

## Report TR-TAPS-46-15

**To:** Chair Barfoot and Members of the Transportation and Public Safety Committee  
**From:** M.J. Kelly, Director of Transportation Services  
**Meeting Date:** May 21, 2015  
**Subject:** Kimberley Speed Limit Signs - Left Side of Road  
**Status:** Recommendation adopted by Committee as presented per Resolution TAPS82-15; Also see Resolution TAPS83-15; Endorsed by County Council June 2, 2015 per Resolution CC79-15;

### Recommendation(s)

**WHEREAS** at the March 19, 2015 the following resolution was passed by the Transportation and Public Safety Committee:

***WHEREAS** new information has come forward since the January 22, 2015 Transportation and Public safety Committee meeting;*

***NOW THEREFORE BE IT RESOLVED THAT** staff be directed to prepare a report considering the placement of a 50 km per hour maximum sign on both sides of the road to form a signage gateway into the community of Kimberley and other communities within community safety zones in Grey County, in conjunction with the direction provided at the January 22, 2015 meeting on this matter regarding placement of signage in Kimberley;*

**AND WHEREAS** road signage should be consistently installed for safety reasons;

**AND WHEREAS** it is not recommended to install road regulatory or warning signs on the left side of the road unless there is a unique alignment issue;

**AND WHEREAS** the Transportation Master Plan will be addressing Community Traffic;

**AND WHEREAS** The Transportation Services Department will be assessing the speed limit issues in the Community of Kimberley;

**NOW THEREFORE BE IT RESOLVED THAT** TR-TAPS-46-15 regarding the installation of speed limit signs on the left side of Grey Road 13 in Kimberley be received;

**AND THAT signing modifications in the community of Kimberley not be made until direction is provided by County Council regarding Community Traffic as identified in the Transportation Master Plan, and a complete strategy for Grey Road 13 through the community of Kimberley has been determined by the Transportation Services Department.**

## Background

Grey Road 13 bisects the community of Kimberley in the Municipality of Grey Highlands.

The speed limit on Grey Road 13 is 80 kilometres per hour on both sides of the community of Kimberley and 50 kilometres per hour within the community.

The 50 kilometre speed limit signs conform with the Ontario Traffic Act.

A delegation from the community of Kimberley made a presentation at the December, 2014 Transportation and Public Safety Committee meeting requesting modifications be made to encourage motorists to reduce their speeds while travelling through the community of Kimberley.

At the January 22, 2015 meeting, report TR-TAPS-09-15 regarding the traffic concerns in the community of Kimberley was presented.

The following resolution was passed by the Transportation and Public Safety Committee on January 22, 2015:

*THAT a traffic study to assess the current speed limit be undertaken in Kimberley over the course of two seasons (summer and winter);  
AND THAT the signage within Kimberley be consistent with the signage within Eugenia in terms of size and placement of community safety zone signage relative to speed limit signage;  
AND THAT "Watch for Children" signage be re-installed at the north and south ends of Kimberley.*

The Transportation Master Plan includes a section on Community Traffic which addresses traffic calming strategies. Staff is waiting for direction from County Council regarding the implementation of the Transportation Master Plan including the Community Traffic component.

The Transportation Services Department will make recommendations once the results of the speed limit survey are complete, and direction is provided by County Council regarding the Transportation Master Plan.

### *Road Sign Principles*

The following information was obtained from the Ontario Traffic Manual.

Traffic control and management relies on a system of traffic control devices for conveying messages to the road user. The objective of these messages is to advise

motorists of traffic regulations in order to enable observance of the law, warn them of roadway characteristics and road hazards, and provide them with the information necessary for route selection. Meeting these objectives improves safety and convenience for the road user, and promotes the efficient movement of people and goods and the orderly flow of traffic. Simplification of the driving task through uniformity in the design and application of traffic control devices is necessary to accomplish these objectives.

If traffic control devices are not carefully designed and properly installed they can interfere with and distract from each other, become visually ineffective, and lose their authority through excessive use. Therefore, simplicity in design and care in placement are essential. An effective traffic control device will attract attention, be legible and comprehensible, and be appropriate to the motorist's needs.

A principle goal in the development of the Ontario Traffic Manual is the achievement of uniformity throughout the Province and compatibility throughout Canada and North America. Achievement of this goal requires that the Manual provide the user with the design and dimensions of devices, and with guidance on fabrication and installation.

Traffic control devices should be well chosen and located to assist the road user. Improper or excessive use, particularly of regulatory and warning signs, tends to cultivate disrespect for signs in general. As a result, signs tend to lose their authority.

The wide variation in roadway speeds and complexity requires that traffic control devices be readily recognizable and understandable at a glance. Uniformity and simplicity in design (including shape, colour, pattern, dimensions, symbols, wording, lettering and illumination or reflectorization), position and application are of great importance in aiding recognition. The majority of these designs, symbols and word messages have been approved by the National Committee on Uniform Traffic Control Devices, after a thorough review of the varying designs used in Canada, supplemented by test studies.

Standardization of sign shapes advises the road user of the class of message contained. The task of driving can be simplified by enabling the road user to judge in advance the type of message to be expected. To meet the road user's requirements, a code of sign shapes has been established that applies to all signs.

Standardization of colours also assists the road user in a manner similar to the standardization of shapes. A code of sign colours has been established that applies to all signs.

Uniformity of application is important. Similar conditions should be treated in a similar manner, to accommodate driver expectation. Different types of information (and signs) should not be displayed on the same sign support.

Grey County Transportation Services utilizes the Ontario Traffic Act and the Ontario Traffic Manual when determining signage for Grey Roads.

### *Left Side Signage*

Human factor studies have shown that the majority of drivers focus on an area from 2 degrees to 10 degrees to the right when driving on the right side of the roadway. Highway signs are located within 10 degrees of line of sight horizontally for driver conspicuity. Left side signs are not recommended and may be a distraction as it results in drivers glancing away from the focus area.

In accordance with the Highway Traffic Act, Ontario Regulation 615 Signs, Section 4:

4. A speed limit sign shall be erected on the right side of the highway, facing approaching traffic, not more than 4.5 metres from the roadway, and the bottom edge of the sign shall be not less than 1.5 metres or more than 2.5 metres above the level of the roadway. R.R.O. 1990, Reg. 615, s. 4.

In accordance with Ontario Traffic Manual Book 1B, Section 12 Sign Position:

#### 12. Sign Position

Drivers are very limited in how many places they can look as they drive along the roadway at speeds of 10 m to 30 m every second (about 40 km/h to 110 km/h). Therefore, standardization of each sign position is important so that drivers can quickly find signs in expected locations, and spend the little time available reading them rather than looking for them. Standardization of position, however, cannot always be attained in practice, since signs must be placed in the most advantageous position and must be adapted to the road design and alignment.

##### 12.1 Sign and Overhead Monitoring

The general rule for sign placement is to locate signs on the right side of the road to meet driver expectations. In some circumstances, signs may be most conspicuous when placed on a channelizing island, overhead or, as in the case of sharp right curves, on the left shoulder of the road directly in front of approaching vehicles.

In addition, there are situations where it is advisable to place a second sign on the left side of the road to supplement the primary sign normally placed in the right side. Examples are multi-lane one-way streets, expressways and locations where collision experience has shown that the drivers are failing to see the primary signs.

Typically left hand sign installation is only used for specific applications, such as supplementing regulatory and warning signs under very specific geometric configurations. This concept is confirmed in the Ontario Traffic Manual.

There is no other locations in Grey County where the speed limit signs are installed on both sides of the road.

## Recommendations

As indicated in the resolution passed at the Transportation and Public Safety Committee meeting, a study of the speed limits in Kimberley will be completed. Once the speed limit study is complete and direction regarding the Transportation Master Plan is provided, the community of Kimberly can be fully assessed to determine what the actual problems are and any improvements that may be implemented.

It is not recommended to install speed limit signs on the left side of County Roads unless there is a unique reason based on the geometry of the road. The installation of legal and warning signs are not recommended on the left side of the roads unless there is a unique geometric issue as the location. There are no unique road geometrics in this location to justify signs on the left side of the road.

## Financial / Staffing / Legal / Information Technology Considerations

None.

## Link to Strategic Goals / Priorities

Not applicable.

## Attachments

[TR-TAPS-09-15 Kimberley Signage Delegation](#)

Respectfully submitted by,

M.J. Kelly  
Director of Transportation Services

## Report TR-TAPS-09-15

**To:** Chair Barfoot and Members of the Transportation and Public Safety Committee  
**From:** M.J. Kelly, Director of Transportation Services  
**Meeting Date:** January 22, 2015  
**Subject:** Kimberley Signage Delegation  
**Status:** Recommendation not adopted – Committee passed Resolution TAPS27-15, directing that a traffic study be undertaken, that the size and placement of signage in Kimberley be consistent with that in Eugenia, and that “Watch for Children” signs be re-installed at the north and south ends of Kimberley. Council amended resolution TAPS27-15 on February 3, 2015 per Resolution CC35-14 by removing the prefix “re” from “re-installation”.

### Recommendation(s)

**WHEREAS a delegation attended the Transportation and Public Safety Committee meeting on December 18, 2014 regarding signage on Grey Road 13 within the community of Kimberley;**

**AND WHEREAS staff have reviewed the presentation material and are providing additional information and recommendations concerning the requests made from the delegation;**

**NOW THEREFORE BE IT RESOLVED THAT Report TR-TAPS-09-15 regarding information and recommendations about the December 18, 2014 Kimberley Community Association delegation on signage on Grey Road 13 be received for information purposes and no further action be taken.**

### Background

At the December 18, 2014 Transportation and Public Safety Committee meeting Joe Killoran and Wendy Macdonald from the Kimberley Community Association provided a presentation regarding speed limit signage on Grey Road 13 in the community of Kimberley.

The delegation indicated that, in its opinion, there was excessive speeding on Grey Road 13 within the 50 kilometre per hour speed limit in the community of Kimberley. The delegation requested the following signage modifications:

- 1) Speed limit signs placed within a yellow warning sign.
- 2) Flashing amber beacons placed on the speed limit signs.
- 3) An additional tab placed on the speed limit signs below the “BEGINS” tab that is red with white lettering that says “HERE”.
- 4) Extend the 50 kilometre speed limit to the north and to the south.
- 5) Replace the speed limit signs with oversized speed limit signs.
- 6) The placement of chevron signs at the curve north of the community of Kimberley.
- 7) Reduce the speed limit from 50 kilometres per hour to 40 kilometres per hour.
- 8) Extend the “Community Safety Zone” designated area further north and south.
- 9) The installation of electronic radar signs that indicate the vehicle speed to the drivers.

Joe Killoran also indicated that he forwarded suggestions to increase fines and demerit points to Kathleen Wynne, the Premier of Ontario.

### *Existing Conditions*

Kimberley is a community within the Municipality of Grey Highlands located on Grey Road 13. Most of the street development consists of residential properties; however, there are several roadside commercial establishments. Grey Road 13 is constructed to a semi-urban cross-section (mountable curb and gutter and a paved boulevard) throughout the community with rural cross-sections (gravel shoulders) at both the south and north ends.

There are regular sized speed limit signs (as per the Highway Traffic Act) identifying 50 kilometres per hour on Grey Road 13 at the north and south ends of the community. Northbound traffic enters the community on a slight incline grade with good visibility. At the speed limit sign, the roadside is very open and drivers cannot visualize the upcoming urban area. When southbound traffic approaches the speed limit, the road is straight and relatively flat; therefore, drivers can see that an urban center is ahead.

### *Existing Traffic By-Laws*

The speed reduction zone in Kimberley has been in place for many years (at least thirty-five years). A review of the Grey County By-Law for rates of speed did not include the Kimberley speed reduction. Report TR-TAPS-12-15 that will be presented at the January 22, 2015 Transportation and Public Safety Committee meeting will recommend an amendment to the By-Law to include the speed limits in Kimberley.

The By-Law does indicate that there is a Community Safety Zone located from 350 metres north of the junction of Grey Road 31 to 300 metres south of the junction of Grey Road 7. Several years ago the Community Safety Zone sign was relocated inside the 50 kilometre per hour speed limit signs; however, the By-law was not modified to reflect this change. Report TR-TAPS-12-15 will recommend an amendment to the By-Law to capture the revised Community Safety Zone sign placement.

## *Road Sign Principles*

The following information was obtained from the Ontario Traffic Manual.

Traffic control and management relies on a system of traffic control devices for conveying messages to the road user. The objective of these messages is to advise motorists of traffic regulations in order to enable observance of the law, warn them of roadway characteristics and road hazards, and provide them with the information necessary for route selection. Meeting these objectives improves safety and convenience for the road user, and promotes the efficient movement of people and goods and the orderly flow of traffic. Simplification of the driving task through uniformity in the design and application of traffic control devices is necessary to accomplish these objectives.

If traffic control devices are not carefully designed and properly installed they can interfere with and distract from each other, become visually ineffective, and lose their authority through excessive use. Therefore, simplicity in design and care in placement are essential. An effective traffic control device will attract attention, be legible and comprehensible, and be appropriate to the motorist's needs.

A principle goal in the development of the Ontario Traffic Manual is the achievement of uniformity throughout the Province and compatibility throughout Canada and North America. Achievement of this goal requires that the Manual provide the user with the design and dimensions of devices, and with guidance on fabrication and installation.

Traffic control devices should be well chosen and located to assist the road user. Improper or excessive use, particularly of regulatory and warning signs, tends to cultivate disrespect for signs in general. As a result, signs tend to lose their authority.

The wide variation in roadway speeds and complexity requires that traffic control devices be readily recognizable and understandable at a glance. Uniformity and simplicity in design (including shape, colour, pattern, dimensions, symbols, wording, lettering and illumination or reflectorization), position and application are of great importance in aiding recognition. The majority of these designs, symbols and word messages have been approved by the National Committee on Uniform Traffic Control Devices, after a thorough review of the varying designs used in Canada, supplemented by test studies.

Standardization of sign shapes advises the road user of the class of message contained. The task of driving can be simplified by enabling the road user to judge in advance the type of message to be expected. To meet the road user's requirements, a code of sign shapes has been established that applies to all signs.

Standardization of colours also assists the road user in a manner similar to the standardization of shapes. A code of sign colours has been established that applies to all signs.



Uniformity of application is important. Similar conditions should be treated in a similar manner, to accommodate driver expectation. Different types of information (and signs) should not be displayed on the same sign support.

Red or amber flashing beacons may sometimes be required to draw the driver's attention to the presence of a regulatory or warning (amber only) sign. The beacons are normally recommended when visibility distance is reduced to severe roadway geometrics, or other circumstances that are present which suggest that greater emphasis is required.

The use of flashing beacons should be restricted to only critical situations, in order to ensure that the impact is not lost to overuse or that they do not distract the driver.

Grey County Transportation Services utilizes the Ontario Traffic Act and the Ontario Traffic Manual when determining signage for Grey Roads.

## **Legal Signs**

In accordance with the Highway Traffic Act, municipalities have the authority to pass By-Laws for the installation and enforcement of legal signs such as stop, speed limit, no parking, community safety zone and others. However, the signs must comply with the Highway Traffic Act. Legal signs normally have a white background.

## **Warning Signs**

Warning signs are intended to provide advance notice to road users about unexpected and potentially dangerous conditions on or near the road.

The warning signs provide suggestions to the motorist but the information provided is not enforceable. Typically, warning signs are yellow and black and most are in a diamond shape.

## ***Speed Limit Principles***

Speed limits should be set with consideration given to what reasonable drivers feel should be the running speed limit of the roadway, the speed at which the eighty-fifth percentile of drivers feel comfortable driving. If speed limits are set unreasonably low, drivers will tend to disregard the posted limits.

To determine a speed limit, the following criteria must be considered collectively. As indicated in the Grey County Speed Limit Procedure, there are a number of criteria that need to be considered when determining an appropriate speed limit.

Normally when vehicle operators are exceeding the speed limit it is not because they did not observe the speed limit sign, it is because observed conditions do not justify a speed reduction.

As indicated in the Transportation Master Plan, traffic calming devices can be implemented that will modify the features of a road to encourage the drivers to feel the need to reduce their speeds. No decisions regarding the implementation on traffic calming initiatives have been made. It is important that all traffic calming techniques that are adopted be implemented consistently.

## Recommendations

The following are staff recommendations regarding the nine requests from the delegation.

- 1) Speed limit signs must conform to the Highway Traffic Act to be enforceable. The proposed sign is a warning sign and, as a result, the police would not be able to enforce the speed limit.

The Transportation Services Department does not recommend installing these signs.

- 2) The County placed amber beacons on a speed limit sign in Bognor after a pedestrian vehicle accident several years ago. It does not appear that the amber beacon has had any effect on the speed of vehicles. In accordance with the Highway Traffic Act, amber beacons are required on the "School Zone Maximum Speed When Flashing" signs. This indicates the speed limit is only applicable when the beacons are activated. The Ontario Traffic Manual recommends only using beacons to draw the driver's attention to the presence of a regulatory or warning (amber only) sign. The beacons are normally recommended when visibility distance is reduced as a result of poor roadway geometrics, or other circumstances that are present which suggest that greater emphasis is required.

The Transportation Services Department does not recommend installing flashing beacons on the speed limit signs for consistency reasons. In addition, there is no indication that drivers are not observing the existing sign.

- 3) The tab requested does not meet the requirements of the Highway Traffic Act for a legal sign; therefore, the Transportation Services Department does not recommend the installation of these signs.
- 4) Extending the speed limit zone would result in the signs being placed further from the urban area where the right-of-way is very open and drivers would not recognize a need to reduce their speeds. Therefore the Transportation Services Department is not recommending extending the 50 kilometre per hour speed zone. However, a formal assessment could be completed.

- 5) According to the Ontario Traffic Manual, oversized signs within a 60 kilometre per hour speed limit are not recommended. Grey County does not use any oversized speed limits throughout the County.

The Transportation Services Department does not recommend installing an oversized sign at this location for consistency reasons. In addition, there is no indication that drivers are not observing the existing sign.

- 6) In accordance with the Ontario Traffic Manual, chevrons are recommended to provide additional guidance to drivers at sharp changes in horizontal alignment of the roadway. The curve on Grey Road 13 north of the community of Kimberley has a radius of 400 metres. In accordance with the Geometric Design Manual a radius of 340 metres or greater is adequate for a posted speed of 90 kilometres per hour.

The Transportation Services Department does not recommend installing chevron signs at this location as the radius of the curve exceeds the criteria for the posted 80 kilometre per hour.

- 7) A formal assessment has not been completed on the speed limit through the community of Kimberly; however, there does not appear to be any features that would justify reducing the speed limit to 40 kilometres per hour. Reducing the speed limit too low can reduce the safety due to the increase of variable speeds.

The Transportation Services Department does not recommend reducing the speed limit to 40 kilometres per hour.

- 8) Community Safety Zones are typically designated where public safety is a special concern such as in close proximity of schools, day care centres, playgrounds, parks, hospitals and senior citizen residences. None of these activities are outside the current Community Safety Zone; therefore, it is not recommended to extend the limits.

- 9) Grey County owns two mobile radar devices that indicate driver's speed. The OPP control the temporary location of the signs. In 2015, the County could request the police to occasionally locate the devices within the vicinity of Kimberley.

For consistency and cost purposes, the Transportation Services Department does not recommend installing a permanent radar speed limit device in Kimberly.

On December 2, 2014 Michael Kelly attended a meeting at Joe Killoran's residence that included Grey Highland's Council members. At the meeting, the need for consistency,

as well as compliance to the Highway Traffic Act and the Ontario Traffic Manual was discussed.

## Financial / Staffing / Legal / Information Technology Considerations

For legal signs to be enforceable they must meet the requirements of the Highway Traffic Act. The installation of non-Highway Traffic Act signs may expose the County to legal risk.

The placement and information provided on signs have an effect on the overall safety of roads. It is, therefore, highly recommended to maintain consistent road signs throughout the County.

If modifications are made to the current signage practices, there may be significant costs associated with the upgrade of all other signs throughout the County.

## Link to Strategic Goals / Priorities

Not Applicable

Respectfully submitted by,

M.J. Kelly  
Director of Transportation Services