Purpose
In a 2016 sample of crashes and near misses at Queensland road work sites, over a third of incidents involved motorists ignoring or disobeying traffic controller (TC) instructions. This fact sheet identifies key issues that may contribute to these incidents. It also suggests options for TCs and supervisors to avoid potential incidents.

These issues include:
1. **Visibility of the TC**
2. **Driver path through site is not obvious**
3. **Speed limit seems unreasonable**
4. **Driver distractions**
5. **Driver frustration**
6. **Driver response time**
7. **Unclear TC directions**

(A click on any of the above topics to navigate to that page.)

**Audience**
- People who prepare and administer roadwork contract documents
- Traffic management companies
- Traffic management design professionals
- Contractors (PCBU)

Research findings and examples

**When TC instructions were disobeyed**

- 51% Driving into a closed lane
- 22% Illegal actions (speeding, overtaking, failure to slow when directed)
- 15% TC hit by vehicle
- 12% Other

- 46% of motorists disobeyed directions by accident. Drivers were distracted by mobile phones, speedometers or GPS devices. Some said they could not understand the TC instructions.
- Over half of the drivers disobeyed the TC instructions on purpose. Some drove past the STOP bat into the closed lane. Others illegally overtook vehicles stopped in a traffic queue.

**Training and responsibilities**

The first step for all site supervisors is to make sure that your TCs hold current accreditation and have had the appropriate training for the job that they will be working on.

It is your responsibility to make sure your TCs are alert and medically fit, and are not fatigued or affected by alcohol or drugs.

Include your TCs in your pre-start meeting to discuss job expectations and any site-specific issues.

**Example 1:** A car went around the STOP bat while the driver was on a mobile phone. The TC had to take evasive action to not be hit by the car. The car was stopped further into the site by vehicles coming the other way. Cones, barriers and the taper had to be shifted to move the cars out. (Downer, 2016)

**Example 2:** A truck drove past the STOP bat, even after the TC waved the STOP bat and yelled to stop. The job supervisor talked to the driver when he reached the other end of the work site. The driver laughed at the supervisor when he was asked why he didn’t stop. (Altus, 2016)

**Example 3:** A car drove past the STOP bat while maintenance works were being done. The TC contacted the site supervisor using the UHF radio and the car was stopped in the closed lane. The driver was not able to explain why he drove straight past the STOP bat. (TMR, 2016)
Issue: The TC cannot be seen from a distance because of the site layout or road geometry. Signs or queued traffic may hide the TC.

What do you see?

- There are rear end crashes and near misses as drivers brake too late.
- You hear squealing of brakes and see cars swerving around the last vehicle in the queue.
- There is last minute braking at the holding line and drivers are overshooting the stop point.
- Drivers are shielding their eyes from glare or adjusting their vehicle sun visors.

What can you do?

**TCs:**

- Tell the site supervisor you think drivers cannot see you in time to respond to your instructions.
- Follow TC Approved Procedures for attracting the attention of drivers if you believe they do not see you or your STOP/SLOW bat.

**Site supervisors:**

- Drive through the site at peak times to check that the warning signs and the TC can still be seen by approaching drivers as vehicles start to queue.
- Shut down the site until the TC can be moved to a more visible location.
- If the TC cannot be moved to a more visible location for queuing traffic shut down the site in peak travel times.
- Do not operate traffic control at dawn or dusk if glare from the position of the sun makes it difficult for drivers to see the TC.

**Speak to your Traffic Management Designer about:**

- Reviewing the traffic guidance scheme (TGS) to make sure there are enough traffic control warning signs.
- Moving the warning signs or TC to improve sight lines.
- Installing a variable message sign warning drivers of traffic control ahead.

In practice...

- More is not always better. Drivers can get distracted if there are too many warning signs. It becomes harder for drivers to read and understand each sign, and important messages may be missed. Too many warning signs can lead to the road work site being less safe for your team. Always talk to your Traffic Management Designer before installing any extra warning signs.
- Creative scheduling of works can mean a TC is not needed at the site. Traffic congestion at peak travel times equals much lower vehicle speeds. Scheduling works at these times, when traffic is already stopped or slowed, means a safer environment is provided for workers, and a TC may not be needed at all.
Issue: The TC gives correct instructions but the intended path through the site is still not obvious to drivers.

### What do you see?

- Drivers swerve around delineation or stop in the middle of the site because they do not know which way to go.
- Drivers enter the closed lanes.
- You hear the screeching of tyres as drivers brake to avoid collisions with workers or equipment.

### What can you do?

**TCs:**
- Tell the site supervisor if you think motorists do not understand where to stop and which route to take through the site.

**Site supervisors:**
- Mark the intended path for traffic clearly with safety barriers, temporary curbing, temporary bollards and traffic cones. The recommended distance between cones in the MUTCD is a maximum spacing. You can install additional cones and move them closer together to make the intended path more obvious to motorists.
- TCs should operate with an illuminated wand at night to clearly show the direction for traffic.

Speak to your Traffic Management Designer about:
- Using vehicle mounted LED warning arrows to support static warning signs.
- Using road work lighting and install raised reflective pavement markers to make the intended route clear at night and in low light conditions.
- Installing temporary rumble strips to warn drivers that they are moving into a closed lane.

### Did you know...

- Serious head on crashes have happened because drivers have been confused about which side of the road to drive on at road work sites.
- If you are creating an extra lane or operating contraflow you must use delineation to separate opposing lanes.
- If you are using signalized shuttle flow make sure to mark the point at the end where traffic is expected to move back to the correct side of the road (see Manual of Uniform Traffic Control Devices (MUTCD), Diagram 12, Part 3 Works on Roads).

### In practice...

- Clear delineation separates opposing lanes.
- Extract from an example Traffic Guidance Scheme showing 4 cones on approach to TC.
Issue: Drivers are not slowing down because the speed limit does not seem reasonable to them.

What do you see?
- Drivers are speeding through the site.
- Drivers do not obey the STOP/SLOW bat.
- Drivers overshoot the stopping point.
- There are rear end crashes and near misses at the end of the traffic queue.
- You hear squealing tyres as drivers try to brake in time.

What can you do?

TCs:
- Tell the site supervisor that drivers are not slowing down enough to stop safely.

Site supervisors:
- Drive through the site with traffic to test driver behaviour and confirm whether speed limits are reasonable and seem appropriate.

Talk to your Traffic Management Designer about:
- Reducing lane width with delineators or temporary curbing so motorists “feel” like they are going too fast.
- Using rumble strips and rumble mats to alert drivers to the lower speed limit.
- Installing portable speed humps to encourage drivers to slow down.
- Using portable speed display devices to let motorists know that they are speeding.

Did you know...

In an emergency, the average driver takes about 1.5 seconds to react.
Stopping distances increase the faster you go.
The below graph shows how long it takes to stop (driving an average family car):
**Issue:** Motorists are distracted and are not paying attention to vehicles slowing down in front of them.

### What do you see?

- Drivers do not make eye contact with the TC as they approach.
- Drivers are talking or texting on a mobile phone.
- You see late braking and hear squealing of tyres.
- There are rear end crashes and near misses.
- Drivers overshoot the stopping point.
- Drivers are swerving to avoid hitting the TC.

### What can you do?

**TCs:**
- Tell the site supervisor if you think that drivers are not noticing you or the traffic control signs.
- Follow TC Approved Procedures for attracting the attention of drivers if you believe they do not see you or your STOP/SLOW bat.

**Site supervisors:**
- Make sure traffic control warning signs have been installed according to MUTCD guidelines.
- Use a UHF broadcast to warn heavy vehicles of traffic control ahead.
- Speak to Queensland Police Service about mobile phone enforcement at the site.

**Talk to your Traffic Management Designer about:**
- Installing a roadwork project advice sign about traffic control in advance of the road work site.
- Installing a variable message sign telling drivers that there is traffic control ahead.
- Installing flashing lights on warning signs to attract the attention of motorists.
- Using vehicle mounted LED warning arrows to support static warning signs.
- Introducing a second TC further along the site to slow traffic down before they reach the stopping point or the end of the queue.

### Did you know...

- Driver distraction accounts for about one in four road crashes.
- If a police officer sees a driver using a hand-held mobile phone in any way while driving (even when stopped at traffic lights) they will pull them over and issue a fine with demerit points.
- Police issued over 27,000 mobile phone infringement offences in 2015.
Issue: Motorists are frustrated by delays during traffic control.

What do you see?
- Drivers making aggressive gestures and abusing the TC.
- Vehicles overtaking around traffic queues.
- Vehicles driving into closed lanes.
- Motorists ignoring TC instructions.
- Drivers following too closely and speeding to get past the TC before the STOP bat is displayed.

What can you do?

TCs:
- Operate according to the TC Approved Procedures.
- Be respectful and considerate of drivers when controlling traffic.

Site supervisors:
- Make sure TCs are being respectful and considerate of drivers when controlling traffic.
- Use a UHF broadcast to warn heavy vehicles of traffic control ahead.
- Report abuse by drivers using the Road Worker Safety Hotline on 1800 501 509.

Talk to your Traffic Management Designer about:
- Installing a variable message sign warning drivers of traffic control and likely delays.

Issue: TCs do not give drivers enough time to react and stop safely.

What do you see?
- Drivers are braking at the last minute.
- There are rear end crashes and near misses.
- Drivers are overshooting the stopping point at the TC.
- You hear squealing of brakes and see cars swerving to avoid hitting the vehicle in front.
- Drivers are abusing the TC.
- Drivers are revving engines while they wait or spinning their tyres as they drive away.

What can you do?

TCs:
- Operate according to the TC Approved Procedures.
- Think about the weather conditions and the road surface when you are stopping traffic. Give drivers enough time to react and slow down safely.
- Be respectful and considerate of drivers when controlling traffic.

Site supervisors:
- Remind the TC of their operating requirements.
- Remove the TC from the task if they are disrespectful and inconsiderate of motorists.
Issue: Drivers do not understand the directions from the TC.

What do you see?

- Drivers are braking at the last minute.
- There are rear end crashes and near misses.
- Drivers are overshooting the stopping point at the TC.
- You hear squealing of brakes and see cars swerving to avoid hitting the vehicle in front.
- Drivers are abusing the TC.
- Drivers are revving engines while they wait or spinning their tyres as they drive away.

What can you do?

**TCs:**
- Operate according to the TC Approved Procedures.
- Follow TC Approved Procedures for attracting the attention of drivers and repeating directions if they are not following your instruction.

**Site supervisors:**
- Give the TC more operating room so that they can use bigger gestures when instructing traffic.
- Drive through the site to see if there are ways to make the directions clearer for drivers.

Did you know...

You can make the intended path clear for drivers by:

- Installing the temporary hazard marker (T5-Q02) or the keep left delineator (R2-3-Q01) in advance of 4 traffic cones along the centre line to show motorists the correct path to take when approaching the TC.
- Installing the STOP HERE WHEN DIRECTED sign (T1-Q12) to make the stopping point clear to drivers.

![Image](image.png)

Extract from an example Traffic Guidance Scheme showing 4 cones on approach to TC.

In practice...

Do not install the traffic cones along the edge line of the road. This creates a trip hazard and means the cones are not doing the job they are meant to – providing guidance for drivers.
Where to go for advice

**Manual of Uniform Traffic Control Devices (MUTCD)**

The MUTCD Part 3 - Works on Roads contains guidelines for traffic management. You can find it by typing "MUTCD" into the search bar on the Transport and Main Roads website (www.tmr.qld.gov.au).

Variations to the optimal treatments should only be made on the basis of a documented risk assessment.

**MRTS02 - Provision for Traffic**

The MRTS02 - Provision for Traffic is the TMR technical specification that applies to the control of traffic during roadworks and describes the project-specific requirements for control of traffic through the worksite. You can find it by typing “MRTS02” into the search bar on the Transport and Main Roads website (www.tmr.qld.gov.au).

This specification makes provision for mandating extra requirements for preventing incidents and crashes involving TCs.

**TC training**

Up-to-date training in safe traffic control practices can help protect TCs from near misses and crashes on the job site.

To operate in Queensland TCs must successfully complete a Queensland Department of Transport and Main Roads approved TC training course that provides both classroom and supervised on-road training in safe operation of STOP/SLOW traffic control activities.

The TC training course is offered by a range of Registered Training organisations. It includes a number of national units of competency. Further information about the TC training course can be obtained by contacting Statewide Capability Development, Department of Transport and Main Roads on 07 3066 8672.

The TC Accreditation Scheme Approved Procedure can be downloaded from the Department of Transport and Main Roads website (www.tmr.qld.gov.au) by typing “tcas approved procedure” into the search bar.

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### Other fact sheets in the series include:

- Entering closed lanes at road works
- Rear end crashes at road works
- TC near misses

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For more information please email TMDesign@tmr.qld.gov.au