

FILE: 16-8330-01/21

**REPORT DATE:** December 07, 2021      **MEETING DATE:** December 14, 2021  
**TO:** Mayor and Council  
**FROM:** Samantha Maki, Director of Engineering & Operations  
**SUBJECT:** Overview of the Project Partnering Agreement for the Harris Road Underpass Project

**CHIEF ADMINISTRATIVE OFFICER REVIEW/APPROVAL:**



---

**RECOMMENDATION(S):**

THAT Council:

- A. Approve the execution of the Project Partnering Agreement for the Harris Road Underpass Project as presented at the November 30, 2021 Closed meeting of Council; AND
- B. Authorize the Mayor and Corporate Officer to execute all documents related to this matter; AND
- C. Direct staff to work with the Vancouver Fraser Port Authority and Canadian Pacific to publicly release the Project Partnering Agreement for the Harris Road Underpass Project, with select redactions, as soon as reasonably possible following execution; OR
- D. Other.

---

**PURPOSE**

To provide a high-level overview of the Project Partnering Agreement (“PPA”) for the Harris Road Underpass Project (the “Project”) for Council’s determination of execution, including an

agreement overview, summary of select components within the PPA, benefits of executing the PPA, and next steps.

Information Report

Decision Report

Direction Report

Staff are seeking Council's determination on the PPA, which establishes binding commitments, scope and next steps for the City, the Vancouver Fraser Port Authority ("port authority") and Canadian Pacific ("CP"), with respect to the Harris Road Underpass Project.

---

## **DISCUSSION**

The most recent version of the PPA was provided to the City by the port authority in late November and has been reviewed by Lidstone & Company Law Corporation ("Lidstone") and staff. This PPA represents the culmination of years of negotiation, numerous revisions, weekly meetings, and countless hours spent by staff in an attempt to ensure the PPA is at a stage that is acceptable to present to Council for a determination. The original intent was to have an agreement in place by the end of 2020, but the City could not entertain that as there were too many unknowns and a general lack of clarity at that time. A significant amount of progress has been made over the last year, including a better understanding of the scope and associated impacts. In staff's view, the terms contained within the PPA represents a strong overall benefit for the community as a whole and staff recommend the execution of the PPA and the progression of Harris to the next phase, including detailed design and planning works.

### **Agreement Overview:**

The PPA is a complex legal document that contains over 60 pages worth of content. The subject matter within the PPA is generally summarized below:

- Rights and obligations of each Project partner:
  - General City obligations include:
    - Continued effort to work towards a successful Project;
    - Provide adequate staffing to comply with the terms within the PPA;
    - Review and provide feedback for Project documentation;
    - Be actively involved in Project design, engagement, pre-construction activities, heritage building relocation, and construction (subject to a signed Construction Agreement);
    - Own and maintain all road structure/surfaces, retaining walls, active transportation infrastructure, and City utilities (including drainage pump):
      - CP will be fully responsible for the ownership and maintenance costs for the rail bridge structure and associated structural elements;

- Although not a requirement of the PPA, the City would also be responsible for insuring the City's assets;
- Established committees, representatives, functions, and meetings;
- Project Scope – Harris:
  - Road component details, including:
    - Design life;
    - Quantity of lanes;
    - Multi-use path width;
    - Vertical clearance beneath the rail structure;
  - Rail structure component details, including:
    - Design life;
    - Superstructure width / quantity of tracks;
    - Substructure / foundation width;
    - Location;
  - Urban design integration;
  - Consideration of the City's desire to implement a future pedestrian and cyclist overpass connection (mid-block crossing);
- Project Scope – Rail:
  - Lead track extension from Harris Road to Golden Ears Way;
  - Siding track between Kennedy Road and Harris Road;
- Noise and vibration mitigation;
- Consideration of community health and sustainability;
- High level information regarding relocation of the Hoffmann Machine Shop and General Store;
- Procurement and award of contracts, including a design builder that will complete the design work for Harris;
- Property requirements:
  - Establishment of a Land Acquisition Plan, which will occur separate from the PPA;
  - Otter Co-op ownership, including current owners (port authority) and future ownership (varies depending on Project status);
- Standards, specifications, and guidelines from all project partners;
- Future agreements and expected components, including the construction agreement, crossing and maintenance agreement, and the ownership, operations, and maintenance agreement;
- Indigenous consultation and participation:

- Port authority will lead, with support from other parties, meaningful consultation and participation opportunities of interested Indigenous groups through the planning and implementation phases of the Project;
- Agreement termination;
- Asset ownership;
- Confidentiality;
- Dispute resolution;
- Project schedule, funding and financials;
- Engagement and communications.

The PPA allows for the parties to progress technical design work; however, it does not allow for the construction of the Harris Road Underpass (“Harris”). This would be considered during the progression of the Construction Agreement, with agreement and signature required from all three parties prior to proceeding with construction of Harris and associated works. The PPA does commit the City to use reasonable efforts to negotiate and enter into a future Harris Construction Agreement, Crossing & Maintenance Agreement, and Ownership, Operations & Maintenance Agreement, providing that the terms and scope outlined within the PPA are complied with by all parties and that the port authority and CP make a final investment decision to proceed with the Project. The City still has an option to terminate the PPA, which is outlined later in the report. Below is a high-level summary of a few of the key components within the PPA:

#### **Exclusion of the Kennedy Road Overpass (“Kennedy”)**

Since late 2020, the City has been clear that the port authority should focus their efforts into the progression of Harris given its importance to the community. The port authority has since paused Kennedy, continued to progress the design work for Harris, and is currently working to procure a design builder for Harris.

With respect to the PPA, substantial revisions have been made over the past year, removing any City commitments with respect to Kennedy. Language has been added to further clarify that the terms contained within the PPA only provides the City’s consent for the parties to progress Harris. For greater certainty, language was added to the first page of the PPA stating that:

*“...nothing contained within this agreement shall constitute the City granting its consent to proceed with the Kennedy Road Overpass Project, as part of the VFPA Delivery Components or otherwise. VFPA does not have jurisdiction over City-owned lands and as such does not have the ability to enter into construction for the Kennedy Road Overpass Project without the express approval of the City”*

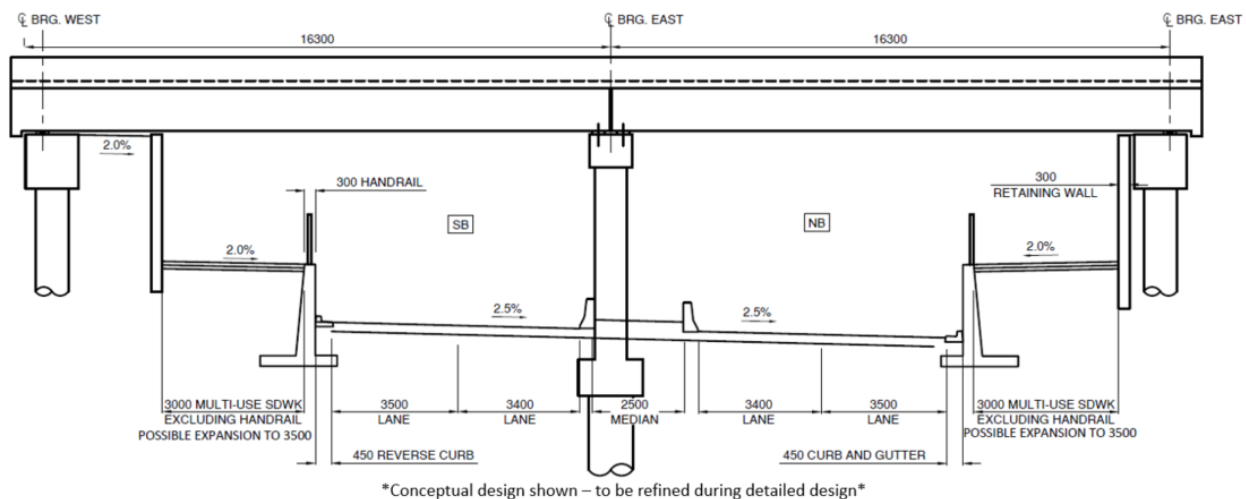
If future agreements (such as the Construction Agreement) contains a commitment to Kennedy, the City could terminate the PPA without penalty, as it would be a breach of the terms of the PPA. Further information on PPA termination can be found later in the report.

## Multi-Use Paths (“MUPs”):

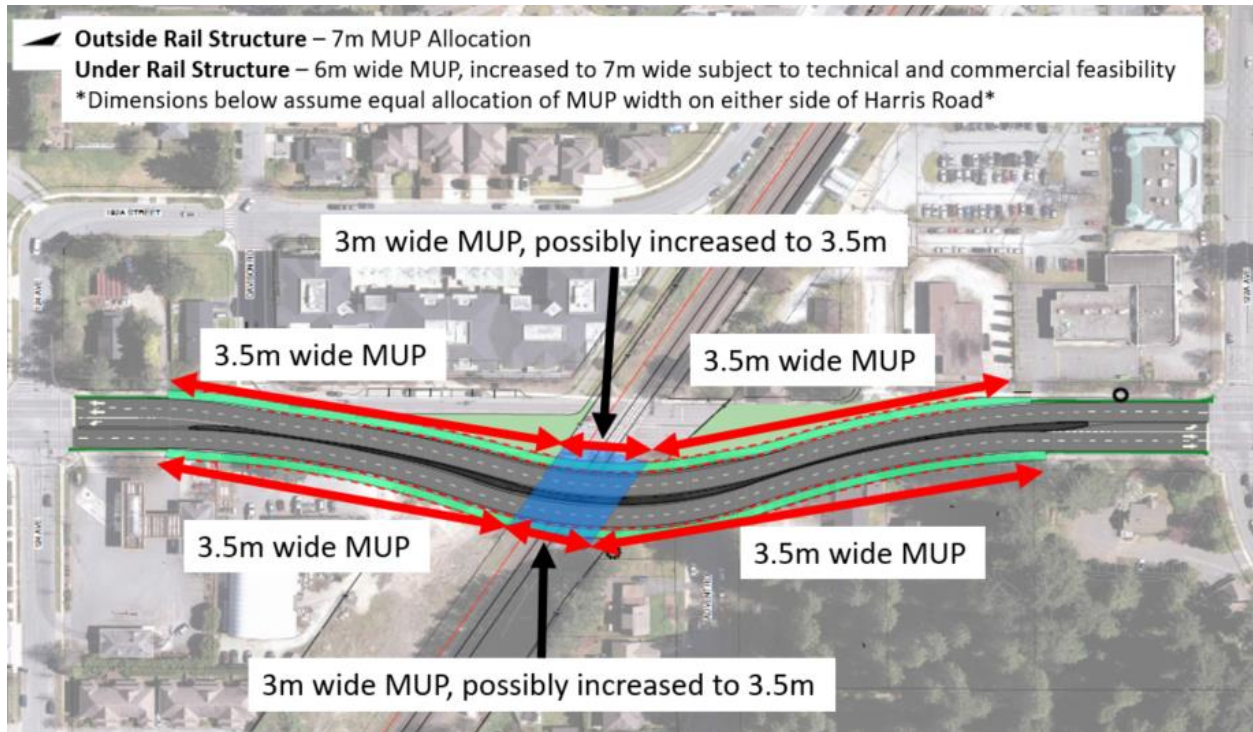
Staff consider the MUPs to be a critical component of Harris, as it cannot be altered in the future without significant and unreasonable costs. The MUPs will need to accommodate future community growth, as well as, future plans to potentially expand the sidewalk and bike lanes along Harris Road. This topic was extensively discussed over the last year. It was the port authority’s opinion that a 3m wide MUP on either side (total of 6m width allocation) was sufficient for the following reasons:

- It met the minimum requirements as outlined in the BC Active Transportation Design Guide;
- The level of active transportation use on Harris Road today and forecasted into the future did not warrant greater width;
- It was a significant improvement from existing conditions; and
- It aligned with many other projects throughout the lower mainland that implemented 3m wide MUPs.

After considerable negotiations and compromises, the PPA commits to a total unencumbered 7m wide MUP allocation outside the rail structure. Under the rail structure, the PPA commits to a total unencumbered 6m wide MUP allocation, with the possibility to increase to 7m , subject to technical and commercial feasibility. Staff will continue to advocate for a 7m MUP width allocation under the rail structure, which would allow for a 3.5m MUP on both sides throughout the entire underpass (if split evenly). Figures 1 and 2 below provides a visual of the MUP widths as outlined within the PPA.



**Figure 1 – Roadway Cross Section Under Rail Structure, 6m unencumbered MUP with the Possibility to Increase to 7m (Port authority, City, 2021)**



**Figure 2 – MUP Width Allocation Along Underpass (Port authority, City, 2021)**

**Noise and Vibration Mitigation:**

With respect to noise, vibration, and associated mitigation, the port authority and their acoustical consultant, BKL, have been clear on their position that:

- The Project shall not address existing noise and vibration conditions;
- The Project shall not address noise and vibration conditions created by increased growth into the future, which would occur with or without the Project;
- Based on Health Canada’s Noise Guidelines, increases in speech interference, sleep disturbance, high annoyance vibration, and high annoyance low frequency noise caused by the Project do not require mitigation, only consideration of such;
- Based on Health Canada’s Noise Guidelines, an increase in high annoyance day/night ( $L_{dn}$ ) sound caused by the Project is the only criteria that specifically requires mitigation.

Initially, it was proposed by the City’s Project partners to include mitigation that was Warranted as part of the Project, plus an additional mitigation wall, defined as Supplementary. These walls are visualized in Figure 3.

- **Warranted + Supplementary (Value: \$800,000 + \$700,000 = \$1,500,000)**
  - The minimum value for noise and vibration mitigation that the Project will provide at no cost to the City;
  - Warranted mitigation is the minimum mitigation required, as determined by BKL's report. For clarity, there is no cap on Warranted mitigation, meaning that if BKL discovers through additional research, or through feedback from the City's independent noise consultant (RWDI), that additional Warranted mitigation wall length or height is required to mitigate an increase in high annoyance day/night ( $L_{dn}$ ) sound caused by the Project, it will be included and paid for as part of the Project;
  - Supplementary mitigation is additional mitigation that goes above and beyond the minimum identified for the Project.

Staff are satisfied that the \$1.5M value outlined within the PPA will allow for the construction for at minimum the length and height of walls identified by the port authority (shown in Figure 3 below). RWDI has reviewed the proposed Warranted mitigation and has determined that generally the alignment and locations are adequate; however, the Warranted wall height may need to be greater to effectively mitigate an increase in high annoyance day/night ( $L_{dn}$ ) sound caused by the Project. Further work needs to be completed to determine the exact Warranted wall height required; however, regardless of the Warranted wall height determined to be required, it will be applied as part of the Project.



**Figure 3 – Warranted + Supplementary Mitigation Walls (Port authority, 2021)**

With continued and considerable pressure applied from Council, the community, and staff over the past 1.5 years, the City's Project partners have adjusted their stance on noise and vibration mitigation scope, and are prepared to include Additional Supplementary and Discretionary mitigation, subject to a positive outcome of their funding request to Transport Canada ("TC"). In the likely event that Warranted Mitigation is less than \$5M, the following additional noise and vibration mitigation will be provided as part of the Project:

- **Additional Supplementary (Value: \$1,500,000):**
  - This additional mitigation will be provided by the Project at no cost to the City, subject to TC approval;
  - Additional Supplementary mitigation is additional mitigation that goes above and beyond the minimum mitigation specified in BKL's report.
- **Discretionary (Value: \$2,000,000):**
  - Pending TC approval, this additional mitigation option will become available for the City's consideration;
  - The Project and the City would split the costs of this additional mitigation option (up to \$1M each) if the City chooses to accept;
  - A decision from the City to accept or reject this additional mitigation option is not required prior to signing the PPA.

Combining all three mitigation options, the PPA provides a floor of \$1.5M and up to \$5M (if the City funds \$1M, unless it is all Warranted mitigation at which time the City has no financial commitment) that would be provided towards noise and vibration mitigation. Figure 4 shows the recommended wall locations, lengths, and heights by BKL for all three mitigation options (\$5M). Staff intend to work with the port authority, BKL, and consult RWDI independently, during the design and pre-construction phases to further evaluate and determine the best combination of wall location, length, and height to mitigate the most amount of noise for the highest quantity of receivers.

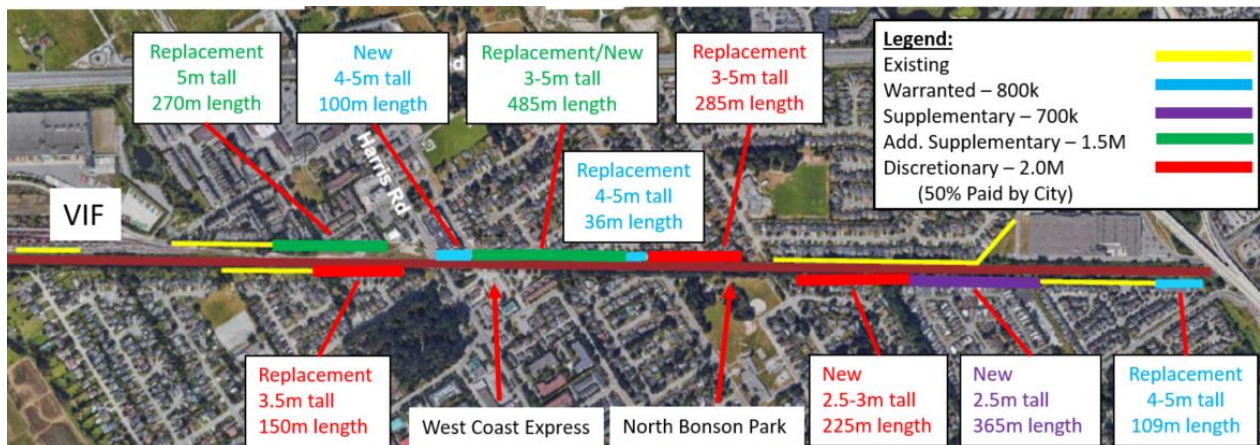


Figure 4 - Mitigation Walls - Warranted + Supplementary, recommended locations for Additional Supplementary and Discretionary (Port authority, City, 2021)



## **Air Quality:**

In recognition of air quality and health concerns, the PPA includes language stating that:

*“the Harris Road Underpass Project is anticipated to provide ... improved local air quality through elimination of vehicle idling and a corresponding reduction in emissions from motorized roadway vehicles at the existing level rail crossing.*

This language matches the research and calculations completed by both staff and the port authority, as outlined in staff’s report to Council on November 23, 2021. This report shows that greenhouse gas emissions from idling vehicles stopped for trains at the Harris Road rail crossing was approximately 268 to 324 tonnes of CO<sub>2</sub> per year in 2019. It is expected that these values would increase year over year as road and rail traffic continues to grow. An unrestricted flow associated with implementing Harris will reduce greenhouse gas emissions compared to the current condition of an at-grade crossing.

In addition, language was included in the PPA stating that:

*“construction of the Harris Road underpass is anticipated to reduce the emissions associated with road traffic, and associated air quality within the community. The Harris Road underpass is not anticipated to have a material effect on the emissions associated with rail traffic, rail emissions are impacted by a variety of factors which are not influenced by the construction of the Harris Road underpass”*

The assessment from staff and their environmental consultant (Envirochem) is that the addition of the siding and lead tracks do not contribute to changes in train volumes or emission production as they serve the same role currently served by the north mainline track, as confirmed by CP in their spring 2021 update to the community.

Completely separate from the project, the City will continue to work with Metro Vancouver and Fraser Health staff to identify a process to address and advocate for reduced train pollutant levels along the rail corridor. In addition, the City intends to advocate to applicable local, provincial and federal agencies and ministries for enforceable and appropriate health-based air quality standards for railway emissions.

## **Rail Structure and Dimensions:**

To ensure clarity and provide confidence with moving the Project forward, the PPA is very clear with respect to the scope of the rail bridge component, stating that:

- The rail bridge will be constructed within CP’s right-of-way (“ROW”);
- The rail bridge width will accommodate a maximum of three tracks:
  - This is a reduction in the quantity of tracks committed to in the Memorandum of Understanding, which specified accommodation of two additional tracks (total of four);

- The rail bridge substructure & foundations will be designed to allow for the possibility to add superstructure width, which would allow CP to install a potential fourth track in the future without causing substantial construction impacts to the community. For certainty, a fourth track is not part of the Project.

### Termination

There are number of reasons that the PPA could be terminated, including:

- If applicable approvals for Harris are not received;
- If the parties do not enter into a Construction Agreement and a Crossing and Maintenance Agreement;
- If existing funding agreements are terminated;
- If any party is in material breach of its obligations under the agreement;
- If the port authority and CP are not satisfied that Harris, the siding track, or lead track can be completed within budget.

The PPA outlines that if the agreement is terminated as a result of the City breaching the conditions outlined within the PPA, the City would be responsible to pay a penalty of up to \$2.0M to the port authority, assuming that such breach was within reasonable control of the City. A penalty of some kind was anticipated and staff deem this to be reasonable when considering the following:

- The City has 4 'outs' outlined within the PPA that would allow for the City to withdraw from the PPA without penalty:
  1. Acting reasonably and in accordance with noise and vibration mitigation measures/parameters outlined within the PPA, the City assesses that the Project scope includes insufficient noise and vibration mitigation measures;
  2. CP or the port authority are in material breach of the PPA, and such material breach is within their control;
  3. Harris Road detours/closures are unmanageable from a safety or access perspective;
  4. Changes to the design of Harris increase the City's estimated life cycle costs of Harris by more than 50% of the 2019 estimate.
- Termination penalties are common in agreements of this magnitude, including other agreements between the port authority and other municipalities;
- The penalty value was originally proposed to be higher;
- The City's Project partners have spent approximately \$10M on the project thus far, and are estimated to spend another \$10M prior to determination on the Construction Agreement. This means that the City's Project partners will be highly motivated to ensure that the City does not terminate the PPA and similarly, the City has a vested interest in

the success of the Project. If the City was subject to the \$2M penalty, the other Project partners would have spent considerably more on the Project (~\$18M); and

- In the event that the agreement is terminated and the City is subject to the penalty, the City will still have benefited from the work complete to date and paid for by the City's Project partners, including the noise and vibration studies and modeling, traffic assessments, underpass designs, assessment of heritage buildings and other items.

## **CONCLUSION**

In staff's opinion, over the past 1.5 years, through extensive efforts and negotiations, as well as community members advocating for select components and considerations, the PPA has progressed to a point where the terms contained within represent a strong overall benefit for the community as a whole. Many concessions have been made by the port authority and CP on a variety of topics. With this, staff recommend the execution of the PPA and progression of Harris to the detailed design phase. There are multiple substantial benefits with proceeding with this Project, including:

- The community stands to gain an underpass, a critical piece of infrastructure that has been discussed in the community for several decades with various councils, with no design or construction cost to the City, that will relieve significant congestion, commuting, emergency response issues, and vehicle GHG emissions now and long into the future;
- The Project will provide a minimum of \$1.5M towards noise and vibration mitigation, \$3.0M if TC provides additional funding, and up to \$5.0M if TC provides additional funding and the City contributes \$1.0M. It is important to note that:
  - Signing off on the PPA does not mean that the City's pursuit of mitigation to address existing exceedances is over. The City can still negotiate with CP and, if unsuccessful, submit a complaint to the Canada Transportation Agency ("CTA") related to existing exceedances, separate from the Project, while still gaining the mitigation as detailed within the PPA. The language within the PPA ensures that the City retains these rights after the PPA is executed;
  - Without the Project, CP could still construct additional tracks without any commitment towards mitigation. Section 98 (3) of the Canada Transportation Act states that CP doesn't require approval from the CTA to construct railway lines within their right-of-way. Neither a grade crossing agreement nor a subsequent dispute to the CTA would allow the City any opportunity to prevent CP from constructing the lead or siding track;
  - Without the Project, the City's only options to possibly attain noise and vibration mitigation would be to either negotiate with CP or to submit a complaint to the CTA. CTA's review is not a quantitative process, meaning that even though data collected by both BKL and RWDI show current exceedances of Health Canada's

Noise Guidelines, there is no guarantee the CTA would determine the noise and vibration occurring within the rail corridor is unreasonable, or that any mitigation is required.

- Harris design work can proceed, while Kennedy remains paused. The PPA is clear that the City is not granting consent to proceed with Kennedy;
- A consolidated heritage site on the west side of Harris Road would be established;
- Active transportation and accessibility improvements to existing infrastructure with the establishment of MUPs that are separated from vehicle and train traffic;
- Progresses the Project to the next step, reducing the potential of CP submitting an application or dispute to the CTA requesting approval for a grade separation at Harris Road, and possible outcome of apportionment of costs between the City and CP, which could be a substantial financial commitment;
- Allows Council, the community, and staff to receive information from CP regarding their lead and siding tracks, as well as, their operations; and
- The City also has a few avenues to withdraw from the agreement without incurring penalty, including insufficient noise and vibration mitigation within reasonable parameters.

### **Next Steps:**

Providing that Council decides to approve and execute the PPA, the parties intend to publicly release the executed Project Partnering Agreement for the Harris Road Underpass Project with select redactions as soon as reasonably possible. The select redactions are intended to protect items that are of a confidential, proprietary or commercially sensitive nature, such as ongoing negotiations between the port authority and TC as well as property negotiations. None of the redactions were initiated or required by the City.

Staff would also work with the Project partners to take appropriate next steps to progress the design and planning works associated with the Project.

### **COUNCIL STRATEGIC PLAN ALIGNMENT**

- Principled Governance     Balanced Economic Prosperity     Corporate Excellence  
 Community Spirit & Wellbeing     Transportation & Infrastructure Initiatives

---

### **FINANCIAL IMPLICATIONS**

- None     Budget Previously Approved     Referral to Business Planning  
 Other
-

Outlined within the body of the report and the PPA.

---

**PUBLIC PARTICIPATION**

Inform     Consult     Involve     Collaborate     Empower

The public has had and will continue to have many opportunities to engage and participate in the Project. This includes multiple public engagement sessions organized by the port authority, City Council and Engagement and Priority Committee Meetings, as well as a the port authority Project email available for the public to ask questions about the Project.

---

**KATZIE FIRST NATION CONSIDERATIONS**

Referral     Yes     No

As part of the Project, the port authority has been leading the engagement/consultation with Katzie First Nation and will continue to do so. As identified within the body of the report, a section is included within the PPA that states that the port authority will lead, with support from other parties, in meaningful consultation and participation opportunities of interested Indigenous groups, including Katzie First Nation, through the planning and implementation phases of the Project.

---

**SIGN-OFFS**

**Written by:**

Justin Hart  
Manager of Major Projects

**Reviewed by:**

Samantha Maki  
Director of Engineering & Operations

---

**ATTACHMENT:**

A. None.