

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 14, Report No. 32, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on June 25, 2013.

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**ASSUMPTION – THORNHILL WOODS PHASE 1
19T-90008, PLAN OF SUBDIVISION 65M-3591
WARD 4 – VICINITY OF DUFFERIN STREET AND RUTHERFORD ROAD**

The Committee of the Whole recommends approval of the recommendation contained in the following report of the Commissioner of Engineering and Public Works and the Director of Development / Transportation Engineering, dated June 18, 2013:

Recommendation

The Commissioner of Engineering and Public Works and the Director of Development / Transportation Engineering recommends:

1. THAT Council enact the necessary by-law assuming the municipal services that are set out in the Subdivision Agreement for Plan 65M-3591 and the Municipal Services Letter of Credit be reduced to \$215,000 and held until the City determines the Owner's financial obligation towards the repair of the twenty four (24) cracked sewer connection tees fittings in the subdivision following a five year extended monitoring period; and
2. THAT the City's Cracked Sewer Service Connection Tee Fitting Repair Protocol be amended to include the option of a five year monitoring period as outlined in this report.

Contribution to Sustainability

The municipal services recommended for assumption in this report have been designed and constructed in accordance with City standards which include consideration for sustainability.

Economic Impact

Upon assumption of this development, approximately 6.0 lane kilometers of roadway and associated municipal services including sanitary sewers, watermain, street lighting, sidewalk, trees, boulevard trees, etc., will be added to the City's network of infrastructure. This additional infrastructure is valued at \$8,629,430 and will incur the normal expense associated with annual operation and maintenance activities of approximately \$358,180 as shown on the following chart:

Item Description	As Constructed Costs	Approximate Annual Operating Costs (*)
Watermain	\$ 743,770	\$119,880
Storm sewers	\$3,719,500	\$ 5,430
Sanitary Sewers	\$ 951,510	\$114,910
Road	\$2,883,290	\$ 46,840
Street lights	\$ 88,360	\$ 10,560
Trees/Landscape	\$ 243,000	\$ 60,560
Totals	\$8,629,430	\$358,180

() Annual Operating Costs derived from the 2009 Municipal Performance Measures Summary and the Parks and Forestry Operations Department.*

The life cycle costs associated with this additional infrastructure will be accounted for in the City's future multi-year budgets.

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Communications Plan

The pertinent City departments will be notified of the assumption of the municipal services associated with this development agreement.

Purpose

The purpose of this report is to inform Council that the construction of the municipal services in Plan of Subdivision 65M-3591 has been completed in accordance with the Subdivision Agreement with Dufferin Contwo Investments Limited, and can now be considered for conditional assumption by the City.

Background - Analysis and Options

The Thornhill Woods Phase 1 development is located south of Rutherford Road and east of Dufferin Street, in Ward 4 as shown on Attachment No.1. This development is comprised of 265 single dwelling lots, 12 townhouse block (approximating 55 townhouse units), neighbourhood park block, public elementary school block, and an open space block.

The Subdivision Agreement with Dufferin Contwo Investments Inc. and the City was executed on June 24, 2002 and the Plan of Subdivision was subsequently registered on August 1, 2002. The construction of the roads and municipal services was substantially completed in 2010.

The Developer has maintained the municipal services in the development during the required minimum thirteen month maintenance period and has rectified all noted deficiencies. Accordingly, the Developer has requested that the roads and municipal services in the development be assumed by the City, and the Municipal Services Letter of Credit be released.

All documentation required by the Subdivision Agreement for assumption has been submitted. Engineering staff, in conjunction with the developer's consulting engineer, have conducted all the necessary inspections of the municipal services in the subdivision and are now generally satisfied with the extent of the works.

In-sewer camera inspections identified 24 cracked service connection tee fittings in the subdivision

After the top lift of asphalt had been placed on the roads in this subdivision, an in-pipe camera inspection of the sewer system revealed that twenty four service connection tee fittings had developed hairline cracks. Twenty two of the fittings are approximately 4.0 metres deep and two are very deep at 8.0 metres. After the cracked fittings were identified in 2008, the developer repaired them by using fiberglass tee liners, which is a trenchless technology, to avoid excavating the finished roadway.

Over the last several years, camera inspections have revealed cracks along the joint in a small number of PVC sewer lateral tee fittings at various locations throughout the City. To date, there are about 300 known cracked sewer fittings in new developments City-wide. It is unclear at this point what is causing these fittings to develop cracks. In most cases, the crack does not affect the function or performance of the sewer lateral nor does it allow ground water to infiltrate into the sewer.

In March 2010, Council adopted a policy to address the repair of the cracked tee fitting that included a requirement for the developer to provide the City with a cash payment prior to assumption based on the current cost estimate of removing and replacing the tee fittings. This policy was recommended by staff in 2010 in part because fiberglass tee liner technology was relatively new and its longevity was unproven.

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Subsequently, in June 2011, Council endorsed a revised policy that authorizes staff to regularly adjust the value of the required monetary payment with consideration for the performance and advancements in trenchless repair technology.

A five year extended monitoring period will help assess the performance of fiberglass tee liners.

The fiberglass tee liners have now been in place for over 5 years and performing well. A number of municipalities in the GTA have accepted the use of fiberglass tee liners including Markham, Toronto, Newmarket and Richmond Hill. Accordingly, the development industry has taken the position that fiberglass tee liner technology provides a permanent fix and the repaired tee fitting will have a life span equal to the sewer system. Since only time will tell if this is the case, the development industry has requested the City consider deferring the determination of the value of the cash payment under the City's policy for a period of five years after assumption, at which time, the performance of the tee liners will be better known.

Under this strategy, the developer would provide the City with a letter of credit at assumption equivalent to the estimated cost of replacing the sewer fittings. Over the subsequent five years, the performance of the fiberglass tee liners would be monitored periodically by the City. At the end of the five years, the City will determine whether the fiberglass tee liners can be accepted as a permanent fix or whether a cash payment is still required for the ultimate replacement of the fittings according to the policy. The letter of credit will be released once the developer has satisfied its financial obligations with respect to the cracked service connection tee fittings.

Based on the City's cracked tee policy and an estimate submitted by the developer's consulting engineer, the current cost for the maintenance and ultimate replacement of the 24 fiberglass tee liners in the Thornhill Woods Phase 1 Subdivision is estimated at \$215,000 as shown in the table below:

Table 2: Estimated Cracked Tee Repair Costs

Street	Sewer Leg	Approx. Depth	Number of Cracked Tees	Estimated Cost
Daphnia Drive	MH 51A – 52A	4.4m	5	\$ 41,000
Daphnia Drive	MH 51A – 50A	4.5m	1	\$ 8,200
Daphnia Drive	MH 52A – 53A	4.3m	1	\$ 8,200
Pepperberry Road	MH 42A – 43A	4.9m	3	\$ 24,600
Pepperberry Road	MH 40A – 41A	5.0m	3	\$ 24,600
Pepperberry Road	MH 41A – 42A	5.0m	5	\$ 41,000
Auburndale Drive	MH 22A – 24A	4.5m	1	\$ 8,200
Pleasant Ridge Ave.	MH 60A – 61A	4.0m	2	\$ 16,400
Pleasant Ridge Ave.	MH 62A – 61A	3.9m	1	\$ 6,500
Sandwood Avenue	MH 12A – 11A	8.0m	1	\$ 18,100
Sandwood Avenue	MH 5A – 22A	8.2m	1	\$ 18,200
TOTAL			24	\$215,000

Since a five year extended monitoring period will help assess the long term performance of fiberglass tee liners and inform the calculation of an equitable cash payment, staff is recommending this course of action.

All pertinent departments have provided their clearance for assumption

The Commissioner of Engineering and Public Works has received clearance from all pertinent City Departments including:

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- Development/Transportation Engineering
- Public Works
- Development Planning
- Parks Operations and Forestry
- Parks Development
- City Clerks

In addition, the Reserves and Investments Department has confirmed that all of the City's financial requirements associated with this subdivision have been satisfied.

Relationship to Vaughan Vision 2020

The construction and assumption of these municipal services are consistent with Vaughan Vision 2020, which encourages management excellence through planned and managed growth and the maintenance of City assets and infrastructure. This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

Regional Implications

The Region of York have conducted their own inspection of municipal services located within the Dufferin Street right of way and have found the works to be satisfactory.

Conclusion

The construction of the roads and municipal services associated with Thornhill Woods Phase 1 Development has been completed in accordance with the Subdivision Agreement. Accordingly, it is appropriate that the roads and municipal services in the Thornhill Woods Phase 1 Subdivision Agreement be assumed and the Municipal Services Letter of Credit be reduced to \$215,000 pending a determination of the value of the Owners cash payment towards the repair of the twenty four cracked service connection tee fittings in the subdivision in five years.

In addition, staff is recommending that the City's Cracked Sewer Service Connection Tee Fitting Repair Protocol be amended to include the option of a five year monitoring period as outlined in this report.

Attachments

1. Location Map

Report prepared by:

Kevin Worth – Engineering Technologist - Development, ext. 8670
Frank Suppa, Manager of Development Inspection and Grading, ext. 8073
Andrew Pearce, Director of Development & Transportation Engineering, ext. 8255

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)