Pedestrians at road worksites

Vulnerable road users

Pedestrian safety

The Manual for Uniform Traffic Control Devices (MUTCD) states that pedestrian and bicycle paths should be provided on the same scale and to the same width as any facilities for pedestrian or bicycle traffic that were existing prior to the works (see MUTCD Part 3, Section 2.3.7).

Temporary traffic management (TTM) can create a risk to pedestrians where their normal route is obstructed or closed. No traffic management treatment should negatively impact on the safety of pedestrians — all individuals involved with TTM need to be aware of the issues and the solutions relating to pedestrians at roadworks.

Current issues

Providing safe passage for pedestrians is often overlooked at construction works. The examples shown on the top-right are not appropriate as they direct pedestrians to an informal mid-block crossing of the road where a formal crossing is available.

The preferred approach (bottom-right examples) is to place advance warning signage at the nearest formal crossing point, if it is reasonably practicable to do so and is acceptable to pedestrians.

Delineation for pedestrians is also frequently insufficient at work sites. Often sites will use combinations of cones or bollards, usually with flag tape, for the delineation of pedestrians through or past a worksite. This practice does not align with the guidance in the MUTCD Part 3 Clause 3.10 and allows for ingress into the worksite or active traffic lanes which can pose a risk to vulnerable road users, such as children.
## Key considerations

A summary of the key considerations for pedestrians and where to look for further information is provided in the table below.

### Table 1: Key considerations for pedestrians

<table>
<thead>
<tr>
<th>Issue</th>
<th>Key considerations for Traffic Management Designers</th>
<th>Further information</th>
</tr>
</thead>
</table>
| **Accessibility**    | • Temporary ramps must have a maximum grade of 1:8.  
• Temporary ramps must be suitably skid resistant, typically made of cold mix asphalt, compacted gravel, or plastic kerb ramps.  
• Ramps are recommended wherever there are steps within the travelled path for pedestrians.  
• Selection and use should be based on a risk assessment.  
• Registered Professional Engineers Queensland (RPEQ) advice may be necessary for long term works. | SD1464, MUTCD Part 3 Clause 2.2.3         |
| **Roadside barriers**| • Must be a Transport and Main Roads (TMR) accepted barrier system, follow the desired path of travel, and are not small enough to act as a projectile when impacted by a vehicle.  
• Must be appropriately positioned and delineated to avoid pedestrians entering the deflection zone if impacted.  
• Must be suitably angled on approaches to the worksite to prevent penetration by a vehicle.  
• Consider undertaking TMR’s Temporary Road Safety Barriers course.  
• RPEQ advice may be necessary. | MUTCD Part 3 Clause 3.10.3                  |
| **Parking areas**    | • Must be considered in site management plans, designating separate areas for worker and visitor vehicles outside the construction zone and pedestrian operating space.  
• On-road parking may be temporarily prohibited where it can impact in the sight distance to pedestrians. | MUTCD Part 3 Clause 2.3.7, Clause 2.3.8 and Clause 2.2.3 |
| **Risky behaviour**  | • Must be addressed in the risk assessment with appropriate mitigating treatments.  
• Must consider proximity to institutions where risky behavior may be prevalent such as schools or entertainment precincts. Consider:  
  o times of operation  
  o user’s requirements  
  o user’s acceptance and understanding of risk. | MUTCD Part 3 Clause 2.2.3                  |
| **Risk assessments** | • Must be conducted to determine the appropriate pedestrian treatments.  
• Must consider proximity to institutions where risky behavior may be prevalent such as schools or entertainment precincts. Consider:  
  o times of operation  
  o user’s requirements  
  o user’s acceptance and understanding of risk. | MUTCD Part 3 Clause 2.2.3, AS/NZS 4360     |
| **Lighting**         | • Lighting must not be less than the level provided on the original footpath or to AS/NZS 1158.3.1.  
• Additional lighting is used where it is necessary to improve visibility or highlight crossing points.  
• RPEQ advice may be necessary. | MUTCD Part 3 Clause 2.3.6 and Clause 2.3.8 |
Table 1: Key considerations for pedestrians

<table>
<thead>
<tr>
<th>Issue</th>
<th>Key considerations for Traffic Management Designers</th>
<th>Further information</th>
</tr>
</thead>
</table>
| Temporary paths and footpath closures | • A temporary path should be considered when the path is important to the local community or a closure would make the walking distance unreasonable, tempting risky behaviors.  
• A temporary path must provide a reasonably direct, clearly marked pathway through or past the worksite and should include consideration for pedestrian ‘desire lines’ to limit unsafe shortcuts.  
• Temporary paths should, where practicable, be to the same scale as the path they are replacing. Available path width should be at least two metres but must not be less than one metre.  
• Where required, the temporary path must be suitably separated from vehicles or the worksite using either mesh fencing, a longitudinal channelising device, or a safety barrier as appropriate as these devices provide a physical and visual barrier to pedestrians.  
• Delineation that allows for pedestrian ingress into the trafficked lanes or the work area shall not be used for delineating pedestrians.  
• Closures should only be used when temporary paths are not reasonably practicable to install, maintain and monitor.  
• Closures must be clearly signed in advance of the closure and pedestrians are to be adequately directed to a safe alternative route. | MUTCD Part 3 Clause 2.3.7, Clause 2.3.8, Clause 3.14, and Clause 4.14.4 |
| Signage and delineation    | • Must not create a hazard for road users. Can be further highlighted by a delineating device.  
• Must be clear and credible, instantly informing the user of the hazard and desired behavior.  
• Must not impact the sight distance of any road user.  
• If signs cannot be placed in a position that does not create a hazard for one or more users, they may be mounted to a pole within the verge. Where pedestrians are present the sign must be at a minimum height of 2.2 metres from the underside of the sign to the footpath. | MUTCD Part 3 Clause 2.5.2 |
| Travelled surfaces        | • Should have sufficient skid resistance (typically greater than 55BPN), be without grooves, snag hazards, severe elevation changes, bumps, potholes or major surface defects.  
• Surface should be swept down regularly, and any loose gravel or debris should be cleared as required.  
• Steel road plates are treated with a skid-resistant surfacing or avoided if possible, by using a staged construction approach.  
• RPEQ advice may be necessary. | MUTCD Part 3 Clause 2.1, Clause 4.14.2 Austrroads Report AP-R51516 |

For more information on providing for pedestrians at road worksites, please contact trafficengineering.support@tmr.qld.gov.au