Comparing CoPPTM with UK and Aus Requirements
July 2013
My History/Background

- **Works Infrastructure – Kiwi Point**
  (November 2006 to February 2007)

- **MWH – Wellington**
  - (November 2007 to 2009, part-time)
  - (2009 to present, full-time)

- **BE Civil (Canterbury, 2011)**
Scope - Documents

Documents:
- Traffic control devices manual part 8 Code of Practice for Temporary Traffic Management
  - Traffic Control at Work Sites (NSW)
  - Manual of Uniform Traffic Control Devices (Queensland)
  - Traffic Management for Works on Roads (WA)
  - Worksite Safety - Traffic Management (Vic)
- Traffic Signs Manual Chapter 8 Traffic Safety Measures and Signs for Road works and Temporary Situations
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Aspects not examined:
• Personnel training systems/requirements
• Personal Protective Equipment standards
• Delineation and barrier specifications
• Sign layouts and messages
• Vehicles and attenuator specifications

• Aspects reviewed:
  • Layout **Form** and **Use**
  • **Sign, Cone, and Taper** spacings and lengths
Overview

- Road Classifications
- Temporary Speed Limits
- Differences between some layout types
- Common NZ Layouts
Road Classifications
New Zealand Classifications

• New Zealand has three categories, with two sub-categories

• Level One – default category with most urban streets and rural roads
  – Low Volume – Roads with less than 500 vpd / 40 vph
  – Low Volume Low Risk – Road with less than 250 vpd / 20 vph and are considered low risk

• Level Two – Urban and Rural, high volume roads with over 10,000 vpd

• Level Three – High volume, high speed, divided, multi-lane roads

• Minimum Network length requirements for Level Two and Three
Australian and UK Classifications

• Australia has three classification categories
  – Two-lane, two-way roads
  – Multi-lane undivided roads
  – Divided roads

• United Kingdom has two classification categories with one sub-categories
  – Undivided roads
    • Minor roads – typically have low speed with less than 400 vehicles per hour
  – Divided roads
Temporary Speed Limits
Temporary Speed Limits – NZ v Aus

- **NZ**
  - Common Speed Limits
    - 70 km/h
    - 50 km/h
    - 30 km/h

- **Australia**
  Traffic Calming Measures
  - 80 km/h
    Buffer Zones for other speeds
    Some Change to alignment
  - 60 km/h
    Confined Alignment
    Workers <3m to traffic
    *Manual traffic controllers*
  - 40 km/h
    Workers <1.2m to traffic
  - <40 km/h
    Unusually High hazard for workers

TSL should not be buffer Zones
TSL should be suitable for the site
TSL should be 20km/h posted speed limit
TSL should match/ traffic lane widths
TSL determine sign/cone/taper spacing etc.
Temporary Speed Limits – NZ v UK

- NZ
  - Common Speed Limits
    - 70 km/h
    - 50 km/h
    - 30 km/h

  TSL should not be buffer Zones
  TSL should be suitable for the site
  TSL should be 20 km/h lower than posted speed limit
  TSL should match/ traffic lane widths
  TSL determine sign/cone/taper spacing etc.

- United Kingdom

  TSL considered on a case by case basis
  TSL should be 20 mph (30 km/h) lower than posted speed limit
  TSL signs must be LIT during darkness
  Motor/Expressway >= 40mph (65 km/h)
  TSL affect offsets and spacings
  TSL alter within site for specific hazards.
Differences
Inspections

Australia
• All Levels: 15 min stop, occupy live lane without spotter with 20 seconds clear sight distance.

UK
• Divided Carriageway (L3): 15 min stop off the live lane, 90 min behind protective barrier

NZ – “Mobile Operations”
• LV : No spotter required
• L1 : up to 5 min on live lane, with spotter – must avoid impeding traffic
• L2 & L3 : Static or Mobile closure on Live Lanes, limit to shoulder
Lane Closure – Alternating Flow

Giveaway/Priority Control
• UK, less than 840 vph (Minor Road) – NZ less than 1000 vpd
  – Give-take no signage less than 400 vph

Stop/Go – Manual Traffic Control
• UK, not used
• Aus, up to 60 km/h speed environment, controllers “shall be” relieved after no more than 2 hours.

Portable Traffic Signals
• UK, Stop/Go boards, replaces Manual Traffic Control.
Central Lane Closures
• Aus, permitted to maintain peak traffic flow past site, 1 lane per 1000vph.
• UK, permitted for unattended worksites
• NZ, L1 and LV sites, i.e. closing a passing lane.

Taper Spacing
• UK, direct closure of lanes with a single taper

Minimum Lane Widths
• Aus, 3m

Cone Spacing
• UK, cone spacing may be doubled in areas of closure without a worksite or taper.
Mobile Works

Advanced Warning Variable Message Signs
• Limit Sample Size,

• Road networks sampled not representative of all networks,

• Tendency to use “default” layouts and not site specific,

• Single TMP maybe used multiple times – rubbish collection

• Layouts which have been approved, not necessarily carried out
## Layouts Used Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Level One</th>
<th>Level Two</th>
<th>Level Three</th>
<th>Total</th>
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<tr>
<td>Misc</td>
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<td>130</td>
<td>720</td>
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<tr>
<td>Shoulder/Foot path Closure</td>
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<tr>
<td>Lane Closure Alternating</td>
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<td>850</td>
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<tr>
<td>Lane Closure Continuous</td>
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<td>Road/Detour</td>
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<tr>
<td>Mobile Operations</td>
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<td><strong>3700</strong></td>
<td><strong>2219</strong></td>
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## Layouts Used Lane Closures

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<th>Level Three</th>
<th>Total</th>
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</thead>
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<td>Stop/ Go Manual</td>
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<td>Pilot Vehicle</td>
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</tbody>
</table>
Thank-you

Questions