



June 14, 2012

Mr. Denis Kelly
Regional Clerk
Regional Municipality of York
17250 Yonge St.
Newmarket, On L3Y 6Z1



REGION OF YORK
CLERK'S OFFICE

RE: **HYDRO UNDERGROUNDING UPDATE**

FILE No. - **P43**

Dear Mr. Kelly:

This will confirm that at a meeting held on June 12, 2012, Council of the Town of Markham adopted the following resolution:

- "1) That the staff report entitled "Hydro Undergrounding Update" be received; and,
- 2) That staff report back as to the results of PowerStream's development of criteria and principles for funding of undergrounding of overhead hydro distribution systems and potential application to the Ontario Energy Board (OEB) for partial funding in their 2013 rates; and,
- 3) That construction of the Hwy 7 Pilot Project (from west of Rodick Road to the tracks east of Sciberras Road) for undergrounding of existing power and utility lines on existing roads, including hydro, telecommunication and streetlight circuits, be deferred pending availability of funding; and,
- 4) That the detailed electrical engineering design of undergrounding hydro from Town Centre Blvd to the tracks East of Sciberras Road in the amount of \$414,810 not proceed at this time; and,
- 5) That York Region be requested to continue protecting a corridor of sufficient width in the current design for the future undergrounding of the overhead hydro distribution system and utilities in the Highway 7 right of way from Rodick Road to Sciberras Road to the satisfaction of the Director of Engineering and PowerStream; and,

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- 6) That staff pursue, at the site plan application stage for development abutting the roads identified under Tables 1 and 2 of this report, funding from the developers for the undergrounding of overhead utilities abutting their site; and,
- 7) That York Region be requested to expedite the reconstruction of Highway 7 from Town Centre Boulevard to Sciberras Road; and,
- 8) That Mayor Frank Scarpitti and Regional Councillor Jim Jones review related policy issues and report back to the Committee as appropriate; and further,
- 9) That the appropriate individuals at PowerStream, York Region and VIVA be advised accordingly."

If you have any questions, please contact Alan Brown, Director of Engineering, at 905-477-7000 ext.7507.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Kimberley Kitteringham', written over a horizontal line.

Kimberley Kitteringham
Town Clerk

/mbp

Report to: Development Services Committee

Date of Report: June 12, 2012

SUBJECT: Hydro Undergrounding Update
PREPARED BY: Rachel Prudhomme, Manager, Special Projects (2849)
Alan Brown, Director of Engineering (7507)

RECOMMENDATIONS:

- 1) THAT the staff report entitled "Hydro Undergrounding Update" be received;
- 2) AND THAT staff report back as to the results of PowerStream's development of criteria and principles for funding of undergrounding of overhead hydro distribution systems and potential application to the Ontario Energy Board (OEB) for partial funding in their 2013 rates;
- 3) AND THAT construction of the Hwy 7 Pilot Project (from west of Rodick Road to the tracks east of Sciberras Road) for undergrounding of existing power and utility lines on existing roads, including hydro, telecommunication and streetlight circuits, be deferred pending availability of funding;
- 4) AND THAT the detailed electrical engineering design of undergrounding hydro from Town Centre Blvd to the tracks East of Sciberras Road in the amount of \$414,810 not proceed at this time;
- 5) AND THAT York Region be requested to continue protecting a corridor of sufficient width in the current design for the future undergrounding of the overhead hydro distribution system and utilities in the Highway 7 right of way from Rodick Road to Sciberras Road to the satisfaction of the Director of Engineering and PowerStream;
- 6) AND THAT staff pursue, at the site plan application stage for development abutting the roads identified under Tables 1 and 2 of this report, funding from the developers for the undergrounding of overhead utilities abutting their site;
- 7) AND THAT York Region be requested to expedite the reconstruction of Highway 7 from Town Centre Boulevard to Sciberras Road;
- 8) AND THAT the appropriate individuals at PowerStream, York Region and VIVA be advised accordingly.

1. PURPOSE:

The purpose of this report is to update Council on:

- a) Criteria as to which roads should be considered for undergrounding of hydro / utility lines;

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- b) Funding and cost sharing formula options for hydro / utility undergrounding;
 - c) The status of PowerStream's position on including the Highway 7 Pilot Project as part of their spring 2012 submission to the Ontario Energy Board (OEB) for a 2013 rate increase to help finance the undergrounding of their overhead hydro lines;
 - d) The Pilot Project for the undergrounding of power and utility lines in Markham Centre from the Rouge River west of Rodick Road to Sciberras Road along Highway 7 in 2012/2013;
 - e) Initiatives on Yonge Street in the City of Vaughan and in Markham in which developers have undergrounded, or are in negotiations with PowerStream to underground, overhead utilities in front of their property for aesthetic reasons.

2. BACKGROUND:

On January 17, 2012, staff presented a report to the Development Services Committee, ratified by Council on January 24, 2012, in which an update was provided to Council on the feasibility of undergrounding the existing overhead power and utility distribution system on:

- Highway 7 from Rodick Road to Sciberras Road
- Heritage Area along Yonge Street
- Main Street Markham from Highway 407 to Highway 7
- Main Street Markham from Bullock Drive to 16th Avenue

As part of that report, staff also presented a review of various funding mechanisms that could be considered to fund undergrounding and the viability of each of those mechanisms.

After considerable discussion, Council directed staff to review a Pilot Project to underground overhead power and utility distribution lines from the Rouge River West of Rodick Road to Sciberras Road. Council also directed staff to assist PowerStream in its efforts to consider an application to the Ontario Energy Board (OEB) that would permit partial funding of the Pilot Project by PowerStream. Staff was also directed to continue working with York Region in an effort to achieve the desired undergrounding of power and utility lines along Highway 7.

At its meeting of January 17th, the Development Services Committee also requested that staff undertake a review of the funding options presented in their report in order to determine if any additional sources could be found for the Undergrounding Pilot Project along Highway 7 and also to provide a cost sharing formula for the work. Furthermore, Council directed staff to report back on criteria to prioritize the locations for undergrounding of overhead power and utility lines. The excerpt of Council Committee is in Attachment "A".

3. CRITERIA FOR PRIORITIZING UNDERGROUNDING PROJECTS:

Markham Engineering staff has been working with PowerStream and with Markham Planning staff to determine how to prioritize locations for undergrounding power and utility lines. Meetings have been held between all parties and numerous discussions have taken place in order to determine the best method to prioritize projects. A meeting between PowerStream and Markham's Planning Managers, Engineering and Urban Design staff on March 5, 2012 helped determine cases that would assist in the potential OEB approval for funding of undergrounding of power lines.

PowerStream has informed Markham staff that the OEB will very likely not approve cost-sharing of undergrounding projects that are for beautification or urban design purposes. There needs to be a technical safety component that requires the undergrounding in order for the OEB to consider allowing PowerStream to cost-share in the undergrounding project. It should be noted that even if the reason is driven by safety, it is not guaranteed that the OEB's decision would allow PowerStream to help include the costs of the project in their future rates.

As a result of strict OEB policy, many municipalities have been faced with challenges in obtaining funding assistance for the undergrounding of hydro lines through their utility companies, even when the lines are old and plagued with failure issues. For example, the City of Mississauga was unable to obtain funding for the relocation of aging overhead power lines in the Meadowvale Village Heritage Area. Due to OEB restrictions, their utility company, Enersource Hydro Mississauga, would only consider funding to renew power assets with like-to-like construction (i.e. what is already overhead must be replaced with overhead and what is already underground shall be replaced with underground), unless Council found funds to pay for the undergrounding. Residents expressed their desire to have the power lines underground but Council struggled with the high cost. Mississauga Council decided that if the residents of the area wished to have underground wiring, they should pay their share of the costs. The residents declined to pay such costs and instead, they participated with the utility company to help select the best overhead system for their streetscape.

Toronto Hydro has also experienced difficulties in replacing aging overhead power lines with underground hydro. It was found that the OEB would only approve funding for "like-to-like" replacement, with the exception of rear-to-front lot designs in the Scarborough area. In this case, the 55 year old power lines with radiating wires extending from transformers and hydro poles were located in the back yards of homes. The growing trees, new decks and pools made the lines almost impossible to access for the frequent maintenance that was required. The situation was exacerbated by frequent power failures (160 failures in the past 2 years) and failures in this area also cut power to thousands of other customers farther along the lines. This appears to be the only extreme case where the OEB approved funding to relocate the rear yard overhead power lines to front yard underground lines for safety and reliability reasons. Because the front yards in the area are very small, there was no room to safely accommodate hydro poles and therefore, there was no choice but to place the new power lines underground.

As a result of the OEB past decisions, it has been determined that the best way for the Town of Markham to prioritize roads for future undergrounding of power and utility lines is by focusing on reasons related to safety and technical factors. This would allow the highest possibility for the OEB's consideration of a cost-sharing formula with the local utility company.

Safety and technical reasons that justify undergrounding of overhead power and utility lines on any given road revolve around set-back and the height of buildings in relation to the location of power infrastructure within the right-of-way. There needs to be a safe clearance distance (i.e. 3 metres) between the face of buildings or balconies and the closest potential location of power infrastructure, considering sag and wind effects on wires (see drawing in Attachment "B"). Since utility poles are not usually located directly on the lot line, the only set-back and building height that would drive undergrounding for safety reasons would be locations where there are high-rise buildings with zero set-back to the lot line and hydro infrastructure within 3.0 metres from the property line.

The Town of Markham has areas where high rise buildings may proceed with zero set-back to the lot line. Table 1 is based on a list of such roads that has been supplied by the Planning and Urban Design Department and a revised cost estimate obtained by working with PowerStream and its consultant to further refine costs based on site specific factors that characterize each of the locations:

**TABLE 1
UNDERGROUNDING ON ROADS WITH ZERO SET-BACK**

STREET	SECTION	ESTIMATED COST OF UNDERGROUNDING
Yonge St.*	From Steeles Ave to Elgin St (not including Heritage Area)	\$13 M
Hwy 7**	From west of Rodick Road to the tracks east of Sciberras Road	\$30 M
Hwy 7***	From 9 th Line to Donald Cousens Parkway	\$16.3 M
Main Street Markham****	From 16 th Avenue to Major Mackenzie	\$22 M
Steeles Ave.*	From Kennedy to Midland	\$6 M
Kennedy Rd.*	From Steeles to the train tracks (Pacific Mall)	\$2.3 M
Milliken Main St. (Old Kennedy)*	From Denison to Steeles	\$6 M
TOTAL	All Projects	\$96 Million

*Based on consultant's recommendation of Apr. 2/2012, PLUS \$1K/m for streetlights + 20% to w/g other utilities + 20% contingency

**Detailed estimate based on peer review by DPM Energy and PowerStream, PLUS 20% to relocate other utilities

***Based on peer review estimate of Hwy 7 from Rodick Rd to the tracks east of Sciberras by DPM Energy and PowerStream

****Based on estimate given by PowerStream, dated March 30, 2012, PLUS 20% to w/g other utilities + 20% contingency; Council at its meeting of April 17th, 2012, authorized staff to proceed with the overhead pole adjustments and reconstruction of Markham Road is proceeding this July.

Council also requested staff to review the undergrounding of overhead power lines in Heritage districts (shown in Table 2). As in Table 1 above, Table 2 contains revised cost estimates obtained through discussions with PowerStream and its consultant, which resulted in refined estimates based on site-specific factors. It should be noted that these estimates are still preliminary and need to be further refined through detailed design. Heritage districts in the Town do not qualify as high density and zero set-back to the lot line and therefore, they would not be eligible for potential cost-sharing with PowerStream. However, Council could

consider additional factors, such as streetscape beautification initiatives or other urban design factors, but financial assistance from PowerStream via the OEB is unlikely.

TABLE 2
UNDERGROUNDING HYDRO ON ROADS IN HERITAGE DISTRICTS

STREET	SECTION	ESTIMATED COST OF UNDERGROUNDING
Yonge St.*	From John St to Cricklewood Park	\$5 M
Main Street Markham*	From Bullock Drive to 16 th Avenue	\$7 M
Main Street Markham*	From 407 to Hwy 7	\$7 M
TOTAL		\$19 Million

*Based on consultant's recommendation of Apr. 2/2012, plus \$1K/m for streetlights + 20% to w/g other utilities + 20% contingency

4. FUNDING OPTIONS AND COST-SHARING FORMULA FOR THE UNDERGROUNDING PILOT PROJECT:

In its report to the Development Services Committee dated January 17, 2012, Markham staff had compiled a summary of the various funding options that Council asked to be reviewed further to determine potential funding sources for the Undergrounding Pilot Project.

A meeting was held between Markham's Engineering, Legal and Finance departments to review the options listed in the January 17th report in terms of viability and to explore any new funding venues that were not in the original report. The results shown in Table 3 are a reduced list of most viable options. Other funding mechanisms that were considered by staff but are not being carried forward for further review are listed in Attachment "C".

TABLE 3
FUNDING MECHANISMS AND VIABILITY FOR THE PILOT PROJECT

FUNDING MECHANISM	HOW IT WORKS	VIABILITY
- Funding by PowerStream	- A percentage of the costs of undergrounding would be borne by PowerStream, which would then recover those costs through its overall rates - Incremental increases due to this program to be paid by all PowerStream customers in all service areas - PowerStream is reviewing additional undergrounding in other municipalities within its jurisdiction	- Requires OEB approval - High density housing in areas with zero set-back to lot line might justify OEB approval - May require Town by-law changes to force high-density developers to build tight to the lot-line - PowerStream's Board is considering placing an application with the OEB for 2013 rates
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FUNDING MECHANISM	HOW IT WORKS	VIABILITY
Funding through Town's Tax Base	- Make undergrounding a Council priority and fund through tax revenues - Potentially \$24 M for Hwy 7 from Town Centre Blvd to Sciberras Rd - Potentially \$91 M for the balance of Table 1 & 2 projects - All residents to bear the costs	- Council has many priorities and needs to prioritize spending of tax revenues on undergrounding power/utility lines - Finance Dept to report back on unfunded projects - Council would have to direct staff to take funds out of reserve funds or consider a ramp-up of tax rate
Funding by stakeholders benefitting from the undergrounding (Section 37)	- High density developers are currently assessed "bonusing" (e.g. Times, Liberty)	- Town currently assesses bonusing for high density developments. - Town would have to prioritize use of such funds for various projects
Funding through Development Charges	- Town is currently updating its DC bylaw for implementation in spring 2013 - Include cost in either an Area Specific bylaw for areas where high-density high-rise buildings are being proposed on existing roads where existing overhead utilities are to be undergrounded (due to technical and safety concerns) or alternatively include in Town-wide bylaw	- Undergrounding of utilities on its own is not DC eligible as it is not considered growth-related - Developers may appeal the bylaw
Gas Tax Funding	- The Town currently receives \$8 M in gas tax funding, of which \$4 M is allocated to Markham District Energy (MDE). If the Town continues to fund MDE at this rate, there is only \$4 M / year available for all projects Town-wide. - AMO has advised that the Town can potentially transfer its gas tax funds to another municipality (i.e. York Region) by passing a by-law of authorization and submitting a copy to AMO. This requirement is noted in section 6.2 of the Municipal Funding Agreement, which states that the by-law must "identify the eligible recipient and the amount of funds the eligible recipient is receiving for that municipal fiscal year".	- Although York Region's Hwy 7 road reconstruction project as a whole is eligible for Gas Tax funding, the undergrounding of utilities on its own is not an eligible component - The Town would have to fund the overall reconstruction project and ask the Region to direct the funds toward undergrounding - Town would have to prioritize use of such funds for various projects

It should be noted that York Region's budget currently includes \$1.2 M for the relocation of "like-for-like" overhead power lines from Town Centre Blvd to Sciberras Rd. If Markham commits to the undergrounding of Town Centre Boulevard to Sciberras Road before PowerStream proceeds with the overhead relocation, York Region will contribute this portion of its budget towards the undergrounding of the power lines and the net cost would be 19.8 M (\$21 M minus \$1.2 M).

Recently, the Town has received a petition initiated by the Board of Directors of the Circa-2 Condominium at 23 Cox Blvd, Markham, ON, L3R 7Z9, containing 218 signatures in favour of burying the power lines between Rodick Road and Sciberras Road. The petition was received by Council at its meeting of March 20, 2012. However, the petition is only in support of the project and does not indicate that the petitioners are prepared to incur any costs of undergrounding. Furthermore, the Town's Legal Department indicates that the petition does not comply with the requirements of a local improvement petition even though a Local Improvement Petition would be an option, as indicated in Table 3.

With regards to the funding formula, it is not possible to quantify the amount of cost-sharing, if any, that PowerStream can contribute to the Pilot Project at this time. A recent discussion between Markham Staff and PowerStream has shown that assuming a 25% contribution from PowerStream would be extremely optimistic. A sensitivity analysis, outlining a series of potential scenarios, is offered in Tables 4(a) to 4(e). It should be noted that the PowerStream contribution on the sensitivity analysis accounts for undergrounding of hydro lines plus a 20% contingency only, as PowerStream would not contribute to the undergrounding of other utilities such as cable television, telephone or streetlights.

PowerStream's Senior Leadership team provided a presentation to PowerStream's Board of Directors at its February 2012 meeting, but no decision was rendered. PowerStream staff was directed by their Board to work on additional items for consideration and to update the Board on those items in the future. The matter was presented to another meeting held by a sub-committee of PowerStream's Board on April 11, 2012. Again, no decision was made with respect to a cost sharing policy on underground relocation of hydro facilities. More work is still to be done by PowerStream staff and no firm date as to when a decision will be made is available at this time, although it is expected to be discussed again at the end of May. PowerStream's current policy of "requester pays" for undergrounding still remains in effect.

It is not yet known when PowerStream's Board will be considering undergrounding of overhead hydro lines in its jurisdiction. Until PowerStream makes any decision on the issue, the Town cannot rely on any support from PowerStream for this project. And even if PowerStream's Board approves a shared funding formula for Markham's undergrounding project at a future meeting, they still then have to forward the proposed shared funding formula as part of their Cost of Service Rate Application to the OEB in the next month to request approval for a rate change in 2013. The OEB would have to approve the criteria and principles and establish a regulatory principle and precedence for future projects. PowerStream must take this into consideration, as any decision made regarding Markham's undergrounding pilot project will create a precedent that may be applicable to all of its service areas.

TABLE 4
SENSITIVITY ANALYSIS OF VARIOUS POTENTIAL FUNDING SCENARIOS
(Assuming various percentages of contribution from PowerStream on hydro utilities only)

Table 4(a) – Assuming a 5% Contribution (on hydro utilities only) from PowerStream

OPTION	COST for ALL Utilities	COST FOR HYDRO ONLY	POWERSTREAM (5%)	TO FUND FROM OTHER SOURCES
Hwy7 – Town Centre to Sciberras	\$24 M	\$21 M	\$1.1 M	\$23 M
Yonge – Steeles to Elgin	\$13 M	\$9 M	\$0.5 M	\$12 M
Hwy7 – 9 th Line to DC Parkway	\$16.3 M	\$13 M	\$0.7 M	\$16 M
Main St Markham – 16 th to Major Mack	\$22 M	\$22 M	\$1.1 M	\$21 M
Steeles – Kennedy to Midland	\$6 M	\$3 M	\$0.2 M	\$6 M
Kennedy – Steeles to Pacific Mall	\$2.3 M	\$1.5 M	\$0.1 M	\$2 M
Milliken Main St – Denison to Steeles	\$6 M	\$3.6 M	\$0.2 M	\$6 M
<i>All Projects</i>	<i>\$90 M</i>	<i>\$73 M</i>	<i>\$4 M</i>	<i>\$86 M</i>

Table 4(b) – Assuming a 10% Contribution (on hydro utilities only) from PowerStream

OPTION	COST for ALL Utilities	COST FOR HYDRO ONLY	POWERSTREAM (10%)	TO FUND FROM OTHER SOURCES
Hwy7 – Town Centre to Sciberras	\$24 M	\$21 M	\$2.1 M	\$22 M
Yonge – Steeles to Elgin	\$13 M	\$9 M	\$0.9 M	\$12 M
Hwy7 – 9 th Line to DC Parkway	\$16.3 M	\$13 M	\$1.3 M	\$15 M
Main St Markham – 16 th to Major Mack	\$22 M	\$22 M	\$2.2 M	\$20 M
Steeles – Kennedy to Midland	\$6 M	\$3 M	\$0.3 M	\$6 M
Kennedy – Steeles to Pacific Mall	\$2.3 M	\$1.5 M	\$0.2 M	\$2 M
Milliken Main St – Denison to Steeles	\$6 M	\$3.6 M	\$0.4 M	\$6 M
<i>All Projects</i>	<i>\$90 M</i>	<i>\$73 M</i>	<i>\$7 M</i>	<i>\$83 M</i>

Table 4(c) – Assuming a 15% Contribution (on hydro utilities only) from PowerStream

OPTION	COST for ALL Utilities	COST FOR HYDRO ONLY	POWERSTREAM (15%)	TO FUND FROM OTHER SOURCES
Hwy7 – Town Centre to Sciberras	\$24 M	\$21 M	\$3.2 M	\$21 M
Yonge – Steeles to Elgin	\$13 M	\$9 M	\$1.4 M	\$12 M
Hwy7 – 9 th Line to DC Parkway	\$16.3 M	\$13 M	\$1.9 M	\$14 M
Main St Markham – 16 th to Major Mack	\$22 M	\$22 M	\$3.3 M	\$19 M
Steeles – Kennedy to Midland	\$6 M	\$3 M	\$0.4 M	\$6 M
Kennedy – Steeles to Pacific Mall	\$2.3 M	\$1.5 M	\$0.2 M	\$2 M
Milliken Main St – Denison to Steeles	\$6 M	\$3.6 M	\$0.5 M	\$5 M
<i>All Projects</i>	<i>\$90 M</i>	<i>\$73 M</i>	<i>\$11 M</i>	<i>\$79 M</i>

Table 4(d) – Assuming a 20% Contribution (on hydro utilities only) from PowerStream

OPTION	COST for ALL Utilities	COST FOR HYDRO ONLY	POWERSTREAM (20%)	TO FUND FROM OTHER SOURCES
Hwy7 – Town Centre to Sciberras	\$24 M	\$21 M	\$4.2 M	\$20 M
Yonge – Steeles to Elgin	\$13 M	\$9 M	\$1.8 M	\$11 M
Hwy7 – 9 th Line to DC Parkway	\$16.3 M	\$13 M	\$2.6 M	\$14 M
Main St Markham – 16 th to Major Mack	\$22 M	\$22 M	\$4.4 M	\$18 M
Steeles – Kennedy to Midland	\$6 M	\$3 M	\$0.6 M	\$5 M
Kennedy – Steeles to Pacific Mall	\$2.3 M	\$1.5 M	\$0.3 M	\$2 M
Milliken Main St – Denison to Steeles	\$6 M	\$3.6 M	\$0.7 M	\$5 M
<i>All Projects</i>	<i>\$90 M</i>	<i>\$73 M</i>	<i>\$15 M</i>	<i>\$75 M</i>

Table 4(e) – Assuming a 25% Contribution (on hydro utilities only) from PowerStream

OPTION	COST for ALL Utilities	COST FOR HYDRO ONLY	POWERSTREAM (25%)	TO FUND FROM OTHER SOURCES
Hwy7 – Town Centre to Sciberras	\$24 M	\$21 M	\$5.3 M	\$19 M
Yonge – Steeles to Elgin	\$13 M	\$9 M	\$2.3 M	\$11 M
Hwy7 – 9 th Line to DC Parkway	\$16.3 M	\$13 M	\$3.3 M	\$13 M
Main St Markham – 16 th to Major Mack	\$22 M	\$22 M	\$5.5 M	\$16 M
Steeles – Kennedy to Midland	\$6 M	\$3 M	\$0.8 M	\$5 M
Kennedy – Steeles to Pacific Mall	\$2.3 M	\$1.5 M	\$0.4 M	\$2 M
Milliken Main St – Denison to Steeles	\$6 M	\$3.6 M	\$0.9 M	\$5 M
<i>All Projects</i>	<i>\$90 M</i>	<i>\$73 M</i>	<i>\$19 M</i>	<i>\$71 M</i>

5. PILOT PROJECT FOR UNDERGROUNDING ALONG HIGHWAY 7 FROM THE ROUGE RIVER WEST OF RODICK ROAD TO SCIBERRAS ROAD:

Construction for the Viva Rapidway has already proceeded along the section of Highway 7 from Rodick Road to Town Centre Blvd and the utility poles have already been relocated in that section. However, the poles have not yet been relocated from Town Centre Blvd to the tracks East of Sciberras.

The scheduling of future works shows that York Region was planning to move ahead with pole relocation along the section from Town Centre to Sciberras Road in 2012. At its meeting of June 28, 2011, Markham Council had requested that York Region advance the schedule for reconstruction of Highway 7 (Town Centre Blvd to Sciberras Road) from 2014/2015 to 2012/2013. However, in order to safeguard Markham's interest in undergrounding utilities in that area, Markham staff sent a letter dated March 1, 2012, to York Region requesting that they not authorize the relocation of the overhead hydro lines between Town Centre Blvd and Sciberras Road until Markham Council is able to make a decision on whether or not it will proceed with the undergrounding Pilot Project. In its letter, Markham staff also enquired as to the impact of the request to delay the pole relocation and undergrounding the hydro / utility lines on the overall construction schedule. York Region's Transportation Services Committee considered Markham's request at its meeting of May 2nd, 2012. The Committee concluded that the road widening could not proceed without the complete relocation of the existing overhead hydro lines and therefore, a delay to relocate hydro lines would result in deferring the entire project for a minimum of one year. However, the Committee agreed to pause the project until Markham makes a decision on undergrounding.

Undergrounding the overhead utilities will result in a delay to the section between Town Centre Blvd and Sciberras Road to 2014/2015 of up to two years. Markham Council's decision to underground will hinge upon potential funding and cost sharing formulas some of which are, in turn, dependent upon PowerStream's ability and willingness to submit an application to the Ontario Energy Board (OEB) to allow it to fund part of the project. Even if PowerStream agrees to submit an application to the OEB, it is not guaranteed that the OEB will approve such an application. Markham staff has been advised that it could take up to a year to obtain the OEB's decision on whether or not PowerStream might be allowed to fund part of the undergrounding project.

To help speed up the process, Markham staff has worked with PowerStream and its consultant to obtain a detailed estimate for the electrical engineering design to underground power lines in the section between Town Centre Blvd and the tracks East of Sciberras. It will cost \$414,810 to undertake the detailed design. The design work will take 8 months to complete. The actual construction of underground power lines for the same section of road was estimated at \$21 M. This estimate does not include utilities other than hydro lines and therefore, the total cost, including other utilities, could total \$24 M.

6. UNDERGROUNDING ON YONGE STREET

There are two sites along Yonge Street in Vaughan and in Markham where there is consideration of hydro being undergrounded, but entirely at the developers' expense. The two cases are the Minto site at Yonge and Arnold (west side of Yonge in Vaughan) and Liberty's World on Yonge development (East side of Yonge in Markham).

The Minto site will be undergrounded due to zero setback to the lot line. As a result, the overhead hydro lines do not meet the required 3 metre clearance for safety. There is no feasible or safe alternative to relocate hydro and keep it overhead and therefore, PowerStream will be undergrounding the hydro lines, but entirely at the developer's cost.

In the case of Liberty's World on Yonge development, the developer has indicated a desire to underground hydro lines at their own cost for aesthetic purposes. They are currently negotiating with PowerStream to be able to accomplish this. We understand from the Region that the undergrounding may be difficult on this site due to insufficient space in the Region's boulevard. As this report was being completed, negotiations were still underway.

It should be noted that the Regional Official Plan as adopted by Council of the Regional Municipality of York on December 16, 2009, states that "it is the policy of Regional Council to require underground installation of utilities, where feasible, in new community areas and Regional Centres and Corridors, and to encourage buried utilities in the balance of the Region" (page 108 of the document). Hence, it is expected that the Region would facilitate such initiatives from developers who wish to pay the cost for undergrounding of utility lines along their developments.

7. SUMMARY:

Based on the following factors, staff does not recommend proceeding at this time with the Highway 7 Pilot Project (Town Centre Blvd to Sciberras):

- The Hwy 7 reconstruction project schedule would have to be delayed to 2013-2015 to allow re-design and construction of underground utilities
- There is no direction from PowerStream's Board to apply for a rate increase for undergrounding hydro
- The OEB takes up to one full year to rule on an application
- Markham has other unfunded projects which Council needs to prioritize for funding from the tax rate, gas tax and bonusing
- Markham's financial exposure is \$24 M for undergrounding utilities in this section of road

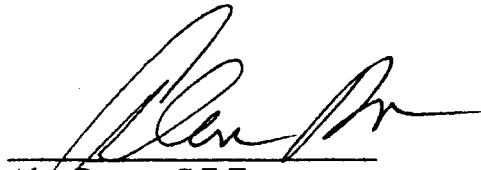
Staff recommends that, due to the importance of completing the Town Centre Blvd to Sciberras Road section, the project not be delayed any further and that PowerStream proceed

with overhead power and utility lines. Staff also recommends that York Region protect a corridor for future undergrounding if funding can be resolved.

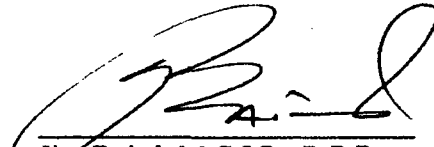
7. BUSINESS UNITS CONSULTED AND AFFECTED:

The Finance, Planning and Urban Design and Legal departments were consulted in preparing this report.

RECOMMENDED BY:



Alan Brown, C.E.T.
Director of Engineering



Jim Baird, M.C.I.P., R.P.P.
Commissioner, Development Services

ATTACHMENTS:

Attachment "A" – Excerpt of Council Committee of January 24, 2012

Attachment "B" – Power Line Clearances from Curb and Building Fronts

Attachment "C" – Funding Options Not Considered for Further Review



THE CORPORATION OF THE TOWN OF
MARKHAM

EXCERPT CONTAINING ITEM #006b OF THE COUNCIL COMMITTEE (January 24, 12)

(6) FEASIBILITY OF UNDERGROUNDING OF OVERHEAD HYDRO DISTRIBUTION SYSTEMS (5.0)

- 1) That the staff report entitled "Feasibility of Undergrounding of Overhead Hydro Distribution Systems" be received; and,
- 2) That Powerstream and the Region of York be requested to undertake with the Town of Markham, a pilot project for the undergrounding of power and utility lines in Markham Centre from the Rouge River west of Rodick Road to Sciberras Road along Highway 7 in 2012/2013; and,
- 3) That Powerstream be requested to include the Hwy 7 pilot project as part of their spring 2012 submission to the Ontario Energy Board for an 2013 rate increase to help finance the undergrounding of their overhead hydro lines; and further,
- 4) That staff report back on criteria as to which roads should have underground hydro lines, funding options and cost sharing formula for the pilot project.

CARRIED BY A RECORDED VOTE (9:4)

(See following recorded vote)

YEAS: Mayor Frank Scarpitti, Regional Councillor Jim Jones, Regional Councillor Gord Landon, Councillor Don Hamilton, Councillor Carolina Moretti, Councillor Colin Campbell, Councillor Alan Ho, Councillor Logan Kanapathi, Councillor Alex Chiu.

NAYS: Deputy Mayor Jack Heath, Regional Councillor Joe Li, Councillor Valerie Burke, Councillor Howard Shore. (4)

Council consented to add the words "...the Rouge River west of..." before the words "...Rodick Road...) in Resolution No. 2.

ATTACHMENT "C"

FUNDING OPTIONS NOT CONSIDERED FOR FURTHER REVIEW

The following options were considered by Staff but were not carried forward for additional consideration as they are not viable:

FUNDING MECHANISM	HOW IT WORKS	VIABILITY
PowerStream "Rate Rider"	A "rate rider" is an extra charge applied <u>only to adjoining (i.e. "benefitting") landowners</u> . The Town must enact a by-law requiring PowerStream to put all or part of relocated assets underground.	Not viable. The cost would be too high for the relatively small number of landowners who would benefit from the undergrounding. Also, the OEB would not approve unless there is a technical / safety reason for undergrounding.
Funding directly by PowerStream	PowerStream would pay 100% of the undergrounding costs but would not receive any reimbursement through rates. The cost would be borne by the shareholders through lower profits and lower dividends.	Not viable. PowerStream's Board will not approve 100% funding.
Funding through a Municipal Special Levy	Aimed at capturing the benefits that accrue to the adjoining landowners. Costs to be borne <u>only by adjoining (i.e. "benefitting") landowners</u> .	Not viable. Requires acceptance by adjoining landowners but the cost is too high for the relatively small number of landowners who would benefit.
Funding directly by YRRTC	YRRTC would relocate utilities underground rather than overhead and absorb the costs for doing so.	Not viable. YRRTC's budget does not contain sufficient funds to pay for underground relocation. The money allocated for transit is a "like-for-like" relocation with overhead power transmission lines to remain above ground.
Innovative funding options (ex: creating Community Improvement Area powers or Business Improvement Area powers through the Municipal Act and Planning Act)	The Municipal Act and the Planning Act allow the designation of a Business or Community Improvement Area for beautification purposes and then allow imposing a levy to recover the costs of beautification.	Not viable. Requires landowner acquiescence and the cost would be too high for too few benefitting landowners.
Cost-sharing Agreement between key stakeholders	All stakeholders, including those abutting the undergrounding would work out an agreement to pay the costs up front.	Would reduce the potential burden on any one stakeholder and reduce risk for any decision to proceed.

ATTACHMENT B

Power line clearances from curb and building fronts

