



**VANCOUVER FRASER PORT AUTHORITY
PRIORITY GATEWAY INFRASTRUCTURE PROJECTS
INFORMATION PACKAGE**

March 8, 2017

Table of Contents

Priority Gateway Infrastructure Projects Information	1
Priority Projects identified by the Vancouver Fraser Port Authority	2
Map – Priority Projects.....	3
North Shore Corridor Capacity Improvement Project	4
Brunette Interchange Upgrades and Road/Rail Separation and Crossing Closures.....	5
Pitt River Road Overpass.....	6
Colony Farm Road Overpass.....	7
Portside Road Overpass and Upgrade	8
Blundell Road Four-Laning	9
Highway 17 Interchange at Plywood Road and Grace Road	10
Burrard Inlet Road and Rail Improvement Projects	11
Kennedy Road Overpass.....	12
Deltaport Way Widening to Four Lanes	13
Sunbury & Tilbury Improvements	14
Highway 91 Six-Laning.....	15
Harris Road Underpass.....	16
Appendix A - Greater Vancouver Gateway 2030 Full List of Projects.....	17
Map – Potential Project Bundling	19

Dear Port of Vancouver stakeholder:

Further to Robin Silvester's letter of March 6, the Vancouver Fraser Port Authority (VFPA) is seeking feedback regarding 13 priority projects that we believe would benefit the Port of Vancouver gateway and its users, as we determine which of these projects to advance to Federal funding applications later this year, and how much to contribute to each project on behalf of industry.

Background

It is expected that the Federal government will issue guidance in the next few months regarding applications for infrastructure funding. In anticipation of receiving this guidance, the VFPA has identified 13 priority infrastructure projects that we believe would benefit the Port of Vancouver gateway and its users.

During industry consultation regarding the establishment of the Gateway Infrastructure Fee, which was introduced in 2010, we heard that industry stakeholders want an opportunity to provide feedback regarding any future projects that the port authority may pre-fund on behalf of industry.

In consideration of this input, during March 2017, we are seeking feedback from industry that will be considered in determining which of the 13 priority projects to advance to Federal funding applications, and how much the port authority should contribute toward each project on behalf of industry.

Opportunity to provide feedback

Attached, you will find information regarding the 13 priority projects identified by the VFPA. **You are invited to review the information and provide any comments you may have by email to commercial_enquiries@portvancouver.com by March 31, 2017.**

Next steps

Following this feedback period, the port authority will work with our partners in the provincial government, local governments and industry during mid-2017 to determine our participation in those projects and partner funding contributions and apply for Federal funding.

As part of our requirement to be financially self-sufficient, the VFPA would need to recover our pre-funding contributions of any projects that proceed. Consultation regarding cost recovery would likely take place in early 2018, once the port authority has determined to which projects it will contribute, and following confirmation of Federal funding.

We look forward to hearing from you.



Katherine Bamford, Director, Trade Development
VANCOUVER FRASER PORT AUTHORITY

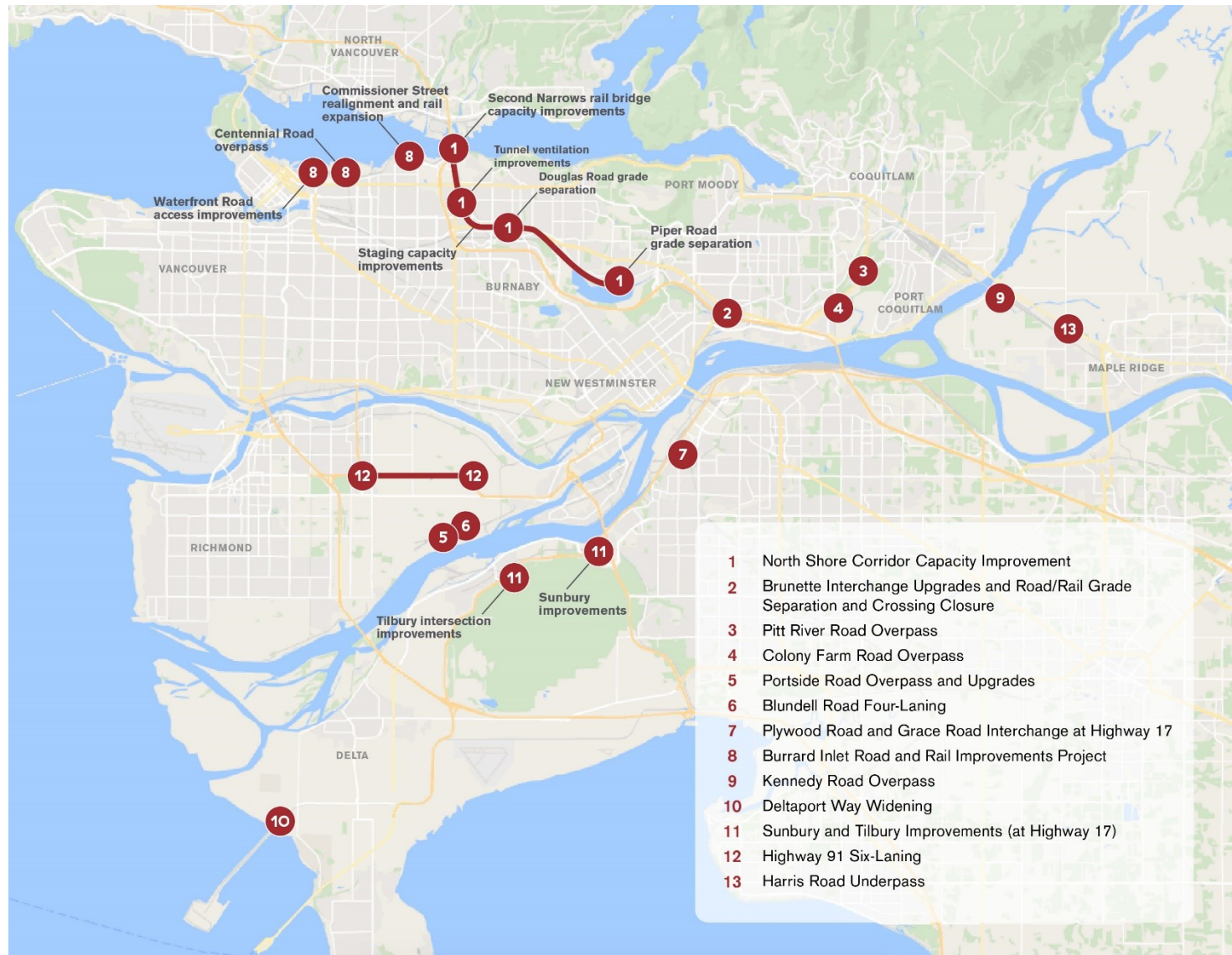
Priority projects identified by the Vancouver Fraser Port Authority

The Vancouver Fraser Port Authority has identified 13 projects that it believes would benefit the Port of Vancouver gateway and its users. A brief description and anticipated benefits for each of these projects follows starting on the next page. This information is summarized from work completed by the Vancouver Fraser Port Authority, and from the Greater Vancouver Gateway 2030 Briefing Package.

The following are the 13 projects identified by the Vancouver Fraser Port Authority:

1. North Shore Corridor Capacity Improvement Project
2. Brunette Interchange Upgrades and Road/Rail Grade Separation and Crossing Closures
3. Pitt River Road Overpass
4. Colony Farm Road Overpass
5. Portside Road Overpass and Upgrade
6. Blundell Road Four-Laning
7. Highway 17 Interchange at Plywood Road and Grace Road
8. Burrard Inlet Road and Rail Improvements Project
9. Kennedy Road Overpass
10. Deltaport Way Widening to Four Lanes
11. Sunbury & Tilbury Improvements
12. Highway 91 Six-Laning
13. Harris Road Underpass

Map – Priority Projects Identified by the Vancouver Fraser Port Authority



Please see **Appendix A - Greater Vancouver Gateway 2030 Full List of Projects**, for a complete list of projects identified in the Greater Vancouver Gateway 2030 initiative.

North Shore Corridor Capacity Improvement Project

Anticipated project cost: \$122 M

The Port of Vancouver's North Shore bulk commodity terminals play an important role in Western Canada's export market. These terminals are linked to the national railway system via the Second Narrows Rail Bridge and the North Shore Corridor, operated by CN Rail, which includes the Thornton Rail Tunnel. The tunnel and the rail bridge openings necessary to accommodate marine traffic both significantly constrain the capacity of the corridor to support commodity volumes.

To alleviate this capacity constraint, the Vancouver Fraser Port Authority is proposing the North Shore Corridor Capacity Improvement Project, a suite of tunnel ventilation, rail grade separation, rail corridor improvements, and marine navigation clearance measures proposed for construction on and adjacent to existing rail corridors within the cities of Burnaby and New Westminster, BC.

The proposed improvements include:

1. **Tunnel Ventilation Improvements:** To increase the frequency of rail traffic transiting the Thornton Rail Tunnel, it is necessary to increase the rate at which locomotive exhaust emissions are cleared from the tunnel. By introducing additional mechanical ventilation in the tunnel, the required venting time between trains will be reduced from 20 minutes to 10 minutes or less, thus dramatically increasing the availability of the tunnel and the ability to optimize rail operations along the corridor.
2. **Douglas Road Grade Separation:** Removal of a key at-grade crossing on a municipal trucking route.
3. **Piper Road Grade Separation:** Removal of the at-grade crossing to provide community access to Burnaby Lake Regional Park and recreational area.
4. **Second Narrows Rail Bridge Capacity Improvements:** A recent assessment concluded that 20 percent of vessel transits requiring bridge openings are by local commercial tugs with masts that extend past 11m in height. Retrofitting of the tallest tugs with folding masts would eliminate the need for the bridge to open and would reduce the number of bridge openings by an estimated 650 lifts per year.
5. **Staging Capacity Improvements:** Near the south end of the Thornton tunnel, eliminating the Douglas and Piper at-grade crossings will enable the construction of staging capacity through the addition of five miles of new track along the corridor.

Anticipated project benefits:

- Improved rail efficiency and capacity with lower operating costs
- Increased import/export capacity
- Reduced travel delays by eliminating at-grade crossings at two busy locations in Burnaby
- Safety benefits related to the elimination of vehicle conflicts and crashes at at-grade crossings
- Air quality improvements within Thornton Rail Tunnel and surrounding areas
- Enablement of Port of Vancouver to serve future cargo expansion

Brunette Interchange Upgrades and Road/Rail Separation and Crossing Closures

Anticipated project cost: \$510-640 M

Located on Highway 1, the Brunette Avenue interchange is heavily used by highway traffic headed for Coquitlam and New Westminster. It is the primary interchange for commercial vehicles travelling between Highway 1 and Lougheed Highway in Coquitlam and Brunette Avenue in New Westminster.

A re-construction of the Brunette interchange is currently in the planning stages to address capacity and collision history issues in the vicinity of the interchange. Under the proposed configuration, there would be two separate roadway connections across Highway 1 in this vicinity. One road alignment, running from Brunette Avenue (in New Westminster) to Blue Mountain Road (in Coquitlam) would have an interchange with Highway 1. Additionally, there would be a second, separate crossing between Braid Street (in New Westminster) and Brunette Avenue (in Coquitlam), which will not connect to Highway 1. Lougheed Highway will also be grade separated above Brunette Avenue in Coquitlam, which could mitigate congestion in the vicinity. The project also includes the closure of the at-grade rail crossings at Braid Street, Spruce Street, and Cumberland Street and construction of a new grade separation.

Anticipated project benefits:

- Added rail capacity that benefits all supply chain partners in the Port of Vancouver gateway.
- Reduced travel times and improved reliability for goods movement vehicles
- Improved traffic flow at Brunette Interchange and along arterial roads
- Reduced vehicle delays due to at-grade rail crossing closures
- Alleviated traffic congestion on Lougheed Highway between Schoolhouse Street and North Road
- Improved vehicle, cyclist and pedestrian safety along Brunette Avenue and Highway 1
- Increased emergency service access to regional Royal Columbian Hospital and health district

Pitt River Road Overpass

Anticipated project cost: \$61 M

The current at-grade road and rail crossing at Pitt River Road and Highway 7 impacts rail operational efficiencies, local traffic movements, and provides poor walking, cycling and transit connectivity.

To improve the crossing, the intersection at Pitt River Road and Highway 7 would be raised above grade, with Pitt River Road passing over top of the railway corridor, thereby eliminating the existing at-grade crossing with the CP Rail Westminster Subdivision. The improvements also include road widening and intersection expansion to improve access along Pitt River Road and from Lougheed Highway to the former Riverview Hospital site. Additionally, to enhance pedestrian and cyclists' safety and connectivity, the existing sidewalk on Pitt River Road would be extended across the raised intersection and will continue westwards along the new road that accesses the Riverview Hospital site, where the sidewalk would connect to a proposed municipal greenway multi-use path.

Anticipated project benefits:

- Increased rail capacity at the Coquitlam Rail Yard
- Rail capacity and efficiency benefits for CP Rail trains destined for the Richmond Fraser Industrial Lands and North Shore Trade Area in Metro Vancouver
- Reduced road user delays on Pitt River Road caused by train movements
- Improved connectivity/access by providing a southbound left turn lane
- Access to the redeveloped former Riverview Hospital site, and provisions for walking and transit access

Colony Farm Road Overpass

Anticipated project cost: \$35 M

The current at-grade road and rail intersection at Colony Farm Road and Highway 7 impacts traffic movements and the reliability of access to the Kwiketlem First Nation, the Forensic Psychiatric Hospital and Colony Farm Regional Park

Proposed improvements to the intersection at Colony Farm Road and Highway 7 include raising Colony Farm Road above grade to pass over top of the CP Rail Westminster Subdivision and Highway 7. On the west side of Highway 7, Colony Farm Road would tie into Cape Horn Avenue, which would be re-aligned and raised above its current grade in order to eliminate the need for a long approach ramp. The signalized intersection at Highway 7 and Colony Farm Road would be removed, and a new connection from Colony Farm Road to Highway 7 would be provided via Cape Horn Avenue through the Riverview Hospital site, to a new intersection that will be located approximately 1,500m east of the existing intersection. This intersection is anticipated to be developed as part of the Riverview Hospital redevelopment project.

The proposed cross-section of the overpass assumes one travel lane in each direction and a wide multi-use path for a walking and cycling greenway, as called for in the City of Coquitlam's Strategic Transportation Plan. The walking and cycling greenways could tie into the Lougheed Riverview multi-use path and the Coquitlam Fraser Greenway.

Anticipated project benefits:

- Improved train operations and efficiency by allowing trains to stop further north along the CP Westminster Subdivision
- Reduced road user delays on Colony Farm Road caused by train movements
- Improved arterial road access by connecting to the road network that is currently envisioned within the Riverview Hospital site
- Improved community safety related to rail crossings, and the opportunity to improve the lighting on Colony Farm Road
- Enhanced pedestrian and cyclist connectivity due to the planned multi-use greenway
- Reduced noise effects by eliminating the train whistling noise associated with this crossing

Portside Road Overpass and Upgrade

Anticipated project cost: \$90.0 M

A major transportation issue facing the west portions of the Fraser Richmond Industrial Lands (FRIL) and surrounding industrial areas is the bottleneck for the movement of container trucks and other vehicles at the intersection of No. 8 Road/Portside Road and Blundell Road. A second and related issue is that train movements associated with the CN Rail Ewen Industrial Branch (adjacent to the at-grade crossing) can obstruct truck and vehicle access to the businesses located along Portside Road, and through traffic on Blundell Road.

The intersection of Blundell Road and No. 8 Road and Portside Road would be raised and widened. Raising the intersection will enable Portside Road to pass over top of the Ewen Industrial Branch rail corridor, thereby eliminating the at-grade crossing with the railway tracks. This project will also provide access for the economic development of industrial lands located to the west of the #7 Road Canal where currently no road access exists.

The new development in Area IV of the FRIL to the west of the No. 7 Road Canal would be provided vehicle access through the extension of Portside Road across the No. 7 Road Canal. A parallel bridge across the canal would provide space for up to five railway tracks.

Anticipated project benefits:

- Increased capacity of the Blundell Road and No. 8 Road/Portside Road, which would greatly reduce vehicle delays and queueing at this intersection
- Reduced road user delays caused by train movements on Blundell Road
- Operational and safety benefits from constructing a dedicated left turn lane on Portside Road
- Enhanced access to the Area IV site due to road and rail crossings of the No. 7 Road Canal
- Improved access reliability for emergency response services due to elimination of train movement conflicts

Blundell Road Four-Laning

Anticipated project cost: \$13 M

The Fraser Richmond Industrial Lands (FRIL) and adjacent industrial areas are a key area within the region for international trade. These lands contain a significant amount of on-shore warehousing and sorting facilities for containers. Blundell Road is the primary access point for many of these facilities and often experiences congestion. Widening Blundell Road will mitigate the effects of the increased traffic and thereby support planned developments in the FRIL and adjacent areas.

This improvement option would widen Blundell Road from a two-lane to a four-lane divided arterial road with left turn lanes between No. 8 Road and No. 7 Road. The eastern extent of this option would tie in directly with the proposed *Portside Overpass & Upgrade*. The western extent of this option would tie in directly to the proposed bridge that extends Blundell Road across the No. 7 Road Canal to the Richmond Landfill. Sufficient right-of-way for this expansion already exists that would allow this widening to access the south side of the existing road. The current two-lane road would ultimately be repurposed as the two westbound lanes, once two new eastbound lanes are built just to the south of the existing road.

The road cross-section assumes that the sidewalk on the north side of Blundell Road would be converted to a multi-use path. Provision of a sidewalk on the south side of Blundell Road is assumed.

Anticipated project benefits:

- Increased capacity to accommodate trucks and employee vehicles due to the four-lane cross-section
- Reduced potential constraint on the ability for businesses in the area to respond to increases in demand for international trade
- Increased road capacity and ability to accommodate the volume of goods being transported by trucks
- Improved safety by enhancing eastbound and westbound visibility, reducing queuing incidents, and helping reduce aggressive overtaking associated with congestion

Highway 17 Interchange at Plywood Road and Grace Road

Anticipated project cost: \$108 M

The Tannery Road Interchange and Timberland Road/Robson Road corridor are currently the only access routes to the west side of the South Westminster/Bridgeview Industrial Area from Highway 17. Improvements to the Plywood Road/Grace Road Interchange at Highway 17 are proposed to improve truck access and accommodate anticipated long-term needs in this vicinity.

Plywood Road would be elevated to pass over top of the railway corridor and Highway 17. The overpass would tie into an undeveloped parcel of land on the east side, and ultimately connect to Grace Road as a Y-intersection. This new road corridor through the undeveloped land would be constructed at a lower elevation than River Road, in order to mitigate noise and visual effects to local residents associated with trucks using this connection. This project would allow River Road to be realigned to also connect to Grace Road. Additional connectivity to Highway 17 is proposed, via west-facing on-and-off ramps and the Tannery Road interchange.

The connection of River Road and Grace Road would eliminate a “gap” in the municipal road system that currently causes through-traffic to use local residential streets to make this connection.

Within the Fraser Surrey Port Lands (FSPL), a second overpass would be provided above the railway tracks near Alaska Way. This overpass will allow trains to travel to marine service terminals in the South Westminster/Bridgeview Industrial Area without obstructing vehicle access to Gunderson Slough.

Anticipated project benefits:

- Improved access and travel times for vehicles travelling to the western parts of the South Westminster/Bridgeview Industrial Area
- Reduced traffic congestion at the Tannery Road Interchange
- Significant benefit to rail operations within the South Westminster/Bridgeview Industrial Area as trains will be allowed to stop on the loop track within this area for extended periods of time
- The City of Surrey can meet a long-standing commitment to area residents to connect River Road and Grace Road, reducing shortcutting through the residential area
- Improve rail operations by eliminating the congestion at Gunderson Slough
- Enhanced traffic safety for the local residential neighbourhoods by eliminating shortcutting of through traffic on local residential streets
- Reduced potential for collisions at the Robson Road and Elevator Road crossing and disruptions to train movements

Burrard Inlet Road and Rail Improvement Projects

Anticipated project cost: \$128 M

The Burrard Inlet Road and Rail Improvement Program ("BIRRIIP") comprises four port-related transportation projects on the South Shore of Burrard Inlet in Vancouver. These projects are the Waterfront Road Access Improvement Project, the Centennial Road Overpass Project, the Commissioner Street Rail and Road Expansion Project and the Malkin Avenue Overpass Project.

The **Waterfront Road Access Improvement Project** includes the removal of the Heatley overpass, the extension of East Waterfront Road to provide a continuous Port road from Canada Place in the west to Highway 1 in the east, and the provision of a new 300m overpass connecting Waterfront Road to Centennial Road over the Centerm intermodal yard at-grade rail crossing.

The **Centennial Road Overpass Project** includes road and rail improvements along Centennial Road including a new 700 m overpass over three at-grade rail crossings, as well as improvements at Clark Drive/Stewart Street intersection to improve access and efficiency.

The **Commissioner Street Rail and Road Expansion Project** includes the demolition of the VFPA grain elevator at Columbia Containers, and the realignment of Commissioner Street to maximize the space available for future rail expansion and provide an additional traffic lane. Further, the project incorporates site preparation works for the construction of two additional rail tracks, each approximately 2 km long and construction of an approximately 2 km long, 2m to 4m high acoustic barrier along Commissioner Street.

Anticipated project benefits:

- Improved travel time reliability for port tenants and businesses serving the Vancouver downtown core, and container trucking firms that service the South Shore's Centerm and Vanterm Container Terminals
- Increased productivity/access of truck and other vehicles for freight and passenger operations
- Increased South Shore capacity handling of bulk commodity exports and container trade
- Increased capacity generates productivity gain for Canada container trades
- Immediate increase in rail movement and for rail efficiencies in grain export and in container import and export
- Provides improved access and reliability for primary emergency response services

Kennedy Road Overpass

Anticipated project cost: \$25 M

Kennedy Road is the only at-grade crossing that trains must pass through as they move between CP Rail's Vancouver Intermodal Facility and Coquitlam Yard. This crossing impacts the flexibility of train building and movements across the Pitt River Rail Bridge between these two facilities. Kennedy Road has among the largest daily number of train movements (and total blockage) of any at-grade rail crossing of any road in the region. This creates travel delays and reliability impacts for local road users in Pitt Meadows.

Furthermore, in the event of a train crossing, the nearest alternative route is via Harris Road, which would represent over a 12km long detour for a road user intending to travel westwards across the Pitt River Bridge. High train volumes at this crossing create a correspondingly high level of train whistling noise.

This proposed improvement option would eliminate the at-grade crossing of the CP Rail Cascade Subdivision at Kennedy Road by providing an overpass of Kennedy Road above the railway tracks along the existing road alignment. Access to the properties on the west side of Kennedy Road north of the railway corridor would be maintained through a "T-intersection" connection with Kennedy Road via the existing Ferryslip Road.

The cross-section design concept for the Kennedy Road Overpass features two travel lanes and two painted shoulder lanes which could be used by bicycles. Additional cycling or walking facilities could be provided if the City of Pitt Meadows intends to eventually provide similar such facilities along the Kennedy Road corridor.

Anticipated project benefits:

- Improved rail capacity to and from the South Shore Trade Area and will enable increased quantities of goods travelling to/from the port to move by rail
- Increased train building capacity due to the removal of the at-grade crossing
- Reduced road user delays caused by train crossings
- Improved safety due to the elimination of the at-grade crossing
- Reduced noise effects due to the cessation of train whistling
- Eliminated "severance" of the communities caused by trains occupying the at-grade crossing at Kennedy Road and the CP rail tracks
- Significant travel time benefits relative to daily traffic volumes, because Kennedy Road has the highest train volumes of any at-grade crossing in the region

Deltaport Way Widening to Four Lanes

Anticipated project cost: \$25-45 M

The Deltaport Way corridor is the only trucking route providing access to Roberts Bank terminals and is a key corridor that enables the growth of the Asia Pacific Gateway Corridor by connecting Roberts Bank to the provincial highway network.

Currently, commercial traffic accessing the industrial lands from Roberts Bank need to travel east along Deltaport Way to the signalized 41B Street intersection, as trucks are not permitted to use the intersection of Deltaport Way at 27B Avenue. However, as it features an eastbound off-ramp and westbound on-ramp from/to Deltaport Way at Roberts Bank terminals connection with the mainland, the route has potential to improve trade connections. The corridor needs to be upgraded in order for it to become a key trucking route for vehicles travelling between Roberts Bank terminals and the industrial developments south of Deltaport Way on Tsawwassen First Nation land.

This project includes four-laning and strengthening for heavy vehicle traffic, and incorporates improved sight lines onto Deltaport Way westbound for more appropriate acceleration and merge.

Anticipated project benefits:

- Direct, efficient and safe route to the Tsawwassen First Nation industrial development and Canada Border Services Agency Container Examination Facility
- Reduced overall congestion at the signalized intersections which negatively affects the present and future travel times for commercial, passenger and container transfer traffic
- Improved travel safety with a collision reduction of approximately 50 percent calculated over the 25-year planning horizon

Sunbury & Tilbury Improvements

Anticipated project cost: \$245.0 M

This project will focus on the four required improvements along the Highway 91 and Highway 17 corridors. These corridors are the primary trucking routes that enable the growth of the Asia Pacific Gateway Corridor and connect Roberts Bank, Burrard Inlet (Centerm, Vanterm) and Fraser Surrey Docks container port terminals to local, provincial, national and international markets. The required improvements will be considered as one project, the Highway 91 to Highway 17 Improvements Project, which includes:

1. Highway 91/Nordel Way Interchange

Reconfiguration of current interchange to enhance truck movements and overall capacity, free flow on-and-off ramps for critical movements, and two, two-lane structures for the Highway 91 eastbound off-ramp going into Surrey. As well as a two-lane structure on Nordel Way for westbound traffic over Highway 91.

2. Highway 91 Connector/Nordel Way Overpass

Removal of signalized intersection, grade separation of Highway 91C and Nordel Way Intersection, improvements to the intersection and access to the CVSE weigh scale and truck parking area.

3. Highway 91 Connector/Highway 17/River Road Trumpet Interchange

The opportunity for the closure of the Highway 91 Connector/River Road connection over the BNSF tracks and removal of the signalized intersection. Improvements to the Trumpet Interchange include a North quadrant loop ramp for traffic heading west bound on Highway 17 from the Highway 91 Connector and new ramps and a roundabout for movements to and from River Road.

4. Highway 17/80th Street (Tilbury) Intersection Improvements

The interchange will remove 80th Street intersection from the Highway 17 corridor to improve road safety, reduce idling, increase capacity and generate travel time savings.

Planning work is advancing to replace the existing intersections with interchanges to enhance mobility for all movements. The new interchanges will result in less congestion and improved safety for truck-based goods movement travelling along Highway 17 and Highway 91.

Anticipated project benefits:

- Improved truck access along Highway 17 and Highway 91
- Reduced queuing and delays associated with removal of the congested signalized intersections
- Improved travel safety with a collision reduction of approximately 50 percent calculated over the 25-year planning horizon
- Optimized capacity of the southern access point to the Alex Fraser Bridge

Highway 91 Six-Laning

Anticipated project cost: \$50 M

Highway 91 is the major access route to the Fraser Richmond Port Lands (FRPL). The FRPL are a strong economic generator in the region and a key component of the supply chain that enables Canadian producers and consumers to access international markets. In addition, Highway 91 connects the areas south of the Fraser River and the South Shore Port facilities. The section between Knight Street and Nelson Road experiences significant congestion issues during peak and off-peak travel times and experiences high safety and collision rates.

This Project consists of expanding Highway 91 in Richmond from four to six lanes between Knight Street and the Nelson Road Interchange. The increased capacity will benefit commuter and goods movements through reduced travel times through reduced congestion.

Anticipated Project Benefits:

- Enhanced east west connectivity within Richmond
- Reduced commuter and goods movement travel times
- Increased capacity will benefit commuter and goods movements through reduced travel times through reduced congestion
- Improves FRPL highway link to Highway 99 and connectivity to YVR, Port Terminals, and United States border crossing
- These improvements will complement the work being delivered as part of the George Massey Tunnel Replacement Project

Harris Road Underpass

Anticipated project cost: \$46 M

Highway 7 is the main east-west road corridor along the north side of the Fraser River from the Lower Mainland to the Fraser Canyon, and is an important route for international trade-related goods movement. At certain times of the day, Highway 7 currently experiences significant congestion, which creates delays for all road users, including local Pitt Meadows traffic, regional traffic and goods movement traffic.

CP Intermodal Yard operations are constrained by the Harris Road at-grade crossing at the east end of the intermodal rail yard. Elimination of the at-grade crossing will enable greater switching and train building efficiencies, provide the potential to add another mainline track, and increase access to intermodal services at Vancouver Intermodal Facility. The Harris Road at-grade crossing impacts the reliability of emergency services for the community on both sides of the crossing. Transport Canada, in its list of top high risk at-grade crossing, identified the Harris Road crossing as a hotspot for potential accidents.

Anticipated project benefits:

- Increased train building capacity, and accommodation for up to four railway tracks at the Vancouver Intermodal Facility
- Reduced road user delays caused by train crossings, and could potentially help enable longer West Coast Express trains
- Improved local and commercial traffic
- Enhanced container truck access to the Vancouver Intermodal Facility
- Improved reliability for emergency response services due to the grade-separation of the railway crossing

Appendix A – Greater Vancouver Gateway 2030 Full List of Projects

IMPROVEMENTS ALONG THE RAIL CORRIDOR CONNECTING TO THE NORTH SHORE AND THE SOUTH SHORE OF BURRARD INLET:

- Pitt River Road Overpass (\$61 M) – **Priority Project**
- Colony Farm Road Overpass (\$35 M) – **Priority Project**
- Kingsway Avenue Overpass (\$75 M)
- Westwood Street Underpass (\$75 M)
- Kennedy Road Overpass (\$25 M) – **Priority Project**
- Harris Road Underpass (\$46 M) – **Priority Project**
- Highway 7 at Allen Way Interchange / Harris Road Interchange (\$129 M)
- Bell Road Overpass (\$29 M)

IMPROVEMENTS ALONG THE RAIL CORRIDOR CONNECTING TO THE BURRARD INLET AND THE FRASER RIVER:

- Brunette Interchange Upgrades and Road / Rail Grade Separation and crossing closures (\$510 – 640 M) – **Priority Project**
- North Shore Corridor Capacity Improvement Project – **Priority Project**
 - Thornton Rail Tunnel Ventilation Improvements (\$15 M)
 - Douglas Grade Separation and Piper Closure (\$70 M)
 - Rail Corridor Improvements (~5 miles of track) (\$35 M)
 - Retrofitting Tugs with folding masts (\$2 M)
- North Fraser Way at Marine Way Intersection Improvements (\$4 M)

BURRARD INLET ROAD & RAIL IMPROVEMENTS PROGRAM:

- Overpasses/ Upgrades along to Burrard Inlet Line (Malkin National or Williams) (\$150 – 230 M)
- Burrard Inlet Road and Rail Improvement Project – **Priority Project**:
 - Waterfront Road Access Improvement Project (\$59 M)
 - Centennial Road Overpass Project (\$54 M)
 - Commissioner Street Rail and Road Expansion Project (\$15 M)

FRASER RICHMOND PORT LANDS ACCESS PROJECTS:

- Portside Road Overpass and Upgrade (\$90 M) – **Priority Project**
- Blundell Road Four-Laning (\$13 M) – **Priority Project**
- Westminster Highway Overpass (\$31 M)
- Highway 91 Six-Laning (\$50 M) – **Priority Project**

FRASER SURREY PORT LANDS AND SURREY INDUSTRIAL AREA ACCESS PROJECT:

- Highway 17 Interchange at Plywood Road and Grade Road (\$108 M) – **Priority Project**
- Highway 17 at Old Yale Road Overpass (\$32 M)

ROBERTS BANK RAIL CORRIDOR IMPROVEMENTS:

- Langley Road Improvements with RCIS (\$10 M)
- Whistle Cessation Projects (\$5 M)
- 96th Avenue Overpass Project (\$12 M)

ROBERTS BANK TERMINAL ACCESS AND GOOD MOVEMENT IMPROVEMENTS

- Tilbury/ 80th Street Interchange (\$60 M) – **Priority Project**
- Arthur Drive Replacement (\$80 M)
- Deltaport Way Widening to Four Lanes (\$25 – 45 M) – **Priority Project**

OTHER PROJECTS

- Mountain Highway Underpass (\$6 M)
- Whistle Cessation Projects (\$20 M)
- Moray Channel Bridge (\$91)
- Western Lower Level Route Extension (WLLRE) (\$160 M)
- Highway 1 Widening from Langley to Abbotsford including Surrey overnight truck parking (\$695 M)
- Pattullo Bridge Replacement (\$1,506 M)
- George Massey Tunnel Replacement Bridge (\$3,500 M)

