

# FORMAL REPORT

<b>To:</b>	Mayor Strathdee and Members of Council
<b>Prepared by:</b>	Jed Kelly, Director of Public Works
<b>Date of Meeting:</b>	28 November 2017
<b>Subject:</b>	<b>PW 66-2017 Glass Street Winter Maintenance</b>

## PURPOSE

To present information related to winter maintenance on the gravel section of Glass Street between Emily Street and James Street.

## RECOMMENDATION

THAT Council receive report PW 66-2017 Glass Street Winter Maintenance; and,

THAT Council close the gravel portion of Glass Street between Emily Street and James Street North during the 2017/2018 winter season.

## BACKGROUND

The Town constructed approximately 800 meters of a new section of road between Emily Street and James Street in coordination with the Thames Crest Farms development in 2016. The road is an extension of Glass Street and was necessary in order to accommodate construction and detour traffic during the Emily Street reconstruction project in 2017. The road was not connected at Emily Street prior to the 2016 / 2017 winter season and therefore, remained closed until the spring of 2017. The road was completed and heavily used in 2017 when Emily Street was closed, but its use is anticipated to drop as Emily Street is now open.

## REPORT

Public Works staff have been preparing for the upcoming winter season and require direction with regards to winter maintenance on the gravel section of Glass Street. The winter maintenance equipment and operations in St. Marys are tailored to the types of roads within the Town. The majority of the Town's roads are characterized as urban cross sections with asphalt road surfaces. The Glass Street extension provides improved connectivity benefit to the residents in the northwest part of Town, however there are concerns about the ability to maintain the gravel surface to a resident's expected level of service with the Town's compliment of winter maintenance equipment.

The maintenance of a high use gravel road in an area exposed to high winds creates somewhat of an anomaly within the Town's winter maintenance program. The approach to winter maintenance on gravel roads is different from asphalt roads. Where the objective on an asphalt road is to reduce or eliminate ice build-up with the use of de-icing materials, the objective on a gravel road is to have the surface freeze and stay frozen for as long as possible without freeze / thaw events. These freeze / thaw events cause the gravel surface to become soft and prone to potholing. Once the surface starts to pothole it is very difficult to re-establish a smooth surface because the gravel will not pack at sub-zero temperatures.

Staff found that the residents utilizing Glass Street in 2017 were not as accustomed to gravel surface roads and had higher expectations for surface conditions than a resident in a rural municipality might typically have for a gravel road. This is a concern as Town staff will not be able to maintain the gravel

road to the same level of service during winter conditions that will be achieved on our other asphalt roads. If drivers do not modify their driving behaviours to the conditions of the road, there is an increased potential for vehicular incidents and corresponding claims.

The gravel portion of Glass Street does not have any lots abutting that would generate traffic, its only purpose is to act as a connecting link between Emily Street and James Street North. A common approach in rural municipalities to reducing costs associated with such roads is to post them as “no winter maintenance”.

Another issue with the Glass Street extension is that it is exposed to high winds and is very likely to experience significant drifting, much like James Street North. This issue would exist regardless of road surface type but becomes particularly dangerous on a narrow road with deep ditches and no streetlights if the surface conditions are poor.

It is staff’s recommendation that the Glass Street extension become a “no winter maintenance” road for the 2017-2018 winter season. If approved, the appropriate signage would be installed.

However, Glass Street not only served as a temporary construction and detour access, but also created a viable alternate access point for emergency services. If the road were to be closed for normal vehicular traffic for the 2017-2018 winter season, there would still be a desire to have the road passable for emergency services. If the road were to be closed, Public Works would perform intermittent snow clearing to reduce drifts and ensure the road was passable by emergency services vehicles in the event that Emily Street became blocked during an emergency.

The new asphalt section of Glass Street is part of the Thames Crest Farms subdivision and will be maintained by Town staff, at the cost of the developer as per the subdivision agreement.

Staff have included surface treatment of the gravel portion of Glass Street in the proposed 2018 capital budget which will make proper winter surface maintenance far more obtainable in the 2018-2019 winter season with the Town’s existing equipment and processes.

## **SUMMARY**

Public Works staff are concerned that the gravel portion of Glass Street will be difficult to maintain during the winter season and recommend that the road be closed during the 2017/2018 winter season. The road would still be cleared on a periodic basis to allow it to function as a secondary access for emergency services vehicles. The Town’s capital plan includes funds to provide a tar and chip hard surface to Glass Street in 2018. Once a hard surface is created, it is staff’s expectation that Glass Street will remain open beginning in the 2018-2019 winter season.

## **FINANCIAL IMPLICATIONS**

The gravel portion of Glass Street is anticipated to cost approximately \$10,000 to maintain for the 2017/2018 season. By closing the section of road, there is not only cost avoidance related to Town operations, but also cost avoidance associated with potential claims.

## **STRATEGIC PLAN**

☒ Not applicable to this report.

## **OTHERS CONSULTED**

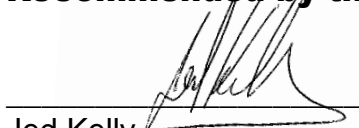
Director of Public Works, Township of Perth South  
Richard Anderson, Town of St. Marys Fire Chief  
Perth County EMS

## **ATTACHMENTS**

None.

## **REVIEWED BY**

### **Recommended by the Department**



Jed Kelly  
Director of Public Works

### **Recommended by the CAO**



Brent Kittmer  
CAO / Clerk