City of Kamloops

Guidelines for Construction Traffic Management Plans (CTMP)

FORM 314526

Kamloops

Canada's Tournament Capital

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This document has been prepared to supplement the British Columbia Ministry of Transportation and Infrastructure Traffic Management Manual for Work on Roadways, 2020 Ed., (TMM) to prepare Construction Traffic Management Plans (CTMP) for the City of Kamloops.

Preamble

The City of Kamloops (the City) is seeking to work with the construction industry to better manage pedestrian, cyclist, transit and vehicular traffic (the Traffic) in and around work zones in the City. The City has a keen interest in ensuring the safe movement of goods, services and people in the community. Therefore, any Work undertaken within the City's road Right of Way (ROW) requires a Permit from the City. In addition, given the geographically constrained transportation network in the City, road users are very sensitive to any disruptions to the network.

To that end, the City has prepared this guide that sets out specific **requirements** for Contractors that are **supplemental** to those set out in the TMM.

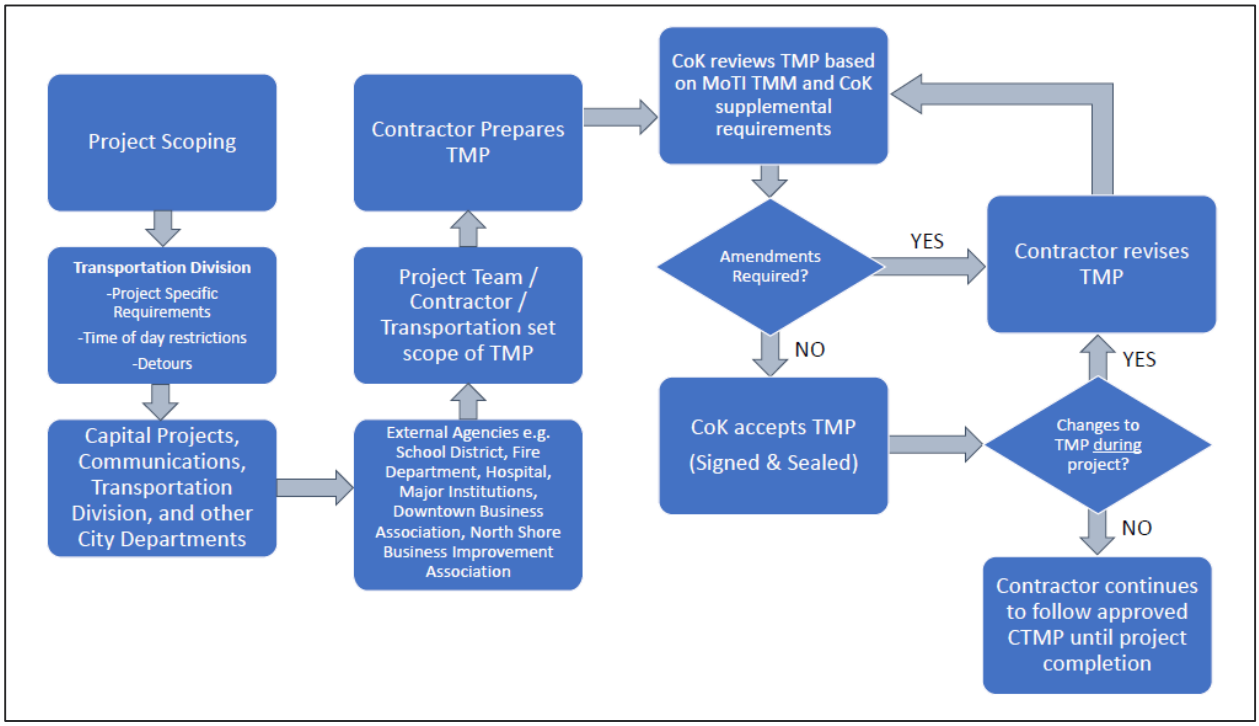
When a CTMP Required

ALL work within the road allowance requires a Construction Traffic Management Plan that is to be submitted as part of the Permit application.
Within the overall the Construction Traffic Management Plan (CTMP) there are up to four sub-plans:

- Traffic Control Plan – **REQUIRED** for all CTMPs
- Incident Management Plan
- Public Information Plan
- Implementation Plan

The need for the Incident Management Plan (IMP), the Public Information Plan (PIP) and the Implementation Plan (IP) is guided in part by the MoTI TMM, direction from the City Transportation Manager or their delegate, and as set out in this guide.
As both the City and the Contractor are interested in the expedient processing of permit applications, it is incumbent on the Contractor to submit the complete CTMP in a timely fashion to allow the City sufficient time to review all written plans and drawings. The minimum time required to process a permit application is five (5) weeks.

Capital Project CTMP Flowchart



Components of a CTMP in Kamloops

In addition to the conditions set out in the TMM (Category 1, 2, or 3) quantifying the extent of each component of the CTMP, the City **requires** the contractor to consider the following additional conditions for every Permit application:

Scope of Work & Approval of Construction Traffic Management Plan

1. **The CTMP is to be prepared by a qualified Traffic Engineer, licensed to practice in British Columbia. The Traffic Engineer must submit a scope of work to the City for approval prior to initiating any analysis.**

2. **The City of Kamloops will review and comment/approve the scope of work within 10 working days of submission.**

3. **The CTMP prepared by the Traffic Engineer based on the approved scope of work will then be submitted to the City.**

4. **The City of Kamloops will review and comment/approve a Traffic Management Plan within 15 working days of submission.**

VEHICULAR TRAFFIC

When preparing the CTMP, the contractor must consider the following with respect to vehicular traffic:

- If a lane closure is contemplated, does the peak hour, peak direction traffic volume exceed 700 vehicles per hour? If the answer is yes, then a detour route must be included and the proposed detour route must be assessed by a licensed Traffic Engineer to ensure that the detour route has sufficient capacity to accommodate the additional traffic generated by the detour and the road geometry must be assessed by a licensed Traffic Engineer to ensure that the detour route can accommodate an appropriate design vehicle.

- The Traffic Engineer is to use Synchro/SimTraffic (SIDRA for roundabouts) to analyze the detour routes to confirm capacity and intersection performance.

- Follow the City of Kamloops TIA Guideline parameters for v/c, level of service, 95th percentile, and delay.

- Submit Synchro/SimTraffic/SIDRA outputs along with the CTMP

TRANSIT

When preparing the CTMP, the contractor must consider the following with respect to transit operations:

For all projects located within 100 metres of a transit stop the contractor must work with the City to determine whether either a temporary bus stop relocation and/or a bus route detour is required. If a bus route detour is being considered then the proposed detour route must be assessed by a licensed Traffic Engineer to ensure that the detour route has sufficient capacity to accommodate the bus traffic and that the road geometry is sufficient for the bus to maneuver. The Traffic Engineer shall work with the City to select an appropriate detour route and/or temporary stop locations.

PEDESTRIANS

When preparing the CTMP, the contractor must consider the following with respect to pedestrians:

Can pedestrians be safely accommodated in the work zone – yes, then prepare a pedestrian specific CTMP for the work zone; no, then prepare a detour CTMP. If a detour is proposed then, then the proposed detour route must be assessed by a licensed Traffic Engineer to ensure that the detour route is safe for pedestrians has sufficient capacity to accommodate the pedestrian traffic AND the impact to vehicular traffic operations must also be assessed by the Traffic Engineer.

If pedestrian crosswalk(s) may need to be temporarily relocated due to the detour, provide TAC recommended crosswalk treatments. Ensure measures for pathways or diversions are made to accommodate pedestrians of all abilities.

Note that a pedestrian corridor includes sidewalks, pathways, marked and unmarked crosswalks

CYCLISTS

When preparing the CTMP, the contractor must consider the following with respect to projects that impact a cycle path/lane:

Can cyclists be safely accommodated in the work zone – yes, then prepare a cyclist specific CTMP for the work zone; no, then prepare a detour CTMP. If a detour is proposed then, then the proposed detour route must be assessed by a licensed Traffic Engineer to ensure that the detour route has sufficient capacity to accommodate the cycle traffic AND the impact to vehicular traffic operations must also be assessed by the Traffic Engineer.

TRAFFIC SIGNALS

When preparing the CTMP, the contractor must consider the following with respect to projects that are located within 100 metres of a traffic signal:

A licensed Traffic Engineer must assess the signalised intersection(s) to determine what, if any, impact there will be on the intersection operations caused by the Work. If there is a measurable impact, such as the intersection and/or individual movements is LOS E or worse and/or the 95th queue exceeds existing storage bays, then the Traffic Engineer must recommend appropriate mitigation measures as part of the project Traffic Management Plan that could include, but are not limited to:

- Retime the signal
- Add or remove a signal phase(s)
- Detours

EMERGENCY RESPONDERS

When preparing the TMP, the contractor must consider the following with respect to projects that are located within 500 metres of a fire hall, police station, ambulance station, hospital or other facility deemed to be an emergency response agency **OR** if the project is located on a road designated as an Emergency Response route by City of Kamloops First Responders.

The CTMP must include an Incident Management Plan and a Public Information Plan as per the MOTI (TMM) and/or direction from the City.

The contractor, through the City's Communication Advisor, is to consult with all affected emergency response agencies as part of the TMP application process and must provide the City with written comments from the agencies in the Permit application.

GOODS MOVEMENT

When preparing the CTMP, the contractor must consider the following with respect to projects that impact a designated truck route:

Can trucks be safely accommodated in the work zone – yes then prepare a truck specific TMP for the work zone; no then prepare a detour TMP. If a detour is proposed, then the proposed detour route must be assessed by a licensed Traffic Engineer to ensure that the detour route has sufficient capacity to accommodate the truck traffic AND the intersection geometrics must be assessed using swept path analysis using a WB-20 design vehicle AND the impact to vehicular traffic operations must also be assessed by the Traffic Engineer.

City of Kamloops Supplemental CTMP Checklist

VEHICULAR TRAFFIC

Does the work require a lane closure?
Does the peak hour peak direction traffic volume exceed 700 vehicles per hour

TRANSIT

Is project located within 100 metres of a transit stop

PEDESTRIANS

Can pedestrians be safely accommodated in the work zone?

CYCLISTS

Can cyclists be safely accommodated in the work zone?

TRAFFIC SIGNALS

Is the project within 100 metres of a traffic signal?

EMERGENCY RESPONDERS

Is the project located within 500 metres of a fire hall, police station, ambulance station, hospital or other facility deemed to be an emergency response agency?

IS the project located on a road designated/considered as an Emergency Response route by City of Kamloops First Responders?

GOODS MOVEMENT

Can trucks be safely accommodated in the work zone?

City of Kamloops Example Scope of Work

Project Description: **Sewer Main Replacement – Columbia Street 3rd Avenue to 6th Avenue**

A. Study area limits and list of intersections to analyse

Study area to include the following intersections:

1. Columbia Street at 3rd Avenue
2. Columbia Street at 4th Avenue
3. Columbia Street at 5th Avenue
4. Columbia Street at 6th Avenue
5. All intersections on proposed detour route (TBD with City staff)

B. Design Peak Hour of Analysis

Examine the weekday morning and afternoon peak periods and analyse one peak hour from each period for analysis.

C. Transit

Transit stops on Columbia will be affected. Transit detour required for duration of project.

D. Pedestrians

Construction will not impact sidewalks. When construction impacts crosswalks, contractor will either temporarily close the crosswalk with appropriate signage and bag pedestrian signal heads or use Traffic Control Personnel to safely escort pedestrians through the work zone.

E. Cyclists

Columbia Street is a cycle route. Eastbound cyclists will be affected. Cyclist detour required for duration of project.

F. Emergency Responders

Inland Hospital is immediately adjacent to the construction site. All emergency responders will be affected.

G. Goods Movement

Columbia Street is a designated truck route. All eastbound trucks will be affected. Trucks

cannot be safely accommodated in the work zone as the lane width is insufficient and the excavation may be too unstable. Eastbound truck detour required for duration of project.

H. Traffic Engineering Methodology for Analysis

Use 2016 Highway Capacity Manual methodologies for all intersection capacity analysis. (Synchro Ver. 10).

Saturation Flow Rate: 1900 pcu/lane/hr/green for arterial roads, 1800 for all other roads

Maximum permitted cycle length: 120 seconds

Pedestrian walk speed: 1.0 m/s

Minimum green: 10 seconds on major road, 7 seconds for turn phase or minor road

Design Vehicle: WB-20

Unless otherwise documented, minimum truck percentage on all arterial roads is assumed to **be 3%.**

I. Engineering Standards

Use City of Kamloops standards for the adjacent roadways.

J. Number of Final Report/Drawings/Traffic Management Plans

- City of Kamloops 2 hard copies + 1 digital copy

K. Other Matters