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Subject: **Annual Public Sector Network (PSN) Update**

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Recommendations:

That the report entitled Annual Public Sector Network (PSN) Update dated September 30th 2020 be received; and Financial Results for 2019 as outlined in Appendix I and PSN Proposed Budget for 2020 as outlined in Appendix II be approved with no impact to the overall City budget.

Overview:

- Since 1999, the City of Brampton has been in a partnership agreement with the Region of Peel, City of Mississauga and Town of Caledon for the development of a fibre optic network known as the Public Sector Network (PSN).
- The PSN now consists of 828 kilometres of fibre that connects 985 partner and subscriber facilities, to the benefit of each partner municipality, its citizens and businesses.
- Within the PSN Agreement, revenues are to be applied to offset shared costs for the operation and support of the network, and each partner is required to seek Council approval of the annual PSN operating and financial status reports
- The Reserve Fund balance at the end of 2019 stood at \$777,000 and is anticipated to reach \$827,000 by the end of 2020.
- The PSN steering committee will be investigating opportunities to reduce operating costs through Alternate Locate Agreements (ALA) and Shared Structure Agreements (SSA).

Background:

In June 1999, Council endorsed that the City of Brampton enter into a partnership known as the Public Sector Network (PSN) with the Region of Peel, the City of Mississauga and the Town of Caledon for the development of a fibre optic network. The key principle of the partnership is that each partner is responsible for construction of the fibre optic network within its municipal boundaries. However, spare fibre would be made available for use by the other member partners. The City of Brampton has 274 kilometres of fibre connecting 372 connection points to sites, Zum stations and traffic controllers across the city.

PSN Budget:

The Public Sector Network Agreement requires that each partner submits and obtains approval from its Council of an annual operating report update with the previous year's financial statement and the current year's budget forecast. The PSN Steering Committee decided that the report should first go to the Regional Council and then to the local municipalities of Brampton, Mississauga and Caledon. Region of Peel Council approved its annual PSN operating report on September 10th, 2020.

Appendix I of the subject report includes a Revenue and Expenditure statement for the year ending December 31st, 2019 with commentary on budget variances.

Appendix II of the subject report included the PSN Proposed Budget detailing the proposed allocation of revenues in 2020. In accordance with the PSN Partnership Agreement revenues received from PSN Subscribers are used to offset shared costs incurred for operation and support of the network thereby reducing the partners' cost of ownership.

Current Situation:

The following PSN construction and development activity demonstrates the value and success of the partnership that brings benefits to each municipality, citizens and businesses:

- The PSN now consists of 828 kilometres of fibre (almost 50,000 strand-kilometres), connecting 985 partner subscriber facilities.
- PSN activity during 2019 was focused on other activities, responding to externally imposed pressure as well as:
 - Added 2 new sites to the network, as well as a connection for Fire Dispatch backup site at Mississauga fire station 101.
 - Added 2 new traffic controllers as well as 2 Zum bus stations to the network.
 - 55 hand well/pole attachments defects completed
 - Zum Bovaird redundancy completed.

- Designing and building bypasses (alternate routes) for key sites along the Hurontario corridor, to minimize the risk of service disruptions resulting from the planned Hurontario LRT construction, to begin in 2020;
 - Working with Metrolinx and other affected utilities to plan alternatives to existing overhead GO Rail crossings, which will need to be replaced as part of the planned GO Rail electrification;
 - Working with Alectra to relocate PSN fibre from Alectra poles scheduled for replacement.
- Current partner connections include (969):
 - City of Brampton (372)
 - Region of Peel (188)
 - Peel Regional Police (22)
 - City of Mississauga (368)
 - Town of Caledon (19)
 - Subscriber connections within the Region (16)

PSN provides highly reliable service. During 2019, there were 14 incidents where fibre was damaged resulting from traffic incidents affecting overhead cable, damage caused by contractors digging (despite locate services) or animals chewing through the fibre. Incidents are generally repaired within a few hours. However, since most critical facilities have redundant connections, no loss of service was experienced in many cases.

The PSN continues to grow based on the additional needs of the Corporation, other partners and requests from existing or new subscribers. Staff from the Digital Innovation and Information Technology Division meet with counter parts in the Public Works Division regularly to ensure PSN development activities are aligned with the capital budget process, including new facility construction projects and infrastructure redundancy to limit exposure to communications failures resulting from network outages.

Alternate Locate Agreements

As indicated in the proposed budget and financial report, a significant and growing portion of the operating costs for the PSN network relate to the cost of locating underground PSN infrastructure. Since 2012, contractors and residents have been required to contact Ontario One Call (ON1Call), to obtain the location of underground infrastructure before initiating any excavation. Similarly, owners of underground infrastructure, such as PSN, are required to file maps showing the location of their infrastructure with ON1Call. When a contractor notifies ON1Call of their plans to dig, ON1Call notifies owners of infrastructure in the location of the planned work. Where necessary, infrastructure (facility) owners will request a field locate (paint marking on

the ground) showing the actual location of their infrastructure. Cost for these locates are the responsibility of the facility owner.

An Alternate Locate Agreement (ALA) is an agreement between a contractor and facility owner, outlining the terms and conditions under which the contractor can safely proceed without a field locate, when using a specific method of excavation. PSN has been approached by several contractors wishing to enter into ALA's with PSN. ALAs may be appropriate for excavation work that is deemed low risk to the infrastructure (i.e. hand digging, vacuum excavation, etc.). When the excavator contacts ON1Call using a special Contractor ID, the notification system will advise the excavator that traditional field locates will not be required pursuant to their ALA. As a legal agreement, an ALA includes a start date, term limit, expiration date, as well as clauses for termination, insurance and legal liability.

A template ALA is provided by ON1Call and should serve as the basis for any such agreement entered into by PSN. An ALA does not relieve the contractor of liability for any damage caused to PSN infrastructure. For PSN, the benefit of an ALA is avoiding the cost of unnecessary locates. For the contractor, it avoids delays in waiting for required locates to be completed. Since there are potential cost savings from entering into ALA's with certain contractors, it is recommended that the City of Brampton enter into such agreements, provided that they are in a form satisfactory to Legal Services. Since PSN is a partnership, it is understood that each PSN owner (or each owner with infrastructure in the area covered by the ALA) must execute each ALA on behalf of PSN, before the ALA can take effect.

Shared Structures Agreements

Given the limited number of positions available for telecommunications infrastructure on hydro poles or limited space within the roadway allowance, PSN has been approached, from time to time, with requests by other telecommunications carriers to be able to access PSN infrastructure. Such requests have typically been to allow the other carrier to attach (overlash) their fibre to existing steel messenger cable owned by PSN or to install their fibre in ducts or conduit owned by PSN. In a small number of situations, PSN has made similar requests of other carriers, where it may have been difficult or impossible for us to install our own fibre using our own infrastructure. Such situations, in which one carrier uses infrastructure owned by another, are not unusual in the industry. To address such situations, including the respective roles and responsibilities (i.e. if the shared infrastructure is damaged or needs to be replaced/moved), carriers have developed various forms of Shared Structures Agreements (SSA's).

Such agreements are typically balanced in responsibilities and liability between the infrastructure owner and the other party that is sharing it, since each party (e.g. PSN) may be the "owner" in one situation and the "user" in another. Although PSN has a number of such situations of shared infrastructure (both as owner and user), no formal agreements are yet in place. Since it would be in the interests of all parties for such situations to be documented within formal agreements, it is recommended that City of

Brampton enter in to such agreements, provided that they are in a form satisfactory to Legal Services. As with ALA's, it is understood that each PSN owner (or each owner with infrastructure covered by the SSA) must execute each SSA on behalf of PSN, before the SSA can take effect.

Corporate Implications:

Financial Implications: The recommendations in this report have no direct financial impact on the City of Brampton. Revenues received from PSN subscribers will be used to offset PSN shared operating costs, which would otherwise be borne by PSN partners. Surplus funds in the existing PSN Reserve Fund will be applied as determined by the PSN Steering Committee in accordance with the established agreement. In 2020 the network is estimated to increase the reserve fund by \$50,000 and end the year with a reserve fund balance of \$827,000.

Other Implications:

Risks associated with Alternate Locate Agreements appear to be minimal. With legal review, PSN will ensure that any such agreements do not relieve the contractor of liability, should PSN or other infrastructure be damaged during the work. On the other hand, failure to enter into such agreements means that PSN will not be able to take advantage of any cost savings that they might provide.

Risks associated with Shared Structures Agreements are that the roles and responsibilities will be clearly defined for situations where PSN is sharing infrastructure with another telecom carrier. For instance, the responsibility of the owner of the shared infrastructure (PSN or the carrier) will be clearly laid out in such agreements. Without such agreements in place, mutual responsibilities remain undefined, which presents an even greater risk. Without such agreements, PSN should avoid sharing infrastructure with other carriers, passing on any cost savings or other benefits that such sharing might provide.

Term of Council Priorities:

This report achieves the Strategic Plan priorities by building sufficient infrastructure to support growth

Conclusion:

The PSN remains an outstanding example of technological innovation and of the benefits derived by City residents through co-operation and partnership among municipalities within the Region of Peel and with the broader public sector in Peel. Access fees from subscribers to the network are now funding a substantial portion of the shared costs associated with network operations while providing a small surplus for future network operations. City staff continues to participate in this

partnership and the continued development of fibre infrastructure to meet the business requirements of the Corporation.

Appendices

Appendix I - Public Sector Network, Revenue and Expenditure Statement for 2019

Appendix II - Public Sector Network, Proposed 2020 Operating Budget

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Appendices:

1. PSN, Revenue and Expenditure Statement, Statement for 2019
2. PSN, Proposed 2020 Operating Budget

Appendix I

Public Sector Network (PSN) Update and Budget

Public Sector Network, Revenue and Expenditure Statement for 2019

Public Sector Network Revenue and Expenditure Statement For the Month Ended December 31, 2019			
	2019 Budget	2019 Actual	Variance Inc / (Dec)
Revenues from Operations			
Sheridan College	102,204	102,204	-
Trillium Health Centre	243,044	243,780	736
William Osler Health Centre	72,339	72,339	-
Total	417,587	418,323	736
Investment Income	20,000	24,518	4,518
Common Expenses			
Cable locate services	285,000	239,891	(45,110) ▶ (1)
One Call Services	18,000	15,064	(2,936)
Maintenance	5,000	63,551	58,551 ▶ (2)
Operational Costs	55,000	59,793	4,793
Contribution to Reserve Fund	50,000	36,304	(13,696) ▶ (3)
Other	4,587	3,721	(866)
Total Expenses	417,587	418,323	736
Surplus / <Deficit>	-	-	-
Reserve Fund			
Opening balance, Jan 1, 2019	\$ 716,021	\$ 716,021	0
Contribution from Operating account	\$ 50,000	\$ 36,304	(13,696)
Investment Income	\$ 20,000	\$ 24,518	4,518
Closing balance - Dec 31, 2019	\$ 786,021	\$ 776,843	\$ (9,178)
Notes:			
1. Locate volumes down 7% in 2019 after steady increases in preceding years			
2. More maintenance costs, resulting from regular PSN inspections, were able to be funded from shared revenues in 2019 (due to lower than budgeted locate costs).			
3. Funding a greater portion of maintenance costs reduced funds available for reserve contribution.			

Appendix II
Public Sector Network (PSN) Update and Budget
Public Sector Network, Proposed 2020 Operating Budget

Public Sector Network Proposed 2020 Budget					
	2020 Budget	2019 Budget	2019 Actual	Variance to 2019 Budget	
				\$	%
Revenues from Operations					
Sheridan College	102,204	102,204	102,204	-	0%
Trillium Health Centre	241,479	243,044	243,780	(1,565)	-1% (1)
William Osler Health Centre	78,527	72,339	72,339	6,188	9% (2)
Total	422,210	417,587	418,323	4,623	1%
Investment Income	20,000	20,000	24,518	-	0%
Common Expenses					
Cable locate services	285,000	285,000	239,891	-	0% (3)
One Call Services	15,000	18,000	15,064	(3,000)	-17%
Maintenance	24,000	5,000	63,551	19,000	380% (4)
Operational Costs	62,000	55,000	59,793	7,000	13%
Contribution to Reserve Fund	30,210	50,000	36,304	(19,790)	-40%
Other	6,000	4,587	3,721	1,413	31% (5)
Total Expenses	422,210	417,587	418,323	4,623	1%
Surplus / <Deficit>	-	-	-		
Reserve Fund					
Opening balance, January 1st	\$ 776,843	\$ 716,021	\$ 716,021		
Contribution from Operating account	\$ 30,210	\$ 50,000	\$ 36,304		
Investment Income	\$ 20,000	\$ 20,000	\$ 24,518		
Closing balance - December 31st	\$ 827,053	\$ 786,021	\$ 776,843		
Notes:					
1 Deletion of one link to 71 King Street in 2019					
2. New Link to 135 McLaughlin, scheduled for implementation in June 2020					
3. Locate costs down 7% in 2019, but up 48% in 2020 year-to-date; 2019 may have been an anomaly					
4. Provision for some additional coverage of maintenance costs, subject to available funds					
5. Additional Legal Support may be required to review Alternate Locate and Shared Structures Agreements					