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BUDGET INFORMATION REQUEST (BIR) - Development Engineer Position
Requested by: Councillor Hughes
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Date Response Due: November 2, 2026
Confidential: No

QUESTION

Regarding the Development Engineer position, what is the current amount of delay in COSA and compared to the capital region to meet the development agreements, permits, inspections and approvals?

RESPONSE

The role of the Development Engineering Coordinator is responsible for administering developer-led construction projects and includes, but is not limited to, the following key functions:

1. Reviewing engineering drawings submitted through infill developments, subdivision developments, and development permit applications.
2. Conducting routine site inspections of active construction projects to verify compliance with the City's Municipal Engineering Standards and provide quality assurance (QA) oversight during installation of developer-constructed infrastructure.
3. Performing scheduled milestone inspections at the request of developers or their representatives during Construction Completion Certificate (CCC) and Final Acceptance Certificate (FAC) stages prior to asset acceptance.
4. Reviewing CCC and FAC submission packages, including geotechnical reports, material testing results, environmental laboratory reports, Closed-Circuit Television (CCTV) inspection reports, and other supporting documentation.
5. Administering project close-out activities, including security reductions and final infrastructure acceptance.

Administration is currently meeting service expectations for scheduled milestone inspections associated with development agreements and development permit projects. While development activity has increased significantly over recent years, the primary challenge is not meeting milestone

inspection (#3 activity above) timelines but rather providing sufficient oversight during active construction (#2 activity above).

Much of the underground infrastructure installed through development projects, including watermains, sanitary mains, storm systems, and manholes, is constructed and backfilled within the same day to maintain construction schedules. Although formal inspections occur during the CCC and FAC stages, these inspections take place after the infrastructure has been covered, limiting the City's ability to verify installation quality beyond system performance and testing results.

As a result, there is substantial reliance on the developer's contractor to perform quality control (QC) activities and on the developer's consulting engineer to provide oversight and certify that the work has been completed in accordance with approved designs and quality assurance requirements. However, because these assets are ultimately accepted into the City's infrastructure inventory and become a long-term responsibility of taxpayers, Administration considers an additional layer of municipal quality assurance to be essential. This level of quality assurance can only be achieved through routine site presence during active construction.

Administration places significant value on inspecting underground infrastructure prior to it being covered, as this provides the opportunity to identify deficiencies early and avoid substantial future costs. Historical examples demonstrate the value of this approach. In one instance, an improperly installed watermain was not identified until several years after construction, resulting in an estimated replacement cost of approximately $5 million to the City. In another case, deficiencies within sanitary service connections were identified during the warranty period and corrected by the developer at an estimated value of approximately $1 million, avoiding future costs to the City.

Proactive risk mitigation through routine construction inspections helps ensure that quality infrastructure that meets the established standards is being transferred to the City, thereby reducing the likelihood of premature asset failure, and minimizing future replacement and rehabilitation costs. Ultimately, this supports responsible stewardship of public assets and reduces the financial burden on taxpayers.

Currently, one Development Engineering Coordinator and two Engineering Technologists collectively provide construction oversight for approximately 150 active development projects during peak construction season, although volumes vary annually based on growth and development activity. In addition to supporting construction inspections, Engineering Technologists are responsible for a wide range of operational duties, including:

- Administration of on-street construction permits;
- Scheduling of milestone inspections;
- Processing Noise exemption requests;
- Third-party utility coordination and approvals;
- Surface Drainage Bylaw investigations and enforcement;
- Lot grading inspections; and

- Resident inquiries and various service requests.

Based on an average site visit duration of approximately 30 minutes, including travel time, the current complement of three staff can inspect approximately 48 sites per day. Consequently, many active construction sites cannot be visited daily, creating a risk that critical underground infrastructure installations may proceed without direct City observation.

The addition of a second Development Engineering Coordinator would increase inspection capacity to approximately 64 site visits per day, significantly improving the City's ability to provide timely construction oversight and reduce long-term infrastructure risk. Under the current risk-based approach, the Development Engineering Coordinator focuses primarily on larger and more complex development sites, while Engineering Technologists are assigned to less complex projects. During peak summer construction periods, Engineering students supplement inspection activities; however, as they are not qualified to provide construction direction or compliance determinations, their role is limited to documenting construction progress rather than assessing installation quality against Municipal Engineering Standards.

A review of practices within neighbouring municipalities in the Capital Region indicates that dedicated development inspection resources are common. Of the five municipalities that responded to Administration's inquiry within the available timeframe, four indicated they strive to provide dedicated staff resources capable of meeting daily inspection expectations, while one municipality advised that it is currently unable to meet that standard. Administration's current staffing complement remains below the level required to consistently achieve this level of service across all active development projects, despite utilizing a risk-based prioritization approach.

A significant domino effect resulting in the service delay from current staffing limitations relates to the review of CCC and FAC applications. During the construction season, the Development Engineering Coordinator must prioritize field inspections, resulting in CCC and FAC reviews often being deferred until winter months. This extends processing timelines for developer close-out activities, security reductions, and infrastructure acceptance. Delays in releasing securities can also impact developers' cash flow and their ability to advance subsequent phases of development. In turn, this may affect the timing and pace of growth within the community.

From a 2027 budget perspective, the proposed position is intended to address service capacity, asset risk management, and growth-related workload pressures. The additional Development Engineering Coordinator would increase field inspection coverage during active construction, reduce the risk of costly infrastructure deficiencies, improve CCC and FAC review timelines, expedite developer close-out activities, and better align the City's development servicing practices with those of comparable municipalities within the Capital Region.

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