

APPENDIX

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UTILITY CONFLICTS REPORT





MEMO

TO: Mr. Mario Goolsarran, P.Eng.
FROM: Ahmad Shah
SUBJECT: Utility Conflict Report, Brampton Lagerfeld Drive Extension
DATE: October 29, 2020

The City of Brampton is undertaking a Municipal Class Environmental Assessment Study to facilitate the continuation of the existing Mount Pleasant GO Station access road (Lagerfeld Drive) to lands west of Mississauga Road.

WSP has contacted the utilities agencies to obtain information pertaining to their existing plant, as well as future requirements, within and adjacent to the study area between Mount Pleasant GO Station and Heritage Road, bounded by Bovaird Drive West and the CN Rail.

Utility companies were contacted at the commencement of the study and again in June 2019 with updated preliminary preferred roadway design. WSP has received markup drawings from Telus, Bell, Rogers, Enbridge, Alectra (formerly HydroOne Brampton) and Peel Region Infrastructure. Based on a preliminary review, relocation or protection of various utilities will be required as per Table 1 below. The plan for the combined utilities allocation overlaying over the preferred alignment is shown in Figure 1 to Figure 3.

The proposed preferred alignment extends from the built cul-de-sac west of Creditview Road, across an open field, intersecting with Mississauga Road and continues to another open field west of Mississauga Road. According to the utilities information received, there is no facilities proposed for the open fields both east and west of Mississauga Road. The major utilities impacts will be at the access road and at Mississauga Road intersection.



Table 1 Lagerfeld Drive Utilities

Utility	Plant
Telus	Telus has cable in 360GT’s leased ducts and vaults, close to the proposed route or area, along railway tracks. Please refer to 360GT’s drawings. Facilities does not affect proposed roadway corridor.
Bell	There is existing underground Bell plant on both sides of Lagerfeld Drive in the boulevard up to the west end of the existing cul-de-sac. There is also existing Bell plant along Mississauga Road at the west side. Relocation of the Bell facilities are not expected.
Rogers	Rogers has existing buried fibre cable along the east side of Creditview Road, along the south side of the CN Rail corridor and cable along east side of Mississauga Road from 40m south of the cable at CN Rail corridor extending northerly. Existing aerial fibre cable is found along the east side of Mississauga Road where Lagerfeld Drive intersects. There are no existing Rogers facilities along the proposed Lagerfeld Drive extension. Relocation of the Rogers facilities are not expected.
Enbridge	There is existing Enbridge gas line running along west side of Mississauga Road at the intersection of Lagerfeld Drive extension. Relocation of the Enbridge facilities are not expected.
Alectra	Alectra has a project that is set to go this year along Mississauga Road in the area where Lagerfeld Drive extension will meet. The only Alectra conflicts identified on the Lagerfeld Drive extension is at the intersection of Mississauga Road and Lagerfeld Drive. Alectra does not have any overhead or underground plant within the balance of the Lagerfeld Drive proposed extension therefore an easement will not be required as Alectra has already taken care of the conflict area by planning the pole placement accordingly and therefore no relocation design will be necessary in the future.
TransCanada Pipeline (TCPL)	Refer to the attached letter from MHBC, an authorized Commenting Agency for TransCanada, in Appendix A.
Peel Region Infrastructure	<ul style="list-style-type: none"> • Watermain and Sanitary works are planned in the budget for 2022 along Lagerfeld Dr but the work can be scheduled to another year to align with the road construction. • The retaining wall for the bridge will end very close to the existing 375mm Sanitary (Wastewater Main ID SMH6556323-SMH6556295). Need detailed assessment of impacts and whether it would need to be moved. • The eastern side of the project will cross our 375mm sewer segments, and the intersection at Mississauga Road will cross a 1200mm trunk encased in a 2400mm tunnel. • The Mississauga Road crossing will cross over a 1200 and 750mm transmission mains. • Peel Region has easement rights over the sewer that will be impacted. Perhaps this has implications for any cost sharing agreement if the infrastructure needs to be moved.

As shown in Figure 1, at the cul-de-sac west of Creditview Road, there are existing Bell conduit, Alectra buried power line, watermain and sanitary sewer. There do not seem to be any conflict observed. Continuation of the existing facilities along the proposed Lagerfeld Drive extension is expected and coordination with agencies will be necessary to ensure these facilities are installed in a most timely manner and meet requirements for both the City and the utilities agencies. The sanitary sewer main line may need to be relocated west of the cul-de-sac to better follow the proposed alignment of Lagerfeld Drive.

As shown in Figure 2, at Mississauga Road intersection, existing utilities include Alectra power lines and hydro poles along both sides of Mississauga Road, buried Bell conduit, Enbridge gas line, sanitary sewer and watermain pipeline along the west side of Mississauga Road. Coordination has been done with Alectra to make sure that during Mississauga Road widening construction, utilities facilities such as hydro poles should be positioned so that they will not be impacted at the time when Lagerfeld Drive extension/Mississauga Road intersection is to be built. The proposed alignment will impact the existing watermain pipeline and the Bell conduit that lies across the intersection, on the west side of Mississauga Road. Verification to ensure sufficient coverage over the pipeline and the conduit will be done at detail design. Future extension of Lagerfeld Drive should be kept in mind if this watermain is to be relocated during the Mississauga Road widening construction.

As shown in Figure 3, there are a TransCanada Pipeline (TCPL) and an Alectra electrical line running diagonally through Lagerfeld Drive at approximate Station 81+412. Coordination with TCPL will be crucial as there are standards for the minimum offset from the buried pipeline. Vertical clearance will have to be observed and proposed road profile at the area may need to be refined when necessary during detail design.

From the assessment above, relocation of existing utilities may be required and coordination with Peel Region and utilities agencies will be needed, especially when utilities are being relocated for Mississauga Road widening so the future Lagerfeld Drive extension will not be impacting the already relocated utilities.

In the past, utilities have been accepted within structures. However, recently it is not recommended due to significant cost associated with maintenance. Utility agencies should be advised that they cannot take their utilities through the bridges. They will have to make alternate routes and advise City.

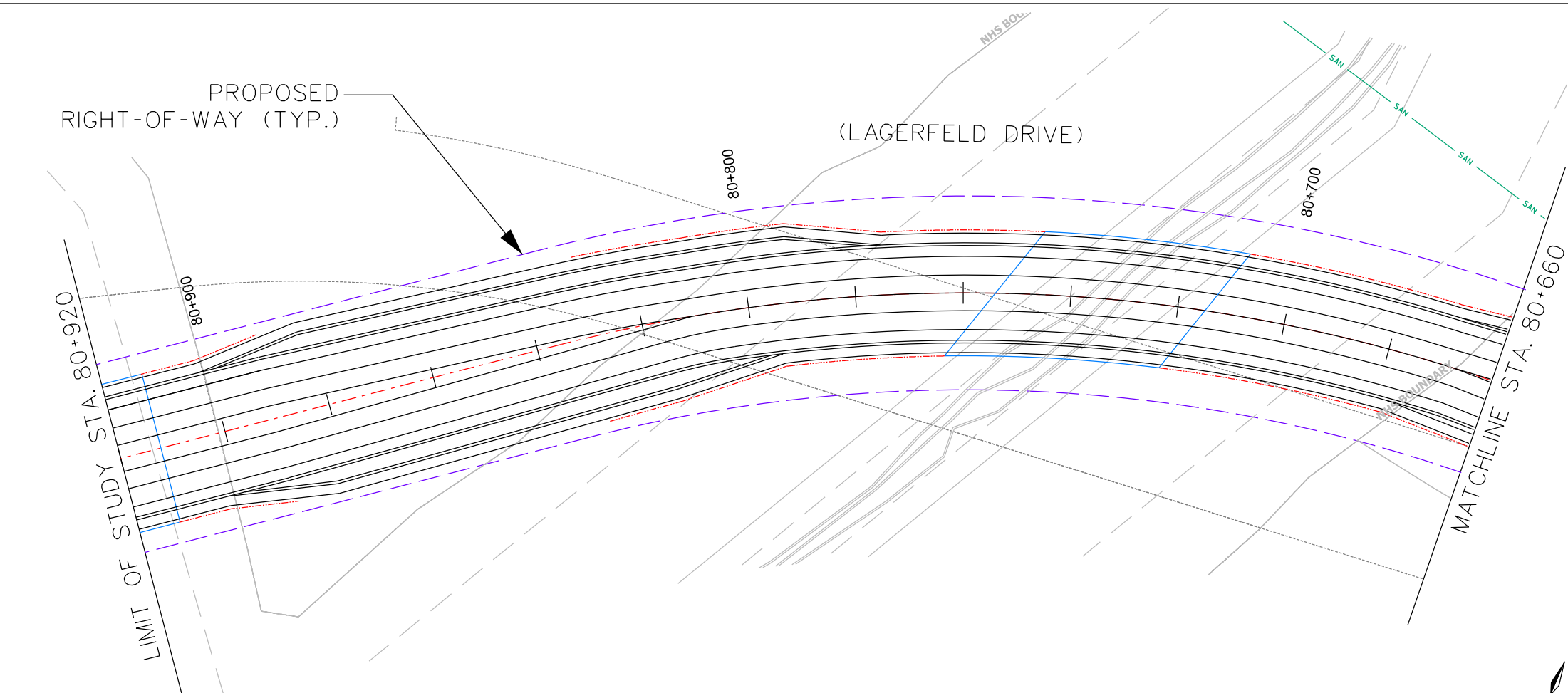


Ahmad Shah
Civil Engineer

Incl.

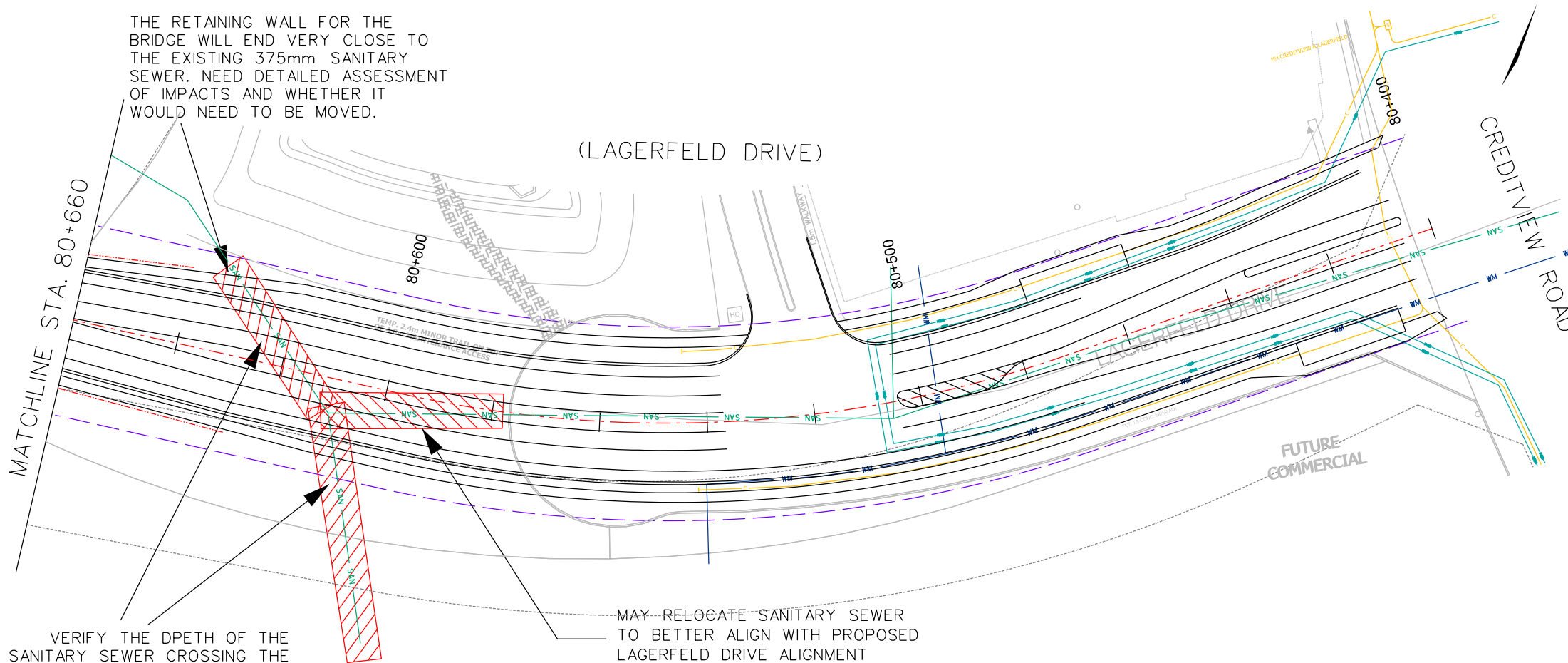
PROPOSED
RIGHT-OF-WAY (TYP.)

(LAGERFELD DRIVE)



THE RETAINING WALL FOR THE
BRIDGE WILL END VERY CLOSE TO
THE EXISTING 375mm SANITARY
SEWER. NEED DETAILED ASSESSMENT
OF IMPACTS AND WHETHER IT
WOULD NEED TO BE MOVED.

(LAGERFELD DRIVE)



VERIFY THE DPETH OF THE
SANITARY SEWER CROSSING THE
PROPOSED ROADWAY TO ENSURE
IT IS BELOW THE PAVEMENT
STURCTURE AND HAS SUFFICIENT
COVER BELOW THE PAVEMENT

MAY RELOCATE SANITARY SEWER
TO BETTER ALIGN WITH PROPOSED
LAGERFELD DRIVE ALIGNMENT

LEGEND:

	ALECTRA		BRIDGE RETAINING WALL
	Alectra_Civil		
	Alectra_Electrical		
	Alectra_Electrical		
	Alectra_Electrical		
	BELL CONDUIT		
	GAS PIPELINE		
	SANITARY SEWER		
	WATERMAIN		
	UTILITIES IMPACT		

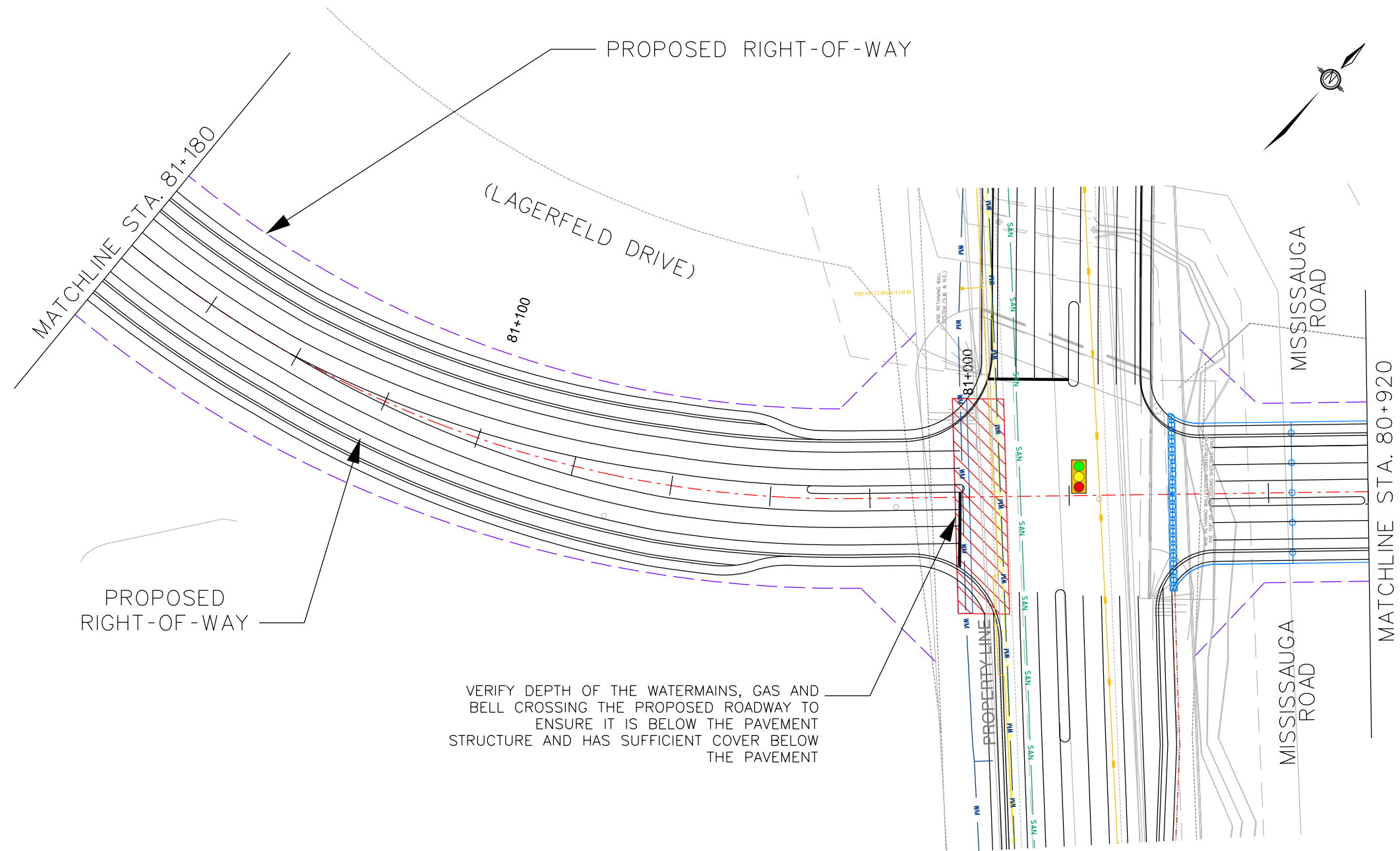
60m 50m 40m 30m 20m 10m 0m 5m 10m				
NO.	BY	DATE	REVISIONS	CHECKED

 BRAMPTON Flower City Planning and Infrastructure Services Public Works	

**BRAMPTON EAST-WEST CONNECTION
MOUNT PLEASANT GO STATION EA
ALTERNATIVE DESIGN CONCEPTS**

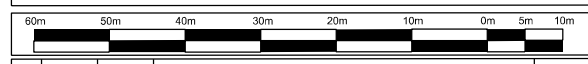
UTILITIES CONFLICT PLAN 1

SURVEYED BY: xxxxxx	DATE: AUG 09, 2016	FILE NO. xxxxxx
DRAWN BY: VM	CHECKED BY: DN	DRAWING NO.
DESIGNED BY: xxxxxx	CHECKED BY: xxxxxx	FIGURE 1
SCALE: 1:1000	DATE: OCT 05, 2018	SHEET NO.



LEGEND:

	ALECTRA		BRIDGE RETAINING WALL
	Alectra_Civil		
	Alectra_Electrical		
	Alectra_Electrical		
	Alectra_Electrical		
	BELL CONDUIT		
	GAS PIPELINE		
	SANITARY SEWER		
	WATERMAIN		
	UTILITIES IMPACT		



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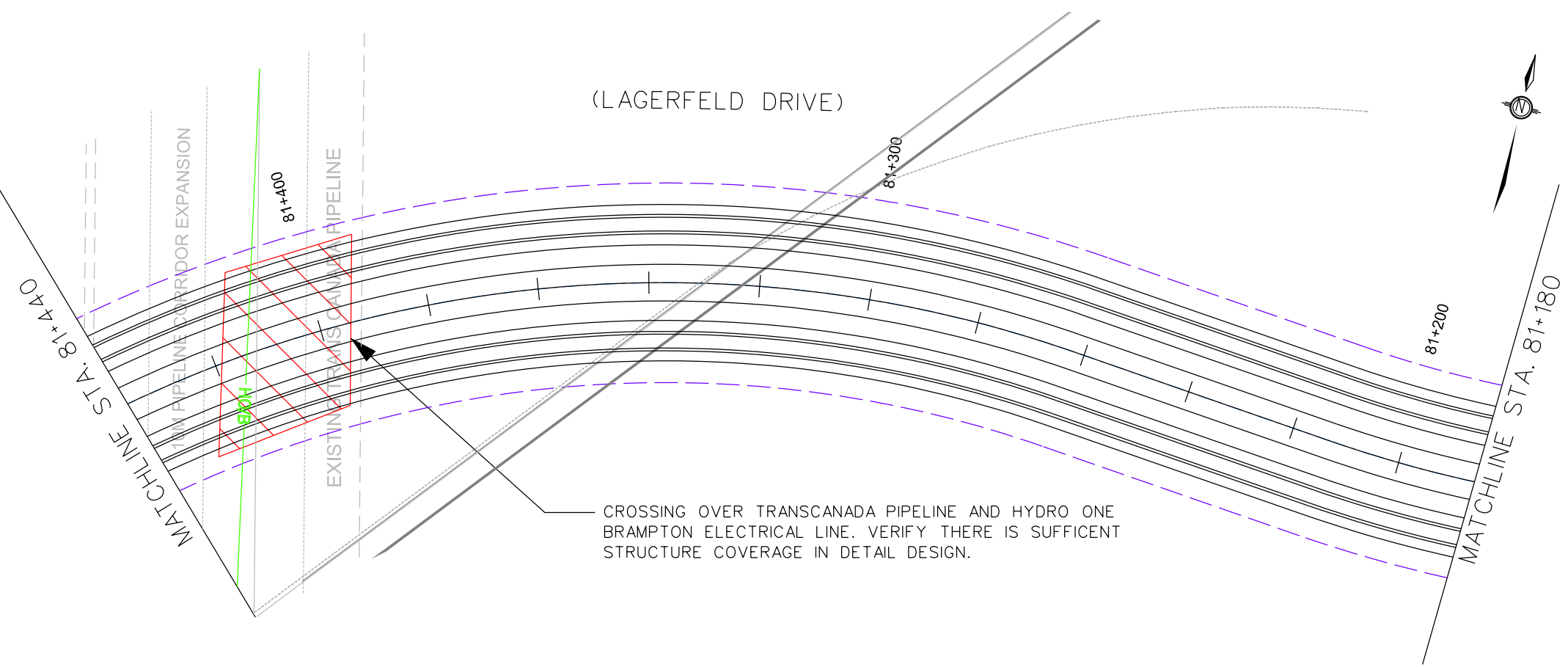
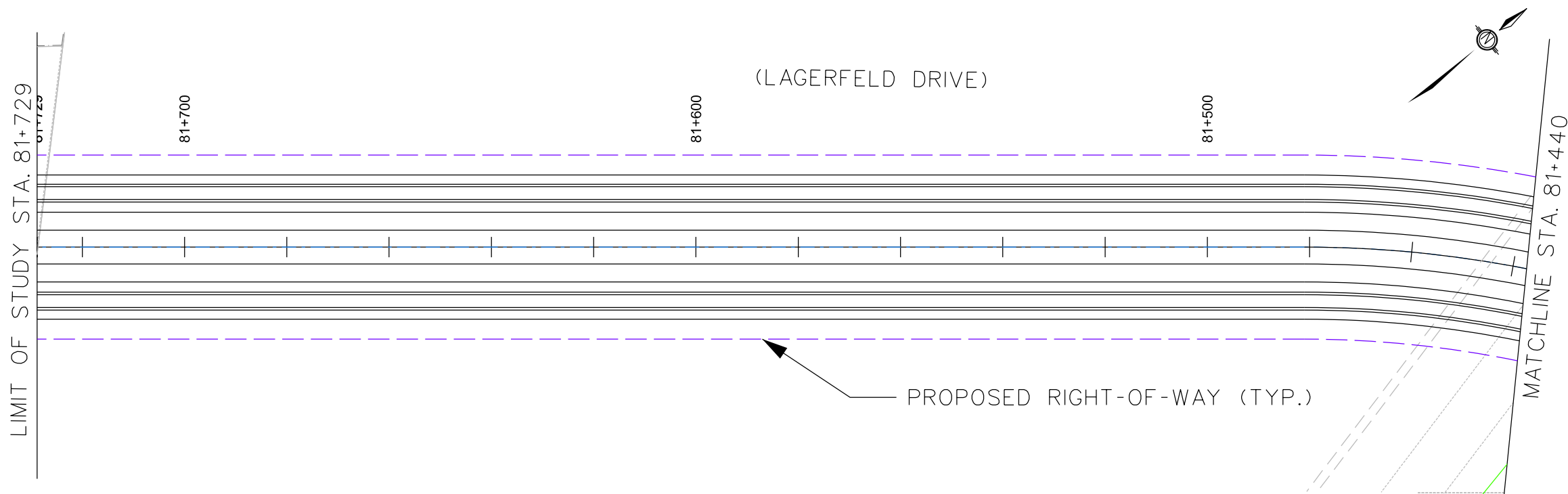
<p>BRAMPTON Flower City</p>	

PROJECT	DWG. NO.
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**BRAMPTON EAST-WEST CONNECTION
MOUNT PLEASANT GO STATION EA
ALTERNATIVE DESIGN CONCEPTS**

UTILITIES CONFLICT PLAN 2

SURVEYED BY: xxxxxx	DATE: AUG 09, 2016	FILE NO. xxxxxx
DRAWN BY: VM	CHECKED BY: DN	DRAWING NO.
DESIGNED BY: xxxxxx	CHECKED BY: xxxxxx	FIGURE 2
SCALE: h 1:1000	DATE: OCT 05, 2018	SHEET NO.



LEGEND:

- ALECTRA
- Alectra_Civil
- Alectra_Electrical
- Alectra_Electrical
- Alectra_Electrical
- Alectra_Electrical
- BELL CONDUIT
- GAS PIPELINE
- SANITARY SEWER
- WATERMAIN

NO.	BY	DATE	REVISIONS	CHECKED

BRAMPTON
Flower City

Planning and
Infrastructure Services

Public Works

PROJECT	DWG. NO.
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**BRAMPTON EAST-WEST CONNECTION
MOUNT PLEASANT GO STATION EA
ALTERNATIVE DESIGN CONCEPTS**

UTILITIES CONFLICT PLAN 3

SURVEYED BY: xxxxxx	DATE: AUG 09, 2016	FILE NO. xxxxxx
DRAWN BY: VM	CHECKED BY: DN	DRAWING NO.
DESIGNED BY: xxxxxx	CHECKED BY: xxxxxx	FIGURE 3
SCALE: h 1:1000	DATE: OCT 05, 2018	SHEET NO.

APPENDIX A

MHBC Letter, July 5- 2018
An authorized Commenting Agency for TransCanada

July 5th, 2018

Mr. Andrew Roberts, M.A.Sc.
Team Leader, Approvals and Permitting
WSP
100 Commerce Valley Drive West
Thornhill, ON
L3T 0A1

Via email: Andrew.roberts@wsp.com

Dear Andrew:

**Re: City of Brampton East-West Connection Mount Pleasant GO Station to West of Mississauga Road Municipal Class Environmental Assessment Study
Our File No. PAR 38898**

Further to my email dated June 8th, following is a summary of the information provided with additional comments for inclusion in the Environmental Assessment (EA).

As you know, TransCanada PipeLines Limited ("TransCanada") has two high pressure natural gas pipelines crossing the study area. TransCanada's pipeline is subject to the jurisdiction of the National Energy Board ("NEB"). As such, certain activities must comply with the National Energy Board Act (the "Act") and the National Energy Board Damage Prevention Regulations (the "Regulations"). The Act and the Regulations noted can be accessed from the NEB's website at www.neb-one.gc.ca.

Please be advised of the following TransCanada and National Energy Board requirements for activities in proximity to the pipelines:

1. Written consent must be obtained from TransCanada prior to undertaking the following activities:
 - a. constructing or installing a facility across, on, along or under a TransCanada pipeline right-of-way.
 - b. conducting a ground disturbance (excavation or digging) on TransCanada's pipeline right-of-way or within 30 meters of the centreline of TransCanada's pipe (the "Prescribed Area");
 - c. driving a vehicle, mobile equipment or machinery across a TransCanada pipeline right-of-way outside the travelled portion of a highway or public road; and
 - d. using any explosives within 300 meters of TransCanada's pipeline right-of-way.

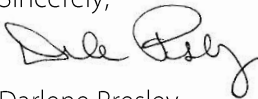
2. The following provides design guidance for crossings. While exceptions might be made once an assessment has been completed, adhering to the guidance will assist in efforts to process applications expeditiously.

General Requirements

- The crossing shall occur as close as possible to 90 degrees.
 - The crossing shall not occur at a bend in a TransCanada pipeline.
4. General Conditions for Crossings of TransCanada Pipelines by Highways, Private Roads, and Railways
 - A highway or private road shall be constructed so that the travelled surface is no less than 1.5 meters above the top of the pipeline.
 - The bottom of the ditches adjacent to roads should not be less than 1.4 meters above the top of the pipeline.
 - Minimum cover for railway crossings (below base of rail) is 3.05 meters for uncased pipe.
 5. Following is a link to TransCanada's website for additional information on crossings:
<https://www.transcanada.com/en/commitment/safety/working-safely-around-pipelines>
 6. Pipeline remediation and protection work may be required at the crossing location. Pipeline remediation and protection work usually requires 2 years lead time to complete and is reimbursable to TransCanada. As such, TransCanada suggests that detailed designs are developed and submitted a minimum of 2 years in advance of any work taking place.

Thank you for the opportunity to comment. Kindly forward notice of the EA completion to the undersigned by mail or by email to dpresley@mhbcpplan.com. If you have any questions, please do not hesitate to contact our office.

Sincerely,



Darlene Presley,
Planning Co-ordinator
on behalf of TransCanada PipeLines Limited

TC Energy
450 - 1 Street S.W. Calgary, AB
Canada, T2P 5H1
Tel: 587-933-3882
Geoff_Kneller@tcenergy.com



November 5, 2020

Mario Goolsaran P.Eng PMP
Public Works & Engineering, City of Brampton
1975 Williams Parkway
Brampton, ON, L6S 6E5

Dear Mr. Goolsaran,

Thank-you for engaging TC Energy as an impacted stakeholder with respect to the Environmental Assessment for the proposed extension of Lagerfeld Drive. TC Energy maintains two natural gas pipelines (one 36-inch and one 42-inch) (the TransCanada Pipeline, or TCPL) within rights-of-way through the study area, and we lease a portion of the right-of-way to Enbridge for a pipeline that is part of their system.

TC Energy strongly recommends that early, accurate survey locations and depths of cover be obtained in the field by hydro-vac for all pipelines identified in the Environmental Assessment study area. At a minimum, this should be done at the proposed locations for intersections and crossings. Pipeline locations should be shared with the City and landowners' group for their awareness and planning purposes. Survey-quality information regarding the pipeline locations and depth of cover will be a key design factor throughout the study area where interactions with the pipelines and the proposed Lagerfeld Drive extension are planned.

TC Energy also recommends that the Environmental Assessment consider all of the proposed infrastructure in the surrounding community that interacts with the proposed Lagerfeld Drive extension. Versions of the layout of the surrounding community have been circulated to TC that include additional road crossings, a stormwater management facility east of our right-of-way, and crossings for servicing. A complete understanding of the proposed crossings of the pipelines cannot be completed without incorporating all proposed intersections and crossings into the assessment and completing a full appraisal of how the proposed crossings interact with three large-diameter natural gas pipelines within the pipeline rights-of-way.

Regarding the crossing of the proposed extension of Lagerfeld Drive crossing the pipelines, TC Energy offers the following comments:

- a. All structures such as curbs and gutters that are not part of the perpendicular road surface, street lighting, catch-basins, manholes and retaining walls, must be set back a minimum of 7 meters from the edge of the pipeline rights-of-way.
- b. TC energy will not accept grading within the right-of-way outside of crossings. Grading design should be planned such that the depth of cover over the pipeline will be maintained at current levels.
- c. On the topic of stormwater management, TC Energy is assuming from the diagram shown at our October 29, 2020 meeting that the extension of Lagerfeld Drive will not require stormwater to cross the right-of-way. Major system flows of stormwater, including those carried by the proposed extension of Lagerfeld Drive, must be designed so as not to spill into the rights-of-way at the crossings. All drainage of the proposed extension should be directed away from the pipeline rights-of-way.

- d. Depending on the outcome of a preliminary review of the crossing design, it is possible that an engineering assessment, involving excavation and inspection, of the pipeline prior to construction will be required in order that TC Energy comply with CSA requirements, specifically Section 10.8.1 of CSA-Z662. If so, TC Energy will be required by the Canada Energy Regulator to prepare a detailed engineering analysis of all loads expected during construction and operation of the crossing and will provide designs for appropriate mitigation. The cost of this engineering assessment, analysis and design work, and the costs of any required mitigation, if incurred will be 100% the responsibility of the proponents. Recent examples of the cost of an engineering assessment have been in the range of \$2-million to \$4-million dollars.
- e. A key factor in determining the need for an engineering assessment at the cost of the proponents will be the proximity of other crossings to the crossing of Lagerfeld Drive, specifically:
 1. Intersections of proposed local roads east and west of the right-of-way with Lagerfeld Drive;
 2. A proposed crossing of a local road north of Lagerfeld Drive
 3. The crossing of Huttonville Creek;
 4. A potential crossing of a storm sewer to a stormwater management facility proposed east of the right-of-way;
 5. The crossing of the CN Rail north of Lagerfeld Drive;
 6. A crossing of Bovaird Drive currently in preliminary engineering as planned by the Region of Peel; and,
 7. A crossing of Mississauga Road incorporating significant grading currently in detailed engineering as planned by the Region of Peel.

Each of these crossings considered in isolation would not typically require an engineering assessment; however, the number of crossings considered together within a relatively small area proposed along Lagerfeld Drive together with the design of the surrounding community will potentially alter TC Energy's ability to adequately access, maintain or manage the associated risk to the pipelines, thereby impacting whether crossings can be permitted.

A solution that TC encourages the City of Brampton to consider would be to work through the block planning process to reduce the intensity of proposed development in the area east of the pipelines. If infrastructure such as lots, local roads, and a stormwater management facility can be removed in the area between the pipeline rights-of-way and Huttonville Creek, this would simplify the surrounding infrastructure significantly and provide TC Energy with better assurance that it will be able to achieve ongoing access to maintain the pipelines and reduce any associated risk to the pipelines. To assist with planning around the pipeline rights-of-way, TC Energy requests that we be included in all stakeholder engagement regarding proposed developments in the area surrounding the proposed Lagerfeld Drive extension.

The following requirements from the *Canadian Energy Regulator Act* (the Act) and the *Canadian Energy Regulator Pipeline Damage Prevention Regulations – Authorizations* (the DPRs) should be considered well in advance of any construction of the proposed extension of Lagerfeld Drive. Pursuant to Section 335 of the Act and the DPRs, written consent from TC Energy must be obtained with respect to any of the following:

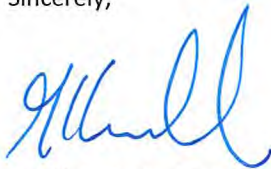
- Constructing or installing a facility across, on, along or under a pipeline, which includes anywhere within the pipeline right-of-way arising from the definition of "Pipeline" in the Act, which includes the associated real property;
- Conducting any ground disturbance (most commonly excavation or digging) within the Prescribed Area which is measured 30 meters perpendicularly from the center of each pipe;
- Operating a vehicle or piece of mobile equipment or machinery, outside the travelled portion of a highway or public road, across, on, or along a pipeline, which includes anywhere in the pipeline right-of-way given the definition of "Pipeline" in the Act, which includes the associated real property;

- Use of the Prescribed Area or the pipeline right-of-way for storage purposes.

TC Energy also requests that no blasting activities occur within 300 meters from the pipeline. More information on safe digging and how to apply for written consent are available on our website at: <https://www.tcenergy.com>.

We trust that these comments are helpful in formulating the Environmental Assessment of the proposed extension of Lagerfeld Drive. In closing, we understand that variations of the proposed designs may change the interaction with our facilities and our guidance in that regard. The goal of our Integrated Land-use Management service is to assist all parties to optimize the proposed design, resolve issues related to the pipelines, and minimize the costs and timeframes that may be required to facilitate development. We continue to offer to work collaboratively with the municipalities, the developers and their consultants in the Lagerfeld Drive extension study area.

Sincerely,



Geoffrey R. Kneller CD P.Eng MBA
Senior Engineer, Right-of-Way Management
Canada Gas Engineering

