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2006 SNUG Workshop

Part Time Signalised Pedestrian
Crossings on Left Turn Slip Lanes

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Acknowledgements

- Anthony Fitts and Christopher Harder from VicRoads Metro SE office
- Manukau City Council



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Issues with Pedestrians at Left Turn Slip Lanes

- *Good practice to provide left turn slip lanes to increase intersection operational efficiency.*

BUT

- *Do not adequately cater for pedestrians unless a facility is provided.*

HOWEVER

- *There are currently no clear warrants to define what pedestrian facility should be provided at left turn slip lanes.*
- *Increasing need to accommodate all pedestrians.*



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What Measures Are Currently Used To Provide For Pedestrians?

Range of measures used to provide for pedestrians at left turn slip lanes

- Dedicated signalised crossing
- Marked zebra crossing
- No facility

These are generally based on pedestrian numbers and frequency of activity.



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Signalised Pedestrian Crossings

- *Installed at locations where there is significant pedestrian activity or a need for co-ordination with other signals.*
- *Active control for pedestrians.*
- *Can lead to increased delays for traffic using left turn slip lane given that signals are not independent of the overall intersection signals.*



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Marked Zebra Crossings

- *Installed at locations where there is a recognised demand but pedestrian numbers do not justify signals.*
- *Passive control for pedestrians.*
- *Can lead to increased delays for traffic using left turn slip lane turn dependent on pedestrian frequency.*



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No Facility

- *Installed at locations where pedestrian numbers are low.*
- *Passive control for pedestrians.*
- *Can lead to increased delays for pedestrians dependent on gap availability.*



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Challenges

- Low pedestrian numbers
- Visually impaired
- Mobility impaired
- Small number of peak pedestrian periods



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Part Time Pedestrian Signals

- A small number of sites operating on left turn slip lanes in Metropolitan Melbourne.
- Used to stop traffic on a signalised crossing on a left turn slip lane where traffic can continue to filter after the pedestrian phase has finished.
- Can be provided on either free flow or Give Way controlled slip lanes.
- Two aspect arrangement comprising red and yellow circular or arrow aspects only.





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Examples on Left Turn Slip Lanes





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VicRoads Criteria for Part Time Pedestrian Signals

- No specific criteria except where there is a need during isolated periods or for those pedestrians that require assistance at isolated times.
- Springvale Road / Maroondah Highway – installed to accommodate person with cerebral palsy.
- Maroondah Highway / Surrey Road – installed to assist children crossing to school



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Sequence of Operation

Vehicle Display

- Off then
- Yellow then
- Red then

- Off

Pedestrian Display

- Off then
- Red then
- Green + Flashing
Red + Red then

- Off



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Photos of Vehicle Display Sequence





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Flexibility of Part Time Pedestrian Signals

- They can link into SCATS where there is the need for co-ordination e.g. heavy left turns during peak periods.
- They can link into other phases to provide a comprehensive walk e.g. outside schools.





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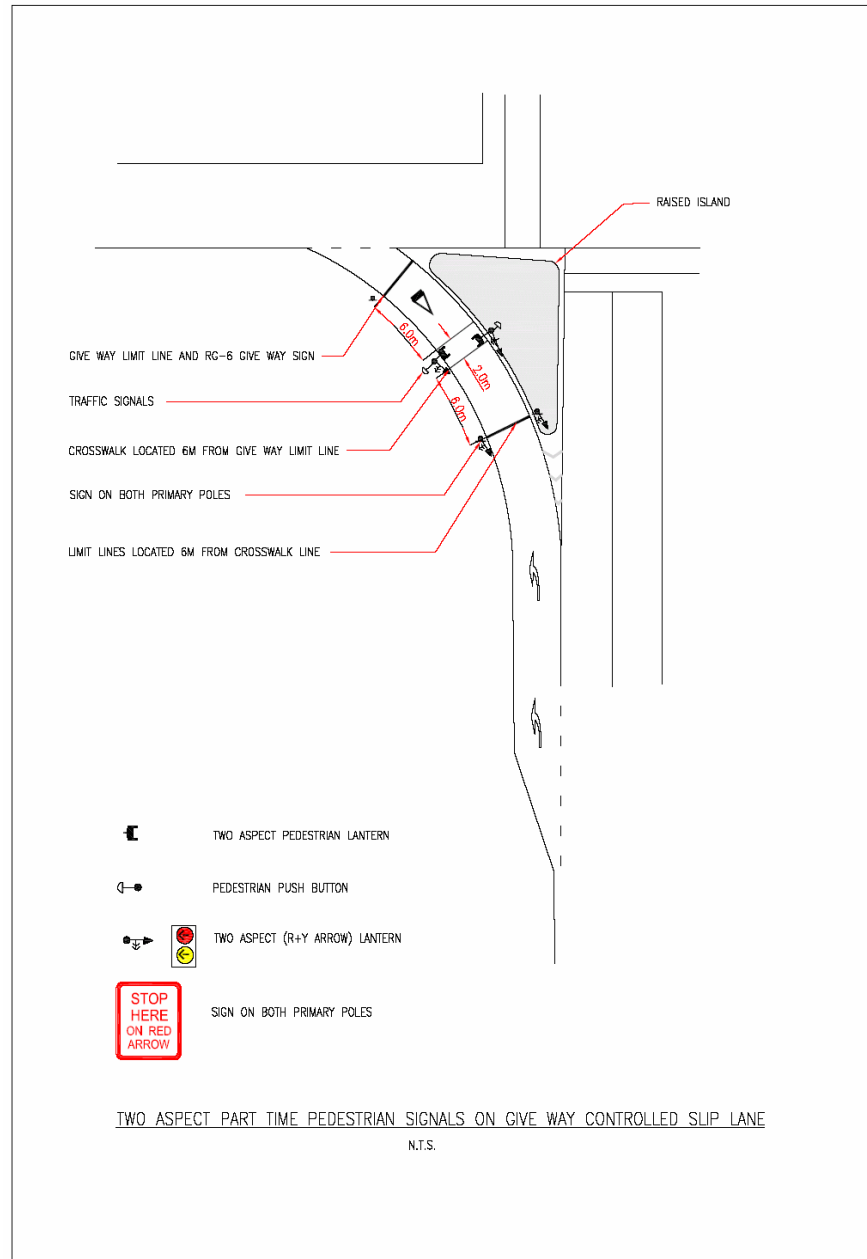
Criteria and Impacts for Adoption In New Zealand

- Provided where a dedicated signalised crossing or a zebra crossing no justified given low numbers of pedestrians
- Provided where there is a need to better cater for visually or mobility impaired pedestrians.
- Improved safety and accessibility
- Reduce delay for left turning motorists
- Less power used
- Changes to TCD Rule



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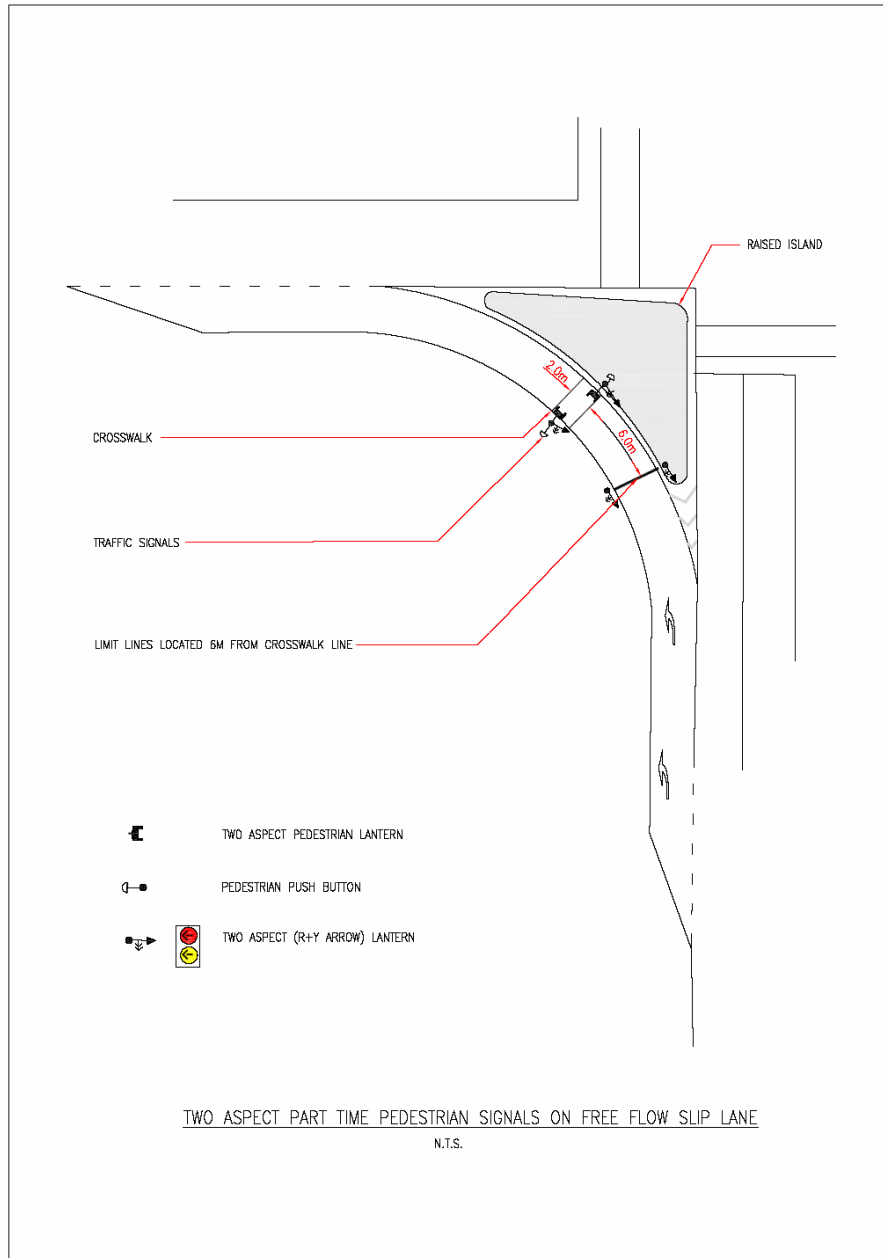
Give Way Controlled Slip Lane





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Free Flow Slip Lane





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Questions?