

COMMITTEE OF THE WHOLE-SEPTEMBER 4, 2001

BROOKE STREET CATCHBASIN INSTALLATION

Recommendation

The Commissioner of Development Services and Public Works in consultation with the Director of Reserves and Investments recommends:

That funding in the amount of \$50,000.00 be approved from Taxation for Brooke Street Catchbasin Installation.

Purpose

Funding to be approved by Council for the installation of the Brooke Street Catchbasin.

Background - Analysis and Options

There has been recurrent flooding of properties on Thornridge Drive, Brooke Street and Arnold Avenue in the Thornhill area. The flooding is caused by the overflowing of an existing water course that runs through the backyards of the residential properties bounded by Thornridge Drive, Brooke Street, Arnold Avenue and Yonge Street in Thornhill.

The neighbourhood area is rural in nature with storm drainage serviced by roadside ditches, driveway culverts and cross culverts and the water course in question. There is no storm drainage easement for the City and Public Works has no legal means to gain access to do any maintenance work or control over private modifications to the water course.

In the early 80s', a 3 m diameter storm trunk sewer was constructed on Brooke Ave which was designed to collect storm runoff from the neighbourhood for storm events up to a five year return frequency. For a major storm event which exceed the intensity of a five year return storm, the excessive storm runoff will have to be conveyed by the existing watercourse. There were plans for construction of catchbasins and storm sewers in the neighbourhood which would collect minor storm flow in the area to discharge to the trunk sewer. Somehow the plan was not implemented and all storm runoff from the area is still being collected into the road ditches, which then discharge into the watercourse in question, despite the availability of capacity in the trunk sewer.

On-going redevelopments in the neighbourhood with larger homes result in higher storm flow. Moreover, as a result of lack of maintenance and private modifications of the watercourse over the years, overflow from the water course recurs every year even during minor storm events. Storm flow in excess of the reduced capacity of the water course spills into the adjacent lots causing property damages and safety concerns.

To alleviate any immediate flooding concerns, high capacity inlet catchbasin is proposed to be installed in the ditch on Brooke Street designed to capture the storm flow in the watercourse and discharge into the Brooke Ave. storm trunk sewer. This would reduce the frequency of flooding to an average of 1 in 5 years.

In the long term, the watercourse should be rehabilitated to provide adequate capacity for the storm flow from a 25 year return storm, which had been used as a design criteria in the master drainage plan for the community. Staff will investigate alternative approaches to the rehabilitation of the water course and report findings and recommendations to Council.

Conclusion

It is recommended that funding be approved by Council for the installation of the Brooke Street catchbasin to alleviate immediate flooding concerns in the Brooke Street neighbourhood. This work is of an urgent nature to reduce the extent of the flooding that may occur with heavy rainstorms this fall and in the Spring runoff. The Director of Reserves and Investments has advised that sufficient funding remains in the Taxation funded projects in the 2001 Capital Budget for this project.

Attachments

1. Location Map

Report prepared by:

Frederick Lam, P. Eng., Design Engineer, ext. 8638

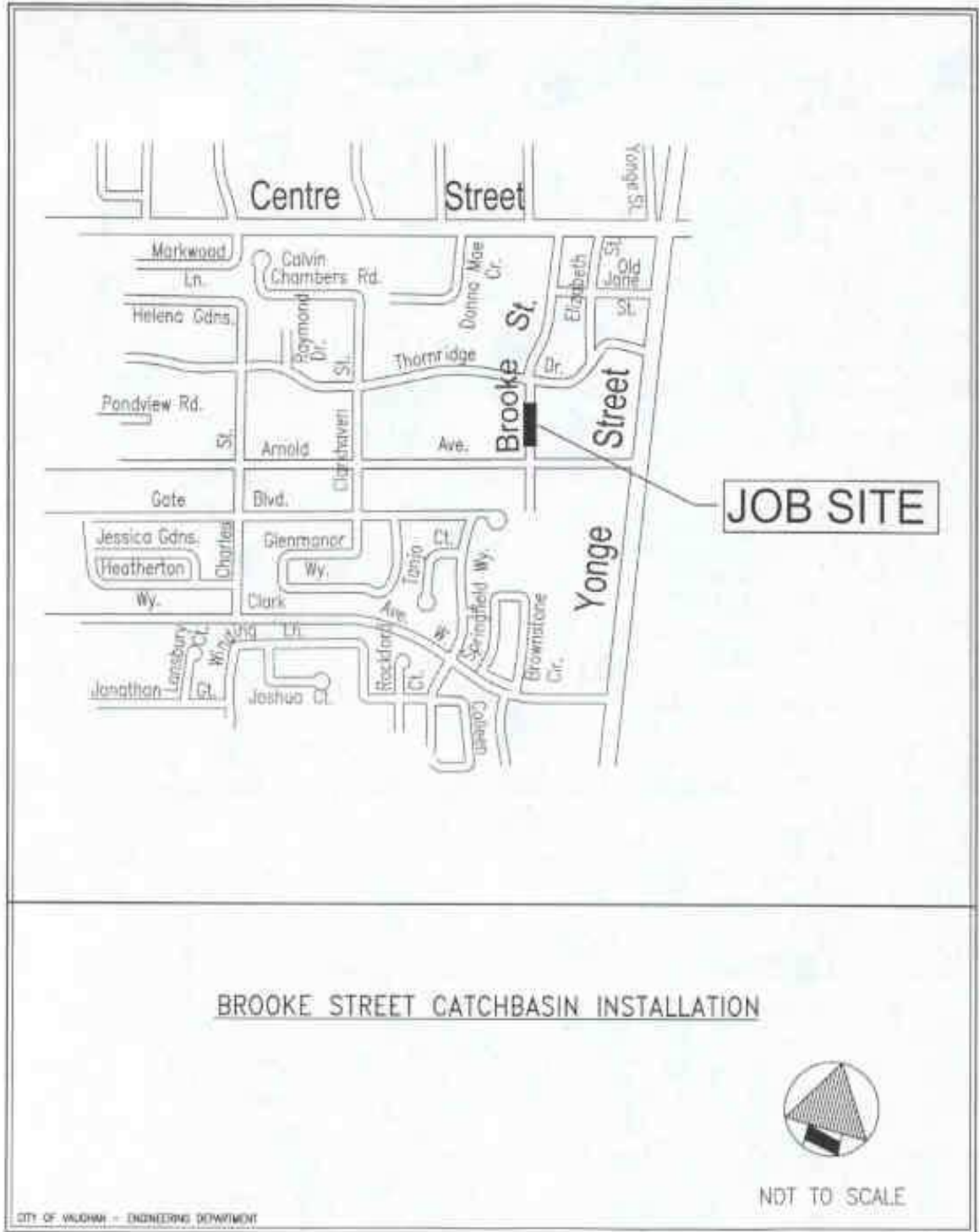
Respectfully submitted,

FRANK MIELE
Commissioner of Development Services
and Public Works

FL/FL

Bill Robinson, P. Eng.
Executive Director, City Engineering
and Public Works

ATTACHMENT No. 1



Drawing Name: R:\ENGIN\01\BROOKE\VA\Fwd\BROOKE_STREET_CATCHBASIN_ATTACH1.dwg