

Pedestrian Crossing Warning Lights Making Pedestrians Safer



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BUILDING A BETTER WORLD

Outline

- Concerns were expressed about pedestrian safety at three mid-block pedestrian crossings
- CCC and ACC agreed to run a combined trial of developing technology using in-pavement flashing LED studs
- Trial proposal was approved by NZTA (formally LTNZ) January 2006. *New Zealand Gazette 19/1/2006, No. 5, p. 104.*
- Christchurch sites operational October 2006
- Auckland Site operational December 2006
- Technical Development partners –
 - Hardings Technical Services HTS
 - Highways Limited

Identified Issues

- Tuam Street, Christchurch
 - Existing Mid-block pedestrian crossing
 - Previous Safety Audit recommended changes
 - High number of conflicts between driver / pedestrian
 - Pedestrians did not feel safe, crash record
 - Drivers could not identify pedestrian movements due to footpath traffic
- Hereford Street, Christchurch
 - New mid-block installation
 - Pedestrian desire line following recent redevelopments in area
 - Shaded environment due to tall buildings
- Mt Albert Road, Auckland
 - On curved approach / exit leg of roundabout; poor preview of facility
 - Two lane on each approach, busy environment
 - Desire line between local mall and adjacent facilities
 - Pedestrians did not feel safe, crash record

Road Layout



Video – Hereford Street Operation



Trial Objective Outcomes

- ✓ Driver Stopping for pedestrians (up 5% - 21%)
- ✓ Driver compliance with limit lines (up 4% - 20%)
- ✓ Pedestrian safety perception improved (up 20% - 50%)
- ✓ Conflicts reduced to near nil
- ✓ Drivers are aware of pedestrian movement on crossing
- ✓ Mean & 85th percentile speed - reduction indicated
- ✓ Operating / maintenance cost low to date
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- ✓ Photoelectric beam activation system proving effective
- ? Activation system – proximity to crossing affecting activation time
- ! Installation Cost – high if connecting to old utilities

Trial Result Improvement to Pedestrian Safety

- Trial has been successful to date
- Safety perception by driver / pedestrian improved
- Strong use by public
- Good feedback from public in Christchurch
- NZTA approval underway – awaiting Rule change
- ACC and CCC looking at additional sites
- Technology adaptable for other applications
- Continued monitoring recommended