Walking and Cycling Provisions for Work Zones NACTO Designing Cities 2017 Nov 1, 2017



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Context High Growth

Growing Fast

- ~4.5% population growth
- 70 rezoning applications 2017
- 8600 development and building permit applications in 2017



Context

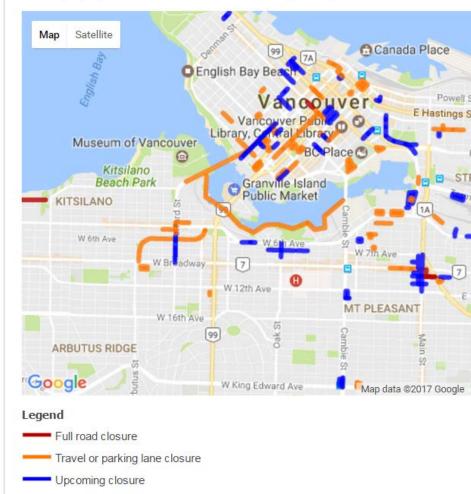
Construction and Event Zone are Common

On any given day, there can be **200–300 or more** crews working around the city

- Developments
- Utilities
- Street repair
- Filming
- Special events

Road closures and construction projects

Find information about road closures and traffic delays due to road construction projects and Select a project, marked with a coloured line on the map below, for more details about it.



Context Transportation 2040 - Policy



Hierarchy of Modes:



Policy for Walking and Cycling:

Improve and enforce measures to maintain accessibility around construction zones and special events

Walking and Cycling

Make walking safe, convenient & delightful.

Make cycling safe, convenient, comfortable & fun for people of all ages and abilities



Context

Construction Zones Have Higher Safety Risks





Construction on bike routes can **double** the risk of **injury** (Teschke et al., 2012)

Context

Minimal Construction Guidance for Protected Bike Lanes

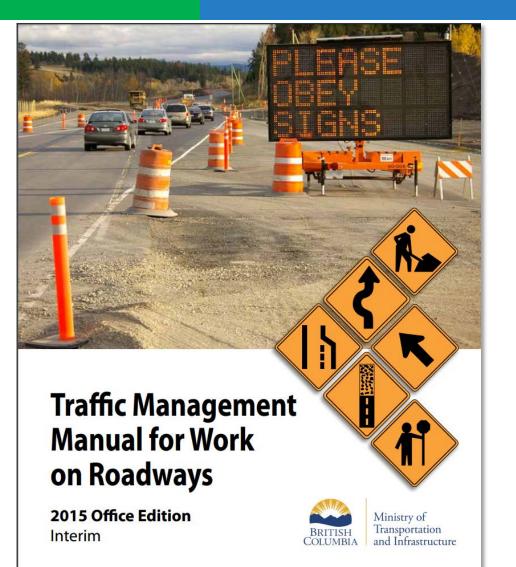
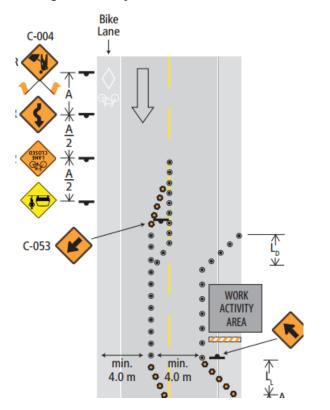


Figure 18.4: Bicycle Lane Closed – Share the Road



Guidance limited mostly for painted bike lanes on major streets

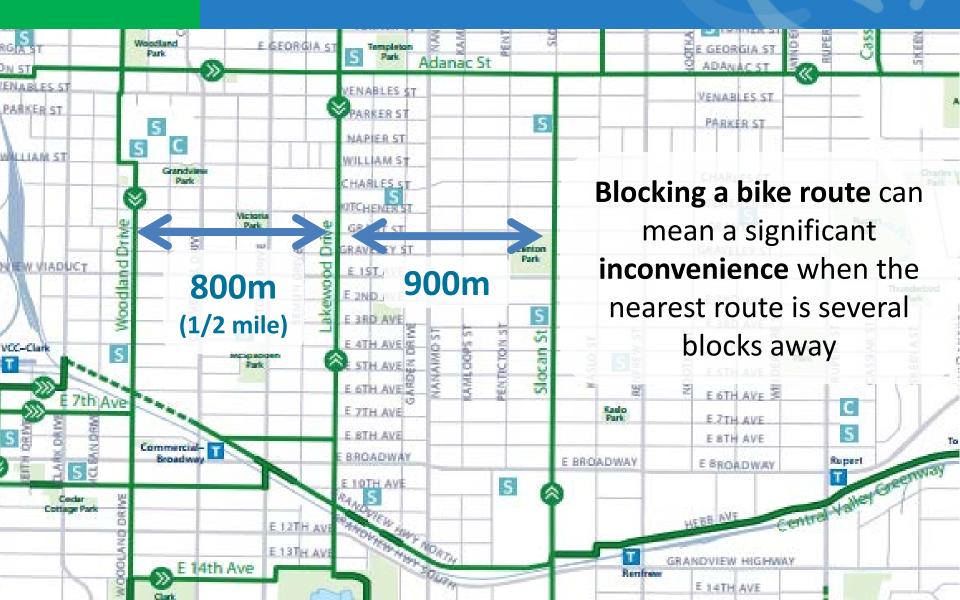


Detours Can Cause Significant Inconvenience

SIDEWA EXCEPT BICYCLES CLOSED Blocking a sidewalk may cause a person to have to cross a busy roadway multiple times.

Context

Detours Can Cause Significant Inconvenience









Missing Walking Provision



Unsafe Temporary Conditions After End of Workday





CAUTION





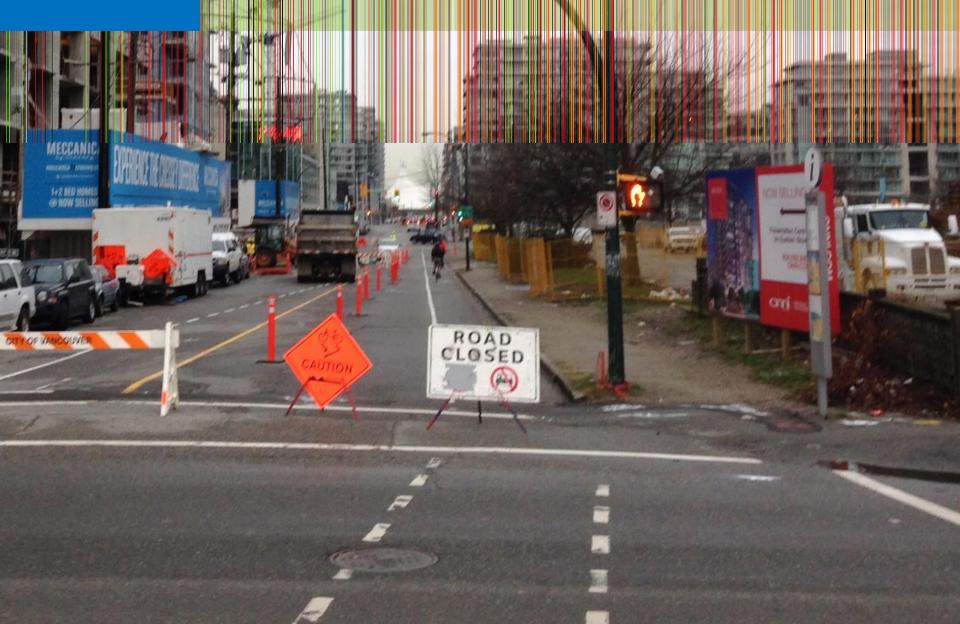
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Signage Poorly Located





Unnecessary Dismount

Service States

-



CYCLISTS

1.1

011J



Dismount Zones Not Effective



Sidewalks

1. Maintain Accessible Sidewalk 1.8m (6ft) min



Sidewalks



Maintain
 Accessible
 Sidewalk
 Using Road
 Space

Sidewalks

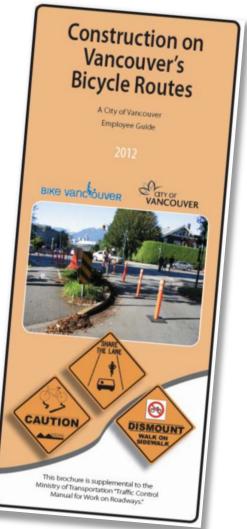
3. Maintain sidewalk at least on one side of street

30 KEE

LEFT |RIGI

Construction on Cycling Routes Emerging Guidelines

- "Every effort should be made to allow passage through construction."
- Outlines requirements for various scenarios on bike routes.
- Updating in 2017 with emphasis on:
 - AAA & Major Cycling Routes
 - Preferred Measures



Cycling Routes



Extra attention is needed for All Ages and Abilities (AAA) and major routes for a continuous & safe experience

Cycling Routes



Cycling Routes

AAA and major routes emphasize:
Must provide a safe comfortable option
Relatively direct route
Limit emergency closures < 1 hr outside peak hours

Cycling Routes

1. Maintain Access through Site

~ 1.5m (5ft) per direction of travel

Cycling Routes

2. Use road space to create bike lane

- Use appropriate barriers to reallocate travel or parking lane

122

Cycling Routes

2. Use road space to create bike lane

SLOV

- Use appropriate barriers to reallocate travel or parking lane

Cycling Routes



Cycling Routes

WALKING

SPEED

3. Share Sidewalk Space - Delineation is often required

OV

Cycling Routes

3. Share Sidewalk Space - Shared space is sometimes OK

Cycling Routes

DETOUR

4. Sign Detour

- Only if all traffic is banned
- Minimize length
- Use low volume streets
- Ensure adequate crossings

Cycling Routes

4. Sign Detour

- Sometimes a temporary pathway is needed

Cycling Routes

Restore site at end of day

WALKING

PEE

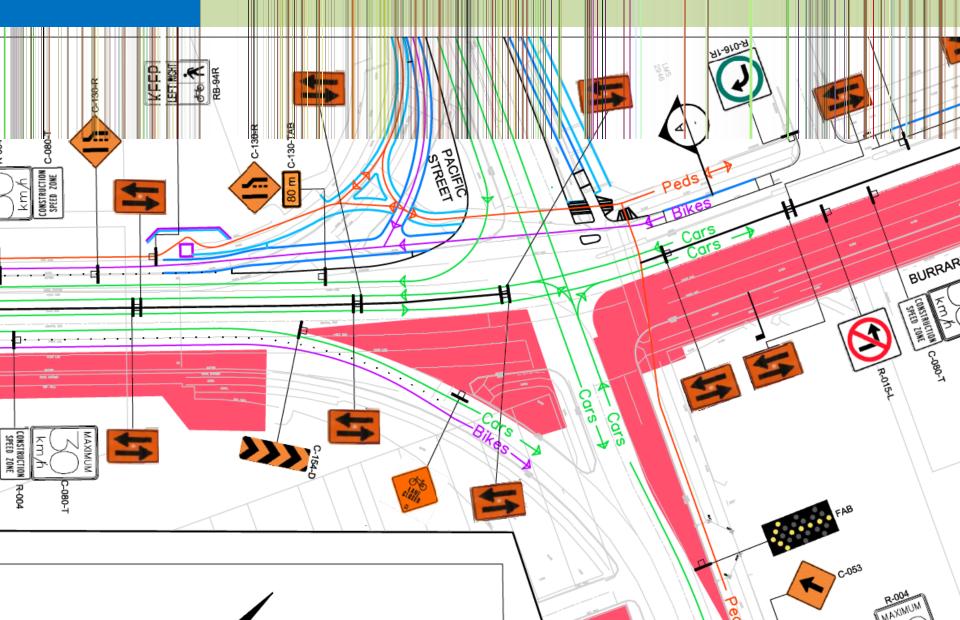
Cycling Routes



Restore site at end of day



Burrard Bridge



Example Projects Burrard Bridg

D. C. ST.

D1096

DX-7494

100,00,00

RED LIGHT CAMERA

\$ 300

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Number of Contraction

-

Burrard Bridge



Dragon Boat

SPECIAL EVENT SLOW ある ZONE AHEAD

%WestPark

OR USE A DETOUR ON ROADWAY CYCLIST & PEDESTRIAN DETOUR PLEASE FOLLOW ARROWS

Dragon Boat



Questions and **Discussion**

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