Purpose
In a 2016 sample of crashes and near misses at road work sites, over 221 involved people driving into closed lanes. This included people driving into the lane where:
- Work was being done
- A lane was closed by traffic control to direct the flow of traffic
- There was a full lane closure.
Entering a closed lane can be accidental, or it can be deliberate. This fact sheet identifies key issues and suggests options for traffic controllers (TCs) and site supervisors to avoid vehicles entering closed lanes.
These issues include:
1. Lane closure cannot be seen from a distance
2. The intended path through the site is not clear
3. Drivers believe speed limit is unreasonable
4. Drivers are not paying attention
5. Drivers are frustrated by delays
6. Drivers do not have enough time to stop safely
(Click on any of the above topics to navigate to that page.)

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.

Research findings and examples
41% of motorists drove into the closed lane by accident.
- 7 drivers didn’t see the signs
- 5 were distracted (eg. mobile phone, looking elsewhere)
- 8 didn’t understand the signs or instructions
Almost half of the drivers eventually stopped or returned to the correct lane. However, 14% kept going through the site, despite attempts by TCs to stop them.

Example 1: A semi trailer ran the STOP bat. A bob cat in the live lane had to get off the road to avoid the semi trailer. The truck driver said that he was looking at his speedometer and didn’t see the STOP bat. (Downer, 2016)

Example 2: A member of the public ignored the road closure sign and came through the site on the wrong side of the road. TCs told him the road was closed but the driver said he had to find a way through somehow, and proceeded to drive down the closed road. (Downer, 2016)
Issue: The lane closure cannot be seen from a distance because of the site layout or road geometry. Queued traffic may hide the traffic controller, or signs may be in the way.

<table>
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<th>What do you see?</th>
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<tr>
<td>• Rear end crashes and near misses as drivers brake too late.</td>
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<td>• Drivers swerving around the last car in the queue and you hear the squealing of brakes.</td>
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<td>• Vehicles entering closed lanes.</td>
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<td>• Cars running over cones and into barriers as they swerve to avoid the closed lane.</td>
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<th>What can you do?</th>
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<td><strong>TCs:</strong></td>
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<td>• Tell the site supervisor you think drivers cannot see you or the lane/road closure in time to stop.</td>
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<td>• Follow TC Approved Procedures for attracting the attention of drivers if you believe they do not see you or your bat.</td>
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<td>• Drive through the site at peak times to check the visibility of lane/road closure signage and traffic control as vehicles start to queue.</td>
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<td>• Consider shutting down the site in peak travel periods if queuing traffic reduces visibility.</td>
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**Talk to your Traffic Management Designer about:**

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<th>Did you know...</th>
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<td>In 2016 Austroads (the association of Australian and New Zealand road transport and traffic authorities) launched its Safety at Roadworks Strategic Priority Project.</td>
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<td>The project includes:</td>
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<td>• updating the Australian Standard - Traffic control devices for works on roads (AS1742.3)</td>
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<td>• developing a range of supporting guideline documents</td>
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<td>• researching safety at roadwork sites across the world, and</td>
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<td>• making sure training is delivered in the same way across all of Australia.</td>
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### What you see?

- Drivers are going the wrong way around barriers, bollards and delineation.
- Drivers are stopping at the wrong place.
- Drivers are entering closed lanes.
- Barriers, bollards and delineation are being hit by vehicles.
- Vehicles are swerving through the site.

### What can you do?

**TCs:**
- Tell the site supervisor if you think drivers are confused about where to stop and which route to take through the site.

**Site supervisors:**
- Drive through the site in both day and night conditions to see if the intended path is clear to motorists.
- TCs should operate with an illuminated bat at night to clearly show the direction for traffic.

**Talk to your Traffic Management Designer about:**
- Marking the intended path for traffic clearly with safety barriers, temporary curbing, temporary bollards and traffic cones. The recommended distance between cones in the Manual of Uniform Traffic Control Devices (MUTCD) is a maximum spacing. You can install additional cones and move them closer together to make the intended path more obvious to motorists.
- Installing a variable message sign warning drivers of the lane/road closure ahead eg. “left lane closed, 100m ahead”.
- 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.

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**In practice...**

Pedestrians also need clear directions about how to proceed through road work sites.

If you close off a footpath you need to make sure that another safe option is available for foot traffic. Do not simply direct them to the other side of the road if there is no viable footpath or safe crossing location.

You will need to create a safe option for pedestrians.
### Issue: Drivers are not slowing down enough to brake safely at the lane or road closure because the speed limit does not seem reasonable to them.

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

#### What can you do?

**TCs:**
- Tell the site supervisor if you think drivers are failing to stop safely because they are going too fast.

**Site supervisors:**
- Drive through the site with the traffic to make sure the reduced speed limit doesn’t start too far ahead of the road work site so motorists are starting to speed up again.
- Talk to the Queensland Police Service about speeding enforcement and police presence at the point of lane/road closure.

**Talk to your Traffic Management Designer about:**
- Installing a variable message sign warning drivers of the lane/road closure ahead eg. “lane closed, slow down”.
- Restricting lane width with the use of 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 motorists to slow down.
- Using portable speed display devices to let motorists know that they are speeding.
- Installing a second TC further along the queue to slow down traffic before they reach the lane or road closure or the end of the queue.

#### Did you know...
- One thing that frustrates motorists is when they see road work warning signs or a lowered speed limit but no one is working on the site.
- When drivers get used to seeing these signs left out but with no reason to slow down, they are less likely to obey them next time they see them.
- Over time, this is making it less safe for you and your roadwork and traffic management teams.
- Cover or remove signs and delineation when the site is inactive.
Issue: Motorists are distracted and are not paying attention to lane closure warning signs or the traffic controller.

What do you see?

- Drivers using mobile phones or paying attention to something in the vehicle rather than to driving.
- Drivers looking at the road works instead of the road in front of them.
- Side swipes and near misses as drivers brake too late to merge or change lanes safely.
- Drivers overshooting the stopping point because they see the lane closure signs too late to stop in time.

What can you do?

**TCs:**
- Tell the site supervisor if you think drivers are confused about where to stop and which route to take through the site.

**Site supervisors:**
- Make sure lane and road closure warning signs have been installed according to the TGS.
- Use a UHF broadcast to warn heavy vehicles of road closures ahead.
- Speak to the Queensland Police Service about mobile phone enforcement at the site.

**Talk to your Traffic Management Designer about:**
- Installing a roadwork project advice sign about lane closures in advance of the road work site.
- Installing a variable message sign telling drivers that there is a lane or road closure 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 lane closure.

In practice...

Communicating with drivers as they approach a road work site is only part of the traffic management job.

It is also important to tell drivers when they are leaving the reduced speed limit of the road work site, by installing an End Road Work sign (T2-16) and reinstating the speed limit.

Without these signs drivers become frustrated and confused because they don't know what speed they are meant to be doing. pedestrians.
Issue: Motorists are frustrated by delays during lane and road closures.

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.
- Drivers are revving their engines while they wait or spinning their tyres as they drive away.

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 lane 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: Traffic controllers 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 the squealing of brakes and see cars swerving to avoid the vehicle in front.
- Drivers are abusing the TC.

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.

Did you know...
- TC accreditation is issued for 3 years.
- TCs must keep their contact details up to date and notify TMR of any changes.
- The TC Accreditation Scheme Approved Procedure can be downloaded from the TMR website. Go to www.tmr.qld.gov.au and type “tcas approved procedure” into the search bar.
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 “TCASAP” into the search bar.

Other fact sheets in the series include:

- Disobeying the traffic controller
- Rear end crashes at road works
- TC near misses

For more information please email trafficengineering.support@tmr.qld.gov.au