



DECISION

File No. OF-Fac-Oil-T260-2013-03 19
16 April 2018

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Dear Mr. Smith, Mr. Stoness, and Mr. Denstedt:

**Trans Mountain Pipeline ULC (Trans Mountain)
Trans Mountain Expansion Project - Certificate OC-064
Decision for Detailed Route Hearing MH-046-2017
Underhill Lands Ltd. (Underhill)**

1. Background

On 19 May 2016, the National Energy Board (NEB or Board) issued its Report recommending that Governor in Council (GIC) approve the Trans Mountain Expansion Project (TMEP), subject to 157 conditions ([A77045](#)).

The TMEP included twinning the existing 1,147 kilometre long Trans Mountain Pipeline (TMPL) system in Alberta (AB) and British Columbia (BC) with approximately 981 kilometres of new buried pipeline; new and modified facilities, such as pump stations; additional tanker loading facilities at the Westridge Marine Terminal in Burnaby; and reactivating 193 kilometres of existing pipeline between Edmonton and Burnaby. Trans Mountain requested approval of a 150-metre-wide corridor for the TMEP pipeline's general route.

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On 29 November 2016, GIC directed the Board to issue the Certificate of Public Convenience and Necessity (Certificate) OC-064 ([A80871](#)), the effect of which was to approve the TMEP, including the proposed 150-metre-wide corridor.

On 3 and 17 March 2017, Trans Mountain applied to the Board for Segment 7 of its TMEP detailed route, submitting the Plan, Profile, and Book of Reference (PPBoR). Under section 34 of the *National Energy Board Act* (NEB Act), Trans Mountain made available for public viewing copies of its PPBoR, served notices on owners of lands proposed to be acquired for the proposed detailed route¹, and published notices in newspapers in the vicinity of the proposed detailed route².

In all detailed route hearings, the Board considers the following issues³:

- 1) the best possible detailed route of the pipeline;
- 2) the most appropriate method of constructing the pipeline; and
- 3) the most appropriate timing of constructing the pipeline.

In its 4 October 2017 Letter of Decision ([A86548](#)), the Board stated that it would not consider the issue of compensation to be paid to landowners as that matter is not within its jurisdiction.

2. Detailed Route Hearing MH-046-2017

Underhill Lands Ltd. (Underhill) is the registered owner of lands located at 2999 Underhill Ave. Burnaby, BC. Trans Mountain identified these lands as Tract 7754, and the property is shown on PPBoR M002-PM03028-004. Trans Mountain proposes crossing these lands with the TMEP pipeline in Segment 7 (see Figure 1 and Appendix I).

Underhill filed a statement of opposition on 27 April 2017 ([A82949](#)). The Board granted Underhill a detailed route hearing and issued a Hearing Order on 4 October 2017 which assigned Underhill hearing number MH-046-2017 ([A86549](#)).

The oral portion of the detailed route hearing was held on 22 January 2018 in Burnaby, BC. Trans Mountain presented a panel of witnesses for cross-examination. Both Trans Mountain and Underhill presented witness panels, who were cross-examined by the respective parties and questioned by the Board.

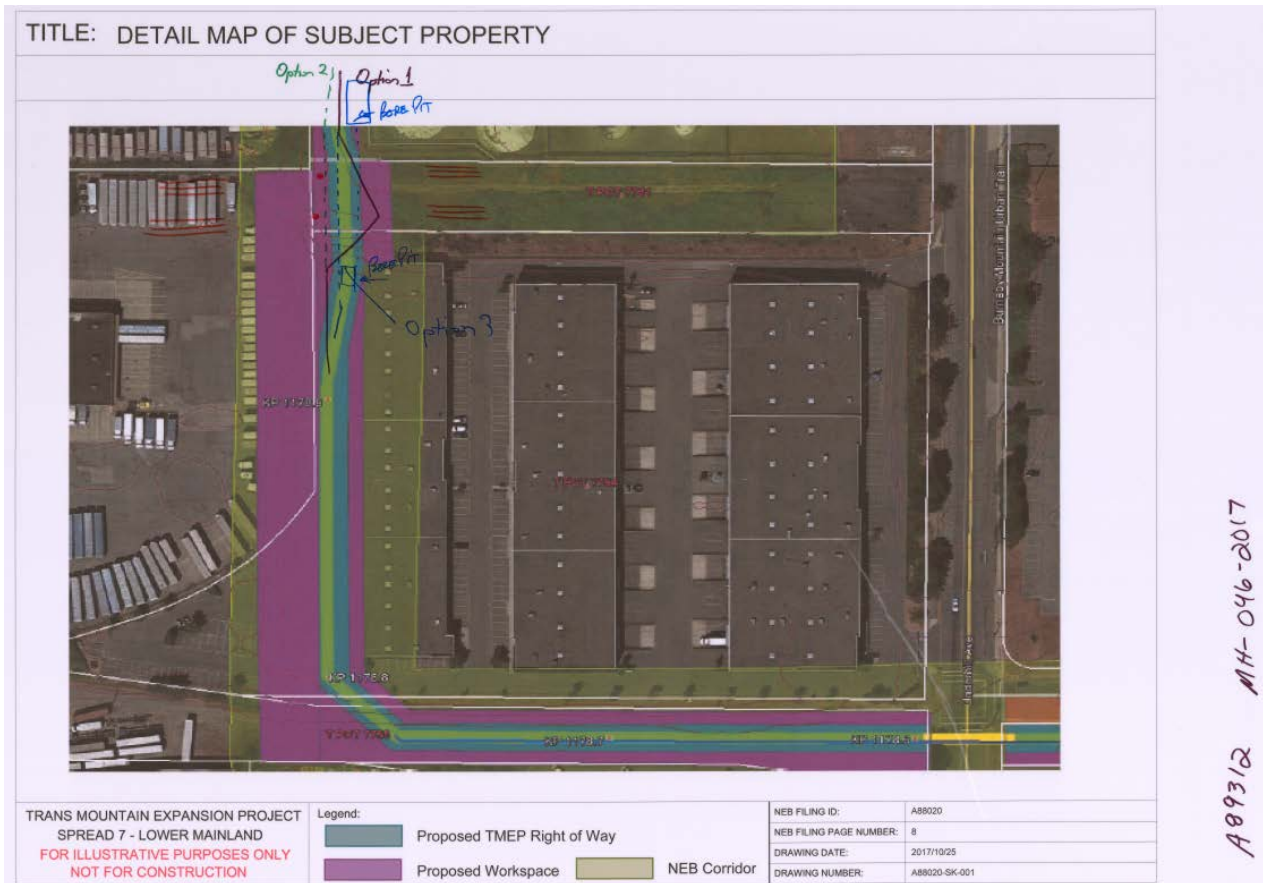
Regarding current land use, Underhill indicated that the property contains several commercial businesses with numerous tenants who regularly require access to loading bays. Underhill raised concerns regarding current routing at the northern part of Tract 7754 (the Applied-For Route), where the pipeline would run closer to the Underhill building than at other points. Specific concerns raised by Underhill were with respect to the potential impact of construction on the structural integrity of the building; access to emergency fire exits during construction, and access to loading bays for tenants during construction.

¹ As required by paragraph 34(1)(a) of the NEB Act.

² As required by paragraph 34(1)(b) of the NEB Act.

³ As set out in subsection 36(1) of the NEB Act.

Figure 1 – Map of Underhill Lands Ltd.’s Property⁴



2.1. Proposed Detailed Route

2.1.1. Trans Mountain’s Routing Criteria

In selecting its 150-metre-wide corridor and the detailed route, Trans Mountain submitted that it established a hierarchy of routing principles. Trans Mountain stated that the Applied-For Route in this section follows the back of a number of industrial properties and utilizes lands owned by Shell Canada, in accordance with these routing principles.

Trans Mountain submitted that it had been engaging landowners in its routing discussions since 2012 and used feedback received to optimize the location of the TMEP route. It also stated that the width of the approved corridor provided flexibility for minor route adjustments including those informed by landowner input. With respect to consultation with Underhill, Trans Mountain

⁴ The map in Figure 1 was originally filed by Trans Mountain as part of its evidence for detailed route hearing MH-046-2017 ([A89011-22](#)). It was used and marked during the hearing and subsequently entered as an exhibit on the record ([A89312](#)).

stated that it had been in communication since 2013 and its last meeting had been approximately two weeks before the oral hearing. Underhill did not dispute that it had been consulted.

2.1.2. Proposed Detailed Route and Underhill Property

As shown in Figure 1 and Appendices I and II, the Applied-For Route crosses through Underhill's property between Kilometre Post (KP) 1178.90 and KP 1179.30, where the specific alignment is located next to existing property boundaries, where possible.

The Applied-For Route runs west along Eastlake Drive and crosses Underhill Avenue before turning north at a ninety degree angle to follow the western exterior wall at the back of one of the Underhill-owned buildings. At this location, the route runs in between two industrial properties, rather than following a road or highway. The only concerns raised by Underhill related to the northern-western portion of one of its buildings, near KP 1179, where the Applied-For Route is proposed to run closer than at other points.

2.2. Location of the Route and Methods of Construction⁵

2.2.1. Structural Integrity

Views of Underhill

In its statement of opposition, Underhill expressed concern that the Applied-For Route adjacent to and in line with the exterior wall of its building could compromise the integrity of one of the structures. Underhill stated that excavation for the pipeline would undermine the building footing and compromise the structural integrity of one of the existing buildings.

Views of Trans Mountain

Trans Mountain explained that route selection in this area was complicated by the presence of two BC Hydro power poles located in the alleyway at the rear of Underhill's property, which the pipeline must avoid. However, Trans Mountain acknowledged Underhill's concerns regarding the structural integrity of one of its buildings and said it will address these concerns by preparing an excavation plan, including shoring for work close to the Underhill buildings. Trans Mountain indicated that shoring was a common and proven technique in urban areas to prevent the potential for undermining infrastructure and buildings. Trans Mountain also committed to having a geotechnical engineer design the excavation plan to ensure construction activities do not impact the structural integrity of the Underhill building. Trans Mountain also said that vibration monitoring, if required, would be part of that excavation plan.

Trans Mountain said that it reviewed and seriously considered Underhill's opposition and remains of the view that the Applied-For Route is the best possible route. Trans Mountain said

⁵ The Board notes that location of the route and methods of construction overlap to some degree; however all issues raised by Underhill are relevant in this hearing.

owing to its proposed construction methods, it is confident that the pipeline can be constructed without impacting the integrity of the building, and noted that large buildings are built next to each other all the time.

Response of Underhill at the Oral Hearing

At the oral hearing, Underhill was asked if it was satisfied with Trans Mountain's commitment to use a structural engineer to ensure the excavation would not impact the structural integrity of its building, if the Applied-For Route is approved. Underhill stated that, subject to seeing the details, this would potentially resolve their concern regarding structural integrity.

2.2.2. Building Access for Commercial and Emergency Use

Views of Underhill

In its statement of opposition, Underhill stated it was concerned that construction activities would restrict access to the building for commercial loading and unloading purposes, as well as evacuation in the event of an emergency.

Views of Trans Mountain

Trans Mountain said it has attempted to address Underhill's concerns regarding the potential for TMEP installation to block access to the loading bay at the northwest corner of the building and the emergency fire exit. Trans Mountain said it would locate temporary workspace to the west of the easement, the pipeline centerline would be closer to the western boundary of the easement, and a short trench construction method will be used to reduce the active footprint while in the area.

Trans Mountain also committed to developing a construction phasing plan prior to commencing construction activities and to maintain access to emergency exits.

Trans Mountain also committed to continuing to engage with Underhill and the potentially affected tenants to identify further measures that may address their access concerns.

Response of Underhill at the Oral Hearing

Underhill remained of the view that construction of the Applied-For Route would block access for two units to the north of the property. Underhill also indicated that having 1.5 metres for pedestrian egress during construction would be in compliance with building code requirements for an emergency exit.

2.2.3. Alternate Routes

Views of Trans Mountain

Trans Mountain remains of the view that the Applied-For Route is feasible and is still the best possible route with the implementation of mitigation measures identified above. However, Trans Mountain indicated that it has also been exploring three alternate route options to avoid structural integrity and access concerns. All three alternate routes are minor deviations west of the Applied-For Route (shown in Figure 1 and Appendices I and II).

Option 1 would locate the new TMEP pipeline at the rear of the property, adjacent to the property boundary with two induction bends to avoid two BC Hydro poles at the north edge of the property. This option would involve complex construction in a tight space and in close proximity to overhead high-voltage power lines. This option requires coordination with BC Hydro for de-energization of the power lines, and may not be possible in the TMEP timeframe, based on BC Hydro's scheduling constraints for shut-downs. Trans Mountain indicated that Option 1 would generally remain within the current PPBoR easement, extending outside of it for a short distance where the route would bend.

Option 2 would involve relocating the two BC Hydro power poles to allow the new TMEP pipeline to be installed in a relatively straight line, avoiding the installation of two induction bends. This option is west of the current route and does not fall within the current PPBoR easement. At the time of the oral hearing, Trans Mountain was waiting on information from BC Hydro to complete the initial feasibility study and determine if relocation of the power poles would be possible.

Option 3 would be to bore downslope from the Shell Canada property on the other side of the power lines onto the Underhill property, maintaining a minimum five-metre offset of the new TMEP pipeline to the west of the power poles. This option falls within the current PPBoR easement. At the time of the oral hearing, Trans Mountain was still completing engineering feasibility and constructability reviews based on site conditions, and explained that this option depends on BC Hydro allowing the pipeline to be closer to the power poles. Although Option 3 would require an approximately 10-metre-long shored bore pit in close proximity to the building, Trans Mountain said that it would make all efforts to minimize business interruptions including scheduling the work in stages, optimizing methods of construction, and providing emergency access pathways from the building along the work area.

Trans Mountain noted that both Options 1 and 2 would allow for access to the building and avoid blocking emergency exits. However, both options may not be feasible pending feedback from BC Hydro.

However, Trans Mountain indicated that it can only move the pipeline further from the building if and when it receives approval from BC Hydro, but said it is committed to keeping the alignment as far from the building as possible within this PPBoR, taking into account the setbacks associated with the power poles. In addition, Trans Mountain also committed to continue to engage with BC Hydro to explore further options in order to minimize the impact on Underhill.

Trans Mountain stated that the PPBoR it was requesting be approved would also allow for both Options 1 and 3 in addition to the Applied-For Route. Trans Mountain committed that should BC Hydro make a decision to move the power poles in a timely way, that Trans Mountain will revisit Option 2. Trans Mountain further confirmed that, should the proposed detailed route change as a result of discussions with BC Hydro or Underhill, it will file all applicable notices and applications with the Board.

Response of Underhill at the Oral Hearing

Underhill also stated that it preferred Option 2, but that Option 1 would not interfere with access any more than Option 2 would.

2.3. Timing of Construction

Views of Underhill

At the oral hearing, Underhill raised concerns about the timing of construction and its effects on access to the loading bays of the 20 businesses that are located in the building to the east of the right-of-way alignment. Underhill questioned whether access to the drive aisle at the south end of its property would be maintained during construction.

Underhill also expressed a preference that Trans Mountain work non-traditional hours in order to reduce impacts to certain tenants.

Views of Trans Mountain

Trans Mountain said that its construction on Underhill's property would take seven to eight weeks in total, and that it would work through normal working hours in Burnaby. Later in the oral hearing, in response to a question from Underhill, Trans Mountain indicated that it would be feasible to construct on weekends, but that working at night would need to comply with the City of Burnaby's noise bylaws.

Trans Mountain said it could not guarantee access to all of the loading bays and that the two northern loading bays would have restricted access for about four weeks during construction. However, Trans Mountain said it would maintain access throughout the construction period to the units at the back of the property and a turn aisle, either by limiting the work there or

providing access from the adjacent property. Trans Mountain said it will develop a construction phasing plan prior to construction to address Underhill's concerns regarding building access and to mitigate any temporary construction impacts to building tenants. Trans Mountain also committed to continue engage with Underhill and any of the potentially affected tenants in order to address access concerns.

3. Summary of Commitments

During the hearing, Trans Mountain committed to:

- keep the pipeline as far from the building foundations as practicable;
- if BC Hydro responds prior to construction, to work with Underhill and BC Hydro to attempt to relocate power lines;
- return to the Board to amend the PPBoR if the power lines can be relocated with a route that takes advantage of the revised power line location;
- work with Underhill and tenants to discuss and maintain building access during construction;
- prepare an excavation plan utilizing shored-trench construction including a vibration monitoring plan, designed by a geotechnical engineer, for work close to the Underhill building;
- utilize a phased construction staging approach to minimize temporary impacts to building access; and
- work weekends and nights where feasible, and subject to City of Burnaby noise bylaws.

4. Board Decision for Detailed Route Hearing MH-046-2017

The Board appreciates the time spent by Underhill and Trans Mountain in discussing their concerns at the detailed route hearing. All arguments made and evidence filed were directly relevant to the List of Issues for the detailed route hearing.

The Board is of the view that the Applied-For Route is the best possible route and is consistent with Trans Mountain's second routing criterion of following existing linear infrastructure. This takes into consideration that, with mitigation, the Applied-For Route adequately addresses the structural integrity and emergency egress issues raised by Underhill and, to the extent possible, also mitigates concerns regarding access to loading bays. The Board notes that Trans Mountain committed to working with Underhill to maintain access to loading bays as much as possible during construction, and to develop a construction phasing plan prior to construction. The Board accepts the mitigation proposed by Trans Mountain regarding the Applied-For Route, and expects Trans Mountain to continue to work with Underhill on any modifications to its construction plans.

On the issue of the three alternate route options, the Board is of the view that it does not have sufficient information to approve any of the three alternate route options presented by Trans

Mountain and Underhill. The Board recognizes that these were discussed by Underhill and Trans Mountain. However, all three options involve third-party approval from, and/or coordination with, BC Hydro. The Board further notes Option 3 requires an engineering assessment. To the Board's knowledge, BC Hydro has not yet responded to Trans Mountain's requests. Without any certainty regarding the timing or substance of BC Hydro's response, the Board cannot currently consider any of these alternate route options to be "possible" detailed routes for the pipeline, as set out in subsection 36(1) of the NEB Act. That said, should information from BC Hydro become available in a timely manner, it remains open to Trans Mountain, in consultation with Underhill, and any other land owners that may be impacted, to come to the Board with any necessary requests for regulatory approval. However, the Board further notes that Options 1 and 2 are outside of the current PPBoR easement and would require Board approval;

The Board recognizes that there will be temporary impacts to access for some portions of the Underhill property during construction. The Board expects Trans Mountain to uphold its commitments to reduce and mitigate those impacts. This includes, where possible, doing some of the construction during evenings and weekends. The Board notes that safety is a priority and that egress for emergencies must be maintained during construction activities, as Trans Mountain has committed to.

The Board reminds Trans Mountain of its commitment to work with Underhill and impacted tenants to provide more information and continue engagement. The Board is of the view this should provide a forum for issues to be raised and addressed. The Board strongly encourages Underhill and Trans Mountain to continue these discussions and reiterates that, as appropriate, Alternative Dispute Resolution services are available through the Board to assist in their discussions.

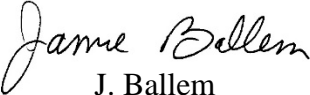
Having considered all of the evidence filed on the record by Underhill and Trans Mountain, the representations made at the oral portion of the detailed route hearing, and the matters described above, the Board finds that the Applied-For Route is the best possible detailed route of the pipeline, and the methods and timing of constructing the pipeline are the most appropriate, subject to the commitments made by Trans Mountain.

Any approval by the Board of a PPBoR for the Underhill property will include a condition requiring Trans Mountain to list and fulfill the commitments it made in the course of the detailed route proceeding, and update its alignment sheets. If required, Underhill is entitled to seek remedy from the Board if any commitments are not being fulfilled.

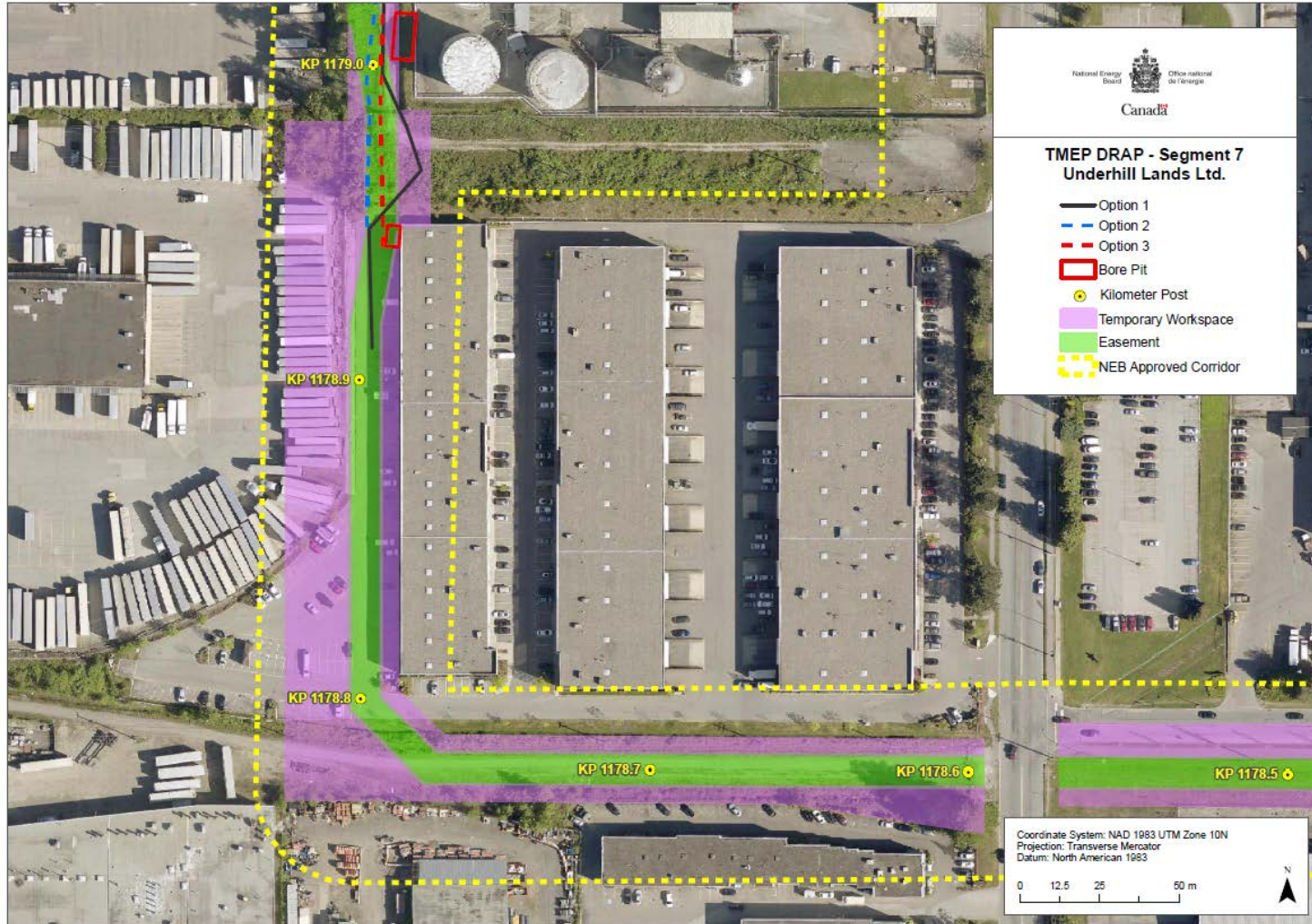
Trans Mountain is reminded that the conditions of approval in Certificate OC-064 apply to the construction and operation of the TMEP on the Underhill lands.


L. Mercier
Presiding Member


S. Parrish
Member

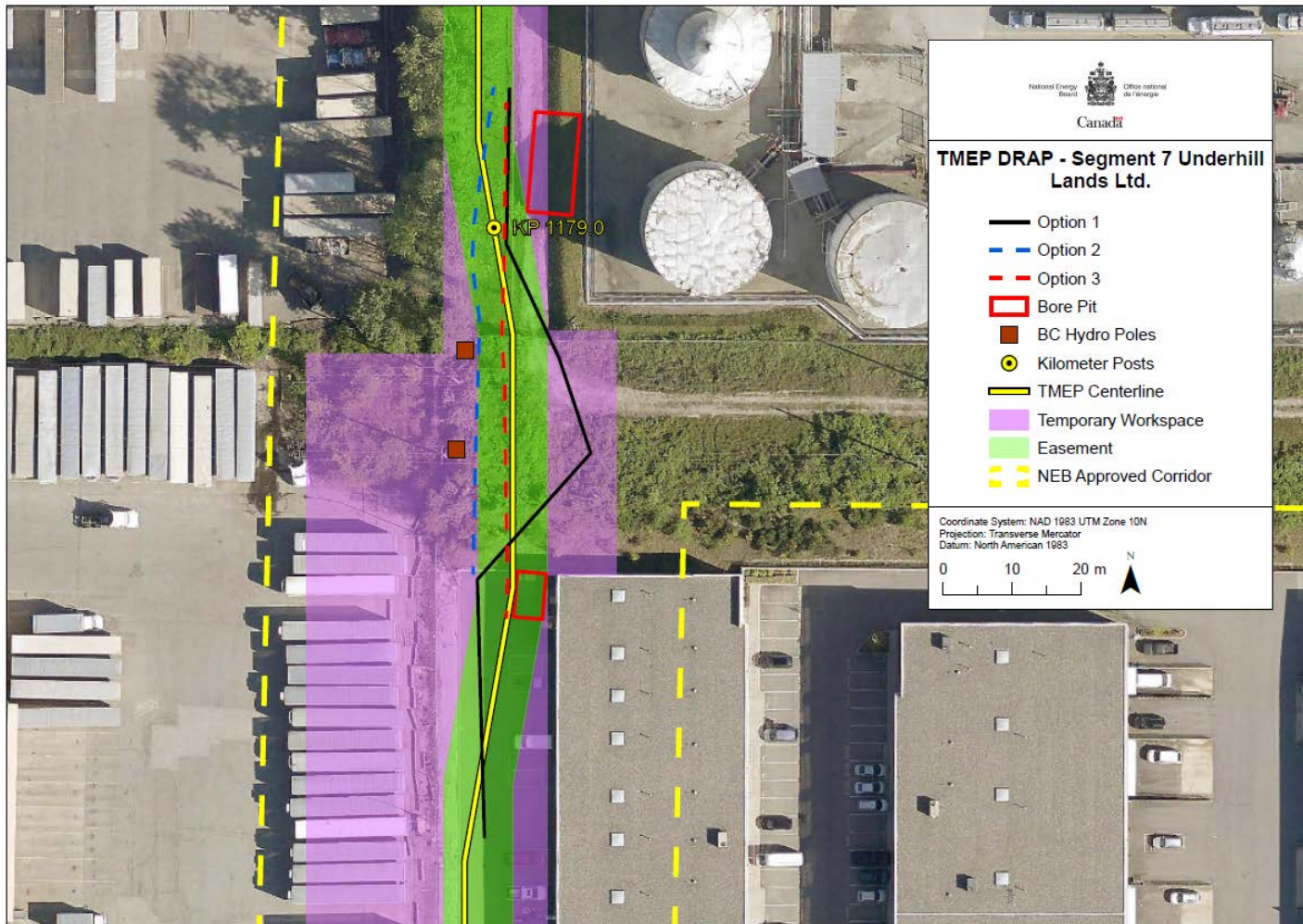

J. Ballem
Member

Appendix I – Map of Underhill Lands Ltd. Property



MAP PRODUCED BY THE NEB, APRIL 2018. THIS MAP HAS BEEN GENERATED BY THE NEB FOR ILLUSTRATIVE PURPOSES ONLY. THE NEB DISCLAIMS ALL RESPONSIBILITY FOR ANY ERRORS, OMISSIONS AND INACCURACIES. READERS WISHING TO CONSULT THE ACTUAL MAPS AS THEY WERE FILED SHOULD REFER TO THE OFFICIAL RECORD.

Appendix II – Close-up Map of Proposed Alternates



MAP PRODUCED BY THE NEB, APRIL 2018. THIS MAP HAS BEEN GENERATED BY THE NEB FOR ILLUSTRATIVE PURPOSES ONLY. THE NEB DISCLAIMS ALL RESPONSIBILITY FOR ANY ERRORS, OMISSIONS AND INACCURACIES. READERS WISHING TO CONSULT THE ACTUAL MAPS AS THEY WERE FILED SHOULD REFER TO THE OFFICIAL RECORD.