



Subject: Use of Countdown Pedestrian Signals	
Date: November 30, 2006	Author: Ross Casey
Bulletin Number: TE-2006-05 Bulletin Type: New Guideline	Effective Date: Immediately
Audience	Standards Affected
All holders of the Electrical and Traffic Engineering Manual	.

BACKGROUND:

This technical bulletin supersedes technical bulletin TE-2005-03 and is in addition to the information provided in Technical Bulletin TE-2005-02 regarding countdown pedestrian signals. Countdown pedestrian signals are a relatively new traffic signal device that can aid in the safe movement of pedestrian traffic. The devices are standard pedestrian signal enclosures with LED numerals that can be configured to count down from a preset number of seconds to zero in 1 second intervals

Policy:

The Ministry generally does not initiate the installation of countdown pedestrian signals. The municipality shall make all application for the installation of countdown pedestrian signals. All requests for the installation of countdown pedestrian signals shall be made to the District Transportation Manager, who forwards the request to the Regional Traffic Engineer for approval. The Ministry will coordinate the installation of countdown pedestrian signals.

With respect to design, existing signals only require a revised Signal Timing Sheet signed by the appropriate Regional Traffic Engineer. Rehabilitated and new traffic signals require the countdown pedestrian signals be documented on the signed and sealed Traffic Engineering Checklist and subsequently, a design be produced showing the countdown pedestrian signals.

Municipalities shall pay all costs associated with the design and installation of countdown pedestrian signals.

Procedure:

The requirements noted above in the policy section shall be completed before the Ministry will initiate the installation of countdown pedestrian signals.

Once the countdown pedestrian signal installation has been approved, the Ministry Manager, Electrical Services will provide the municipality with a written estimate of the entire cost of the installation and the municipality shall agree in writing that the cost is acceptable.

The Ministry will then arrange to have the design undertaken (where required); countdown pedestrian signals purchased and arrange for the installation.



The municipality shall be invoiced for all costs at the completion of the work.

Standard:

BC Ministry of Transportation countdown pedestrian signals shall be configured so that they commence counting down at the beginning of the pedestrian change interval (pedestrian clearance time) when the flashing “don’t walk” time commences. After the countdown displays zero, the display shall remain blank until the beginning of the next countdown. Referring to Sub-clause 402.5.7 of the Electrical and Traffic Engineering Manual, the countdown time would be the Pedestrian Clearance Time for a specific intersection. The countdown pedestrian signal display will be blank for the “walk” time and the yellow/red change interval of the concurrent vehicular signal phase. It will also have a blank display during all other signal phases.

Where a countdown pedestrian signal is used on a signal with a pre-emption sequence the pedestrian change interval timing (pedestrian clearance time) shall not be altered or omitted as part of a transition into the pre-emption sequence. The signal shall be designed to operate during and following a pre-emption cycle.

- The controller shall recognize pre-emption events and temporary modify the pedestrian crossing cycle time accordingly.
- If the controller pre-empts during the “walk” indication (usually 7 seconds on MoT signals), the controller will immediately adjust the “walk” time countdown to flashing “don’t walk.” It will start to count down during the flashing “don’t walk” and reach zero at the same time as the flashing “don’t walk” becomes solid.
- If the controller pre-empts during the flashing “don’t walk,” the countdown will continue to count down without interruption and reach zero at the same time as the flashing “don’t walk” becomes solid.
- The next cycle following the pre-emption event shall use the initially programmed values for the countdown display.
- If the pedestrian clearance time (flashing “don’t walk”) count down cannot be provided, which may be the case for many railway pre-emption sequences, a pedestrian countdown signal shall not be used

When countdown pedestrian signals are to be installed at a signalized intersection they shall be installed on all signalized pedestrian legs.

Signal Display Conventions:

- | | |
|------------------------------------|----------------------------|
| ⇒ “walk” indication | = “walking person” |
| ⇒ flashing “don’t walk” indication | = flashing “upraised hand” |
| ⇒ solid “don’t walk” indication | = solid “upraised hand” |

CONTACT:

Ross Casey, Senior Electrical Standards Technologist
Traffic, Electrical, Highway Safety and Geometric Design Section
Engineering Branch
Phone: (250) 387-7688
Email: ross.casey@gov.bc.ca