PITT RIVER GATEWAY INTERCHANGE

Campaign Policy and Preliminary Technical Concept

PURPOSE OF THIS PAPER

A public policy proposal for a regional feasibility process at Pitt River Road and Lougheed Highway. It is intended to be technically informed, not to replace professional engineering design, traffic modelling, environmental assessment, rail engineering, or regulatory review.

Prepared for PoCo Forward

September 2026 | pocoforward.ca | info@pocoforward.ca

Executive Summary

The Pitt River Gateway Interchange is a campaign policy concept for studying a possible replacement of the existing Pitt River Road / Lougheed Highway conflict point with a fully grade-separated, four-movement interchange. The proposal is designed around a broader regional objective than simply removing one railway crossing: improve safety, keep Lougheed Highway moving, provide reliable access into and out of Port Coquitlam, preserve future rail capacity, reduce pressure on the constrained downtown approach, and leave room for a safer walking and cycling connection.

This is not a new problem. Coquitlam transportation studies in 2011 documented train-related queuing at this location, including westbound queues extending onto the railway tracks, and evaluated both a free-flow trumpet interchange and a tight diamond option. Those studies estimated construction costs of $46 million to $47 million in 2011 dollars, plus $21 million in indirect rail costs. [1][2]

The corridor has since moved beyond conceptual study. Port Coquitlam's 2024 Master Transportation Plan states that studies and preliminary design were completed for a tight diamond interchange at Pitt River Road and Lougheed Highway, with the railway passing below. It also records that the work was undertaken through a collaborative process involving the Vancouver Fraser Port Authority, TransLink, the B.C. transportation ministry, Transport Canada, Coquitlam, Port Coquitlam, local Indigenous groups, Canadian Pacific Railway, and other affected parties. [3]

This paper does not dismiss that work. It proposes testing a four-movement configuration that uses vertical stacking to pursue a more compact horizontal footprint than the tight-diamond baseline, while also addressing rail flexibility, regional goods movement, Port Coquitlam access, active transportation and downstream traffic distribution.

POLICY ACTION PROPOSED

Initiate a joint feasibility and concept-development process, led with the City of Coquitlam and TransLink and conducted with CPKC, Port Coquitlam, kʷikʷəƛ̓əm First Nation, Vancouver Fraser Port Authority, Metro Vancouver, provincial and federal agencies, and other affected parties. The output should be a comparative engineering and business-case study, not a predetermined construction decision.

Key concept outcomes to test

- Remove the traffic signal from the principal interchange movements and separate road traffic from rail operations.
- Provide dedicated movements from Pitt River Road to both northbound and southbound Lougheed Highway.
- Provide dedicated movements from both directions of Lougheed Highway into eastbound Pitt River Road toward Port Coquitlam.
- Prevent vehicle queues from occupying the railway crossing and reduce train-related road delay.
- Preserve the railway envelope for future double tracking and examine whether staging or holding capacity can be improved without compromising CPKC operations.
- Use Pitt River Road as a stronger four-lane gateway into Port Coquitlam, potentially reducing some pressure on the two-lane Shaughnessy Street underpass and downtown approaches, subject to traffic modelling.
- Integrate a separated walking and cycling connection where practical, while minimizing environmental and park impacts.

Preliminary cost context

Using B.C.'s forecast 2026/27 Highway Construction Cost Index produces an approximate $100 million to $102 million historical-cost comparator before property and environmental impacts. This paper uses a preliminary $115 million to $145 million working range. It is a project-cost screen, not a local tax bill; Section 10 identifies funding channels that could materially reduce Port Coquitlam's share. [2][9][10][15][16][17]

Concept Figure 1 - Pitt River Gateway Interchange

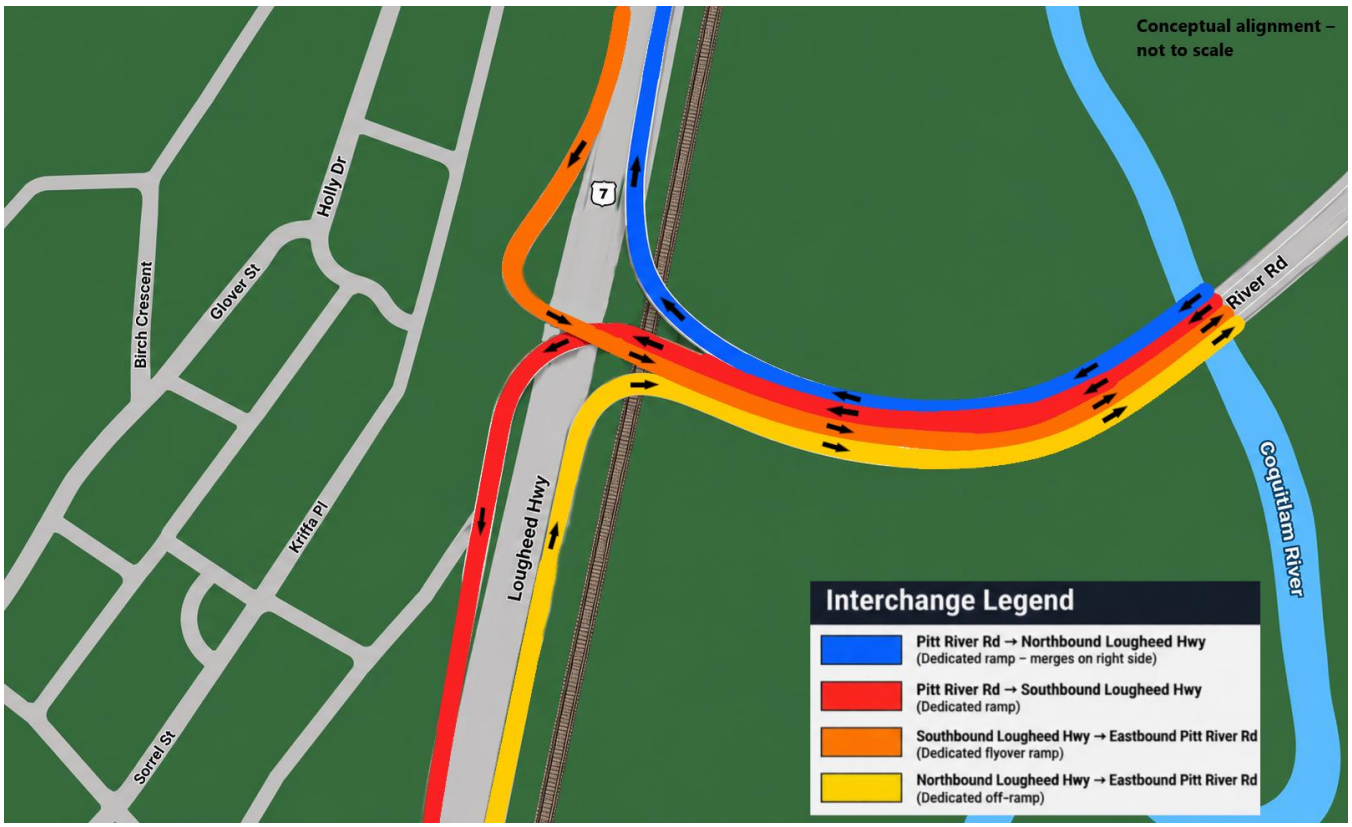

Figure prepared as a campaign concept. Alignment is conceptual and not to scale. Coloured ramps show movement logic only; they are not surveyed centrelines or engineering drawings.

How to read the concept

Ramp	Movement	Concept function
Blue	Pitt River Road to northbound Lougheed Highway	Dedicated ramp merging on the right side of northbound Lougheed.
Red	Pitt River Road to southbound Lougheed Highway	Dedicated directional ramp continuing south. Passes below the orange flyover at the critical crossing.
Orange	Southbound Lougheed Highway to eastbound Pitt River Road	Elevated flyover. Crosses above red and then descends onto the south/west side of Pitt River Road.
Yellow	Northbound Lougheed Highway to eastbound Pitt River Road	Dedicated off-ramp with a long approach and no signalized conflict.

TECHNICAL STATUS

The figure defines topology, not final geometry. Survey, traffic volumes, turning counts, rail operating requirements, horizontal curve design, vertical profiles, geotechnical data, drainage, structural spans, environmental boundaries, property requirements, and construction staging remain to be determined.

1. Problem Definition

The Pitt River Road / Lougheed Highway location functions as a gateway to Port Coquitlam, a regional arterial connection, and a road-rail conflict point. The intersection itself is in Coquitlam, while the Coquitlam River immediately to the east forms the transition toward Port Coquitlam. The location therefore behaves as an intermunicipal and regional transportation node rather than a purely local intersection. [1][12]

1.1 Rail-related delay and safety

The core safety issue has been documented for years. Coquitlam's 2011 transportation work identified queuing of northbound right-turn traffic on Lougheed Highway when trains cross Pitt River Road and westbound queuing on Pitt River Road onto the rail tracks. The same work described the intersection as having one of the highest collision rates in Coquitlam at that time. [1]

The proposed interchange addresses the failure mode directly: road traffic would no longer need to stop on or immediately adjacent to the railway crossing. Removing the at-grade conflict would also make road travel times less dependent on train length, train timing, and switching or staging activity.

1.2 Recurring queueing and spillback

Campaign field observations used to develop this concept include outbound queues from Port Coquitlam extending back toward Riverside Secondary and northbound Lougheed queues extending for long distances during train events. Those observations are important, but they should not be treated as measured engineering data. The first phase of any feasibility study should instrument the corridor and quantify queue length, duration, peak-hour demand, train blockage time, and the effect on Lougheed through traffic.

Historical modelling nevertheless supports the network significance of the location. The 2011 evaluation projected that grade separation would materially improve capacity and travel time and would attract additional traffic to Pitt River Road, with much of it diverted from other corridors such as Barnet Highway and the Mary Hill Bypass. Those forecasts are now old and should not be used as current demand values, but they demonstrate that the intersection can influence traffic distribution beyond the immediate site. [2]

1.3 Downtown access and network resilience

Port Coquitlam's current Master Transportation Plan describes the Shaughnessy Street underpass as a two-lane arterial that is often congested and notes that adding vehicle lanes there would introduce more traffic into an already busy downtown corridor. [3] The Gateway concept therefore treats Pitt River Road as an alternate four-lane access route that could carry a larger share of trips into and out of the city without forcing those trips through the constrained downtown portal. The scale of that diversion must be established by traffic modelling rather than assumed.

DESIGN QUESTION

Can a grade-separated interchange at this location improve safety and regional flow without simply moving the bottleneck downstream? The feasibility study must model Pitt River Road, downtown Port Coquitlam, Lougheed Highway, Mary Hill Bypass, and key downstream intersections as one network.

2. Existing Planning and Previous Work

The proposal begins from existing public work rather than from a blank page. That distinction matters because substantial planning effort has already established the case for grade separation, identified environmental and property constraints, and completed preliminary design work.

2.1 2009-2011 trade-area and transportation studies

The 2011 Coquitlam Strategic Transportation Plan discussion papers referenced the earlier South Shore Trade Area Study and evaluated two grade-separation options at Pitt River Road: a trumpet interchange that allowed free flow in all directions and a tight diamond with an unsignalized intersection on the overpass. Both provided clearance for future rail expansion. [1][2]

The 2011 evaluation found mobility and safety benefits, including elimination of queue spillback onto the tracks, but also identified property impacts, fish habitat and wetland impacts, archaeological risk, and significant cost. The study reported construction costs of $46 million to $47 million depending on option, plus $21 million in indirect rail costs. Property and environmental impacts were excluded from the construction figure. [2]

2.2 2018 federal trade-corridor funding

In 2018, the federal government funded design work for the Pitt River Road and Colony Farm Road rail-overpass project. Transport Canada describes the project as developing engineering designs to raise Pitt River Road and Colony Farm Road over the Canadian Pacific corridor while enabling approximately 5.2 km of double tracking. Federal funding for the design project was approximately $2.1 million. [4][5]

2.3 2019-2022 collaborative preliminary design

Port Coquitlam's 2024 Master Transportation Plan states that the Port-led work from 2019 to 2022 was carried out with the City of Coquitlam, City of Port Coquitlam, local Indigenous groups, Canadian Pacific Railway, and other directly affected parties. The resulting Pitt River Road concept recorded in the plan is a tight diamond interchange with the railway passing below. Detailed design and construction remain dependent on additional funding. [3]

2.4 Why revisit the functional brief

The prior process was already collaborative and should not be characterized as a Port Coquitlam-only exercise. The policy question is narrower: whether the current tight-diamond preliminary design remains the preferred configuration when the brief is expanded to explicitly test four continuous directional movements, rail staging and future track flexibility, Lougheed through-traffic performance, an alternate Port Coquitlam gateway, and active-transportation continuity.

The correct next step is therefore a comparative feasibility exercise using the existing preliminary design as a baseline, not discarding prior work and not committing to the new concept before modelling and consultation.

COMPACT FOOTPRINT DESIGN OBJECTIVE

The Gateway concept is deliberately designed to require less overall horizontal space than the tight-diamond baseline by using vertical separation where movements cross and by keeping ramps close to the existing Pitt River Road/Lougheed corridors. The objective is to reduce lateral land take, property pressure and encroachment into sensitive lands. Because the campaign figure is schematic and not to scale, the exact footprint advantage must be confirmed against the 2019-2022 preliminary-design package with surveyed right-of-way and cadastral overlays. [2][3]

3. The Pitt River Gateway Concept

The Gateway concept is a four-movement, grade-separated interchange organized around simple operating logic: vehicles entering or leaving Port Coquitlam should be able to make the principal Lougheed Highway movements without a signal and without occupying the railway crossing.

3.1 Four independent movements

Movement	Function	Primary objective
Pitt River Road to northbound Lougheed	Blue directional ramp	Right-side merge into northbound Lougheed with enough parallel distance to accelerate and merge safely.
Pitt River Road to southbound Lougheed	Red directional ramp	Free-flow southbound connection, separated vertically from the orange flyover.
Southbound Lougheed to eastbound Pitt River Road	Orange flyover	Restore a direct movement into Port Coquitlam without a signalized left-turn conflict.
Northbound Lougheed to eastbound Pitt River Road	Yellow off-ramp	Long, dedicated right-side exit that avoids the current train-related queueing pattern.

3.2 Network intent

- Keep Lougheed Highway through traffic moving while turning traffic separates into dedicated ramps.
- Move the road-rail conflict out of the traffic stream instead of relying on signal timing around a railway crossing.
- Make Pitt River Road a stronger gateway to Port Coquitlam and distribute traffic before it reaches downtown.
- Protect a rail corridor wide enough to accommodate the double-track concept already studied and leave room to discuss additional operational flexibility with CPKC.
- Provide a project envelope that can incorporate a separated walking/cycling connection without forcing users along the most traffic-exposed part of the corridor.
- Use vertical space deliberately: stack conflicting movements to keep the horizontal construction envelope as compact as practical and target less lateral land take than the tight-diamond baseline, subject to survey and cadastral verification.

3.3 What the concept does not assume

The diagram does not assume final ramp radii, pier locations, property acquisition, rail clearances, a specific bridge type, final design speed, or a guaranteed environmental approval pathway. It also does not assume that rail staging benefits are available. Those benefits must be identified and confirmed by CPKC.

4. Conceptual Engineering and Design Checks

The purpose of the preliminary engineering discussion is to show that the concept has been subjected to basic geometric reality checks. It is not a sealed design and should not be represented as one.

4.1 Vertical clearance and stacked structures

B.C. bridge standards require a minimum 5.0 m vertical clearance over paved highway surfaces, including ramps, with settlement, structural deflection, and future pavement overlays accounted for. [7] For screening, this report assumes approximately 1.5 m of structural depth for each elevated roadway deck. Final structural depth could be materially different depending on span arrangement and bridge type.

At the critical red/orange crossing, the conceptual stack is therefore approximately:

Level	Screening elevation	Reason
Reference Lougheed pavement	0 m	Conceptual reference only.
Red ramp pavement	about +6.5 to +6.8 m	Approximately 5.0 to 5.3 m vehicle clearance plus structural depth.
Orange flyover pavement	about +13.0 to +13.6 m	Second truck-clearance envelope above the red ramp plus structural depth.

These values are screening assumptions. Rail clearances are separate and must be confirmed with CPKC; rail requirements may control the final vertical profile.

4.2 Ramp grade and length

If the orange flyover reaches roughly 13.5 m above the reference road surface, a 5% constant grade requires about 270 m of theoretical climb. At 4%, the climb is about 340 m. Real ramps require vertical curves at the top and bottom, so the practical approach length would be longer. A planning allowance of roughly 300 to 400 m on the climbing side is therefore reasonable for the concept model, subject to final design speed and vertical-curve criteria.

For screening, this report targets 4% to 5% grades on the principal flyover and treats 6% only as an upper test case. A recent B.C. interchange design-build specification used 6% as the maximum grade for 30 to 60 km/h interchange ramps, while B.C. generally uses TAC geometric design guidance as its primary design reference. [8]

4.3 Heavy-vehicle design

The interchange should be developed around commercial vehicle movements, not passenger cars alone. The B.C. supplement to TAC identifies the WB-20 tractor-semitrailer as the typical design vehicle for Ministry roadways while also noting that longer configurations may need to be accommodated. [8] The feasibility study should check turning paths, grades, acceleration performance, stopping sight distance, barrier offsets, and merge geometry using heavy vehicles expected on the corridor.

4.4 Merge and acceleration geometry

The concept intentionally uses long, parallel merge zones rather than short tapers. The exact acceleration and taper lengths should be calculated from final ramp design speed, grade, heavy-vehicle performance, Lougheed operating speed, and TAC criteria. The blue northbound merge in particular should enter from the correct right-hand side and provide sufficient distance for trucks to accelerate before fully entering the Lougheed through lane.

4.5 Rail envelope

Earlier concepts preserved room for future tracks, and the later federal design program included about 5.2 km of double tracking. [2][4] The new geometry must not foreclose that plan. Rail clearance, pier placement, crash protection, construction access, and temporary track protection require direct CPKC review.

5. Traffic Operations and Regional Function

The transportation case for this project is not simply that one intersection is inconvenient. The case is that the location can redistribute trips across multiple corridors and can affect through traffic, access to Port Coquitlam, transit reliability, emergency response, and goods movement.

5.1 Lougheed Highway through traffic

The objective is to remove turning queues and train-related blockage from the Lougheed through lanes as much as practical. Earlier Coquitlam work found that free-flow grade separation would improve intersection operation and reduce travel time. [2] The new feasibility study should quantify the benefit to vehicles that are not entering Port Coquitlam, because those users are an important part of the regional business case.

5.2 Access to Port Coquitlam from both directions

The orange movement is particularly important to the concept because it creates a direct southbound Lougheed to eastbound Pitt River Road connection. Earlier Coquitlam planning identified the value of adding a southbound left-turn movement to Pitt River Road as part of grade separation. [1] Providing both Lougheed directions with direct access to Pitt River Road creates a more complete gateway and may redistribute traffic away from other constrained entrances.

5.3 Downtown pressure

Port Coquitlam's Master Transportation Plan states that the Shaughnessy Street underpass is a two-lane arterial that is often congested and that widening it for more vehicle lanes would be costly and would introduce more traffic into the busy downtown corridor. [3] A stronger Pitt River Road gateway could give drivers an alternative before they reach the downtown network. The feasibility study should model whether this improves downtown conditions or simply shifts congestion to Pitt River Road intersections farther east.

5.4 Data required before design selection

Data set	Why it matters
72-hour classified traffic counts	Establish weekday demand, heavy-vehicle share, and directional peaks.
Intersection turning counts	Size each directional ramp and test downstream junctions.
Queue length and travel-time monitoring	Validate reported kilometre-scale queues and quantify train-event impacts.
Rail blockage log	Measure frequency and duration of crossing closures and relate them to road queues.
Origin-destination / Bluetooth or equivalent travel-time data	Estimate how many trips could shift between downtown, Pitt River Road, Mary Hill Bypass, and Lougheed.
Transit and emergency-response data	Quantify reliability benefits beyond general traffic.

6. Rail Capacity and Goods Movement

The rail corridor is not a constraint to work around after the road design is finished. It is one of the project's primary systems. Canadian Pacific Kansas City (CPKC) is the current railway company; earlier studies refer to Canadian Pacific or CP. [13]

6.1 Existing regional rail planning

Transport Canada's funded-project record states that the Pitt River Road and Colony Farm Road rail-overpasses design project included separating road and rail corridors and double tracking approximately 5.2 km of Canadian Pacific railway. Port Coquitlam's Master Transportation Plan similarly refers to coordination with CP's plan to twin roughly five kilometres in the Westminster Subdivision. [3][4]

6.2 Opportunity for rail flexibility

The Gateway concept should be tested against CPKC's current and future operating plan. The question is not simply whether trains can pass under the interchange. The feasibility study should ask whether the road structures can preserve or improve usable rail length for passing, holding, staging, or double-track operations without creating new operational restrictions. This report does not assume that such a rail benefit exists; it identifies it as a design objective for CPKC to evaluate.

6.3 Trade-corridor relevance

Port Coquitlam's 2024 plan notes that trade growth is increasing goods movement by rail and road through the Lower Mainland and identifies safety, congestion, community access, and livability as reasons for grade-separation projects. [3] The federal government has also treated this corridor as a trade-enabling investment, first through the National Trade Corridors Fund and now through the 2026 Trade Diversification Corridors Fund, which targets transportation capacity gaps and collaborative trade-corridor solutions. [4][10]

RAIL DESIGN PRINCIPLE

Do not spend road money in a way that constrains future rail capacity, and do not expand rail capacity in a way that preserves a dangerous road crossing. The feasibility process should solve the road and rail systems together.

7. Safety, Walking and Cycling

7.1 Safety case

The most direct safety gain is eliminating the at-grade road-rail conflict and the possibility of road queues occupying the tracks. That benefit was identified in the 2011 Coquitlam evaluation and remains central to this proposal. [2] Grade separation can also reduce abrupt stopping and queue spillback on Lougheed during train events, although final safety performance would depend on ramp design, merge lengths, sight distance, speed management, and downstream operations.

7.2 Walking and cycling connection

Active transportation is a secondary but important part of the project. The concept is to connect the currently separated walking and cycling facilities through a protected alignment near the rail corridor and into the PoCo trail network, reducing the amount of time users spend beside high-volume road traffic. A possible structure-assisted crossing of Lougheed could also be examined if it can be integrated without excessive cost or environmental impact.

This element should remain proportionate to the overall project and should be designed with Metro Vancouver, local governments, kʷikʷəƛ̓əm First Nation, and trail users. The nearby regional park trail system is environmentally sensitive in places, and Metro Vancouver materials note flooding and riparian constraints in the northern Sheep Paddocks area. [11]

7.3 Emergency response

Removing a railway blockage from a major gateway can also improve route reliability for emergency vehicles. Port Coquitlam's Master Transportation Plan lists better emergency response as one of the anticipated benefits of the broader rail-crossing improvement program. [3] This should be quantified with the fire service, ambulance, police, and emergency-planning staff rather than assumed.

8. Environmental, Land and Archaeological Constraints

The site is constrained. Earlier engineering work identified fish habitat, wetlands, property impacts, and archaeological risk. [2] The nearby Coquitlam River, riparian areas, regional park lands, flood-prone lowlands, railway corridor, and existing road network mean that a compact footprint is not merely a cost objective; it is an environmental and constructability objective.

8.1 Environmental design objective

The policy direction is to minimize new footprint and avoid unnecessary encroachment into sensitive lands. This concept intentionally trades some structural height and complexity for a tighter lateral envelope: stacking movements vertically is intended to use less horizontal space than the tight-diamond baseline and preserve more surrounding land. Where elevated structures are necessary, the feasibility study should compare embankment, retaining-wall, and viaduct options based on habitat footprint, flood conveyance, constructability, cost, and long-term maintenance. The preferred structural solution should be selected after environmental and geotechnical investigation, and the claimed footprint advantage should be confirmed by surveyed/cadastral comparison rather than assumed from the concept map.

8.2 Regional park and river interface

Metro Vancouver's nearby regional park lands are closely associated with the Coquitlam River and contain sensitive habitat and trail networks. The project should therefore involve Metro Vancouver early enough that road geometry can be changed before it becomes fixed. [11]

8.3 Archaeology and Indigenous cultural values

The 2011 work identified archaeological risk at the grade-separation site. [2] kʷikʷəƛ̓əm First Nation describes the Coquitlam River watershed as the centre of its traditional territory and records continuous occupation over thousands of years. [6] Archaeological planning and Indigenous engagement should begin during feasibility, not after a preferred alignment is selected.

8.4 setɬamékmən / Coquitlam I.R. 2

Based on the current schematic, the interchange is not proposed to enter setɬamékmən (Coquitlam I.R. 2). The Nation identifies that reserve as approximately 202 acres off Pitt River Road and under active mixed-use development planning. [6] A more reliable Pitt River Road gateway could improve truck and service access to the area, but that potential benefit should be discussed directly with the Nation and should not be represented as an endorsement of this project.

9. Governance and Stakeholder Framework

No single organization controls every system affected by the project. The interchange is in Coquitlam, serves Port Coquitlam, interfaces with a CPKC railway, sits on road segments that form part of TransLink's Major Road Network, and is adjacent to lands and interests involving kʷikʷəƛ̓əm First Nation and Metro Vancouver. [1][12] A workable project therefore requires a joint governance structure from the beginning.

Party	Role to be tested / confirmed
City of Coquitlam	Host municipality for the intersection; local road ownership/operations; land-use, utilities, property, and permitting coordination.
City of Port Coquitlam	Gateway network impacts, Pitt River Road distribution, downtown traffic, active transportation, emergency access, and community case.
TransLink	Major Road Network planning/approval role, regional goods movement, transit impacts, traffic data, and potential cost-sharing programs. Lougheed Highway and Pitt River Road segments at the site are listed in the MRN. [12]
CPKC	Rail operating requirements, track expansion, staging/passing opportunities, railway clearances, structure protection, construction windows, and safety.
kʷikʷəƛ̓əm First Nation	Rights and interests in traditional territory, archaeology and cultural values, environmental knowledge, nearby reserve access, and project naming/relationship.
Vancouver Fraser Port Authority	Trade-corridor planning, prior project sponsorship, goods-movement business case, and potential partnership where port-related benefits are demonstrated.
Metro Vancouver	Regional park and trail interface, environmental stewardship, and regional coordination.
Province of British Columbia	Transportation engineering standards, environmental and regulatory roles, funding partnership, and coordination with provincial programs.
Transport Canada / Government of Canada	Rail safety and federal trade-corridor funding programs; potential funding and regulatory roles depending on final scope.
Other Indigenous Nations and regulators	Engagement and approvals as identified through Crown consultation, environmental review, fisheries, archaeology, and project-specific requirements.

9.1 Proposed working model

The policy approach is an open invitation to build a joint project table rather than ask other organizations to approve a finished municipal concept. A practical structure would include a technical working group for engineering and operations, an executive steering table for scope and funding, and an Indigenous engagement process designed with the Nations involved.

The first joint decision should be the problem statement and evaluation criteria. If the parties do not agree on what the project must solve, they are unlikely to agree on a design.

10. Cost Context and Funding Strategy

Any campaign cost figure at this stage must be presented as a range. The only publicly documented cost basis located for the Pitt River Road grade-separation concepts is the 2011 Coquitlam evaluation, which reported $46 million to $47 million in construction cost plus $21 million in indirect rail costs. [2]

10.1 Forecast construction-cost index comparison

B.C.'s April 2023 Highway Construction Cost Index memorandum records 71.884 for 2011/12 and forecasts 107.353 for 2026/27. [9] Applying that forecast index produces the following construction-cost comparator:

Item	2011 amount	2026/27 forecast-index comparator
Historic grade-separation construction scope	$46M to $47M	about $68.7M to $70.2M
Historic indirect rail allowance	$21M	about $31.4M
Combined forecast-index comparator	$67M to $68M	about $100.1M to $101.6M

Calculation: forecast 2026/27 index divided by 2011/12 index = approximately 1.493. This is a forecast-index comparison, not an observed 2026 inflation measurement. Historical source excluded property and environmental impacts from the construction figure.

10.2 Working planning range for the Gateway concept

The Gateway concept adds structural complexity relative to a simple tight diamond, particularly the orange-over-red flyover and the desire for long heavy-vehicle merge geometry. It may also add active-transportation work and additional rail-interface requirements. At the same time, the 2011 trumpet concept was already a free-flow alternative, so it would be misleading to assume that every new ramp is entirely incremental to the historical cost basis.

PRE-FEASIBILITY WORKING RANGE: $115M TO $145M (2026 dollars)

This is a policy-level screening range, not a construction estimate. It excludes major land acquisition, extraordinary environmental compensation, financing, and unconfirmed utility or geotechnical costs. A professional estimate should be prepared after survey, 15-30% concept design, geotechnical work, rail requirements, and quantity take-offs.

10.3 Funding strategy: reduce the municipal share

THE $115M TO $145M RANGE IS A TOTAL PROJECT SCREEN, NOT A PORT COQUITLAM TAX BILL. This is a regional road-rail-trade project with benefits and responsibilities spread across multiple jurisdictions and organizations. Before any municipal financing decision, the project team should pursue senior-government participation, TransLink cost-sharing, port and railway contributions where direct benefits are demonstrated, and a negotiated share between the affected municipalities.

At the federal level, the 2026 Trade Diversification Corridors Fund (TDCF) is the strongest current program fit. It is a $5 billion program running from 2026-27 through 2031-32 for trade-enabling transportation infrastructure, including roads, railways and bridges. Transport Canada permits a standard maximum federal contribution of up to 50% of eligible project expenditures. On a hypothetical $130 million project in which all expenditures were eligible, that ceiling would equal up to $65 million; this is an illustration of program scale, not a funding commitment. The 2026 Stream 2 and Stream 3 application windows have closed, so any future submission would depend on a later intake, an invitation, or a partner-led pathway. [10]

10.4 Named funding programs and channels to pursue

- **Federal - Trade Diversification Corridors Fund (TDCF):** Potentially applicable to the core road, rail, bridge, feasibility, design and construction scope. The program runs through 2031-32 and generally allows a federal contribution up to 50% of eligible expenditures, subject to approval and program terms. [10]

- **Federal - Build Communities Strong Fund, Community Stream (formerly the Canada Community-Building Fund):** A long-term federal infrastructure transfer administered in B.C. by UBCM. Eligible categories include local roads and bridges, public transit and active transportation. Within Metro Vancouver, the Community Stream includes the Metro Vancouver Regional Fund for regional transportation investments, with projects proposed by TransLink and approved by the Metro Vancouver Regional District Board. [15]
- **Regional - TransLink Local Government Funding Programs:** The 2026 program suite includes the Major Road Network & Bike Cost Share Program, Major Road Network Structures Program, Bicycle Infrastructure Capital Cost Share Program and other road, bridge, walking and transit-support programs. These are directly relevant because the site includes Major Road Network segments. [12][16]
- **Provincial - B.C. Active Transportation Infrastructure Grant:** If the intake resumes, this could help fund eligible separated walking/cycling elements rather than the core interchange. The program has historically cost-shared 50% of eligible costs for communities over 25,000, to a maximum of $500,000 per project. The 2025/26 intake is currently paused pending provincial review, so it should not be counted as committed funding. [17]
- **Provincial capital partnership:** The core interchange should also seek direct B.C. capital participation based on regional mobility, goods movement and safety benefits. The report does not assume a specific provincial grant for the main structure; any provincial contribution would need to be negotiated as the project scope and business case are developed.

Funding principle. The objective is not to promise that another government will pay. It is to prevent a regional project from defaulting to Port Coquitlam's property-tax base. The business case should be designed around eligible federal, regional, provincial, port, railway and municipal contributions, within each program's rules, and only then identify the residual local share.

11. Comparison with Prior Concepts

A feasibility study should compare the Gateway concept with the existing tight-diamond preliminary design and, where useful, the earlier free-flow trumpet concept. The following table is a functional comparison only; it is not an engineering ranking.

Feature	2011 trumpet	Tight diamond baseline	Gateway concept
Principal road function	Free-flow all directions	Grade-separated interchange; current preliminary design on file	Four independent directional movements; no principal signal conflicts
Rail separation	Yes; future track clearance contemplated	Yes; railway passing below	Yes; protect double-track envelope and test added staging flexibility
Southbound Lougheed to Pitt River	Included in earlier free-flow concept	To be confirmed from current design package	Explicit dedicated orange flyover
Lougheed through flow	Free flow	Grade separated	Free flow objective with turning traffic removed into ramps
Port Coquitlam network objective	Intersection/access improvement	Intersection/access improvement	Explicitly test diversion from downtown and stronger use of four-lane Pitt River Road
Active transportation	2011 study noted potential MUP integration	Current detailed provisions should be reviewed	Protected connection included as secondary design objective
Rail operations objective	Future tracks protected	Double-track program coordinated in broader project	Protect tracks plus ask CPKC to test holding/staging value
Horizontal / environmental footprint	Higher property impact noted for the 2011 trumpet option.	Separate ramp terminals in tight-diamond form; exact 2019-2022 footprint should be obtained and mapped.	Vertical stacking is intended to require less horizontal space and reduce lateral land take; quantify against the baseline with surveyed/cadastral overlay.

11.1 Evaluation criteria

- Safety, including elimination of road-rail queue conflict and safe high-speed merging.
- Person and goods throughput on Lougheed and Pitt River Road.
- Travel-time reliability during train events.
- Heavy-vehicle operations and grade performance.
- Rail capacity and operational flexibility.
- Property, park, habitat, floodplain, and archaeological impacts.
- Constructability while maintaining road and rail service.
- Capital cost, lifecycle cost, and funding eligibility.
- Downstream impacts in Port Coquitlam and Coquitlam.
- Walking/cycling continuity and user safety.

12. Principal Risks and Unanswered Questions

Risk	Why it matters	Early response
Traffic demand risk	The interchange may attract enough traffic to create new downstream bottlenecks.	Model the wider network and include downstream intersection upgrades in the option analysis.
Vertical geometry risk	The orange-over-red stack may require a long ramp or excessive structure height.	Survey profiles, test several crossing locations, and compare 4%, 5%, and upper-bound grade cases.
Rail constraint risk	CPKC clearance, pier, protection, and operating requirements may force major geometry changes.	Make CPKC a design partner before a preferred alignment is selected.
Geotechnical risk	Foundation and settlement requirements are unknown in the river/lowland setting.	Complete boreholes, groundwater investigation, seismic and settlement analysis early.
Environmental risk	Wetland, fish habitat, riparian, park, and floodplain impacts could be significant.	Map constraints first, minimize footprint, and test viaduct/retaining solutions before fixing geometry.
Archaeological risk	Earlier work identified archaeological risk.	Develop an archaeological plan with Indigenous partners before intrusive work.
Property risk	Ramp footprints may affect public or private land.	Prepare cadastral overlay and property impact plan during concept design.
Cost escalation risk	A constrained rail/road project can escalate rapidly as scope becomes defined.	Use staged estimates, quantified risk allowance, independent cost review, and clear scope control.
Funding/ownership risk	Multiple parties may agree on the problem but not on cost share.	Agree on benefits, ownership, and cost-allocation principles before detailed design.
Construction staging risk	Road and rail service must remain functional during construction.	Require a constructability and temporary-traffic/rail staging plan during feasibility.

GO / NO-GO PRINCIPLE

The feasibility study should be allowed to conclude that another configuration is preferable. The policy commitment is to solve the corridor problem through a regional, evidence-based process, not to force one drawing through approval.

13. Proposed Implementation Roadmap

The following sequence is designed to move the concept from campaign policy to an evidence-based project without committing construction money prematurely.

Phase	Indicative timing	Primary output
Phase 0 - Data and file review	0-6 months	Obtain existing 2019-2022 preliminary design package; compile traffic and rail data; survey ownership, utilities, park and environmental boundaries; confirm project governance.
Phase 1 - Joint feasibility study	6-18 months	Traffic model, rail operations workshop, concept alternatives, environmental constraints map, geotechnical reconnaissance, active transportation concept, property screen, and preliminary cost/benefit analysis.
Phase 2 - Preferred concept / 15-30% design	12-24 months after feasibility	Refine horizontal and vertical geometry, structure types, rail protection, drainage, environmental mitigation, archaeology, constructability, and updated cost estimate.
Phase 3 - Business case and funding	Parallel with Phase 2	Confirm ownership and cost shares; prepare TransLink, provincial, federal trade-corridor, port and rail funding submissions where eligible.
Phase 4 - Detailed design and approvals	Project dependent	Complete regulatory approvals, Indigenous consultation, detailed traffic and structural design, utility relocations, property, tender package, and construction staging.
Phase 5 - Construction	Project dependent	Deliver in stages that protect rail operations and maintain critical road access, with transparent public reporting on cost, schedule, and impacts.

Indicative timing is a planning framework only and is not a project schedule.

13.1 Immediate municipal action

The first municipal action does not need to be a construction commitment. It can be a council direction to open discussions with Coquitlam, TransLink, CPKC, kʷikʷəƛ̓əm First Nation, Vancouver Fraser Port Authority, Metro Vancouver, and senior governments and to request access to the completed preliminary-design files. That step would establish whether there is enough common interest to define a joint feasibility scope.

14. Policy Position and Conclusion

The Pitt River Road / Lougheed Highway crossing has been studied for decades, and the public record already supports the core proposition that grade separation can improve safety, reliability, and traffic operations. The unresolved question is which configuration should now be advanced and how broadly the project should be defined. [1][2][3]

The Pitt River Gateway Interchange concept proposes a wider functional brief. It asks whether the road problem, the railway problem, the regional goods-movement problem, Port Coquitlam access, downtown pressure, and active-transportation continuity can be addressed as one coordinated gateway project rather than as separate issues.

The policy commitment is therefore procedural as well as physical: bring the affected governments, transportation agencies, railway, First Nation, port, park authority, and regulators to one table; place the existing tight-diamond design beside the new concept and any other viable alternatives; publish the criteria; test the options; disclose the cost and trade-offs; and proceed only when the regional case is demonstrated.

PROPOSED MAYORAL DIRECTION

If elected, I would ask Port Coquitlam Council to pursue a joint regional feasibility process for the Pitt River Gateway Interchange, using the existing preliminary-design work as a baseline and the four-movement Gateway concept as an additional alternative for formal study. The goal would be a mutually supported solution that improves safety and

regional transportation performance while respecting rail operations, Indigenous interests, environmental constraints, and public cost.

What success would look like

- A safer gateway where motorists are not queued on railway tracks.
- More reliable movement into and out of Port Coquitlam during train events.
- Lougheed through traffic that is less affected by turning queues.
- A road design that does not constrain future CPKC capacity.
- A meaningful alternative to concentrating more vehicles through the downtown underpass.
- A project shaped with, rather than presented to, neighbouring governments and affected partners.
- A transparent cost and funding plan before taxpayers are asked to support construction.

Sources and References

Sources are cited in the report by bracketed number. Web sources were reviewed in September 2026. Historical forecasts and cost estimates are identified as historical and should not be treated as current measured conditions.

[1] City of Coquitlam / Urban Systems, Discussion Paper #4 - Transportation Improvement Possibilities (2011). Source link

[2] City of Coquitlam / Urban Systems, Discussion Paper #5 - Transportation Possibilities Performance and Evaluation (2011). Source link

[3] City of Port Coquitlam, Master Transportation Plan (November 2024), especially sections on CP Rail crossings and Shaughnessy Street Underpass. Source link

[4] Transport Canada, Projects Funded by the National Trade Corridors Fund - Pitt River Road and Colony Farm Road Rail Overpasses Project. Source link

[5] Government of Canada, Transportation infrastructure investments for the Port of Vancouver (May 2018). Source link

[6] kʷikʷəƛ̓əm First Nation, Our Territory and Land Governance pages, including setɬamékmən (Coquitlam I.R. 2). Source link

[7] Province of British Columbia, Bridge Standards and Procedures Manual, Volume 1 - minimum vertical clearance requirements (2025). Source link

[8] Province of British Columbia, Geometric Design Guidelines / B.C. Supplement to TAC, including WB-20 design vehicle guidance; Highway 91/17 interchange criteria used as a 6% ramp-grade precedent. Source link

[9] Province of British Columbia, Highway Construction Cost Indexes (April 2023 memorandum), including forecast values for later years. Source link

[10] Transport Canada, Trade Diversification Corridors Fund and Applicant Guide (2026) - $5 billion program, 2026-27 to 2031-32; eligible trade infrastructure and maximum federal contribution rules. Source link

[11] Metro Vancouver, regional park materials and northern Sheep Paddocks trail/environment information. Source link

[12] TransLink, Major Road Network Schedule A and Roads, Bridges and Goods Movement program information. Source link

[13] Canadian Pacific Kansas City, formation of CPKC from Canadian Pacific and Kansas City Southern (2023). Source link

[14] Transport Canada, Grade Separation Assessment Guidelines - site-specific feasibility and corridor context. Source link

[15] Union of BC Municipalities / Housing, Infrastructure and Communities Canada, Build Communities Strong Fund - Community Stream (formerly Canada Community-Building Fund), including B.C. delivery and eligible infrastructure categories. Source link

[16] TransLink, 2026 Local Government Funding Programs - Major Road Network, structures, cycling, walking and transit-support cost-share programs. Source link

[17] Province of British Columbia, Active Transportation Infrastructure Grant Program - cost-sharing parameters and current intake status. Source link

Technical disclaimer

This document is a campaign policy concept. It is not prepared, signed, or sealed by a professional engineer and is not suitable for construction, procurement, property acquisition, regulatory approval, or rail authorization. All dimensions, grades, elevations, costs, benefits, and alignments are preliminary screening assumptions unless directly attributed to a cited source. Professional engineering, transportation modelling, Indigenous consultation, environmental review, geotechnical investigation, railway review, and regulatory approvals would be required before any project could proceed.