

# Appendix A: Glossary Contents

A.1	Terms A-1
A.2	Acronyms <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> For sign acronyms and abbreviations, see <u>Section 4.2: Traffic Signs</u> and <u>Section 4.3: Dynamic</u> <u>Message Signs.</u>



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## Appendix A: Glossary

A.1 Terms	
active work	When workers and equipment are present on the construction site.
barricade	A frangible device that is relatively forgiving when struck by an errant vehicle. It is normally placed at or nearly at right angles to approaching traffic to provide visual identification of hazardous locations and to delineate travel paths.
barrier	A device typically filled with water, or concrete, and designed to contain and deflect errant vehicles at a small angle, thereby preventing them from entering a closed or hazardous area. It is normally placed parallel to or nearly parallel to approaching traffic.
bicycle lane	A lane designated for bicycle use, and may be marked with both a diamond and a bicycle symbol.
brief-duration work	Work that is generally planned in nature, but for which the extent of the work required or the location may not be fully known. The total time to complete brief-duration work is less than 15 minutes.
buffer space	The longitudinal distance which provides a margin of safety for both the driver and the workers. It is important that the buffer space be free of equipment, workers, material and vehicles.
	A buffer vehicle with a crash attenuator may be located within the buffer space if there are space constraints.
	The buffer space is measured is from the end of the taper to the work activity area unless there is a buffer vehicle, in which case it is measured to the back of the buffer vehicle.
	See also <u>Section 6.2.4</u> : Work Zone Components – Buffer Space.
buffer vehicle	A vehicle positioned in the buffer space in advance of a work activity area to enhance worker safety. It is usually stationary, and shall be equipped with a 360-degree flashing yellow light and 4-way flashers, or a flashing arrow board (FAB)
changeable message sign	See "dynamic message sign" in this Glossary.



chase vehicle	A separate traffic control vehicle used in a rolling slowdown operation, following the slowest or last public vehicle ahead of the blockade (see <u>Section 10.6: Rolling Slowdown</u> ).
clear zone	From the Ministry's BC Supplement to the Transportation Association of Canada's Geometric Design Guide: The total roadside border area—starting at the edge of the travel lane— that is available for errant vehicles. A clear zone may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a clear run-out area.
construction speed limit	The speed limit (unchanged or reduced) in the work zone during construction activities or other temporary/special events.
Construction Speed Zone	A lowered legal speed zone authorized by the Road Authority, normally through a long-duration work zone.
continuously slow-moving work	Work that is continuously moving such that the use of normal traffic control procedures is impracticable. This can include stops of up to 15 minutes. Examples include hydro-seeding, spraying for dust control, grading, mowing, brushing, flushing, striping, and sweeping.
conventional pavement marking	A form of pavement marking in which the paint dries slowly (drying time is 5 minutes or more), and from which paint could be tracked into travel lanes by vehicles driving over the marking. It requires advance warning signage and protection of the painted area by using signs, cones, barricades, and other devices until the paint is dry.
	See also "quick-dry pavement marking" in this <u>Glossary</u> and <u>Section 14.1: General Information</u> on pavement marking.
detour route	A travel route that takes traffic off the normal route and uses existing roadways or new temporary roadways to guide traffic around a work zone, identified by appropriate detour signs.
	At least one week prior to closing a roadway and opening a detour, it is advisable to erect "Closing Notice" signs at strategically selected locations.
directional dividing line	A yellow line that separates traffic traveling in opposite directions.
	Directional dividing lines are also used to mark the left edge line of divided highways and one-way roadways, including portions of highway ramps, and to mark both sides of two-way left-turn lanes.



divided roadway	Roadway separated by median barrier (concrete, cable and W- beam), depressed median ( $\geq$ 4 metres wide), raised channelization with curb ( $\geq$ 2 metres wide), or landscaping with curb.
downstream	Like the flow of a river, a location away from a present location, in the direction of vehicular travel.
	See also "upstream" in this Glossary.
drawings	Scale diagrams of the roadway in the vicinity of the work zone that identify the planned arrangement of traffic control devices in accordance with this Manual.
	Drawings include dimensions and show all painted markings and physical features (signs, no-post guardrail, lamp standards, etc.) that may affect traffic operations, roadway geometry, and lane configurations.
drop-off	An abrupt change in the road level created by construction activities—such as milling, paving, or excavating—that is steeper than 3:1 (i.e., a non-traversable slope).
	See also <u>Section 6.5</u> : <u>Treatment of Drop-Offs and Travel Lane</u> <u>Excavations.</u>
dynamic message sign	A programmable traffic control device that displays messages composed of letters, symbols/graphics, or both, and is used to provide drivers with highway condition information or to warn or manage traffic.
	The acronym for dynamic message sign is DMS. It may also be called a changeable message sign (CMS) or a variable message sign (VMS).
	See also Section 4.3: Dynamic Message Signs.
emergency	Situation which requires immediate response to save lives or prevent serious injury using whatever resources are available.
emergent work	Unplanned, quick-response work necessitated by an unanticipated situation that presents a risk to road users.
	Each entry onto the travelled portion of the highway to perform emergent work takes less than 1 minute, and the total time required to complete the work is less than 5 minutes. (This does not apply for emergency incidents.)



escort vehicle	A vehicle used in quick-dry paint operations on two-lane, two-way roadways as a warning device to the travelling public.
	Typically driven ahead of the paint truck, it carries supplies, transports personnel between job sites, and communicates information about highway conditions, hazards, and traffic flow to other vehicles involved in the painting operation.
flagging	The control/direction of traffic using Automated Flagger Assistance Devices (AFADs) or Traffic Control Persons (TCPs).
flasher	A yellow flashing warning light.
freeway	A divided primary highway with two or more lanes in each direction and access via grade-separated interchanges only. Posted speed limit is typically 100 km/h or higher.
guidance	Uses words such as <b>should</b> , <b>recommended</b> - describes a recommended, but not mandatory, practice. Decisions contrary to guidance are documented.
	See Section 6.11: Using Sections 7 to 19.
high speed	A speed of 70 km/h or higher.
	See also "low speed" in this Glossary.
high-volume roadway	During work, a roadway which carries 1,000 or more vehicles per day.
	See also "low-volume roadway" in this <u>Glossary</u> .
highway	Every road, street, lane or right of way designed or intended for or used by the general public for the passage of traffic.
Implementation Plan	A sub-plan within a Traffic Management Plan that identifies the designated Traffic Control Manager and Traffic Control Supervisor and their qualifications, responsibilities, and duties, as well as procedures for ensuring that traffic management sub-plans are implemented in a coordinated manner (see <u>Section 3</u> : <u>Traffic Management Plans</u> ).
inactive work site	A portion of roadway or right-of-way on which work has commenced but has temporarily ceased, and which has not been returned to normal operating conditions.
incident	In the context of Traffic Management, an incident refers to an event which affects Traffic Operations for workers and/or the travelling public, such as a collision which occurs within the construction zone.



Incident Management Plan	A sub-plan within a Traffic Management Plan that documents a plan for detecting incidents and managing incident response operations (see <u>Section 3: Traffic Management Plans</u> ).
	It includes priorities and procedures for incident detection, response actions that will restore traffic flow as quickly as possible, and a review and analysis process for reducing incident frequency and severity.
intermittently-moving work	A road maintenance activity with a frequently changing work zone (e.g., some mowing operations) or one that involves frequent stops that last 30 minutes or less (temporary patching, group re-lamping of street lights, Benkleman beam testing, crack sealing, etc.).
isolated pothole patching	The patching of one or two potholes within a 1 km length of roadway.
	See also "multiple pothole patching" in this <u><i>Glossary</i></u> .
lane closure	One (or more than one) lane of traffic is closed to traffic use in one or both directions but the entire road has a minimum of one lane available for the passage of traffic for each direction.
Lane Closure Request Form	The Ministry's "Work Notification/Lane Closure Request and Approval Form" that is completed by the Prime Contractor and submitted to the District Manager of Transportation for acceptance. It identifies the proposed work zone location and traffic control measures, and is the minimum level of documentation required from the Prime Contractor.
	See <u>Appendix E: Lane Closure Request Form</u> for a sample of the form and a link to it.
lane drop	The closure of a through lane by using appropriate temporary traffic control devices, including flashing arrow boards and merge tapers.
layout	A schematic diagram of the roadway showing the placement and general arrangement of traffic control devices.
	See also <u>Section 3.2: Traffic Management Sub-Plans</u> and the traffic control layouts in <u>Sections 7 through 19</u> .
line-type utility vehicle	A vehicle carrying personnel who are working on utility lines, such as power, phone, or fibre optic lines.



long-duration work	Planned work that occupies one location for more than one daylight period. Night work lasting more than 15 minutes is also considered long-duration work.
	See also "short-duration work" in this <u>Glossary</u> .
low speed	A speed of 60 km/h or less.
	See also "high speed" in this <u><i>Glossary</i></u> .
low-volume roadway	During work, a roadway which carries fewer than 1,000 vehicles per day.
	See also "high-volume roadway" in this Glossary.
Manual	This Traffic Management Manual for Work on Roadways (TMM).
may	Describes a permissive condition. It is optional and carries no requirement or recommendation.
Ministry	The British Columbia Ministry of Transportation and Infrastructure, which is the provincial government entity responsible for work on Provincial roadways and right-of-way.
	When Ministry responsibilities are identified in this Manual, municipal Road Authorities may have similar responsibilities for work on municipal roads and right-of-way.
mobile work	Continuously slow-moving work or intermittently-moving work, with short stops of 30 minutes or less. The traffic control devices for mobile work are typically vehicle-mounted.
multilane divided roadway	A roadway with two or more travel lanes in each direction, including passing or climbing lanes, where the directions of travel are physically separated by a physical barrier.
multilane roadway	A roadway with two or more travel lanes in at least one direction, including climbing and passing lanes.
multiple pot-hole patching	The patching of multiple clusters of potholes along a stretch of roadway such that the work crew needs to stop several times in succession within 1 kilometre. It is a type of mobile work.
	See also "isolated pothole patching" in this Glossary.
near miss	In the context of Traffic Management, a near miss refers to an event where abrupt corrective action is required in order to avoid a collision. This unplanned event did not result in injury, illness, or damage, but had the potential to do so.



option	Uses words such as may - describes a permissive condition. It is optional and carries no requirement or recommendation.
	See Section 6.11: Using Sections 7 to 19
pilot car	For the purposes of this Manual, a vehicle marked with warning signs and lights that is used to guide a queue of vehicles through a work zone or detour (sometimes called "pilot vehicle").
	(For links to information on piloting extraordinary loads, see the websites cited at the beginning of Section 4.11.9: Pilot Cars for Work Zones).
pilot vehicle operation delay	The amount of time elapsed when a vehicle joins the back of the queue until it passes by the traffic control device (e.g. traffic control person) to follow the pilot vehicle.
platoon	A group of vehicles or pedestrians travelling together, either voluntarily or involuntarily, because of traffic signal controls, other traffic control devices, road geometrics, or other factors.
portable signal	See "temporary traffic control signal" in this <u>Glossary</u> .
Prime Contractor	The organization directly constructing or maintaining works on a Provincial highway and responsible for:
	<ul> <li>obtaining Ministry authorization to carry out the works</li> <li>developing an acceptable Traffic Management Plan</li> <li>implementing the Plan in accordance with Ministry requirements</li> </ul>
project	A work operation or activity undertaken on a roadway or right- of-way and requiring temporary traffic control.
project category	A project classification (Category 1, 2, or 3) based on the project's anticipated effect on traffic operations and the traffic control required for the works (see <u>Section 3: Traffic</u> <u>Management Plans</u> ).
Public Information Plan	A sub-plan within a Traffic Management Plan that identifies actions and procedures for informing the travelling public, project stakeholders, and Ministry staff of current traffic operations and planned changes to traffic operations (see <u>Section 3: Traffic Management Plans</u> ).
quality assurance	A process which ensures the Prime Contractor is following their Quality Control Plan.



quality control	An inspection process that examines the effectiveness of the temporary traffic control. It is the responsibility of the Prime Contractor.
Quality Control Plan	A plan which documents the Prime Contractor's quality control inspection process.
queue clearing time	The minimum amount of time that the highway must remain open to clear queued traffic and restore free-flow operation prior to implementing a subsequent Road Closure.
quick-dry pavement marking	A form of pavement marking in which the paint dries rapidly (typically in 90 seconds or less), and where paint is not tracked into the travel lanes by vehicles driving over the marking.
	See also "conventional pavement marking" in this Glossary and <u>Section 14.1: General Information - Pavement Marking</u> .
random minor traffic interruption(s)	A very brief stoppage in traffic in one or more directions for construction activities.
regular posted speed limit	The posted speed limit of the highway prior to any planned work. This is the speed limit the Ministry has established through the H-223 form, as signed by the Chief Engineer.
Road Authority	The jurisdiction that is responsible for operating the road. For Provincial jurisdictions, the Road Authority is typically the District Manager of Transportation or delegate.
roadside diversion	A deviation from the normal roadway where a section of the road is closed by road works and a short detour is therefore required, usually within the right-of-way, to bypass the work activity area.
roadway	The portion of a street or highway that is normally used for vehicular traffic. The roadway excludes the shoulder.
road closure(s)	A stoppage of traffic in one or both directions for the purpose of blasting rock, tie-ins, girder erection and paving activities, etc.
road users	Anyone who uses or crosses a road, including but not limited to vehicles, cyclists, pedestrians, and mobility devices.
	See also "traffic" in this <u><i>Glossary.</i></u>
roll-ahead buffer distance	The longitudinal distance measured from the front of the buffer vehicle to the work activity area. It provides a margin of safety in case of impact.



scheduled stoppage	A stoppage of traffic in one or both directions.
shadow vehicle	A vehicle used primarily in slow-moving operations as a mobile advance warning and sign support device. It may travel on the roadway or on the shoulder.
shall	Describes a mandatory condition.
	For provincial highways, if a mandatory condition cannot be met, contact <u>Traffic and Highway Safety Engineering - Policy</u> and <u>Standards</u> for direction.
short-duration work	Planned work which occupies one location for more than 15 minutes during a single daylight period.
	See also "long-duration work" in this Glossary.
should	Describes a recommended, but not mandatory, practice. Decisions contrary to a "should" are required to be documented. The documentation process is discussed in <u>Section 6.11.2: Application of Sections 7 to 19.</u>
	See also "guidance" in this <u><i>Glossary</i></u> .
shoulder	That part of a roadway contiguous with the travelled way intended for emergency stopping, and/or lateral support of the roadway structure. It may also be configured to be accessible for pedestrian and bicycle use.
	Typically the paved area outside of the highway's painted lane edge (fog lines). If not painted, the area outside the typical travel lane width of 3.5 to 3.7 metres.
simple project	A Category 1 or Category 2 project which may not require an Incident Management Plan, or a Public Information Plan, and for which no specific risk issues have been identified (see <u>Section 3: Traffic Management Plans</u> ).
single lane alternating traffic (SLAT)	A traffic control practice typically used on a two-lane, two-way roadway whereby one direction of traffic is held while the other is permitted to proceed, and then vice versa.
	This process is repeated successively so that traffic continues to flow with minimal delays. It is a method acceptable to Road Authorities because delays are typically less than 5 minutes.



speed limit	<b>Regular posted speed limit</b> – The posted speed limit of the highway prior to any planned work. This is the speed limit the Ministry has established through the H-223 form, as signed by the Chief Engineer.
	<b>Construction speed limit</b> – The speed limit (unchanged or reduced) in the work zone during construction activities.
spot obstruction	A roadway hazard that is less than a car length in size, such as debris on the road, a manhole, or a sink hole.
stakeholders	Individuals and organizations using the roadway or affected by the road project or works.
standard	In terms of the TMM, the standard written in this Manual establishes technical criteria, methods, processes and practices.
	Minimum standards are represented in this manual for controlling traffic through highway work zones. Implementation of standards usually uses words such as shall, required, or must.
	Several typical situations are illustrated to show the recommended application of standard devices for planned, scheduled work on roadways.
	See Section 6.11: Using Sections 7 to 19.
steep grade	A grade greater than or equal to 6%.
stop bar	A solid white line, normally 30 cm to 60 cm (12" to 24") wide, extending across one or more lanes to indicate the point behind which vehicles are required to stop.
street	A public road used for the movement of vehicles within a municipal area.
tangent distance	The distance between the end of one taper and the beginning of the next for the same direction of travel.
taper	For a lane or shoulder closure, the gradual narrowing of the lane or shoulder using successive channelizing devices to safely guide drivers into the next lane.
taper length	For a lane or shoulder closure, the taper distance along a section of roadway required to achieve the full closure of the lane or shoulder.



Temporary Speed Zone	A temporarily lowered legal speed limit installed in a short-duration work zone at the discretion of the Supervisor and signed with Crew Working C-002 signage.
temporary stop bar	A solid white line, minimum 10" wide, which helps define the stop location in advance of a TCP.
temporary traffic control signal	A set of red, yellow, and green lights on the road or in an intersection used to temporarily control the flow of vehicles and/or pedestrians. It may be a portable signal.
	The design specifications for temporary signals shall be pre-approved by the Road Authority.
traffic	Includes pedestrians, ridden or herded animals, vehicles, cycles and other conveyances, either singly or together, while using a highway to travel.
	See also "road users" in this <u><i>Glossary.</i></u>
traffic control	The effective use of temporary traffic control devices to protect workers and move road users safely through a work zone. Traffic Control is implemented using a Traffic Management Plan.
Traffic Control Manager	The individual designated by the Prime Contractor to prepare, implement, and manage the Traffic Control Plan.
	It may be the Prime Contractor's employee or sub-contractor, and it may be the Traffic Control Supervisor for simple projects.
Traffic Control Person	A person trained and certified in a manner acceptable to WorkSafeBC to direct traffic through a work zone while ensuring the safety of public traffic and workers as defined by Part 18 of WorkSafeBC's Occupational Health and Safety Regulation.
Traffic Control Plan	A sub-plan within a Traffic Management Plan that documents how traffic control will be achieved (see <u>Section 3: Traffic</u> <u>Management Plans</u> ).
	It includes a combination of text, layouts, and drawings (if required) that define specifically what traffic control measures and devices will be provided for the project, how they will be implemented, and on what schedule.



Traffic Control Supervisor	The individual designated by the Prime Contractor to supervise traffic control and personnel.
	If the Traffic Control Supervisor acts as a Traffic Control Person, they shall have TCP certification in order to assume the duties of a TCP and direct traffic.
	If the Traffic Control Supervisor is designated to ensure the requirements of <u>Part 18.4 - Supervision</u> in WorkSafeBC's <u>Occupational Health and Safety (OHS) Regulations</u> are met, they are required to be adequately trained in a manner acceptable to WorkSafeBC. See WorkSafeBC's <u>Occupational Health and Safety (OHS) Guidelines</u> .
traffic delay	See "vehicle delay" in this <u><i>Glossary</i></u> , unless otherwise specified.
Traffic Engineer	A Professional Engineer licensed by the Engineers and Geoscientists British Columbia (EGBC) and qualified and experienced in traffic management planning and highway safety.
traffic flow	The movement of road users/traffic on the highway. Typically this refers to the measurement of vehicular flow. However, depending on the location and numbers, other modes of transportation may also be measured.
traffic management	The strategies designed to safely mitigate the impact of construction, rehabilitation, maintenance, incident management and special events on roadways to maintain traffic mobility and worker safety. The documentation of strategies is completed using a Traffic Management Plan.
traffic management strategy	See "traffic management" in this Glossary.
Traffic Management Plan	The Prime Contractor's project-specific plan that details the strategies for protecting workers and safely and efficiently moving road users through the work zone, including any requirements of the Road Authority.
	It includes one or more of the following sub-plans, integrated into a single document that demonstrates an understanding of the site-specific issues and project requirements:
	Traffic Control Plan
	Incident Management Plan
	Public Information Plan
	Implementation Plan
traffic operations	The use of traffic control devices to maintain traffic flow on a highway.



traffic space	The portion of roadway on which traffic is routed through the work zone (see <i>Figure 6.1: Overview of the Six Work Zone Components</i> ).
traffic volume	The number of vehicles within a certain amount of time. It is generally provided as Average Annual Daily Traffic (AADT) or Average Daily Traffic (ADT). It most often represents vehicular counts unless otherwise specified.
travel time	Time interval a vehicle and/or pedestrian and/or cyclist (ie. all road users impacted), or platoon requires to traverse the area under control, or the project limits.
two-lane, two-way roadway	A two-way roadway with one through lane in each direction.
undivided roadway	Roadway where there is no physical separation between the directions of travel that would prevent vehicles from travelling from one side of the roadway to the other.
upstream	Like the flow of a river, the location in front of a present location, against the direction of vehicular traffic.
	See also "downstream" in this Glossary.
utility	An organization that supplies a basic utility service, such as electricity, natural gas, water, or fibre optic service.
variable message sign	See "dynamic message sign" in this <u><i>Glossary</i></u> .
vehicle	In terms of the TMM, vehicle represents vehicular traffic best described as either a passenger car or commercial vehicle/truck.
vehicle delay	Time interval from the first vehicle being stopped at a traffic control point to the resumption of travel.
vehicles per day (vpd)	The expected number of vehicles per day on the highway during the period of time that work takes place.
	See also "traffic volume" in this <u>Glossary</u> .
work	The undertaking with the use of equipment or personnel of construction, rehabilitation, maintenance, incident management, or special events on or near a roadway that may impact road users.



work activity area	The specific area within a work zone where active work is taking place (see <u>Section 6.1: Introduction to Work Zone</u> <u>Components</u> and <u>Section 6.2.5: Work Activity Area</u> ). It typically involves the presence of workers and equipment.
	Several work activity areas may exist within a given work zone, some separated even by several kilometres.
work zone	An area of roadway or right-of-way where road users are warned of potentially changing conditions through to the resumption of regular traffic flow.
	These changing conditions are typically associated with construction, maintenance, utility work, temporary/special events, or with a situation requiring emergency incident management on or alongside the roadway (see <u>Section 6.1:</u> <u>Introduction to Work Zone Components</u> and <u>Section 6.2: Work</u> <u>Zones Components</u> ).
	The work zone is typically defined to extend from the first traffic control device to the last traffic control device as seen by the travelling public.



### A.2 Acronyms<sup>1</sup>

AADT	Average Annual Daily Traffic (both directions)
AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic (both directions)
AFAD	Automated Flagger Assistance Device
ASTM	American Society for Testing and Materials
CF	Counter-Flow Lane within Work Zone
СМВ	Concrete Median Barrier
CMS	Changeable Message Sign
CRB	Concrete Roadside Barrier
DMI	Distance Measuring Instrument
DMS	Dynamic Message Sign
DMT	District Manager of Transportation
DT	Day-Time Work
DTN	Day-Time Work with Traffic Control Devices in Place at Night
FAB	Flashing Arrow Board
FHWA	Federal Highway Administration (USA)
FR	Flame Resistant
GPS	Global Positioning System
HOV	High-Occupancy Vehicle
LED	Light-Emitting Diode
LKI	Landmark Kilometre Inventory
LoC	Limits of Construction
MASH	AASHTO's Manual for Assessing Safety Hardware
МоТ	Ministry of Transportation and Infrastructure
MUTCD	Manual of Uniform Traffic Control Devices (USA)
NCHRP	National Cooperative Highway Research Program (USA)

<sup>&</sup>lt;sup>1</sup> This Manual generally avoids using acronyms to ensure clarity for non-Ministry users.

Appendix A.2 defines acronyms commonly found in other Ministry publications, as well as the few that are used in the Manual.



NT	Night-Time Work
PTS	Portable Traffic Signal
RPM	Raised Pavement Marker
RTE	Regional Traffic Engineer
RTMC	Regional Traffic Management Centre
SLAT	Single Lane Alternating Traffic
SSD	Stopping Sight Distance
STE	Senior Traffic Engineer
STOE	Senior Traffic Operations Engineer
TAC	Transportation Association of Canada
ТСМ	Traffic Control Manual for Work on Roadways
ТСР	Traffic Control Person
ТМСВС	Transportation Management Centre of British Columbia
TMG	Traffic Management Guidelines for Work on Roadways
тмм	Traffic Management Manual for Work on Roadways <sup>2</sup>
ТМР	Traffic Management Plan
том	Temporary Overlay Marker
VMS	Variable Message Sign
WZ	Work Zone

<sup>&</sup>lt;sup>2</sup> This Manual.



## Appendix B: Standard Construction Signs Contents<sup>1</sup>

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	B.1.2	Construction and Maintenance Signs Regulatory Signs Other Signs	B-14
B.2	Sizes	and Applications of Individual Signs	B-17

<sup>&</sup>lt;sup>1</sup> The signs provided in Appendix B are commonly used in construction applications. Additional signs are available in the Ministry's Catalogue of Standard Traffic Signs, accessible online at <u>https://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/engineering-standards-guidelines/traffic-engineering-safety/traffic-signs-markings#catalogue</u>



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## Appendix B: Standard Construction Signs

See also Section 4.2: Traffic Signs.

### **B.1** Sign Illustrations at a Glance

Appendix B.1 shows standard signs used temporarily for construction, maintenance, and utility work.

For detailed information on these signs, see <u>Appendix B.2: Sizes and Applications</u> <u>of Individual Signs</u>.

### **B.1.1 Construction and Maintenance Signs**



C-001-1

C-001-1xx



C-001-2



C-002-1 C-002-1x

C-003

C-003-x



C-002-1 OL

C-002-1 OL-x



C-002-2 C-002-2x



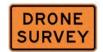
C-002-2 OL C-002-2 OL-x



<u>/h</u> 12-3

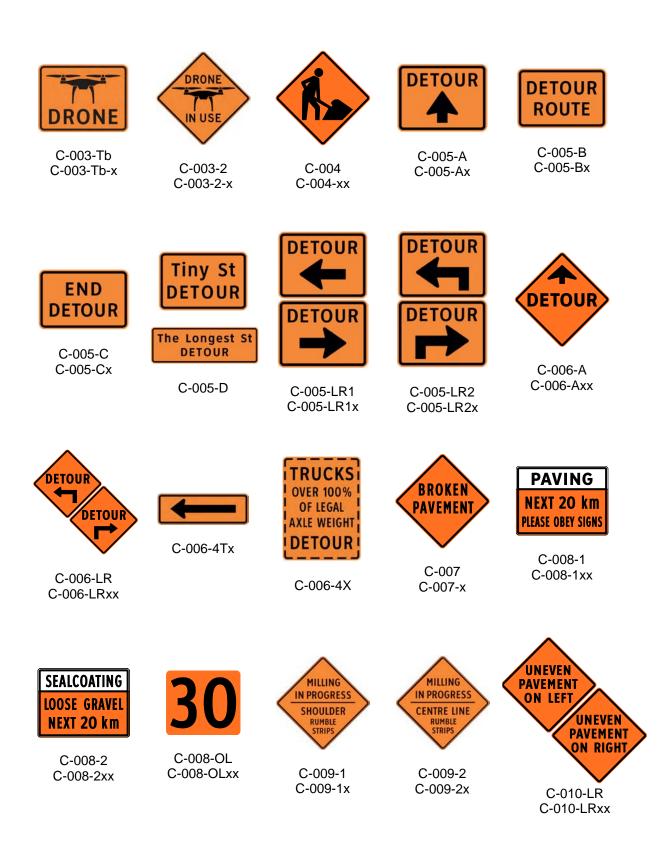


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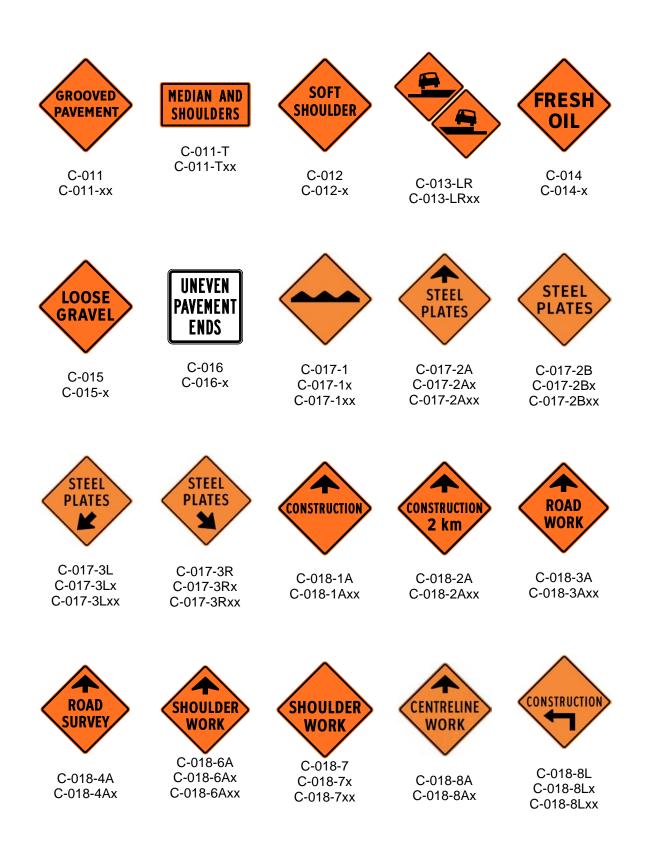


C-003-Ta C-003-Ta-x

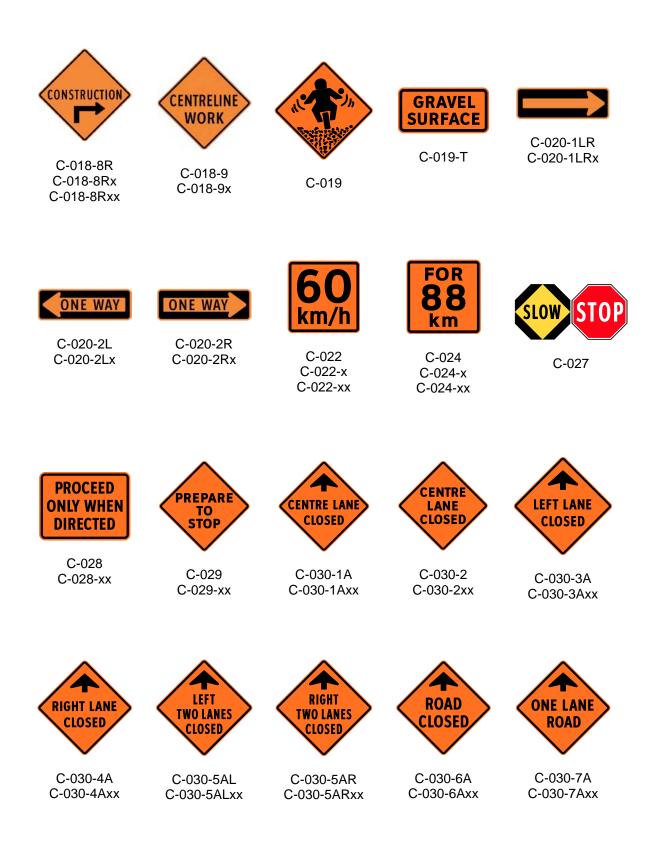




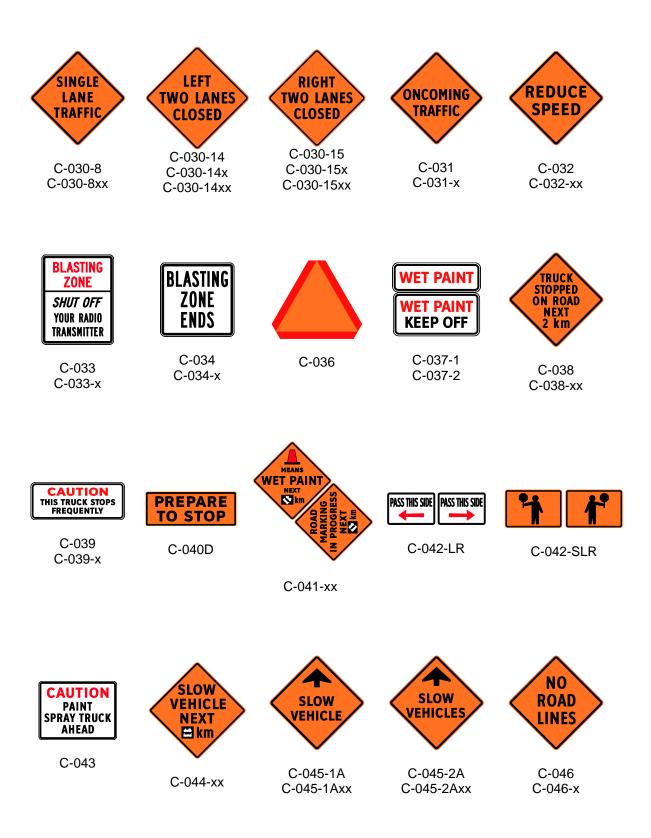




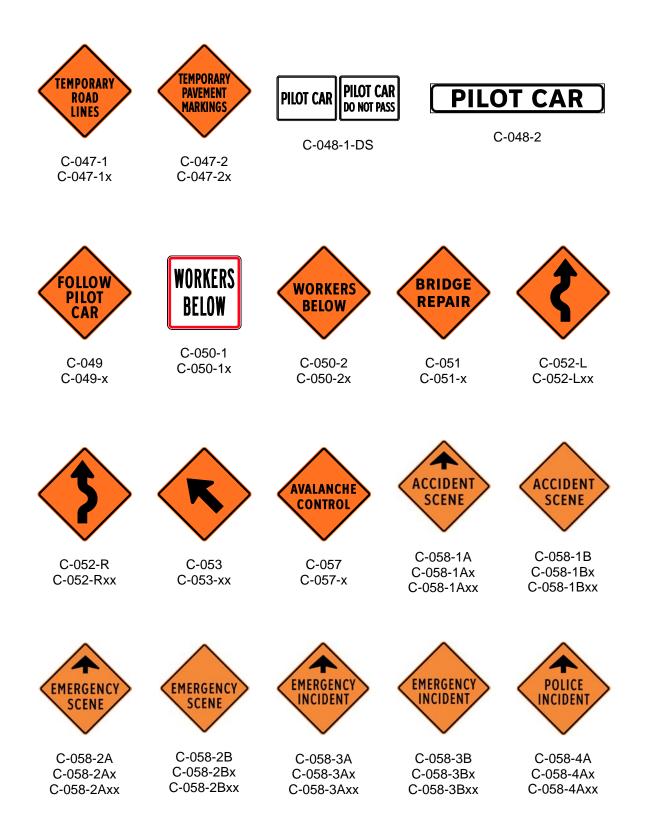




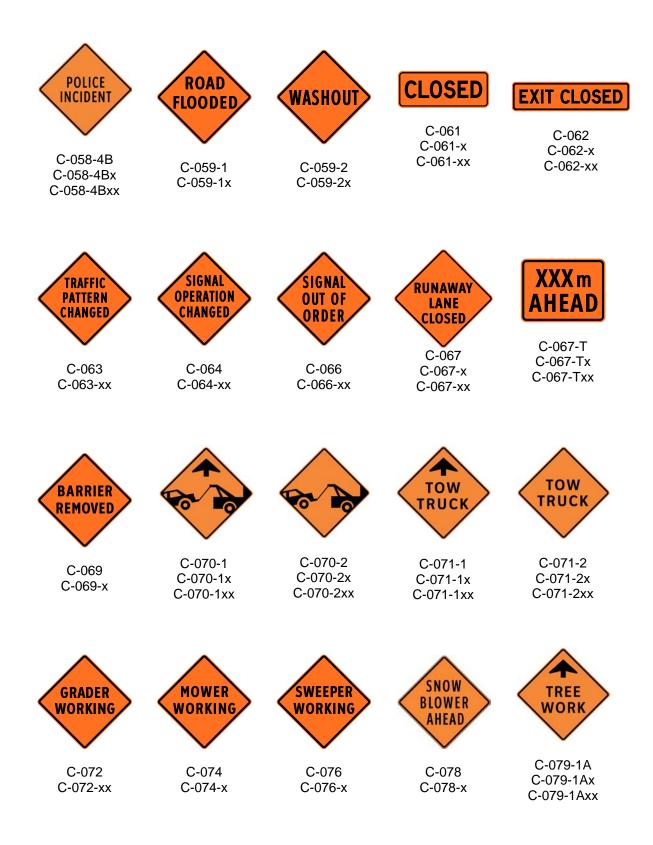




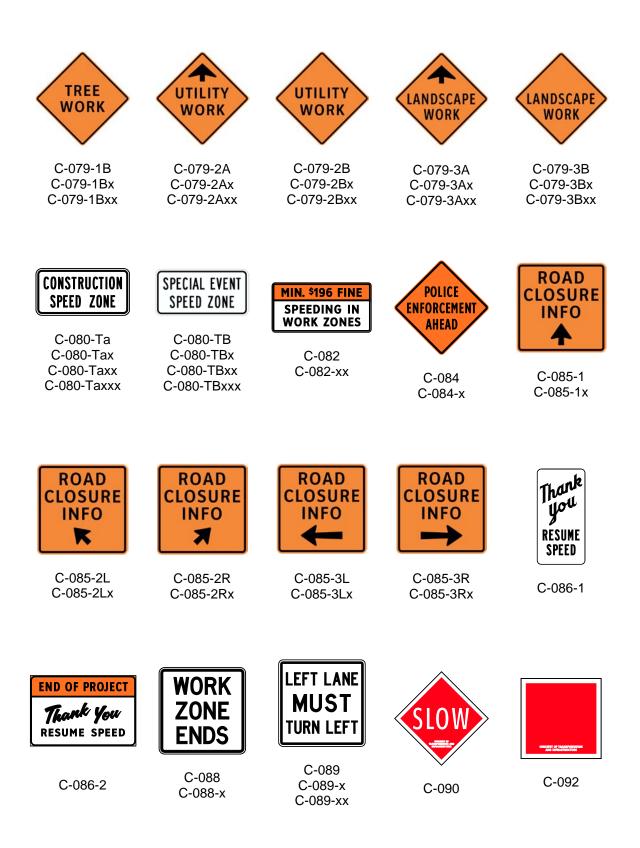




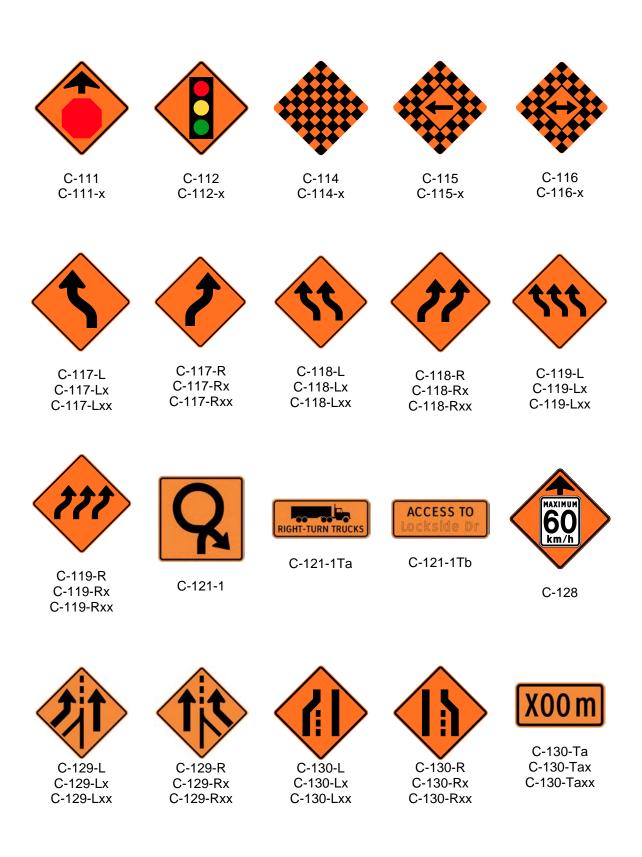




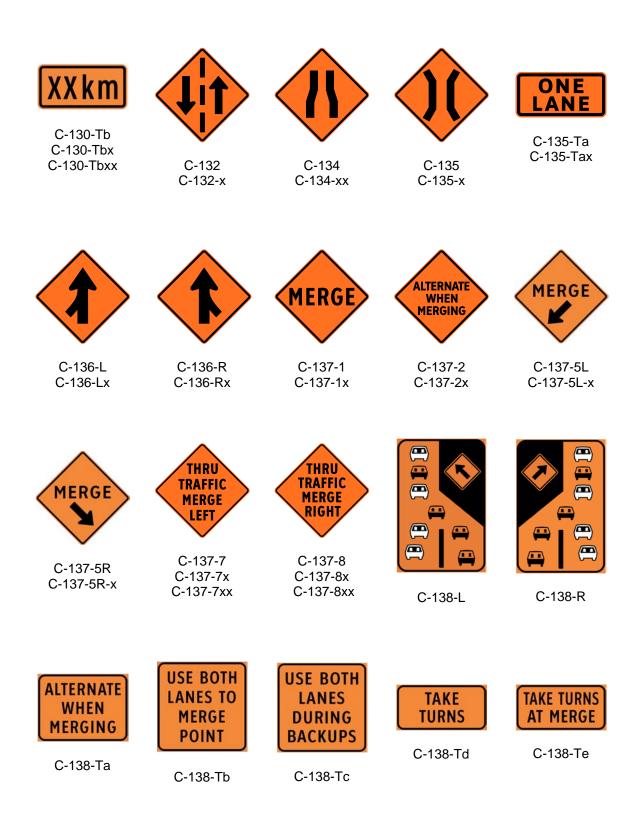




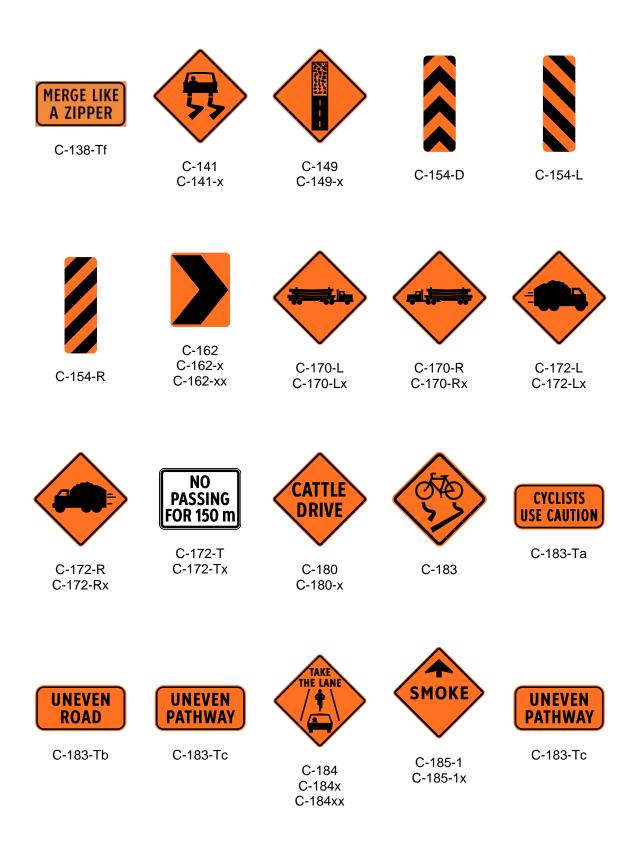




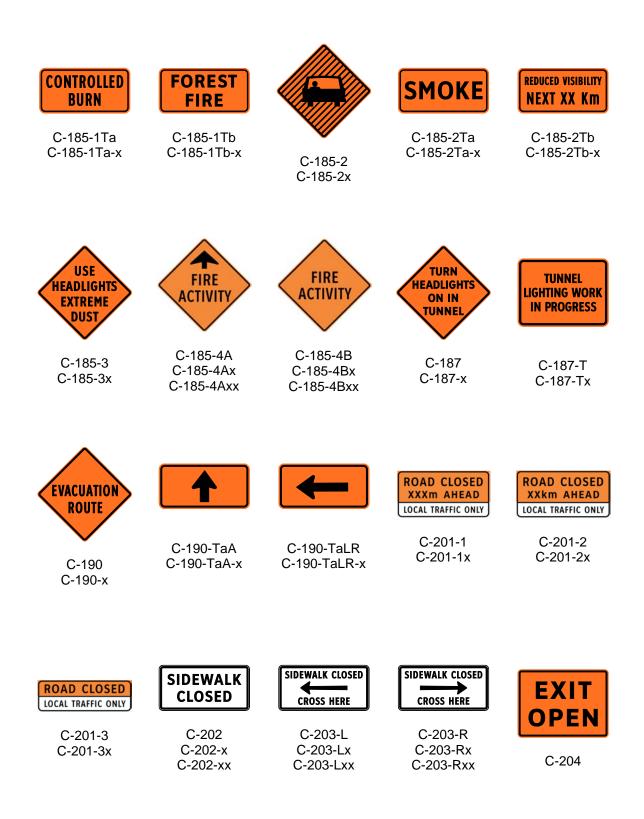




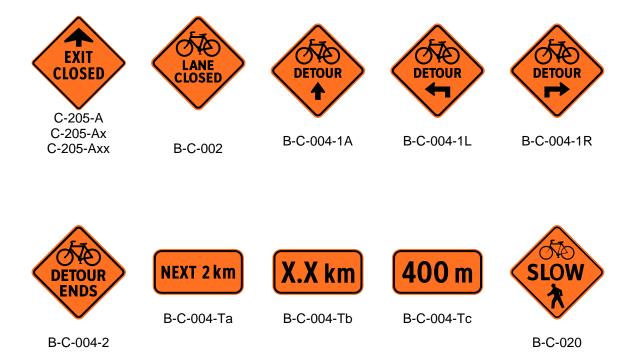












WATCH FOR PEDESTRIANS

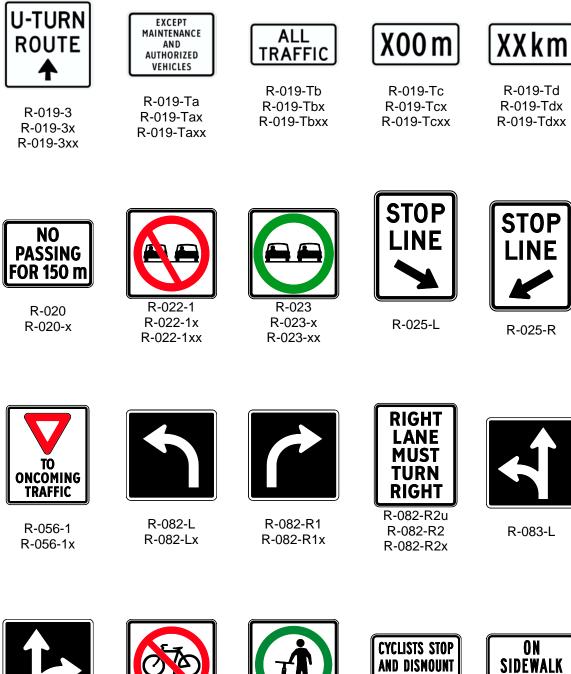
B-C-020-T



### B.1.2 Regulatory Signs







R-083-R

B-R-101-1

B-R-101-2

B-R-101-Tc

ON

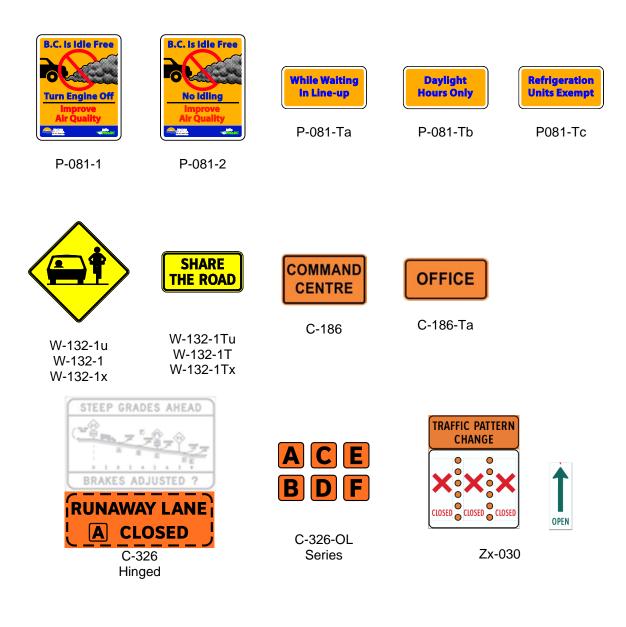


R-025-R

B-R-101-Tb



### B.1.3 Other Signs



**Note:** Those wishing to use Z series signs on Provincial roadways shall first obtain Ministry permission and the Ministry's specification sheets.



## B.2 Sizes and Applications of Individual Signs

Appendix B.2 provides:

- images of traffic signs
- dimensions of each sign in millimetres
- intended use of each sign

Sign sizes used in work zones should not be smaller than those normally required on the roadway.

Sign sizes are related to the roadway type—local road, low-speed road, arterial road, expressway, or freeway. Refer to the Ministry's <u>Catalogue of Traffic Signs</u> for specific sizes based on the sign and roadway type. Generally:

- Smaller dimensions apply to urban roadways where the regular posted speed is ≤ 60 km/h.
- Larger dimensions apply to rural roadways with a regular posted speed limit of ≥70 km/h, provided that there is sufficient room to accommodate the larger signs.
- Multilane divided roadways typically use oversized signs on both the right and the left side of the roadway. Signs erected on the left side may be erected in a closed lane, shoulder, or median. If sufficient width is not available on the left shoulder or median, a smaller sized sign may be used.

## Sign Sizes Marked with Asterisk (\*)

Sign sizes marked with an asterisk (\*) may not be in the Ministry's Catalogue of Standard Traffic Signs. Confirm appropriate sign sizes for specific roadways and work activities.

BRITISH COLUMBIA Ministry of Transportation and Infrastructure

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## **B.2.1** Construction and Maintenance Signs

Construction signs are used to give notification of a roadway condition that is changed for, or potentially hazardous to, public traffic and workers.

The fluorescent orange sign colour indicates the temporary nature of the condition.

Signs should generally be placed sufficiently in advance of the condition to provide drivers with time to understand the information and respond appropriately. See <u>Section 6.6</u>: <u>Positioning of Temporary Traffic Control Devices</u> and <u>Sections 7 through 19</u>.

C-001 Series Tra	C-001 Series Traffic Control Person Ahead		
	Sign sizes (mm) C-001-1 (750 x 750)	The TRAFFIC CONTROL PERSON AHEAD C-001-1 sign should be used in advance of any point at which a Traffic Control Person is stationed to control traffic through a work activity area.	
C-001-1	C-001-1xx (1200 x 1200)	It is always used in conjunction with other construction and maintenance signs. The FLAGGER AHEAD C-001-2 sign may be used in advance of the C-001-1 sign in areas that require additional advance	
FLAGGER	C-001-2 (750 x 750) C-001-2xx (1200 x 1200)	warning. C-001-1 and C-001-2 signs should be promptly removed or covered whenever a Traffic Control Person is not on the roadway.	
C-001-2			



C-002 Series Cre	ew Working - Ma	aximum XX km/h
MAXIMUM 50 km/h C-002-1	Sign sizes (mm) C-002-1 (450 x 900) C-002-1x (600 x 1200)	<ul> <li>The SURVEY CREW WORKING – MAXIMUM XX km/h C-002-1 sign is used to establish a Temporary Speed Zone, typically when survey crews are working on the travelled portion of the roadway (road lanes and shoulders).</li> <li>It may also be used as a supplement to an R-004 Construction Speed Limit to remind drivers of the reduced speed as they approach, or are within, the work area.</li> </ul>
<b>7</b> <b>3</b> C-002-1 OL	C-002-1 OL (175 x 280) C-002-1 OL-x (233 x 372)	<ul> <li>See also the SURVEY CREW WORKING AHEAD C 003 sign below.</li> <li>The CREW WORKING – MAXIMUM XX km/h C-002-2 sign is used to establish a Temporary Speed Zone, typically when crews are working on the travelled portion of the roadway (road lanes and shoulders). It may also be used as a supplement to an R-004 Construction Speed Limit to remind drivers of the reduced speed as they approach, or are within, the work area.</li> </ul>
MAXIMUM 50 km/h C-002-2	C-002-2 (450 x 900) C-002-2x (600 x 1200)	<ul> <li>The FLAGGER WORKING – MAXIMUM XX km/h C-002-3 sign is used to establish a Temporary Speed Zone, typically when Traffic Control People are directing traffic. It may also be used as a supplement to an R-004 Construction Speed Limit to remind drivers of the reduced speed as they approach, or are within, the work area.</li> <li>Distance overlays C-002-1 OL and C-002-2 OL may be used to show alternative speed options.</li> </ul>
<b>7</b> <b>3</b> C-002-2 OL	C-002-2-OL (175 x 280) C-002-2-OL-x (233 x 372)	
MAXIMUM 50 km/h C-002-3	C-002-3 (450 x 900) C-002-3x (600 x 1200)	



C-003 Survey Cr	ew Working Ah	ead
C-003 Survey Cr	ew Working Ah Sign sizes (mm) C-003 (750 x 750) C-003-x (900 x 900) C-003-A (750 x 750) C-003-A-x (900 x 900) C-003-Ta (600 x 300) C-003-Ta-x (750 x 400) C-003-Tb (750 x 750) C-003-Tb-x (900 x 900)	<ul> <li>The SURVEY CREW WORKING C-003 sign should be used where survey work is in progress on or immediately adjacent to a travelled roadway that has not been closed to traffic.</li> <li>The SURVEY CREW WORKING AHEAD C-003-A sign may also be used, in conjunction with the C-003 sign, to provide additional advanced warning, especially in locations with high speeds and/or high traffic volumes.</li> <li>When drones are used, the C-003 and C-003-A signs may be supplemented by the DRONE SURVEY C-003-Ta or DRONE C-003-Tb tabs to provide additional information for motorists.</li> <li>The DRONE IN USE C-003-2 sign may also be used to supplement the C-003 sign if the drone is within sight of motorists on the highway.</li> <li>All signs in this series may be used in conjunction with the SURVEY CREW – MAXIMUM XX km/h C-002-1 sign if the survey crew supervisor decides that conditions warrant the temporary speed zone.</li> </ul>
C-003-2	C-003-2 (750 x 750) C-003-2-x (900 x 900)	
C-004 Crew Wor	king Ahead	
C-004	Sign sizes (mm) C-004 (750 x 750) C-004-xx (1200 x 1200)	The CREW WORKING AHEAD C-004 sign is the primary warning sign for short-duration work. It provides advance warning of crews and equipment carrying out a variety of tasks on or adjacent to a travelled roadway.



C-005 Series Det	tour Markers	
DETOUR C-005A DETOUR ROUTE C-005-B END DETOUR C-005-C Tiny St DETOUR Short St DETOUR Short St DETOUR Longer St DETOUR Longer St DETOUR	Sign sizes (mm) C-005A (600 x 450) C-005-5Ax (750 x 600) C-005-B (600 x 400) C-005-Bx (750 x 450) C-005-C (600 x 400) C-005-Cx (750 x 450) C-005-Cx (750 x 450)	<ul> <li>The DETOUR C-005 signs are used to mark detour routes. For all work other than short-duration work, C-005 markers should be post-mounted.</li> <li>C-005 markers with appropriate directional arrows should be used in advance of and beyond all decision points (and for confirmation where necessary) to assure drivers that they are following the detour.</li> <li>Where the detour involves a numbered route, appropriate C-005 markers should be erected with the appropriately numbered route marker.</li> <li>The DETOUR ROUTE C-005-B sign may be used as a supplemental confirmatory sign after a turn to inform motorists they are on the detour route</li> <li>The END DETOUR C-005-C sign is used to mark the end of the detour and informs motorists they are back on the original roadway.</li> <li>The STREET DETOUR custom C-005-D sign may be used as a supplement to detour signs within this series on local low-speed roadways or arterials. The street name utilized on these signs is the road where the closure occurs. It provides confirmatory information to motorists that they are following the correct detour, especially in locations with many alternative routes.</li> <li>The DETOUR LEFT/RIGHT C-005-LR1 signs are used in advance of a turn for the detour route. It tells motorists which direction to turn in order to continue following along the detour.</li> <li>The approach to the beginning of a detour will generally be indicated by the DETOUR AHEAD C-006 series signs.</li> <li>See Section 19.6: Roadway Closure with Detour (≥ 60 km/h) and Section 19.7: Roadway Closure with Detour (≥ 70 km/h) for how these signs may be used.</li> </ul>
C-005-D	C-005-LR1 (600 x 450) C-005-LR1x (750 x 600)	continued →



C-005 Series Det	tour Markers (co	ontinued)
DETOUR DETOUR C-005-LR2	Sign sizes (mm) C-005-LR2 (600 x 450) C-005-LR2x (750 x 600)	The DETOUR LEFT/RIGHT AHEAD C-005-LR2 signs may be used as a supplement to the DETOUR LEFT/RIGHT C-005- LR1 signs to provide additional information and better prepare drivers for the turn ahead to stay on the detour route. See <u>Section 19.6: Roadway Closure with Detour (<math>\leq</math> 60 km/h)</u> and <u>Section 19.7: Roadway Closure with Detour (<math>\geq</math> 70 km/h)</u> for how these signs may be used.
C-006 Series Det	tour Ahead	
DETOUR	Sign sizes (mm) C-006-A	The DETOUR AHEAD C-006-A sign is used to warn traffic of the beginning of a detour. If the departure is abrupt, which is often the case in an urban
C-006-A	(750 x 750) C-006-Axx (1200 x 1200)	<ul> <li>block system, it may be necessary to:</li> <li>substitute for DETOUR AHEAD C-006-LR signs, or</li> <li>in higher speed/volume situations, use C-006-LR signs in advance of the detour, and a C-006-A signs further</li> </ul>
DETOUR DETOUR C-006-LR	C-006-LR (750 x 750) C-006-LRxx (1200 x 1200)	upstream. If the bypass route is short and adjacent to a work activity area—i.e., within the highway right-of-way—it is better to use a ROADSIDE DIVERSION AHEAD C-052-L/R sign. They may also be used for turns on a detour route instead of DETOUR C-005-LR markers where special emphasis is required.
C-006-4Tx	C-006-4X (900 x 1200)	For work zones which require overweight trucks to detour onto another route, the TRUCKS OVER 100% OF LEGAL AXLE WEIGHT DETOUR C-006-4X sign, in conjunction with the ARROW TAB C-006-4Tx should be used to direct heavy trucks onto the detour route.
TRUCKS OVER 100% OF LEGAL AXLE WEIGHT DETOUR C-006-4X	C-006-4Tx (900 x 300)	Other custom signs for trucks may be developed for over height and over width purposes.



C-007 Broken Pa	vement	
BROKEN PAVEMENT C-007	Sign sizes (mm) C-007 (750 x 750) C-007-x (900 x 900)	The BROKEN PAVEMENT C-007 sign should be used where sections of badly broken or potholed pavement exceed 20 metres in length. Where a speed reduction is deemed necessary because of the pavement condition, an ADVISORY SPEED C-022 tab may be posted with the C-007 sign. If the length of broken pavement is 2 kilometres or more, an ADVISORY DISTANCE C-024 distance tab may be included. TEMPORARY HAZARD C-090 markers should be used with C-007 signs to mark the actual locations of the irregularities.
		ase Obey Signs ravel Next X km
PAVING NEXT 20 km Please obey signs C-008-1	Sign sizes (mm) C-008-1 (1200 x 900) C-008-1xx (2440 x 1220)	The PAVING NEXT X km – PLEASE OBEY SIGNS C-008-1 sign should be installed in advance of all paving projects. The C-008-1 specifies the distance in kilometres of the paving project. The SEAL COATING – LOOSE GRAVEL NEXT X km C-008-2 sign should be installed in advance of all seal coating projects. The C-008-2 specifies the distance in kilometres of the sealcoating project.
SEALCOATING LOOSE GRAVEL NEXT 20 km C-008-2	C-008-2 (1200 x 900) C-008-2xx (2440 x 1220)	Distance overlays C-008-OL are available for revising existing C-008-1 and C-008-2 signs that are in good condition.
<b>30</b> C-008-OL	C-008-OL (230 x 200) C-008-OLxx (350 x 230)	



C-009 Milling in I	Progress – Rum	ble Strips
MILLING IN PROGRESS SHOULDER RUMBLE STRIPS C-009-1 MILLING IN PROGRESS CENTRE LINE RUMBLE STRIPS C-009-2	Sign sizes (mm) C-009-1 (750 x 750) C-009-1x (900 x 900) C-009-2 (750 x 750) C-009-2x (900 x 900)	The MILLING IN PROGRESS SHOULDER RUMBLE STRIPS C-009-1 sign is used to warn motorists of equipment, workers and potentially uneven surfaces caused by milling for shoulder rumble strips. The MILLING IN PROGRESS CENTRE LINE RUMPLE STRIPS C-009-2 sign is used to warn motorists of equipment, workers and potentially uneven surfaces caused by milling for centre line rumble strips. ADVISORY DISTANCE C-024 tabs should be used with both signs in the C-009 series to inform drivers of the expected distance for this condition.
C-010 Uneven Pa	avement on Lef	t/Right
UNEVEN PAVEMENT ON LEFT UNEVEN ON RIGHT C-010-LR	Sign sizes (mm) C-010-LR (750 x 750) C-010-LRxx (1200 x 1200)	The UNEVEN PAVEMENT ON LEFT/RIGHT C-010 sign warns of a difference in elevation between pavement lifts on adjacent travel lanes. (The LOW SHOULDER C-013 sign warns of a difference in elevation between the shoulder and the outer edge of a newly paved roadway.) On two-lane, two-way roadways, the uneven hazard (high or low) will generally be on the centreline, and C-010-L signs are used for both directions of travel in advance of the section (and as required for confirmation throughout). On multilane roadways, the uneven hazard will generally be on the lane line. In such cases, C-010-L signs are placed on the right shoulder and, where space is available, C-010-R signs are placed on the left or median shoulder. The UNEVEN PAVEMENT ENDS C-016 sign is be used to mark the end of an uneven section of pavement.



	I Pavement and Shoulders	Tab
GROOVED PAVEMENT C-011 MEDIAN AND SHOULDERS C-011-T	Sign sizes (mm) C-011 (750 x 750) C-011-xx (1200 x 1200) C-011-T (600 x 300) C-011-Txx (900 x 450)	The GROOVED PAVEMENT C-011 sign should be used in advance of sections of milled pavement (and as required for confirmation throughout) which affects the handling of vehicles. The MEDIAN AND SHOULDERS C-011-T tab may be used with the C-011 sign only where the grooved pavement condition is found on the median and shoulders and not in the travel lane(s).
C-012 Soft Shou	lder	
SOFT SHOULDER C-012	Sign sizes (mm) C-012 (750 x 750) C-012-x (900 x 900)	The SOFT SHOULDER C-012 sign should be used in advance of a section of shoulder that is either newly laid and not compacted or so softened by weather or other conditions that it presents a hazard to vehicles pulling off the travelled roadway. If the soft shoulder condition is extensive, confirmatory C-012 signs may be required.
C-013 Low Shou	lder on Left/Rig	ht
C-013-LR	Sign sizes (mm) C-013-LR (750 x 750) C-013-LRxx (1200 x 1200)	<ul> <li>The LOW SHOULDER ON LEFT/RIGHT C-013 sign should be used on unfinished paving projects where the shoulders have not been brought up to the level of the new pavement and the drop-off is potentially hazardous.</li> <li>The C-013-R sign is erected on the right side of the roadway in advance of a low shoulder.</li> <li>Where traffic is required to use the left side of a roadway with a low shoulder, a C-013-L sign is erected on the left shoulder.</li> </ul>



C-014 Fresh Oil		
FRESH OIL C-014	Sign sizes (mm) C-014 (750 x 750) C-014-x (900 x 900)	The FRESH OIL C-014 sign should be used to warn drivers of freshly sprayed liquid asphalt (prime or tack coat) on the road surface on paving, extensive machine patching, and seal coating projects. Asphalt can be slippery until it has cured, and the work may damage other vehicles. Even after the spray has cured, C-014 signs should be retained until the sprayed area has been covered with new pavement or a sand/chip seal coat. The C-014 sign is placed in advance of the sprayed area and repeated at intervals for confirmation throughout long sections. If a cured sprayed section is to remain exposed when work is not in progress, C-014 signs should be augmented with SLIPPERY WHEN WET C-141 signs to warn of potentially increased slipperiness in the event of rain.



C-015 Loose Gra	avel	
LOOSE GRAVEL C-015	Sign sizes (mm) C-015 (750 x 750) C-015-x (900 x 900)	<ul> <li>The LOOSE GRAVEL C-015 sign should be placed in advance of a loose gravel condition that is potentially hazardous.</li> <li>It may also be required at intervals throughout the length of roadway on which the condition exists, especially in advance of curves.</li> <li>Examples of scenarios in which the C-015 sign may be required include: <ul> <li>freshly-graded gravel roads</li> <li>sections of new, unswept chip seal coat</li> <li>areas where gravel has been deposited on the pavement edge by shouldering</li> <li>construction areas with uncompacted gravel</li> </ul> </li> </ul>
C-016 Uneven Pa	avement Ends	
UNEVEN PAVEMENT ENDS C-016	Sign sizes (mm) C-016 (600 x 600) C-016-x (900 x 900)	<ul> <li>The UNEVEN PAVEMENT ENDS C-016 sign should be used to mark the end of an uneven section of pavement.</li> <li>It is typically used on paving jobs in conjunction with one of the following signs: <ul> <li>C-007</li> <li>Broken Pavement</li> <li>C-010-LR</li> <li>Uneven Pavement on Left/Right</li> <li>C-011</li> <li>Grooved Pavement</li> <li>C-013-LR</li> <li>Low Shoulder on Left/Right</li> <li>C-017</li> <li>Bump or Rough Roadway Ahead</li> </ul> </li> <li>Note: The positioning of C-016 and other signs requires frequent adjustment as paving progresses.</li> </ul>



C-017 Bump, Ro	ugh Roadway, o	or Steel Plate
	Sign sizes (mm) C-017-1 (750 x 750)	The BUMP OR ROUGH ROADWAY C-017 sign should be used to warn of sharp changes in the road profile that are sufficiently abrupt to create a potentially hazardous condition, and in advance of temporary rumble strips.
	C-017-1x (900 x 900) C-017-1xx	This sign should replace the TEMPORARY SLOW C-090 marker in advance of short potholed sections, frost heaves, fill settlements, etc. when the hazards are unlikely to be removed promptly.
C-017-1	(1200 x 1200) C-017-2A (750 x 750)	The STEEL PLATE C-017-2b sign should be used to warn motorists of a steel plate on the road surface and to exercise caution when travelling over the steel plate as there may be an uneven surface.
STEEL PLATES	C-017-2Ax (900 x 900)	The STEEL PLATE AHEAD C-017-a sign may be used in conjunction with the STEEL PLATE C-017-2b sign to provide additional warning.
C-017-2A	C-017-2Axx (1200 x 1200)	The STEEL PLATE LEFT C-017-3I or STEEL PLATE RIGHT C-017-3r signs may be used in place of, or in conjunction of the STEEL PLATE C-017-2b sign to better indicate the
	C-017-2B (750 x 750)	location of the steel plate.
STEEL	C-017-2Bx (900 x 900)	
C-017-2B	C-017-2Bxx (1200 x 1200)	
STEEL	C-017-3L (750 x 750)	
PLATES	C-017-3Lx (900 x 900)	
C-017-3L	C-017-3Lxx (1200 x 1200)	
STEEL	C-017-3R (750 x 750)	
PLATES	C-017-3Rx (900 x 900)	
C-017-3R	C-017-3Rxx (1200 x 1200)	



	Sign sizes	
	(mm)	<ul> <li>The CONSTRUCTION AHEAD C-018-1A sign should be erected in the advance warning area on long duration</li> </ul>
CONSTRUCTION	C-018-1A (750 x 750)	work, typically no further than one kilometre in advance of the work activity area.
C-018-1A	C-018-1Axx (1200 x 1200)	<ul> <li>The CONSTRUCTION AHEAD – 2 km C-018-2A sign may be used for long-duration work zones on roadways where the normal speed limit is 70 km/h or higher to extend the advance warning.</li> </ul>
	C-018-2A (750 x 750)	The ROAD WORK AHEAD C-018-3A sign or
CONSTRUCTION 2 km	C-018-2Axx	ROAD SURVEY AHEAD C-018-4A sign may be erected in advance warning areas for short-duration work instead
C-018-2A	(1200 x 1200)	of—or in addition to—the CREW WORKING AHEAD C- 004 sign or SURVEY CREW WORKING AHEAD C-003 sign.
ROAD	C-018-3A (750 x 750)	<ul> <li>The SHOULDER WORK AHEAD C-018-6A sign and the SHOULDER WORK C-018-7 sign may be used in</li> </ul>
WORK	C-018-3Axx	advance of short-duration work on a shoulder as a supplement to the C-004 sign or vehicle lights.
C-018-3A	(1200 x 1200)	For long-duration work on a shoulder, the SHOULDER WORK AHEAD C-018-6A sign may be used instead of the CONSTRUCTION AHEAD C-018-1A sign.
	C-018-4A (750 x 750)	<ul> <li>For work in progress, the SHOULDER WORK C-018-7 sign may be positioned at the beginning of the shoulder</li> </ul>
ROAD SURVEY	C-018-4Ax (900 x 900)	taper in advance of the work.
C-018-4A		continued →
C-018-4A	C-018-6A (750 x 750)	
SHOULDER	C-018-6Ax (900 x 900)	
<b>WORK</b> C-018-6A	C-018-6Axx (1200 x 1200)	
	C-018-7 (750 x 750)	
SHOULDER WORK	C-018-7x (900 x 900)	
C-018-7	C-018-7xx (1200 x 1200)	



C-018 Series Co	nstruction Ahea	d (continued)
C-018-8L C-018-8L C-018-8R C-018-8R C-018-8R C-018-8A C-018-8A	Sign sizes (mm) C-018-8L (750 x 750) C-018-8Lx (900 x 900) C-018-8Lxx (1200 x 1200) C-018-8R (750 x 750) C-018-8Rxx (900 x 900) C-018-8Ax (750 x 750) C-018-8Ax (900 x 900) C-018-9x (900 x 900)	<ul> <li>The CONSTRUCTION AHEAD C-018-8L and C-018-8R signs may be used when the construction zone is at or near an intersection.</li> <li>If there is a need to place the CREW WORKING C-004 sign or the CONSTRUCTION AHEAD C-018-1A sign on roadways other than the one where the work area is, especially in urban conditions, the CONSTRUCTION AHEAD C-018-8L and C-018-8R signs may be used in place of the CREW WORKING C-004 sign or the CONSTRUCTION AHEAD C-018-1A sign.</li> <li>If used, CONSTRUCTION AHEAD C-018-1A sign.</li> <li>If used, CONSTRUCTION AHEAD C-018-8L and C-018-8R signs should be placed in advance of the intersection to inform drivers of where the work area is, and whether or not it will be on their desired route. These signs should be placed in a location upstream of the adjacent intersection so as not to confuse drivers which street the construction is on.</li> <li>The CENTRELINE WORK AHEAD C-018-8A sign and the CENTRELINE WORK C-018-9 sign may be used in advance of centreline short-duration work as a supplement.</li> <li>For long-duration work on the centreline, the CENTRELINE WORK AHEAD C-018-8A sign may be used instead of the CONSTRUCTION AHEAD C-018-1A sign.</li> </ul>



C-019 Series Mo	torcycle Rough	Surface
C-019	Sign sizes (mm) C-019 (750 x 750) C-019-x (900 x 900)	The MOTORCYCLE ROUGH SURFACE C-019 sign should be used when construction activity has created a rough or irregular riding surface (e.g., a temporary gravel surface, scarified or milled asphalt, etc.). Whenever a temporary gravel surface is present, the GRAVEL SURFACE C-019-T tab should be used in conjunction with the C-019 sign.
GRAVEL SURFACE C-019-T	C-019-T (600 x 300) C-019-Tx (750 x 400)	
C-020 Series On	e Way Arrow	
	Sign sizes (mm)	The ONE WAY ARROW C-020 series signs indicates to motorists that a road is restricted to travel in only one direction.
C-020-1LR	C-020-1LR (900 x 300) C-020-1LRx (1200 x 400)	The text "ONE WAY" may be added within the arrow, as shown in the C-020-2L and C-020-2R signs. This is the Ministry's preferred option as it is in wide use throughout North America and is well recognized by road users.
C-020-2L	C-020-2L (900 x 300) C-020-2Lx (1200 x 400)	
C-020-2R	C-020-2R (900 x 300) C-020-2Rx (1200 x 400)	



C-022 Advisory Speed Tab			
<b>60</b> km/h C-022	Sign sizes (mm) C-022 (600 x 600) C-022-x (750 x 750) C-022-xx (900 x 900)	<ul> <li>The ADVISORY SPEED C-022 tab may be used with construction signs to indicate the maximum advisory speed around a curve or through a hazard.</li> <li>This tab should never be used as a standalone device.</li> <li>The C-022 tab should be mounted below the sign it supplements, with the bottom edge of the tab at least 1.2 metres above the travelled roadway edge.</li> <li>Except in emergencies, C-022 tabs should not be erected until a suitable speed has been determined by applying an accepted engineering analysis.</li> <li>The C-022 tab is only used when traffic must slow at least 20 km/h below the normal speed limit.</li> </ul>	
C-024 Advisory Di	istance Tab		
FOR 88 km C-024	Sign sizes (mm) C-024 (600 x 600) C-024-x (750 x 750) C-024-xx (900 x 900)	The ADVISORY DISTANCE C-024 tab may be used below construction signs when the distance over which the warning is in effect is 2 kilometres or more. The C-024 tab should be mounted below the sign it supplements, with the bottom edge of the tab at least 1.2 metres above the travelled roadway edge.	

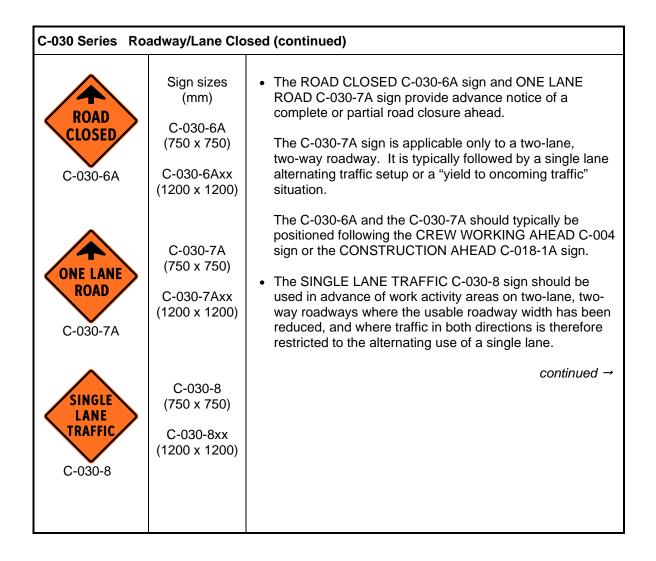


C-027 Traffic Cont	rol Paddle	
	Sign sizes (mm)	The TRAFFIC CONTROL PADDLE C-027 is used by Traffic Control Persons to control traffic.
SLOW STOP C-027	C-027 (400 x 400)	See <u>Section 5: Traffic Control Persons</u> and Part 18 of WorkSafeBC's <u>Occupational Health and Safety Regulations</u> for approved methods of using the paddle and associated devices.
		When it is to be used for an extended period, the handle can be extended by fitting a dowel approximately 2.5 cm in diameter and 1.3 metres long into the short handle, thereby allowing the Traffic Control Person to display the paddle comfortably at the recommended height.
		If only the message on one side of the paddle is required, the message on the other side is covered or shielded to avoid showing an inappropriate message to drivers approaching from the opposite direction.
		LED lights matching the colour of the sign face may be used around the perimeter of the sign. These lights should be steady burn but may flash at 60 Hz.
C-028 Proceed on	ly when Directe	d
PROCEED ONLY WHEN DIRECTED C-028	Sign sizes (mm) C-028 (600 x 450) C-028-xx (900 x 600)	<ul> <li>The PROCEED ONLY WHEN DIRECTED C-028 sign should be used when a partially controlled work zone or a pilot car system is in place.</li> <li>The C-028 sign should accompany one of these signs: <ul> <li>C-001-1 Traffic Control Person Ahead</li> <li>C-029 Prepare To Stop</li> <li>C-049 Follow Pilot Car</li> </ul> </li> </ul>
C-029 Prepare to S	Stop	
PREPARE	Sign sizes (mm)	The PREPARE TO STOP C-029 sign should be used in advance of these signs to give additional notice:
TO	C-029 (750 x 750)	<ul> <li>C-001-1 Traffic Control Person Ahead</li> <li>C-111 Stop Ahead</li> <li>C-140 Simple Ahead</li> </ul>
C-029	C-029-xx (1200 x 1200)	C-112 Signal Ahead     R-056-1 Yield to Oncoming Traffic
		The C-029 sign must never be used alone to warn of a hazard.



C-030 Series Roa	adway/Lane Clo	sed
CENTRE LANE CLOSED	Sign sizes (mm) C-030-1A (750 x 750)	• The CENTRE LANE CLOSED AHEAD C-030-1A and CENTRE LANE CLOSED C-030-2 signs are used advance of a centre lane closure where approaching traffic is directed to the right or left of a work zone in the centre lane.
C-030-1A	C-030-1Axx (1200 x 1200)	The upstream C-030-1A sign may also display a bottom- mounted C-130-T distance tab indicating the distance to the beginning of the lane closure taper.
CENTRE LANE CLOSED	C-030-2 (750 x 750)	If space is available in the median, secondary C-030-1A and C-030-2 signs should be erected in the median across from the shoulder signage.
C-030-2	C-030-2xx (1200 x 1200)	<ul> <li>The LEFT LANE CLOSED C-030-3A sign and the RIGHT LANE CLOSED C-030-4A sign may be used in addition to the LANE CLOSURE C-130-L/R signs to provide additional advance notice of a lane closure.</li> </ul>
LEFT LANE CLOSED	C-030-3A (750 x 750) C-030-3Axx (1200 x 1200)	The C-030-3A and C-030-4A signs may also be used to indicate a lane closure in complex lane arrangements where the graphical C-130-L/R signs may not be sufficiently clear.
C-030-3A	C-030-4A (750 x 750)	<ul> <li>The LEFT/RIGHT TWO LANES CLOSED C-030-5A sign may be used in advance of, and in addition to, C-130-L/R signs to inform drivers that there are two lane closures ahead.</li> </ul>
CLOSED C-030-4A	C-030-4Axx (1200 x 1200)	The C-030-5A sign provides drivers with advance warning that two lanes are closed ahead. Lane closures should be established one at a time with adequate tangent length between lane closure tapers.
LEFT TWO LANES	C-030-5AL (750 x 750)	continued →
C-030-5AL	C-030-5ALxx (1200 x 1200)	
RIGHT TWO LANES CLOSED C-030-5AR	C-030-5AR (750 x 750) C-030-5ARxx (1200 x 1200)	







C-030 Series Roadway/Lane Closed (continued)			
LEFT TWO LANES CLOSED C-030-14 C.(120 RIGHT TWO LANES CLOSED C. (9 C. (7 C. (120 C. (120 C. (7) C. (120 C. (7) C) C. (7) C) C. (7) C) C. (7) C C. (7) C) C C. (7) C) C C. C) C C C. C C C. C C C C C C C	(mm) C-030-14 750 x 750) C-030-14x 900 x 900) C-030-14xx 00 x 1200) C-030-15 750 x 750) C-030-15x	<ul> <li>The LEFT TWO LANES CLOSED C-030-14 sign may be used in advance of a closure of the left two lanes where there are three or more lanes per direction.</li> <li>It should typically be applied in advance of the first LANE CLOSED AHEAD C-130 sign with a bottom-mounted tab indicating the distance to the beginning of the first lane closure taper.</li> <li>This sign provides drivers with advance warning that two lanes are closed ahead. Lane closures should be established one at a time with adequate tangent length between lane closure tapers.</li> <li>Where adequate space is available on the left or median side, the signing should be repeated on the median across from the shoulder signage.</li> <li>The RIGHT TWO LANES CLOSED C-030-15 sign may be used in advance of a closure of the right two lanes where there are three or more lanes per direction.</li> <li>It should typically be applied in advance of the first LANE CLOSED AHEAD C-130 sign with a bottom-mounted tab indicating the distance to the beginning of the first lane closure taper.</li> <li>This sign provides drivers with advance warning that two lanes are closed ahead. Lane closures should be established one at a time with adequate tangent length between lane closure taper.</li> </ul>	



C-031 Oncoming Traffic			
ONCOMING TRAFFIC C-031	Sign sizes (mm) C-031 (750 x 750) C-031-x (900 x 900)	The ONCOMING TRAFFIC C-031 sign should be used where the normal traffic pattern has been changed such that there may be unexpected oncoming traffic. For example, it may be used for a median crossover, or when traffic is directed to travel in an oncoming lane.	
C-032 Reduce Sp	beed		
REDUCE SPEED C-032	Sign sizes (mm) C-032 (750 x 750) C-032-xx (1200 x 1200)	The REDUCE SPEED C-032 sign may be used in conjunction with LANE CLOSED C-030 and C-130 signs in the advance warning area on multilane highways where the speed limit is 70 km/h or higher. It is not required where a Construction Speed Zone has been established, but can be useful in slowing traffic without imposing a lower legal speed limit.	
C-033 and C-034	Blasting Zone		
BLASTING Zone Shut off Your Radio Transmitter C-033	Sign sizes (mm) C-033 (600 x 750) C-033-x (750 x 900)	<ul> <li>The BLASTING ZONE C-033 and C-034 signs should be used on all occasions when blasting is carried out in the vicinity of a public roadway.</li> <li>The signs should be positioned as follows: <ul> <li>The C-033 sign is placed at least 500 metres in advance of the blasting zone.</li> <li>The C-034 sign is placed 300 metres beyond the blasting area.</li> </ul> </li> </ul>	
BLASTING Zone Ends C-034	C-034 (600 x 600) C-034-x (750 x 750)	The C-033 and C-034 signs should be removed or covered immediately after a set of charges has been exploded, and should not be displayed again until just before the commencement of further drill-hole loading.	



## C-035 Construction Project

CONSTRUCTION PROJECT C-035 signs must be erected for capital rehabilitation and expansion projects with an approximate value of \$500,000 or greater. They may also be erected for a smaller project if its construction duration is expected to be longer than two months and the project is located in a high-traffic area.

The Project Manager is responsible for:

- Ordering the C-035 signs from a sign manufacturer
- Providing the appropriate project information to be applied to the signs
- Arranging delivery to the Prime Contractor.

For federal C-035 signs, the project manager must contact Government Communications and Public Engagement (GCPE) who will liaise with the federal government to provide the bilingual information required for project signs.

C-035 signs should be erected prior to the commencement of a project.

For provincial projects, the sign information must specify:

- Project Name
- Project Description
- Expected Completion Date (by season)Full Project Value
- e.g., Complete: Summer 2020 - e.g., Value \$8.8 Million

For federal-provincial partnership projects, the sign information must specify (in both English and French):

- Project Name
- Full Project Value

- e.g., \$0.5 M

• Expected Completion Date (by season) - e.g., Complete: Fall 2018

The C-035 sign fabrication records for manufacturing purposes are available at:

https://www2.gov.bc.ca/gov/content/transportation/transportationinfrastructure/engineering-standards-guidelines/traffic-engineering-safety/traffic-signsmarkings

The C-086-1 or C-086-2 "End of Project" sign should be erected just beyond the project's "limit of construction".

At the completion of the project, the C-035-CMP "Completed" tab is to be applied to the C-035 sign. The sign and tab should remain installed for no longer than six months after completion of the project at which time, weather dependent, the signs and tabs should be removed from the right-of-way. The "Completed" tab may be stored and re-used if it remains in good condition.

Policy information and sign design for the C-035 sign are updated frequently so Project Managers should check the Ministry's current technical circulars for updated information:

https://www2.gov.bc.ca/gov/content/transportation/transportationinfrastructure/engineering-standards-guidelines/technical-circulars



C-036 Slow Moving Vehicle			
Sign sizes (mm) C-036 (350 x 350 x 350)	In accordance with Sections 7B.01 to 7B.04 of the Motor Vehicle Act Regulation, the SLOW MOVING VEHICLE C-036 marker is displayed temporarily on the rear of any vehicle or mobile equipment employed in a work area and required to travel on a roadway at a speed of 40 km/h or less. This requirement applies to any vehicle involved in continuously slow-moving road work. When the vehicle is travelling at normal highway speeds, the C-036 marker should be covered or removed. The C-036 marker should also be displayed on the rear of mobile equipment units involved in road work which is incapable of moving consistently at speeds above 40 km/h. It may be displayed permanently on these units. The SLOW MOVING VEHICLE C-036 marker must be mounted in the orientation shown, as close as possible to the rear/centre of the unit, and 90 to 150 cm above ground level.		
t Paint and We	t Paint – Keep Off		
Sign sizes (mm) C-037-1 (600 x 200) C-037-2 (600 x 300)	The WET PAINT C-037-1 and WET PAINT – KEEP OFF C-037-2 signs may be used in areas where road markings have been applied to advise that wet paint has been applied to the roadway and drivers should refrain from driving on the freshly-painted lines.		
	Sign sizes (mm) C-036 (350 x 350 x 350) t Paint and We Sign sizes (mm) C-037-1 (600 x 200) C-037-2		



C-038 Truck Stopped on Road Next 2 km			
TRUCK STOPPED ON ROAD NEXT 2 km C-038	Sign sizes (mm) C-038 (750 x 750) C-038-xx (1200 x 1200)	The TRUCK STOPPED ON ROAD NEXT 2 km C-038 sign should be used in advance of intermittently-moving work such as crack sealing, temporary patching, Benkleman beam testing, retroreflective road stud installation, etc. The maximum distance between two opposing C-038 signs should not exceed 2 kilometres.	
C-039 Caution –	This Truck Sto	ps Frequently	
CAUTION THIS TRUCK STOPS FREQUENTLY C-039	Sign sizes (mm) C-039 (750 x 300) C-039-x (1525 x 600)	The CAUTION – THIS TRUCK STOPS FREQUENTLY C-039 sign is a special-purpose sign that should be displayed on the rear of vehicles involved with intermittently-moving work on an open travel lane. It should be removed or covered when work is not in progress.	
C-040D Prepare	to Stop		
PREPARE TO STOP C-040D	Sign sizes (mm) C-040D (2440 x 915)	The PREPARE TO STOP C-040D sign is a double-sided plywood sign that may be mounted atop Benkleman beam testing vehicles and other vehicles involved in intermittently- moving work in a travel lane on a two-lane, two-way roadway. It should be lowered or removed when the vehicle is not blocking the travel lane. To address difficulties mounting the C-040D sign on some types of vehicles, a squarer version may be used if the face area and letter height are not compromised.	



C-041-xx Road Marking			
MEANS WET PAINT NEXT OVOU	Sign sizes (mm) C-041-xx (1200 x 1200)	The ROAD MARKING C-041 sign is a double-sided sign. The ROAD MARKING IN PROGRESS side of the C-041 sign should face approaching traffic in advance of conventional pavement marking operations on two-lane, two-way rural roads (see <u>Section 14.8: Conventional</u> <u>Long-Line Marking – Multilane Roadway</u> and <u>Section 14.9:</u> <u>Left-Turn Arrow Marking</u> ). The WET PAINT side of the C-041 sign should be displayed towards traffic approaching freshly painted lines that have been marked with traffic cones. The maximum distance shown on the sign should be 10 kilometres.	
C-042 Series Pass Th	nis Side / Traffi	c Control Person Operating	
PASS THIS SIDE C-042-LR C-042-SLR	Sign sizes (mm) C-042-LR (900 x 600) C-042-SLR (900 x 600)	The PASS THIS SIDE C-042-LR sign should be displayed on the rear of paint trucks and shadow vehicles, or as required on other vehicles involved in a pavement-marking operation where a flashing arrow board (FAB) in arrow mode is unavailable or not used. It is also available with a TRAFFIC CONTROL PERSON OPERATING C-042-SLR sign displayed on the reverse side of the C-42-LR sign. The C-042-SLR sign is to be displayed on the rear of the paint truck when a Traffic Control Person is controlling traffic from the back of that truck.	



C-043 Caution –	C-043 Caution – Paint Spray Truck Ahead			
CAUTION PAINT SPRAY TRUCK AHEAD C-043	Sign sizes (mm) C-043 (1200 x 900)	The CAUTION – PAINT SPRAY TRUCK AHEAD C-043 sign should be displayed on the front of an escort vehicle that is preceding a working paint truck. The escort vehicle may straddle the line to be painted, thereby forcing opposing traffic away from the paint truck and minimizing collision risk and overspray problems.		
C-044-xx Slow V	ehicle Next X k	m		
SLOW VEHICLE NEXT E km C-044-xx	Sign sizes (mm) C-044-xx (1200 x 1200)	The SLOW VEHICLE NEXT X km C-044-xx sign should be used in advance of continuously slow-moving work—such as hydro-seeding, flushing, sweeping, etc.—where a travel lane is or may be obstructed. The maximum distance between two opposing C-044-xx signs should not exceed 8 kilometres.		
C-045 Slow Vehi	cle(s) Ahead			
SLOW VEHICLE C-045-1A	Sign sizes (mm) C-045-1A (750 x 750) C-045-1Axx (1200 x 1200)	<ul> <li>When a shadow vehicle on the shoulder follows a work vehicle involved in continuously slow-moving work, the SLOW VEHICLE(S) AHEAD C-045 sign or another appropriate sign should be displayed prominently on the rear of the shadow vehicle. Examples of other signs are:</li> <li>C-072 Grader Working</li> <li>C-074 Mower Working</li> <li>C-076 Sweeper Working</li> </ul>		
SLOW VEHICLES C-045-2A	C-045-2A (750 x 750) C-045-2Axx (1200 x 1200)	The SLOW VEHICLES AHEAD C-045-2A sign should be displayed downstream of the initial ROAD MARKING C-041 sign for two-lane, two-way operations. Confirmatory ROAD MARKING C-041 and C-045-2A signs should also be displayed alternately at intervals throughout a road-marking work zone.		



C-046 No Road Lines			
NO ROAD LINES C-046	Sign sizes (mm) C-046 (750 x 750) C-046-x (900 x 900)	The NO ROAD LINES C-046 sign should be used if a roadway that would normally have pavement markings has none. If there are temporary markings in place, the TEMPORARY ROAD LINES/PAVEMENT MARKINGS C-047 sign should be used instead. These scenarios typically occur in work zones that involve paving, seal coating, milling, centreline crack sealing, etc. If the section without permanent pavement markings is more than 2 kilometres long, an ADVISORY DISTANCE C-024 tab may be mounted below the C-046 or C-047 sign.	
C-047 Series Ter	nporary Road I	Lines/Pavement Markings	
TEMPORARY ROAD LINES C-047-1	Sign sizes (mm) C-047-1 (750 x 750) C-047-1x (900 x 900) C-047-2 (750 x 750)	The TEMPORARY ROAD LINES C-047-1 sign should be used where temporary markings are used to replace longitudinal lines. The TEMPORARY PAVEMENT MARKINGS C-047-2 sign may be more appropriate at intersections and at other complex locations where the temporary markings represent more than just longitudinal lines.	
C-047-2	C-047-2x (900 x 900)		



C-048-1-DS Pilot Car / Pilot Car – Do Not Pass			
PILOT CAR PILOT CAR Do NOT PASS C-048-1-DS	Sign sizes (mm) C-048-1-DS (1200 x 900)	The PILOT CAR / PILOT CAR – DO NOT PASS C-048-1-DS sign is a double-sided sign. It should be mounted atop the pilot vehicle, with the PILOT CAR message facing forward and the PILOT CAR – DO NOT PASS message facing backward. The C-048-1-DS sign must be removed or folded down whenever the vehicle is not piloting traffic.	
C-048-2 Pilot Car			
<b>PILOT CAR</b> C-048-2	Sign sizes (mm) C-048-2 (1830 x 305)	<ul> <li>The PILOT CAR C-048-2 sign should be mounted above a pilot vehicle that is piloting vehicles through construction zones.</li> <li>This sign may be used instead of the PILOT CAR / PILOT CAR – DO NOT PASS C-048-1-DS sign, and used in one of two ways: <ul> <li>If it is to be used as a double-sided sign, the sign should be mounted atop of the pilot vehicle with the message displayed so that it is clear and visible from both the front and the rear.</li> <li>If it is to be used as a back-lit sign, the sign material must allow light to pass through it so that it can be easily read in low-light and night applications.</li> </ul> </li> <li>The sign should be removed or folded down whenever the vehicle is not piloting traffic.</li> </ul>	
C-049 Follow Pilot	Car		
FOLLOW PILOT CAR C-049	Sign sizes (mm) C-049 (750 x 750) C-049-x (900 x 900)	The FOLLOW PILOT CAR C-049 sign should be placed in advance of work where traffic is piloted through a work activity area. It is also used intermittently through the work area as a reminder and warning to drivers who may be unable to see the pilot car because they are in a long platoon of vehicles.	



C-050 Workers Below			
WORKERS BELOW C-050-1	Sign sizes (mm) C-050-1 (600 x 600) C-050-1x (900 x 900)	The WORKERS BELOW C-050-1 and C-050-2 signs should be used to indicate that workers are present below the main travelling surface. These signs may be used for bridge or overpass/underpass applications, and in other situations in which workers are below the highway elevation and not visible to passing motorists.	
WORKERS BELOW C-050-2	C-050-2 (750 x 750)* C-050-2x (900 x 900)*	Either version of the sign may be used to indicate workers below. Typically, the C-050-2 sign is used as a standalone sign and the C-050-1 sign is used as a tab below another sign.	
C-051 Bridge Re	pair	Ι	
BRIDGE REPAIR C-051	Sign sizes (mm) C-051 (750 x 750) C-051-x (900 x 900)	The BRIDGE REPAIR C-051 sign may be used instead of the CREW WORKING AHEAD C-004 sign and the CONSTRUCTION AHEAD C-018 sign. It may also be used in advance of bridge repair projects when the structure is still open to traffic on a restricted basis.	
C-052 Roadside	Diversion Ahea	nd	
C-052-L	Sign sizes (mm) C-052-L (750 x 750) C-052-Lxx (1200 x 1200) C-052-R (750 x 750) C-052-Rxx (1200 x 1200)	A roadside diversion is a "mini-detour"—usually adjacent to the normal route—by which traffic is diverted around a short work activity area. The transition away from and back to the normal route should not be abrupt. The ROAD SIDE DIVERSION AHEAD C-052-L/R sign should be used in advance of the diversion to indicate the path for drivers to follow. Diversions can involve both lanes of a two-lane, two-way roadway or a one- or two-lane section on a multilane highway. In the latter case, if the multilane highway is divided and space is available for a sign in the median, C-052 signs should be placed on both sides of the roadway approaching the diversion.	



C-053 Lane Closure Arrow			
C-053	Sign sizes (mm) C-053 (750 x 750) C-053-xx (1200 x 1200)	<ul> <li>The LANE CLOSURE ARROW C-053 sign may replace a flashing arrow board to indicate the closure of a lane on a low-speed roadway. The C-053 sign are also be used for lane shifts on multi-lane roadway.</li> <li>It is positioned just inside the closed-off area at the beginning of the lane closure taper, and should be mounted high enough above the taper devices to be seen clearly by approaching drivers.</li> <li>The sign is oriented with the arrow pointing 45 degrees above horizontal, in the direction of the shift.</li> <li>For a short-duration work activity area in the centre of a two-lane, two-way roadway where traffic moving in both directions is required to pass the site on the right, and flashing arrow boards (FABs) are not required, a C-053 sign may be provided for one or both directions if the intended paths for drivers are not self-evident.</li> </ul>	
C-057 Avalanche	e Control		
AVALANCHE CONTROL C-057	Sign sizes (mm) C-057 (750 x 750) C-057-x (900 x 900)	The AVALANCHE CONTROL C-057 sign should be used in advance of road closures for avalanches and avalanche control works. All signs relating to avalanche closures must be removed or covered when not required.	



C-058 Series Em	ergency Scene	
	Sign sizes (mm)	Emergency Scene C-058 series signs may be used in place of CREW WORKING AHEAD C-004 or CONSTRUCTION AHEAD C-018-1A signs when emergency personnel or first responders are responding to an incident.
ACCIDENT SCENE C-058-1A	C-058-1A (750 x 750) C-058-1Ax (900 x 900) C-058-1Axx (1200 x 1200)	<ul> <li>The ACCIDENT SCENE AHEAD C-058-1A sign may be used for motor vehicle incidents and recovery operations that could affect the normal movement of traffic. The C- 058-1A sign may also be used by emergency services personnel. This is the sign most frequently used by Ministry maintenance contractors.</li> <li>The ACCIDENT SCENE C-058-1B sign may be used in conjunction with the ACCIDENT SCENE AHEAD C-058-</li> </ul>
ACCIDENT SCENE C-058-1B	C-058-1B (750 x 750) C-058-1Bx (900 x 900) C-058-1Bxx (1200 x 1200	<ul> <li>1A sign to provide additional warning for motor vehicle incidents and recovery operations. This is the sign most frequently used by Ministry maintenance contractors.</li> <li>The EMERGENCY SCENE AHEAD C-058-2A sign may be used when there are first responders at an emergency scene, such as if there is a collision, fire, or vehicle breakdown. This is the sign most frequently used by police, fire and ambulance.</li> </ul>
EMERGENCY SCENE C-058-2A	C-058-2A (750 x 750) C-058-2Ax (900 x 900) C-058-2Axx (1200 x 1200)	The EMERGENCY SCENE C-058-2B sign may be used in conjunction with the EMERGENCY SCENE AHEAD C- 058-2A sign to provide additional warning of the emergency scene ahead and to expect first responders. <b>This is the sign most frequently used by police, fire</b> <b>and ambulance.</b> Signs in the C-058 series may be orange or fluorescent pink.
EMERGENCY SCENE C-058-2B	C-058-2B (750 x 750) C-058-2Bx (900 x 900) C-058-2Bxx (1200 x 1200)	See <u>Section 19.8 Emergency Response</u> for how these signs should be used. <u>Figure 19.8 Emergency Response</u> shows a recommended setup when responding to emergency situations. It uses ACCIDENT SCENE AHEAD C-058-1A and ACCIDENT SCENE C-058-1B signs, which represent the most commonly used signs for emergency situations. Any of the other signs in this series may be used as alternatives to better represent the situation.
		continued →



C-058 Series Em	ergency Scene	(continued)
EMERGENCY INCIDENT C-058-3A	Sign sizes (mm) C-058-3A (750 x 750) C-058-3Ax (900 x 900) C-058-3Axx (1200 x 1200) C-058-3B (750 x 750) C-058-3Bx	<ul> <li>The EMERGENCY INCIDENT AHEAD C-058-3A sign may be used when there are first responders at an emergency incident. This is the sign most frequently used by police or HAZMAT responders.</li> <li>The EMERGENCY INCIDENT C-058-3B sign may be used in conjunction with the EMERGENCY INCIDENT AHEAD C-058-3A sign to provide additional warning of the emergency incident ahead. This is the sign most frequently used by police or HAZMAT responders.</li> <li>The POLICE INCIDENT AHEAD C-058-4A sign may be used when there are peace officers at a police incident. This is the sign most frequently used by police.</li> <li>The POLICE INCIDENT C-058-4B sign may be used in conjunction with the POLICE INCIDENT AHEAD C-058-4A</li> </ul>
C-058-3B	(900 x 900) C-058-3Bxx (1200 x 1200)	sign to provide additional warning of the police incident ahead. <b>This is the sign most frequently used by police.</b> Signs in the C-058 series may be orange or fluorescent pink.
POLICE INCIDENT C-058-4A	C-058-4A (750 x 750) C-058-4Ax (900 x 900) C-058-4Axx (1200 x 1200)	See <u>Section 19.8 Emergency Response</u> for how these signs should be used. <u>Figure 19.8 Emergency Response</u> shows a recommended setup when responding to emergency situations. It uses ACCIDENT SCENE AHEAD C-058-1A and ACCIDENT SCENE C-058-1B signs, which represent the most commonly used signs for emergency situations. Any of the other signs in this series may be used as alternatives to better represent the situation.
POLICE INCIDENT C-058-4B	C-058-4B (750 x 750) C-058-4Bx (900 x 900) C-058-4Bxx (1200 x 1200)	



C-059 Road Floo	C-059 Road Flooded / Washout			
C-059-1	Sign sizes (mm) C-059-1 (750 x 750) C-059-1x (900 x 900) C-059-2 (750 x 750) C-059-2x (900 x 900)	The ROAD FLOODED C-059-1 sign should be used where water extends into the travelled roadway. The WASHOUT C-059-2 sign should be used where part of the shoulder or part of the roadway has washed out. There may still be sufficient width for two vehicles to pass safely at a reduced speed. Where the washout has encroached far enough to require the closure of a lane, additional traffic control will be required.		
C-061 Closed				
C-061	Sign sizes (mm) C-061 (750 x 300) C-061-x (900 x 350) C-061-xx (1200 x 450)	The CLOSED C-061 tab may be installed below a runaway or exit guide sign for a runaway lane or exit ramp that is closed and unavailable for use. See C-062 below if additional signage is needed for advance locations leading to runaway lanes and exit ramps.		



C-062 Exit Closed				
EXIT CLOSED C-062	Sign sizes (mm) C-062 (1220 x 300) C-062-x (1444 x 350) C-062-xx (1905 x 450)	The EXIT CLOSED C-062 banner may be used on advance signing for a runaway lane or exit ramp that is closed and unavailable for use. The banner may be overlaid across the advance signing, typically at a 45-degree angle, to indicate the closure.		
C-063 Traffic Pat	C-063 Traffic Pattern Changed			
TRAFFIC PATTERN CHANGED C-063	Sign sizes (mm) C-063 (750 x 750) C-063-xx (1200 x 1200)	<ul> <li>The TRAFFIC PATTERN CHANGED C-063 sign should be used in advance of a work zone after the completion of construction to advise drivers of significant traffic pattern changes where: <ul> <li>the travel path has been altered;</li> <li>lanes have been added or removed; and/or</li> <li>traffic control has been changed at an intersection (e.g., signal added, two-way stop changed to four-way stop).</li> </ul> </li> <li>The C-063 sign typically remains in place for three months following the change.</li> </ul>		



C-064 Signal Operation Changed			
SIGNAL OPERATION CHANGED C-064	Sign sizes (mm) C-064 (750 x 750) C-064-xx (1200 x 1200)	<ul> <li>The SIGNAL OPERATION CHANGED C-064 sign should be used in advance of the work zone after the completion of construction to advise drivers that the operation of an existing signalized intersection has been altered.</li> <li>Examples may include the addition of protected left turns or other changes to the signal phasing.</li> <li>The C-064 sign typically remains in place for three months following the change.</li> <li>Note: The use of this sign requires the approval of the Road Authority.</li> </ul>	
C-066 Signal Ou	t of Order		
SIGNAL OUT OF ORDER C-066	Sign sizes (mm) C-066 (750 x 750) C-066-xx (1200 x 1200)	The SIGNAL OUT OF ORDER C-066 sign should be used in advance of an intersection where an existing signal has temporarily been set to flash or turned off because of construction activities. If traffic is still using the intersection, it should be controlled and directed safely through the intersection by Traffic Control Persons or police officers.	



C-067 Runaway	C-067 Runaway Lane Closed			
RUNAWAY LANE CLOSED C-067	Sign sizes (mm) C-067 (750 x 750) C-067-x (900 x 900) C-067-xx (1200 x 1200) C-067-T (450 x 600) C-067-Tx (600 x 750) C-067-Txx (750 x 900)	<ul> <li>The RUNAWAY LANE CLOSED C-067 sign should be used in advance of any closure of a runaway lane.</li> <li>The C-067 sign and XXX m AHEAD C-067-Tab distance tab should typically be positioned at least 200 metres or Distance A—whichever is greater—in advance of the closed lane.</li> <li>Distance A values are those shown for Construction Sign Spacing in <i>Table B – Device Spacing Lengths</i>—see <u>Section 6.6 or Appendix F</u>.</li> <li>The C-067 sign should be covered or removed as soon as possible once the runaway lane is available again.</li> </ul>		
C-069 Barrier Re	emoved			
BARRIER REMOVED C-069	Sign sizes (mm) C-069 (750 x 750) C-069-x (900 x 900)	The BARRIER REMOVED C-069 sign should be used in advance of locations where an existing median or roadside barrier has been removed because of construction activity.		



C-070 Towing O	peration	
C-070-1	Sign sizes (mm) C-070-1 (750 x 750) C-070-1x (900 x 900) C-070-1xx (1200 x 1200) C-070-2 (750 x 750)	The TOWING OPERATION C-070-2 sign may be used during tow truck recovery operations to warn drivers of the presence of tow trucks and workers ahead. The TOWING OPERATION AHEAD C-070-1 or TOW TRUCK AHEAD C-071-1 sign may be used in conjunction with the TOW OPERATION C-070-2 sign to provide additional warning of tow truck recovery operations. See <u>Section 19.1 Tow Truck Recovery Operations</u> for additional guidance on tow truck recovery operations.
C-070-2	C-070-2x (900 x 900) C-070-2xx (1200 x 1200)	
<b>C-071 TOW TRUCK</b> C-071-1	Sign sizes (mm) C-071-1 (750 x 750) C-071-1x (900 x 900) C-071-1xx (1200 x 1200)	The TOW TRUCK C-071-2 sign may be used during towing operations, or to indicate the presence of a tow truck ahead. The TOW TRUCK AHEAD C-071-1 or TOWING OPERATION AHEAD C-070-1 signs may be used in conjunction with the TOW TRUCK C-071-2 sign to provide additional warning. See <u>Section 19.1 Tow Truck Recovery Operations</u> for additional guidance on tow truck recovery operations.
TOW TRUCK C-071-2	C-071-2 (750 x 750) C-071-2x (900 x 900) C-071-2xx (1200 x 1200)	



C-072 Grader Wo	C-072 Grader Working		
GRADER WORKING C-072	Sign sizes (mm) C-072 (750 x 750) C-072-xx (1200 x 1200)	The GRADER WORKING C-072 sign should be used in advance of a section where a grader is operating for roadway or shoulder gravelling. Where a roadway (rather than a shoulder) is being graded, a second C-072 sign should be erected to face opposing traffic beyond the end of the section being graded (maximum 8 kilometres), and a YIELD TO ONCOMING TRAFFIC R-056- 1 sign should be displayed on the rear of the grader. If the grading operation uses a shadow vehicle on the shoulder behind the grader, the C-072 sign for traffic travelling in the direction of the operation may be displayed conspicuously on the rear of the shadow vehicle.	
C-074 Mower Wo	orking		
MOWER WORKING C-074	Sign sizes (mm) C-074 (750 x 750) C-074-x (900 x 900)	The MOWER WORKING C-074 sign should be used to warn drivers that a mower is working adjacent to the roadway and that the operator may encroach onto the shoulder—or even into the travel lane if the shoulder is narrow—to avoid obstructions like culvert ends, sign posts, delineators, etc. This is continuously slow-moving work, as shown in <u>Section 10: Traffic Control Layouts – Mobile Work</u> . The sign is not required if the mower is consistently working well clear of the travelled roadway and shoulder. If the mowing operation uses a shadow vehicle on the shoulder behind the mower, the C-074 sign for traffic travelling in the direction of the operation may be displayed conspicuously on the rear of the shadow vehicle.	



C-076 Sweeper W	Vorking	
SWEEPER WORKING C-076	Sign sizes (mm) C-076 (750 x 750) C-076-x (900 x 900)	<ul> <li>The SWEEPER WORKING C-076 sign should be used in advance of a section where a mechanical sweeper is being used to clean a paved roadway or shoulder.</li> <li>This is continuously slow-moving work, as shown in <u>Section 10: Traffic Control Layouts – Mobile Work</u>.</li> <li>Where a travel lane (rather than a shoulder) is being swept on a two-lane, two-way roadway, a second C-076 sign should be erected to face opposing traffic beyond the end of the section being cleaned (maximum 8 kilometres), and a YIELD TO ONCOMING TRAFFIC R-056-1 sign must be displayed on the rear of the sweeper.</li> <li>If the sweeping operation uses a shadow vehicle on the shoulder behind the sweeper, the C-076 sign for traffic travelling in the direction of the operation may be displayed conspicuously on the rear of the shadow vehicle.</li> </ul>
C-078 Snow Blow	wer Ahead	
SNOW BLOWER AHEAD C-078	Sign sizes (mm) C-078 (750 x 750) C-078-x (900 x 900)	The SNOW BLOWER AHEAD C-078 sign should be used in advance of a section where a snow blower is being used. This is continuously slow-moving work, as shown in <u>Section 10: Traffic Control Layouts – Mobile Work</u> . When the snow blower is on a two-lane, two-way roadway, a second C-078 sign should be erected to face opposing traffic beyond the end of the section being cleaned (maximum 8 kilometres), and a YIELD TO ONCOMING TRAFFIC R-056-1 sign must be displayed on the rear of the snow blower. If the snow blowing operation uses a shadow vehicle on the shoulder behind the snow blower, the C-078 sign for traffic travelling in the direction of the operation may be displayed conspicuously on the rear of the shadow vehicle.



C-079-1 Tree Wo	ork	
TREE WORK C-079-1A	Sign sizes (mm) C-079-1A (750 x 750) C-079-1Ax (900 x 900) C-079-1Axx (1200 x 1200)	The TREE WORK C-079-1B sign may be used in advance of a section where tree work is being completed. This includes landscaping of trees or tree falling work. It warns motorists of the potential of debris and to exercise caution when driving through the landscaping or tree falling section. The TREE WORK AHEAD C-079-1A sign may be used as a supplement to the TREE WORK C-079-1B sign for additional warning of the work taking place.
TREE WORK C-079-1B	C-079-1B (750 x 750) C-079-1Bx (900 x 900) C-079-1Bxx (1200 x 1200)	
C-079-2 Utility W	/ork	
UTILITY WORK C-079-2A	Sign sizes (mm) C-079-2A (750 x 750) C-079-2Ax (900 x 900) C-079-2Axx (1200 x 1200)	The UTLITY WORK C-079-2B sign may be used in advance of a section where utility work is being completed. This includes work being completed for, or by companies such as power, gas, water, sewer, telecommunications, television, etc. The UTILITY WORK AHEAD C-079-2A sign may be used as a supplement to the UTILITY WORK C-079-2B sign for additional warning of the work taking place.
UTILITY WORK C-079-2B	C-079-2B (750 x 750) C-079-2Bx (900 x 900) C-079-2Bxx (1200 x 1200)	



C-079-3 Landsca	ape Work	
LANDSCAPE WORK C-079-3A	Sign sizes (mm) C-079-3A (750 x 750) C-079-3Ax (900 x 900) C-079-3Axx (1200 x 1200)	The LANDSCAPE WORK C-079-3B sign may be used in advance of a section where landscaping is being completed. It warns motorists of the potential of workers close to the travelled roadway, debris, and to exercise caution when driving through the landscaping section. The LANDSCAPE WORK AHEAD C-079-3A sign may be used as a supplement to the LANDSCAPE WORK C-079-3B sign for additional warning of the landscaping taking place.
LANDSCAPE WORK C-079-3B	C-079-3B (750 x 750) C-079-3Bx (900 x 900) C-079-3Bxx (1200 x 1200)	



C-080-T Construction Speed Zone Tab				
	Sign sizes (mm)	Construction Speed Zones may be installed only with the approval of the Road Authority.		
CONSTRUCTION SPEED ZONE	C-080-Ta (600 x 300)	The CONSTRUCTION SPEED ZONE C-080-T tab, when erected below the MAXIMUM SPEED AHEAD R-003		
C-080-T	C-080-Tax (750 x 450)	and MAXIMUM SPEED R-004 signs, establishes a legally lowered Construction Speed Zone.		
	C-080-Taxx	These signs are normally post-mounted.		
	(900 x 450)	Construction Speed Zones are generally established for long-duration projects on which a reduction in the normal		
	C-080-Taxxx (1220 x 610)	speed limit is considered necessary.		
SPECIAL EVENT SPEED ZONE C-080-Tb	C-080-Tb (600 x 300)	The SPECIAL EVENT SPEED ZONE C-080-Tb tab may be used in place of a CONSTRUCTION SPEED ZONE C-080-Ta tab if there is a special event taking place. Special events (such as parades, races, fundraising events, and filming) are		
	C-080-Tbx (750 x 450)	characterized as events which have been given a Special Event Permit by the Road Authority.		
	C-080-Tbxx (900 x 450)	If there are any R-003 or R-004 signs showing the normal maximum speed on the approach to, or within a Construction Speed Zone or Special Event Speed Zone, they are covered		
	C-080-Tbxxx (1220 x 610)	or removed whenever the lower speed limit is in effect.		
	(1220 × 010)	The end of a Construction Speed Zone or Special Event Speed Zone should be indicated by an R-004 sign showing the normal maximum speed.		
		C-080-Taxxx and C-080-Tbxxx tabs are to be used on Variable Speed Limit System signs and require approval from the Road Authority.		



C-082 Min \$196 Fine –Speeding in Work Zones			
MIN. \$196 FINE SPEEDING IN WORK ZONES C-082	Sign sizes (mm) C-082 (900 x 450) C-082-xx (1830 x 915)	The MINIMUM \$196 FINE – SPEEDING IN WORK ZONES C-082 sign may be used as a speed management tool in areas where drivers have been failing to adjust speed or failing to adhere to the regulatory or construction speed limit. When used in work zones in which a Construction Speed Zone exists, the C-082 sign should be posted in the advance warning area ahead of the work activity area. C-082 signs may also be installed ahead of TCP locations. The C-082 sign may also be used as a standalone sign for speed management throughout the work zone.	
C-084 Police Enf	orcement Ahea	ad	
POLICE ENFORCEMENT AHEAD C-084	Sign sizes (mm) C-084 (750 x 750)* C-084-x (900 x 900)*	The POLICE ENFORCEMENT AHEAD C-084 sign may be used when a police enforcement event is under way within or in close proximity to a work zone. It should be positioned 100 to 500 metres ahead of the enforcement location. The C-084 sign should be removed or covered when there is no police presence.	



C-085 Road Clos	sure Info	
ROAD CLOSURE INFO C-085-1 ROAD CLOSURE INFO C-085-2L ROAD CLOSURE INFO T C-085-2R C-085-2R	Sign sizes (mm) C-085-1 (900 x 900) C-085-1x (1200 x 1200) C-085-2L (900 x 900) C-085-2Lx (1200 x 1200) C-085-2R (900 x 900) C-085-2Rx (1200 x 1200) C-085-3L (900 x 900) C-085-3Lx (1200 x 1200)	The ROAD CLOSURE INFO C-085 directional signs are used to direct traffic to a pullout area which contains additional information (custom signs), regarding the road closure. Many Ministry rural road projects impact access to areas, such as recreational areas. Therefore, this type of road closure information gives the road authority the ability to provide additional information regarding the duration and operational impacts of the closure. This information is often provided prior to the commencement of the road closure to allow locals and other road users time to prepare accordingly. Depending on the complexity and amount of information provided for a project, this information may be more suited to a pullout area where plenty of time is available for drivers to read and understand. A limited amount of information can be relayed to drivers when vehicles are in motion and travelling through a work zone.
C-085-3L ROAD CLOSURE INFO C-085-3R	C-085-3R (900 x 900) C-085-3Rx (1200 x 1200)	



C-086 Thank You	u – Resume Spe	eed
Thank you RESUME SPEED C-086-1	Sign sizes (mm) C-086-1 (450 x 900)	The THANK YOU – RESUME SPEED C-086-1 sign should be used to mark the end of a reduced speed zone that has been established as a Temporary Speed Zone or a Construction Speed Zone. It may also be used at the downstream end of a work activity area through which traffic has been warned to reduce speed by a REDUCE SPEED C-032 sign.
END OF PROJECT Thank You RESUME SPEED C-086-2	C-086-2 (1830 x 1220)*	On large projects where a CONSTRUCTION PROJECT C-035 sign is used, the END OF PROJECT – THANK YOU RESUME SPEED C-086-2 sign should be used at the end of the work zone if a lowered or reduced speed zone was in effect in the work zone.
C-088 Work Zon	e Ends	
WORK ZONE ENDS C-088	Sign sizes (mm) C-088 (600 x 600) C-088-x (900 x 900)	The WORK ZONE ENDS C-088 sign should be used to indicate the end of a work zone. This sign may be useful to identify the end of a large project that has multiple work activity areas within one large project area. The C-088 sign is generally not required for projects that are very short in length, or for projects for which the end of the work is self-evident.
C-089 Left Lane	Must Turn Left	
LEFT LANE MUST TURN LEFT C-089	Sign sizes (mm) C-089 (750 x 750) C-089-x (900 x 900) C-089-xx (1200 x 1200)	The LEFT LANE MUST TURN LEFT C-089 sign is used in advance of a lane closure at a multilane intersection where the typical lane assignment is disrupted by a lane closure, and traffic in the left lane can now turn only left, whereas previously that lane may have been a left or through lane.



C-090 Temporary	y Slow Marker	
C-090	Sign sizes (mm) C-090 (300 x 300)	The TEMPORARY SLOW C-090 marker is warranted for emergency use only in conjunction with the TEMPORARY HAZARD C-092 marker (see below). It may be erected in advance of temporary hazards such as shoulder washouts, fallen rock, potholes, frost heaves, etc. C-090 and C-092 markers are generally mounted on stakes driven into the shoulder so that each marker is approximately one metre above the level of the travelled roadway. Do not use the TEMPORARY SLOW C-090 marker if it appears that the hazard will not be removed promptly. Instead, erect an appropriate temporary warning sign, such as: • C-007 Broken Pavement • C-017 Bump or Rough Roadway Ahead • C-059-2 Washout If the severity or length of a hazard is such that either the ADVISORY SPEED C-022 tab or the ADVISORY DISTANCE C-024 tab is required, or both are required, use an appropriate temporary warning sign instead of the C-090 or C- 092 marker.

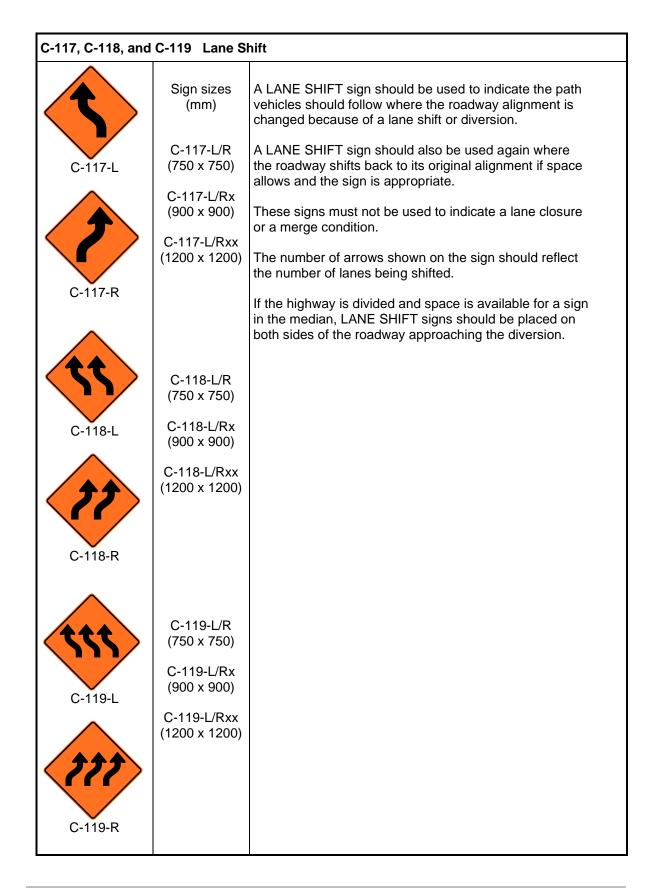


C-092 Temporary Hazard Marker			
C-092	Sign sizes (mm) C-092 (300 x 300)	<ul> <li>The TEMPORARY HAZARD C-092 marker is used with the TEMPORARY SLOW C-090 marker (see above) and other temporary warning signs.</li> <li>It is erected on the shoulder to mark the actual site of a hazardous condition.</li> <li>C-090 and C-092 markers are generally mounted on stakes driven into the shoulder so that each marker is approximately one metre above the level of the travelled roadway.</li> <li>Individual bumps, potholes, or pavement breaks generally require only one C-092 marker for each direction of travel. In the case of a washout or minor rock fall, several C-092 markers may be required to delineate the hazard.</li> </ul>	
C-111 Stop Ahea	ad		
C-111	Sign sizes (mm) C-111 (750 x 750) C-111-x (900 x 900)*	The STOP AHEAD C-111 sign is used where the stopping sight distance to a temporary STOP sign is inadequate for the approach speed. It is also used where a STOP sign is temporarily required in a location where regular users of the route would not expect to stop.	
C-112 Signal Ah	ead		
C-112	Sign sizes (mm) C-112 (750 x 750) C-112-x (900 x 900)*	SIGNAL AHEAD C-112 signs should be used in advance of portable traffic signal installations. The sign is normally post-mounted.	



C-114, C-115, and	C-116 Checke	erboards
C-114	Sign sizes (mm) C-114 (750 x 750) C-114-x (1200 x 1200)*	All CHECKERBOARD signs are diamond-shaped warning signs and should never be mounted as squares. The C-114 sign may be used in conjunction with Type III barricades and the ROAD CLOSED R-012 sign to mark roads that have been temporarily dead-ended and where no alternative route is available. The C-114 sign should be post-mounted in the centre of the closed roadway, just behind the barricades.
	C-115 (750 x 750) C-115-x (1200 x 1200)* C-116 (750 x 750) C-116-x (1200 x 1200)*	<ul> <li>When alternative routes are available, the C-115 and C-116 signs are used as follows:</li> <li>Where one alternative option to the closed road is available either to the right or the left, the C-115 sign is substituted for the C-114 sign and similarly positioned.</li> <li>The C-115 may also be used to mark the apex of a sharp temporary curve, in which case it should be post-mounted just off the shoulder on the outside of the curve, and directly in line with the path of approaching traffic.</li> <li>Where two alternative options to the closed road are available in the form of both a right turn and left turn, the C-116 sign is substituted for the C-114 sign, and similarly positioned.</li> <li>The C-116 sign may also be used to mark a temporary T-intersection by post-mounting the sign on the far side of the intersecting road to face traffic approaching from the stem of the T. It should be placed in line with the projected centreline of the stem roadway.</li> </ul>







C-121-1 Series R	oundabout Rig	ht-Turn Truck Signs
C-121-1 C-121-1 C-121-Ta C-121-Ta ACCESS TO Lockside Dr C-121-Tb	Sign sizes (mm) C-121-1 (750 x 750) C-121-Ta (750 x 300) C-121-Tb (750 x 300)	The signs in the C-121 series should be used to convey the right-turn path for trucks in a roundabout. The right-turn movement is typically the most challenging for trucks in roundabouts. If the work activity encroaches into the space needed by right-turning trucks in the roundabout, it may still be possible to allow trucks to make the right-turn manoeuvre by instructing drivers to continue around the roundabout so that they reapproach the exit at a wider angle.
C-128 Series Cor	nstruction Spee	d Limit Ahead
C-128	Sign sizes (mm) C-128-x (900 x 900) C-128-xx (1200 x 1200)	The CONSTRUCTION SPEED LIMIT AHEAD C-128 is used in advance of R-003 and R-004 Construction Speed Zone signs to replace any transition speed zones installed for speed reductions in excess of 30 km/h. They can also be used to provide additional emphasis, where deemed necessary, of a Construction Speed Zone. See <u>Section 2.4.5: Transition Speed Zones</u> for additional guidelines on how this sign should be used.



C-129 Series Ad	C-129 Series Added Lane			
C-129-L	Sign sizes (mm) C-129-L (750 x 750) C-129-Lx (900 x 900) C-129-Lxx (1200 x 1200)	The ADDED LANE C-129-L sign warns motorists of the convergence of two roads, or approaches, where an additional lane (generally 1 km or longer) is added to the mainline highway such that merging is not necessary. The sign placement should be based on site conditions so that it is visible by motorists on both approaches. If this is not possible, signs should be erected on both approaches.		
C-129-R	C-129-R (750 x 750) C-129-Rx (900 x 900) C-129-Rxx (1200 x 1200)			



C-130 Lan C-130-Ta/Tb Dist	e Closed Ahead tance Tabs	ł
C-130-L	Sign sizes (mm) C-130-L/R (750 x 750) C-130-L/Rx (900 x 900) C-130-L/Rxx	The LANE CLOSED AHEAD C-130-L/R sign should be used in temporary conditions to indicate that the left or right lane is closed ahead on a roadway that has two or more lanes travelling in the same direction. The C-130-L/R sign should be repeated where the speed limit in the advance warning area is 70 km/h or higher, such as shown in <u>Section 8.6: Right Lane Closed</u> and <u>Section 8.7:</u> <u>Left Lane Closed</u> .
	(1200 x 1200)*	The upstream sign of the pair should also display a bottom-mounted distance tab indicating the distance to the beginning of the lane closure taper.
C-130-R	C-130-Ta/Tb (600 x 300)	C-130-L/R signs are generally placed on the right shoulder, but where adequate space is available on the left or median side, the signing should be repeated on the median across from the right shoulder signage. On conventional highways, the C-130-T distance tab
C-130-Ta	C-130-Ta/Tbx (750 x 400) C-130-Ta/Tbxx	<ul> <li>should generally display:</li> <li>200 m - for speed limits of 70 or 80 km/h</li> <li>400 m - for speed limits of 90 or 100 km/h</li> </ul>
C-130-Tb	(900 x 450)*	<ul> <li>600 m - for speed limits of 110 or 120 km/h</li> <li>The XX KM C-130-Tb distance tab may be used to provide additional warning for all signs in this series.</li> </ul>



C-132 Two-Way Traffic Ahead			
C-132	Sign sizes (mm) C-132 (750 x 750) C-132-x (900 x 900)*	The TWO-WAY TRAFFIC AHEAD C-132 sign is used to warn drivers of a temporary, undivided, two-lane, two-way roadway. A typical application is where one roadway of a divided highway is closed and the other roadway must carry traffic in both directions. Appropriate signing and other devices should be used to merge traffic on a multilane, one-way roadway into a single lane well in advance of the point where that traffic enters the two-way roadway. A C-132 sign should be mounted on the right of the single lane section and, if space is available, on the left as well. See the TWO-WAY TRAFFIC R-010 sign for information on two-way signing at the beginning of a two-lane, two-way roadway.	



C-134 Road Narr	ows Ahead	
C-134	Sign sizes (mm) C-134 (750 x 750) C-134-xx (1200 x 1200)	The ROAD NARROWS AHEAD C-134 sign should be used on two-way roads in advance of a temporary reduction in the width of either or both lanes that makes it necessary to warn drivers so that they may pass safely. The reduced width at which safe passing is still possible will depend on such factors as traffic composition, traffic speed and volume, highway alignment, sight distance, etc., but it will generally be about 5.5 metres. If the reduced width is too narrow for safe passing, even at reduced speeds, a one-way operation must be implemented. The C-134 sign is not intended for use on narrow minor roads that have low travel speeds and carry little traffic.
	v Structure Ahe ane Tab	ad
C-135 C-135 C-135-Ta	Sign sizes (mm) C-135 (750 x 750) C-135-x (900 x 900) C-135-Ta (600 x 300) C-135-Tax (750 x 400)	The NARROW STRUCTURE AHEAD C-135 sign is used on a two-lane, two-way roadway in advance of a bridge that has a temporary clear deck width of 5.5 metres or more but less width than the roadway approach. Where the temporary clear width of a bridge deck is less than 5.5 metres, ONE LANE C-135-Ta tabs are placed below the C-135 signs, and a YIELD TO ONCOMING TRAFFIC R-056-1 sign is erected on the approach with the best sight distance across the bridge. Depending on road conditions, such as traffic composition, traffic speed and volume, approach alignment, sight distance, etc., it may be appropriate to designate some bridges as one-way even when the temporary clear deck width is 5.5 metres or more.



C-136 Merging Traffic Ahead			
C-136-L C-136-R	Sign sizes (mm) C-136-L (750 x 750) C-136-Lx (900 x 900) C-136-R (750 x 750) C-136-Rx (900 x 900)	The MERGING TRAFFIC AHEAD C-136-L/R sign should be used in advance of all temporary on-ramps and acceleration lanes under repair. The sign is required to warn traffic on the main roadway, regardless of whether the ramp traffic is controlled by a YIELD R-002 sign or a MERGE C-137-1 sign.	
C-137-1 Merge	Sign sizes (mm) C-137-1 (750 x 750)* C-137-1x (900 x 900)*	The MERGE C-137-1 sign should be used at a temporary freeway on-ramp where there is an acceleration lane of sufficient length for vehicles to reach the freeway speed limit before entering a through lane.	
C-137-2 Alternate	e When Mergin	9	
ALTERNATE WHEN MERGING C-137-2	Sign sizes (mm) C-137-2 (750 x 750) C-137-2x (900 x 900)	The ALTERNATE WHEN MERGING C-137-2 sign may be used in conjunction with the MERGE C-137-1 sign. It is positioned downstream of the C-137-1 sign at the merge point, which is usually immediately ahead of the beginning of the acceleration lane taper. The C-137-2 sign may also be used to manage merging situations created by lane drops in high-volume areas.	

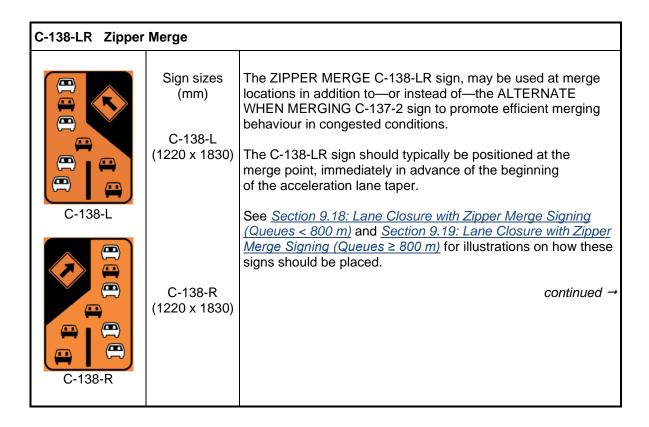


C-137-5LR Merge	C-137-5LR Merge Arrow			
MERGE	Sign sizes (mm)	The MERGE ARROW C-137-5L and C-137-5R signs are used to indicate the merge point. They are used in zipper merge situations as outlined in <u>Section 9.18: Lane Closure</u>		
MERGE	C-137-5L (750 x 750)	with Zipper Merge Signing (Queues < $800 \text{ m}$ ) and Section 9.19: Lane Closure with Zipper Merge Signing (Queues $\geq 800 \text{ m}$ ).		
C-137-5L	C-137-5Lx (900 x 900)			
MERGE	C-137-5R (750 x 750)			
C-137-5R	C-137-5Rx (900 x 900)			



C-137-7 and C-13	7-8 Through T	raffic Merge Left/Right
THRU TRAFFIC MERGE LEFT C-137-7	Sign sizes (mm) C-137-7 (750 x 750) C-137-7x (900 x 900) C-137-7xx (1200 x 1200) C-137-8x (750 x 750) C-137-8x (900 x 900)	A THROUGH TRAFFIC MERGE LEFT C-037-7 sign or a THROUGH TRAFFIC MERGE RIGHT C-037-8 sign is used ahead of a lane closure at a multilane intersection where the typical lane assignment is disrupted by the lane closure. For example, it is used at a multilane intersection where a through lane is closed and drivers must use either the right lane or the left lane to go through the intersection. The C-037-7 and C-037-8 signs are typically positioned following the initial CREW WORKING AHEAD C-004 or CONSTRUCTION AHEAD C-018-1A sign, and may be used either singly or in pairs. When the signs are used in pairs, the upstream sign should include a distance tab.
C-137-8	C-137-8xx (1200 x 1200)	







C-138-T Zipper M	lerge (Optional	Tabs to Enhance Information on the Parent Sign)
ALTERNATE WHEN MERGING	Sign sizes (mm) C-138-Ta (1220 x 915)	See <u>Section 9.18: Lane Closure with Zipper Merge Signing</u> (Queues < 800 m) and <u>Section 9.19: Lane Closure with Zipper</u> <u>Merge Signing (Queues <math>\geq</math> 800 m)</u> for illustrations on how these tabs should be applied with the C-138LR ZIPPER MERGE parent sign.
C-138-Ta USE BOTH LANES TO MERGE POINT	C-138-Tb (1220 x 1220)	The ALTERNATE WHEN MERGING C-138-Ta tab or the USE BOTH LANES TO MERGE POINT C-138-Tb tab should be used below the sign when the sign is positioned in advance of the merge point because of sight distance problems, conflicts with other signs, or the absence of appropriate mounting space.
C-138-Tb USE BOTH LANES DURING BACKUPS C-138-Tc	C-138-Tc (1220 x 1220)	The USE BOTH LANES DURING BACKUPS C-138-Tc tab is used if long queues are expected. It may be repeated every 1 to 2 km, based on local site conditions, for the estimated maximum queue distance. The TAKE TURNS C-138-Td tab encourages drivers, both merging and those on the main line, to zipper merge and utilize both lanes until a merge point. This tab is used in conjunction with the MERGE ARROW C-137-5LR and/or ZIPPER MERGE C-138-LR signs and are mounted below the parent sign.
TAKE TURNS C-138-Td	C-138-Td (1220 x 610)	The TAKE TURNS AT MERGE C-138-Te tab may be used in conjunction with the ROADWAY/LANE CLOSED AHEAD C-030 series signs and is mounted below the parent sign.
TAKE TURNS AT MERGE C-138-Te	C-138-Te (1220 x 610)	The MERGE LIKE A ZIPPER C-138-Tf tab may be used in conjunction with the ZIPPER MERGE C-138-LR sign and is mounted below the parent sign.
MERGE LIKE A ZIPPER C-138-Tf	C-138-Tf (1220 x 610)	



C-141 Slippery A	C-141 Slippery Ahead When Wet			
C-141	Sign sizes (mm) C-141 (750 x 750) C-141-x (900 x 900)	The SLIPPERY AHEAD WHEN WET C-141 sign should be used when there is a possibility of rain or heavy dew on work that has rendered a finished or unfinished road surface potentially more slippery than normal. It may also be required for confirmation on long sections. When appropriate, the C-141 sign may be used in conjunction with the FRESH OIL C-014 sign or other warning-type signs.		
<b>C-149</b> Pavement	Ends Sign sizes (mm) C-149 (750 x 750) C-149-x (900 x 900)	The PAVEMENT ENDS C-149 sign should be used where an asphalt, concrete, or other finished pavement surface ends and a gravel or dirt section begins. If the start of a paved section of roadway appears to be a hazard, the sign may be flipped to warn of the end of a gravel section.		



C-154 Hazard Ma	arkers	
C-154-D	Sign sizes (mm) C-154-D (300 x 900)	<ul> <li>HAZARD C-154 markers should be used to mark:</li> <li>The inside edge of temporary obstructions—such as bridge end posts—that encroach into a through lane or onto the normal shoulder of a highway.</li> <li>The ends or corners of traffic islands that face, and are adjacent to, oncoming traffic.</li> </ul>
C-154-L	C-154-L (300 x 900) C-154-R (300 x 900)	<ul> <li>The hazard marker stripes slope downward towards the side or sides of the obstruction by which traffic is allowed to pass:</li> <li>DOUBLE HAZARD C-154-D markers are used where traffic travelling in one direction is allowed to proceed to both the left and the right of an obstruction.</li> <li>HAZARD LEFT C-154-L markers are used to mark obstructions on the driver's left.</li> <li>HAZARD RIGHT C-154-R markers are used to mark obstructions on the driver's right.</li> </ul> When used to mark obstructions like bridge end posts, the C-154-L/R markers are positioned to mark the inside edge of the obstructions. C-154-L/R markers are mounted on posts immediately in advance of the obstruction being identified, and generally with the bottom of the markers about one metre above the level of the travelled roadway. These are low-mounted devices placed very close to traffic. They will therefore become dirty more quickly than other signs and will require more frequent cleaning, especially to maintain effectiveness at night.
C-162 Chevron	Alignment Mark	er
C-162	Sign sizes (mm) C-162 (600 x 750) C-162-x (750 x 900) C-162-xx (900 x 1200)*	CHEVRON ALIGNMENT C-162 markers may be used on the outside of temporary but severe changes in horizontal alignment in conjunction with advance warning signs and other delineation devices. C-162 markers must be placed so that at least three are used and two of them are always visible to drivers as they negotiate the change in alignment.



C-170 Logging T	rucks Crossing	g/Entering Highway
C-170-L	Sign sizes (mm) C-170-L (750 x 750) C-170-Lx (900 x 900) C-170-R (750 x 750) C-170-Rx (900 x 900)	The LOGGING TRUCKS CROSSING/ENTERING HIGHWAY C-170-L/R sign should be used temporarily in advance of logging road accesses where logging trucks frequently cross, enter, or leave a roadway. The direction of the sign indicates the direction from which the logging truck will enter the roadway. A NO PASSING FOR 150 m C-172-T sign may be post-mounted below a C-170-L/R sign for the direction of travel in which normal pavement markings indicate that overtaking is permissible. A second C-170-L/R sign and, if required, a C-172-T sign, may be placed on the left shoulder if this is considered necessary. C-170-L/R signs and C-172-T signs should be covered or removed whenever truck hauls are not in progress.
C-172 Trucks Cr	ossing/Enterin	g Highway
C-172-L	Sign sizes (mm) C-172-L (750 x 750) C-172-Lx (900 x 900) C-172-R (750 x 750) C-172-Rx (900 x 900)	The TRUCKS CROSSING/ENTERING HIGHWAY C-172-L/R sign should be used temporarily in advance of gravel pit accesses, haul road crossings, etc., where long and/or slow- moving trucks frequently cross, enter, or leave a roadway. The direction of the sign indicates the direction from which the truck will enter the roadway. A NO PASSING FOR 150 m C-172-T sign may be post-mounted below the C-172-L/R sign for the direction of travel in which normal pavement markings indicate that overtaking is permissible. A second C-172-L/R sign and, if required, a C-172-T sign, may be placed on the left shoulder if this is considered necessary. C-172 and C-172-T signs should be covered or removed whenever truck hauls are not in progress.
C-172-T No Pass NO PASSING FOR 150 m C-172-T	Sign sizes (mm) C-172-T (600 x 450) C-172-Tx (750 x 600)	The NO PASSING FOR 150 m C-172-T sign is used only immediately below C-170-L/R and C-172-L/R signs. It is not required where overtaking is already prohibited by a barrier line, but it should be used in locations where the normal pavement markings permit passing.



C-180 Cattle Driv	/e	
CATTLE DRIVE C-180	Sign sizes (mm) C-180 (750 x 750) C-180-x (900 x 900)	The CATTLE DRIVE C-180 sign should be used instead of the CREW WORKING AHEAD C-004 sign for traffic control involving cattle drives.
C-183 Series Bik	e Hazard	
C-183 CYCLISTS USE CAUTION C-183-Ta UNEVEN ROAD C-183-Tb UNEVEN PATHWAY C-183-Tc	Sign sizes (mm) C-183 (450 x 450) C-183-Ta (400 x 200) C-183-Tb (400 x 200) C-183-Tc (400 x 200)	<ul> <li>The BIKE HAZARD C-183 series is typically used on local or low-speed arterial roadways to advise cyclists of potentially hazardous road conditions in the work zone, including changes to the pavement surface that could affect stability.</li> <li>The BIKE HAZARD C-183 sign should be assembled with the appropriate tab to provide specific information: <ul> <li>Use the CYCLISTS USE CAUTION C-183a tab to tell the cyclist what to do.</li> <li>Use the UNEVEN ROAD C-183b tab or the UNEVEN PATHWAY C-183c tab to describe the nature of the hazard.</li> </ul> </li> <li>The C-183 sign and tab should be erected just in advance of the hazard, subject to practical field limitations.</li> </ul>
C-184 Cyclist Rig	ght-of-Way	
C-184	Sign sizes (mm) C-184 (750 x 750) C-184x (900 x 900) C-184xx (1200 x 1200)	The CYCLIST RIGHT-OF-WAY "Take the Lane" C-184 sign is to be used where there is limited space for side-by-side vehicle and cyclist operations, and the cyclist should use the centre of the travel lane. It should be used only on low-speed roadways for a limited distance (typically less than 150 metres).



C-185-1 Smoke A C-185-1 Tabs	head	
C-185-1	Sign sizes (mm) C-185-1 (750 x 750) C-185-1x (900 x 900) C-185-1Ta	The SMOKE AHEAD C-185-1 sign should be placed in advance of an area where smoke from a nearby forest fire or controlled burn may obscure the view ahead for drivers. The appropriate CONTROLLED BURN C-185-1Ta tab or FOREST FIRE C-185-1Tb tab must accompany the SMOKE AHEAD sign. The C-185-1 sign and tab should be positioned so that they are seen by drivers who have not yet encountered smoke on the roadway but may be able to see it in the distance.
C-185-1Ta	(600 x 300) C-185-1Ta-x (750 x 450)	Depending on the situation and the severity of the smoke hazard, the C-185-1 sign may be followed by additional signage, such as the REDUCE SPEED C-032 sign or the PREPARE TO STOP C-029 sign.
FOREST FIRE C-185-1Tb	C-185-1Tb (600 x 300) C-185-1Tb-x (750 x 450)	Signs in this series may also be used with the ROAD CLOSED R-012 sign. Depending on the wind conditions, the C-185-1 sign may have to be adjusted frequently to remain in advance of the smoke.
C-185-2 Reduced C-185-2 Tabs	d Visibility Haza	ard
C-185-2	Sign sizes (mm) C-185-2 (750 x 750) C-185-2x (900 x 900) C-185-2Ta	The REDUCED VISIBILITY HAZARD C-185-2 sign may be used where visibility is reduced by temporary conditions like dust, smoke, or other blowing or suspended particulate matter. If the reduced visibility is expected to continue over two or more kilometres, the signs should be used in conjunction with appropriate tabs such as SMOKE C-185-2Ta and/or REDUCED VISIBILITY NEXT XX KM C-185-2Tb tabs explaining the reason for the reduced visibility and the distance over which it will be encountered.
C-185-2Ta	(600 x 300) C-185-2Ta-x (750 x 450)	The sign should not be used in a work zone as a substitute for dust control methods.
REDUCED VISIBILITY NEXT XX Km C-185-2Tb	C-185-2Tb (600 x 300) C-185-2Tb-x (750 x 450)	



C-185-3 Use Headlights – Extreme Dust			
USE HEADLIGHTS EXTREME DUST C-185-3	Sign sizes (mm) C-185-3 (750 x 750) C-185-3x (900 x 900)	The USE HEADLIGHTS – EXTREME DUST C-185-3 sign should be used when a severe dust condition obscures the view ahead for drivers. This may occur on seal coat or graveling operations. To the extent possible, the sign should be positioned in advance of the point at which drivers encounter the dust condition. It may have to be repositioned frequently because of changing wind and weather conditions.	
C-185-4 Fire Act	ivity		
FIRE ACTIVITY C-185-4A	Sign sizes (mm) C-185-4A (750 x 750) C-185-4Ax (900 x 900) C-185-4Axx (1200 x 1200)	The FIRE ACTIVITY C-185-4B sign may be used in advance of an area with fire activity. It warns motorists of the potential for fire fighting personnel and equipment adjacent to the roadway. It may also warn of smoke and limited visibility. The FIRE ACTIVITY AHEAD C-185-4A sign may be used in conjunction with the FIRE ACTIVITY C-185-4B sign to provide additional warning.	
FIRE ACTIVITY C-185-4B	C-185-4B (750 x 750) C-185-4Bx (900 x 900) C-185-4Bxx (1200 x 1200)		



C-187 Turn on Headlights in Tunnel C-187-T Tunnel Lighting Work in Progress Tab				
TURN HEADLIGHTS ON IN TUNNEL C-187	Sign sizes (mm) C-187 (750 x 750)* C-187-x (900 x 900)*	The TURN ON HEADLIGHTS IN TUNNEL C-187 sign and the TUNNEL LIGHTING WORK IN PROGRESS C-187-T tab should be used in advance of tunnels in which workers are present and normal tunnel lighting may be affected.		
TUNNEL LIGHTING WORK IN PROGRESS C-187-T	C-187-T (600 x 450)* C-187-Tx (750 x 450)*			



C-190 Evacuation C-190 Tabs	n Route	
EVACUATION ROUTE C-190 C-190 C-190-TaA	Sign sizes (mm) C-190 (750 x 750)* C-190-x (900 x 900)* C-190-TaA (600 x 300)* C-190-TaA-x (750 x 400)*	The EVACUATION ROUTE C-190 signs and tabs should be used in the event of a natural disaster or other event that requires the evacuation of an area. They should be set up to guide drivers along the evacuation route out of the affected area. The setup for C-190 signs is similar to that for detour route signs, with appropriate directional arrows used in advance of and, where necessary for confirmation, beyond all decision points along the evacuation route to assure drivers that they are following the intended path.
C-190-TaLR	C-190-TaLR (600 x 300)* C-190-TaLR-x (750 x 400)*	



C-201 Road Closed Ahead Local Traffic Only			
ROAD CLOSED XXXm AHEAD LOCAL TRAFFIC ONLY C-201-1	Sign sizes (mm) C-201-1 (1220 x 610) C-201-1x (1830 x 915)	The ROAD CLOSED XXX M AHEAD LOCAL TRAFFIC ONLY C-201-1 and ROAD CLOSED XX KM AHEAD LOCAL TRAFFIC ONLY C-201-2 may be used to provide additional warning to motorists of a road closure ahead. The ROAD CLOSED LOCAL TRAFFIC ONLY C-201-3 sign may be placed on the barricade at the beginning of the road closure to indicate that the road is closed, and only local traffic may is allowed.	
ROAD CLOSED XXkm AHEAD LOCAL TRAFFIC ONLY C-201-2	C-201-2 (1220 x 610) C-201-2x (1830 x 915)	The "LOCAL TRAFFIC ONLY" text may be replaced with custom messaging such as road closure times or dates to provide more information representing local conditions to the road user. See <u>Section 19.6: Roadway Closure with Detour (<math>\leq 60 \text{ km/h}</math>)</u> and <u>Section 19.7: Roadway Closure with Detour (<math>\geq 70 \text{ km/h}</math>)</u>	
ROAD CLOSED LOCAL TRAFFIC ONLY C-201-3	C-201-3 (1220 x 406) C-201-3x (1830 x 610)	for additional guidance on signing road closures.	
C-202 Sidewalk (	Closed		
	Sign sizes (mm)	The SIDEWALK CLOSED C-202 sign should be used where it is necessary to close a sidewalk.	
SIDEWALK CLOSED C-202	C-202 (900 x 450) C-202-x (1200 x 600) C-202-xx (1830 x 915)	It should be placed on a barricade immediately in advance of the closed area, on both approaches to the closed area.	



C-203 Sidewalk	Closed – Cross	Here
SIDEWALK CLOSED CROSS HERE C-203-L	Sign sizes (mm) C-203-L (900 x 450) C-203-Lx (1200 x 600) C-203-Lxx (1830 x 915)	The SIDEWALK CLOSED – CROSS HERE C-203-L/R sign is usually mounted on a barricade. It is positioned in advance of the sidewalk closure at an appropriate crossing location so that pedestrians are directed to an appropriate crossing facility, usually an existing intersection or mid-block crosswalk.
SIDEWALK CLOSED CROSS HERE C-203-R	C-203-R (900 x 450) C-203-Rx (1200 x 600) C-203-Rxx (1830 x 915)	
C-204 Exit Open		
EXIT OPEN C-204	Sign sizes (mm) C-204 (1200 x 900)	The EXIT OPEN C-204 sign is used in advance of an exit ramp that is open but for which the open status may not be clear to drivers because of road work taking place in the immediate vicinity of the ramp. This sign may be placed as a standalone sign or mounted below a guide sign for the exit.
C-205-A Exit Clos	sed Ahead	
EXIT CLOSED C-205-A	Sign sizes (mm) C-205-A (750 x 750) C-205-Ax (900 x 900) C-205-Axx (1200 x 1200)	The EXIT CLOSED AHEAD C-205-A sign should be used in advance of a temporarily closed exit ramp. In areas where there are two or more exits in close proximity, a C-130-T distance tab may be used with the C-205-A sign to provide clarity about which exit is closed.



B-C-002 Bicycle	Lane Closed	
LANE CLOSED B-C-002	Sign sizes (mm) B-C-002 (450 x 450)*	The BICYCLE LANE CLOSED B-C-002 sign should be used where a bicycle lane or route is temporarily closed. Wherever possible, this sign should be accompanied by BICYCLE DETOUR B-C-004 signs to direct cyclists around the closed area.
B-C-004 Bicycle	Detour	
DETOUR B-C-004-1A DETOUR B-C-004-1L DETOUR B-C-004-1R B-C-004-1R B-C-004-1R B-C-004-2	Sign sizes (mm) B-C-004-1A (450 x 450)* B-C-004-1L (450 x 450)* B-C-004-1R (450 x 450)* B-C-004-2 (450 x 450)*	<ul> <li>The appropriate BICYCLE DETOUR B-C-004 sign should be used immediately in advance of all decision points along a cycling detour route.</li> <li>Confirmation signs should also be placed following decision points to assure cyclists that they are following the intended route.</li> <li>The BICYCLE DETOUR AHEAD B-C-004-1A sign may be used after a BICLYCLE LANE CLOSED B-C-002 sign to indicate that the detour is ahead, and as a confirmation sign along the detour route.</li> <li>The BICYCLE DETOUR LEFT B-C-004-1L and BICYCLE DETOUR RIGHT B-C-004-1R signs should be used to indicate decision points along the detour route.</li> <li>At the end of the detour, the BICYCLE DETOUR ENDS B-C-004-2 sign should be used to indicate that cyclists are now returned to the original route.</li> <li>The B-C-004 tabs indicate distances related to the detour route: <ul> <li>Tab B-C-004-Ta should be used at the beginning of the detour.</li> <li>Tabs B-C-004-Tb and B-C-004-Tc may be used in conjunction with the appropriate B-C-004-1 sign to indicate the distance between decision points for improved cyclist navigation.</li> </ul> </li> </ul>



B-C-004 Bicycle Detour (continued)			
NEXT 2 km B-C-004-Ta X.X km B-C-004-Tb 400 m B-C-004-Tc	Sign sizes (mm) B-C-004 Ta (400 x 200)* B-C-004 Tb (400 x 200)* B-C-004 Tc (400 x 200)*	Where the detour route for drivers and cyclists is the same, bicycle detour signs are not necessary because cyclists may follow the general purpose C-005 and C-006 construction detour signs.	
B-C-020 Bicycles and Pedestrians Slow B-C-020-T Watch for Pedestrians Tab			
B-C-020 WATCH FOR PEDESTRIANS B-C-020-T	Sign sizes (mm) B-C-020 (450 x 450)* B-C-020-T (400 x 200)*	<ul> <li>The BICYCLE AND PEDESTRIANS SLOW B-C-020 sign should be used where pedestrian-cyclist interaction is changed because of construction activity.</li> <li>Examples of situations where this sign should be used are: <ul> <li>a shared path that is narrowed during construction</li> <li>a formerly exclusive cycling facility that is now temporarily shared with pedestrians</li> <li>a location at which pedestrians may be unexpectedly crossing a cycling facility</li> </ul> </li> <li>The WATCH FOR PEDESTRIANS B-C-020-T tab should be used in conjunction with the B-C-020 sign to clarify why cyclists are expected to slow.</li> </ul>	



#### B.2.2 Regulatory Signs

Regulatory signs impose legal requirements and may not be used without permission from the Road Authority. They are typically either square or rectangular—with the long dimension vertical—and typically display black messages on white backgrounds or vice versa.

R-001 Stop R-001 Tabs		
STOP R-001	Sign sizes (mm) R-001 (750 x 750) R-001-x (900 x 900) R-001-xx (1200 x 1200)	The STOP R-001 sign may be required to assign the normal right-of-way rule at temporary intersections. The R-001 sign should be mounted at a height of approximately 1.5 to 2.0 metres and in approximately the same position as a permanent STOP sign. Where all approaches to a three- or four-leg temporary intersection are controlled by R-001 signs, the signs should be supplemented with R-001 tabs indicating the number of approaches involved.
<b>3-WAY</b> R-001-Ta	R-001-Ta (450 x 250) R-001-Tax (600 x 300) R-001-Taxx (750 x 400)	If a temporary STOP sign is not clearly visible for the safe stopping distance on the approach, a STOP AHEAD C-111 sign is required to alert drivers to the upcoming R-001 sign. A STOP AHEAD C-111 sign may also be needed if a temporary STOP sign is to be installed at a location where drivers would not normally expect to find one.
<b>4-WAY</b> R-001-Tb	R-001-Tb (450 x 250) R-001-Tbx (600 x 300) R-001-Tbxx (750 x 400)	
R-001-Tc	R-001-Tc (450 x 250) R-001-Tcx (600 x 300) R-001-Tcxx (750 x 400)	



R-002 Yield		
R-002	Sign sizes (mm) R-002 (900 x 900) R-002-x (1200 x 1200)	The YIELD R-002 sign may be used in temporary situations where the normal right-of-way rule cannot be applied safely but where a STOP R-001 sign would be overly restrictive. An example of appropriate use of an R-002 sign would be at a temporary freeway on-ramp or other such one-way approach that merges with a through roadway at a narrow angle. A MERGE C-137-1 sign is used instead of a YIELD R-002 sign if an acceleration lane of sufficient length exists for on ramp traffic to reach the through roadway speed limit before entering a through lane. The YIELD R-002 sign should be mounted at a height of approximately 1.5 to 2.0 metres and in approximately the same position as a permanent YIELD sign.



	-003 Maximum XX km/h Ahead -004 Maximum XX km/h		
<b>F</b> -003 MAXIMUM <b>60</b> km/h R-004	Sign sizes (mm) R-003 (600 x 750) R-003-x (750 x 900) R-003-xx (900 x 1200) R-004 (600 x 750) R-004-x (750 x 900) R-004-xx (900 x 1200)	<ul> <li>The MAXIMUM SPEED AHEAD R-003 and MAXIMUM SPEED R-004 signs are mounted above C-080-T series tabs (ex. CONSTRUCTION SPEED ZONE) to implement a regulatory Speed Zone where the need for and speed limit of such a zone has been established by the Road Authority.</li> <li>The R-004 and C-080-T assembly shows the approved speed limit, marks the beginning of the Speed Zone, and is used for confirmation throughout the zone.</li> <li>The R-003 and C-080-T combination, showing the same speed limit, is placed upstream of the beginning of the zone.</li> <li>Wherever possible on freeways and other one-way roadways, secondary assemblies should also be mounted on the median or left side.</li> <li>A confirmatory R-004 and C-080-T assembly should be erected 300 to 600 metres downstream of the beginning of the Speed Zone.</li> <li>Other confirmatory assemblies may be required beyond all intervening intersections and on-ramps, and at other intermediate positions on long, uninterrupted rural sections.</li> <li>The oversized R-003 and R-004 signs with C-080-T tabs may be used occasionally at the beginning of other Speed Zones if additional emphasis is required.</li> <li>The end of a Speed Zone is indicated by an R-004 sign showing the normal maximum speed.</li> <li>Where the end of the Construction Speed Zone coincides with the end of a work zone, the R-004 is preceded by a WORK ZONE ENDS C-088 sign.</li> </ul>	



R-010 Two-Way	Traffic	
R-010	Sign sizes (mm) R-010 (600 x 750)	The TWO-WAY TRAFFIC R-010 signs are required on both sides of a two-lane, two-way roadway at the point where the two-way section begins. In advance of that point, TWO-WAY TRAFFIC C-132 or W-020 signs must be used to provide advance warning to drivers that the one-way roadway will become a two-lane, two-way roadway. Confirmatory R-010 signs should be installed every 1.0 to 1.5 kilometres along the two-way roadway, and beyond as considered necessary. Locations beyond access points should also be considered for placement of R-010 signs. Special care is required where one direction of a divided roadway is being used temporarily to carry two-way traffic because, among other things, the normal pavement markings are not the correct colours. The R-010 sign should be used at locations where a divided highway illusion may cause drivers to think they are on a one- way roadway when in fact they are on a two-lane, two-way roadway. Typical situations requiring R-010 signs are: • construction sites where an expressway or freeway becomes a two-lane highway • locations where grading for a full-width expressway or freeway has been completed but only two lanes are operational • locations where a centreline or median crossover is being implemented
R-012 Road Cl R-012-T Local Tr		
ROAD CLOSED R-012	Sign sizes (mm) R-012 (600 x 450) R-012x (900 x 600) R-012xx	The ROAD CLOSED R-012 sign is used to mark any roadway that has been temporarily closed to all public traffic for the purpose of road construction or maintenance, or because of a temporary emergency condition such as high water or a slide. Barricades should be used to close off the travelled roadway as detailed in <u>Section 4.5.8</u> : <u>Barricades</u> .



LOCAL TRAFFIC ONLY R-012-T	(1200 x 900) R-012-T (600 x 300)	An R-012 sign should be mounted on the highest rail of a barricade placed as close as possible to the centre of the travelled roadway. The LOCAL TRAFFIC ONLY R-012-T tab is used with the R- 012 sign if access to private property is being maintained for local traffic along the closed section. In these cases, the positioning of barricades at the closure point should leave enough room at one or both sides for local traffic to enter and leave the closed section safely. The R-012-T tab is erected immediately below or to the right of the R-012 sign.
R-014 Keep Left/	Right	
R-014-L	Sign sizes (mm) R-014-L (600 x 750)	The KEEP LEFT/RIGHT R-014-L/R sign may be used in temporary situations in which traffic must be diverted from its normal path and there is no opportunity to use channelizing devices. Such situations can occur in the vicinity of intersections, as shown in <u>Section 11.12: Two-Lane Closure – Multilane</u>
<b>P</b> R-014-R	R-014-R (600 x 750)	Intersection.



	ntrol Left/Righ ight Through	t
R-015-L R-015-R	Sign sizes (mm) R-015-L (600 x 600) R-015-Lx (750 x 750) R-015-Lxx (900 x 900)* R-015-R (600 x 600) R-015-Rx (750 x 750) R-015-Rxx (900 x 900)*	The TURN CONTROL signs are used at intersections in both temporary and permanent situations to indicate to approaching traffic that the specified turning or through movements are either prohibited (R-015-L/R and R-017-2) or allowed (R-018). At intersections without traffic signals, the signs are normally post-mounted. At intersections with traffic signals, the signs should be positioned in the vicinity of the applicable traffic signal heads. TURN CONTROL signs apply to all traffic approaching an intersection. These signs should not be confused with, or substituted for, LANE USE signs, which regulate traffic in individual lanes.
R-017-2	R-017-2 (600 x 600) R-017-2x (750 x 750) R-017-2xx (900 x 900)* R-018 (600 x 600) R-018-x (750 x 750)	



R-016-2LR All Ti	R-016-2LR All Traffic Right/Left			
ALL TRAFFIC R-016-2L	Sign sizes (mm) R-016-2L (600 x 600) R-016-2Lx (750 x 750)	The ALL TRAFFIC RIGHT/LEFT R-016-2L sign is used to indicate that the only movements allowed or available for all traffic is the direction as indicated on the sign (left or right).		
ALL TRAFFIC R-019-2R	R-016-2R (600 x 600) R-016-2Rx (750 x 750)			



R-019 Series U-Turn			
R-019-1	Sign sizes (mm) R-019-1 (600 x 600) R-019-1x (750 x 750) R-019-1xx (900 x 900) R-019-2 (600 x 600) R-019-2x (750 x 750) R-019-2xx	The NO U-TURN R-019-1 sign is used to prevent and/or reiterate to motorists that U-turns are prohibited. This sign may also be used with the EXCEPT MAINTENANCE AND AUTHORIZED VEHICLES R-019-Ta tab at emergency turn around locations where only service and authorized vehicles are allowed to perform U-turns at the break in concrete median barrier. The U-TURN PERMITTED R-019-2 sign may be used to indicate a location where U-turns are permitted, such as for road closures with a dedicated U-turn location for all traffic. In this instance, the ALL TRAFFIC R-019-Tb tab, installed below the U-TURN PERMITTED R-019-2 sign is also recommended. The U-TURN ROUTE AHEAD R-019-3 sign indicates to drivers that there is an established U-turn route or location ahead and provides additional warning so that sufficient time is given to prepare for that maneuver if required. A R-019-Tc or R-019-Td distance tab, installed below the U-TURN ROUTE AHEAD R-019-N ROUTE AHEAD R-019-	
R-019-2	(900 x 900) R-019-3 (600 x 600) R-019-3x (750 x 750) R-019-3xx (900 x 900) R-019-Ta (600 x 450) R-019-Tax (750 x 600) R-019-Taxx (900 x 600)	better prepare drivers for the U-turn location ahead. <i>continued</i> →	



R-019 Series U-Turn (continued)			
ALL TRAFFIC R-019-Tb	Sign sizes (mm) R-019-Tb (600 x 300) R-019-Tbx (750 x 400) R-019-Tbxx (900 x 450)	The ALL TRAFFIC R-019-Tb may be used with any of the turn control signs in this series to emphasize that the turn control as specified by the parent sign is to be applied to all approaching traffic regardless of vehicle/road user type. The X00 M R-019-Tc and XX KM R-019-Td distance tabs may be used with any of the signs in the regulatory series to provide additional distance information. See <u>Section 19.3: Roadway Closure – Two-Lane, Two-Way</u> <u>Roadway</u> and <u>Section 19.4: Roadway Closure – Multilane</u> <u>Roadway</u> for how these signs may be used.	
<b>X00 m</b> R-019-Tc	R-019-Tc (600 x 300) R-019-Tcx (750 x 400) R-019-Tcxx (900 x 450)		
<b>XX km</b> R-019-Td	R-019-Td (600 x 300) R-019-Tdx (750 x 400) R-019-Tdxx (900 x 450)		



R-020 No Passin	g for XXX m	R-020 No Passing for XXX m			
NO PASSING FOR 150 m R-020	Sign sizes (mm) R-020 (600 x 450) R-020-x (750 x 600)	The NO PASSING FOR XXX m R-020 sign is used only immediately below DO NOT PASS R-022-1 signs when the passing prohibition is relatively short (i.e., ≤ 900 metres). It is not required where overtaking is already prohibited by a barrier line, but should be used in locations where the normal pavement markings permit passing.			
R-022-1 Do Not R-023 Passing	Pass Permitted				
R-022-1	Sign sizes (mm) R-022-1 (600 x 600) R-022-1x (750 x 750) R-022-1xx (900 x 900)*	This pair of signs may be used temporarily on two- or three- lane, two-way roadways where it is necessary to reinforce barrier line markings or where normally permitted passing should be prohibited due to construction activity. A PASSING PERMITTED R-023 sign should always be used in conjunction with a preceding DO NOT PASS R-022-1 sign to mark the end of the No Passing Zone. If the section of road over which passing is prohibited is of considerable length, one or more intermediate R-022-1 signs may be required for confirmation.			
R-023	R-023 (600 x 600) R-023-x (750 x 750) R-023-xx (900 x 900)				



R-025 Stop Line		
R-025-L R-025-R R-025-R	Sign sizes (mm) R-025-L (450 x 600) R-025-R (450 x 600)	The STOP LINE RIGHT R-025-R sign is required only at temporary traffic signal or temporary lane control signal installations where a stop line cannot be placed or where an installed stop line needs additional emphasis. It should generally be post-mounted at the intended stop location and to the right of approaching traffic. On a one-way roadway or in other situations where more than one lane approaches the temporary signal from the same direction, a STOP LINE LEFT R-025-L sign should be post- mounted on the left side of approaching traffic if a secure location can be found for it. When properly positioned, the arrows on R-025 signs always point inward towards the travelled roadway.
R-056-1 Yield to	Oncoming Trat Sign sizes (mm) R-056-1 (750 x 900)* R-056-1x (900 x 1200)*	<ul> <li>The YIELD TO ONCOMING TRAFFIC R-056-1 sign is used to control a single-lane traffic section on what is principally or usually a two-lane, two-way roadway.</li> <li>It is used with other signs, such as: <ul> <li>C-030-8</li> <li>Single Lane Traffic</li> <li>C-135</li> <li>Narrow Structure Ahead</li> <li>C-135-Ta</li> <li>One Lane tab</li> </ul> </li> <li>The R-056-1 sign is displayed for only one direction of travel, and should be used only where adequate sight distance, low traffic volumes, and low speeds make it unnecessary to use Traffic Control Persons, temporary traffic signals, or temporary lane control signals.</li> <li>It may also be used on the rear of a work vehicle involved in continuously slow-moving work on a two-lane, two-way roadway.</li> </ul>



R-082 and R-083	Lane Use	
R-082-L R-082-R1	Sign sizes (mm) R-082-L (750 x 750) R-082-Lx (900 x 900)* R-082-R1 (750 x 750) R-082-R1x	The LANE USE R-082-L, R-082-R1, R-083-L, and R-083-R signs are used for both temporary and permanent situations to indicate that drivers should use a specific lane on an approach to an intersection. LANE USE signs regulate the lane assignments on approaches to intersections, and should be used where the movement is contrary to either driver expectations or the normal rules of the road. Unlike TURN CONTROL signs, these signs are placed in advance of intersections and apply only to specific lanes. For short-duration operations, they may be post-mounted or placed on a temporary sign stand, preferably at least 25 metars in advance of intersections.
R-083-L R-083-R	(900 x 900)* R-083-L (750 x 750) R-083-Lx (900 x 900)* R-083-R (750 x 750) R-083-Rx (900 x 900)*	<ul> <li>25 metres in advance of the intersection.</li> <li>For long-duration work, they should be either post-mounted or preferably mounted at a minimum height of 5.5 metres over the centre of the lane or lanes to which they apply.</li> <li>The R-082-L, R-082-R1, R-083-L, and R-083-R signs may be used in a shoulder application when overhead mounting is not practical.</li> <li>A RIGHT LANE or LEFT LANE tab should be mounted below the sign if post-mounted on the shoulder of the roadway.</li> </ul>
R-082-R2 Right I	Lane Must Turn	Right
RIGHT LANE MUST TURN RIGHT R-082-R2	Sign sizes (mm) R-082-R2u (600 x 750) R-082-R2 (750 x 900) R-082-R2x (900 x 1200)*	The RIGHT LANE MUST TURN RIGHT R-082-R2 sign may be used instead of the LANE USE R-082-R1 sign described above if no suitable location can be found to display the R-082-R1 sign.



B-R-101 Series	Cycling Restric	tion
B-R-101-1	Sign sizes (mm) B-R-101-1 600 x 600	<ul> <li>The BICYCLE PROHIBITED B-R-101-1 sign and the WALK BICYCLE B-R-101-2 sign may be used to convey a cycling restriction:</li> <li>The BICYCLE PROHIBITED B-R-101-1 sign indicates that bicycle riding is prohibited beyond this point.</li> </ul>
	B-R-101-2 600 x 600	• The WALK BICYCLE B-R-101-2 sign is intended for cycling restrictions that are limited in length and where it is feasible to have cyclists dismount and walk their bikes.
B-R-101-2 CYCLISTS STOP AND DISMOUNT B-R-101-Tb	B-R-101-Tb 600 x 300	The B-R-101-Tb tab or the B-R-101-Tc tab should be used in conjunction with the WALK BICYCLE B-R-101-2 sign to provide additional direction to cyclists.
ON Sidewalk B-R-101-Tc	B-R-101-Tc 600 x 300	



#### B.2.3 Other Signs

P-081 Idle Reduction				
B.C. Is Idle Free Turn Engine Off Improve Air Quality P-081-1	Sign sizes (mm) P-081-1 (600 x 750)*	Rehabilitation or Expansion Projects: If required by special provisions in the project contract, the IDLE REDUCTION – TURN ENGINE OFF P-081-1 sign or the IDLE REDUCTION – NO IDLING P-081-2 sign can be incorporated into work zone traffic control signage where queues form under the direction of a Traffic Control Person or traffic control devices during daylight hours.		
B.C. Is Idle Free No Idling Improve Air Quality P-081-2	P-081-2 (600 x 750)*	<ul> <li>Smaller Projects:</li> <li>Projects under \$500,000 in value can incorporate P-081 signs into work zone traffic control signage if: <ul> <li>the project duration is expected to exceed three weeks;</li> <li>the project is located in a high-traffic area; and</li> <li>the Road Authority approves the use of these signs.</li> </ul> </li> </ul>		
Daylight Hours Only P-081-Ta	P-081-Ta (600 x 300)*	Installation Instructions: The sign must be placed downstream of the TRAFFIC CONTROL PERSON AHEAD C-001-1 sign.		
P-081-Tb	P-081-Tb (600 x 300)*	The DAYLIGHT HOURS ONLY P-081-Tb tab must be installed if traffic stoppages occur before—or extend beyond—daylight hours.		
<b>Refrigeration</b> Units Exempt P-081-Tc	P-081-Tc (600 x 300)*	In the event of prolonged stoppages that result in long traffic queues, additional P-081-1 or P-081-2 signs must be placed upstream as required.		
		Exceptions:		
		The use of Idle Reduction signs for traffic control is not recommended if temperatures are consistently below freezing or during night-time projects involving traffic stoppages unless the queue area is lit. The intent of the signs is to encourage drivers to reduce greenhouse gas emissions from idling vehicles. The signs should not be used in circumstances where they could decrease road safety, adversely affect human health, or impede workers' ability to do their jobs.		



W-132 Share the Road				
Sign sizes (mm) W-132-1u (600 x 600) W-132-1 (750 x 750) W-132-1x (900 x 900) W-132-1Tu (450 x 300) W-132-1T (600 x 300) W-132-1Tx (750 x 450)	<ul> <li>The SHARE THE ROAD W-132-1 sign is used to warn motorists that they are to provide adequate driving space for cyclists and other vehicles on the road.</li> <li>The sign also advises motorists and cyclists to use extra caution on the upcoming stretch of road.</li> <li>The W-132-1 sign is to be used where bicycles and motor vehicles share the roadway in a side-by-side operation, such as on narrow lanes or where a road configuration changes, as when a paved shoulder or bicycle lane is discontinued.</li> <li>The SHARE THE ROAD W-132-1T tab may be used to enhance road users' understanding of the W-132-1 sign.</li> </ul>			
Centre				
Sign sizes (mm) See Catalogue	The C-186 COMMAND CENTRE sign may be used to indicate a command centre where travellers may report to during emergency operations or evacuations such as wildfire or flooding. The C-186-Ta OFFICE tab may be used in conjunction with the C-186 COMMAND CENTRE sign to indicate the office location within a command centre. Directional arrows may also be used with these signs to direct travellers to the command centre or command centre office location. See the <u>Catalogue of Standard Traffic Signs</u> for more information.			
	Sign sizes (mm) W-132-1u (600 x 600) W-132-1 (750 x 750) W-132-1x (900 x 900) W-132-1Tu (450 x 300) W-132-1T (600 x 300) W-132-1Tx (750 x 450) Centre Sign sizes (mm) See			



C-326 Series Runaway Lane Closed				
RUNAWAY LANE C-326 Hinged	Sign sizes (mm) C-326 (2440 x 915)	The RUNAWAY LANE CLOSED C-236 sign is one option available for informing truck drivers of a runaway lane closure. It is typically used for long-duration work extending over multiple days in areas where there are multiple runaway lanes. The C-326 signs are used in conjunction with RUNAWAY LANE CLOSED C-067 signs, and may require alteration of the existing W-322 and W-323 runaway lane signs in order to provide a unique letter identifier for each runaway lane.		
A C E B D F C-326-OL Series	C-326-OL (300 x 300)	The C-326 sign should be positioned at the upstream brake check location, in advance of the hill, below an existing		
Zx-030 Traffic Pa	attern Change	(custom sign)		
TRAFFIC PATTERN CHANGE	Sign sizes (mm) Zx-030 (custom)	For Ministry projects with centreline or median crossovers and counterflow operations, a custom TRAFFIC PATTERN CHANGE Zx-030 sign may also be used as a supplement. Up arrows are used to indicate the direction of travel, and an "X" is used to indicate a lane is closed or for opposing traffic. Use of a down arrow requires approval from the Ministry's <u>Traffic Operations Engineering</u> team. Use of a custom Z-sign requires approval from the Road Authority. For additional guidance or use of this custom sign, contact the Ministry's <u>Traffic and Highway Safety Engineering</u> team.		



# Appendix C: Templates for Traffic Management Plans Appendix Contents

Templates for Traffic Management and Traffic Control Plans C-1
Template for Category 1 Traffic Management Plan C-3
Daily Sign Check FormC-7
Template for Category 2 and 3 Traffic Management Plans C-9
Daily Traffic Control Log C-27



## **Appendix C: Templates for Traffic Management Plans**

Appendix C contains four templates:

- 1. Template for Category 1 Traffic Management Plan: This template is designed to assist Project Supervisors and Traffic Control Supervisors in assessing traffic control factors and developing a site-appropriate Traffic Management Plan for a Category 1 project.
- 2. Daily Sign Check Form: This form is designed for recording information about the periodic sign checks carried out each day during the course of a project.
- 3. Template for Category 2 and 3 Traffic Management Plans: This template sets out a fundamental approach for organizing and developing Traffic Management Plans for Category 2 and Category 3 projects, and is designed to assist Prime Contractors and Ministry staff with the development and review of Traffic Management Plans for Category 2 and Category 3 projects.
- 4. Sample Daily Traffic Control Log: This sample shows the information which should be recorded about the day's traffic control set up during the course of a project.

As indicated throughout this Manual, the requirements for each project will vary with the characteristics of the traffic, the roadway, and the project itself, and with the contract provisions and conditions established by the Ministry for the Prime Contractor. Each Traffic Management Plan must reflect those project-specific characteristics, provisions, and conditions.



- 1. This form is designed to assist Project Supervisors and Traffic Control Supervisors in assessing traffic control factors and developing a Category 1 Traffic Management Plan appropriate to the work site.
- 2. The purpose of traffic control is to clearly direct and control the flow of traffic with as little disruption to the normal traffic flow as possible.
- 3. The misuse, overuse, or deficient use of traffic control devices can increase traffic hazards for workers on this and other work sites. All unnecessary signs must be turned or removed as soon as possible. For details, see the **Ministry's Traffic Management Manual for Work on Roadways**.

IMPLEMENTATION PLAN				
Date	Site Name			
Exact Site Location				
Project Supervisor	Organization			
Traffic Control Supervisor	Organization			
Traffic Control Person(s)	Employer			
Description of Work Activity				
CONSIDER:	Site Factors			
Road alignment: windy, straight, hilly, banked, etc.				
Road type: divided, undivided, number of lanes.				
Sight distance: signs, trees, buildings, and other obstructions to driver sight lines.				
Approaches: hills, curves, intersections, accesses.				
Site length: total length, active length.				
Regulated speed:				
Average daily traffic volumes:				
Traffic types: local, tourist, commercial, emergency, bus, etc.				
Shoulder types and widths:				
Surrounding land uses: commercial, industrial, residential, etc.				
Residential areas: driveways, school buses, etc.				
Weather conditions: clear, icy, wet, foggy, limited visibility, etc.				
Other:				

CONSIDER:	Procedural Factors			
Work on roadway				
Work off roadway				
Site access and egress				
Stationary work site				
-				
Continually slow-moving work site				
Amount of work site activity				
Activity changes as work progresses Hours of work – day / night				
Other:				
	<u>II</u>			
TRA	FFIC CONTROL PLAN CONSIDERATIONS			
	onsider traffic control devices such as signs, barricades, delineators, able message signs, cones, and other traffic control methods before			
	<b>peed Zones:</b> Keep reduced speed zones as small as possible. Id not extend more than 1 km outside the active work area.			
Site Factors: Traffic control of	lecisions should reflect site factors identified on the previous page.			
	Traffic Control Plan			
Site and procedural factors	Traffic Control Plan			
Site and procedural factors Types of traffic control devices	Fraffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons:	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications - relief	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications - relief	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications - relief - site instructions, location	Traffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications - relief - site instructions, location	Fraffic Control Plan			
Site and procedural factors Types of traffic control devices Spacing of devices Advanced warning area Transition area Buffer area Work area Termination area Delineation during off hours Moving signs Turning and removing signs Checking devices Traffic Control Persons: - qualifications - hours of work - communications - relief - site instructions, location	Traffic Control Plan			

Site Diagram

Persons Involved in Developing Traffic Plan				
Attended site discussion of plan:				
Name	Organization	Signature		

INCIDENT MANAGEMENT PLAN (if required)			

PUBLIC INFORMATION PLAN (if required)	

#### DAILY SIGN CHECK FORM

Project Name and Number		Project Location		
Type of Work			Highway Location	
Date yyyy/mm/dd	Time of Inspection	Location and Deficiency Type	Comments	Initials
				-
				-
		<u> </u>		
				+

This side of the page may be used for additional records if necessary.

Date yyyy/mm/dd	Time of Inspection	Location and Deficiency Type	Comments	Initials



# TRAFFIC MANAGEMENT PLAN

# <Name of Category 2 or Category 3 Project> <PROJECT No.>

<Date>

#### **Table of Contents**

1.	Category Definition	
2.	Traffic Control Plan	
	<ol> <li>Site Factors (Risk Assessment)</li> <li>Procedural Factors (Risk Assessment)</li> <li>Special Provisions</li> </ol>	
3.	Incident Management Plan	
4.	Public Information Plan	
5.	Implementation Plan	
6.	Contact List	
	<ol> <li>Emergency Response Agencies/Assistance</li> <li>Non-Emergency Contacts</li> <li>Prime Contractor's Contact Numbers</li> </ol>	
Appendix A: Traffic Control Plan Drawings		
Appendix B: Detour Traffic Control Plan Drawings		

#### 1. Category Definition

Based on the steps outlined in Section 3.2: Project Category Determination in the **Ministry's Traffic Management Manual for Work on Roadways**, the <Project Name> Project calls for a Category <#> Traffic Management Plan.

A Category <#> Traffic Management Plan is characterized by:

- •
- •
- •
- •

A Category <#> Traffic Management Plan consists of:

- Traffic Control Plan
- Public Information Plan
- Incident Management Plan
- Implementation Plan

The aim of a Category <#> Traffic Management Plan is to minimize the site-specific risks that were identified for the project.

#### 2. Traffic Control Plan

See also Appendix A: Traffic Control Plan Drawings in this Traffic Management Plan for the proposed layouts of traffic control devices for the project.

Plan Date	Date when plan was initiated.
Latest Revision	Date of latest revision.
Site Name	Name of project.
Plan Developed By	Name of person who developed the plan.
Exact location, direction, and distance to nearest landmarks	Highway number and name of location, LKI, etc.
Project Supervisor	Name of Project Supervisor.
Prime Contractor	Name of Prime Contractor.
Traffic Control Manager	Name of Traffic Control Manager (if applicable).
Traffic Engineer	Name of Traffic Engineer (if applicable).
Traffic Control Supervisor	Name of Traffic Control Supervisor and company.
Traffic Control Persons	Names of TCPs and company.
Project Start Date	
Project Completion Date	

#### 1. Site Factors (Risk Assessment)

	···· · · · · · · · · · · · · · · · · ·
Road Alignment	Windy, straight, hilly, banked, etc.
Road Type	Primary, secondary, urban, rural, divided, undivided, arterial, expressway, freeway, number of lanes.
Driver Sight Distances	Consider signs, trees, buildings, and other obstructions that limit visibility.
Approaches	Hill, curves, intersection, accesses, etc.
Work Zone Length	
Affected Lanes	
Regulated Speed	
Reduced Speed Limit	
Traffic Volumes	Approximate traffic volume and type (commercial, residential, agricultural, etc.).
Shoulders	Width, material, etc.
Surrounding Land Use	Commercial, industrial, residential, agricultural, etc.
Residential Areas	Driveways, school buses, etc.
Pedestrians/Cyclists	Is project in an area with potential pedestrians and cyclists?
Weather Conditions	Clear, icy, wet, foggy, snowy, etc.
Site Hazards	List of hazards within project limits.
Concrete Roadside Barriers	Will concrete barriers be removed?
	If so, what traffic control measures will be in place?

#### 2. Procedural Factors (Risk Assessment)

	Turne of words, at a financial allowing the second se
Work Activity	Type of work: stationary, slow-moving, emergency, brief, short- duration, or long-duration work?
Work On/Off Roadway	Is the work on or off the roadway?
Site Access/Egress	How will equipment access and exit from the site?
Intersections affected by work zone or traffic control devices	
Delays, Closures, Diversions, and Detours	<ul> <li>Will delays, closures, diversions, and/or detours be in place?</li> <li>If so, illustrate in Appendix B: Detour Traffic Control Plan Drawing.</li> <li>What is the design speed for the detour?</li> <li>Can it withstand the traffic that will be using the road?</li> <li>For what duration will these be in place?</li> </ul>
Hours of Work	The hours during which the work will occur. The time period during which the work will affect traffic.
Dump Site	Location of dump site and access/exit requirements.
Construction Equipment	How will construction equipment be protected during working hours? During off-hours?

#### 3. Special Provisions

Traffic Control Supervisor	Name of Traffic Control Supervisor and company.
Traffic Control Persons	Name of TCPs and company.
Off-Hours Traffic Control	Types of traffic control devices.
Means of Communication	How will TCPs communicate?
Signage	Are signs installed for short-duration or long-duration work?
	Are the signs spaced in accordance with posted speed?
Portable Dynamic Message Signs (PDMS)	Will PDMS be required?
	Who will be responsible for updating the sign message(s)?
Dynamic Message Signs (DMS)	Are DMS required?
	Where will they be located?
	Who will be responsible for updating the sign message(s)?
Intersections affected by work zone or traffic control devices	Are intersections affected by the work zone or traffic control devices?
	If so, how will the intersections be controlled?
	Will additional traffic control devices be required?
Flexible Drums	Will flexible drums be used to delineate lane drops?
	Will they be used to identify construction accesses to the work activity area?

Traffic Stoppages	Are there any anticipated traffic stoppages? If so, for how long? Will there be single lane alternating traffic?
Layout of Devices	Identify spacing between traffic control devices.
Emergency Vehicles	Will emergency vehicles have clear, unobstructed access to the site? What procedures will be in place to ensure that emergency vehicles are able to access the site without delay?

#### 3. Incident Management Plan

The Incident Management Plan defines processes for responding to unplanned events or traffic incidents in the work zone so that incident response operations within the work site are managed effectively.

The Incident Management Plan requirements are partially determined by the project category (see Section 3.2: Traffic Management Plan Sub-Plans and Section 3.4: Traffic Management Plan Requirements by Category in the **Traffic Management Manual for Work on Roadways**).

Traffic Control Supervisor and Qualifications	Name and qualifications.
Traffic Control Manager and Qualifications	Name and qualifications.
Emergency Response Agencies and Contact Information	Name and contact information (may be listed in Section 6: Contact List).
Types of traffic incident that could occur within work zone	Motor vehicle incident, motor vehicle incident with injuries, vehicle stalls, emergency vehicle transit of work zone, dangerous goods incident, wide load passing, etc.
Procedures for responding to traffic incident that occurs within work zone	<ul> <li>Will there be a radio announcement?</li> <li>Who will evaluate the incident?</li> <li>Who will call 911?</li> <li>Will traffic be stopped or will there be single lane alternating traffic?</li> <li>Who will assist the emergency responders through the site, and how?</li> <li>Who will assist if it is necessary to clear vehicles, and how?</li> </ul>

Procedures to restore traffic flow around	How will traffic movement be restored?
incident site as quickly as possible	Will traffic control devices be used?
	If so, how?
Procedures to clear incident and restore	How will the incident be cleared to restore traffic movement?
normal project traffic operations as soon as possible	How many TCPs are required?
Procedure to inform and update Ministry regarding incident in work zone	What is the procedure for advising the Ministry that an incident occurred, what response measures are being taken, what clearance measures are required, and what the estimated clearance time will be?
Procedure to inform	Will DMS or PDMS be used to display information?
travelling public of estimated duration of delay and alternative routes (if applicable)	Will the information be on DriveBC?
Incident Reporting	Who will provide details to the Ministry?
	What is the process for incident follow-up?
Investigation Process	Who will lead the incident investigation?
	What investigation process will be used to assess the incident and those involved?
Review and Continuous Improvement Process	How incidents will be reviewed and followed up to reduce the severity and frequency of future incidents?
	1

#### 4. Public Information Plan

The Public Information Plan identifies actions and procedures for informing the travelling public, project stakeholders, and the Ministry of current traffic operations and planned changes to traffic operations.

See also Section 3.2: Traffic Management Plan Sub-Plans and Section 3.4: Traffic Management Plan Requirements by Category in the **Traffic Management Manual for Work on Roadways.** 

Process for routinely notifying Ministry of changes to scheduled work plans	Who will be responsible for the changes? What is the person's title?
Process for notifying travelling public of scheduled traffic delays and project duration	Identify the forms of communication to be used [DriveBC, radio, project signs, overhead Dynamic Message Signs (DMS), Portable Dynamic Message Signs (PDMS), public meetings, etc.].
Process for notifying travelling public of unscheduled traffic delays	Identify the forms of communication to be used [DriveBC, radio, Twitter, overhead Dynamic Message Signs (DMS), Portable Dynamic Message Signs (PDMS), etc.].
Major user groups for alternating lane closures or road closures	Identify the major user groups (BC Trucking Association, BC Transit, emergency response agencies, school districts, etc.).

#### 5. Implementation Plan

The Implementation Plan identifies responsibilities and procedures for ensuring that traffic management sub-plans are developed and implemented in a coordinated manner.

It identifies the qualifications, responsibilities, and duties of supervisory and management personnel responsible for implementing the Traffic Management Plan and includes the designation of a Traffic Control Manager and a Traffic Control Supervisor.

See also Section 3.2: Traffic Management Plan Sub-Plans and Section 3.4: Traffic Management Plan Requirements by Category in the **Traffic Management Manual for Work on Roadways.** 

Traffic Control Manager and Responsibilities	Name, qualifications, responsibilities, and duties.
Traffic Control Supervisor and Responsibilities	Name, qualifications, responsibilities, and duties.
Person who will manage emergency traffic control operations	Name and title.
Person who will maintain daily traffic control logs	Name and title.
Person who will manage Incident Management Plan	Name and title.
Person who will manage Public Information Plan	Name and title.
Person who will monitor inactive work site	Name, title, and responsibilities.

# 6. Contact List

#### 1. Emergency Response Agencies/Assistance

Agency/Ass	istance	Contact 1	Contact 2
RCMP			
BC Ambulance			
Fire and Rescue			
HazMat	24 hr	1-800-663-3456	
PEP	24 hr	1-800-663-3456	
Towing Company			
Road Authority Conta	acts		
Other			

#### 2. Non-Emergency Contacts

Agency	Name	Phone/Fax	Address
WorkSafeBC			
BC Hydro			
Telus			
Maintenance Contractor			
CP Railway			
Local City Office			
First Aid			
Traffic Control Supervisor			
Traffic Control Company			
Other			

#### 3. Prime Contractor's Contact Numbers

Name and Position	Office Number	Cell Phone Number

### Appendix A: Traffic Control Plan Drawings

#### Site Diagram

(Use additional pages as necessary.)

Show all site factors affecting traffic control, traffic control devices, spacing, signs, explanatory notes, North arrow, etc.

### Appendix B: Detour Traffic Control Plan Drawings

# Site Diagram

(Use additional pages as necessary.)

Show all site factors affecting traffic control, traffic control devices, spacing, signs, explanatory notes, North arrow, etc.

## Daily Traffic Control Log

		CONTROL LOG	Page of	
(More than 1 report may need to be completed if the work zone contains more than 1 work area or TCP station)				
Date:	_ TCS Name:		Initial:	
Project Name:		Work Area:		
Highway Number/Road Name	:			
Description of Location/GPS	Coordinates:			
Type of Work Taking Place (eg	g. paving, culvert rep	placement):		
Weather: Sunny / Cloudy / Rair	y / Foggy / Windy /	Snowy / Other:		
Direction of Closure: Northbou	ind / Southbound / E	Eastbound / Westbound / Oth	ner:	
Highway Type: 2-lane 2-way / l	Multi-lane Undivided	/ Multi-lane Divided / Other:		
Type of Closure: Fast lane / Sl	ow lane / Sidewalk /	Single lane alternating / Roa	ad closure / Other	
Time Installed:	ן ז	Fime Removed:		
Sketch of Set Up / Reference	figure (attached):			
<b>Comments:</b> (eg. modifications which occurred and could have				



# Appendix D: Traffic Management Plan Audit Forms Contents

D-1	Traffic Management Plan Audit Forms
D-3	Traffic Management Plan Documentation Audit For
D-9	Traffic Management Plan Field Audit Form





# Appendix D: Traffic Management Plan Audit Forms

Appendix D contains two Traffic Management Plan audit forms that are intended for use by Ministry personnel:

- 1. The **Traffic Management Plan Documentation Audit Form** is used by Ministry staff to audit a Prime Contractor's Traffic Management Plan prior to the commencement of project works.
- 2. The **Traffic Management Plan Field Audit Form** is used by Ministry staff to conduct field audits on the effectiveness of the Prime Contractor's Traffic Management Plan and its traffic control layouts or drawings as they relate to the actual site setup.

It is also used by Ministry staff to conduct field audits on road works being undertaken by Ministry crews (e.g., rock scaling, centreline operations, or day labour construction).

The audit forms may also guide traffic management planning by other Road Authorities, and by Prime Contractors if they wish to use the forms or are instructed to do so.





Traffic Management Plan Documentation Audit Form			
Project Name Project #			
Location	Duration of Work		
Description of Work			
Auditor	Audit #		
DOCUMENTAT	ION AUDIT – PRIOR TO COMMENCEMENT OF WORK		
<ul> <li>Rate the Items and Conditions in the Documentation Audit form using these three indicators:</li> <li>✓ acceptable</li> <li>X not acceptable</li> <li>N/A not applicable</li> </ul>			
Item	Conditions	Rating	
Traffic Management Plan	The Prime Contractor submitted a Traffic Management Plan to the Road Authority.		
	It was submitted within an acceptable time—i.e., at least 15 working days before the planned commencement of project works or as defined by the Standard Specifications.		
	The Project Category determination process was followed for the Traffic Management Plan.		
	The Traffic Management Plan has all the required sub-plans for the identified Project Category (Traffic Control Plan, Incident Management Plan, Public Information Plan, and Implementation Plan).		
	It has been engineered as required by the contract.		
	It was developed as required by the Special Provisions.		



Item	Conditions	Rating
Traffic Control Plan	The Traffic Control Plan meets the Ministry's minimum requirements for the Project Category identified in the contract or in the Project Category determination process.	
	It includes text descriptions of the location of the work zone, proposed work activities, proposed traffic control measures, and the specific times and dates when work will be undertaken on the roadway.	
	It includes traffic control layouts (schematic diagrams) of the roadway showing the placement and general arrangement of traffic control devices.	
	It includes customized layouts where standard layouts are inadequate. Layouts need not be to scale, but should include dimensions and site-specific characteristics. (Drawings are required for a Traffic Control Plan only if standard layouts are not adequate.)	
	It may include customized drawings of the roadway in the vicinity of the work zone that identify the arrangement of traffic control devices in accordance with the standards identified in Sections 6 through 19 (Traffic Control Layouts) of the Ministry's Traffic Management Manual for Work on Roadways.	
	The drawings include dimensions, and show all painted markings, physical features that may affect traffic operations (signing, guard rails, lamp standards, etc.), road geometry, and lane configurations.	
	The Traffic Control Plan is detailed to the extent appropriate for the complexity of the work or incident.	
	It was prepared by the Prime Contractor, and was shared with all responsible parties before the commencement of the work.	



Item	Conditions	Rating
Incident Management Plan	For large, complex projects, the Incident Management Plan addresses procedures for handling unplanned events and incidents, and includes provisions for incident response.	
	The Incident Management Plan specifically identifies:	
	<ul> <li>types of traffic incidents that may occur in the work zone and planned estimated resumption times</li> </ul>	
	<ul> <li>procedures for detecting and verifying incidents that occur within the work zone</li> </ul>	
	<ul> <li>procedures for responding to incidents</li> </ul>	
	<ul> <li>procedures for restoring traffic flow around an incident site as quickly as possible, including the use of detours</li> </ul>	
	<ul> <li>procedures for clearing the incident and restoring pre- incident traffic operations as soon as possible</li> </ul>	
	<ul> <li>procedures for identifying estimated resumption times</li> </ul>	
	<ul> <li>procedures for immediately informing the Road Authority of the incident occurrence, response measures taken, clearance measures planned, estimated clearance time, and actual incident clearance time</li> </ul>	
	<ul> <li>procedures for informing major user groups and the travelling public of anticipated delays and the estimated duration of the unplanned traffic pattern change</li> </ul>	
	<ul> <li>procedures for reviewing incidents and proposing modifications to the Traffic Management Plan that will enhance the work site's safety and ease of use</li> </ul>	
	<ul> <li>duties and responsibilities of the Traffic Control Manager, Traffic Control Supervisor, and Traffic Control Persons with respect to incident response operations</li> </ul>	
	<ul> <li>a contact list for emergency response agencies</li> </ul>	



Item	Conditions	Rating
Public Information Plan	The Public Information Plan identifies:	
	<ul> <li>major stakeholders and road users that may be affected by the work</li> </ul>	
	<ul> <li>types of communication processes that will be used to notify stakeholders and road users of the work</li> </ul>	
	<ul> <li>actions/procedures for informing the Road Authority, travelling public, and project stakeholders of current traffic operations and planned changes to traffic operations</li> </ul>	
	<ul> <li>actions/procedures for informing major user groups and the travelling public of anticipated delays</li> </ul>	
	<ul> <li>actions/procedures for informing major user groups of the estimated duration of unplanned traffic pattern changes</li> </ul>	
Implementation Plan	The Implementation Plan identifies:	
	<ul> <li>project phases and milestones for periods when traffic operations may change</li> </ul>	
	<ul> <li>specific changes required to traffic operations during various phases of the work</li> </ul>	
	<ul> <li>responsibilities and procedures for ensuring that the sub-plans in the Traffic Management Plan are implemented</li> </ul>	
	<ul> <li>qualifications, responsibilities, and duties of the management and supervisory personnel who are responsible for implementing the Traffic Management Plan (i.e., Traffic Control Manager and Traffic Control Supervisor)</li> </ul>	



#### Comments:

Items for follow-up:		
Auditor signature:	Date:	
Recipient signature:	Date:	





Tr	affic Management Plan Field Audit Form	
Project Name	Project #	
Location	Duration of Work	
Description of Work		
Auditor	Audit #	
FIE	ELD AUDIT – DURING WORK ACTIVITIES	
Rate the Items and Condition ✓ acceptable X not acceptable N/A not applicable	ns in the Field Audit form using these three indicators:	
Item	Conditions	Rating
Traffic Management Plan and Traffic Control Plan	The Traffic Management Plan has been updated as the project progresses (changes to work activities that alter traffic control requirements, changes in work activity scheduling, changes to project initiation and/or completion dates, changes to sub-plans, etc.). The Traffic Management Plan has been modified and the changes have been recorded as the work changes.	
Traffic Control Manager	The Traffic Control Manager has:	
(may be same person as Traffic Control Supervisor)	<ul> <li>exercised full line authority over all onsite Traffic Control Persons</li> <li>finalized traffic control measures</li> </ul>	
	<ul> <li>directed implementation of the Traffic Control Plan</li> </ul>	
	<ul> <li>monitored traffic operations to determine the effectiveness of the Traffic Control Plan</li> </ul>	
	<ul> <li>overseen Traffic Management Plan modifications necessitated by construction changes and the accommodation of special events</li> </ul>	
	<ul> <li>kept the Traffic Management Plan up-to-date</li> </ul>	



Item	Conditions				
Traffic Control Supervisor	The Traffic Control Supervisor is not the same person as the Site Supervisor.				
(may be same person as Traffic Control Manager)	The Traffic Control Supervisor is qualified and available at all times (i.e., night-time and during weekends).				
	The Traffic Control Supervisor has ensured that:				
	<ul> <li>the required traffic control devices are in place</li> </ul>				
	<ul> <li>the daily traffic control logs are maintained</li> </ul>				
	<ul> <li>the work of Traffic Control Persons is coordinated on the work site</li> </ul>				
	<ul> <li>Traffic Control Persons are using the required personal protective clothing and equipment</li> </ul>				
	<ul> <li>Traffic Control Persons are positioned in safe locations clear of potential environmental hazards (i.e., rock slides and avalanches)</li> </ul>				
	<ul> <li>Traffic Control Persons are performing traffic control duties competently and safely</li> </ul>				



Item	Conditions	Rating
Traffic Control Persons	Signs associated with the Traffic Control Persons are appropriately displayed, and are covered or removed when not required.	
	The Traffic Control Persons working on the project:	
	<ul> <li>are qualified and carrying up-to-date certification on the work site</li> </ul>	
	<ul> <li>are used appropriately</li> </ul>	
	<ul> <li>are wearing appropriate personal protective equipment as stipulated in Part 18 of WorkSafeBC's Occupational Health &amp; Safety Regulation (hard hat with retroreflective strip, safety vest, CSA-approved footwear, wrist and ankle bands)</li> </ul>	
	<ul> <li>are using standard signals for traffic control as described in Part 18 of WorkSafeBC's Occupational Health and Safety Regulation</li> </ul>	
	<ul> <li>are using traffic control paddles that meet the requirements for a C-027 Traffic Control Paddle</li> </ul>	
	<ul> <li>are using adequate and effective communication</li> </ul>	
	<ul> <li>are using a red signaling wand during night work and in conditions of poor visibility</li> </ul>	
	<ul> <li>are standing in the best possible positions unless circumstances or space requirements are restricted</li> </ul>	
	<ul> <li>are aware of a clear escape route</li> </ul>	
	<ul> <li>are using precise motions to direct traffic</li> </ul>	
	<ul> <li>are clearly directing and adequately controlling traffic</li> </ul>	



ltem	Conditions	Rating
Traffic Control Signs and Devices	Signs are appropriate in size and have diamond-grade retroreflectivity.	
	Signage is adequate, and is spaced appropriately in accordance with the Traffic Management Plan for the project or regulatory speed limits throughout the project.	
	Signage adequately communicates the necessary information to all road users (drivers, pedestrians, and cyclists).	
	Signs are visible, clear of debris, free from obstruction, in good condition, and properly displayed.	
	Sign patterns are displayed consistently in both directions throughout the work zone.	
	Speed drops are appropriate to highway and road speed.	
	Signs and devices are installed in accordance with the Traffic Control Plan.	
	Contradicting signs are covered or removed (e.g., normal 100 km/h sign covered or removed when construction speed is 50 km/h; inapplicable signs covered or removed when work site is inactive).	
	All side roads, intersections, and interchanges have been considered, and are signed accordingly.	
	Delineation is suitable and provides a clear message for directing traffic through the work site.	
	Delineation is properly set up and spaced to provide a suitable buffer.	
	Changeable message boards and speed readers are positioned properly in locations most suitable for project and driver visibility, are in good working condition, and are functioning properly.	
	Night hazards have been addressed.	
	Floodlights have been installed where required and are positioned so that they will not create visibility problems for drivers.	



Item	Conditions	Rating
Traffic Control Layout	Sight distance is adequate as drivers approach the work zone, and at all points within the work zone.	
	Layout is consistent with the Traffic Management Plan and Traffic Control Plan (i.e., detours and road closures are considered, and the proper traffic control devices are being used).	
	Layout is organized and clear.	
	Layout is uniform and consistent to ensure that drivers respond properly.	
	Drivers, pedestrians, and cyclists can move easily through the work zone.	
	Layout is such that it encourages drivers, pedestrians, and cyclists to reduce risk.	
	Standard layouts are used for signage and other traffic control devices to meet traffic control requirements.	
	The work zone has an advance warning area in which drivers can adjust their driving in accordance with the conditions.	
	The transition area is easily identified with the proper traffic control devices (i.e., delineator tapers).	
	The buffer space is adequate and allows drivers to stop at a safe distance.	
	The buffer space is free of equipment, workers, materials, and workers' vehicles, with the exception of a buffer vehicle.	
	The work activity area is closed off to drivers by appropriate traffic control devices (i.e., delineators, barricades, or other channelizing devices).	
	The work activity area provides a safe entrance and exit for work vehicles.	
	The termination area provides an adequate distance for traffic to clear the work zone and return to normal travel lanes.	



Item	Conditions	Rating		
Inactive Work Site	The site has been left in a functional condition that allows for the safe movement of all road users, including pedestrians, cyclists, and vehicles.			
	Construction signs that are not being used are covered to prevent driver confusion.			
	Signage and traffic control devices are appropriate.			
	A specific person has been identified as being responsible for 24-hour maintenance and emergency response, and has accepted this responsibility.			
	The traffic control layout is consistent with the Traffic Management Plan regarding inactive work sites.			
Maintenance	The road surface is free from gravel, mud, and other debris.			
	Signage and traffic control devices are properly used, displayed, and set up, and are free from mud, debris, and obstruction.			
	A specific person routinely monitors, inspects, and maintains traffic control signs and devices.			



#### Comments:

Items for follow-up:		
Auditor cignoture.	Date	
Auditor signature:	Date:	
Recipient signature:	Date:	





# Appendix E: Lane Closure Request Form

Appendix E contains a sample of the Ministry's Work Notification/Lane Closure Request and Approval Form (H1080).

The online form is available at <a href="http://gww.th.gov.bc.ca/forms/getFormFile2.aspx?formId=649">http://gww.th.gov.bc.ca/forms/getFormFile2.aspx?formId=649</a>.

It can be populated online, and then printed for submission to the Ministry.





	_				File	Number			
	BRITISH COLUMBIA	Ministry of Transportation and Infrastructure			Perm	nit Number			
$\sim$	COLUMBIA	and infrastructure			Date	(yyyy/mm/dd)	20	1	1
	WORK N	IOTIFICATION/LA		OSURE	REQUEST		PRO	VAL	
		This form is to be submit							
То				,		Teleph			
	District Ma	nager Transportation		Distr	ict Office		Fax		
From						Teleph	one		
		(Organization)			(Contact Person)		Fax		
🔲 l requ	uest approval to	work within the Ministry right	of-way (cl	neck as ma	ny boxes below as	required):			
		North Bound	Sout	h Bound	East Bo	ound 🗌	West B	ound	
🔲 I requ	uest approval to	close the Ministry right-of-wa	ay (indicate	what will b	e closed by check	ing 🗹 all applic	able bo	xes belo	w):
	orth Bound	South Bound	East Bour		West Bound	0			,
	labt Turn Long			urn Lane	Work on Sho		liete/Do	destrians	
_	light Turn Lane Surb/Outside Lar	Middle Lane     Centre/Inside Lane			No Lane Clos			ersection	
	urb/Outside Lai			1103			georni		•
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to 20	/ /	; for the purpose of constru	cung the to	llowing wor	KS:				
					-				
		irections, the highway is 🔲 o			,				
		e (1) / 🔲 two (2) lanes of traf	nc will be n	naintained i	n the same direction	ons as the closu	ire.		
	ATTACH THE								
		gram figure number			inagement Manua				
		Management Plan (format av	allable on	the traffic	management for w	ork on Roadwa	iys web	site).	
	AL SECTION	_							
Reque	est denied	Request approved as s	ubmitted		Request approved	with the followi	ng char	iges:	
🔲 This a	approval is grant	ed subject to traffic queues b	eing monit	ored contin	uously by the Minis	stry or Project R	eprese	ntative w	hile lane
closures	s or traffic divers	ions are under way. Delays	are not to e	exceed	minutes ov	ver the normal t	ravel tin	ne.	
🔲 This a	approval is grant	ed subject to traffic queues b	eing monit	ored continu	uously by the Minis	stry or Project R	eprese	ntative w	hile lane
		sions are under way. Standar							
		then work will commence unt acceptance of the revised Tra					-		
							lieu ioi	appiovai	-
		agement Centre BC (TMCE	(C) 1-866-						
		of the lane closure,			Upon removal of t				
i nis app	roval must be l	kept on-hand at the work sit	e.	Traffic	Data Program ca	n be accessed	from h	ere	
	District Manager	r Transportation (or Designate)			Dat	e (yyyy/mm/dd)			
submit prior	to 6:30 a.m. or 24	DriveBC account, you can enter the hours in advance to: <u>Ministry of</u> BC) at TMCBC@gov.bc.ca. The TM	Transportati	on and Infra	structure District Offi	<u>ce,</u> and cc the Tra			150
H1080 (20)		ribution: Original - District Ma					or		
		original - District Ma							





# Appendix F: Tables A to D Contents

Table A:	Taper LengthsF-1
Table B:	Device Spacing LengthsF-3
Table C:	Risk Evaluation for Emergent and Brief-Duration WorkF-5
Table D:	Minimum Distances for Mobile WorkF-6



TABLE A – TAPER LENGTHS										
Taper Types (m)		Regular Posted Speed Limit (km/h)								
		≤50	60	70	80	90	100	110	120	
Merge Taper Length	L <sub>M</sub>	35	55	160	190	210	230	250	280	
Lane Shift Taper Length	եւ	30	50	80	100	110	120	130	140	
Downstream Taper Length	L <sub>D</sub>	30	30	30	30	30	30	30	30	
TCP, Signal, and Shoulder Taper Length (min. 5 devices)	Ls	5	8	15	15	15	15	15	15	
Minimum Tangent Length between Tapers	Lτ	30	60	160	190	210	230	250	280	
Run-In Length on Centreline	L <sub>R</sub>	40	50	60	60	70	80	90	100	

	Table A Notes
Regular Posted Speed Limit	Device spacing and taper lengths should be to the regular posted speed limit.
L <sub>M</sub> = Merge Taper Length	Merge length required to close lane on approach to work area. For speeds $\geq$ 70 km/h, merge length should be at least = $\frac{(\text{lane width of 3.7 m}) \times (\text{Posted Speed in km/h})}{1.6}$ , rounded to nearest 10 m.
L <sub>L</sub> = Lane Shift Taper Length	Used when a lateral shift is needed within the work area.
	Lane Shift Taper = $\frac{1}{2}$ x L <sub>M</sub> , rounded up to nearest 10 m.
L <sub>D</sub> = Downstream Taper Length	May be used in work zone termination area to provide a visual cue to drivers that they may return to the original lane or path that was closed.
L <sub>s</sub> = TCP, Signal, and Shoulder Taper Length	<u>Shoulder Taper</u> : Used to close shoulders within activity area, or when shoulders might be mistaken for driving lanes. May be increased to $1/3 \times L_M$ on higher-speed highways and freeways where shoulder width is $\ge 2.5$ m.
	Signal and TCP Tapers: Used in advance of a work activity area where traffic is controlled so that the road is used alternately by traffic moving in each direction.



L <sub>T</sub> = Minimum Tangent Length between Tapers	Used between successive tapers or at other decision or conflict points to provide time for drivers to become accustomed to the first change and observe traffic control devices for the second change.
	$L_T = L_M$ , but for high-speed/high-volume freeways and/or night work, it may be doubled (2 x L <sub>T</sub> ) to increase time for drivers to become accustomed to the first change.
L <sub>R</sub> = Run-In Length on Centreline	May be used on centrelines as minimum tangent length before development of lane departures or lane shifts.
	Run-in length = 0.8 x speed (in km/h) (US Manual of Uniform Traffic Control Devices).

TABLE B – DEVICE SPACING LENGTHS										
Device Spacing (m)		Regular Posted Speed Limit (km/h)								
		≤50	60	70	80	90	100	110	120	
Construction Sign Spacing	Α	40	60	80	100	150	150	200	200	
Buffer Space	В	30	40	60	80	110	140	170	200	
Roll-Ahead Buffer Distance	R	30	30	40	40	40	50	50	50	
Channelizing Device Spacing for Tapers	с	10	10	15	15	15	15	15	15	
Channelizing Device Spacing on Curves and Tangents	D	10	10	30	30	40	40	40	50	

	Table B Notes					
Regular Posted Speed Limit	Device spacing and taper lengths should be to the regular posted speed limit.					
A = Construction Sign Spacing	Recommended minimum spacing for signage. Spacing may be adjusted to accommodate site constraints and/or where high numbers of access points exist. Signs within the work zone should be spaced on the basis of the pre-construction, regulatory speed limit.					
	Maximum Construction Sign Spacing:					
	Spacing for the sign closest to the work activity area should remain as close as possible to Distance A.					
	<ul> <li>For other construction signs in the advance warning area, spacing may be adjusted up to a maximum distance of 2 x Distance A.</li> </ul>					
	<ul> <li>Signs that include a distance measurement (e.g., Construction Ahead Next 2 km) should be placed in accordance with the distance cited on the sign or tab.</li> </ul>					



B = Buffer Space	The longitudinal distance which provides a margin of safety for both the driver and the workers. It is important that the buffer space be free of equipment, workers, material and vehicles.					
	A buffer vehicle with a crash attenuator may be located within the buffer space if there are space constraints.					
	The buffer space is measured is from the end of the taper to the work activity area unless there is a buffer vehicle, in which case it is measured to the back of the buffer vehicle.					
	Typically used on high-speed roadways but should be considered for all works where space allows.					
	Distance is based on the braking distance on level ground for wet pavement as defined in the Transportation Association of Canada's Geometric Design Guide for Canadian Roads (1999).					
R = Roll-Ahead Buffer Distance	The longitudinal distance measured from the front of the buffer vehicle to the work activity area. It provides a margin of safety in case of impact.					
	Distance is based on the Minnesota Manual on Uniform Traffic Control Devices (2011).					
C = Channelizing Device Spacing for Tapers	Maximum spacing between channelizing devices for tapers.					
D = Channelizing Device Spacing on Curves and Tangents	Maximum spacing between channelizing devices on curves and tangents. Tighter spacing is acceptable especially on curves where device loss can impact directional continuity.					
	Maximum device spacing is calculated as 0.4 x speed (in km/h), rounded to the nearest 10 m.					

TABLE C – RISK EVALUATION FOR EMERGENT OR BRIEF-DURATION WORK								
Risk Evaluation Category		Risk Criteria						Criteria Met?
1. Work Duration	Ca	Can the work be completed in 5 minutes or less?						Yes / No
2. Sight Distance Distance from	For	For the posted speed limit, is the minimum sight distance met?						
parked location to furthest point that can be	to furthest point Speed Limit (km/b) 50 - 70 80 - 90 100 - 110 120							
seen on the road.		Minimum Sight Distance (m)	100	170	250	300		
3. Traffic Volume		Is the traffic volume in lanes that will be entered by workers estimated to be less than 5 vehicles per lane per minute?						Yes / No
4. Environmental Conditions		Is visibility unrestricted (no fog, blowing snow, etc.) <b>and</b> are road conditions not slippery?						Yes / No

#### Table C Notes

A Risk Evaluation has three possible outcomes:

- 1. Answers to all risk criteria questions are Yes: Traffic control devices may be installed in accordance with the appropriate Emergent Work traffic control layout.
- 2. Answers to one or two risk criteria questions are No: Traffic control devices may be installed in accordance with the appropriate Brief-Duration Work traffic control layout.
- 3. Answers to three or more risk criteria questions are No: Additional traffic control measures are required beyond those described and illustrated for Emergent and Brief-Duration Work. The standard layout(s) for the appropriate short-duration, long-duration, or mobile work should be applied instead, which may necessitate calling in additional resources.

TABLE D – MINIMUM DISTANCES FOR MOBILE WORK										
	Regulatory Speed Limit (km/h)									
	<b>≤50</b> 60 70-80 90 100 ≥ 110									
Minimum Distance Moved (m) Every 30 Minutes	100	130	170	220	260	300				

### Table D Notes

To be considered mobile work, the operation must move at least the distance shown in Table D for the posted speed limit every 30 minutes or less.

If the work does not regularly move the specified distance, it should be treated as a stationary operation, and the appropriate layout should be used.