

**Part 4. Traffic Management**

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# Article 1. General Traffic Management Requirements

## 1.1 General

### 1.1.1 Scope

- (a) This Article 1 [General Traffic Management Requirements] specifies the requirements for Traffic Management and the implementation of the Traffic Management Plan as part of the Work.
- (b) Without limiting any other provision of this Agreement, the Primary Contractor shall carry out Traffic Management and the implementation of the Traffic Management Plan as part of the Work in accordance with this Part 4 [Traffic Management].

### 1.1.2 Maintaining Existing Geometry, Turning Movements and Traffic Capacities

The Primary Contractor shall maintain the geometry, turning movements, and traffic capacities that exist as of the Effective Date at all times during the Access Period in respect of any part of the Site on all roads and at all intersections within such part of the Site except as otherwise provided for in this Part 4 [Traffic Management].

### 1.1.3 Variations to the Requirements

- (a) Subject to Article 1.1.3(b) of this Part 4, the Primary Contractor may request variations to the requirements of this Part 4 by submitting such request to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.
- (b) The Primary Contractor shall substantiate a request for a variation to the requirements of this Part 4 through the provision of supporting documentation, including:
  - (i) traffic data and analysis;
  - (ii) where applicable, evidence of conformance with the Minimum Traffic Performance Criteria, in accordance with Article 5 [Traffic Engineering and Modelling] of this Part 4; and

- (iii) the results of consultation with affected stakeholders, including the Relevant Authorities, Emergency Response Agencies, TransLink, and property owners, as applicable.

#### 1.1.4 Codes and Standards

- (a) Subject to Article 1.1.4(b) of this Part 4, the Primary Contractor shall ensure that Traffic Management relating to the Design and Construction of the Work conforms to the following:
  - (i) Recognized Products List;
  - (ii) the requirements contained in this Part 4;
  - (iii) the applicable standards of the Relevant Authority;
  - (iv) MMCD;
  - (v) applicable Ministry Circulars and Technical Bulletins;
  - (vi) Design Build Standard Specifications for Highway Construction (DBSS);
  - (vii) Traffic Management Guidelines;
  - (viii) Traffic Control Manual;
  - (ix) Manual of Standard Traffic Signs and Pavement Markings;
  - (x) Guidelines for the Operation of Changeable Message Signs (CMSs) and Portable Changeable Message Signs (PCMSs);
  - (xi) Electrical and Traffic Engineering Manual;
  - (xii) Electrical and Signing Materials Standards;
  - (xiii) Standard Highway Sign Specifications;
  - (xiv) BC Supplement to TAC;
  - (xv) Transit Infrastructure Design Guidelines;
  - (xvi) TAC Geometric Design Guide;
  - (xvii) TAC Bikeway Traffic Control Guidelines; and
  - (xviii) NCHRP Report 350.
- (b) Any inconsistency in the codes and standards and other documents listed in Article 1.1.4(a) of this Part 4 shall be resolved by giving precedence in the order listed in the said Article 1.1.4(a).

## 1.2 Traffic Management Plan

### 1.2.1 Traffic Management Plan Requirements

- (a) The parties acknowledge that the Project is a Category 5 Project in accordance with the Traffic Management Guidelines.
- (b) The Primary Contractor shall prepare a Traffic Management Plan, which plan must be signed and sealed by the Traffic Engineer, in accordance with this Article 1 [General Traffic Management Requirements] in respect of the Work and shall submit the Traffic Management Plan, including associated Sub-Plans, supporting documentation and reports, and the name of the person that the Primary Contractor proposes to designate as the Electrical Contractor, to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure not later than 40 Business Days after the Effective Date.
- (c) The Primary Contractor shall prepare the following as sub-plans to the Traffic Management Plan in accordance with the Traffic Management Guidelines and Article 1.3 [Traffic Management Sub-Plans] of this Part 4:
  - (i) Master Traffic Control Plan;
  - (ii) Traffic Management Communications Plan;
  - (iii) Incident Management Plan; and
  - (iv) Implementation Plan,(collectively, the "**Sub-Plans**") for all construction activities that affect Traffic and the Primary Contractor shall include the Sub-Plans as part of the Traffic Management Plan.
- (d) The Primary Contractor shall perform an assessment to identify any risks or special conditions relating to construction activities that affect Traffic that should be addressed through the Traffic Management Plan in accordance with the Traffic Management Guidelines.
- (e) As part of the Traffic Management Plan, the Primary Contractor shall outline its approach to Traffic Management throughout the Site, including identifying all risks relating to construction activities that affect Traffic and measures to be implemented to manage or eliminate such risks.
- (f) As part of the Traffic Management Plan, the Primary Contractor shall outline its approach to maintaining accurate records documenting traffic control measures, activities, and Incidents in accordance with the Traffic Management Guidelines and the Traffic Control Manual.

- (g) As part of the Traffic Management Plan, the Primary Contractor shall include an appendix containing a labeled colour photo log, clearly recording the laning configurations, speed limits, and On-Street Parking provisions as at the Effective Date for each road and for each section/location listed in Appendix B [Minimum Traffic Lane Requirements] to Article 2 of this Part 4.
- (h) The Primary Contractor shall ensure that the Traffic Management Plan references and interfaces with the Traffic Quality Management Plan, the Spill Prevention and Emergency Response Plan and the Traffic Management Communications Plan.
- (i) As part of the Traffic Management Plan, the Primary Contractor shall outline how general Traffic, Transit Traffic and the Traffic generated by construction activities will be managed.
- (j) The Primary Contractor shall ensure that the Traffic Management Plan, the Sub-Plans, and all updates to the Traffic Management Plan and the Sub-Plans are consistent with, and comply with, all of the requirements in this Part 4 [Traffic Management] and all other relevant provisions of this Agreement.
- (k) The Primary Contractor shall update the Traffic Management Plan as necessary and submit any and all changes to the Traffic Management Plan and the Sub-Plans to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.
- (l) For the purposes of this Part 4 [Traffic Management], a Statutory Holiday shall be treated in the same manner as a Sunday for the purposes of Traffic Management.

## 1.3 Traffic Management Sub-Plans

### 1.3.1 Master Traffic Control Plan

- (a) The Primary Contractor shall prepare a Project-specific Master Traffic Control Plan in accordance with the requirements for a "Traffic Control Plan" as such term and requirements are referred to and set out in the Traffic Management Guidelines and other applicable codes and standards referred to in Article 1.1.4 [Codes and Standards] of this Part 4.
- (b) The Master Traffic Control Plan shall guide the development of individual Traffic Control Plans for the Project in accordance with Article 1.4 [Traffic Control Plans] of this Part 4 with respect to all construction activities that affect Traffic.

### 1.3.2 Traffic Management Communications Plan

- (a) The Primary Contractor shall prepare a Traffic Management Communications Plan in accordance with the requirements referred to and set out in the Traffic Management Guidelines, Schedule 8 [Communication and Community Relations] and this Article 1 [General Traffic Management Requirements].
- (b) The Primary Contractor shall ensure that the Traffic Management Communications Plan defines a process to routinely notify the Province's Representative, the Relevant Authorities, TransLink, Emergency Response Agencies, Traffic Media, adjacent property owners, and the travelling public, including pedestrians and cyclists, of any scheduled or unscheduled activities affecting Traffic.
- (c) The Traffic Management Communications Plan shall guide the development of individual Advisory Signing Plans for each stage of the Construction of the Work that affects Traffic in accordance with Article 1.5 [Advisory Signing Plans] of this Part 4.
- (d) The Primary Contractor shall ensure that the Traffic Management Communications Plan includes a process whereby the Primary Contractor will schedule and record the dates, times, and content of any messages, as well as verify the validity of PCMS messages, on a routine basis.

### 1.3.3 Incident Management Plan

- (a) The Primary Contractor shall prepare an Incident Management Plan that meets the requirements of Schedule 5 [Environmental Obligations] for spills and other environmental Incidents, and the requirements for "Incident Plans" as such term and requirements are referred to and set out in the Traffic Management Guidelines and this Part 4 [Traffic Management].
- (b) The Primary Contractor shall consult with Emergency Response Agencies in developing the Incident Management Plan.
- (c) The Primary Contractor shall ensure that the Incident Management Plan:
  - (i) specifies how the Primary Contractor will provide Access for emergency vehicles and provide assistance to Emergency Response Agencies within the Site;
  - (ii) addresses access via the Site for Incidents or Emergencies external to the Site but for which Emergency Response Agencies require passage over the Site;

- (iii) specifies how the Primary Contractor will respond when Incidents or Emergencies remote from the Site result in non-typical Traffic conditions within the Site; and
- (iv) specifies how PCMSs provided as part of the Traffic Control Plan, the Traffic Management Communications Plan and the Advisory Signing Plan will be used to provide Incident information to the travelling public.

### 1.3.4 Implementation Plan

- (a) The Primary Contractor shall prepare an Implementation Plan in accordance with the requirements for an “Implementation Plan”, as such term and requirements are referred to and set out in the Traffic Management Guidelines.
- (b) The Primary Contractor shall ensure that the Implementation Plan:
  - (i) identifies each of the Traffic Control Supervisor, the Traffic Engineer, the Traffic Manager and the Communications Manager, along with the qualifications and experience of those named individuals; and
  - (ii) defines processes to ensure that the Traffic Management Plan, including the Sub-Plans, is developed and implemented efficiently and appropriately and that it is kept up-to-date with necessary modifications during construction activities.

## 1.4 Traffic Control Plans

### 1.4.1 Traffic Control Plan Requirements

- (a) The Primary Contractor shall not undertake any construction activity that affects Traffic until at least 48 hours or 72 hours (as applicable in accordance with Table 4.1.2(b) [Requirement to Inform of Permitted Disruption Events] of this Part 4) have elapsed since the relevant Traffic Control Plan(s), along with all supporting Traffic analysis, are submitted to the Province’s Representative for review, acting reasonably, in accordance with the Review Procedure. For the purposes of this Article 1.4.1(a), the 15 Business Day period referred to in Section 2.1(b) of Schedule 2 [Representatives, Review Procedure and Consent Procedure] shall be reduced to 24 hours.
- (b) The Primary Contractor shall, in accordance with the Master Traffic Control Plan, prepare and implement Traffic Control Plan(s) for all construction activities that affect Traffic.
- (c) The Primary Contractor shall prepare Traffic Control Plan(s) for all construction activities that affect Traffic, including:

- (i) each Construction stage;
  - (ii) activation of newly constructed roads and intersections;
  - (iii) adjustments to On-Street Parking;
  - (iv) adjustments to property Accesses; and
  - (v) any other construction activity.
- (d) The Primary Contractor shall conduct Traffic analysis on the Traffic Control Plan(s) for each stage of the Construction where Traffic is affected as required in accordance with Article 5 [Traffic Engineering and Modelling] of this Part 4.
- (e) The Primary Contractor shall continuously measure and improve the effectiveness of Traffic Control Plan(s) in accordance with the Traffic Quality Management Plan and, if such activity indicates that a Traffic Control Plan is non-compliant with this Article 1 [General Traffic Management Requirements], the Primary Contractor shall immediately adjust such Traffic Control Plan to bring such plan into compliance.
- (f) The Primary Contractor shall ensure that Traffic Control Plan(s) include engineered design drawings for each Full Closure, Detour Route, Lane Shift, and Lane Closure, and that such drawings:
- (i) indicate the locations and details of all signs, PCMSs, Pavement Markings, Traffic Barriers, Traffic Control Persons, Radar Speed Displays, and protective works; and
  - (ii) are signed and sealed by the Traffic Engineer.
- (g) The Primary Contractor shall ensure that Traffic Control Plans include drawings that indicate all changes to pedestrian, cycling, parking, Transit and Access facilities, and that such drawings:
- (i) indicate the locations and details of all signs, PCMSs, Pavement Markings, Traffic Barriers, Traffic Control Persons, and protective works; and
  - (ii) are signed and sealed by the Traffic Engineer.
- (h) The Primary Contractor shall ensure that:
- (i) the Traffic Control Plans provide details of any adjustments to existing Traffic Signals or new signal installations, including signal timing sheets, and are signed and sealed by the Traffic Engineer; and
  - (ii) engineered electrical design drawings are prepared and submitted for any Traffic Signal adjustments in accordance with the codes and standards set out in Article 1.1.4 [Codes and Standards] of this Part 4.

- (i) The Primary Contractor shall ensure that the Traffic Control Plan(s) include the content of all messages for PCMSs.
- (j) Without limiting Article 6 [Work by Others], Part 1 of Schedule 4, the Traffic Control Plans shall be coordinated with any construction work to be completed by others within or adjacent to the Site.
- (k) The Primary Contractor shall, in its Traffic Control Plans, take into account the locations of Active Construction Zones which are adjacent or in proximity to the areas which are subject to such Traffic Control Plans.
- (l) The Primary Contractor shall make adequate provision for storage areas for equipment and materials required to perform the Work in its development of Traffic Control Plans.
- (m) The Primary Contractor shall ensure that all Traffic Control Plan(s) are signed and sealed by the Traffic Engineer.

## 1.5 Advisory Signing Plans

### 1.5.1 Advisory Signing Plan Requirements

- (a) Notwithstanding Section 2.7 [Early Commencement of Work] of Schedule 2, the Primary Contractor shall not undertake any construction activity that affects Traffic until at least 48 hours have elapsed since the relevant Advisory Signing Plan was submitted to the Province's Representative for review, acting reasonably, in accordance with the Review Procedure. For the purposes of this Article 1.5.1(a), the 15 Business Day period referred to in Section 2.1(b) of Schedule 2 [Representatives, Review Procedure and Consent Procedure] shall be reduced to 24 hours.
- (b) The Primary Contractor shall prepare and implement an Advisory Signing Plan, as a sub-plan to the Traffic Management Communications Plan, for each stage of Construction that affects Traffic in accordance with the Traffic Management Communications Plan and the requirements of this Article 1 [General Traffic Management Requirements] and Schedule 8 [Communication and Community Relations].
- (c) The Primary Contractor shall prepare Advisory Signing Plans for all construction activities that affect Traffic, including:
  - (i) each Construction stage;
  - (ii) activation of newly constructed roads and intersections;
  - (iii) adjustments to On-Street Parking;

- (iv) adjustments to any Accesses; and
  - (v) any other construction activity that affects the expected Traffic pattern or times to travel routes within the Site.
- (d) The Advisory Signing Plan shall set out a strategy to notify the travelling public in advance of scheduled or unscheduled construction activities, Detour Routes, Full Closures, Stoppages, Lane Closures, and any changes to pedestrian, cycling, transit, Access or parking operations.
- (e) The Primary Contractor shall ensure that each Advisory Signing Plan is signed and sealed by the Traffic Engineer.

## 1.6 Traffic Management Responsibilities

### 1.6.1 Primary Contractor Responsibilities

- (a) The Primary Contractor shall be responsible and shall at all times during the Access Period in respect of any part of the Site make provision for Traffic to pass throughout such part of the Site in accordance with this Part 4 [Traffic Management], and to ensure the convenience and safety of the public and workers on the Site.
- (b) Without limiting Schedule 6 [Quality Management], the Primary Contractor shall be responsible for quality control and quality assurance of all activities affecting the Traffic Management Plan, including ongoing inspection and maintenance of all traffic control devices put in place during construction activities.
- (c) The Traffic Management Plan quality control process shall be included in the Traffic Quality Management Plan.
- (d) The Primary Contractor shall ensure that all personnel identified in the Traffic Management Plan are suitably qualified and licensed, and that all Traffic Control Persons are qualified in accordance with the requirements of the WCA.
- (e) Notwithstanding that any one or more of the advance warning areas, transition areas, buffer spaces, work areas, advisory signage areas or termination areas identified in the Traffic Control Plan may be outside the Site, the Primary Contractor shall be responsible for meeting the requirements of this Part 4 [Traffic Management] in respect of such areas and spaces.

### 1.6.2 Traffic Manager

Until Substantial Completion, the Primary Contractor shall employ a Traffic Manager who shall be responsible for:

- (a) developing, implementing and managing the Traffic Management Plan;
- (b) ensuring the Communications Manager is kept informed of all upcoming traffic activities and any revisions to the Traffic Management Plan;
- (c) working with the Communications Manager, ensuring that appropriate modifications are made to the Traffic Management Plan if the specified traffic control measures are not achieving the desired effect;
- (d) without limiting Article 6 [Work By Others], Part 1 of Schedule 4, coordinating with adjacent work areas, including work being carried out by others; and
- (e) documenting traffic control measures, activities, and Incidents in accordance with the Traffic Management Guidelines and the Traffic Control Manual.

### 1.6.3 Traffic Engineer

- (a) The Primary Contractor shall designate a Professional Engineer as the Traffic Engineer, who has the Primary Contractor's authority to review, sign and seal the following:
  - (i) Traffic Management Plan and associated Sub-Plans;
  - (ii) Advisory Signing Plans; and
  - (iii) Traffic Signal timing sheets and Traffic analysis,and who shall be responsible for ensuring that all traffic engineering issues and requirements are taken into account.
- (b) The Traffic Engineer shall have experience in general traffic engineering as well as specific experience in traffic modelling (as required by Article 5 [Traffic Engineering and Modelling] of this Part 4), Traffic Signal operations, and Traffic Management Plan development.

### 1.6.4 Traffic Control Supervisors

- (a) The Primary Contractor shall designate one or more Traffic Control Supervisors commensurate with work activities, each of whom shall have the Primary Contractor's authority to respond to traffic control requirements and each of whom shall personally perform all the duties of the Traffic Control Supervisor in accordance with this Part 4 [Traffic Management].
- (b) The Primary Contractor shall not combine the duties of the Traffic Control Supervisor with other Project functions.
- (c) The Primary Contractor shall ensure that Traffic Control Supervisors:

- (i) are on the Site at all times when active Construction is underway;
  - (ii) have direct line authority over all of the Primary Contractor's Traffic Control Persons and procedures on the Site; and
  - (iii) have no other duties except as provided in this Article 1.6.4 [Traffic Control Supervisors].
- (d) The duties of the Traffic Control Supervisors shall include the following:
- (i) enforcing the requirements of the Traffic Control Plan(s);
  - (ii) directing all traffic control operations on the Site and, without limiting Article 6 [Work By Others], Part 1 of Schedule 4, coordinating with other contractors for any adjacent construction or maintenance operation;
  - (iii) liaising with the Province's Representative, as required;
  - (iv) recording and providing to the Communications Manager the actual duration of Lane Closures, Stoppages, Full Closures, Detours and Lane Shifts and unauthorized traffic delays to permit the Communications Manager to forward this information on a daily basis to the Province's Representative;
  - (v) monitoring traffic queue lengths in Active Construction Zones and implementing appropriate measures when such queues become excessive;
  - (vi) documenting traffic control measures and activities in accordance with this Part 4 [Traffic Management]; and
  - (vii) overseeing all requirements of the Agreement that contribute to the convenience, safety, and orderly movement of Traffic.
- (e) The Traffic Control Supervisor shall have appropriate personnel and equipment available on call to perform his or her obligations under this Article 1.6.4 [Traffic Control Supervisors] at all times.

### 1.6.5 Patrols

- (a) Notwithstanding the Primary Contractor's responsibilities to inspect and maintain all traffic control devices in place during construction activities as required pursuant to Article 1.6.1 [Primary Contractor Responsibilities] of this Part 4, the Primary Contractor shall ensure that, during non-construction hours, at least one Traffic Control Person undertakes daily routine patrols of all temporary traffic control devices in place on those sections of road travelled by the public. The purpose of such patrols shall be to identify, respond to and report on any Incident encountered and, when reasonably possible, to immediately rectify failures of traffic control devices and otherwise deal with

any other construction-traffic related issues identified during the course of the patrol. The Primary Contractor shall be responsible for determining the frequency of patrols to be undertaken daily pursuant to this Article 1.6.5(a) during non-construction hours. For certainty, the patrols to be undertaken pursuant to this Article 1.6.5(a) shall include those sections of roads travelled by the public where the Primary Contractor has temporary traffic control devices in place but where the Primary Contractor has ceased construction activity for the shift.

- (b) The Primary Contractor shall provide documentation to the Province's Representative confirming that the patrols are occurring as required by Article 1.6.5(a) of this Part 4, and providing details of all issues and Incidents observed during such patrols. Such documentation shall be provided on a daily basis by 10:00 for the patrols occurring on the previous day.

## 1.7 Other Requirements

### 1.7.1 Traffic Data

- (a) The Traffic Data, including all related reports and traffic models, shall be used by the Primary Contractor as the basis for analysis for Traffic Management purposes.
- (b) The Primary Contractor shall be responsible for obtaining any data, in addition to the Traffic Data, that may be required for the Primary Contractor to perform its obligations under this Part 4 [Traffic Management] and Schedule 8 [Communication and Community Relations].
- (c) The Primary Contractor shall ensure that any data which is used in addition to the Traffic Data shall be no more than 24 months old, unless such older data has been submitted to the Province Representative's for acceptance, acting reasonably, pursuant to the Consent Procedure.

### 1.7.2 Adjustment to Traffic Restrictions

- (a) The Province's Representative may adjust any of the restrictions identified in this Part 4 [Traffic Management] in circumstances considered appropriate by the Province's Representative, including for:
  - (i) Statutory Holidays;
  - (ii) changes or additions to or extensions of Planned Events, as contemplated in Article 1.7.3 [Planned Events] of this Part 4;
  - (iii) Incidents;

- (iv) roadway maintenance; or
- (v) construction activities undertaken by third parties,

and may direct the Primary Contractor to remove or cease any or all Permitted Disruption Events.

- (b) Any adjustment to the restrictions identified in this Part 4 [Traffic Management] by the Province's Representative pursuant to Article 1.7.2(a) of this Part 4 shall constitute a Compensation Event.

### 1.7.3 Planned Events

- (a) The Province's Representative may direct the Primary Contractor, on at least 30 days' advance notice, to remove or cease any or all Permitted Disruption Events, and to initiate free-flow Traffic for a period designated by the Province, up to 24 hours in length from midnight to midnight on the day of any event which is a Planned Event (as set out in Attachment A [Planned Events] to Article 1 of this Part 4) and, provided such notice has been given in respect of such Planned Event, the Primary Contractor shall not receive any relief of compensation.
- (b) Any direction by the Province's Representative to remove or cease any or all Permitted Disruption Events in respect of:
  - (i) an event which is not a Planned Event shall constitute a Compensation Event;
  - (ii) an event which is a Planned Event but in respect of which the Province's Representative has provided less than 30 days' advance notice shall constitute a Compensation Event; or
  - (iii) a Planned Event which is more than 24 hours in duration or which requires the Primary Contractor to remove or cease any or all Permitted Disruption Events for a period longer than that notified to the Primary Contractor shall constitute a Compensation Event with respect to the period which exceeds, as applicable, 24 hours or the period for which the Province notified the Primary Contractor to remove or cease Permitted Disruption Events.

### 1.7.4 Excessive Traffic Delays

Notwithstanding any other provision of this Agreement, if the Province's Representative or the Traffic Manager determines that traffic delays, queues and/or disruptions that are otherwise permitted under this Agreement unreasonably interfere with or impede traffic movements at upstream intersections, the Primary Contractor shall immediately cease any roadway construction activities which are causing such interference and take all reasonable steps necessary to restore Traffic to regular flow conditions as quickly as reasonably

possible and the Primary Contractor shall not receive any relief or compensation for such an event.

### 1.7.5 Emergency Routes

The Primary Contractor shall either maintain existing emergency routes within the Site or relocate the emergency routes in the vicinity of such routes in consultation and with and subject to the approval of the relevant Emergency Response Agencies, and the Primary Contractor shall provide written confirmation of such approval to the Province's Representative.

### 1.7.6 Notice of Permitted Traffic Disruptions

For each Permitted Disruption Event, the Primary Contractor shall provide advance notice to the persons identified in Article 4.1.2(a) of this Part 4, in accordance with Article 4 [Requirement to Inform] of this Part 4 and Schedule 8 [Communication and Community Relations].

### 1.7.7 Access to Project Lands

If the Primary Contractor requires access to any Project Lands for Traffic Management purposes, then the Primary Contractor shall provide advance notice to the Province's Representative and the Relevant Authority in accordance with this Agreement, including Schedule 8 [Communication and Community Relations].

## 1.8 Detour Routes and Lane Shift Design Criteria

### 1.8.1 Detour Route and Lane Shift Requirements

- (a) The Primary Contractor shall design and construct Detour Routes and Lane Shifts in accordance with this Agreement and as required, and only as required, to facilitate construction activities, and all such Detour Routes and Lane Shifts shall meet the requirements of Article 1.1.4 [Codes and Standards] of this Part 4 and this Article 1.8 [Detour Routes and Lane Shift Design Criteria].
- (b) The Primary Contractor shall prepare an engineered design for each Detour Route or Lane Shift that shall conform to the minimum design requirements prescribed in the following Table 1.8.1 [Detour Route and Lane Shift Design Criteria]:

Table 1.8.1 - Detour Route and Lane Shift Design Criteria

	Detour Route	Lane Shift
Design/Posted Speed	50km/h	60km/h
Design Vehicle	WB20	WB20
Maximum Grade	8%	8%
Maximum Superelevation	6%	6%
Vertical Clearance	The lesser of 5.0m or existing travel lane clearance	The lesser of 5.0m or existing travel lane clearance
Lane Width	Minimum 3.5m	Minimum 3.5m
Outside Shoulder Width (Open)	1.0m minimum including 0.5m minimum paved	1.5m minimum including 0.5m minimum paved
Outside Shoulder Width (Closed by Traffic Barrier)	0.5m minimum paved	1.0m minimum paved
Inside Shoulder Width (Closed by Traffic Barrier)	0.5m minimum	0.5m minimum
Side Slopes (w/o Traffic Barrier)	The lesser of 3 to 1 or existing	The lesser of 3 to 1 or existing
Parking	To match existing	To match existing
Pedestrian and Cycling Facilities	To match existing	To match existing

- (c) Notwithstanding Article 1.8.1(b) of this Part 4, localized sections (meaning a maximum of 200m in length) along roads with both reduced inside and outside shoulder widths (meaning a minimum of 0.5m) may be permitted, in order to accommodate construction activities, and concrete roadside Traffic Barriers shall be provided along both sides, complete with barrier flares as required, provided that the Primary Contractor has submitted a proposal with respect to such reduced widths to the Province’s Representative for review, acting reasonably, pursuant to the Review Procedure.
- (d) The Primary Contractor shall ensure that all Detour Routes and Lane Shifts are paved with appropriate Pavement Markings and signs placed in accordance with the applicable codes, standards and guidelines listed in Article 1.1.4 [Codes and Standards] of this Part 4.
- (e) The Primary Contractor shall ensure that the condition of the pavement used for all Detour Routes and Lane Shifts is adequate for its intended purpose, and does

not adversely impact on the safety or intended function of such Detour Routes and Lane Shifts.

- (f) The Primary Contractor shall schedule construction activities such that no milled surface shall be open to Traffic for more than one 24 hour period.
- (g) The Primary Contractor shall ensure that each milled surface open to Traffic shall be clean and allow adequate drainage.
- (h) The Primary Contractor shall provide Detour Routes and Lane Shifts with adequate drainage facilities to prevent pooling of water on and flow of water across the roadway.
- (i) The Primary Contractor shall include all Detour Routes and Lane Shifts in the Traffic Control Plan(s).

## 1.9 Pedestrians and Cyclists

### 1.9.1 Pedestrian and Cyclist Requirements

- (a) The Primary Contractor shall ensure that passage at each Pedestrian and Cycling Facility within any part of the Site which is in existence prior to the commencement of construction activities by the Primary Contractor on such part of the Site is maintained or relocated in a safe and efficient manner during any construction activities on such part, with the exception of any such facility that will be permanently closed.
- (b) The Primary Contractor shall provide Traffic Control Persons along any Pedestrian and Cycling Facility where construction activities negatively affect the safety or operations of the facility, compared to conditions in existence as at the Effective Date.
- (c) The Primary Contractor shall provide signage indicating all pedestrian and cycling detours that may be required during construction activities in accordance with this Part 4 [Traffic Management].
- (d) The Primary Contractor shall include all Pedestrian and Cycling Facilities, including associated signage, Pavement Markings, and protective works, in the Traffic Control Plans.

### 1.9.2 Trans Canada Trail

The Primary Contractor shall be responsible for the Design and Construction of those portions of the Trans Canada Trail which may require temporary or permanent relocation in accordance with Article 9.2(e) [Permanent Roadworks], Part 2 of Schedule 4.

## 1.10 Transit Traffic

### 1.10.1 Interpretation

The requirements and criteria set out in Article 1.10.2 [General] of this Part 4 apply to Transit operations, facilities, scheduling, and routing, within the Site relating to Transit Traffic, and are in addition to the requirements and criteria for Work conducted in and around the Existing Transit Facilities as set out in Article 18 [Integration with Transit Facilities], Part 2 of Schedule 4.

### 1.10.2 General

- (a) During the Access Period in respect of any parts of the Site, the Primary Contractor shall ensure passage along each existing Transit route within such part of the Site is maintained or rerouted in a safe and efficient manner during construction activities.
- (b) During the Access Period in respect of any parts of the Site, the Primary Contractor shall, with respect to any construction activities that might affect Transit operations, facilities, scheduling, and routing, within such part of the Site relating to Transit Traffic:
  - (i) obtain the written approval of the affected Transit Operator(s) with respect to such construction activities; and
  - (ii) obtain acceptance, acting reasonably, from, the Province's Representative pursuant to the Consent Procedure, once the affected Transit Operator(s) have provided written approval in accordance with Article 1.10.2(b)(i) of this Part 4.
- (c) The Primary Contractor shall design and implement alternate temporary routes to and from the Transit exchanges to maintain mobility for buses and general Traffic to the satisfaction of the applicable Transit Operator.
- (d) The Primary Contractor shall ensure that delays along Transit routes are minimized and have been coordinated with the applicable Transit Operator to prevent adverse impacts on Transit operating schedules.
- (e) The Primary Contractor shall arrange with the applicable Transit Operator and the Relevant Authorities for the relocation of on-street bus stops.
- (f) The Primary Contractor shall design and construct all temporary Transit facilities relating to Transit Traffic, including associated passenger facilities, in accordance with the Transit Infrastructure Design Guidelines or as required by the Transit Operator.

- (g) For the Coquitlam Central Station, the Primary Contractor:
  - (i) shall ensure that a minimum of one of the two existing Accesses off Lougheed Highway southbound is kept open to buses at all times;
  - (ii) shall ensure that general Traffic shall not be permitted to use the north bus-only Access off Lougheed Highway exchange area at any time; and
  - (iii) may temporarily reroute general Traffic to the ramp access off Mariner Way, subject to adequate modifications to the existing Traffic Signals to accommodate the westbound to southbound movement from the ramp.
- (h) The Primary Contractor shall ensure that all Transit facilities relating to Transit Traffic, including associated signage, Pavement Markings and protective works, are shown on the Traffic Control Plan(s).

## 1.11 Traffic Control Devices

### 1.11.1 Requirements for Existing Traffic Signals

- (a) The Primary Contractor shall not undertake any modification to existing Traffic Signals until the Province has accepted, acting reasonably, such modification pursuant to the Consent Procedure on the basis of the information, submissions and requirements set out in this Article 1.11.1 [Requirements for Existing Traffic Signals].
- (b) The Primary Contractor shall develop all proposals to modify existing Traffic Signals in accordance with the design guidelines, codes, standards and processes of the Relevant Authority, and with Article 1.1.4 [Codes and Standards] of this Part 4.
- (c) The Primary Contractor shall submit for acceptance, acting reasonably, in accordance with the Consent Procedure all proposals to modify existing Traffic Signals, together with any comments from the Relevant Authority and any other relevant information contemplated in this Article 1.11.1 [Requirements for Existing Traffic Signals], including demonstration that the Minimum Traffic Performance Criteria will be met in accordance with Article 5 [Traffic Engineering and Modelling] of this Part 4.
- (d) The Primary Contractor shall support proposed Traffic Signal modifications with traffic engineering analysis as required under Article 5 [Traffic Engineering and Modelling] of this Part 4 or as requested by the Relevant Authority.
- (e) The Primary Contractor shall be responsible for assessing the suitability of Traffic Signal phasing and timing at all intersections affected by construction activities and, if Traffic Signal phasing or timing modifications are required for

safety or operational reasons, the Primary Contractor shall be required to design and implement the modifications, including any Traffic Signal timing plan adjustments.

- (f) If Traffic Signals are part of a coordinated signal network, and modifications are required at one of more Traffic Signals within the network for safety or operational reasons, the Primary Contractor shall perform Traffic Signal retiming for all Traffic Signals in the coordinated network.
- (g) All Traffic Signal timing sheets shall be signed and sealed by the Traffic Engineer.
- (h) The Primary Contractor shall be responsible for modifications of existing Traffic Signals as shown in the Traffic Signal Responsibility drawings, which form part of Appendix I [Traffic Management Drawings] to this Schedule 4.
- (i) The Primary Contractor shall notify the applicable Relevant Authority and shall review with such Relevant Authority the implementation of any modifications that may be required by the Primary Contractor at existing Traffic Signals, and such modifications shall only be constructed and implemented by the Electrical Contractor.
- (j) The Primary Contractor shall include modifications to existing Traffic Signals in the Traffic Control Plan(s).

### 1.11.2 New or Temporary Traffic Signals

- (a) The Primary Contractor shall not implement any temporary or new Traffic Signals until the Province has accepted, acting reasonably, such Traffic Signals in accordance with the Consent Procedure on the basis of the information, submissions and requirements set out in this Article 1.11.2 [New or Temporary Traffic Signals].
- (b) The Primary Contractor shall provide, where required for construction, new or temporary Traffic Signals in accordance with the design standards of the Relevant Authority and Article 1.1.4 [Codes and Standards] of this Part 4.
- (c) If the Primary Contractor proposes to implement new or temporary Traffic Signals for construction activity purposes, the Primary Contractor shall demonstrate that the Minimum Traffic Performance Criteria will be met in accordance with Article 5 [Traffic Engineering and Modelling] of this Part 4, and submit such proposal, along with any other relevant information contemplated in this Article 1.11.2 [New or Temporary Traffic Signals], to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.

- (d) The Primary Contractor shall design any new or temporary Traffic Signal installations as required for construction activities, including the design of new Traffic Signal timing plans, in consultation with the Relevant Authority, and the Primary Contractor shall support such design with traffic engineering analysis as required by the Relevant Authority.
- (e) The Primary Contractor shall design and construct new or temporary Traffic Signals to match existing Traffic Signal operational strategies at adjacent intersections.
- (f) If new or temporary Traffic Signals are to be implemented within an existing coordinated signal network, the Primary Contractor shall perform Traffic Signal retiming for all Traffic Signals in the coordinated network.
- (g) All Traffic Signal timing sheets shall be signed and sealed by the Traffic Engineer.
- (h) Without limiting any other provision of this Agreement, the Primary Contractor shall undertake, or ensure that the Electrical Contractor undertakes, all coordination with power Utility Suppliers for all required servicing of Traffic Signals and will provide a list of all electrical loads to the power Utility Suppliers, as required.
- (i) The Primary Contractor shall coordinate preparation and submittal of service applications with the Province's Representative and provide notification to the Relevant Authority.
- (j) The Primary Contractor shall ensure that the Construction of new or temporary Traffic Signals is undertaken by the Electrical Contractor.
- (k) The Primary Contractor shall notify the applicable Relevant Authority of and review with such Relevant Authority the commissioning and testing of new or temporary Traffic Signals, and all such commissioning and testing work shall only be performed by the Electrical Contractor.
- (l) The Primary Contractor shall include new or temporary Traffic Signals in the Traffic Control Plan(s).

### 1.11.3 Signage

- (a) The Primary Contractor shall be responsible for the design, supply, installation, relocation, maintenance, and removal of all signage, including temporary regulatory, warning, guide, advisory and guide signs in accordance with the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4 (which, for certainty, shall not include any

temporary signage contemplated by Section 11.3 b) of the Federal Contribution Agreement).

- (b) The Primary Contractor shall ensure that all standard signs shall meet the Standard Highway Sign Specifications.
- (c) The Primary Contractor shall ensure that all construction signs which are specific to any particular construction activity or operation shall either be removed or be effectively covered so that their message is obscured whenever such construction activity or operation is not in progress.
- (d) The Primary Contractor shall ensure that the location and type of each sign shall be included in the Traffic Control Plan(s).

#### 1.11.4 Pavement Markings

- (a) The Primary Contractor shall be responsible for the design, application, maintenance and removal of all Pavement Markings and reflective devices in accordance with the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4.
- (b) When traffic lanes are to be redefined for long-duration work (more than one 24 hour period), the Primary Contractor shall permanently eradicate all redundant temporary or permanent Pavement Markings that are not required for the intended traffic patterns, and install revised markings in accordance with the Traffic Control Plan(s).
- (c) Removal of Pavement Markings by the Primary Contractor by grinding, milling or other means that could result in grooves in the pavement surface shall not be permitted.
- (d) The material used by the Primary Contractor for temporary Pavement Markings shall be roadway paint with glass beads or thermoplastic marking.
- (e) Raised pavement markers shall be installed by the Primary Contractor where required in accordance with the Manual of Standard Traffic Signs and Pavement Markings.
- (f) Only permanent Pavement Markings shall be applied by the Primary Contractor to the final pavement surface.
- (g) The location and type of each Pavement Marking and reflective device shall be included by the Primary Contractor in the Traffic Control Plan(s).

### 1.11.5 Portable Changeable Message Signs (PCMSs)

- (a) The Primary Contractor shall be responsible for providing PCMSs to provide advance notification of each scheduled Full Closure, Lane Closure, Detour Route or Lane Shift in accordance with the Traffic Management Communications Plan and the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4.
- (b) The Primary Contractor shall place PCMSs, including flashers and other warning devices, at strategic upstream locations in order to advance-warn motorists and allow them adequate opportunity to divert prior to reaching the Full Closure, Lane Closure, Detour Route or Lane Shift location.
- (c) The Primary Contractor shall use PCMSs to provide notification of Incidents or unplanned traffic pattern changes, as deemed necessary in accordance with the Incident Management Plan.
- (d) The Primary Contractor shall ensure that any messages displayed on PCMSs are current and applicable to prevailing conditions.
- (e) The Primary Contractor shall ensure that, when in operation, the bottom of each PCMS shall be a minimum of 2m above the road surface, and shall be level and capable of pivoting for visibility purposes.
- (f) The Primary Contractor shall ensure that PCMS locations and messages are included in the Traffic Management Communications Plan, and on any Traffic Control Plan(s) as required.
- (g) The Primary Contractor shall use standard messages as provided in the Guidelines for the Operation of Changeable Message Signs (CMSs) and Portable Changeable Message Signs (PCMSs) unless the Primary Contractor has submitted the content of such message to the Province's Representative for review, acting reasonably, in accordance with the Review Procedure at least 24 hours in advance of using such message. For the purposes of this Article 1.11.5(g), the 15 Business Day period referred to in Section 2.1(b) of Schedule 2 [Representatives, Review Procedure and Consent Procedure] shall be reduced to 24 hours.
- (h) All messages used by the Primary Contractor in any PCMS shall be included in the Traffic Control Plan(s).

### 1.11.6 Radar Speed Displays

- (a) The Primary Contractor shall supply, install and maintain Radar Speed Displays in accordance with the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4.

- (b) The Primary Contractor shall supply, install and maintain Radar Speed Displays on the following roads in the relevant direction when Traffic Control Persons are present:
  - (i) North Road;
  - (ii) Clarke Road;
  - (iii) Como Lake Road;
  - (iv) Barnet Highway;
  - (v) St John's Street;
  - (vi) Lougheed Highway; and
  - (vii) Pinetree Way.
- (c) The location of the Radar Speed Displays by the Primary Contractor shall be included in the Traffic Control Plan(s).

## 1.12 Traffic Barriers

- (a) The Primary Contractor shall supply and install Traffic Barriers in accordance with:
  - (i) the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4; and
  - (ii) the Traffic Control Plan.

The Recognized Products List notes that water filled barriers are no longer listed in the "Highway Safety Devices" category as these barriers are "*considered temporary in nature and would be considered through a project specific traffic control plan submission*". The Primary Contractor may use water filled barriers in lieu of concrete barriers except along North Road where concrete barriers are required for construction works within the centre median.

- (b) The Primary Contractor shall ensure that the Traffic Control Plan requires that Traffic Barriers, which are appropriate in the circumstances, are installed to protect workers, the public and the Construction Plant from adjacent Traffic hazards, including at a minimum, at the following locations on the Site:
  - (i) between Traffic and pier construction;
  - (ii) between Traffic and excavations/embankment construction;
  - (iii) to meet drop-off delineation requirements; and
  - (iv) to control and protect pedestrians and cyclists.

- (c) The Primary Contractor shall ensure that Traffic Barriers shall be continuous or adequately protected by terminals, flares, or impact attenuators in accordance with NCHRP Report 350.
- (d) The Primary Contractor shall ensure that Traffic Barriers shall have reflectors installed in accordance with the Manual of Standard Traffic Signs and Pavement Markings.
- (e) Where Traffic Barriers are used, the Primary Contractor shall make adequate provision for drainage and removal of snow, ice, and debris.
- (f) The Primary Contractor shall ensure that all Traffic Barriers are shown on the Traffic Control Plan(s).

## 1.13 Drop-Offs

- (a) The Primary Contractor shall ensure that all drop-offs (meaning abrupt changes in roadway elevation) that are a result of construction activities comply with the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4.
- (b) The Primary Contractor shall perform all construction activities so as to minimize any drop-offs left exposed to Traffic.
- (c) Unless otherwise specified in a Traffic Control Plan, the Primary Contractor shall ensure that drop-offs left exposed to Traffic during non-working periods shall comply with the following:
  - (i) no drop-offs shall be permitted between adjacent lanes of Traffic;
  - (ii) drop-offs up to 60mm in height will be permitted subject to the provision of appropriate traffic control devices alerting motorists of the condition;
  - (iii) drop-offs greater than 60mm but less than 150mm within the roadway or shoulder shall be delineated with appropriate traffic control devices and protected with either:
    - A. a wedge of compacted stable material (meaning 25mm well graded base course aggregate or better) placed at a slope of 4:1 or flatter;
    - B. channelizing devices (meaning Type 1 barricades, plastic safety drums, or other devices 1m or more in height); or
    - C. temporary concrete Traffic Barrier, or other accepted barrier with clearances in accordance with Table 1.8.1(b) [Detour Route and Lane Shift Design Criteria] of this Part 4;

- (iv) any drop-off greater than 150mm shall be delineated with appropriate traffic control devices and protected with temporary concrete Traffic Barrier, or other accepted barrier with clearances in accordance with Table 1.8.1(b) [Detour Route and Lane Shift Design Criteria] of this Part 4;
- (v) excavations within the road shall be backfilled and paved to match the adjacent roadway grade prior to returning the lanes to Traffic; and
- (vi) all areas of excavation and their proposed safety measures, including the locations of Traffic Barriers, shall be included in the Traffic Control Plan(s).

## 1.14 Speed Limits

- (a) The Primary Contractor shall ensure that speed limits are maintained or reduced in accordance with the applicable codes, standards and guidelines listed in or required by Article 1.1.4 [Codes and Standards] of this Part 4.
- (b) The Primary Contractor shall ensure that the existing speed limits as at the Effective Date are maintained except as otherwise provided in Article 1.14(c) of this Part 4.
- (c) Where the Primary Contractor considers that it is not practical or safe to maintain the existing speed limit, then a temporary reduction in the speed limit posted by the Relevant Authority may be permitted, subject to the following:
  - (i) the Primary Contractor shall provide justification and supporting analysis to support any request for a reduction in speed limit;
  - (ii) the minimum reduced speed limit shall be 40km/h and for a maximum length of 200m;
  - (iii) in circumstances where the Primary Contractor requests a speed reduction to less than 40km/h or for a length in excess of 200m on Weekdays between 06:00 and 19:00, the Primary Contractor shall be required to demonstrate that the Minimum Traffic Performance Criteria will be met in accordance with Article 5 [Traffic Engineering and Modelling] of this Part 4; and
  - (iv) the Primary Contractor shall submit its request for a temporary speed reduction together with supporting documentation and analysis required by this Part 4 [Traffic Management] to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.
- (d) The Primary Contractor shall include any changes in speed limits in the Traffic Control Plan(s).

## 1.15 Traffic Management of Oversize Vehicle Loads

- (a) During the Access Period in respect of any parts of the Site, the Primary Contractor shall determine the following minimum clearance envelopes and maximum weight for oversized vehicle loads on each road within such part of the Site affected by construction activities (collectively the “**Site Vehicle Load Restrictions**”):
- (i) minimum width;
  - (ii) minimum height; and
  - (iii) maximum weight,

and shall submit the Site Vehicle Load Restrictions to the Province’s Representative for acceptance, in its discretion, in accordance with the Consent Procedure.

- (b) The Primary Contractor shall, no less than five Business Days before starting construction activities at the Site, notify the Provincial Highway Conditions Centre (PHCC) of the Site Vehicle Load Restrictions.
- (c) The Primary Contractor shall:
- (i) submit any changes to the Site Vehicle Load Restrictions to the Province’s Representative for review, in its discretion, in accordance with the Review Procedure; and
  - (ii) if the Province’s Representative does not reject the proposed changes to the Site Vehicle Load Restrictions, notify the PHCC as to such changes no less five Business Days prior to any changes to the Site Vehicle Load Restrictions coming into effect.

For the purposes of Article 1.15(c)(i), the 15 Business Day period referred to in Section 2.1(b) of Schedule 2 [Representatives, Review Procedure and Consent Procedure] shall be reduced to 5 days.

- (d) In making notification under Article 1.15(b) or submissions under Article 1.15(c), both of this Part 4, the Primary Contractor shall provide the following information:
- (i) the Project name;
  - (ii) the Primary Contractor’s contact person and that person’s contact information;
  - (iii) the Project’s location;

- (iv) the applicable road names and sections thereof affected;
  - (v) the duration of the Project;
  - (vi) the oversize vehicle load width restriction (what dimensions are allowed, when in effect, and for what duration);
  - (vii) the oversize vehicle load height restriction (what dimensions are allowed, when in effect, and for what duration);
  - (viii) the oversize vehicle load weight restrictions (what weights are legally permitted, when in effect and for what duration); and
  - (ix) a map indicating the closest alternative route around the Site Vehicle Load Restrictions that is able to accommodate an oversize vehicle load of up to 4.8m in height and 5.0m in width.
- (e) The Primary Contractor shall supply and locate PCMs that indicate Site Vehicle Load Restrictions and the boundaries of the Site and provide details regarding alternative routing for oversized vehicle loads.
- (f) The Primary Contractor shall cooperate with operators of oversized vehicle loads to facilitate the passage of such loads through the Site whenever this can be reasonably accommodated by the Primary Contractor.

**ATTACHMENT A TO ARTICLE 1**  
**PLANNED EVENTS**

Event	Date	Location	City
Penguin Plunge	January 1 <sup>st</sup>	Rocky Point Park	Port Moody
Community Banner Painting Festival	February	Various Locations - Banners hung on City streets in Spring	Port Moody
Wearable Art Awards	February	City Hall & Port Moody Arts Centre (St. Johns at Kyle)	Port Moody
Heritage Week	February (final week)	Port Moody Station Museum (Moody at Murray Street)	Port Moody
Port Moody Canadian Film Festival	March	Inlet Theatre (City Hall)	Port Moody
ArtsConnect ArtWalk	April	City wide (Clarke Street, St. Johns, Suterbrook Village)	Port Moody
Easter Egg Hunt and Pet Parade	Easter	Port Moody Station Museum (Moody at Murray Street)	Port Moody
Fingerling Festival	May	Noons Creek (300 Ioco Road)	Port Moody
Artists in the Park	May - September	Various Locations (Station Museum, Queens Street Plaza, Rocky Point Park)	Port Moody
Golden Spike Days Festival	July long Weekend	Rocky Point Park	Port Moody
Newport Village Summer Festival	July/August	Newport Village - also referred to as Festa Italiana	Port Moody
Summer Sunday Concerts	July/August	Rocky Point Park	Port Moody
Festival of the Arts	September	Port Moody Arts Centre, St. Johns Street at Kyle)	Port Moody
Ioco Ghost Town Days	October	Port Moody Station Museum (Moody at Murray Street)	Port Moody
CP Holiday Train	December	Queens Street Plaza (Clarke & Queens Streets)	Port Moody
Festival Coquitlam	One Sunday only in June	Parade along Pinetree Way from Lincoln Avenue to David Street followed by the Teddy Bear Picnic at Lafarge Park (typically a 3 hour road closure)	Coquitlam

Event	Date	Location	City
Tri-Cities Walk for ALS	One Saturday or Sunday only in the period April through September	Lafarge Park	Coquitlam
BC Highland Games	Last Saturday in June	Pinetree Way and Town Centre Parking lots (attracts in excess of 10,000 participants and spectators)	Coquitlam
Vancouver Motorcycle Christmas Toy Run	First Saturday in October	Parade along Barnet Hwy from Johnson St (Coquitlam Centre parking lot) to Port Moody border (typically a 30 minute road closure, with in excess of 3,000 riders participating)	Coquitlam
Douglas College Fall Fair	Third Saturday in September	Douglas College - no direct impact to roads, but main access is up Pinetree Way	Coquitlam
Canada Day Celebrations	July 1st	Lafarge Park/ Evergreen Cultural Centre – no direct impact to roads, but main access is Pinetree Way. This is a major event with large numbers in attendance.	Coquitlam
WCE Santa Train	Two Saturdays in December	WCE trains run with stops at WCE Coquitlam Central and WCE Port Moody	Coquitlam/Port Moody
Terry Fox Run	One Saturday in September	Ridgeway Avenue (typically a 2 hour road closure, with in excess of 200 participants)	Coquitlam
Remembrance Day	November 11	Porter Street (typically a 1 hour road closure, with in excess of 200 participants)	Coquitlam

## Article 2. Permitted Disruption Events

### 2.1 General

#### 2.1.1 Scope

- (a) This Article 2 [Permitted Disruption Events] specifies the requirements for permitted disruptions to Traffic, Access to and from roads and On-Street Parking by the Primary Contractor for the purposes of facilitating construction activities.
- (b) Without limiting any other provision of this Agreement, the Primary Contractor shall carry out the Work in accordance with this Article 2 [Permitted Disruption Events].

#### 2.1.2 Permitted Disruptions

- (a) Unless otherwise permitted in accordance with this Agreement, the Primary Contractor shall not cause or direct a Traffic, Access or On-Street Parking disruption except as permitted in accordance with this Article 2 [Permitted Disruption Events].
- (b) Prior to causing or directing:
  - (i) a Traffic disruption in accordance with Article 2.2 [Traffic Disruptions] of this Part 4;
  - (ii) an Access disruption in accordance with Article 2.3 [Permitted Access Disruptions] of this Part 4; or
  - (iii) an On-Street Parking disruption in accordance with Article 2.4 [Permitted Parking Disruptions] of this Part 4,

for the purposes of facilitating construction activities, the Primary Contractor shall submit Traffic Control Plan(s) and Advisory Signing Plan(s) for such disruption to the Province's Representative for review, acting reasonably, in accordance with the Review Procedure and Article 1.4 [Traffic Control Plans] and Article 1.5 [Advisory Signing Plans], both of this Part 4, at least 48 hours prior to the implementation of the proposed disruption. For the purposes of this Article 2.1.2(b), the 15 Business Day period referred to in Section 2.1(b) of Schedule 2 [Representatives, Review Procedure and Consent Procedure] shall be reduced to 24 hours.

- (c) If the Primary Contractor proposes to:

- (i) reduce the number of Minimum Traffic Lanes to less than the minimum number prescribed in Article 2.2.1 [Lane Closures] of this Part 4;
- (ii) implement a Full Closure that is not permitted in accordance with Article 2.2.3 [Full Closures] of this Part 4; or
- (iii) implement a Detour Route or Lane Shift that is not permitted in accordance with Article 2.2.4 [Detour Routes and Lane Shifts] of this Part 4,

then the Primary Contractor shall be required to demonstrate that such proposal meets the Minimum Traffic Performance Criteria in accordance with Article 5 [Traffic Engineering and Modelling] of this Part 4 and shall submit such proposal and demonstration to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.

### 2.1.3 Statutory Holidays

For the purposes of this Article 2 [Permitted Disruption Events]:

- (a) for Statutory Holidays which fall on a Monday, Tuesday, Wednesday or Thursday which do not themselves precede another Statutory Holiday, Lane Closures shall end by 6:00 on the morning of the day following such Statutory Holidays (as though such Statutory Holidays were a Sunday); and
- (b) for Statutory Holidays which fall on a Friday or which precede another Statutory Holiday, Lane Closures shall end by 11:00 on the morning of the day following such Statutory Holidays.

## 2.2 Traffic Disruptions

### 2.2.1 Lane Closures

For the purposes of facilitating construction activities, Lane Closures will be permitted in accordance with the following:

- (a) the Minimum Traffic Lanes as prescribed in Attachment B [Minimum Traffic Lane Requirements] to this Article 2 shall be fully open and available to Traffic during the days and times indicated;
- (b) the Minimum Traffic Lane Requirements prescribed in Attachment B [Minimum Traffic Lane Requirements] to this Article 2 shall be applicable during the following time periods as indicated in the said Attachment B [Minimum Traffic Lane Requirements] to this Article 2, unless otherwise indicated to the contrary in Table 2.2.2 [Permitted Stoppages] of this Part 4:

- (i) "Weekday AM": 06:00 to 09:00;
- (ii) "Weekday Midday": 09:00 to 15:00;
- (iii) "Weekday PM": 15:00 to 19:00;
- (iv) "Saturday": 11:00 to 17:00;
- (v) "Sunday": 11:00 to 17:00; and
- (vi) "Night":
  - A. Weekday nights (excluding Fridays and Weekday nights before Statutory Holidays) - 19:00 to 06:00 on the following day;
  - B. Friday nights and Weekday nights before Statutory Holidays - 19:00 to 11:00 on the following day;
  - C. Saturday nights - 17:00 to 11:00 on the following day; and
  - D. Sunday nights - 17:00 to 06:00 on the following day;

with the exception of the time periods set out in Attachment B [Minimum Traffic Lane Requirements] and/or unless otherwise indicated to the contrary in Table 2.2.2 [Permitted Stoppages] of this Part 4.

- (c) the Primary Contractor shall provide Traffic Control Persons or Traffic Signals to control Traffic at those locations where single lane alternating traffic flow is permitted in accordance with Attachment B [Minimum Traffic Lane Requirements] to this Article 2;
- (d) Lane Closures including the duration, associated signage, Pavement Markings, and protective works shall be included by the Primary Contractor in the Traffic Control Plan(s); and
- (e) notwithstanding the requirements of Attachment B [Minimum Traffic Lane Requirements] to this Article 2, the Primary Contractor may, pursuant to the Consent Procedure, apply to the Province's Representative for acceptance, in its discretion, pursuant to the Consent Procedure for temporary closures of Minimum Traffic Lanes for short durations to facilitate the delivery and placement of Construction Plant in the following circumstances:
  - (i) temporary Lane Closures of Minimum Traffic Lanes shall only be permitted on North Road between Austin Road and Cottonwood Avenue and on Clarke Road 150m south of Como Lake Avenue;
  - (ii) temporary Lane Closures of Minimum Traffic Lanes shall not be permitted during Weekday AM and Weekend PM periods;

- (iii) temporary Lane Closures of Minimum Traffic Lanes shall not be permitted for durations of longer than 30 minutes, and, following any such closures, all Minimum Traffic Lanes must be reinstated in accordance with Attachment B [Minimum Traffic Lane Requirements] to this Article 2 for a period of not less than 30 minutes before a temporary Lane Closure of another Minimum Traffic Lane may be permitted pursuant to this Article 2.2.1(e) at the same location or within 50m of such location;
- (iv) a minimum of one Minimum Traffic Lane shall be fully open at all times during any temporary Lane Closure of a Minimum Traffic Lane permitted by this Article 2.2.1(e);
- (v) no temporary Lane Closure of a Minimum Traffic Lane permitted by this Article 2.2.1(e) shall close any part of a Minimum Traffic Lane for a distance which is greater than 50m in length;
- (vi) no more than one temporary Lane Closure of a Minimum Traffic Lane shall be permitted in either travel direction pursuant to this Article 2.2.1(e); and
- (vii) no temporary Lane Closure of a left turn lane shall be permitted pursuant to this Article 2.2.1(e).

For the purposes of this Article 2.2.1(e), the 20 Business Day period referred to in Section 2.2(a) of Schedule 2 [Representatives, Review Procedure and Consent Procedure] shall be reduced to 5 Business Days.

- (viii) The storage length of a left-hand turn lane shall be the longer of:
  - A. the minimum length required by the applicable codes, standards and guidelines listed or required by Article 1.1.4 [Codes and Standards] of this Part 4;
  - B. the existing storage length as of the Effective Date; or
  - C. the 95<sup>th</sup> percentile queue length as determined by traffic analysis undertaken in accordance with Article 5 [Traffic Management and Modelling] of this Part 4.

## 2.2.2 Stoppages

For the purposes of facilitating construction activities, Stoppages shall be permitted in accordance with the following:

- (a) Stoppages shall comply with the requirements in the following Table 2.2.2 [Permitted Stoppages]:

Table 2.2.2 – Permitted Stoppages

Stoppage Duration	Weekdays	Weekends
Up to 2 minutes	Permitted 18:00 – 07:00 and 9:00 - 15:00 only	Permitted
Between 2 and 20 minutes	Permitted 23:00 – 05:00 only	Permitted 23:00 – 05:00 only

- (b) After a Stoppage has been implemented and removed, the Primary Contractor shall allow all queues resulting from the Stoppage to clear before implementing another Stoppage at the same location.
- (c) Stoppages, including the duration, associated signage, Pavement Markings, Traffic Control Persons, and protective works, shall be included by the Primary Contractor in the Traffic Control Plan(s).

### 2.2.3 Full Closures

For the purposes of facilitating construction activities, Full Closures shall only be permitted on a site-specific basis in exceptional circumstances and when there is no reasonable alternative in accordance with the following:

- (a) Full Closures shall only be permitted between 23:00 and 05:00 on the next day, subject to the following:
  - (i) where a Detour Route is provided on the Site (for example, rerouted along adjacent streets), then a Full Closure shall be permitted up to the entire duration of the period between 23:00 and 05:00; and
  - (ii) if a Detour Route is not provided on the Site, then any Full Closure shall not exceed a duration of 20 minutes between 23:00 and 05:00, at which time the vehicular queues resulting from the Full Closure must be cleared prior to commencement of another Full Closure.
- (b) Full Closures including the duration, associated signage, Pavement Markings, and protective works shall be included by the Primary Contractor in the Traffic Control Plan(s).

### 2.2.4 Detour Routes and Lane Shifts

For the purposes of facilitating construction activities, Detour Routes and Lane Shifts shall be permitted in accordance with the following:

- (a) Detour Routes and Lane Shifts shall be permitted subject to the Minimum Traffic Lane requirements prescribed in Attachment B [Minimum Traffic Lane

Requirements] to this Article 2 being provided and the Detour Routes and Lane Shifts being designed and implemented in accordance with Article 1.8 [Detour Routes and Lane Shift Design Criteria] of this Part 4; and

- (b) Detour Routes and Lane Shifts, including the duration, associated signage, Pavement Markings, and protective works, shall be included by the Primary Contractor in the Traffic Control Plan(s).

## 2.2.5 Pedestrians and Cyclists

For the purposes of facilitating construction activities, disruption to a Pedestrian and Cycling Facility shall be permitted in accordance with the following:

- (a) disruption of a Pedestrian and Cycling Facility shall be permitted if suitable and safe alternatives to the disrupted facility are provided in accordance with Article 1.9 [Pedestrians and Cyclists] of this Part 4; and
- (b) disruption of a Pedestrian and Cycling Facility, including the duration, associated signage, Pavement Markings and protective works, shall be included in the Traffic Control Plan(s).

## 2.3 Permitted Access Disruptions

### 2.3.1 Interpretation

For the purposes of Article 2.3.2 [General] of this Part 4, properties shall be classified as “commercial property”, “residential property” or “institutional property” in accordance with Traffic Management Block Marker Drawings, which form part of Appendix I [Traffic Management Drawings] to this Schedule 4.

### 2.3.2 General

For the purposes of facilitating construction activities, disruptions of Accesses shall be permitted in accordance with the following:

- (a) the following temporary disruptions of Accesses shall be permitted:
  - (i) a maximum disruption of two (2) minutes for commercial property Accesses, with up to five (5) such disruptions per hour during the hours of operation of that business, including delivery times;
  - (ii) a maximum disruption of five (5) minutes for institutional property Accesses, with up to two (2) such disruptions per hour;
  - (iii) a maximum disruption of five (5) minutes for multi-family residential property Accesses, with up to two (2) such disruptions per hour; and

- (iv) a maximum disruption of twenty (20) minutes for single family residential property Accesses, with a maximum of one disruption per hour;
- (b) if the Primary Contractor requires disrupting Accesses for durations or frequencies greater than those prescribed in Article 2.3.2(a) of this Part 4, the Primary Contractor shall:
  - (i) make prior suitable alternative Access arrangements with the affected property owner or occupant; and
  - (ii) obtain and keep record of written agreements of the alternative Access arrangements signed by the affected property owner or occupant;
- (c) where the Primary Contractor cannot reach agreement with the owner or occupant of the commercial, residential or institutional property with respect to Article 2.3.2(b) of this Part 4, the Primary Contractor may submit a proposal to disrupt Access for durations or frequencies greater than those prescribed in Article 2.3.2(a) of this Part 4, along with justification and the results of any property owner or occupant consultation to support such proposal, to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure;
- (d) the Primary Contractor shall provide Traffic Control Persons at any vehicular Access where construction activities negatively affect the safety and/or operations of the Access relative to the Access conditions in existence as at the date immediately prior to the commencement of such construction activities;
- (e) if visibility of a business or its respective Access is obscured due to construction activities, or alternate routes need to be followed to and from such Access, the Primary Contractor shall provide and maintain appropriate signage to direct Traffic to the affected business location; and
- (f) the management of Traffic at Accesses, including signage and the provision of Traffic Control Persons, shall be included by the Primary Contractor in the Traffic Control Plan(s).

## 2.4 Permitted Parking Disruptions

### 2.4.1 Interpretation

For the purposes of Article 2.4.2 [General] of this Part 4, "commercial areas", "residential areas" or "institutional areas" shall mean areas within the Site that are classified as such in accordance with Traffic Management Block Marker Drawings, which form part of Appendix<sup>o</sup>I [Traffic Management Drawings] to Schedule 4.

## 2.4.2 General

For the purposes of facilitating construction activities, On-Street Parking disruptions will be permitted, subject to and in accordance with the following:

- (a) the Primary Contractor shall maintain existing On-Street Parking as at the Effective Date in accordance with the following:
  - (i) in commercial areas between 10:00 and 18:00 Monday to Friday;
  - (ii) in commercial areas between 11:00 and 18:00 on Saturdays and Sundays;
  - (iii) in residential areas between 20:30 and 7:00 on the next day, Monday to Sunday; and
  - (iv) in institutional areas between 07:30 and 18:00 Monday to Friday;
- (b) notwithstanding Article 2.4.2(a) of this Part 4, the temporary removal of the following On-Street Parking will be permitted for the minimum time required for the purposes of Construction:
  - (i) on the east side of North Road between Austin Avenue and Cottonwood Avenue;
  - (ii) on the west side of North Road, excluding recessed parking, between Austin Avenue and Cottonwood Avenue;
  - (iii) on Golden Spike Lane between Buller Street and Moray Street; and
  - (iv) on the east side of Pinetree Way between Lincoln Avenue and Douglas College.
- (c) the Primary Contractor shall restore On-Street Parking to conditions in existence immediately prior to construction activities upon completion of the respective construction activity that necessitated the impact on the On-Street Parking; and
- (d) any adjustments to On-Street Parking shall be included by the Primary Contractor in the Traffic Control Plan(s).

## 2.4.3 Parking of Primary Contractor's Vehicles

- (a) The Primary Contractor shall not allow the parking of any of the Primary Contractor's vehicles, including those of its employees, on any street or public parking area within 1km of the Site.
- (b) The Primary Contractor shall provide details of where the Primary Contractor and its employees will park their vehicles in the Traffic Control Plan.

**ATTACHMENT B TO ARTICLE 2**  
**MINIMUM TRAFFIC LANE REQUIREMENTS**

## Article 3. Non-Permitted Disruption Events

### 3.1 General

#### 3.1.1 Scope

- (a) This Article 3 [Non-Permitted Disruption] specifies non-permitted disruptions to Traffic, Access and On-Street Parking by the Primary Contractor for the purposes of facilitating construction activities.
- (b) Without limiting any other provision of this Agreement, the Primary Contractor shall carry out the Work in accordance with this Article 3 [Non-Permitted Disruption].

#### 3.1.2 Special Event

- (a) Notwithstanding any other provision of this Agreement, the Primary Contractor shall not cause or direct any Lane Closures, Stoppages, Full Closures, Detour Routes, Lane Shifts, the removal of On-Street Parking, or the disruption of Access to areas classified as “commercial areas” in accordance with Traffic Management Block Marker Drawings, which form part of Appendix I [Traffic Management Drawings] to Schedule 4, between December 1 and December 31 of each year (the “**Holiday Period**”) until the Total Completion Date, at the following locations:
  - (i) North Road between Lougheed Highway and Cameron Street;
  - (ii) Gatineau Place between Austin Avenue and North Road;
  - (iii) Austin Avenue between Lougheed Highway and North Road;
  - (iv) Cameron Street between Bartlet Court and North Road; and
  - (v) Pinetree Way between Barnet Highway and Glen Drive(collectively the “**Special Event Roads**”).
- (b) Notwithstanding Article 3.1.2(a) of this Part 4, the Primary Contractor shall not be required to:
  - (i) cease construction activities within the Stations during the Holiday Period, as long as such construction activities do not affect Traffic on the Special Event Roads; and

- (ii) cease non-construction activities with respect to the Guideway (such as testing, commissioning, cabling or other activities that would not be visible to the travelling public as construction activities) during the Holiday Period.

## 3.2 Non-Permitted Traffic Disruptions

The Primary Contractor shall not cause or direct a Traffic disruption contrary to this Article 3.2 [Non-Permitted Traffic Disruptions] unless otherwise permitted to do so by this Agreement.

### 3.2.1 General

- (a) The Primary Contractor shall not permit the activities associated with the implementation and/or removal of any Lane Closure, Lane Shift, Full Closure or Detour Route on a Weekday during the following times:
  - (i) 06:00 to 09:00; and
  - (ii) 15:00 to 19:00.
- (b) The Primary Contractor shall not permit the activities associated with the implementation and/or removal of any Lane Closure, Lane Shift, Full Closure, or Detour Route on a Weekend or Statutory Holiday between 11:00 and 17:00.
- (c) The Primary Contractor shall not permit multiple Active Construction Zones within 200m of each other measured from the end of one zone to the beginning of the next zone, such that Traffic encounters multiple unrelated disruptions and/or discontinuities in the lane geometries.
- (d) The Primary Contractor shall not deposit or store equipment or materials on the travelled portion or shoulder of any road, or within any public parking area or sidewalk within the Site, unless otherwise permitted in the Traffic Control Plan as accepted in accordance with Article 1 [General Traffic Management Requirements] of this Part 4.

### 3.2.2 Lane Closures

The Primary Contractor shall not permit Lane Closures on any Weekday between 7:00 and 09:00 and between 15:00 and 19:00 that are not otherwise permitted in accordance with the provisions of Article 2.2 [Traffic Disruptions] or Article 5 [Traffic Engineering and Modelling], both of this Part 4.

### 3.2.3 Stoppages

The Primary Contractor shall not permit Stoppages on any Weekday between 7:00 and 09:00 and between 15:00 and 19:00 that are not otherwise permitted in accordance with the provisions of Article 2.2 [Traffic Disruptions] or Article 5 [Traffic Engineering and Modelling], both of this Part 4.

### 3.2.4 Full Closures

- (a) The Primary Contractor shall not permit simultaneous directional Full Closures at more than one of the following locations:
  - (i) Barnet Highway near View Street;
  - (ii) St John's Street between Dewdney Trunk Road and Ioco Road; and
  - (iii) the North Road/Clarke Road corridor between Lougheed Highway and St John's Street.
- (b) The Primary Contractor shall not permit directional Full Closures between 05:00 and 23:00 that are not otherwise permitted in accordance with the provisions of Article 2.2 [Traffic Disruptions] or Article 5 [Traffic Engineering and Modelling], both of this Part 4.

### 3.2.5 Detour Routes (including Lane Shifts)

- (a) The Primary Contractor shall not permit the use of existing roads under the jurisdiction of the respective Municipality pursuant to the *Community Charter* as Detour Routes (including Lane Shifts) or as alternate routes unless the Primary Contractor submits a proposal of such use, together with a confirmation that such use is acceptable to the Relevant Authority, to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.
- (b) The Primary Contractor shall not permit Lane Closures, Stoppages, or Full Closures initiated by the Primary Contractor on a Detour Route or a Lane Shift during the time that the route is functioning as a Detour Route.
- (c) The Primary Contractor shall not permit Detour Routes (including Lane Shifts) on any Weekday between 06:00 and 19:00 that are not otherwise permitted in accordance with the provisions of Article 2.2 [Traffic Disruptions] or Article 5 [Traffic Engineering and Modelling], both of this Part 4.

### 3.2.6 Transit Traffic

The Primary Contractor shall not engage in any activity that could impede or disrupt Transit Traffic, during the following restricted time periods:

- (a) during Weekdays, between 07:00 and 09:00 and between 16:00 and 18:00; and
- (b) during Weekends or Statutory Holidays, between 13:00 and 18:00.

### **3.3 Non-Permitted Pedestrian and Cyclist Disruptions**

The Primary Contractor shall not permit delays to pedestrians and/or cyclists in excess of 10 minutes unless advance notification is provided in accordance with Article 4.1.2 [Requirement to Inform] of this Part 4 and Schedule 8 [Communication and Community Relations].

### **3.4 Non-Permitted Access Disruptions**

#### **3.4.1 Residential, Commercial and Institutional Property**

The Primary Contractor shall not disrupt Access unless otherwise permitted in accordance with the provisions of Article 2.3 [Permitted Access Disruptions] of this Part 4.

#### **3.4.2 Emergency Response Agencies**

The Primary Contractor shall not:

- (a) block or disrupt access to or through the Site by any Emergency Response Agency; or
- (b) modify or change any road which is a customary route for any Emergency Response Agency in any way which materially alters such road or may cause material delays to the Emergency Response Agency,

unless in each such case, the Emergency Response Agency has provided its prior written approval, a copy of which approval shall be provided by the Primary Contractor to the Province's Representative.

### **3.5 Non-Permitted Parking Disruptions**

#### **3.5.1 Residential, Commercial and Institutional Property**

The Primary Contractor shall not disrupt On-Street Parking unless otherwise permitted in accordance with the provisions of Article 2.4 [Permitted Parking Disruptions] of this Part 4.

## Article 4. Requirement to Inform of Disruption Events

### 4.1 General

#### 4.1.1 Scope

- (a) This Article 4 [Requirement to Inform of Disruption Events] specifies the requirements for informing the Province's Representative and others identified in this Article 4 [Requirement to Inform of Disruption Events] of Traffic, Access and On-Street Parking disruptions by the Primary Contractor for the purposes of facilitating construction activities.
- (b) Without limiting any other provision of this Agreement, the Primary Contractor shall comply with its obligations under this Article 4 [Requirement to Inform of Events].

#### 4.1.2 Requirement to Inform

- (a) The Primary Contractor shall inform the Province's Representative, the Relevant Authorities, TransLink, Transit Operators, Emergency Response Agencies, Traffic Media, adjacent property owners or occupants, and the travelling public within the Site, including pedestrians and cyclists, of any Permitted Disruption Event in accordance with the Traffic Management Communications Plan.
- (b) The Primary Contractor shall provide advance notice of all Permitted Disruption Events to the persons identified in Article 4.1.2(a) of this Part 4 by no later the time periods in advance thereof shown in the following Table 4.1.2(b) [Requirement to Inform of Permitted Disruption Events].

Table 4.1.2(b) – Requirement to Inform of Permitted Disruption Events

Permitted Disruption Event	Details	Minimum Advance Notice	Province's Representative	Relevant Authorities (Municipalities)	TransLink,, Transit Operators	Emergency	Property Owners	Travelling Public and Traffic Media
Lane Closure	All	48hrs	X	X	X	X		X
Stoppage	Duration >10 minutes	48hrs	X	X	X	X		X
Full Closure	All	72hrs	X	X	X	X	X	X
Detour Route/Lane Shift	All	72hrs	X	X	X	X	X	X
Permitted Pedestrian and Cycling Facility Disruptions	Duration >10 minutes	48hrs	X					X
Permitted Parking Disruptions	All	48hrs	X	X			X	X
Permitted Access Disruptions	All	48hrs	X			X	X	X

- (c) The Primary Contractor shall, in the event of a Non-Permitted Traffic Disruption Event, endeavour to advise the persons identified in Article 4.1.2(a) of this Part 4 of such event within the timelines set out in the Table 4.1.2(b) [Requirement to Inform of Permitted Disruption Events] for the equivalent Permitted Disruption Event and, in any event, shall advise the Province's Representative as soon as practicable of such event.

## Article 5. Traffic Engineering and Modelling

### 5.1 General

#### 5.1.1 Scope

- (a) This Article 5 [Traffic Engineering and Modelling] specifies the requirements and criteria for:
  - (i) Lane Closures, Full Closures, Detour Routes, Stoppages, Lane Shifts, or speed limit reductions proposed by the Primary Contractor that are not permitted in accordance with Article 2 [Permitted Disruption Events] of this Part 4; and
  - (ii) new temporary Traffic Signals that are proposed by the Primary Contractor in accordance with Article 1.11.2 [New or Temporary Traffic Signals] of this Part 4.
- (b) Without limiting any other provision of this Agreement, the Primary Contractor shall carry out the Work in accordance with this Article 5 [Traffic Engineering and Modelling].

#### 5.1.2 General Requirements

- (a) If the Primary Contractor proposes any Lane Closures, Full Closures, Detour Routes or Lane Shifts that are not permitted by Article 2 [Permitted Disruption Events] of this Part 4, the Primary Contractor shall provide justification and supporting traffic analysis to demonstrate acceptable traffic performance as described in Articles 2.1.2(b), 2.1.2(c), 5.1.2(b) and 5.1.2(c), all of this Part 4, and submit such proposal and demonstration to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.
- (b) The Primary Contractor shall ensure that Weekend and night traffic performance at intersections meet the following Minimum Traffic Performance Criteria, as determined using Highway Capacity Manual (HCM) methodologies:
  - (i) through and turning movement Level of Service (LOS) D or better; and
  - (ii) through and turning movement volume/capacity (v/c) ratio <0.85.
- (c) If the Primary Contractor proposes any new temporary Traffic Signals or any Lane Closures, Full Closures, Detour Routes, Lane Shifts or speed limit reductions during Weekdays between 06:00 and 19:00 that are not permitted by Article 2 [Permitted Disruption Events] of this Part 4, the Primary Contractor

shall, in accordance with Article 5.2.3 [Traffic Modelling Requirements] of this Part 4, perform Traffic Modelling and analysis to confirm that the traffic performance resulting from the proposed Traffic Management Plan meets the Minimum Traffic Performance Criteria specified in this Article 5 [Traffic Engineering and Modelling] and in the Traffic Operations Requirements during the respective Weekday period, and submit such proposal and analysis to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.

## 5.2 Weekday Traffic Modelling

This Article 5.2 [Weekday Traffic Modelling] pertains to the Weekday Traffic Modelling and analysis requirements referred to in Article 5.1.2(c) of this Part 4.

### 5.2.1 Method of Measurement

The Primary Contractor shall acquire and use the PARAMICS micro-simulation software (V6.7) and SYNCHRO (V6) software to demonstrate compliance with the Minimum Traffic Performance Criteria in accordance with the Traffic Operations Requirements.

### 5.2.2 Traffic Data

- (a) Modified Base Case Traffic Models for the Weekday Peak Periods referred to in Table 5.2.4(a) [Weekday Peak Periods and Peak Hours] of this Part 4 are referenced in the Traffic Operations Requirements and provided in the Traffic Data.
- (b) The travel demand matrices and demand profiles referenced in the Traffic Operations Requirements shall form the basis for the Primary Contractor's evaluation of Traffic performance.
- (c) Traffic volumes contained in other documentation or obtained by the Primary Contractor shall not be used by the Primary Contractor for Traffic Modelling and analysis.

### 5.2.3 Traffic Modelling Requirements

- (a) The Primary Contractor shall update the Modified Base Case Traffic Models to reflect the laning and Traffic Signal operations in effect on North Road as at the Effective Date.
- (b) Within 20 Business Days of the Effective Date, the Primary Contractor shall submit the updated Modified Base Case Traffic Models and documentation describing all updates made to the Modified Base Case Traffic Models to the

Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.

- (c) The Primary Contractor shall perform Traffic Modelling and analysis using the updated Modified Base Case Traffic Models referenced in Article 5.2.3(a) of this Part 4, adjusted as necessary to reflect each stage of the Traffic Management Plan.
- (d) The Primary Contractor shall ensure that the outer limits of the road network included in the provided Modified Base Case Traffic Models are not adjusted and shall be retained during modelling of the Traffic Management Plan. The area of the model shall be approximately as shown on the Traffic Model Area drawings, which form part of Appendix I [Traffic Management Drawings] to Schedule 4.
- (e) The Primary Contractor shall not subdivide the model area included in the Modified Base Case Traffic Models into smaller sub-area models.
- (f) The Traffic Modelling and analysis of the Traffic Management Plan shall:
  - (i) represent the anticipated road and Traffic Signal conditions contemplated during the specific stages of Construction and for each Weekday Peak Period referred to in Table 5.2.4(a) [Weekday Peak Periods and Peak Hours] of this Part 4; and
  - (ii) incorporate all Primary Contractor-initiated impediments to Traffic throughout the model network area contemplated during such stages.
- (g) The Primary Contractor may, if necessary, optimize Traffic Signal timings and phasing at existing Traffic Signals to improve Traffic performance of the Traffic Management Plan in order to meet the Minimum Traffic Performance Criteria.
- (h) The Primary Contractor shall, if necessary, design and implement revised Traffic Signal timings and phasing in accordance with Article 1.11.1 [Requirements for Existing Traffic Signals] of this Part 4.
- (i) The Primary Contractor may, if necessary, install new temporary Traffic Signals to improve Traffic performance of the Traffic Management Plan in order to meet the Minimum Traffic Performance Criteria.
- (j) The Primary Contractor shall design and implement any new Traffic Signals in accordance with Article 1.11.2 [New or Temporary Traffic Signals] of this Part 4.
- (k) The Primary Contractor shall submit the Traffic operations models representing the Traffic Management Plan, and all supporting analysis, results and reports as prescribed in the Traffic Operations Requirements, to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.

- (l) The Province's Representative may, upon request and justification by the Primary Contractor, waive the requirements to perform Traffic Modelling and analysis of a particular stage of the Traffic Management Plan, if the Province determines, in its sole discretion, that:
  - (i) the particular stage is substantially similar to a stage of the Traffic Management Plan previously modelled and analyzed by the Primary Contractor; and
  - (ii) such Traffic Modelling and analysis was previously accepted by the Province's Representative, acting reasonably, in accordance with the Consent Procedure.
- (m) If, in the opinion of the Primary Contractor, the Modified Base Case Traffic Models are not considered representative of current conditions due to changes, including changes to Traffic patterns, road geometry, new infrastructure or traffic control that occur over time, the Primary Contractor may update the models as necessary at its own cost, and such update shall include data collection, model development, model calibration and quantification of current conditions.
- (n) If the Primary Contractor updates the models in accordance with Article 5.2.3(m) of this Part 4, the Primary Contractor shall submit the models, including updated travel demand matrices and demand profiles and supporting documentation, to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure.
- (o) Notwithstanding the updating of the models by the Primary Contractor in accordance with Article 5.2.3(m) of this Part 4, the Minimum Traffic Performance Criteria set out in this Article 5 [Traffic Engineering and Modelling] and in the Traffic Operations Requirements shall remain unchanged unless a proposal for such a change is submitted to the Province's Representative for acceptance, acting reasonably, in accordance with the Consent Procedure, and the Province has accepted such change.

## 5.2.4 Peak Periods and Peak Hours

- (a) For the purposes of Traffic Modelling and analysis, the Peak Periods for each of Weekday “AM Peak”, “Midday Peak”, and “PM Peak” and the Peak Hours are set out in the following Table 5.2.4(a) [Weekday Peak Periods and Peak Hours]:

Table 5.2.4(a) – Weekday Peak Periods and Peak Hours

	Peak Period	Peak Hour
AM Peak	06:00 – 09:00	7:45 – 8:45
Midday Peak	09:00 – 15:00	12:00 – 13:00
PM Peak	15:00 – 19:00	16:30 – 17:30

- (b) The Primary Contractor may, notwithstanding Article 3 [Non-Permitted Disruption Events] of this Part 4, apply to the Province’s Representative for acceptance, acting reasonably, pursuant to the Consent Procedure, for a Lane Closure, Full Closure, Detour Route or Lane Shifts for the full duration of any Peak Period(s), provided that the proposed Lane Closure, Full Closure, Detour Route or Lane Shift meets the Minimum Traffic Performance Criteria.

## 5.3 Performance Criteria

### 5.3.1 General

- (a) This Article 5.3 [Performance Criteria] sets out the Traffic Modelling for Weekdays and analysis requirements referred to in Article 5.1.2(c) of this Part 4.
- (b) The Primary Contractor shall ensure that the data used in the analysis of any modelled network representing the Traffic Management Plan shall be calculated as specified in the Traffic Operations Requirements and as set out in this Article 5.3 [Performance Criteria].

### 5.3.2 System Wide Performance Metrics

- (a) The following system wide performance metrics have been established by the Province to determine whether the Traffic Management Plan models perform in an acceptable manner:
- (i) total number of vehicles processed in the network; and
  - (ii) total network travel time.
- (b) Values for the performance metrics set out in Article 5.3.2(a) of this Part 4 shall be calculated by the Primary Contractor for the Traffic Management Plan and

shall meet or exceed the Minimum Traffic Performance Criteria specified in the Traffic Operations Requirements.

### 5.3.3 Component Performance Metrics

- (a) The following component performance metrics have been established by the Province to determine whether the Traffic Management Plan models perform in an acceptable manner:
  - (i) intersection Level of Service (LOS);
  - (ii) intersection turning movement LOS;
  - (iii) intersection turning movement volume/capacity (v/c); and
  - (iv) point to point travel times.
- (b) Values for the performance metrics set out in Article 5.3.3(a) of this Part 4 shall be calculated by the Primary Contractor for the Traffic Management Plan and shall meet or exceed the Minimum Traffic Performance Criteria specified in the Traffic Operations Requirements.