criteria Used	**10**	**8**	**8**	**10**	**11**	**8**
	Threshold Weight	**6**	**6**	**6**	**6.5**	**6**	**6**

Criterion 1: Urban Centre Connector

Criterion 2: Kings Highway/ Upper Tier Connector

The intent of Criterion 1 and 2 is to award points to roads that connect urban centres or built-up areas (i.e.. areas of major commercial or employment activity) to one another or to the upper tier/Provincial highway system. Given that both criterions are intended to recognize connectivity, it was considered appropriate to combine the two criterions into a single criterion. With respect to what constitutes an urban centre or built-up area, the designations of "urban settlement area" and "community settlement area", as provided in the *Dufferin County Official Plan,* have been considered. Areas of recreational significance (i.e. Hockley Valley Resort area) have also been considered.

To recognize the significance of the various settlement areas, recreational resort areas and the commercial activity associated with each area, the following weights were assigned:

- 4 points roads connecting urban settlement areas to other urban/community settlement areas or to the upper tier/Provincial highway system
- 2 points roads connecting community settlement areas to other community settlement areas or to the upper tier/Provincial highway system
- 2 points roads connecting recreational resort areas to other community settlement areas or to the upper tier/Provincial highway system
- 0 points roads connecting to non-settlement areas

Criterion 3a: Heavy Industrial Service

This criterion recognizes existing truck traffic on the road network. The points are awarded on a sliding scale based on the daily truck volumes for any given section of road, based on the following:

- 2 points ≥1000 (daily truck volume)
- 1.5 points 750 to 999
- 1 point 500 to 749
- 0.5 points 250 to 499
- 0 points <250

The weighting and scale are based on a review of truck volumes observed on the County road network.

Criterion 3b: Future Heavy Industrial Service

In addition to the volume-based weighting, an additional weight of 1 was assigned to those roads which serve an existing or potential truck generating area. This ensures that, while a particular road may not warrant a higher weight based on existing truck volumes, the potential of increased truck traffic due to the area served by said road (i.e. in areas where aggregate resources are located) is still considered in the weighting process.

In considering the weighting assigned to Criteria 3a and 3b, roads can score a maximum of 3 points.

Criterion 4: Barrier Service

Barrier service is not considered a crucial factor with respect to road classification; however, there are some roads within Dufferin County that provide barrier service, particularly where water crossings are concerned (i.e. Grand River). A weight of 0.5 has been assigned to roads that provide barrier service.

Criterion 5: Resort/Recreation Connection

The resort criterion has not been considered as an exclusive criterion but rather points have been awarded under Criteria 1 which has been framed to consider connection to recreation/resort areas.

Criterion 6: Urban Cell Service

The urban areas in Dufferin County are limited in number and size. The local road networks within these areas provide adequate service. Thus this criterion is not applicable to Dufferin County and has not been considered. It is further noted that the intent of this criterion is to provide rationale for filling gaps in the County road network within urban areas. This holistic approach is otherwise considered later in the principle assessment.

Criterion 7: Urban Arterial Extension

This criterion is considered a redundancy to Criterion 1 as all roads serving the function of an urban arterial extension will also receive points for connecting an urban settlement. Thus this criterion has not been considered.

Criterion 8: Rural Cell Service

Similar to Criterion 6, the intent of this criterion is to provide rationale for filling gaps in the County road network following the initial road rationalization process. This holistic approach is otherwise considered later in the principle assessment. As such, this criterion has not been considered.

Criterion 9: Traffic Speed

Traffic speed is considered a relevant factor with respect to the function of a County road given that a County road should contribute to efficient flow of traffic through the County. Thus roads with a predominant posted speed limit of 80 km/h are awarded a weight of 1. The predominant speed will be considered as the speed limit in force for the majority length of any given road section.

Criterion 10: Road Surface

The condition or type of road surface is not considered an important factor with respect to road classification. Roads considered as candidates for County status should be upgraded to the appropriate County standards, regardless of the existing road surface. In this regard, this criterion has not been considered.

Criterion 11: Traffic Volume

Traffic volume is an important indicator of road function. Similar to Criterion 3, a range of weights has been developed to better reflect the role and function of the road within the overall network, as determined from available average annual daily traffic volumes. The following range has been applied:

- 4 points ≥3500 AADT
- 3.5 points 3000 to 3499
- 3 points 2500 to 2999
- 2.5 points 2000 to 2499
- 2 points 1500 to 1999
- 1.5 points 1000 to 1499
- 1 point 500 to 999
- 0 points <500

Criterion 12: Road Right-of-Way

The available right-of-way is not considered an important factor with respect to road classification. Roads considered as candidates for County status should be upgraded to the appropriate County standards and provisions made to acquire any additional property as necessary. As such, this criterion has not been considered.

Criterion 13: Provides Continuity through the County

This is considered an important factor with respect to the overall objectives of the County road network. Continuity through the County improves connectivity both within the County and to destinations and opportunities beyond its borders, which is vital to the economic health of the County and its residents. A weight of 2 points was assigned to roads serving this function.

Criterion 14: Connects to a County Road in a Neighbour Jurisdiction

This criterion is considered important in terms of continuity and connectivity of the County road network. Connection to neighbouring County road networks is beneficial to both Dufferin County and its neighbours as it connects markets and facilitates the movement of people and commercial goods. A weight of 2 points was awarded to roads providing this connection and continuity.

Criterion 15: Provides a By-pass Function for Urban or Built-up areas

Dufferin County does not have many large urban areas outside of Orangeville, Shelburne and Grand Valley. Notwithstanding, this is considered an important criterion as the by-pass function alleviates congestion within the urban areas and enhances the efficiency of flow on the County road. Roads serving this function were assigned a weight of 2.

Criterion 16: Emergency Detour Routes

Emergency detour routes are typically designated to provide a relief route to major provincial highways (i.e. Highway 11, Highway 400, etc.) in the event of an emergency. The provincial highways within Dufferin County do not carry the type of volume that would otherwise require detour routes and as such, this criterion is not applicable to Dufferin County and thus has not been considered.

Criterion 17: Peak Season/Monthly Volumes

This criterion is not considered necessary for Dufferin County. Peak season/monthly volumes that are significant deviations from the average are typically associated with major recreational destinations

and have therefore been considered under Criterion 1. As such, this criterion has not been considered on its own, rather it has been incorporated into Criterion 1.

A summary of the recommended criteria and weighting for Dufferin County is provided in Table 2; the threshold weight refers to the minimum number of points to be considered as a County road.

Table 2: Dufferin County Road Rationalization Criteria

CRITERIA		WEIGHT
1	Urban Settlement Connector/Upper Tier Connector	0, 2 or 4
3a	Heavy Industry Service	0 to 2
3b	Future Industry Service	0 or 1
4	Barrier Service	0 or 0.5
9	Traffic Speed	0 or 1
11	Traffic Volume	0 to 4
13	Continuity within County	0 or 2
14	Connects to neighbouring County road	0 or 2
15	Provides urban by-pass function	0 or 2
	Threshold Weight	**6**

2.4.2 Step 2: Principle Based Assessment

To develop a County Road Classification System, a framework must first be developed that defines the objectives of a County road system and distinguishes a County road from a local road. This fundamental framework is premised on the following principles:

Principle 1: Level of Service

County roads should provide appropriate service within all areas of the County extending north to south, and east to west, with an emphasis on those serving established settlement areas.

Principle 2: Complement Highways	County roads should complement the Provincial highway system (Highways 9, 10 and 89).
Principle 3: Logical Grid System	Together, County roads should form a direct, succinct and intuitive road system for the benefit of County residents, commercial traffic and visitors alike. This is ideally achieved through the development of a logical grid based system which accommodates north-south and east-west travel throughout the County, building on the Provincial highway system and road networks of neighbouring jurisdictions.
Principle 4: Primary Corridors	County roads are primary transportation corridors which provide a high degree of connectivity (within and without the County) and a good level of service to the road users.
Principle 5: Design Standard	County roads should be of a reasonable standard in terms of design, or should be capable of being improved/maintained to a reasonable standard (with respect to horizontal/vertical alignment, number/width of lanes, shoulders, etc.).
Principle 6: Shortest Practical Route	County roads should reflect the shortest practical route, along existing streets and roads.
Principle 7: Redundancy	County roads should not provide redundant service with respect to the provision and maintenance of alternative parallel roads.
Principle 8: Extension through Urban Areas	County roads should not extend through downtown areas of urban centres where access to abutting development is the primary need and where significant pedestrian activities results (both of which detract from the primary function of the road).

2.4.3 Step 3: Special Considerations Review

The final step in the road rationalization process is a review of the proposed County road network (as developed through Step 1: Criteria Based Assessment and Step 2: Principle Based Assessment) to ensure that any special considerations or unique circumstances that may preclude the findings of the criteria and principle assessments are properly taken into account.

3 Road Rationalization Results

3.1 STEP 1: CRITERIA BASED ASSESSMENT

In consideration of the varying roles, functions, traffic volumes and conditions that exist along individual County roads (which have implications with respect to the evaluations), each County road was divided into distinct segments for the purpose of the criteria assessment. The individual road segments were evaluated based on the noted criteria and assigned appropriate weights for each. Overall, 60 road sections were established, totalling 317.4 km in length.

In addition, a number of local roads were identified for consideration in the assessment based on their current role, function and use. The local roads were identified through discussions between County and local municipal staff, and through a cursory review of the local road network. The candidate local roads, totalling 61.4 km, are illustrated in Figure 2 and noted below:

- Erin-Garafraxa Townline from East-West Garafraxa Townline to County Road 23;
- Mono-Amaranth Townline from County Road 16 to Highway 89;
- Amaranth-East Luther Townline from County Road 109 to County Road 10;
- 10 Sideroad (Mulmur) from County Road 19 to County Road 18;
- Riddell Road (Orangeville) from County Road 109 to County Road 23; and
- Sideroad 260 (Melancthon) from Melancthon-Proton Townline to Highway 10.

A list of the County and local road sections considered in the assessment, the assigned weights for the applicable criteria, the total weight and associated results (i.e. satisfies the County road criteria if total weight ≥ 6; does not satisfy the County road criteria if total weight < 6) is provided in Appendix A, whereas a summary is provided in Table 3. The results of the Criteria assessment are illustrated in Figure 3.

Table 3: Criteria Based Assessment

CURRENT DESIGNATION			SATISFIES COUNTY ROAD CRITERIA (WEIGHT ≥ 6)		DOES NOT SATISFY COUNTY ROAD CRITERIA (WEIGHT < 6)	
Class	Sections	Length (km)	Sections	Length (km)	Sections	Length (km)
County Roads	60	317.4	48	246.4	12	71.0
Local Roads	6	61.4	4	47.5	2	13.9

As noted, of the 60 road sections currently designated as County roads, 12 sections accounting for 71.0 km (22% of the total length) do not satisfy the criteria for County road designation (in that the respective weights < 6). Regardless, all road sections (including those that did not meet the criteria for County road designation) will be further considered through the subsequent principle assessment and special consideration review (Step 2 and Step 3 of the road rationalization process).

Of the local roads investigated, 4 of the 6 sections satisfy the criteria for consideration as a County road (weights ≥ 6), which include:

- Erin-Garafraxa/Orangeville Caledon Townline from East-West Garafraxa T/L to County Road 23;
- Mono-Amaranth Townline from County Road 16 to Highway 89;
- 10 Sideroad from County Road 19 to County Road 18; and
- Riddell Road from County Road 109 to County Road 23.

These local road sections will also be considered through the subsequent principle assessment and special consideration review (Step 2 and Step 3 of the road rationalization process).

3.2 STEP 2: PRINCIPLE BASED ASSESSMENT

Further to the criteria based assessment, a review based on the defined Road Rationalization Principles (as described in Section 2.4.2) was also conducted with consideration given to the overall County road network, recognizing that the criteria assessment was focused on individual road sections (i.e. disaggregate approach) and did not otherwise consider a high-level overview of the County road network (i.e. aggregate approach). The Principle Assessment identifies gaps and redundancies in the network and provides a means of fine tuning the proposed County road network, thus ensuring that the overall objectives of the County road network are realized.

In consideration of the Road Rationalization Principles and the extent to which each road section satisfies the principles, a number of existing County roads which otherwise satisfy the criteria assessment to remain as County roads (i.e. weight ≥ 6) have been identified for incorporation into the local road system. Conversely, there are a number of roads that were identified for transfer to the local road system based on the Criteria Assessment (i.e. weight <6) but have been recommended to remain in the County network based on the results of the subsequent Principle Assessment. The Principle Assessment results are provided in Appendix B.

3.2.1 Consideration as Local Roads

The following provides discussion on those roads identified through Step 1: Criteria Based Assessment for consideration as County roads but have otherwise been recommended for transfer to the local road network based on the results of Step 2: Principle Based Assessment.

County Road 12

It is recommended that County Road 12 (in its entirety) be considered as a candidate for transfer to the local municipality as its service provision is considered redundant given its close proximity to County Road 11 (2 concession blocks to the east) and parallel orientation. The preference is to maintain County Road 11 as part of the County road system as it provides a more complete north-south service in conjunction with County Road 124, connects to the urban settlement area of Shelburne, and experiences significantly higher traffic volumes from both passenger and heavy trucks due to proximity to commercial developments.

County Road 23

County Road 23 from Peel Road 136 to Riddell Road is recommended for transfer to the local municipality. This small section is the only portion of County Road 23 to satisfy the criteria assessment for being considered as a County road (primarily due to its traffic volumes and connection to Peel Road 136). With the recommended transfer of Riddell Road to the County network, this section of County Road 23 (and indeed all of County Road 23) becomes a redundant facility. Riddell Road and County Road 109 will become the preferred routing thus negating the need to maintain County Road 23 as a County road. It is noted that this section of County Road 23 borders Peel Region and thus responsibility would be shared between the local municipality and the Region (or with the local municipality within Peel Region, should the Region transfer its responsibility as well).

Erin-Garafraxa Townline

Although identified as a candidate for consideration as a County road through the criteria assessment, the principle assessment indicates that the Erin-Garafraxa Townline does not satisfy several of the key principles to be considered for County status. As a County road, Erin-Garafraxa Townline provides redundant service to the County network given its proximity to County Road 3. Furthermore, County Road 3 is preferred as a County facility given its continuation as Wellington

County Road 18 to the east and its ultimate connection with the Town of Fergus.

Mono-Amaranth Townline

Mono-Amaranth Townline from County Road 16 to Highway 89 is recommended to remain as part of the local road network. The north-south corridor in the area is already served by upper tier County Road 11 (two concessions to the west) and by Provincial Highway 10 (two concessions to the east). Thus the Mono-Amaranth Townline is not considered a candidate for inclusion in the County road network.

3.2.2 Consideration as County Roads

The following provides discussion on those roads identified through Step 1: Criteria Based Assessment as candidates for incorporation into the local road network but have otherwise been recommended to be maintained within the County road system based on the results of Step 2: Principle Based Assessment.

County Road 5

County Road 5, in its entirety, is recommended to remain in the County road system. County Road 5 provides non-redundant service in the area and enhances the north-south service through the County via connection to County Road 25 to the north and to Wellington Road 19 beyond Dufferin's boundary to the south. It is further noted that County Road 5 provides essential barrier service to the Grand River in Dufferin County and to Belwood Lake in Wellington County.

County Road 7

The section of County Road 7 from 3rd Line east to County Road 18 was the only portion of County Road 7 to be identified for transfer to the local road network based on the criteria assessment. Transferring this section of road would result in a gap in the east-west service provided by the County network through the area and into Simcoe County to the east. Thus, it is recommended that this section of County Road 7 remain a County facility.

County Road 17

It is recommended that County Road 17, from Highway 89 to County Road 19, remain in the County system. When considered in context of the existing road network, this section of road does not satisfy the criteria to remain as a County road. However, with the recommended transfer of 10 Sideroad, Mulmur (from County Road 19 to County Road

18) to the County network, County Road 17 becomes a complete east west corridor that provides service through and beyond the County.

County Road 21

County Road 21 from Highway 10 to County Road 124 is recommended to remain in the County system as it enhances east-west service in the northern portion of the County and complements the Provincial highway system via its connection to Highway 10.

3.2.3 Summary

The proposed changes to the County road network, as per the results of Step 1: Criteria Based Assessment and Step 2: Principle Based Assessment, are illustrated in Figure 4.

3.3 STEP 3: SPECIAL CONSIDERATIONS

While the previous assessments provide a comprehensive evaluation of the County road network, there are some road sections that have been identified for incorporation in the local road network that, upon final review, are considered to better serve the County and/or its neighbours as part of the County network. Regardless of the criteria and principle based assessments, these road sections are considered to fill a specific role and, despite not being identified based on the noted criteria or principles due to other mitigating factors, deserve special consideration. The road sections to remain within the County network based on these considerations are summarized below.

County Road 2 & County Road 9

County Road 2 and County Road 9 are very short sections of road in the northwest corner of Dufferin County. Neither road provides significant utility towards the overall objectives of Dufferin County, but should be considered further for several reasons. County Road 2 is a 3 km section which stretches from County Road 9 to the Dufferin-Grey County border and then continues within Grey County as Grey Road 2. County Road 9 is approximately 11 km in length and essentially provides a continuation of Grey Road 9 through Dufferin County (Grey Road 9 transitions to County Road 9 through Dufferin County and then back to Grey Road 9). Given that County Road 2 and County Road 9 serve the County road network in Grey County, both are recommended for inclusion in the Dufferin County road network.

County Road 11 (County Road 3 to County Road 109)

This section of County Road 11 is recommended to remain as a County road as it connects County Road 3 to County Road 109 and further

completes the north-south corridor consisting of County Road 11 and County Road 124.

County Road 24 (County Road 3 to County Road 109)

This section of County Road 24 is recommended to remain as a County road as it connects County Road 109 to the Dufferin/Wellington County border. It is noted that County Road 24 continues into Wellington County as Wellington Road 24. Thus maintaining County Road 24 also improves the north-south connectivity between Dufferin County and Wellington County.

3.3.1 Summary

Figure 5 illustrates the proposed changes to the road network based on the results of the road rationalization process, which takes into account the recommendations identified through the criteria and principle assessments in addition to the special considerations as discussed.

3.4 RECOMMENDED COUNTY ROADS

The resulting proposed Dufferin County road network is illustrated in Figure 6, as recommended following the rationalization process. As evident, the road system provides service throughout the County, serves all urban settlement areas, and is based on a grid system with relatively uniform separation between consecutive County roads. Table 4 summarizes the results of the road rationalization whereas additional details by road section are provided in Appendix C.

Table 4: County Road System – Rationalization Results

OWNERSHIP	ROAD LENGTH (km)		
	Existing	Proposed	Net Change
County Roads	317.4	279.5	-37.9
Local Roads (Considered in the Study)	61.4	99.3	+37.9
Total	**378.8**	**378.8**	**0**

As noted, the net result of the road rationalization is a reduction of 37.9 km of roads in the County road system, which consists of the following:

- 50.8 km of existing County roads to be transferred to the local municipality; and
- 12.9 km of existing local roads to be transferred to the County.

The following 5 County roads have been recommended for transfer to the local municipality:

- County Road 8;
- County Road 12;
- County Road 15;
- County Road 19; and
- County Road 23.

The rationale for transferring County Road 12 and County Road 23 to the local municipality is discussed in Section 3.2.1; the rationale for County Roads 8, 15 and 19 is discussed below.

County Road 8

County Road 8 is recommended for transfer based on the results of both the criteria and principle based assessments. While receiving points for connecting to Mono Centre, County Road 8 does not serve a significant volume of traffic (passenger or truck), offer direct service (i.e. its path is disjointed), contribute a significant level of connectivity or provide continuous service through the County or beyond its borders.

County Road 15

County Road 15 did not meet the established criteria and principle assessment requirement for a County road. The road does not contribute to the overall connectivity of the County and does not provide or complement east-west continuity of the County road network. Highway 89 provides a complete upper tier east-west service which renders County Road 15 redundant. It is noted that County Road 15 does provide continuity beyond the Dufferin County boundary through connection with Wellington Road 15; however, Wellington County staff have indicated that Wellington Road 15 has only been maintained as a County road given the fact that it connects with Dufferin County Road 15, and that the road may be considered as a local road should the same occur in Dufferin County. In consideration of the above, it is recommended that County Road 15 be transferred to the local municipality.

County Road 19

Similar to County Roads 8 and 15, County Road 19 does not satisfy the criteria and principle based assessments for maintenance in the County road network. County Road 19 offers incomplete north-south travel

and does not provide meaningful connectivity or continuity to the County. As such, County Road 19 is recommended for transfer to the local municipality.

A breakdown of the proposed road transfers by municipality is provided in Table 5 (County to local) and Table 6 (local to County). Table 7 summarizes the net impact for each municipality in terms of lane kilometres transferred.

Table 5: Transfer of Roads to Local Municipality

COUNTY ROAD		TRANSFER TO	ROAD km[1]	LANE km[2]
County Road 8	Highway 10 to County Road 18	Mono	12.4	24.8
County Road 12	County Road 109 to Highway 89	Amaranth	19.6	39.2
County Road 15	East-West Luther T/L to County Road 25	Grand Valley	7.3	14.6
County Road 19	Highway 10 to County Road 17	Mulmur	6.4	12.8
County Road 23	County Road 3 to Orangeville/Caledon T/L	East Garafraxa/ Orangeville	3.0	6.0[3]
	B Line to Peel Road 136	Orangeville	2.1	2.1[4]
Total			**50.8**	**99.5**

[1] Road km reflect length of centreline to be transferred
[2] Lane km reflect length of lanes to be transferred (i.e. 1 km of 2 lane road = 2 km of lane length)
[3] This section of County Road 23 is a boundary road between East Garafraxa and Orangeville and thus will be shared 50/50 between the two municipalities (i.e. each will assume 3.0 km of lane length). Therefore East Garafraxa will assume responsibility for the west side of the road (southbound lanes), whereas Orangeville will assume responsibility of the east side of the road (northbound lanes)
[4] This section of County Road 23 is a boundary road between Orangeville and Peel Region and thus will be shared 50/50 between Orangeville and Peel Region. Therefore Orangeville will only assume responsibility for the north side of the road (westbound lanes)

Table 6: Transfer of Roads to County

LOCAL ROAD		TRANSFER FROM	ROAD km[1]	LANE km[2]
10 Sideroad	County Road 19 to County Road 18	Mulmur	10.0	20.0
Riddell Road	County Road 109 to County Road 23	Orangeville	2.9	6.5[3]
Total			**12.9**	**26.5**

[1] Road km reflect length of centreline to be transferred
[2] Lane km reflect length of lanes to be transferred (i.e. 1 km of 2 lane road = 2 km of lane length)
[3] The total lane length for Riddell Road includes turning lanes

Table 7: Net Transfer of Roads

MUNICIPALITY	ROAD LENGTH (km)			LANE LENGTH (km)		
	to Municipality	to County	Net Change	to Municipality	to County	Net Change
Amaranth	19.6	-	+19.6	39.2	-	+39.2
East Garafraxa	1.5	-	+1.5	3.0	-	+3.0
Grand Valley	7.3	-	+7.3	14.6	-	+14.6
Melancthon	-	-	-	-	-	-
Mono	12.4	-	+12.4	24.8	-	+24.8
Mulmur	6.4	10.0	-3.6	12.8	20.0	-7.2
Orangeville	3.6	2.9	+0.7	5.1	6.5	-1.4
Shelburne	-	-	-	-	-	-
Total	**50.8 km**	**12.9 km**	**37.9 km**	**99.5 km**	**26.5 km**	**73.0 km**

4 Road Rationalization Implementation

The implementation of the road rationalization recommendations (i.e. transfer of candidate County roads to the local municipalities and likely candidate local roads to Dufferin County), must be considered in consultation with the local municipalities. This is particularly true as it relates to time of transfer, required road improvements and/or associated financial implications to both the County and the local municipalities (recognizing that the most significant impediment to local municipalities taking control of additional roads is the cost to adequately maintain them).

4.1 ROAD NEEDS & COSTS

In 2017, the County undertook a study[1] to document the existing conditions of all County roads, the associated needs and improvements, and associated costs. The study provided a 10-year improvement program to ensure the continued provision of an appropriate road system. In 2020, the County updated the study and confirmed the improvements and costs (including studies, improvement and maintenance needs), a summary of which is provided in Table 8 (in 2020 $).

Table 8: Road Needs Costs

YEAR	ROAD NEEDS COSTS ($M)[1]			
	Studies	Improvement	Maintenance	Total
2023	$0.10	$6.14	$0.16	$6.40
2024	$0.10	$5.93	$0.13	$6.16
2025	$0.10	$5.72	$0.15	$5.97
2026	$0.10	$5.92	$0.10	$6.12
2027	$0.10	$5.90	$0.06	$6.06
2028	$0.10	$6.05	$0.07	$6.23
2029	$0.10	$6.13	$0.09	$6.32
2030	$0.10	$5.68	$0.18	$5.95
Total	**$0.80**	**$47.46**	**$0.93**	**$49.19**

[1] Road improvement costs are based on 2020 $ and thus should be confirmed prior to transfer

[1] *2017 State of the Infrastructure – Roads*. 4 Roads Management Services Inc., October 6, 2017.

It is noted that the referenced road improvement costs reflect the desired road improvement strategy, assuming that the necessary financial means for implementation are available. It is recognized that the actual improvement strategy may be modified and limited in context of the available capital budget (i.e. rather than full reconstruction, pulverization and resurfacing may be considered should funds be limited).

Furthermore, as roads are transferred from the County to the local municipalities, it is expected that volumes on the transferred roads will eventually decrease as motorists alter their routes in favour of the higher serviced County roads in the area. As volumes decrease on the transferred roads, it is possible that the maintenance needs, and hence maintenance costs, will be reduced as well (i.e. fewer vehicles on a road translates to less road stress). Therefore, the maintenance costs will likely vary compared to those presented.

4.1.1 Road Improvement Costs by Road Status

A further summary of the noted road improvement costs by road status (i.e. existing County roads that are recommended to remain as County roads and those that are recommended to be transferred) is provided in Table 9. It is noted that the costs only pertain to the road improvement costs as per Table 8 (i.e. they do not include costs relating to studies or road maintenance).

Table 9: Road Costs by Road Status

YEAR	ROAD NEEDS COSTS ($M)[1]		
	County Roads to Remain County Roads	Candidates for Transfer	Total
2023	$4.56	$1.58	$6.14
2024	$5.59	$0.34	$5.93
2025	$5.66	$0.05	$5.72
2026	$3.68	$2.24	$5.92
2027	$4.78	$1.12	$5.90
2028	$6.05	$0.00	$6.05
2029	$6.13	$0.00	$6.13
2030	$5.33	$0.35	$5.68
Total	**$41.78**	**$5.69**	**$47.46**
Length (km)	**266.6**	**50.8**	**317.4**

[1] Road improvement costs are based on 2020 $ and thus should be confirmed prior to transfer

As noted the 50.8 km of existing County roads that have been identified as candidates for transfer to local municipalities have an associated improvement cost of $5.69M.

4.1.2 Road Improvement Costs by Municipality

A summary by municipality of the length of County roads to be transferred and associated improvement costs is provided in Table 10. While the total length of County road identified for transfer is 50.8 km, some of the County road sections are boundary roads with adjacent counties or regions, and in this regard, the transfer would be shared between 2 municipalities, only 1 of which is located in Dufferin County. As per Table 10, the total length to be transferred to municipalities within Dufferin County is 49.8 km; transfers outside of the County amount to 1.0 km (allocated to Caledon where it borders Orangeville).

Table 10: Road Costs by Municipality

YEAR	ROAD NEEDS COSTS ($M)[1]								
	Amaranth	East Garafraxa	Grand Valley	Melanc thon	Mono	Mulmur	Orangeville	Shelburne	Total
2023	$1.58	-	-	-	-	-	-	-	**$1.58**
2024	-	-	-	-	$0.34	-	-	-	**$0.34**
2025	$0.05	-	-	-	-	-	-	-	**$0.05**
2026	$2.24	-	-	-	-	-	-	-	**$2.24**
2027	-	-	-	-	$1.12	-	-	-	**$1.12**
2028	-	-	-	-	-	-	-	-	**-**
2029	-	-	-	-	-	-	-	-	**-**
2030	-	-	-	-	$0.35	-	-	-	**$0.35**
Total	**$3.87**	-	-	-	**$1.81**	-	-	-	**$5.69**
Length (km)	**19.6**	**1.5**	**7.3**	**-**	**12.4**	**6.4**	**2.6**	**-**	**49.8**

[1] Road improvement costs are based on 2020 $ and thus should be confirmed prior to transfer

While transfer candidates have been established within 6 of the 8 municipalities within Dufferin County, not all such roads have identified needs (and hence no associated improvements costs). Only road sections to be transferred to Amaranth and Mono have identified needs ($3.87M and $1.81M respectively in value).

4.2 ROAD TRANSFER OPTIONS

There are a number of options through which the County can transfer the candidate road sections, as noted below:

- Option 1: Do Nothing - The County maintains the existing County road system as is, with no transfers either from or to the County.
- Option 2: Transfer Roads in their Current State - The candidate road sections are transferred to the local municipalities under the current conditions with no requirement for improvements.
- Option 3: Transfer Roads in an Improved State - The County ensures that the candidate road sections comply with appropriate local road standards and that the roads are in suitable condition, undertaking improvements as necessary, prior to transferring such roads to the local municipalities.
- Option 4: Transfer Roads with Concessions - The candidate road sections are transferred to the local municipalities under the current conditions, with some form of accompanying funding or cost sharing arrangement.

4.3 ASSESSMENT OF OPTIONS

Option 1: Do Nothing

Option 1 is not considered a viable long-term solution as it does not address the objectives of this rationalization exercise. This process aims to ensure that roads that serve as primary travel corridors are included in the County road system and built and maintained to a higher standard. Roads that serve local needs should be considered candidates for transfer to the local municipalities, maintaining established road hierarchies between the Province, County, and lower-tier municipalities.

Option 2: Transfer Roads in their Current State

Under Option 2, ownership of the roads would simply be transferred and those municipalities receiving them would be responsible for any and all associated costs following the time of transferral. This option would not likely be acceptable to the local municipalities given the lack of sufficient funds and the impacts on the local capital programs and tax base.

Option 3: Transfer Roads in an Improved State

Option 3 requires the candidate road sections to be improved to the applicable local road standards (recognizing that County road

standards need not be considered following the transfer) prior to being transferred. The local municipality is therefore provided with a road in good condition that, apart from routine maintenance, should not require significant work (and hence would not incur significant costs) for some time.

The County would upgrade all candidate roads before the transfer, as required. The associated cost to improve the road system, as per the *Roads Assessment*, is $5.69M, to be incurred by the County. The County's planned capital road budget fluctuates from 2023 to 2025 but averages approximately $6.5M per year, which would be sufficient to improve the candidate roads. During this time, however, without a significant increase to the County capital budget, all remaining road needs (i.e. needs associated with roads that are to remain County roads) would remain unattended, with the threat of becoming more onerous to remedy with time.

An alternative would be to follow the projects planned and budgeted in the *Roads Assessment*, and as candidate roads become improved, they are transferred to the lower tier municipalities. No additional budget would be required under this option; however, the transferal process would stretch over many years, with completion in 2030 when the final road section is improved.

Option 4: Transfer Roads with Concessions

Option 4 seeks to establish a cost sharing mechanism between the County and the local municipalities in recognition of the financial requirements and limited funding that both parties are constrained by. The candidate roads will be transferred in their current condition with some form of funding from the County to cover the capital costs to bring the candidate roads into an improved state of repair.

Similar to Option 3, there are two scenarios for the timing. The roads could be transferred all at once, with concessions provided at the outset. The County would be required to pay improvement costs of $5.69M per the County's *Roads Assessment*. Alternatively, the roads could be transferred as per the schedule in the County's *Roads Assessment*, at which time the concessions would be provided. In either scenario, the municipality could choose to make the recommended

improvements, make improvements to a lower standard, or choose to delay improvements.

As with Option 3, if the County were to pay the improvement costs at the outset, they would have to defer projects previously scheduled. It would be preferable to provide funding incrementally as the projects were initially scheduled in the *Roads Assessment*. This way, the financial burden to the County could be extended over multiple years and the existing capital roads program maintained.

4.3.1 Recommendation

Recognizing that improvement costs to the candidate roads are within the limits of future planned budgets, it is recommended that the County transfer the candidate roads and provide concessions to the municipalities (Option 4) in accordance with the *Roads Assessment* schedule. This ensures that the schedule and budgets of other County projects on roads remaining within their jurisdiction can continue as planned. Money provided to the municipalities can be used to improve the roads, improve to a lower standard, or defer entirely if they believe it to be prudent. The payment schedule would be as shown in Table 10.

For those roads for which no improvement needs have been identified (and hence there are no improvement costs), transfers are recommended at the earliest opportunity.

As previously noted, the associated road improvement costs are based on the 2020 road needs study undertaken by the County. Prior to implementing any transfer, the County should revisit the condition of the road, confirm the most appropriate improvement strategy (considering local standards as appropriate) and establish an updated cost estimate as appropriate. A similar review should also be undertaken for those candidate road sections for which no road improvements (and hence no improvement costs) were identified, recognizing that conditions could change prior to the time of transfer.

5 Structure Rationalization Process

5.1 OBJECTIVE

Similar to the road rationalization study, a review of County bridge and culvert structures has been undertaken with the objective of establishing which structures should remain under control of the County, and which should be considered as candidates for transfer to the local municipalities.

5.2 LEGISLATION

In the mid 1980s, the Municipal Act indicated that the County shall have jurisdiction over all bridges with a span of 20 feet or greater that were located on municipal boundaries. This legislation was updated in 1990 to the following:

> *"Subject to a By-law passed under Section 278, Sub section 1, the Council of the County has jurisdiction, or joint jurisdiction over all bridges over which it had jurisdiction, or joint jurisdiction, as the case may be, on the 12th day of February, 1987."* (Municipal Act, R.S.O. 1990, Section 265, Sub-section 3)

It is noted that the reference to "municipal boundaries" was removed. The revised legislation simply states that those bridges that were previously designated as County bridges would remain as County bridges (i.e. the Municipal Act does not take a stand as to whose jurisdiction a bridge should fall under based on road jurisdiction). In addition to the above noted Section, the Municipal Act R.S.O 1990 also allowed for the transfer of bridges to local municipalities.

The Municipal Act 2001, while conveying a similar theme to that stated in the 1990 Act, makes an interesting comment whereby bridges are considered as part of a highway:

> *"a municipality has jurisdiction, or joint jurisdiction, as the case may be, over all highways (including bridges) over which it had jurisdiction or joint jurisdiction on December 31, 2002."* (Municipal Act R.S.O. 2001, Section 28)

As with the previous Acts, it is noted that the current Act also maintains provisions that allow Counties to transfer jurisdiction of a bridge to a local municipality.

5.3 STRUCTURE NETWORK

According to the structure database set out in the Dufferin County *2022 Biennial Municipal Structure Inspections*[2] report, Dufferin County currently owns and maintains 102 structures with a span of 3 metres or greater comprised of:

- 31 bridges of which:
  - 17 are located on County roads; and
  - 14 are located on local roads.
- 71 culverts of which:
  - 69 are located on County roads; and
  - 2 are located on local roads.

A breakdown of the County owned structures on local roads by road type (i.e. townline, former townline, County boundary road) is provided in Table 11. A corresponding structure location map is provided in Figure 7.

Table 11: County Structures on Local Roads

ROAD LOCATION	BRIDGES	CULVERTS	TOTAL
Local road	1	2	3
Local road – existing townline	6	0	6
Local road – former townline	1	0	1
Local road – County boundary	6	0	6
Total	**14**	**2**	**16**

5.4 METHODOLOGY

5.4.1 Approaches by Others

The approach to structure rationalization is not supported by the same documentation available when considering road rationalization. Given the lack of published information, a review of the discussions and approaches in other local counties has been conducted as detailed in the following sections.

[2] *County of Dufferin – Biennial Municipal Structure Inspections Report*. Art Engineering Inc. December 2022.

OGRA

The Ontario Good Roads Association (OGRA) does not provide a published set of criteria to aid in bridge rationalization. It could be inferred by this lack of guidance that the ownership of a bridge structure is assumed to follow the jurisdiction of the road on which it is located.

Bruce County

Bruce County produced the *Bruce County Bridge Report*[3] in 2005 which set out to identify which bridges should remain under ownership of the County and which should be transferred to the local municipality. The report did not identify or develop criteria for consideration other than the jurisdiction of the road leading up to and away from the structure. It was the opinion of the County Engineer that bridges on County roads and existing municipal boundaries should remain as County structures whereas bridges on former boundaries should be replaced, repaired or closed, and subsequently transferred to the local municipality.

While there was no other objective criteria considered in determining whether a bridge is to remain under County jurisdiction or be transferred to the municipality, a traffic analysis was conducted as part of the *County of Bruce Bridge Infrastructure Master Plan for Central Bruce County*[4]. This analysis identified several criteria which would be used in determining a repair, replace or close program as part of the transfer of the bridges.

Wellington County

In Wellington County, there are 12 County owned bridges on local roads, which were established based on the following criteria:

- has a span of 6 metres or greater and is located on a boundary road between 2 of the County's local municipalities (that existed prior to 1999);
- has a span of 6 metres or greater and is located on a boundary road between a County local municipality and a neighbouring County; or
- if it was deemed at the time to be too big for a local municipality and a neighbouring County.

In 2010, the County adopted the following resolution: "*That the County rebuild or close, if that was deemed appropriate, those bridges designated as County bridges on local roads on a priority basis, thereafter the responsibility of the bridge be returned to the local municipality*."

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[3] *2011 Road Needs Study.* Bruce County Highways Dept. December 8, 2005.
[4] *County of Bruce Bridge Infrastructure Master Plan for Central Bruce County*. B.M. Ross and Associates Limited. April 24, 2013.

As with Bruce County, the overriding principle in determining bridge ownership is the jurisdiction of the road on which the bridge is located.

Renfrew County

Renfrew County currently has 157 structures (46 bridges and 111 culverts) that are under County jurisdiction, but are located on local roads. The original criteria for eligibility as a County bridge, dating back to 2001, were established as follows:

- structures must have a total or combined span of 3 metres or greater (for structures made up of multiple spans (culverts), the cumulative measurement is taken from the outside edge of each culvert span providing that the distance between the cells is less than half the diameter of the cells); and
- the structure must be located on an opened road under the jurisdiction of the County of Renfrew or a municipality therein.

In 2011/12, the County undertook additional studies and established the following principles for the development of updated County bridge policies and practices:

- bridges represent a significant expense in terms of their rehabilitation and replacement;
- County bridges and major culverts should service the greater community not just the residents/businesses of the local municipality - in other words they should be of regional significance;
- in view of the significant costs associated with bridges and major culverts, there is a *"…. need to bring financial resources of all constituent municipalities to bear for the rehabilitation and replacement of the structures"*;
- the County should be responsible for all bridges and major culverts with a span of at least 3.0 metres;
- if the replacement of a County structure no longer meets the definition of a bridge, the County shall bear the cost of the replacement and transfer jurisdiction of the structure to the local municipality; and
- structures on seasonally maintained roadways should be under the jurisdiction of the local municipality.

In consideration of the above, the criteria to be designated a County bridge were revised to the following:

- bridges must be 3 metres or greater in span and culverts must be 3 metres or greater in width; and

- the structure must be located on an all-season maintained road that is determined to have regional significance in serving the greater community.

Under the modified policy, 34 bridge and culvert structures were subsequently identified for transfer to local municipalities. To assist with the associated operations and maintenance, the County proposed compensation of $50,000 per structure, which was thought to be adequate to bring a bridge or a structure to a "tolerable standard". Four structures had been rehabilitated and/or replaced since 2007 and hence no compensation for these structures was proposed. In conjunction with this, the Operations Committee supported a recommendation that the County continue to undertake the bi-annual inspections, at County cost, on those bridges transferred to the local municipalities. The County would provide the local municipality with the condition assessment reports.

Upon presentation to County Council, the motion to implement the above noted revisions to the bridge policy was subsequently defeated and hence the 34 identified structures were not transferred. It is noted that much of the opposition appears focused on the insufficient funding that was proposed to accompany each transfer - rather, compensation should be based on the actual condition of each structure, remaining life and associated repair/replacement costs.

Other Counties

The Renfrew County Operations Committee report also noted the following bridge related policies:

- County of Haliburton: does not have control of structures on non-County roads;
- Peterborough County: responsible for bridge structures on County and non-County roads provided they have a minimum span of 6 metres;
- Lanark County: has jurisdiction of only 3 boundary road bridges on non-County roads; and
- United Counties of Stormont, Dundas and Glengarry: responsible for 6 boundary road bridges on non-County roads, each of which has a span of 6 metres.

5.4.2 Recommended Approach for Dufferin County

The road rationalization process was based on a number of principles which distinguished a County road from a local road. Using these principles, a set of criteria was developed and applied to each County road and a number of local roads in order to rationalize the road network. Through this process, a revised County road network was identified which, should it be implemented, will involve the transfer of roads from the County to the municipality and vice versa. If one considers that a bridge or culvert is a part of the highway (as indicated in the *Municipal Act*), then it is considered logical that the ownership of such a structure on a specific

road should reflect the ownership of said road (given that the road is already classified as a local or a County road and serves a respective purpose).

It is recognized that there are County structures located on boundary roads where joint municipal ownership of the road remains. With respect to these structures, it is recommended that the County transfers ownership to the respective municipalities as the boundary roads are considered local roads. It would then be the responsibility of the neighbouring municipalities to establish equitable partnerships to ensure that the costs associated with the maintenance and upkeep of these structures is shared.

Noting the above considerations, the following rationalization approach is recommended:

- County bridges and culverts on County roads will remain under County ownership;
- County bridges and culverts on local roads will be identified as candidates for transfer to the corresponding local municipality, and
- County bridges and culverts on local roads that are current municipal boundaries will be identified as candidates for transfer to the respective municipalities.

Further to the assessment based on the existing road system classification, consideration has also been given to the recommendations of the road rationalization exercise, which identified a number of County roads as candidates for designation as local roads (in that they did not meet the County road criteria or were not considered appropriate in context of the overall County road system). In conjunction with any road transfer, it is assumed that any associated structures would also be transferred (recognizing that under the *Municipal Act*, bridges are considered part of the highway system). If the County road is currently a boundary road between local municipalities, the structure would be transferred to the respective municipalities. Likewise, any bridge or culvert on local roads that were identified as a potential County road would also be transferred to the County.

6 Structure Rationalization Results

6.1 STEP 1: ROAD RATIONALIZATION REVIEW

The results of the structure rationalization based on the recommended approach are summarized in Table 12. It is noted that the results also consider those County roads that have been identified through the road rationalization process for transfer to the local municipality. The rationalization only considered structures that are currently owned by the County. Those bridges and culverts that are currently owned by the local municipalities and are situated on the local roads identified for transfer to the County are discussed below.

Table 12: County Structures – Rationalization Results

STRUCTURE TYPE	NUMBER OF STRUCTURES		
	Existing	Proposed	Net Change
Bridges	31	13	-18
Culverts	71	61	-10
Total	**102**	**74**	**-28**

As noted, 28 structures (18 bridges and 10 culverts) have been identified as candidates for transfer to the local municipalities based on the results of the road rationalization process.

6.2 STEP 2: SPECIAL CONSIDERATIONS REVIEW

6.2.1 Structures at County Intersections

Notwithstanding the results noted in Table 12, the County has identified the following 3 culverts that, while located on local roads (or on an existing County road identified for transfer), should remain as County assets given their proximity to a County intersection.

Asset ID# 004-0910 located in Mulmur on 7th Line at the intersection with County Road 17

Asset ID# 393002CUL located in Amaranth on County Road 12 at County Road 109

Asset ID# 593604CUL located in Mono on Blind Line at the intersection with County Road 10

The noted 3 structures are located within the road allowance of the intersecting County road. Recognizing that all intersections along County roads are under the jurisdiction of the County, it is considered appropriate that ownership of these 3 structures remain with the County. As such, the total number of structures identified as candidates for potential transfer to the local municipalities is 25 (18 bridges and 7 culverts).

6.2.2 Local Structures for Transfer to County

It is noted that there are 4 local structures to be transferred to the County based on the recommended transfer of Riddell Road and 10 Sideroad to the County road network. These structures include:

- 2 precast arch culverts on 10 Sideroad (Mulmur); and
- 2 precast culverts on Riddell Road (Orangeville).

6.3 RECOMMENDED COUNTY STRUCTURES

Breakdowns of the structures by road type and jurisdiction are provided in Table 13 and Table 14. The locations of the structures which are recommended for transfer (local to County and County to local) are illustrated in Figure 7.

Table 13: County Structures – Rationalization Results by Road Status

ROAD JURISDICTION	COUNTY OWNED (EXISTING)			PROPOSED OWNERSHIP
	Bridges	Culverts	Total	
County road to remain in County road network[1]	13	64	77	County
County road to be transferred to local municipality[1]	4	7	11	Local
Existing Townline	6	0	6	Local
Former Townline	1	0	1	Local
Local road	1	0	1	Local
Local road – County Boundary[2]	6	0	6	Local
Total	**31**	**71**	**102**	

[1] As per the recommendations of the road rationalization study
[2] These are local roads that are situated on a Dufferin County boundary line with a neighbouring County

Table 14: Transfer of Structures to Local Municipality

TRANSFER TO	SOLE OWNERSHIP	SHARED OWNERSHIP[1]	SHARED WITH
Amaranth	4	5	Grand Valley x3 Mono x2
East Garafraxa	0	0	-
Grand Valley	4	6	Amaranth x3 Wellington County x3
Melancthon	1	2	Mulmur x1 Grey County x1
Mono	4	4	Amaranth x2 Simcoe County x2
Mulmur	2	1	Melancthon x1
Orangeville	0	0	-
Shelburne	0	0	-
Adjacent Counties (shared)	-	6	Grand Valley x3 Melancthon x1 Mono x2
Total	**15**	**12**	

[1] Shared structures refer to those on a municipal boundary (including 6 to be shared with neighbouring Counties).

7 Structure Rationalization Implementation

7.1 STRUCTURE NEEDS & COSTS

This section summarizes the projected improvement costs based on the findings of the *2022 Biennial Municipal Structure Inspections*[5] report (the Inspections Report). The report identifies the needs for the bridges and culverts owned by the County (based on the overall County structure network; noted costs reflect 2022 $) as summarized in Table 15.

Table 15: Structure Needs Costs

STRUCTURE TYPE	STRUCTURE NEEDS & COSTS[1]				
	Investigations	Rehabilitation	Replacement	Maintenance	Total
Bridges	-	22 structures	2 structures[2]	21 structures	**45**
	-	$3.22	$2.23M	$0.18	**$5.63M**
Culverts	3	46	6	40	**95**
	$60,000	$6.19	$3.77M	$0.22M	**$10.24M**
Total	**3**	**68**	**8**	**61**	**140**
	$60,000	**$9.41M**	**$6.00M**	**$0.40M**	**$15.87**

[1] Road improvement costs are based on 2020 $ and thus should be confirmed prior to transfer
[2] It is noted the County does not intend to replace bridge 008-0336 (which is currently closed to vehicular traffic).

The needs were reviewed for a 10-year period from 2022 to 2032 and categorized into NOW needs, 1 to 5 year needs, and 6 to 10 year needs. Costs associated with maintenance and additional engineering investigations are included in the NOW needs.

- $0.97M for NOW needs;
- $10.26M for 1 to 5 year needs;
- $2.93M for 6 to 10 year needs; and
- $14.16M total cots.

[5] *Summary Report for 2022 Biennial Municipal Structure Inspections.* Art Engineering Inc., December 16, 2022.

7.1.1 Structure Improvement Costs by Road Status

A further summary of the noted costs by road status is provided in Table 16.

Table 16: Structure Costs by Road Status

ROAD STATUS	STRUCTURES	STRUCTURE NEEDS COSTS ($M)[1]			
		Maintenance[2] + Now	1-5 Years	6-10 Years	Total
County road to remain in County road network[2]	77	$0.38	$6.02	$2.31	$8.72
County road to be transferred to local municipality[3]	11	$0.57	$1.07	$0.39	$2.03
Existing Townline	6	-	$1.08	$0.00	$1.08
Former Townline	1	-	-	-	-
Local road	1	-	-	$0.19	$0.19
Local road – County Boundary[4]	6	$0.01	$2.08	$0.04	$2.13
Total – County	**77**	**$0.38**	**$6.02**	**$2.31**	**$8.72**
Total – Local (Proposed)	**25**	**$0.59**	**$4.24**	**$0.62**	**$5.44**
Total	**102**	**$0.97**	**$10.26**	**$2.93**	**$14.16**

[1] Structure improvement costs are based on 2022 $ and thus should be confirmed prior to transfer
[2] Includes costs associated with maintenance, roadside protection, and engineering investigations (if needed)
[3] As per the recommendations of the road rationalization study
[4] These are local roads that are situated on a Dufferin County boundary line with a neighbouring County

7.1.2 Structure Improvement Costs by Municipalities

A breakdown by municipality of the costs associated with the proposed transfer of existing County bridges and culverts is provided in Table 17 through Table 19 (the summaries only include the costs associated with those structures identified for possible transfer).

Table 17: Structure Costs by Municipality – Sole Responsibility

MUNICIPALITY	STRUCTURES	STRUCTURE NEEDS COSTS ($M)[1]			
		Maintenance[2] + Now	1-5 Years	6-10 Years	Total
Amaranth	4	$0.51	$0.25	-	$0.76
East Garafraxa	0	-	-	-	-
Grand Valley	4	$0.06	$0.64	$0.32	$1.02
Melancthon	1	-	-	$0.19	$0.19
Mono	3	$0.01	$0.14	$0.07	$0.22
Mulmur	1	-	$0.04	-	$0.04
Orangeville	0	-	-	-	-
Shelburne	0	-	-	-	-
Total	**13**	**$0.58**	**$1.07**	**$0.58**	**$2.23**

[1] Structure improvement costs are based on 2022 $ and thus should be confirmed prior to transfer
[2] Includes costs associated with maintenance, roadside protection, and engineering investigations (if needed)

Table 18: Structure Costs by Municipality – Shared Responsibility

MUNICIPALITY	STRUCTURES	STRUCTURE NEEDS COSTS ($M)[1]			
		Maintenance[2] + Now	1-5 Years	6-10 Years	Total
Amaranth	5	-	$0.54	$0.00	$0.54
East Garafraxa	0	-	-	-	-
Grand Valley	6	-	$0.50	$0.02	$0.53
Melancthon	2	-	-	-	-
Mono	4	-	$1.08	-	$1.08
Mulmur	1	-	-	-	$0.00
Orangeville	0	-	-	-	$0.00

MUNICIPALITY	STRUCTURES	STRUCTURE NEEDS COSTS ($M)[1]			
		Maintenance[2] + Now	1-5 Years	6-10 Years	Total
Shelburne	0	-	-	-	$0.00
Adjacent County[3]	6	$0.01	$1.04	$0.02	$1.07
Total	**12 shared structures**	**$0.01**	**$3.16**	**$0.04**	**$3.22**

[1] Structure improvement costs are based on 2022 $ and thus should be confirmed prior to transfer
[2] Includes costs associated with maintenance, roadside protection, and engineering investigations (if needed)
[3] Reflects structure shared with an adjacent county outside of Dufferin County

Table 19: Structure Costs by Municipality – Total

MUNICIPALITY	STRUCTURES	STRUCTURE NEEDS COSTS ($M)[1]			
		Maintenance[2] + Now	1-5 Years	6-10 Years	Total
Amaranth	9	$0.51	$0.79	$0.00	$1.30
East Garafraxa	0	-	-	-	-
Grand Valley	10	$0.06	$1.14	$0.34	$1.54
Melancthon	3	-	-	$0.19	$0.19
Mono	7	$0.01	$1.22	$0.07	$1.30
Mulmur	2	-	$0.04	-	$0.04
Orangeville	0	-	-	-	-
Shelburne	0	-	-	-	-
Adjacent County[3]	6	$0.01	$1.04	$0.02	$1.07
Total	**25**	**$0.59**	**$4.24**	**$0.62**	**$5.44**
Total without Adjacent County	**22**	**$0.58**	**$3.19**	**$0.60**	**$4.38**

[1] Structure improvement costs are based on 2022 $ and thus should be confirmed prior to transfer
[2] Includes costs associated with maintenance, roadside protection, and engineering investigations (if needed)
[3] Reflects structure shared with an adjacent county outside of Dufferin County

Table 20 provides a final summary with respect to the shared responsibility of those structures on existing townlines/County boundaries, identifying the structure improvement costs by municipal pairs.

Table 20: Bridge Costs by Municipal Pairs – Shared Responsibility

MUNICIPALITY	STRUCTURES	STRUCTURE NEEDS COSTS ($M)			
		Maintenance[2] + Now	1-5 Years	6-10 Years	Total
Amaranth/ Grand Valley	3	$0.00	$0.97	$0.00	$0.97
Melancthon/ Mulmur	1	$0.00	$0.00	$0.00	$0.00
Mono/ Amaranth	2	$0.00	$0.11	$0.00	$0.11
Grand Valley/ Wellington County	3	$0.01	$0.04	$0.04	$0.08
Melancthon/ Grey County	1	$0.01	$0.00	$0.00	$0.01
Mono/ Simcoe County	2	$0.00	$2.05	$0.00	$2.05
Total	**12**	**$0.01**	**$3.16**	**$0.04**	**$3.22**

[1] Structure improvement costs are based on 2022 $ and thus should be confirmed prior to transfer
[2] Includes costs associated with maintenance, roadside protection, and engineering investigations (if needed)

It is noted that the referenced structure improvement costs reflect the desired improvement strategy, assuming no financial restraints. It is recognized that the actual improvement strategy may be modified and limited to reflect the funds available in each municipality's capital budget.

7.2 STRUCTURE TRANSFER OPTIONS

A number of options have been identified for transferring of the subject bridges and culverts to the local municipalities. Such options include:

- Option 1: Do Nothing - The County maintains the existing County structure system as is, with no transfers from the County.

- Option 2: Transfer Structures in their Current State - The candidate structures are transferred to the local municipalities under the current conditions with no requirement for improvements.
- Option 3: Transfer Structures in an Improved State - The County ensures that the candidate structures comply with appropriate standards and that the structures are in suitable condition, undertaking improvements as necessary, prior to transferring such structures to the local municipalities.
- Option 4: Transfer Structures with Concessions - The candidate structures are transferred to the local municipalities under the current conditions, with some form of accompanying funding or cost sharing arrangement.

The timing of transfer must be in co-ordination with the road transfers so as to ensure equitable and fair transfer (i.e. no one municipality should be burdened beyond what is considered reasonable with excessive consecutive transfers).

7.3 ASSESSMENT OF OPTIONS

Option 1: Do Nothing

As with the road system Do Nothing option, Option 1 is not considered a viable long-term solution from a financial perspective. While it may not be possible to adopt reduced standards for structure improvements in that the safety of the motoring public cannot be compromised, the County could consider restrictions on the structure such that the need for improvements could be reduced or eliminated altogether (i.e. load restrictions or limiting access to pedestrians only). The extent to which this is considered would be a function of available funds.

Option 2: Transfer Structures in their Current State

Under Option 2, ownership of the structures would simply be transferred and those municipalities receiving them would be responsible for any and all associated costs following the time of transferral. This option recognizes that structures on non-County roads should not be the responsibility of the County, and hence there would be no consideration for improvements and/or concessions prior to transfer.

This may not be seen as an equitable approach from the local municipalities who receive structures in need of costly rehabilitation or

reconstruction works compared to those who receive structures in good condition.

Option 3: Transfer Structures in an Improved State

Option 3 requires the candidate structures to be improved to the applicable standards prior to being transferred. The local municipality is therefore provided with a structure in good condition that, apart from routine maintenance, should not require significant works (and hence would not incur significant costs) for some time. The County would upgrade all candidate structures before the transfer, as required. The associated cost to improve the structures (not including maintenance costs), as per the Inspections Report (and as summarized in Table 19), is $4.38M to be incurred by the County.

Option 4: Transfer Structures with Concessions

Option 4 seeks to establish a cost sharing mechanism between the County and the local municipalities in recognition of the financial requirements and limited funding that both parties are constrained by. The candidate structures will be transferred in their current condition with some form of concessions from the County to cover the capital costs to bring the candidate structures into an improved state of repair.

With respect to the timing of the structure transfers, such could occur:

- all at once;
- in accordance with the schedule of the County's *Inspections Report* (based on the time of need); or
- in conjunction with the associated road transfers (if appropriate).

7.3.1 Recommendation

To implement the potential structure transfers, the County should develop a structure funding model and transfer plan in consultation with the local municipalities. The timing of structure improvements should be such that structure transfers coincide with the timings of the road transfer plan (if applicable) thus transferring all assets along a particular road segment simultaneously rather than piecemeal, or as per the time of need and schedule as per the *Inspections Report*. The scheduling/budget alternatives described in the *Inspections Report* may be used as a framework to assist in development of such a plan.

In conjunction with the structure transfer program, an assessment strategy should be established to determine whether or not a structure should remain open (an appropriate avenue for this would be the Class Environmental Assessment process). As previously discussed with respect to the alternative approaches to the structure rationalization process, a criteria based approach could be created whereby a set of criteria is developed and applied to each municipal structure to determine whether or not a bridge is deemed as a critical component of the local road network. Criteria could include:

- type of land use and level of development served by the structure;
- redundancy of structure (i.e. is there another nearby structure that serves the same purpose);
- size of structure;
- traffic volumes;
- detour length;
- condition of structure (and associated costs to improve); and
- condition of road (and associated costs to improve).

The criteria would be weighted and a threshold weight assigned to determine whether or not a structure should remain open. Those structures identified as candidates for closure should be evaluated with respect to their condition in order to develop an appropriate structure attrition or bridge retirement program (i.e. to ensure that candidate bridges are closed when necessary, rather than all at once).

As previously noted, the associated structure improvement costs are based on the 2022 inspection study undertaken by the County. Prior to implementing any transfer, the County should revisit the condition of the structure, confirm the most appropriate improvement strategy and establish an updated cost estimate as appropriate.

8 Summary

8.1 ROAD RATIONALIZATION

The existing County road network and 6 local roads were considered in the road rationalization assessment. The road rationalization assessment followed a 3-step process consisting of:

- Step 1: Criteria Based Assessment;
- Step 2: Principle Based Assessment; and
- Step 3: Special Considerations review.

Through the assessment process, 5 County roads with a total length of 50.8 km were identified as candidates for transfer to the local municipality. Of the 6 local roads assessed, 2 were identified as candidates for transfer to the County (totaling 12.9 km).

Transfer: County to Local (50.8 km of road)

- County Road 8 (between Highway 10 & County Road 18)
- County Road 12 (between County Road 109 & Highway 89)
- County Road 15 (between E-W Luther Townline & County Road 25)
- County Road 19 (between Highway 10 & County Road 17)
- County Road 23 (between County Road 3 & Peel Road 136)

Transfer: Local to County (12.9 km of road)

- 10 Sideroad (between County Road 18 and County Road 19, Mulmur)
- Riddell Road (between County Road 23 and County Road 109, Orangeville)

Based on these proposed changes, a net total of 37.9 km of road would be transferred to the local municipalities.

8.2 STRUCTURE RATIONALIZATION

The recommended approach to bridge rationalization for Dufferin County is based on the premise that structure ownership should follow road ownership, recognizing that a road that is classified as a local or a County road serves a specific purpose based on that classification. Given that structures are a part of the road network, it follows logic that the purpose of the structure should be consistent with the purpose of the road. As such, it has been recommended that structures

on County roads remain County assets; whereas structures on local roads should be transferred to the local municipality.

In consideration of the road rationalization process and the proposed County road network, 25 structures are recommended for transfer to local ownership. Of these 25 structures, 11 are located on existing County roads that were identified for transfer to the local municipality as part of the road rationalization process; whereas the remaining 14 structures are located on non-County roads.

Transfer: County to Local (with road transfer)

- 11 structures

Transfer: County to Local

- 6 structures on existing Townline
- 1 structure on a former townline
- 1 structure on a local road
- 6 structures on local roads that form a boundary line between a Dufferin County municipality and a neighbouring County

Transfer: Local to County (with road transfer)

- 4 structures on 10 Sideroad and Riddell Road

8.3 IMPLEMENTATION

Part 2 of the *Rationalization Plan* addressed options for implementation of the rationalization recommendations, namely:

- Option 1: Do Nothing.
- Option 2: Transfer Roads/Structures in their Current State.
- Option 3: Transfer Roads/Structures in an Improved State.
- Option 4: Transfer Roads/Structures with Concessions.

In both cases (roads and structures), the recommendation is that the County make the transfers to the local municipalities with concessions (i.e. provide funding as appropriate to the local municipality). It is recommended that the candidate roads be transferred in accordance with the *Roads Assessment* schedule, which reflects the time of need for identified improvements. Any associated structures (i.e. structures located on the transfer road section) would be transferred in conjunction with the road and concessions provided accordingly. Consideration should also

be given to the time of need of structure improvements as per the *Inspections Report* (i.e. should the structure warrant improvements prior to the road, an accelerated transfer schedule may be required).

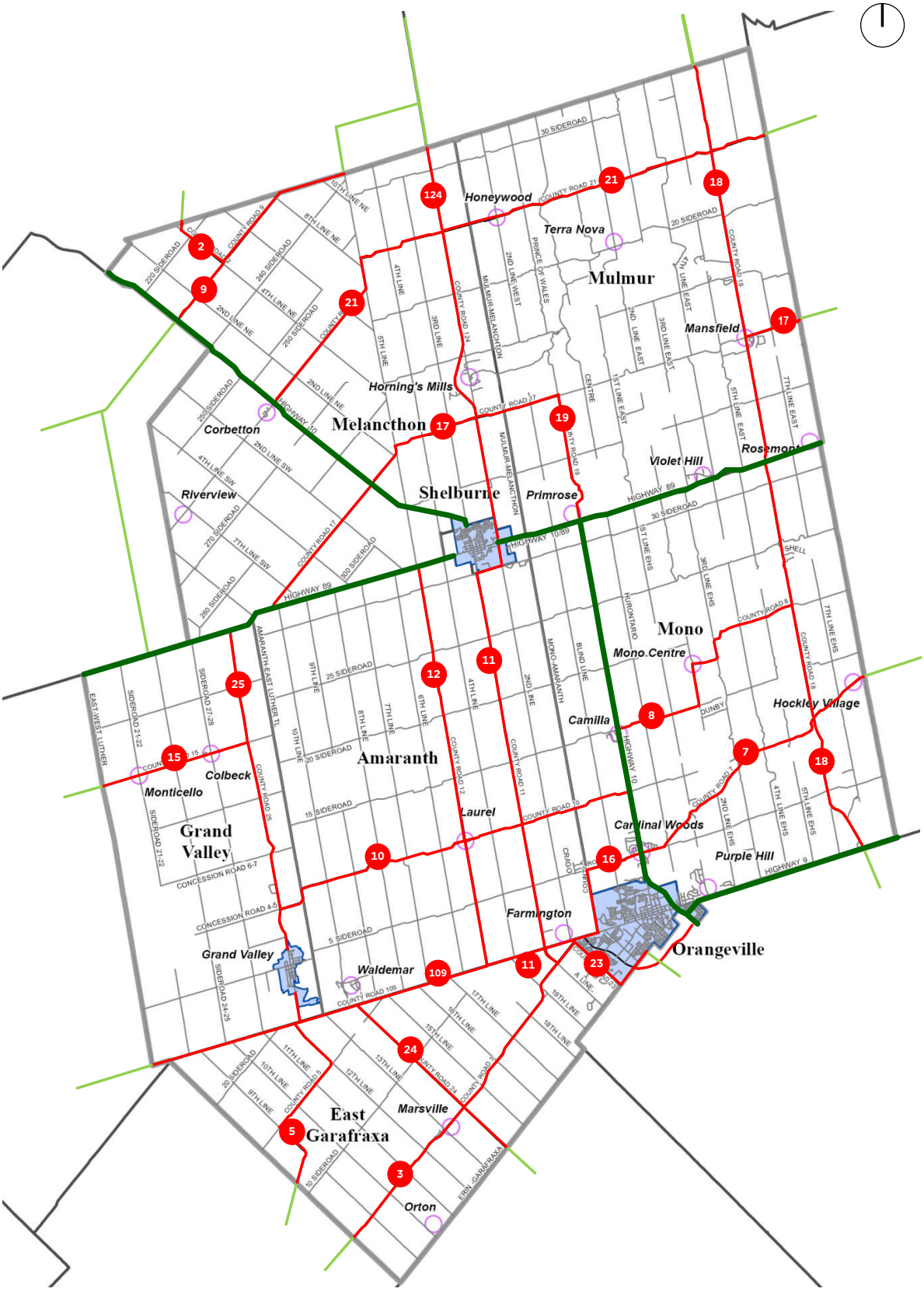
For those roads for which no improvement needs have been identified (and hence there are no improvement costs), transfers are recommended at the earliest opportunity. For those structures not associated with a road transfer, the timing should follow the schedule of the *Inspections Report.*

Recognizing that the identified improvement costs were based on studies completed in 2020 and 2022, each road and/or structure should be revisited prior to the transfer and the associated need for improvements and associated costs updated accordingly. In some cases, the extent of improvements may increase depending upon the time of transfer (i.e. due to continued use and deterioration), whereas in others, improvements may have been implemented by the County as per their annual capital improvements plans and thus no further improvements would be required.

8.4 NEXT STEPS

To complete the *Rationalization Study* the following steps are required:

1. Committee & Council Endorsement – The methodology, approach and recommendations of the road and structure rationalization assessment must be presented and discussed with the Infrastructure and Environmental Services Committee and ultimately endorsed by County Council.
2. Municipal Engagement - Provide the recommendations of the *Rationalization Study* to each local municipality, focusing on their respective interests in order to facilitate logistics of next steps of implementation."

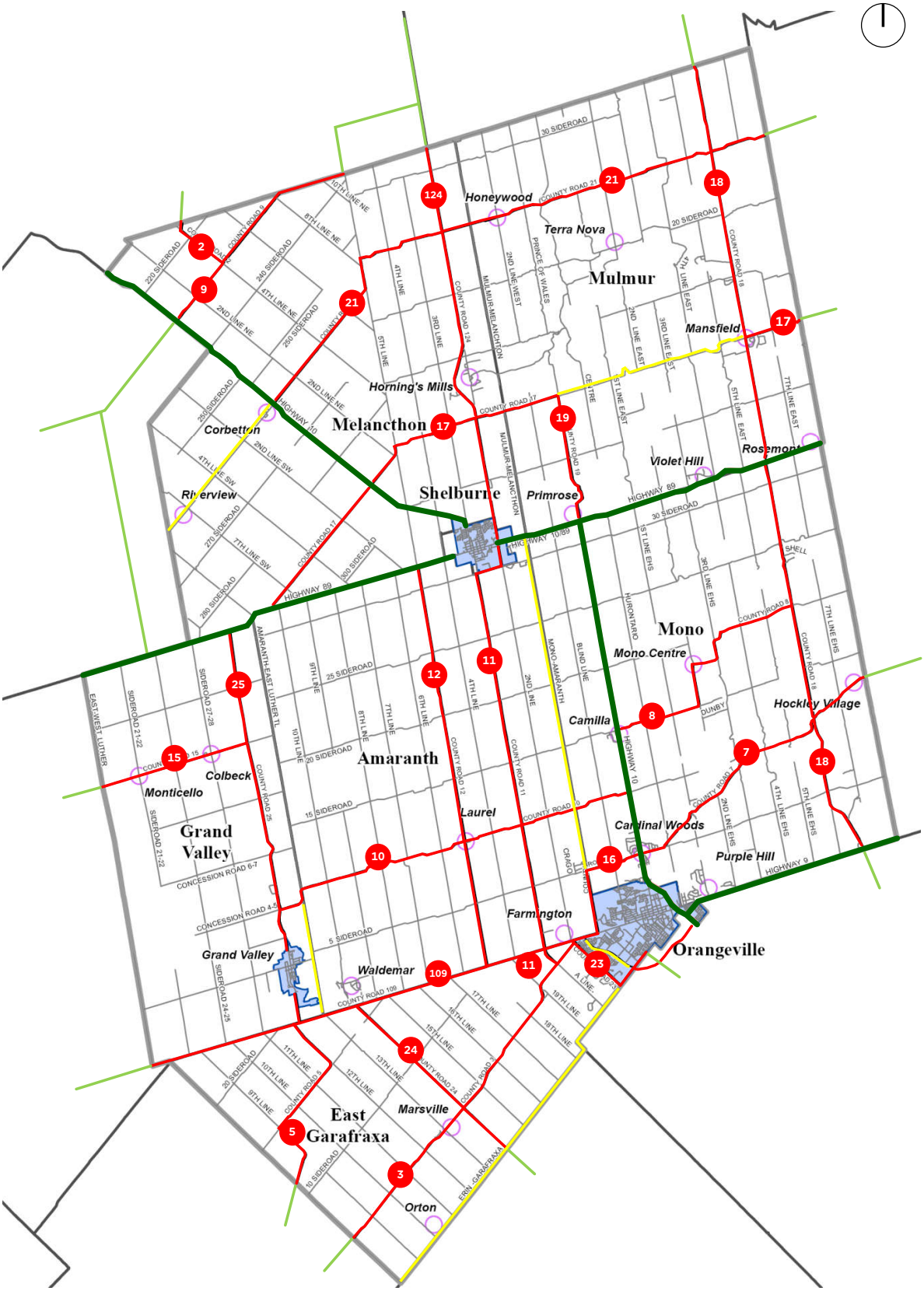


Road Classification

- Provincial Highway
- Adjacent County Roads
- Dufferin County Road
- Local Road

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 1: **Existing Road Network**

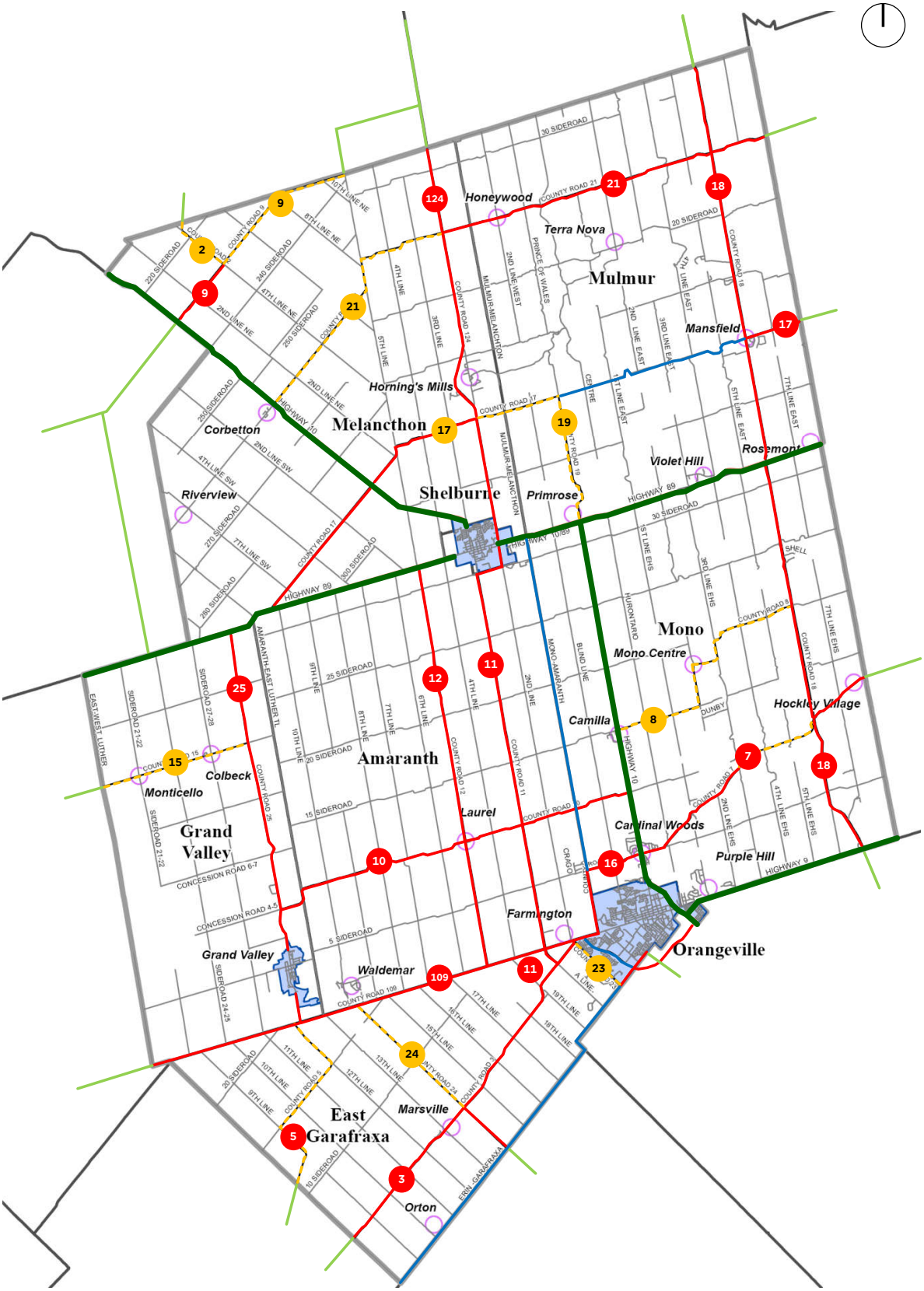


Road Classification

- Provincial Highway
- Adjacent County Roads
- Dufferin County Road
- Local Road
- Local Road to be considered in assessment

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 2: Road Rationalization - Candidate Local Roads



Road Classification

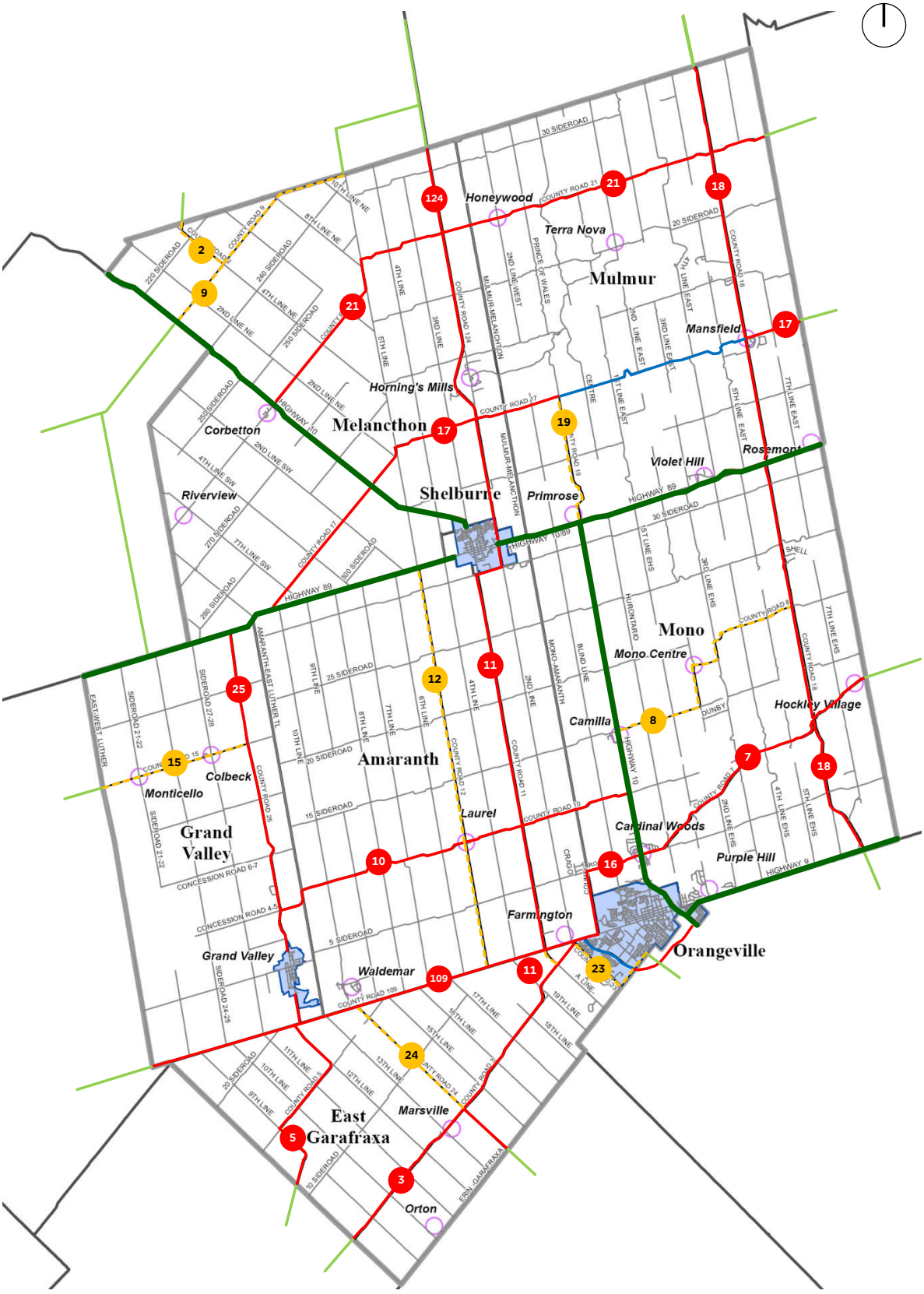
- Provincial Highway
- Adjacent County Roads

Road Rationalization Recommendations

- existing County road to remain in County network
- existing County road recommended for transfer to local municipality
- existing local road recommended for transfer to County

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 3: Road Rationalization - Criteria Assessment



Road Classification

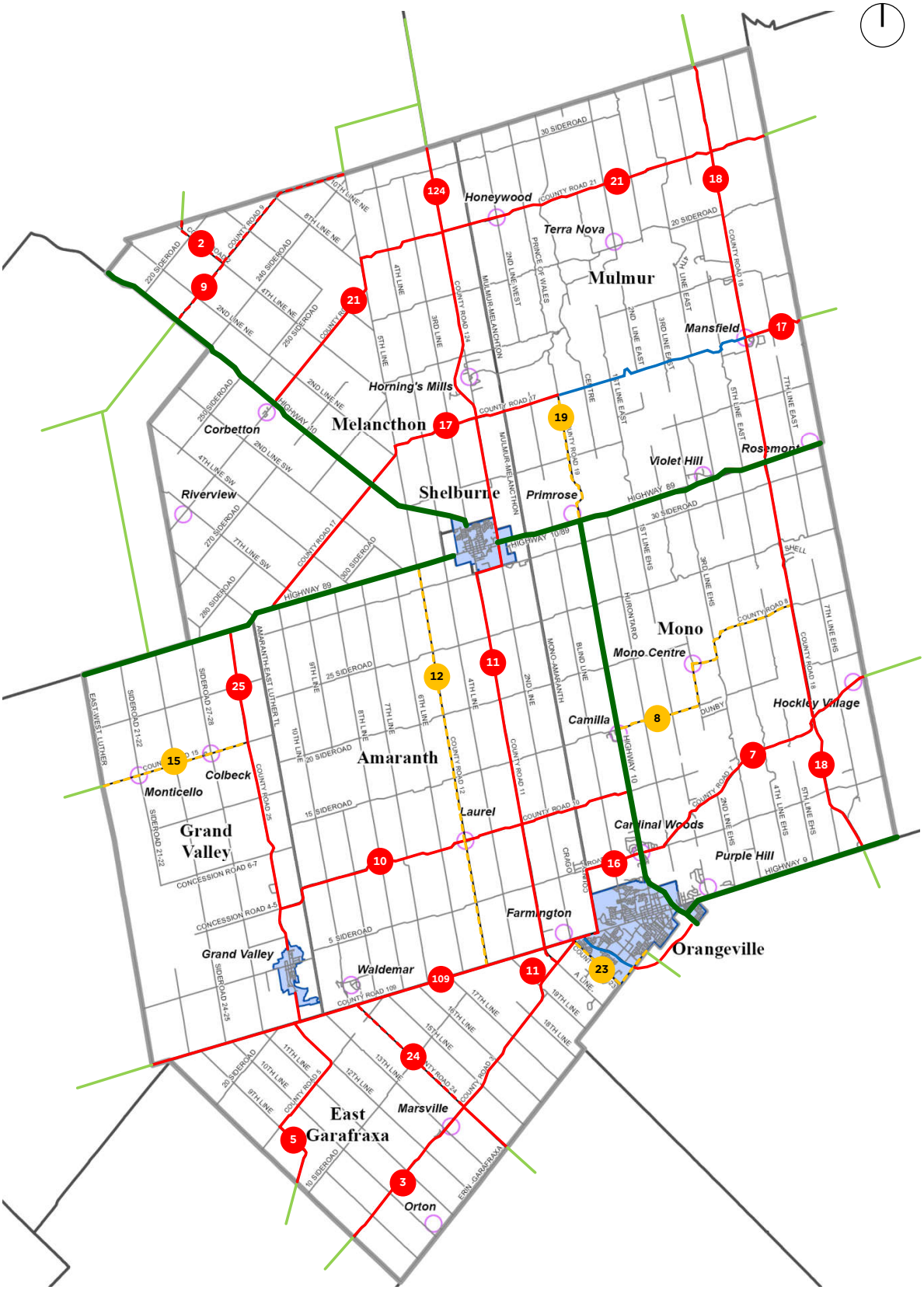
- Provincial Highway
- Adjacent County Roads

Road Rationalization Recommendations

- existing County road to remain in County network
- existing County road recommended for transfer to local municipality
- existing local road recommended for transfer to County

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 4: Road Rationalization - Criteria & Principle Assessment



Road Classification

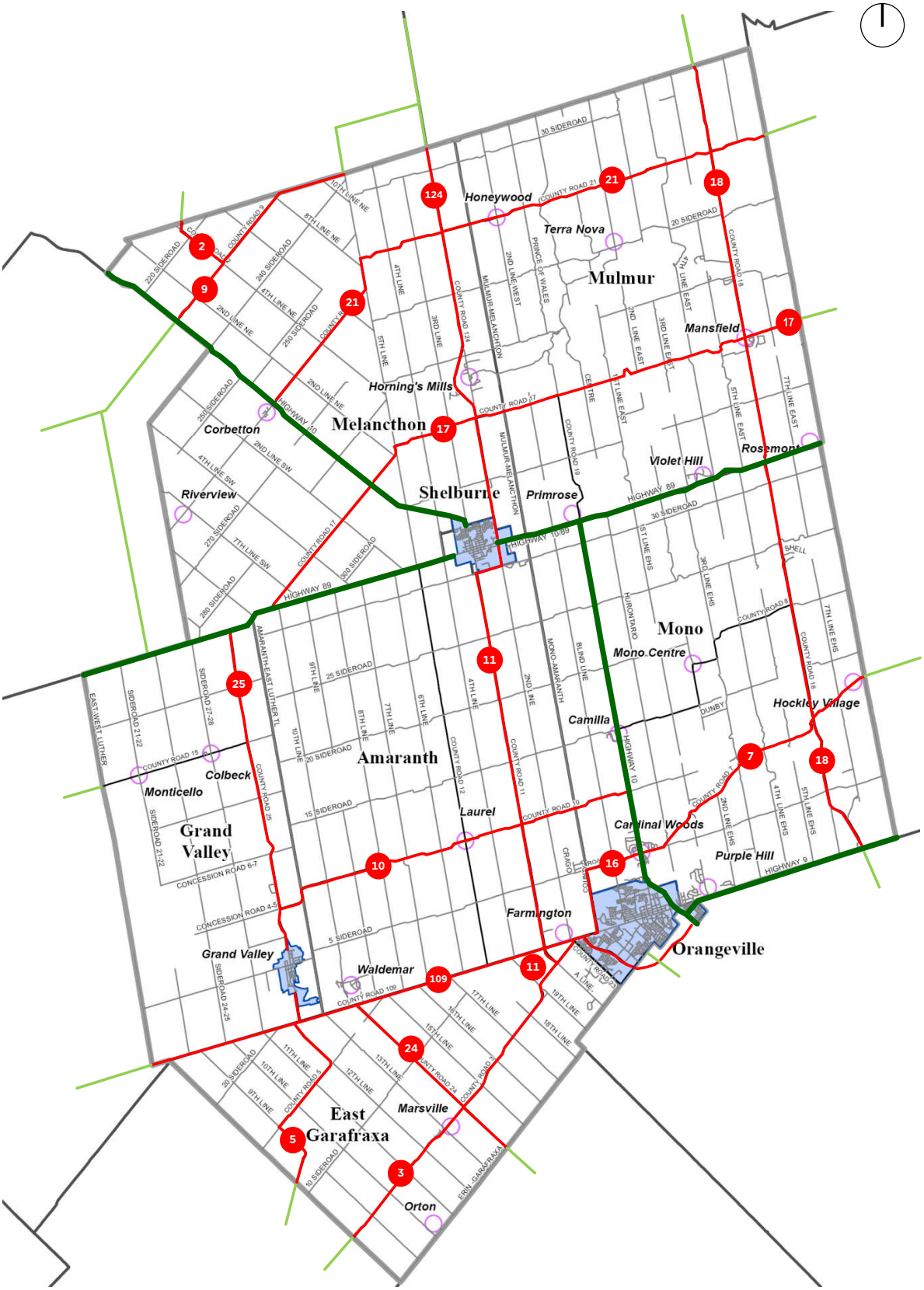
- Provincial Highway
- Adjacent County Roads

Road Rationalization Recommendations

- existing County road to remain in County network
- consider maintaining/including as part of Count network (special consideration)
- existing County road recommended for transfer to local municipality
- existing local road recommended for transfer to County

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 5: Road Rationalization - Special Considerations Assessment



Road Classification

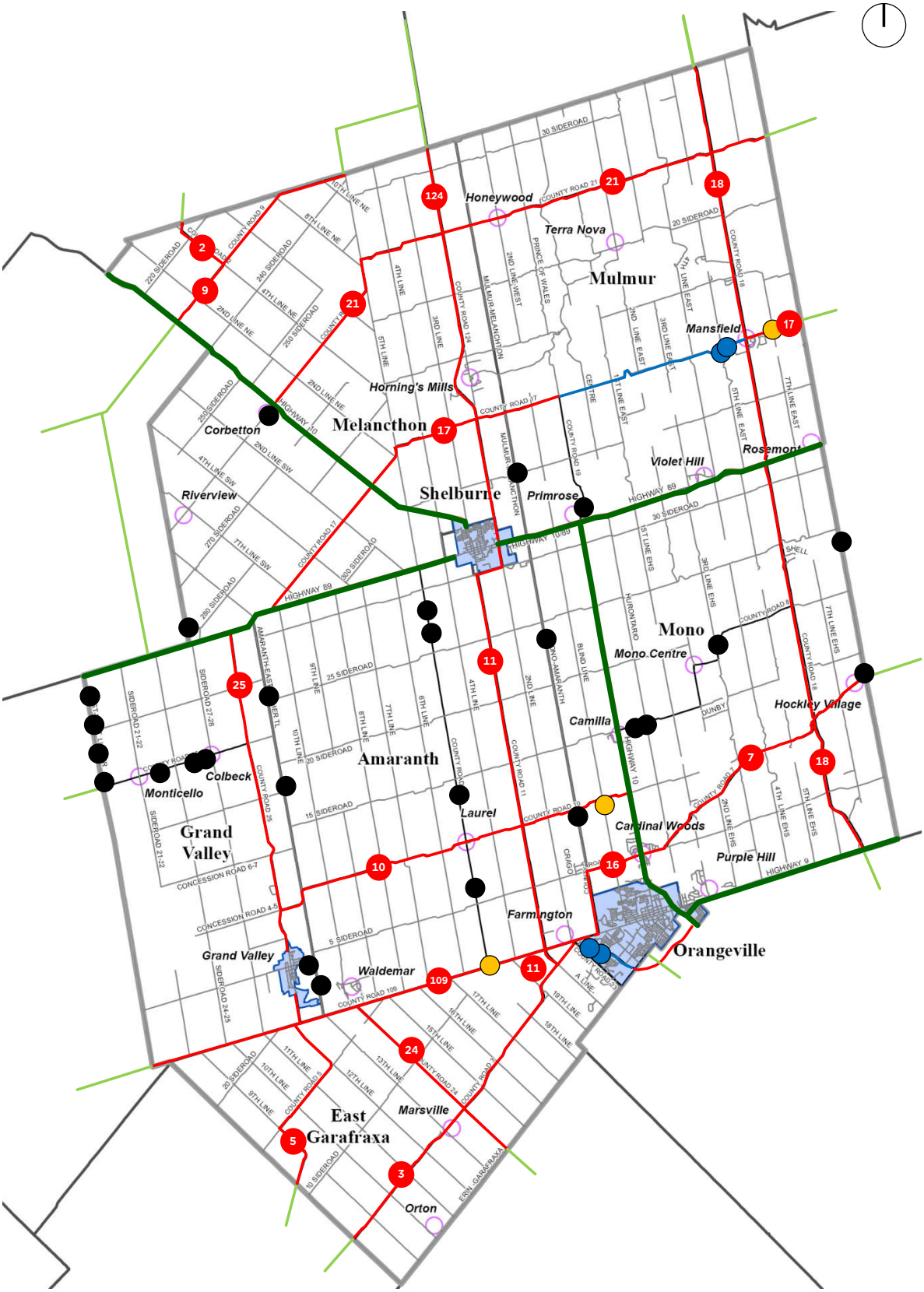
- Provincial Highway
- Adjacent County Roads

Road Rationalization Recommendations

- County roads

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 6: Road Rationalization – Recommended Network



Road Classification

- Provincial Highway
- Adjacent County Roads
- Dufferin County Road
- existing local road recommended for transfer to County

Bridge Rationalization Recommendations

- bridge/culvert for transfer to County
- bridge/culvert for transfer to Local Municipality
- bridge/culvert to consider maintaining as County

DUFFERIN COUNTY ROAD NETWORK RATIONALIZATION PLAN

Figure 7: Structure Rationalization – Recommended Network

Appendix A: Road Rationalization – Criteria Assessment

ROAD RATIONALIZATION REVIEW

CRITERIA BASED ASSESSMENT

Street Name	From	To	Location	Urban Centre/ Upper Tier Connector	Heavy Industry	Barrier Service	Traffic Speed	Traffic Volume	Continues within Dufferin Cty	Continues beyond Dufferin Cty	Alternative Route	Criteria Based Score	Criteria Assessment Recommendation
				Criteria 1, 2, 5 & 7	Criteria 3	Criteria 4	Criteria 9	Criteria 11	Criteria 13	Criteria 14	Criteria 15		County if score >= 6
Existing Dufferin County Roads													
County Road 2	County Road 9	Grey County Boundary	Melancthon				1	1.5		2		4.5	consider as Local
County Road 3	E-W Garafraxa Townline	County Road 24	East Garafraxa	2	2		1	4	2	2		13	County
County Road 3	County Road 24	County Road 11	East Garafraxa	4	2		1	4	2			13	County
County Road 3	County Road 11	County Road 109	East Garafraxa/Orangeville	4	2		1	4	2			13	County
County Road 5	E-W Garafraxa Townline	County Road 109	East Garafraxa			0.5	1	1.5	2			5	consider as Local
County Road 7	Highway 10	5th Sideroad	Mono	2	1.5	0.5		4				8	County
County Road 7	5th Sideroad	3rd Line East	Mono	2	1	0.5		3.5				7	County
County Road 7	3rd Line East	County Road 18	Mono	2		0.5		3				5.5	consider as Local
County Road 7	County Road 18	Mono-Adjala Townline	Mono	2	1	0.5		2.5		2		8	County
County Road 8	Highway 10	Mono Centre	Mono	2		0.5		1.5				4	consider as Local
County Road 8	Mono Centre	County Road 18	Mono	2		0.5	1	1				4.5	consider as Local
County Road 9	Highway 10	County Road 2	Melancthon		1		1	2.5		2		6.5	County
County Road 9	County Road 2	5th Line	Melancthon/Grey Highlands (Grey County)		1		1	1.5		2		5.5	consider as Local
County Road 10	County Road 25	County Road 12	Grand Valley/Amaranth	2			1	1.5	2			6.5	County
County Road 10	County Road 12	County Road 11	Amaranth	2			1	2	2			7	County
County Road 10	County Road 11	Mono-Amaranth Townline	Amaranth	2			1	2.5	2			7.5	County
County Road 10	Mono-Amaranth Townline	Highway 10	Amaranth	2			1	3	2			8	County
County Road 11	County Road 3	County Road 109	East Garafraxa		0.5		1	3.5	2			7	County
County Road 11	County Road 109	County Road 10	Amaranth	4	0.5		1	4	2			11.5	County
County Road 11	County Road 10	20th Sideroad	Amaranth	4	0.5		1	4	2			11.5	County
County Road 11	20th Sideroad	30th Sideroad/Victoria Street	Amaranth	4			1	4	2		2	13	County
County Road 11	30th Sideroad/Victoria Street	Highway 89	Shelburne/Amaranth	4	0.5			3.5	2		2	12	County
County Road 12	County Road 109	County Road 10	Amaranth	2			1	1.5	2			6.5	County
County Road 12	County Road 10	20th Sideroad	Amaranth	2			1	2	2			7	County
County Road 12	20th Sideroad	Highway 89	Amaranth	2			1	2	2			7	County
County Road 15	East-West Luther Townline	County Road 25	Grand Valley	2			1	1		2		6	County
County Road 16	Riddell Road	Broadway	Amaranth/Orangeville	4	1			4			2	11	County
County Road 16	Broadway	5th Sideroad	Amaranth/Orangeville/Mono		0.5			4			2	6.5	County
County Road 16	5th Sideroad	Highway 10	Mono					4			2	6	County
County Road 17	Highway 89	Highway 10	Melancthon		1		1	2	2			6	County
County Road 17	Highway 10	County Road 124	Melancthon		1.5		1	2.5	2			7	County
County Road 17	County Road 124	Mulmur-Melancthon Townline	Melancthon		1		1	2.5				4.5	consider as Local
County Road 17	Mulmur-Melancthon Townline	County Road 19	Mulmur				1	2.5				3.5	consider as Local
County Road 17	County Road 18	Mulmur-Tosorontio Townline	Mulmur		1		1	2.5		2		6.5	County
County Road 18	Highway 9	County Road 7	Mono		1		1	4	2	2		10	County
County Road 18	County Road 7	County Road 8	Mono		0.5		1	4	2			7.5	County
County Road 18	County Road 8	Highway 89	Mono		0.5		1	4	2			7.5	County

Street Name	From	To	Location	Urban Centre/ Upper Tier Connector	Heavy Industry	Barrier Service	Traffic Speed	Traffic Volume	Continues within Dufferin Cty	Continues beyond Dufferin Cty	Alternative Route	Criteria Based Score	Criteria Assessment Recommendation
				Criteria 1, 2, 5 & 7	Criteria 3	Criteria 4	Criteria 9	Criteria 11	Criteria 13	Criteria 14	Criteria 15		County if score >= 6
County Road 18	Highway 89	County Road 17	Mulmur	2	1.5		1	4	2			10.5	County
County Road 18	County Road 17	County Road 21	Mulmur	2	0.5		1	4	2			9.5	County
County Road 18	County Road 21	Mulmur-Nottawasaga Townline	Mulmur				1	4	2	2		9	County
County Road 19	Highway 10	County Road 17	Mulmur					1.5				1.5	consider as Local
County Road 21	Highway 10	County Road 124	Melancthon		1		1	1	2			5	consider as Local
County Road 21	County Road 124	County Road 18	Melancthon	2	1		1	1.5	2			7.5	County
County Road 21	County Road 18	Mulmur-Tosorontio Townline	Mulmur				1	2	2	2		7	County
County Road 23	Peel Road 136	Riddell Road	Orangeville/Caledon (Peel Region)					4		2	2	8	County
County Road 23	Riddell Road	B Line	Orangeville/Caledon (Peel Region)					4			2	6	County
County Road 23	Orangeville-Caledon Townline	County Road 3	East Garafraxa/Orangeville					3.5			2	5.5	consider as Local
County Road 24	Erin-Garafraxa Townline	County Road 3	East Garafraxa		0.5		1	4		2		7.5	County
County Road 24	County Road 3	County Road 109	East Garafraxa				1	2.5				3.5	consider as Local
County Road 25	County Road 109	Industrial Drive	Grand Valley	4			1	4				9	County
County Road 25	Fife Road	County Road 10	Grand Valley	4		0.5	1	3				8.5	County
County Road 25	County Road 10	County Road 15	Grand Valley	4		0.5	1	2.5				8	County
County Road 25	County Road 15	Highway 89	Grand Valley	4			1	2				7	County
County Road 109	East-West Luther Townline	County Road 25	East Garafraxa/Grand Valley/Centre Wellington	4	2		1	4	2	2		15	County
County Road 109	County Road 25	County Road 12	East Garafraxa/Amaranth/Grand Valley	4	2		1	4	2			13	County
County Road 109	County Road 12	Riddell Road	Amaranth/East Garafraxa	4	2		1	4	2			13	County
County Road 109	Orangeville-Caledon Townline	Highway 10	Orangeville	4	2		1	4		2	2	15	County
County Road 124	Highway 89	County Road 17	Shelburne/Melancthon	4	1.5		1	4	2			12.5	County
County Road 124	County Road 17	County Road 21	Melancthon	4	2		1	4	2			13	County
County Road 124	County Road 21	Mulmur-Nottawasaga Townline	Melancthon	4	2		1	4	2	2		15	County
Existing Dufferin County Roads													
Erin-Garafraxa Townline/Orangeville-Caledon Townline	East-West Garafraxa Townline	County Road 23	East Garafraxa/Erin/Caledon	2	1		1	1.5	2			7.5	consider as County
Mono-Amaranth Townline	County Road 16	Highway 89	Mono/Amaranth	4			1	1.5	2			8.5	consider as County
Amaranth-East Luther (Grand Valley) Townline	County Road 109	County Road 10	Grand Valley/Amaranth				1	1				2	Local
10 Sideroad	County Road 19	County Road 18	Mulmur	2			1	1.5	2			6.5	consider as County
Riddell Road	County Road 109	County Road 23	Orangeville		1			4		2	2	9	consider as County
Sideroad 260	Melancthon-Proton Townline	Highway 10	Melancthon	2			1		2			5	Local

Appendix B: Road Rationalization – Principle Assessment

ROAD RATIONALIZATION REVIEW

PRINCIPLE BASED ASSESSMENT

Street Name	From	To	Location	Length (km)	Provides appropriate N-S or E-W service	Compliments Provincial Highway System	Direct service (ie. grid based)	High Degree of Connectivity	Capable of being improved (cost effectively)	Shortest practical route	Offers Non-redundant service (within 10km)	Does not extend through urban downtown	Principal Based Score	Principle Assessment Recommendation
					Principle 1	Principle 2	Principle 3	Principle 4	Principle 5	Principle 6	Principle 7	Principle 8		County if score >= 6
Existing Dufferin County Roads														
County Road 2	County Road 9	Grey County Boundary	Melancthon	2.94	N	N	N	N	Y	Y	Y	Y	4	consider as Local
County Road 3	E-W Garafraxa Townline	County Road 24	East Garafraxa	9.62	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 3	County Road 24	County Road 11	East Garafraxa	8.48	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 3	County Road 11	County Road 109	East Garafraxa/Orangeville	1.41	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 5	E-W Garafraxa Townline	County Road 109	East Garafraxa	9.88	Y	Y	N	Y	Y	Y	Y	Y	7	County
County Road 7	Highway 10	5th Sideroad	Mono	1.14	N	Y	N	Y	Y	Y	Y	Y	6	County
County Road 7	5th Sideroad	3rd Line East	Mono	5.34	N	Y	N	Y	Y	Y	Y	Y	6	County
County Road 7	3rd Line East	County Road 18	Mono	4.76	N	Y	N	Y	Y	Y	Y	Y	6	County
County Road 7	County Road 18	Mono-Adjala Townline	Mono	3.20	N	Y	N	Y	Y	Y	Y	Y	6	County
County Road 8	Highway 10	Mono Centre	Mono	6.70	N	N	N	N	Y	Y	Y	Y	4	consider as Local
County Road 8	Mono Centre	County Road 18	Mono	5.74	N	N	N	N	Y	Y	Y	Y	4	consider as Local
County Road 9	Highway 10	County Road 2	Melancthon	3.58	N	Y	N	N	Y	Y	Y	Y	5	consider as Local
County Road 9	County Road 2	5th Line	Melancthon/Grey Highlands (Grey County)	7.61	N	N	N	Y	Y	Y	Y	Y	5	consider as Local
County Road 10	County Road 25	County Road 12	Grand Valley/Amaranth	10.00	Y	Y	Y	N	Y	Y	N	Y	6	County
County Road 10	County Road 12	County Road 11	Amaranth	2.86	Y	Y	Y	N	Y	Y	N	Y	6	County
County Road 10	County Road 11	Mono-Amaranth Townline	Amaranth	2.67	Y	Y	Y	N	Y	Y	N	Y	6	County
County Road 10	Mono-Amaranth Townline	Highway 10	Amaranth	2.81	Y	Y	Y	N	Y	Y	N	Y	6	County
County Road 11	County Road 3	County Road 109	East Garafraxa	0.93	Y	N	N	N	Y	Y	N	Y	4	consider as Local
County Road 11	County Road 109	County Road 10	Amaranth	6.09	Y	Y	Y	N	Y	Y	N	Y	6	County
County Road 11	County Road 10	20th Sideroad	Amaranth	6.09	Y	Y	Y	N	Y	Y	N	Y	6	County
County Road 11	20th Sideroad	30th Sideroad/Victoria Street	Amaranth	6.19	Y	Y	Y	Y	Y	Y	N	Y	7	County
County Road 11	30th Sideroad/Victoria Street	Highway 89	Shelburne/Amaranth	2.38	Y	N	Y	N	Y	Y	Y	Y	6	County
County Road 12	County Road 109	County Road 10	Amaranth	6.12	N	Y	Y	N	Y	Y	N	Y	5	consider as Local
County Road 12	County Road 10	20th Sideroad	Amaranth	6.15	N	Y	Y	N	Y	Y	N	Y	5	consider as Local
County Road 12	20th Sideroad	Highway 89	Amaranth	7.30	N	Y	Y	N	Y	Y	N	Y	5	consider as Local
County Road 15	East-West Luther Townline	County Road 25	Grand Valley	7.31	N	N	Y	N	Y	Y	N	Y	4	consider as Local
County Road 16	Riddell Road	Broadway	Amaranth/Orangeville	0.70	Y	N	N	Y	Y	Y	Y	Y	6	County
County Road 16	Broadway	5th Sideroad	Amaranth/Orangeville/Mono	3.05	N	Y	Y	N	Y	Y	Y	Y	6	County
County Road 16	5th Sideroad	Highway 10	Mono	2.76	N	Y	Y	Y	Y	Y	Y	Y	7	County
County Road 17	Highway 89	Highway 10	Melancthon	7.70	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 17	Highway 10	County Road 124	Melancthon	6.52	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 17	County Road 124	Mulmur-Melancthon Townline	Melancthon	1.37	Y	Y	Y	N	Y	N	Y	Y	6	County
County Road 17	Mulmur-Melancthon Townline	County Road 19	Mulmur	2.71	Y	Y	Y	N	Y	N	Y	Y	6	County
County Road 17	County Road 18	Mulmur-Tosorontio Townline	Mulmur	2.88	Y	N	Y	Y	Y	N	Y	Y	6	County
County Road 18	Highway 9	County Road 7	Mono	7.14	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 18	County Road 7	County Road 8	Mono	5.53	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 18	County Road 8	Highway 89	Mono	7.04	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 18	Highway 89	County Road 17	Mulmur	6.09	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 18	County Road 17	County Road 21	Mulmur	9.09	Y	Y	Y	Y	Y	Y	Y	Y	8	County

Street Name	From	To	Location	Length (km)	Provides appropriate N-S or E-W service	Compliments Provincial Highway System	Direct service (ie. grid based)	High Degree of Connectivity	Capable of being improved (cost effectively)	Shortest practical route	Offers Non-redundant service (within 10km)	Does not extend through urban downtown	Principal Based Score	Principle Assessment Recommendation
					Principle 1	Principle 2	Principle 3	Principle 4	Principle 5	Principle 6	Principle 7	Principle 8		County if score >= 6
County Road 18	County Road 21	Mulmur-Nottawasaga Townline	Mulmur	4.24	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 19	Highway 10	County Road 17	Mulmur	6.37	N	N	N	N	Y	Y	Y	Y	4	consider as Local
County Road 21	Highway 10	County Road 124	Melancthon	12.74	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 21	County Road 124	County Road 18	Melancthon	13.60	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 21	County Road 18	Mulmur-Tosorontio Townline	Mulmur	2.77	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 23	Peel Road 136	Riddell Road	Orangeville/Caledon (Peel Region)	1.02	N	Y	N	Y	Y	N	Y	Y	5	consider as Local
County Road 23	Riddell Road	B Line	Orangeville/Caledon (Peel Region)	1.04	N	Y	N	Y	Y	N	Y	Y	5	consider as Local
County Road 23	Orangeville-Caledon Townline	County Road 3	East Garafraxa/Orangeville	3.07	N	Y	N	Y	Y	N	Y	Y	5	consider as Local
County Road 24	Erin-Garafraxa Townline	County Road 3	East Garafraxa	2.85	N	N	Y	Y	Y	Y	Y	Y	6	County
County Road 24	County Road 3	County Road 109	East Garafraxa	7.12	N	N	Y	N	Y	Y	Y	Y	5	consider as Local
County Road 25	County Road 109	Industrial Drive	Grand Valley	1.46	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 25	Fife Road	County Road 10	Grand Valley	2.14	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 25	County Road 10	County Road 15	Grand Valley	8.27	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 25	County Road 15	Highway 89	Grand Valley	5.47	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 109	East-West Luther Townline	County Road 25	East Garafraxa/Grand Valley/Centre Wellington	7.43	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 109	County Road 25	County Road 12	East Garafraxa/Amaranth/Grand Valley	9.42	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 109	County Road 12	Riddell Road	Amaranth/East Garafraxa	4.87	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 109	Orangeville-Caledon Townline	Highway 10	Orangeville	3.91	Y	Y	N	Y	Y	Y	Y	Y	7	County
County Road 124	Highway 89	County Road 17	Shelburne/Melancthon	6.12	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 124	County Road 17	County Road 21	Melancthon	9.48	Y	Y	Y	Y	Y	Y	Y	Y	8	County
County Road 124	County Road 21	Mulmur-Nottawasaga Townline	Melancthon	4.14	Y	Y	Y	Y	Y	Y	Y	Y	8	County
Existing Dufferin County Roads				317.39										
Erin-Garafraxa Townline/Orangeville-Caledon Townline	East-West Garafraxa Townline	County Road 23	East Garafraxa/Erin/Caledon	18.21	Y	N	Y	N	N	Y	N	Y	4	Local
Mono-Amaranth Townline	County Road 16	Highway 89	Mono/Amaranth	16.47	N	N	Y	Y	N	Y	N	Y	4	Local
Amaranth-East Luther (Grand Valley) Townline	County Road 109	County Road 10	Grand Valley/Amaranth	5.8	N	N	Y	N	N	Y	N	Y	3	Local
10 Sideroad	County Road 19	County Road 18	Mulmur	9.97	Y	Y	Y	Y	N	Y	Y	Y	7	consider as County
Riddell Road	County Road 109	County Road 23	Orangeville	2.9	Y	Y	N	Y	Y	Y	N	Y	6	consider as County
Sideroad 260	Melancthon-Proton Townline	Highway 10	Melancthon	8.05	Y	Y	Y	N	N	Y	N	Y	5	Local

Appendix C: Road Rationalization – Criteria & Principle Assessment

ROAD RATIONALIZATION REVIEW

SUMMARY

Street Name	From	To	Location	Length (km)	Criteria Assessment Recommendation County if score >= 6	Principle Assessment Recommendation County if score >= 6	Special Consideration	FINAL RECOMMENDATION County vs Local	FINAL RECOMMENDATION County Classification
Existing Dufferin County Roads									
County Road 2	County Road 9	Grey County Boundary	Melancthon	2.94	consider as Local	consider as Local	Maintain as County due to connection with neighbouring County road network	County	
County Road 3	E-W Garafraxa Townline	County Road 24	East Garafraxa	9.62	County	County		County	
County Road 3	County Road 24	County Road 11	East Garafraxa	8.48	County	County		County	
County Road 3	County Road 11	County Road 109	East Garafraxa/Orangeville	1.41	County	County		County	
County Road 5	E-W Garafraxa Townline	County Road 109	East Garafraxa	9.88	consider as Local	County		County	
County Road 7	Highway 10	5th Sideroad	Mono	1.14	County	County		County	
County Road 7	5th Sideroad	3rd Line East	Mono	5.34	County	County		County	
County Road 7	3rd Line East	County Road 18	Mono	4.76	consider as Local	County		County	
County Road 7	County Road 18	Mono-Adjala Townline	Mono	3.20	County	County		County	
County Road 8	Highway 10	Mono Centre	Mono	6.70	consider as Local	consider as Local		Local	
County Road 8	Mono Centre	County Road 18	Mono	5.74	consider as Local	consider as Local		Local	
County Road 9	Highway 10	County Road 2	Melancthon	3.58	County	consider as Local	Maintain as County due to connection with neighbouring County road network	County	
County Road 9	County Road 2	5th Line	Melancthon/Grey Highlands (Grey County)	7.61	consider as Local	consider as Local	Maintain as County due to connection with neighbouring County road network	County	
County Road 10	County Road 25	County Road 12	Grand Valley/Amaranth	10.00	County	County		County	
County Road 10	County Road 12	County Road 11	Amaranth	2.86	County	County		County	
County Road 10	County Road 11	Mono-Amaranth Townline	Amaranth	2.67	County	County		County	
County Road 10	Mono-Amaranth Townline	Highway 10	Amaranth	2.81	County	County		County	
County Road 11	County Road 3	County Road 109	East Garafraxa	0.93	County	consider as Local	Maintain in County network for connection to CR 3.	County	
County Road 11	County Road 109	County Road 10	Amaranth	6.09	County	County		County	
County Road 11	County Road 10	20th Sideroad	Amaranth	6.09	County	County		County	
County Road 11	20th Sideroad	30th Sideroad/Victoria Street	Amaranth	6.19	County	County		County	
County Road 11	30th Sideroad/Victoria Street	Highway 89	Shelburne/Amaranth	2.38	County	County		County	
County Road 12	County Road 109	County Road 10	Amaranth	6.12	County	consider as Local		Local	
County Road 12	County Road 10	20th Sideroad	Amaranth	6.15	County	consider as Local		Local	
County Road 12	20th Sideroad	Highway 89	Amaranth	7.30	County	consider as Local		Local	
County Road 15	East-West Luther Townline	County Road 25	Grand Valley	7.31	County	consider as Local	continues as a County road in Wellington County (5.4km) only because a County road in Dufferin	Local	
County Road 16	Riddell Road	Broadway	Amaranth/Orangeville	0.70	County	County		County	
County Road 16	Broadway	5th Sideroad	Amaranth/Orangeville/Mono	3.05	County	County		County	
County Road 16	5th Sideroad	Highway 10	Mono	2.76	County	County		County	
County Road 17	Highway 89	Highway 10	Melancthon	7.70	County	County		County	
County Road 17	Highway 10	County Road 124	Melancthon	6.52	County	County		County	
County Road 17	County Road 124	Mulmur-Melancthon Townline	Melancthon	1.37	consider as Local	County		County	
County Road 17	Mulmur-Melancthon Townline	County Road 19	Mulmur	2.71	consider as Local	County		County	
County Road 17	County Road 18	Mulmur-Tosorontio Townline	Mulmur	2.88	County	County		County	
County Road 18	Highway 9	County Road 7	Mono	7.14	County	County		County	
County Road 18	County Road 7	County Road 8	Mono	5.53	County	County		County	
County Road 18	County Road 8	Highway 89	Mono	7.04	County	County		County	
County Road 18	Highway 89	County Road 17	Mulmur	6.09	County	County		County	
County Road 18	County Road 17	County Road 21	Mulmur	9.09	County	County		County	

Street Name	From	To	Location	Length (km)	Criteria Assessment Recommendation County if score >= 6	Principle Assessment Recommendation County if score >= 6	Special Consideration	FINAL RECOMMENDATION County vs Local	FINAL RECOMMENDATION County Classification
County Road 18	County Road 21	Mulmur-Nottawasaga Townline	Mulmur	4.24	County	County		County	
County Road 19	Highway 10	County Road 17	Mulmur	6.37	consider as Local	consider as Local		Local	
County Road 21	Highway 10	County Road 124	Melancthon	12.74	consider as Local	County		County	
County Road 21	County Road 124	County Road 18	Melancthon	13.60	County	County		County	
County Road 21	County Road 18	Mulmur-Tosorontio Townline	Mulmur	2.77	County	County		County	
County Road 23	Peel Road 136	Riddell Road	Orangeville/Caledon (Peel Region)	1.02	County	consider as Local		Local	
County Road 23	Riddell Road	B Line	Orangeville/Caledon (Peel Region)	1.04	County	consider as Local		Local	
County Road 23	Orangeville-Caledon Townline	County Road 3	East Garafraxa/Orangeville	3.07	consider as Local	consider as Local		Local	
County Road 24	Erin-Garafraxa Townline	County Road 3	East Garafraxa	2.85	County	County		County	
County Road 24	County Road 3	County Road 109	East Garafraxa	7.12	consider as Local	consider as Local	Maintain in County network for connection to CR 109.	County	
County Road 25	County Road 109	Industrial Drive	Grand Valley	1.46	County	County		County	
County Road 25	Fife Road	County Road 10	Grand Valley	2.14	County	County		County	
County Road 25	County Road 10	County Road 15	Grand Valley	8.27	County	County		County	
County Road 25	County Road 15	Highway 89	Grand Valley	5.47	County	County		County	
County Road 109	East-West Luther Townline	County Road 25	East Garafraxa/Grand Valley/Centre Wellington	7.43	County	County		County	
County Road 109	County Road 25	County Road 12	East Garafraxa/Amaranth/Grand Valley	9.42	County	County		County	
County Road 109	County Road 12	Riddell Road	Amaranth/East Garafraxa	4.87	County	County		County	
County Road 109	Orangeville-Caledon Townline	Highway 10	Orangeville	3.91	County	County		County	
County Road 124	Highway 89	County Road 17	Shelburne/Melancthon	6.12	County	County		County	
County Road 124	County Road 17	County Road 21	Melancthon	9.48	County	County		County	
County Road 124	County Road 21	Mulmur-Nottawasaga Townline	Melancthon	4.14	County	County		County	
Existing Dufferin County Roads				317.39					
Erin-Garafraxa Townline/Orangeville-Caledon Townline	East-West Garafraxa Townline	County Road 23	East Garafraxa/Erin/Caledon	18.21	consider as County	Local		Local	
Mono-Amaranth Townline	County Road 16	Highway 89	Mono/Amaranth	16.47	consider as County	Local		Local	
Amaranth-East Luther (Grand Valley) Townline	County Road 109	County Road 10	Grand Valley/Amaranth	5.8	Local	Local		Local	
10 Sideroad	County Road 19	County Road 18	Mulmur	9.97	consider as County	consider as County		County	
Riddell Road	County Road 109	County Road 23	Orangeville	2.9	consider as County	consider as County		County	
Sideroad 260	Melancthon-Proton Townline	Highway 10	Melancthon	8.05	Local	Local		Local	

A community that grows together

Report To: Chair Gerrits and Members of the Infrastructure and Environmental Services Committee

Meeting Date: August 24, 2023

Subject: **Speed and Passing Zone Review – Dufferin Road 11**

From: **Scott Burns, Director of Public Work/County Engineer**

Recommendation

THAT the report of the Director of Public Works/County Engineer, dated August 24, 2023, Speed and Passing Zone Review – Dufferin Road 11, be received;

AND THAT staff be directed to revise the posted speed limit of the southern portion of Dufferin Road 11 to 70 km/hr;

AND THAT Schedule H of the Consolidated Traffic By-Law 2005-32 be revised to include the following:

County Road Number	From	To
11	A point situated at the northern limit of Dufferin Road 109	A point situated 250 metres north of Shannon Court

Executive Summary

On January 20, 2023, staff received a resolution from the Township of Amaranth (attached) with attention to the Infrastructure and Environmental Services Committee. The resolution requests a speed reduction and no-passing zone for the southern segment of Dufferin Road 11 between Dufferin Road 109 and 5 Sideroad Amaranth. Considering ongoing land development within the area, staff had planned to perform a general review of the

roadway. This review is now complete. The roadway is currently posted as 80 km/hr with passing permitted where sightlines achieve the required standards. Based on the review described in this report, staff recommend reducing the speed limit from 80 km/hr to 70 km/hr for the first 1,000 metres of the road section. All review and recommendations align with applicable road/highway standards and best practice.

Background & Discussion

Staff completed a review of the above noted road segment to evaluate the current 80 km/hr posted speed limit and roadway line painting as it pertains to passing zones. To provide appropriate and critical analysis, the road section review considers several elements including the following:

- Traffic volume and composition,
- Nature of adjacent land use,
- Roadway geometry for horizontal/vertical alignment and physical attributes
- Density of existing and potential future access points,
- Roadside hazards,
- Number of intersections; and
- Pedestrian exposure

To ensure that the assessment is representative of current day, new traffic data was collected in June 2023. The review objective is to determine any necessary changes to the posted speed and/or existing passing zones in a manner that supports road safety through consistent application of standards and best practice.

The Ontario Traffic Manual (OTM) is a principal resource that provides guidance for road authorities in the Province of Ontario. The OTM is a series of technical books with the purpose of providing "…information and guidance for transportation practitioners and to promote uniformity of treatment in the design, application and operation of traffic control devices and systems across Ontario. The objective is safe driving behaviour, achieved by a predictable roadway environment through the consistent, appropriate application of traffic control devices. Further purposes of the OTM are to provide a set of guidelines consistent with the intent of the Highway Traffic Act and to provide a basis for road authorities to generate or update their own guidelines and standards."

In addition to the OTM, Canadian road authorities rely on the Transportation Association of Canada Geometric Design Guide for Canadian Roads (TAC Manual). This critical resource "…has been a fundamental road design reference for decades. It has contributed to the development of regional, provincial, and national road and highway

systems by helping planners and designers meet the needs of road users with safety and consistency. The Guide addresses freeways, arterials, collectors, and local roads in both urban and rural contexts, as well as special roads and facilities for walking and cycling."

Municipal road authorities across Ontario and Canada, including Dufferin Public Works, rely on these and other resources for guidance to support, improve, and maintain healthy road networks. These resources are intended for interpretation by practitioners with relevant education, experience, skills, and credentials to ensure consistent application of the principles of road safety and road design. Straying from this approach often leads to inappropriate or sporadic application of measures resulting in irregularities within a road system. These irregularities are often not predictable or easy to interpret for road users and frequently result in additional and unintended risk. Dufferin Public Works currently employs a team of Certified Engineering Technologists and one Professional Engineer licenced to practice engineering in the Province of Ontario. All these dedicated professionals are skilled in this work and several of them, with support from other knowledgeable team members, often collaborate on reviews such as the one discussed in this report. This team is focused on maintaining and improving the safety, integrity, and function of the County's arterial road network.

For this review, the OTM and the TAC Manual were used to determine several factors including whether the posted speed should be revised. Staff have determined the following change should be made which is also illustrated as a sketch (attached):

- The current posted speed limit of 80 km/hr should be reduced on Dufferin Road 11 from Dufferin Road 109 to a point located 250 metres north of Shannon Court. The recommended posted speed limit for this segment is 70 km/hr.

The review confirmed that no further changes are required with respect to posted speed within the area. It was also confirmed that there are no restrictions to sight distances related to horizontal or vertical curves, lane reductions/transition areas, intersection approaches or school zones, etc. that would satisfy the requirements for a no-passing zone. In line with this, all current line painting is appropriate, and no changes are proposed.

The above analysis and subsequent outcomes align with recommendations and guidance from the OTM, TAC Manual, and support the consistent application of measures.

Financial, Staffing, Legal, or IT Considerations

Funds for the work described in this report are available in the 2023 Operating Budget.

Consistently implementing measures that align with established guidelines, standards, and best practices ensures that that roadway communication mechanisms support a safe user experience and that decisions are defensible from a legal standpoint. In this instance, all enhancements align with recommendations from the OTM and TAC Manual.

In Support of Strategic Plan Priorities and Objectives

Governance - identify opportunities to improve governance and service delivery/ improve the County's internal and external communication

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Respectfully Submitted By:

Scott C. Burns, P.Eng., C.E.T.
Director of Public Works/County Engineer

Prepared By:
Bruce Hilborn, C.E.T., CRS
Assistant Manager of Operations, Public Works

Attachments:

- Township of Amaranth – County Rd 11 Request
- County Rd 11 – Speed Limit Review Reference Map

Reviewed by: Sonya Pritchard, Chief Administrative Officer

TOWNSHIP OF AMARANTH

374028 6TH LINE • AMARANTH ON • L9W 0M6

January 20, 2023

County of Dufferin
30 Centre Street
Orangeville, ON L9W 2X1

SENT BY EMAIL TO:
Scott Burns, Director of Public Works - sburns@dufferincounty.ca
Councillor Chris Gerrits, Chair of Infrastructure & Environmental Services Committee - cgerrits@dufferincounty.ca

Re: County Road 11 Request

At its regular meeting of Council held on January 11, 2023, the Township of Amaranth Council made the following motion:

Resolution #: 10

Moved by: A. Stirk
Seconded by: G. Little

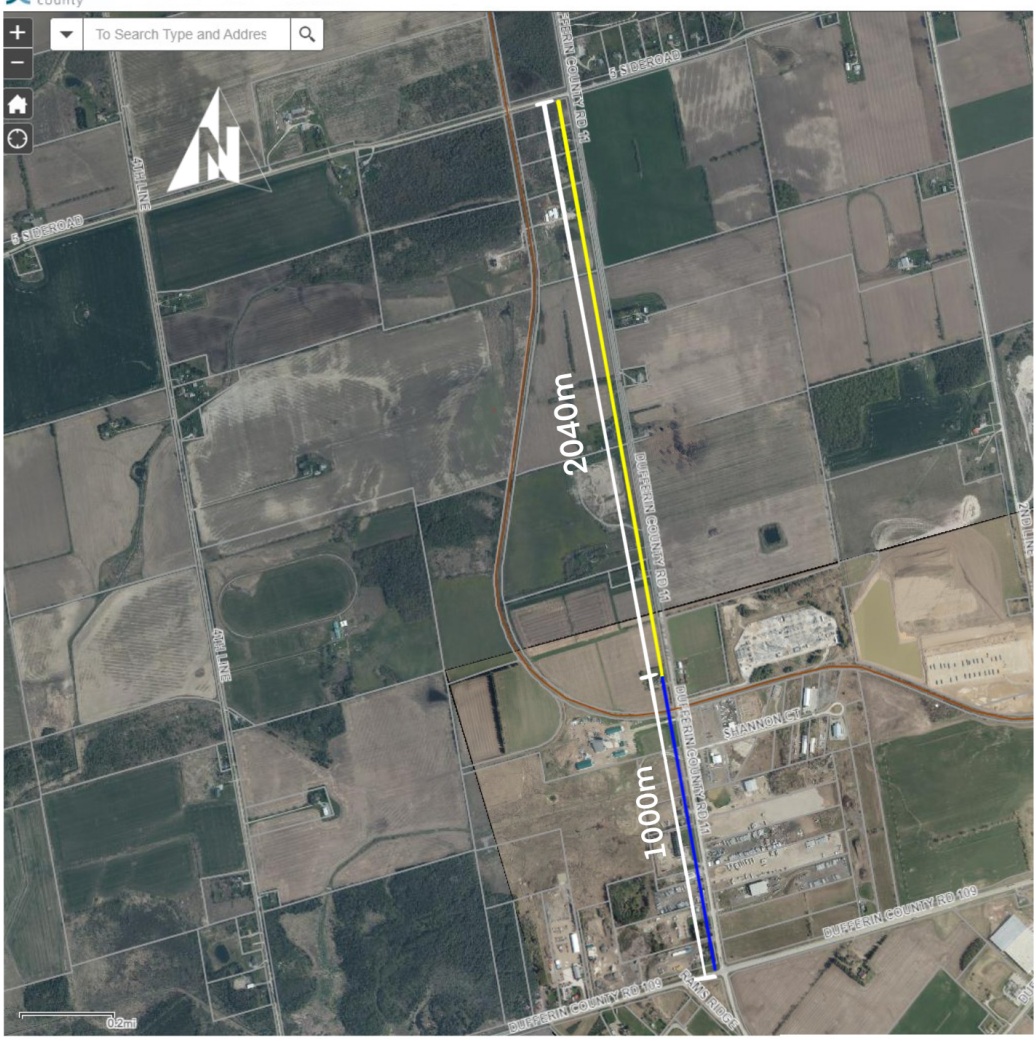
BE IT RESOLVED THAT:
Council of the Township of Amaranth request from the County of Dufferin that the speed limit on County Road 11 between County Road 109 and 5 Sideroad be lowered as a public safety measure;
And Further That County Road 11 be extended to a no passing zone from County Road 109 north to 5 Sideroad.

CARRIED

Please do not hesitate to contact the office if you require any further information on this matter.

Yours truly,

Nicole Martin, Dipl. M.A.
CAO/Clerk



Dufferin county ADDRESS: 55 ZINA ST., ORANGEVILLE, ON. L9W 1E5 TEL. NO.: (519)-941-2816 X 2600	LEGEND: 70 km/hr Speed Zone 80 km/hr Speed Zone	DRAWING TITLE: County Rd. 11 109 to 5 Sideroad Speed Limit Review SCALE: NTS DRAWING NO. 01

A community that grows together

Report To: Chair Gerrits and Members of the Infrastructure and Environmental Services Committee

Meeting Date: August 24, 2023

Subject: **Dufferin County Forest – Oak Wilt Response**

From: **Scott Burns, Director of Public Work/County Engineer**

Recommendation

THAT the Report, Dufferin County Forest – Oak Wilt Response, dated August 24, 2023, from the Director of Public Works/County Engineer, be received.

Executive Summary

Oak Wilt is an exotic invasive disease that kills all species of oak, preferring those in the red oak group (red oak and black oak). In 2018, prior to Oak Wilt reaching Ontario, the County restricted the harvesting of oak in the County Forest. This restriction was a precautionary step taken by forest management to protect the forest from unnecessary exposure to the disease.

As of summer 2023, Oak Wilt is now known to be present in three locations within Ontario; Niagara Falls, Springwater Township, and Niagara-on-the-Lake. Due to this new proximity and the inevitable continued migration of Oak Wilt within Ontario, it is now prudent to expand restrictions on harvesting, pruning, and cutting of oak beyond solely the County Forest and into other County operations. Along with this internal policy, a public communications campaign will be developed to educate the public on best practice to combat spread.

Background & Discussion

Oak Wilt is an exotic invasive disease that kills all species of oak, preferring those in the red oak group (red oak and black oak). The Canadian Food Inspection Agency is the lead

agency in dealing with exotic invasives and has confirmed three finds of Oak Wilt in Ontario. Prior to this, the closest known case of Oak Wilt was located on Belle Isle, between Windsor and Detroit. Infected red oak trees can die in as little as 30 days. More details about the disease are provided through the attached fact sheet: *Oak Wilt: An Invasive Pathogen Threatening Oak Trees in Canada*.

In 2005, as part of the celebration of the 75th anniversary of the Dufferin County Forest, red oak was declared as the official tree of Dufferin County. This tree represents a significant component of several stands within the Dufferin County Forest portfolio, particularly in the Main Tract. Many of these stands are also part of the Oak Ridges South Slope Area of Natural and Scientific Interest, which is recognized in part for its oak component.

According to the most recent forest inventory information:

- Approximately 46% or 278 ha (686.95 acres) of the total area of the Main Tract is classified as red oak working group, which means that red oak is the dominant species;
- A further approximately 31% or 190 ha (469.5 acres) of the total area of the Main Tract is classified with red oak as a minor component;
- Red oak is present as a minor component in an additional 107 ha (264.4 acres) in the combined Randwick, Simmons, Mono and Gara Gore Tracts.

These statistics result in red oak presence in approximately 55% or 575 ha (1,420.86 acres) of the total combined 1,054 ha (2,606 acre) area of the 14 Tracts of the Dufferin County Forest.

Based on the information above and the inevitable migration of the disease, staff recommend action in the form of an internal policy, continued prudent Forest Management activities, and a public education campaign.

The proposed policy will be presented at a future meeting, in advance of a late winter/early spring 2024 communications campaign.

Financial, Staffing, Legal, or IT Considerations

Should Oak Wilt become established in the Dufferin County Forest, significant expense will be incurred in attempting to minimize and responding to its impact.

In Support of Strategic Plan Priorities and Objectives

Climate & Environment – enhance and conserve Dufferin's natural environment
Governance - improve the County's internal and external communication

Respectfully Submitted By:

Scott Burns, P.Eng., C.E.T.
Director of Public Works/County Engineer

Prepared By:
Caroline Mach, R.P.F.
County Forest Manager

Attachment: Oak Wilt Fact Sheet

Reviewed by: Sonya Pritchard, Chief Administrative Officer

Oak Wilt

An Invasive Pathogen Threatening Oak Trees in Canada

Invasive Species Centre

P. Kurzeja, Forest Health Division, Michigan D. N. R.

What is it?

Oak wilt is a vascular disease of oak trees, caused by the fungus *Bretziella fagacearum*. The fungus grows on the outer sapwood of oak trees, restricting the flow of water and nutrients through the tree.

Trees at risk:

All oak species are susceptible and at risk. The red oak group (red, black, pin) is the most susceptible, with mortality frequently occurring within one growing season. Oaks in the white oak group (white, bur) are also affected but are more resistant.

Where is it?

Oak wilt has spread throughout the Eastern United States. In 2023, oak wilt was confirmed for the first time in Canada in Niagara Falls, Ontario.

Signs and Symptoms:

- Leaves turn dull green, brown or yellow
- Discoloration of leaves progressing from the edge of the leaf to the middle
- Wilting and bronzing of foliage starting at top of the tree and moving downwards
- Premature leaf fall (including green leaves)
- White, grey or black fungal mats just under the bark that emit a fruity smell
- Vertical bark cracks in the trunk and large branches as a result of the fungal spore mats (also referred to as pressure pads) exerting outward pressure on the bark

Impacts:

D.W. French, University of Minnesota, Bugwood.org

- Impacts property values and neighbourhood aesthetics
- Increased costs with tree maintenance, removal and replacement
- Loss of a valued shade tree
- Negative impacts to the forestry industry and production of high value oak products
- Reduction in food source for forest animals provided by oak trees
- Loss of habitat for some species
- Reduction of ecological services (air and water filtering)
- Safety and liability issues

How is oak wilt spread?

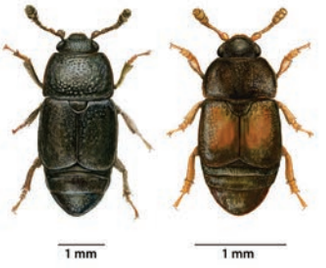
Roots

The disease spreads from infected trees to uninfected trees of the same species through root-to-root contact.

James Solomon, USDA Forest Service, Bugwood.org

Insects

Insects such as sap-feeding nitidulid beetles can move spores from infected trees to healthy trees.



USDA Forest Service, Northeastern Area State and Private Forestry

Humans

Movement of wood products, (particularly those with bark), such as firewood can spread the pathogen over long distances as they can harbor fungal mats.

Joseph OBrien, USDA Forest Service, Bugwood.org

What can you do?

There is no cure for oak wilt infected trees. The best approach is to avoid or reduce infection in areas where disease occurs by:

- Identifying and removing diseased trees
- Preventing or severing root connections between diseased and healthy trees
- Minimizing wounds on healthy trees during the flight period of potential insect carriers

- DO NOT prune oak trees from April to October. If pruning must occur, or if a tree is injured, apply a thin layer of wound paint immediately.
- DO NOT move firewood. Oak wilt is spread by the movement of infected wood.

If you see signs and symptoms of oak wilt, report the sightings to:

- The Canadian Food Inspection Agency (CFIA)
  OakWiltReportingOntario-Fletrissementduchene@inspection.gc.ca
- EDDMapS
  www.eddmaps.org
- Invading Species Hotline
  1-800-563-7711

For more information on oak wilt visit:

- Oak wilt species profile on the Invasive Species Centre website
  www.invasivespeciescentre.ca/oakwilt

2023

Produced in collaboration with:

Invasive Species Centre | Ontario | Canada

Dufferin county
A community that grows together

Report To: Chair Gerrits & Members of the Infrastructure and Environmental Services Committee

Meeting Date: August 24, 2023

Subject: **Household Hazardous Waste Services Update and Event Request**

From: **Scott Burns, Director of Public Work/County Engineer**

Recommendation

THAT the report of the Director of Public Works/County Engineer, dated August 24, 2023, Household Hazardous Waste Services Update and Event Request, be received.

Executive Summary

The Township of Mulmur has made a request for Household Hazardous Waste (HHW) Event Days to be held at their municipal office location. For 2023, seven annual Event Days have returned. The events locations were determined based on geographic/population central locations to promote overall resident access and to ensure eligibility for funding. A review of HHW service is underway. Staff are continuing to investigate and evaluate the opportunity to implement a Mobile Depot that was recommended and adopted in the May 25, 2023, Committee report Household Hazardous Waste Service Review and Future Options. Final recommendations are expected later this year. Any enhancements to the service will then be incorporated into the budget process.

Background & Discussion

The seven HHW event days for 2023 were determined in February and the dates and locations have been broadly advertised with strong attendance to date. The number and location of events is influenced by several factors:

- An appropriate site that is geographically central;

- Meeting the criteria to ensure funding eligibility through producer funding received by the County through the Hazardous and Special Products (HSP) Regulation;
- Availability of the certified contractor to operate the event.

The HSP Regulation's accessibility calculations are based on population resulting in only the main population centres of Shelburne, Orangeville and Mono being eligible to receive funding for the service. For 2023, sites in these locations were therefore chosen while also working to remain as overall central as reasonably possible. There is a high likelihood that any Event Day held outside of these areas in 2024 will be at full cost to the County. Event Day costs range from $18,000 to $30,000 with approximately 50% recuperated when eligible for funding.

Contractor availability is a further constraint as there are a limited number of certified operators.

The Mobile Depot may be a more effective way to enhance collection options for Dufferin residents needing to dispose of certain special wastes. The mobile depot would move throughout the local municipalities remaining on site for a reasonable period. This model would remedy concerns related to service distribution and resident access. There would be an additional cost as mobile depots are not currently captured under the HSP Regulation and therefore may not be eligible for funding. Staff are working to determine the necessary Ministry of Environment, Conservation and Parks approvals as well as funding eligibility under the Regulation.

Should the Mobile Depot service come to fruition, there will be a balance between this new service and the historic Event Days. This may result in a shift towards the Mobile Depot that alleviates the need as many local Event Days.

Financial, Staffing, Legal, or IT Considerations

Mobile Depot Financial – Staff continue working to refine potential costs, funding, and necessary approvals with the aim of including funds within the 2024 budget. Due to anticipated approval processes, the service will likely not commence until 2025.

HHW Event Days Financial – With the current model of seven Event Days likely to continue for 2024, costs for the full program will be included in the 2024 budget. Each Event Day includes a standalone cost of $12,000 for contractor services and site set-up regardless of the number of attendees or overall effectiveness. In addition to this

standalone cost, material processing and tonnage fees result in a further cost of approximately $6,000 to $18,000 per Event Day depending on the volume of material collected. Funding generally covers 50% of the total Event Day costs when eligible.

In Support of Strategic Plan Priorities and Objectives

Climate & Environment – establish the County as a leader in Climate Action/enhance and conserve Dufferin's natural environment
Governance - identify opportunities to improve governance and service delivery
Equity – align programs, services and infrastructure with changing community needs

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Respectfully Submitted By:

Scott C. Burns, P.Eng., C.E.T.
Director of Public Works/County Engineer

Prepared By:
Melissa Kovacs Reid
Manager of Waste Services

Attachment: Township of Mulmur Resolution

Reviewed by: Sonya Pritchard, Chief Administrative Officer

Michelle Hargrave

From: Michelle Dunne
Sent: Tuesday, August 15, 2023 3:09 PM
To: Michelle Hargrave
Subject: FW: Council Motion

From: Roseann Knechtel <rknechtel@mulmur.ca>
Sent: Thursday, July 6, 2023 2:55 PM
To: Michelle Dunne <mdunne@dufferincounty.ca>
Subject: Council Motion

Hi Michelle,

Please see the motion below passed by Mulmur Council at their meeting on July 5, 2023 for County Council consideration.
Thanks so much.

> **Moved by Clark Seconded by Cunningham**
>
> THAT Council respectfully request a 2023 Hazardous Waste Day be hosted in the Township of Mulmur to accommodate the northern residents of Dufferin County;
>
> AND THAT a Hazardous Waste Day in Mulmur be scheduled annually thereafter. **CARRIED.**

Have a great day,

Roseann Knechtel, BA, MMC | Deputy Clerk / Planning Coordinator
Township of Mulmur | 758070 2nd Line East | Mulmur, Ontario L9V 0G8
Phone 705-466-3341 ext. 223 | Fax 705-466-2922 | rknechtel@mulmur.ca
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