

Contracting in Report - Asphalt Temporary Patching

Background

In March 2018, the Operations Committee was presented with a report entitled "[Winter Control Operations Update for December 2017](#)". This report provided the Committee with financial results of the 2017 winter control season. During the presentation, members of the Operations Committee asked staff questions regarding the relative efficiency of services delivered with internal resources compared to services delivered by contracted (i.e. private sector) resources. Ultimately, the Committee passed resolution OP2018-07, directing staff to report back to Council with analysis and, potentially a business case, to adjust resources so that an appropriate balance of in-house and contracted resources are available to meet Council's desired service levels for both summer and winter Linear Infrastructure Services maintenance services.

As per the Operations Committee resolution staff returned to Council in September 2018 with a report titled "[Overview and Analysis of Approach to Roads and Distribution & Collection Maintenance Services](#)" which provided an overview of current maintenance services for roads and distribution and collection infrastructure. The report concludes with a description of opportunities and next steps for a detailed review of these services that will inform choices about the extent to which the service levels should be provided by in-house or contracted resources.

In October 2019, staff returned once again to the Operations Committee with a report entitled, "[Contracting In Initiatives](#)". This report detailed future contracting in initiatives which align with the objectives to analyze the potential for service changes which is contained within the Next Steps section of the "[Core Service Review Phase 1](#)" report presented to Council September 24, 2019.

This report will analyze contracting in initiative number one (1), Temporary Asphalt Repairs for Distribution & Collection Excavations.

Analysis

Description

The Distribution & Collection section of the Linear Infrastructure Services Division undertakes approximately 550 excavations per year for planned and reactive maintenance including watermain breaks, curb box repairs, water service leaks, and sanitary sewer lateral and main repairs. These repairs are undertaken 365 days a year on a 24/7 basis as required. When an excavation is completed outside of construction season, a temporary repair to the roadway is required in order to allow full driving access for the remainder of the season. These temporary repairs are required to be

maintained until a permanent repair can be carried out during the spring/summer/fall construction season.

Current Service Level

The current service level for temporary patches provides different requirements based on road classification. Upon completion of an excavation on Class 4-6 roads city operations crews backfill to surface with granular material and place the location on a list for Construction Services to access and provide to a contractor. The contractor then has seventy-two (72) hours to attend the location and temporarily repair the asphalt with cold mix. On Class 1-3 roads city operations crews backfill to surface with granular material and place cold mix asphalt at the location before placing it on a list for Construction Services to access and provide to a contractor. The contractor then has twenty-four (24) hours to attend the location and begin any maintenance that is required until paving warm mix is undertaken at the location within two (2) weeks of the excavation. These locations are then continuously monitored for settlement and/or deterioration and topped up as required by the contractor.

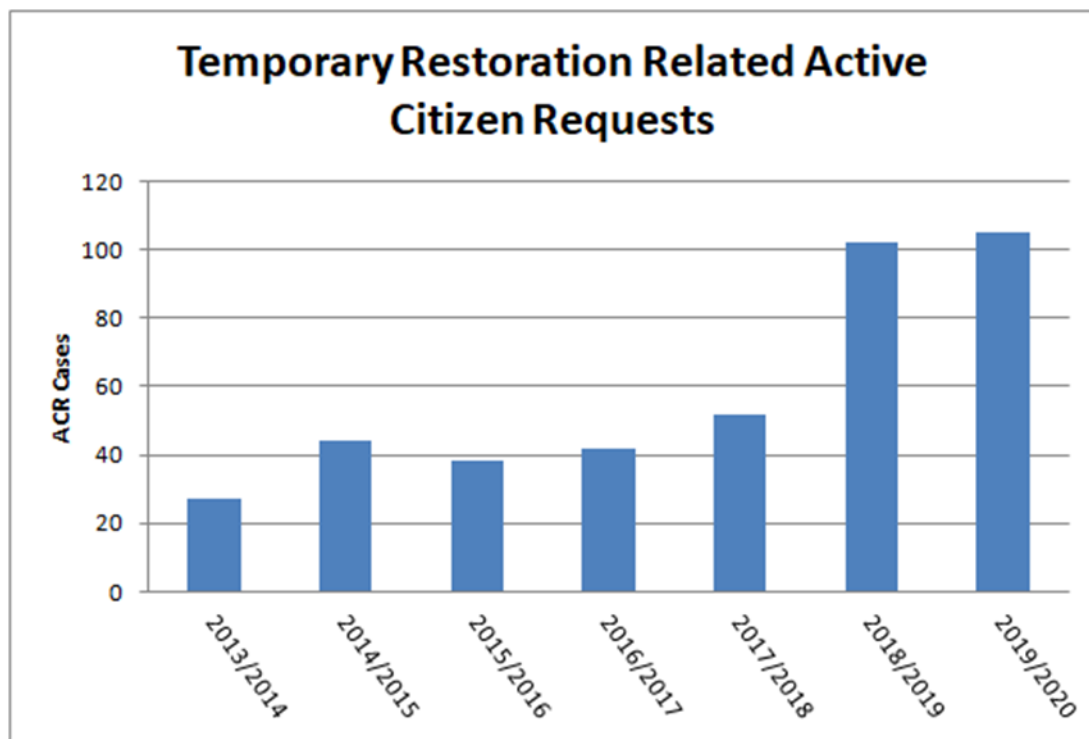
Previous Service Level

Prior to 2017, temporary asphalt repairs for Distribution & Collection excavations were undertaken by a combination of internal, Distribution & Collection forces as part of the regular maintenance program as well as external contractors under the emergency repairs contract. Cold mix would be placed on patches immediately upon completion of the excavation by the crew on site and maintained every Friday as required.

By around 2017, the competitive procurement process failed to find a contractor to perform emergency watermain repairs at a reasonable price. At this time it became necessary for staff to take on this work in house. However, performing the emergency repairs was problematic for two reasons. Firstly, using the existing staff compliment resulted in less preventative maintenance being accomplished while staff attended to emergencies. Secondly, at that time only a very limited shift schedule was available so emergency repairs required additional premium shifts and/or overtime. In order to ensure that licensed water operators were available to perform watermain repairs, it became necessary to use contractors for temporary asphalt patching while staff focused on other licensed work. This made the temporary repairs less efficient but was necessary due to the limited available staff and need to continue to have staff available for preventative maintenance activities.

Drivers for Contracting In

Contracting out temporary asphalt repairs has met with quite a few issues and challenges. The main concerns surrounding this work relate to customer satisfaction and road safety. The chart on the next page is a review of Active Citizen Requests (ACRs) between September 30th and April 30th each year, from 2013 to 2020. It shows that there has been a significant increase in calls relating to this work since contracting it out in 2017.



ACR Chart (2013-2020)

The City relies solely upon contractors to monitor and maintain these patches. It has been found that it is difficult to police whether the contractors are in fact monitoring the patches regularly. As well, when a patch is in need of significant maintenance in order to protect the integrity of the roadway, it is sometimes challenging to get the issue resolved in a timely fashion. This can lead to dissatisfied motorists and, in extreme cases, damage to vehicles.

In order to ensure service levels are being met, the contractor is required to react quickly to all patch deficiencies which could mean working on evenings and weekends. This requirement for response is sometimes difficult for the contractor to uphold and can come at a premium cost to the City. With increased shift flexibility for city staff within Linear Infrastructure Services, there will be available staff on straight time for a majority of this work and stand-by crews available outside of regular shifts if

necessary. This is contemplated to be a potential cost savings as well as an increased service level as response time would greatly improve.

Further, efficiencies will be made by having the crew who is on site undertaking the excavation, cold mix the patch prior to leaving site. This would avoid mobilizing another crew as well as reduce the potential for leaving gravel patches unattended without cold mix or warm mix for up to 72 hours.

Approach

During the most recent round of negotiations for the collective bargaining agreement, twelve (12) additional full-time staff members (FTEs) were approved in order to staff a sixteen (16) hour a day, seven (7) days a week, schedule. This schedule will support the contracting in emergency repairs initiative with more staff coverage on straight time shifts who will be able to respond to emergencies as well as help to bolster preventative maintenance activities that had fallen behind due to the additional work. With this new schedule and additional staff, it is contemplated to be a significant opportunity to begin contracting in temporary asphalt repairs for Distribution & Collection excavations.

Although it is anticipated that the additional twelve staff members in Distribution & Collection will heavily support this initiative, staff will utilize all existing Linear Infrastructure Services staff to undertake these temporary asphalt repairs as necessary. This is contemplated to include Roads and Distribution & Collection full-time, part-time, and casual staff as required.

As this initiative is only contemplated to utilize existing staff, the existing budget for contracting out these repairs is anticipated to be more than adequate to cover the costs of material and any additional equipment required.

Conclusion / Next Steps

Overall, contracting in more work is anticipated to provide the public with significantly higher quality service. Undertaking temporary asphalt repairs with city staff will allow for more city control over patch maintenance, a more organized and efficient approach to maintenance, and more timely reactions to urgent maintenance requirements. This is anticipated to improve resident satisfaction within the existing budget allocation.

At this time, a tentative projected date of September 2021 is contemplated to begin contracting in temporary asphalt repairs for Distribution & Collection excavations. This

date is dependent on when all required equipment, materials, and staff are in place and trained.

It is very difficult for staff to accurately estimate the maintenance hours required to undertake this work as it has been solely completed by contractors, whom were being paid by the square meter of patch instead of hours of work, for the past three (3) years. With that said, the additional effort required to contract in temporary patching has the potential to negatively impact the existing preventative maintenance programs and as such will be monitored closely. With this understanding, we recognize that additional maintenance hours may be required in the future. If this is realized, staff will return to Council with a follow-up report and recommendations.

Resources Cited

Winter Control Operations Update for December 2017, presented to Operations Committee on March 19, 2018.

<https://agendasonline.greatersudbury.ca/index.cfm?pg=agenda&action=navigator&lang=en&id=1253&itemid=14744>

Overview and Analysis of Approach to Roads and Distribution & Collection Maintenance Services, presented to City Council on September 25, 2018.

<https://agendasonline.greatersudbury.ca/?pg=agenda&action=navigator&lang=en&id=1247&itemid=15615>

Contracting In Initiatives, presented to Operations Committee on October 21, 2019

<https://agendasonline.greatersudbury.ca/?pg=agenda&action=navigator&lang=en&id=1346&itemid=16963>

Core Service Review Phase 1, presented to City Council on September 24, 2019.

<http://agendasonline.greatersudbury.ca/?pg=agenda&action=navigator&lang=en&id=1329&itemid=17502>