

1

LESLIE STREET PUMPING STATION SECOND ELECTRICAL FEEDER

1. RECOMMENDATION

It is recommended that:

1. Regional Council approve concept 2A for the proposed secondary hydro feed route to the Leslie Street Pumping Station as described in this report at a cost of \$330,000.

2. PURPOSE

This report seeks authorization to reallocate funding within the program for the secondary hydro feed to the Leslie Street Pumping Station. Total funding of \$330,000 is required for power feed routing alternatives to suit Town of Markham staff requirements related to the future development of Settler's Park. At its meeting of June 16, 2004, the Transportation and Works Committee asked staff for further clarification of the differences between Option 2 and 2A.

3. BACKGROUND

Leslie Street Pumping Station is one of the most important links in the York-Durham Sewage System servicing the communities of Woodbridge, Maple, Thornhill, and part of the City of Vaughan. Wastewater from these areas discharges into the southwest Steeles Avenue collector sewer that extends from Woodbridge in the west to Leslie Street in the east. The pumping station handles wastewater from a contributing population of almost half a million people. The pumping station is located on the west side of Leslie Street, north of Steeles Avenue.

The existing power supply consists of a single utility feeder that originates from Steeles Avenue and is fed north to the pumping station via an overhead pole line.

On power failure, standby power is provided by diesel generators. If the standby generators fail to operate, a shutdown of the pumping operation occurs. This power problem was experienced in 1999 resulting in a spill.

The stability and reliability of power supply to the Leslie Street Pumping Station will be greatly enhanced by the addition of a second electrical feed from an alternate grid source.

The installation of a second feeder line for the Leslie Street Pumping Station will provide the York Region with a redundant power source in the event of primary power failure. In the event of primary supply failure, the second feeder line will provide the Leslie Street Pumping Station with a connection to an alternate hydro grid. In the unlikely event that

both the primary and secondary hydro connections fail, the diesel generators at the Leslie Street Pumping Station will provide the necessary emergency power.

KMK Consultants Limited was retained by the York Region to investigate improvements to the reliability of electrical power supply to the pumping station. KMK prepared the design of the Phase 1 improvements as two parts. The first part, consisting of improvements within the pumping station site, was tendered and awarded to Black and McDonald Limited and is currently under construction. The second part is for the new power supply lines to be installed by the electrical power authority. KMK proposed the installation of the second power supply lines from John Street, continuing south along the Leslie Street road allowance to the pumping station. The proposed electrical route crosses through proposed parkland in Markham and is perceived as hindering the functionality and aesthetics of the park. The Town of Markham indicated intent to construct recreational facilities along the proposed route within the park. The Town is currently undertaking a public consultation process and visioning exercise in order to confirm a long term development approach for the park. Consequently the installation was delayed while issues of concern were resolved.

Six routing options were prepared and reviewed with the Town of Markham staff as outlined in Table 1 and shown in the attached map. (*see Attachment 1*).

Table 1
Route Evaluation Summary

Option	Description	Estimated Cost*	Estimated Construction Duration (weeks)
1	Poles on Leslie Street R.O.W. (Original proposal)	\$133,000	6 – 8
2	Poles on Leslie Street R.O.W. - Buried under toboggan run	\$ 284,294	10 – 12
2A	Poles on Leslie Street R.O.W. - Buried under park	\$ 330,000	10 – 12
3	Poles on Leslie Street R.O.W., driveway and parking lot - Buried under toboggan run	\$ 263,753	9 – 11
4	Poles on Leslie Street R.O.W. - Buried under driveway, parking lot and toboggan run	\$ 330,274	10 – 12
5	Poles on Dawn Hill Trail, southerly limit of park and Leslie Street R.O.W.	\$ 600,000*	More than 12

* An easement would be required along the southerly edge of the park. This estimate does not include the property acquisition costs.

The Town of Markham staff preference is Option 5 that ensures that there will not be a hydro line within the park. Their second preferred option is Option 2A that ensures the unhindered use of the toboggan run, formal garden and common green which are prime features of the park. It minimizes the visual impact of the electrical feeder line in the heart of the park. The length of buried cable in Option 2A is approximately 275 metres. Option 2 only provides some of the aspects of Option 2A and it does not ensure that electrical line is not visually hindering the formal garden and common green. The length of buried cable in Option 2 is approximately 175 metres.

4. ANALYSIS AND OPTIONS

The estimated cost for Option 2A is about \$300,000 less than Option 5 and does not require additional property. Option 2A has the least impact on the project schedule and is the most cost effective option acceptable to the Town of Markham staff.

Option 2A will add approximately four weeks and an additional \$197, 201, in comparison to the original proposal (Option 1), to the project for the secondary hydro supply.

5. FINANCIAL IMPLICATIONS

Option 2A is estimated to cost \$197,201 more than original option of supplying a secondary hydro feed to the Leslie Street Pumping Station. There are sufficient funds in the 2004 Budget to accommodate this option.

6. LOCAL MUNICIPAL IMPACT

The installation of a second feeder line will provide York Region with a redundant power supply to the Leslie Street Pumping Station in the event of a power outage. Providing backup power from an alternate electrical grid to the Leslie Street Pumping Station will enhance power supply security and minimize the possibility of station overflow.

Burying the hydro line within the proposed park limits will minimize the impact to the park and satisfy the Town of Markham staff requirements.

7. CONCLUSION

The preferred route for supplying a secondary hydro feed to the Leslie Street Pumping Station is represented in Option 2A. This option is estimated to cost \$197,201 more than the originally considered option and will add approximately four weeks to the schedule for this project.

The Senior Management Group has reviewed this report.