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GIS Easement Mapping Project Information Report to Council

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In accordance with the Procedure By-law, any member of Council may make a request to the Town Clerk that this Report be placed on an upcoming Committee of the Whole agenda for discussion.

Executive Summary

Accessibility through legal easements and other access rights is necessary to maintain and repair the Town's infrastructure assets. The Town undertook a yearlong project partially funded by the federal and provincial governments that facilitated the creation of a centralized Town GIS mapping database with an inventory of registered Town easements including their mapped boundaries and attribute information. The resulting mapped product identifies where Town infrastructure is or is not secured by easements and where easements are deficient and provides a basis to plan for corrections. The resulting mapped product improves efficiencies by providing self-service access to all Town departments thereby reducing time and costs related to requests to Legal Services and GIS staff.

Purpose

The purpose of this report is to inform Council of findings under the Town's Easement Mapping Project, as described in this report. The Easement Mapping Project is one of several projects under the Town's government funded initiative, Development and Implementation of a GIS Strategy for Water and Wastewater Linear Assets (the **GIS Strategy**). The Town successfully received grant funding under the federal government's Clean Water and Wastewater Fund (the **CWWF**) for this GIS Strategy initiative. The

objectives of the Easement Mapping Project was the accurate mapping of the Town's infrastructure assets; confirmation whether these Town infrastructure assets are situated within an easement in favour of the Town allowing access to same; and recommendations for next steps to secure Town easement rights where assets are not protected by a Town easement. Once completed, the Easement Mapping Project will result in an up-to-date Town inventory of infrastructure assets and related easements permitting the self-service of Town staff in multiple departments to readily determine: the type of Town infrastructure asset located within a private property; the ownership of the private land where the Town infrastructure is located; and whether or not Town staff can legally access the lands to maintain or repair the Town infrastructure asset.

Background

The Municipal Act of Ontario permits municipalities to enter on land to repair and maintain certain public utilities. However, this is an extraordinary remedy and, similar to the Expropriations Act of Ontario, it is not meant to be a standard approach in dealing with private land interests. Best practice dictates that easements securing these municipal repair and maintenance rights should be registered on title to private land to provide landowners with notice of municipal infrastructure and access rights on or within the private land. This protects a municipality's land interests and ensures timely access to its assets.

In the past, the Town did not internally track or record its registered easements in a comprehensive way. This means that the Town did not have a database of where it has land rights and, importantly, where it should have land rights but does not.

In 2018, the Town undertook a project funded by the CWWF to create a comprehensive source of its easement assets through a mapped inventory of its registered easements (the **Easement Mapping Project**). The Easement Mapping Project involved a consolidation of relevant land registry information and information contained in the Town's Geographic Information System (**GIS**).

The GIS mapping system identifies the location of the Town's infrastructure assets and general easements in favour of the Town. Previously, easement mapping in the GIS only identified that a land parcel was subject to a Town easement but did not indicate its location and parameters. Under the Easement Mapping Project, Teranet Enterprises Inc. (the authoritative source of land registry and associated data and documents information in Ontario) (**Teranet**) provided a custom service which identified and more accurately mapped all registered Town easements in the Town's GIS. This consolidated mapping exercise confirmed whether registered easements aligned with the Town's existing infrastructure.

If the registered easements and the Town's infrastructure do not overlap, then there is a gap (the **Gap** and **Gaps**). The objective of the Easement Mapping Project and the

purpose of this report is to identify these Gaps and to set out next steps to address or resolve the Gaps.

Ultimately, by facilitating a visual mapping of Town wide easements and inventory of easement assets, the Easement Mapping Project will benefit the Town in two ways:

1. the mapped information will quickly identify where there is currently Town infrastructure that is not covered by an easement, as well as identify Town infrastructure not previously captured in the Town's inventory. This information will be a starting point for determining whether or not the Town would like to pursue acquiring additional easements for those areas based on analyzed risks in easement gaps; and
2. the updated mapped information will be available through the GIS platform which means that all Town departments will be able to see immediately whether and where Town infrastructure is covered by an easement, as well as the scope and purpose of the related easement. This self-service ability will reduce the time related to requests to the Town's Legal Services and GIS departments as well as the cost of individually purchasing land instruments from Teranet to respond to each request.

The Easement Mapping Project involved collaborative efforts among Teranet, the Town's Information Technology (IT), Public Works Services, Engineering Services, Asset Management and Legal Services departments, and included a project dedicated law clerk (the **Law Clerk**) hired on a temporary contract. The Town departments and Law Clerk are collectively referred to hereinafter as the **Easement Team**.

Discussion

Identifying the Gaps

From the title registration data that was received from Teranet, a quality check of the deliverables was completed by the Easement Team to confirm that the information received was compatible and mapped correctly with the Town's infrastructure data. Obvious spatial anomalies and errors were corrected.

In its analysis, the Easement Team focused on potential Gaps where infrastructure assets appeared to have no legally registered Town easements, and gaps where infrastructure may not have been captured.

At the outset of the Easement Project, the Easement Team determined that the total number of potential Gaps mapped in GIS where infrastructure was not covered by a Town easement was **2,014** as identified below for each respective infrastructure servicing type. All potential Gaps were investigated during the Easement Project.

Infrastructure Type	Number of Gaps	Kilometers of Pipe
Water	406	12.68
Sanitary/Wastewater	723	16.14
Storm	885	18.00
Total	2,014	46.82

Review of the Gap Data

The potential Gaps were reviewed and prioritized by the Town's Public Works Services and Engineering Services departments for analysis and resolution. Prioritization was based on such factors as the age of infrastructure and the need for repair and replacement, upcoming capital projects, requests for repair, works or investigation by private landowners and lands undergoing development or proposed for imminent development.

Once the Gap areas were prioritized, the following reviews were undertaken by the Easement Team for each priority Gap area as a means of resolving a Gap:

- a) a comprehensive legal title review by the Law Clerk of land registry records (the **Legal Review**) to determine whether a legal Town easement/access right related to the Town infrastructure existed but the easement or access document was improperly recorded or omitted by the Land Registry Office;
- b) a comprehensive internal review by the Law Clerk of Town records (the **Internal Review**) to determine whether there was historic authority or agreement for creating the easement/access right in favour of the Town but which was not formally created and registered. The Internal Review entailed the review and analysis of such documents as development agreements, by-laws and other municipal documents; and
- c) if the Legal Review and Internal Review did not disclose an opportunity to resolve a Gap, a further review was required to verify whether the electronic data mapped in GIS accurately reflected the constructed and in-site location of the Town infrastructure. This review entailed the review of applications, plans and as-built drawings by the Town's GIS, Engineering, and Public Works departments, and further review by Legal Services (the **Department Review**). The purpose of the Department Review was to verify the location, actual and/or proposed use of the pipes and whether the infrastructure is still in use. Given the extensive and time consuming nature of this further review the Department Review was not completed during the term of the Easement Project.

The Legal Review disclosed several instances of improperly recorded or omitted Town easement documents. For these, the Law Clerk submitted correction requests directly to

the Land Registry Office and Teranet to ensure that they were corrected and accurately identified, documented and mapped in the GIS. By virtue of these corrections, these instances are no longer identified as Gaps in the GIS.

The following table summarizes the Gaps that were resolved as part of the Legal Review during the Easement Mapping Project as of December 31, 2020:

Table 1: Number of Gaps Resolved in Legal Review

Type of Gap	Number of Gaps Resolved	Length of Pipe (m)
Water	53	815.87
Sanitary/Wastewater	220	3,818.97
Storm	213	4,054.73
Total	486	8,689.57

A total of **1,233** Gaps were tasked for Department Review. Given the quantity and scope of review of these Gaps and limited staff resources, Department Review was not completed during the term of the Easement Mapping Project.

Closing the Gaps

The Legal Review and Internal Review identified further specific actions and measures to resolve or close **295** Gaps. These actions can be broken down into three categories:

1. Housekeeping Matters;
2. Enforcing Prior Agreements; and
3. Acquiring New Easements.

Housekeeping Matters

Housekeeping matters include such actions that can be readily undertaken by the Town at no or minimal cost to resolve and close Gaps.

These include instances requiring Land Registry Office title correction to reflect the Town as legal owner of land where municipal infrastructure is located. Such title corrections would result in resolving apparent Gaps because infrastructure located within Town owned property does not require an easement to access. Housekeeping matters also include instances where Town infrastructure is located in otherwise public lands or easements owned by another level of government (such as the Region or Province) or authoritative body and where there may be ancillary agreements between the Town and these public entities or by-laws that are not registered on title but which allow reciprocal access rights to infrastructure within these lands. Further investigations are required

regarding the existence of such agreements or by-laws, as there may not be any necessity to register easements on title to lands if there are already agreements and by-laws in place to govern such access matters.

Enforcing Prior Agreements

The Internal Review identified instances of Gaps that could be resolved by the Town in enforcing owner obligations set out as requirements in registered development agreements, such as access rights and transfers of land where such access rights and transfers were not formally finalized and registered on title.

In such instances, the Town may enforce these access and transfer requirements against owners of private property without having to pay compensation.

Acquiring New Easements

Depending on the urgency identified by the Town’s Public Works Services and Engineering Services to acquire easements, the Town may acquire new easements to access Town infrastructure assets located in non-Town owned lands by purchasing new easements or acquiring easements through future development of the lands.

The table below summarizes the results of the Legal Review and Internal Review as of December 31, 2019 and action required to resolve the related Gaps.

Table 2: Action Identified by Legal Review and Internal Review to Resolve Gaps

Action Required to Resolve Gaps	Total Gaps
Housekeeping: Land Registry Office Clean Up	87
Housekeeping: Government Authority	90
Enforcing Prior Agreements	25
Purchase New Easements	82
Acquire Easements through Lands Under Development (current/future)	11

Next Steps

Completing the Department Review

As discussed above, a total of 1,233 Gaps remain tasked for Department Review by the Town’s Public Works, Engineering, IT and Legal services departments as of December 31, 2019. These Gaps still require the departments’ examination of their respective records, drawings, plans, and applications to determine the accuracy of the related Gaps. Department Review by Public Works and Engineering services staff may also require in-person inspections of the Gaps pipes and systems to verify their actual location and the

scoping of the pipes to confirm that the infrastructure is still active and in full use by the Town.

Completion of the Department Review will further inform and contribute to the number of Gaps that can be readily resolved and closed, such as where the actual location of Town infrastructure aligns with registered easements and, if not, which new easements should be pursued. However, given the extensive and time-consuming nature of this review, completing the Department Review will need to be factored into the departments' various priorities or incorporated into a separate phase of the Easement Mapping Project.

Closing the Gaps

Resolving identified and confirmed Gaps requires levels of time commitment and expense.

a) Housekeeping Matters and Enforcing Prior Agreements:

Resolution of Gaps involving housekeeping matters and enforcement of prior agreements to secure easements and transfers in favour of the Town can be dealt with by the Town's Legal staff. Given the number of identified instances of these types of resolution measures, the required time commitment, and limited staff resources, such matters will need to be factored into the department's other priorities or incorporated into a separate phase of the Easement Mapping Project which may include retaining external legal resources such as a title conveyancer or legal counsel to assist in resolving Gaps through housekeeping measures and the enforcement of prior agreements.

b) Acquisition of Easements:

In instances where there is no evidence of a title error nor a historical authority or agreement that can be addressed to resolve a Gap, the Town will need to acquire a new easement to secure its access rights to infrastructure on private property.

Further discussion will need to take place among the Town's Engineering, Public Works and Legal Services departments to determine which easements are most important to acquire quickly, and which can be acquired through upcoming subdivision and development approvals rather than acquired independently through negotiations with private landowners or expropriation. Discussion must also include the Town's multi-year capital plan for servicing infrastructure.

Easement Mapping and Associated Information Added to GIS

Through the Easement Project, easement mapping and associated information is now added to the GIS platform which allows internal Town viewers to immediately identify whether and where Town infrastructure is secured by an easement, and provides access to infrastructure related easement documents that describe the purpose and scope of the related easement. The updated GIS information also includes a summary and quick

reference of the relevant easement information so that viewers do not need to review the attached registration document each time.

Under an agreement with the Town, Teranet will continue to deliver to the Town and map updated registered Town easements and provide the purpose of the easements on a quarterly basis until December 31, 2022 (the **Teranet Maintenance**). This will allow the easement mapping information to be updated in GIS on a regular basis until the end of the Teranet contract term. The implementation of processes for sustainment of updated easement information beyond the term of the Teranet agreement will need to be discussed among the Easement Team.

Conclusion

Easements ensure that Town staff, contractors and equipment have necessary rights to access Town infrastructure for maintenance and repair. The Easement Mapping Project identified Gap areas where Town infrastructure did not have Town access rights, and resolved and closed almost 25% of those Gaps. The remaining Gaps identified under the Easement Mapping Project, will require further investigation or action which need to be factored into Town departments' priorities or incorporated into a separate phase of the Easement Mapping Project which include : the completion of the Department Review; rectifying incorrect land registry information; finalizing easement obligations identified under registered Development Agreements; and acquiring new easements, either, through purchase or requirement of upcoming development.

The Easement Mapping Project facilitated the creation of a central inventory that allows Town staff immediate access to easement information ensuring timely access to assets, as well as Town staff self-service ability that reduces the time related to Legal Services requests and the cost of researching and responding to easement requests. Given Teranet agreement restrictions, the easement information is only available to Town Staff. If any member of Council wishes to access this information, they can do so through staff with access (Legal, Planning, GIS, Public Works and Engineering Services).

Business Plan and Strategic Plan Linkages

This report aligns with the Rev-It Up recommendations for improving administration and service levels within the Town of Newmarket

Consultation

The following stakeholders and departments were consulted in the preparation of this report: Engineering Services, Public Works Services, Legal Services, Information Technology and Manager of Asset Management.

Human Resource Considerations

Resolving the No Easement Gaps will require time commitment of various staff in the Town's Legal Services, Engineering Services, Public Works Services and Information Technology departments.

Budget Impact

The capital portion of the Easement Project was approved by Council in 2017 with fifty percent (50%) funded by the federal government and twenty-five percent (25%) funded by the provincial government, and the remaining twenty-five percent (25%) funded from the Town's water reserve budget. There may be future budget impact if external resources are retained to assist in housekeeping matters and enforcement of prior agreements to resolve No Easement Gaps. There are sufficient operating funds for the Teranet Maintenance.

Attachments

None.

Contact

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