



**C17
COMMUNICATION
COUNCIL – June 28, 2022
CW (WS) - Report No. 29, Item 1**

07 June 2022

**City of Vaughan
2141 Major Mackenzie Drive
Vaughan, Ontario**

**Attention: His Worship Mayor Maurizio Bevilacqua and Members of Council
Todd Coles, City Clerk**

**Re: Committee of the Whole (Working Session) June 8, 2022
Item 5 – 1. City Approach on Non-Conventional Stormwater Management
Infrastructure
City of Vaughan**

We are writing as an independent consulting firm interested in development engineering matters that support development in the City of Vaughan.

Our review of the report to be presented before the Committee of the Whole on June 8, 2022, Item 5 - 1, is generally appreciated and welcomed. We agree that a policy needs to be formed and standards created to better capture the on-going evolution of stormwater infrastructure and any other infrastructure for that matter. However, we do have concern with the specific approach being proposed in the report, primarily with the recommendation for the City to continue with the interim approach requiring a financial contribution for the replacement costs of non-conventional stormwater infrastructure. The City should consider a flat per unit or lot rate in the interim, as a security deposit for non-conventional stormwater infrastructure in development proposals (i.e. where storm water management underground tanks are proposed instead of the conventional ponds). This flat rate contribution can remain in place until such time as the new policy is prepared with appropriate stakeholder engagement and ultimately approved by Council. The flat rate can be a simple calculated average per unit/lot cost based on the last three developments where their respective development agreements required a financial contribution for the non-conventional storm water management system. In addition, there is concern with the amount of budget being requested from the DC Reserve to create a non-conventional storm water management policy. The City currently owns and operates a number of underground stormwater management systems scattered throughout the City. There should be enough data and information readily available for a policy to be created in-house with support by an external consultant. Also, for comparison purposes, the entire engineering Design Criteria and Standards Update had a budget of approximately \$100,000 and the Stormwater Low Impact Development Guide had a budget of \$120,000.

Current City practice of reviewing non-conventional stormwater infrastructure includes a component of operation and maintenance as well as replacement cost of the infrastructure. Operation and maintenance consideration is a common practice among municipalities and should continue especially if

D:\Municipality\Vaughan\SWM\CofW 2022 06 08\ARN Letter CofW Item 5.1 2022 06 08 meeting.docx

a development proposes a much greater operationally dependent piece of infrastructure when there are alternative options that require less operational requirements. The concerning portion of the current City practice (interim approach) is the request for a financial contribution to account for the replacement cost of non-conventional stormwater infrastructure. Non-conventional stormwater infrastructure mentioned in the report has been accepted in the past and is currently being maintained by the City.

During the review of current development applications with non-conventional stormwater infrastructure, City staff are calculating a one-time contribution for replacement of the storm infrastructure with no policy or direction from Council. This is concerning when the fee being calculated for some developments is hundreds of thousands of dollars and could negatively hinder the development. It is equally concerning when this fee is not included in the fees and charges by-law nor is it contemplated in the Development Charges Act. The City needs to ensure there is appropriate authority to collect these fees. Furthermore, the fees for replacement costs have not been widely collected in the past for similar types of infrastructure. For example, the large underground storm water tanks currently in operation under the municipally owned park, Thornhill Green Park, off Beverley Glen Blvd (subdivision agreement from 2005).

The evolution of storm water management over the past 75-100 years for development in general has also not required contributions for replacement or even operational cost increases of, at the time, new non-conventional storm water management infrastructure. Examples include the changes in road design from ditched roads evolving to roads with curbs and catchbasins/sewers. Other examples include storm water discharging directly to creeks and watercourses with ditches and pipes which have since evolved to stormwater management ponds with large piped infrastructure, inlets, outlets, access roads etc. The evolution of storm water infrastructure, until more recently at the City, has not required a significant cost contribution to operation and maintenance and has certainly not required a development to contribute to future infrastructure replacement cost (of which the infrastructure may never be replaced for 100 years).

The report's recommendation to continue the City's current interim approach is also extremely time consuming and requires considerable staff resources for review and approval in various departments including Environmental Services and Development Engineering. This approach limits staff's time in reviewing development applications to meet planning timelines required under the Planning Act. Furthermore, the approach adds consulting costs compounded with the replacement cost contribution to the overall development – which continues to increase costs onto current homebuyers and limits affordable housing. The City must consider an alternative way to alleviate staffing and resource strain on the industry and continue to seek ways to limit increased costs for homebuyers. A flat rate per unit/lot fee should be quickly calculated by staff and used in all interim applications. The fee, which is retained as a security until the policy is in place, can be based on the average cost contributions paid per unit/lot of the most recent three developments (where their development agreements required a contribution because non-conventional underground storm infrastructure replaced the conventional storm water management pond). The security may remain in place until the policy is implemented and approved by Council.

The second recommendation in the report, requesting a budget of \$250,000 to develop a policy for non-conventional storm water infrastructure, in general, is warranted. However, the budget amount appears to be considerably inflated given that the Design Criteria and Standards Update budget that was

D:\Municipality\Vaughan\SWM\CofW 2022 06 08\ARN Letter CofW Item 5.1 2022 06 08 meeting.docx

included in past budgets was \$100,000. The Design Criteria and Standards Update included an entire overhaul of design standards and criteria which would include storm water management. In addition, the more recent Stormwater Low Impact Development Guide had a budget of \$120,000. Given storm water management and its associated infrastructure is already a component of the Design Criteria and Standards that was updated with a budget of \$100,000 and the Stormwater Low Impact Development Guide had a budget of \$120,000, why would a policy for non-conventional storm water infrastructure cost more than the criteria and guide?

Furthermore, the bulk of non-conventional stormwater infrastructure currently evolving as a result of land development, consists of concrete box culverts or concrete spans that are the same pieces of infrastructure that are widely used in conventional storm water management ponds, culverts and bridges throughout the City. The City currently maintains a vast network of these types of infrastructure components and would therefore have considerable experience and data to support their continued adaptive use along with the maintenance, operation and replacement costs associated with each. A majority of information can be gathered and the policy itself can be undertaken in-house without the need to procure external consultants. The budget should therefore be further reduced if it can be mostly completed by City staff.

Consideration should be made by Council to enact an interim flat rate per unit/lot fee to be held as a security for developments seeking to incorporate non-conventional stormwater infrastructure. Once the non-conventional stormwater infrastructure policy is passed by Council, the securities can be used as a basis of a payment should the new policy require any such payment. The budget to undertake this policy should also be reviewed given past similar and more exhaustive guides/criteria/policies were undertaken with less than half the budget request.

Should you have any questions please do not hesitate to contact the undersigned.

Yours truly,

ARN Project Management Inc.



Augusto R. Nalli, P.Eng.
ARN Project Management Inc.