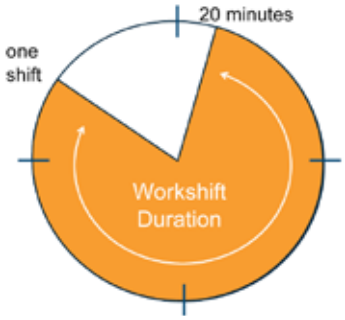
Static work sites on urban residential streets (low-speed, low-volume roads)

This factsheet provides guidance on the appropriate selection of static work sites in urban residential streets which have low speeds and low traffic volumes.

Works on these types of roads are commonly undertaken by contractors who may be employed by Councils, developers or residents. Such works need to be managed in accordance with the TMR Manual of Uniform of Traffic Control Devices (MUTCD) Part 3 – Works on Roads which should be consulted when preparing all Traffic Guidance Schemes.

A static work site is an area where work activities will occur that remains unchanged for the duration of a shift. These work sites need to be designed in accordance with MUTCD Part 3 Cl 4.2 – Static work sites. Short-term work sites are not covered in this factsheet but should be designed in accordance with MUTCD Part 3 Cl 4.4 – Short-term low impact works – built-up areas.

These work sites generally require relatively simple traffic arrangements to manage risk and frequently may not require traffic controllers if at least 3.5m of roadway can be maintained past the works.



Generally, the minimum duration for establishment of a static work site is 20 minutes and typically one shift in duration, with work sites not left unattended at any time. Where work sites are required for longer than a single work shift or unattended for a long period, additional protection for public safety needs to be considered.

Some examples of low-speed, low-volume work site arrangements for urban residential streets are provided on the following pages.

Low-speed, low-volume urban residential streets generally have the following characteristics:

- default speed limit of 50km/h where unposted and may be posted at lower speeds
- are used by up to 1,000 vehicles per day
- typically between 6 m and 12 m wide
- two-way traffic
- may have parking and driveways on one or both sides
- commonly do not have linemarking or parking signage
- may have a concrete kerb and channel.
- footpaths may be present on one or both sides of the road but in many streets only a grassed verge is provided.

Examples of the types of work that this factsheet applies to may include (but is not limited to):

- landscaping and gardening
- tree removal and clearing
- footpath construction and repairs
- kerb and channel construction and repairs
- underground public utilities and infrastructure including culverts, pipes, pits, drainage and underground cables
- access to overhead cables
- minor excavations
- pothole rectification
- operating plant in the roadway where at least one lane of traffic can be safely maintained.

More complex traffic management arrangements are not considered, such as:

- work sites within 100 m of intersections or where there is poor advance visibility of the work site
- high volumes of pedestrians are expected past the work site (such as near schools) or where a footpath is obstructed (refer to factsheet – *Pedestrians at construction works*) .

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Selecting the optimal work site arrangement

Selecting an appropriate work site arrangement is determined using the optimal treatments provided in MUTCD Part 3 Cl 4.2 – Static work sites. This should include areas required for plant and delivery of materials.

The following examples show some of the possible arrangements for low-speed, low-volume urban residential streets. Traffic controllers may only be required for these work sites if there will be periods when plant and equipment must access the live lane or work activities pose a risk to traffic. Regardless of which arrangement is selected, Traffic Guidance Schemes must be prepared by a competent person with Traffic Management Design certification. Variations to optimal treatments require a risk assessment to be undertaken.

The next page presents some examples showing different separation distances to traffic and different road widths. The examples do not cover every possible work site setup.

There are three work site separation options to consider for low-volume, low-speed streets:

1. within 1.2 m of traffic
2. between 1.2 m and 3.0 m of traffic
3. greater than 3.0 m from traffic.

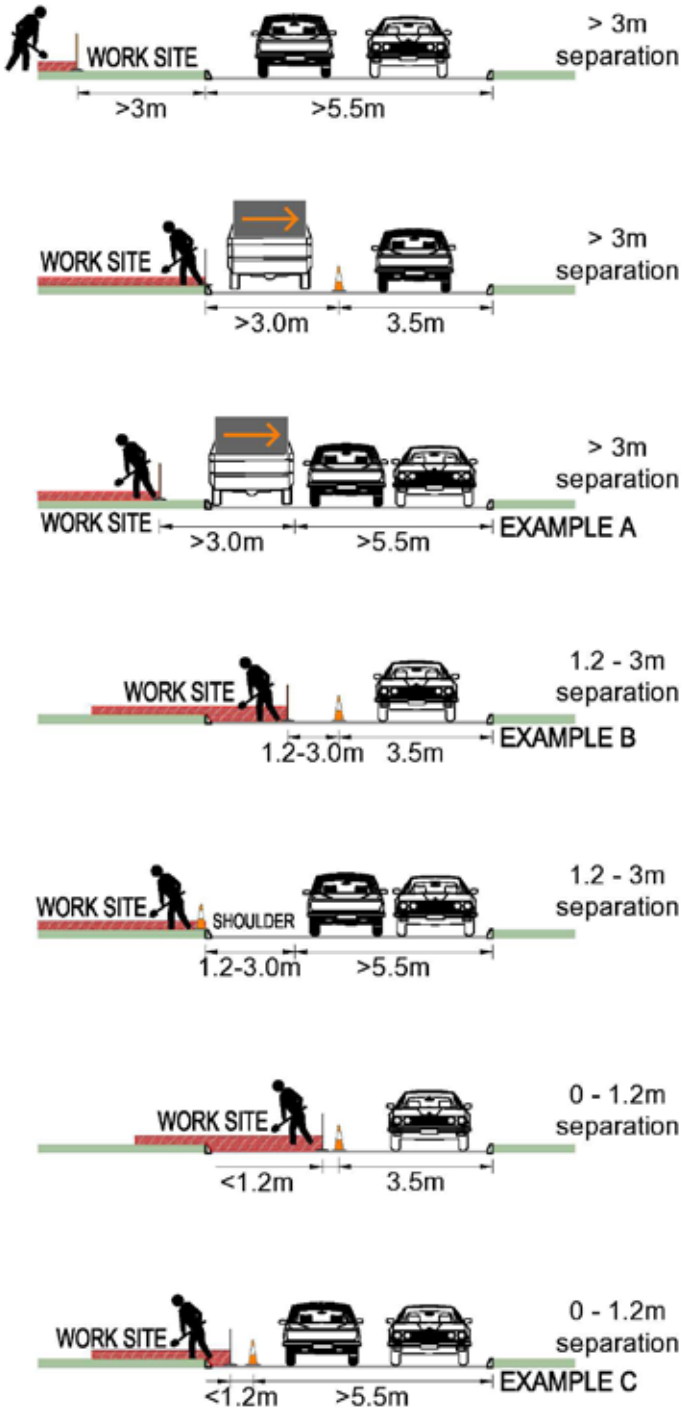
The separation distance to traffic is measured between the following two points:

- the closest edge of the work site to the road way
- the closest point on the road way that vehicles currently travel or are expected to travel when traffic cones are installed.

Traffic should be observed to determine travelled path location. On wider streets, the current travelled path may be more than 3m from the work site, particularly if there is a wide shoulder where vehicles may be parked.

Regardless of separation distance, only three options are available for the width of road to be maintained:

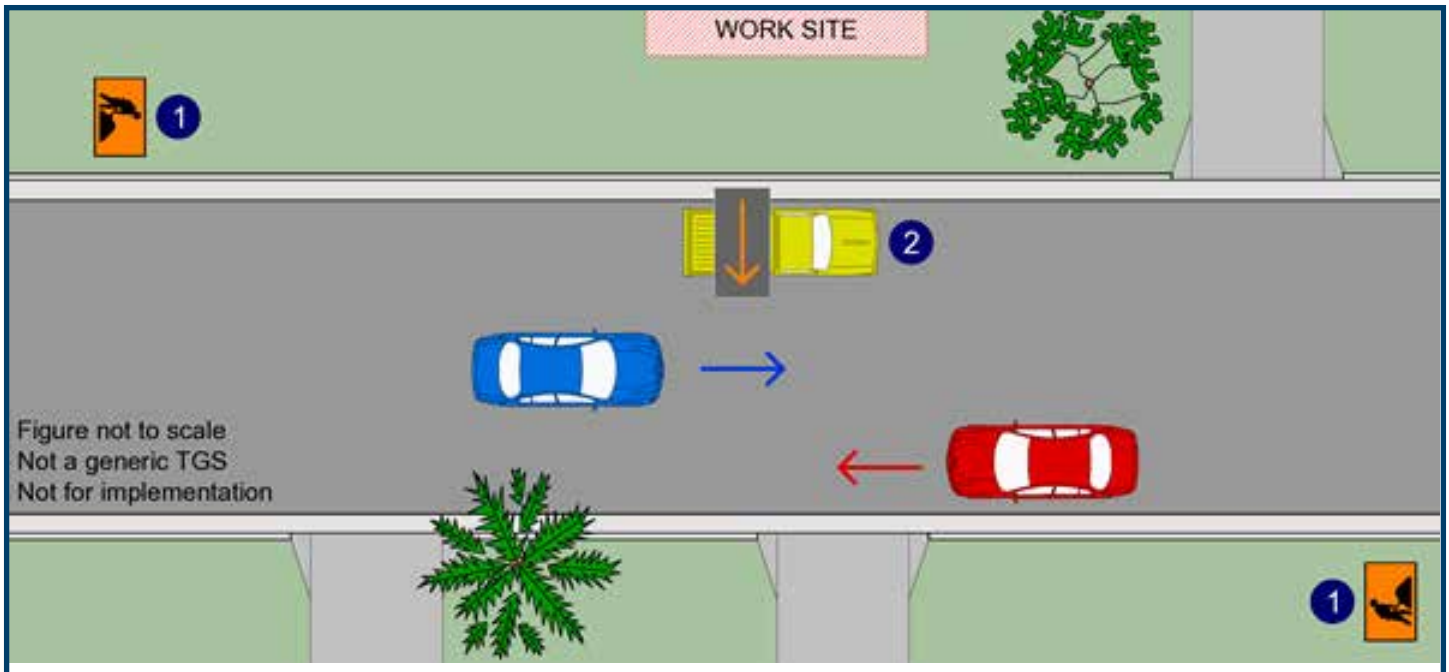
- if width of more than 5.5 m can be maintained two-way flow is appropriate
- if between 5.5 m and 3.5 m of road width is available, a “give and take” traffic flow should be created with traffic cones to delineate a 3.5 m lane. This can only be implemented for a length of 60 m and with clear visibility past the work area for at least 75 m and generally where less than 40 vehicles per hour are expected
- If less than 3.5 m is available, alternative options should be considered (e.g. detour, stop-go control).



Refer to MUTCD Part 3 Cl 4.2 and MUTCD Part 3 Cl 4.13.5

Figure not to scale

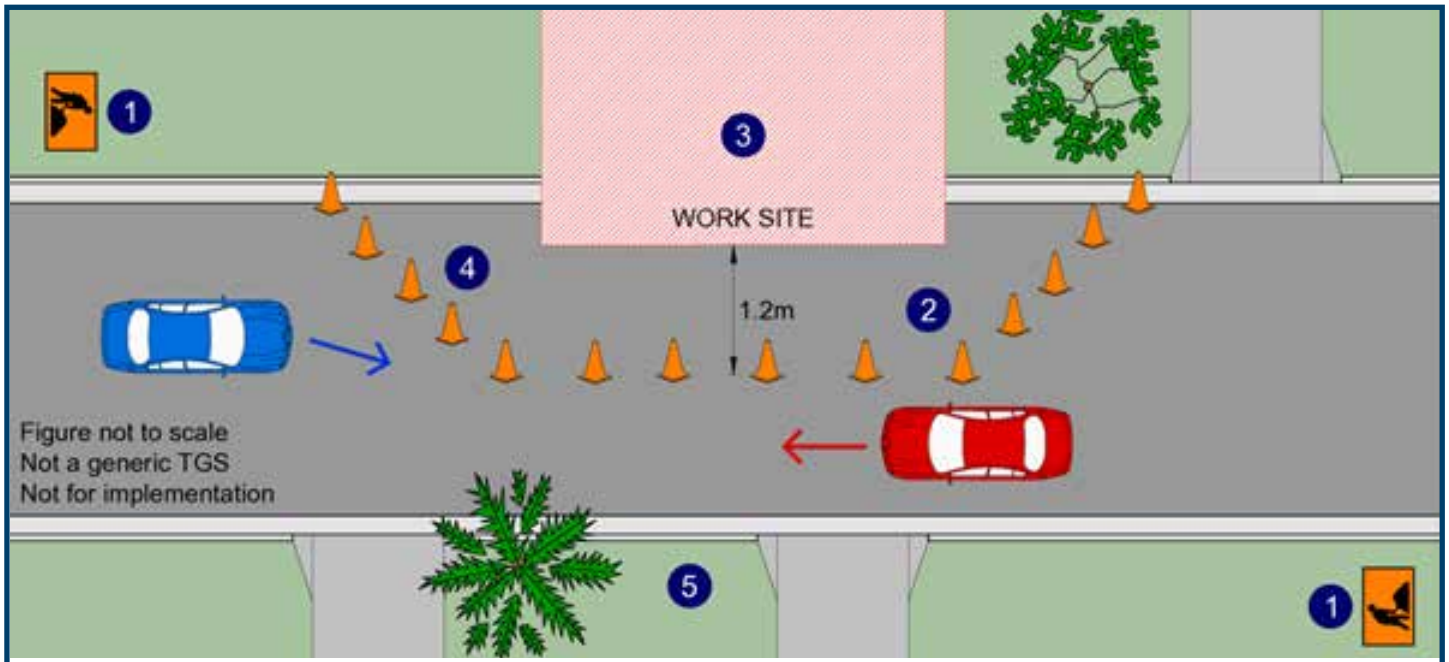
Example A – Work site further than 3 m from the edge of the travel path with 5.5 m road width maintained



1. Workers (symbolic) (T1-5) sign 10 to 15 m advance of the work area.
2. Vehicle mounted warning device such as a flashing yellow beacon or flashing yellow arrow board.

Refer to MUTCD Part 3 Cl 4.2(b), MUTCD Part 3 Cl 4.13.5 and MUTCD Part 3 Cl 3.12

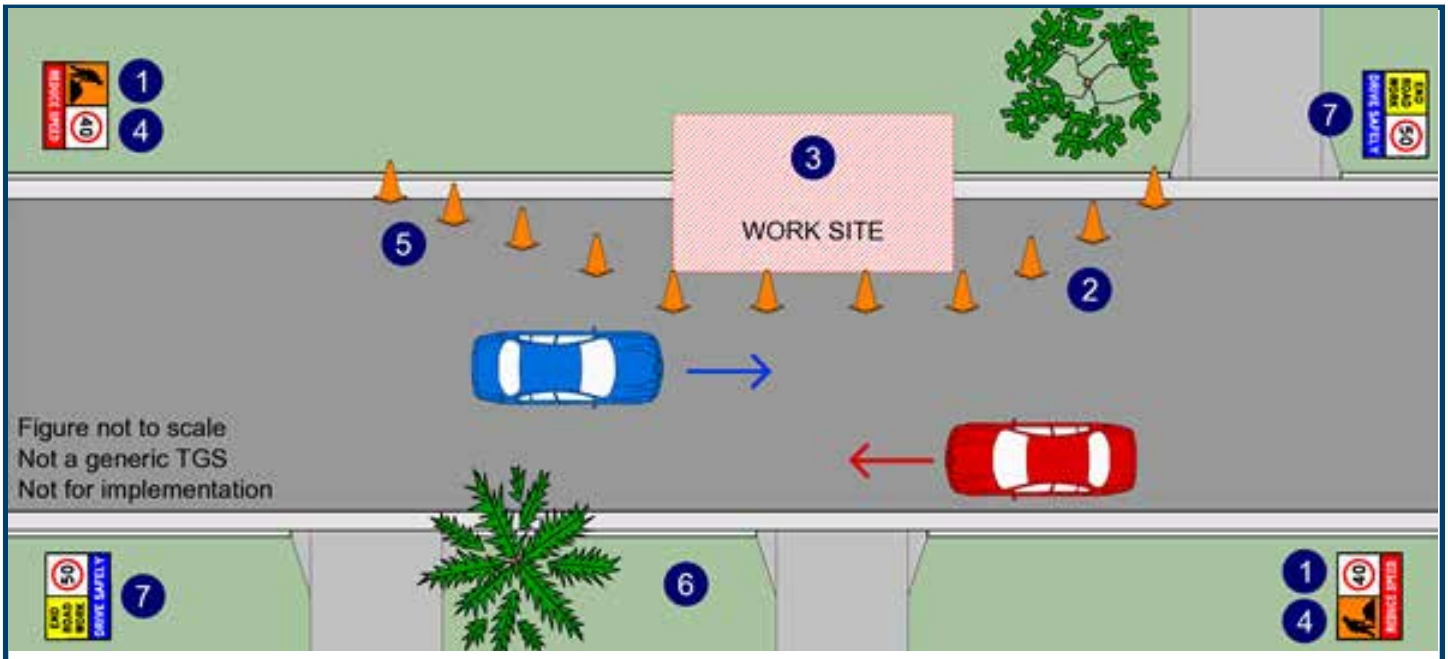
Example B – Work site 1.2 m from the edge of the travel path with 3.5 m road width maintained



1. Workers (symbolic) (T1-5) sign 10 to 15 m advance of the work area.
2. Delineation of the edge of the traffic lane by cones, bollards or similar means (e.g. parked vehicles). Traffic cones (minimum 450 mm height) must have a maximum spacing of 4m. Number of cones required varies with the length of work site and any tapers required.
3. Separate delineation of the edge of the work area by means of a containment fence if there is a risk of workers or small items of plant infringing on the clearance area
4. For “give and take” arrangements (3.5 m width) the approach taper should be 45°. Maximum length for “give and take” arrangement is 60 m and sight distance must be at least 75 m beyond the work area
5. Provision should be made for pedestrians to a similar standard of that available prior to the works (refer to factsheet – Pedestrians at construction works).

Refer to MUTCD Part 3 Cl 4.2 (c)(ii) and MUTCD Part 3 Cl 4.13.5

Example C – Work site between 0 m and 1.2 m from the edge of the travel path with 5.5 m road width maintained



1. Workers (symbolic) (T1-5) sign 10 to 15 m advance of the work area.
2. Delineation of the edge of the traffic lane by cones, bollards or similar means (e.g. parked vehicles). Traffic cones (minimum 450mm height) must have a maximum spacing of 4 m. Number of cones required varies with the length of work site and any tapers required.
3. Separate delineation of the edge of the work area by means of a containment fence if there is a risk of workers or small items of plant on infringing the clearance area
4. Posted speed during roadworks shall be reduced to 40 km/h unless:
   a. the speed limit is already 40 km/h or less; or
   b. works are being undertaken using only large items of plant.
5. If two-way vehicle movements are maintained (greater than 5.5 m width) the approach taper should be approximately 15 m.
6. Provision should be made for pedestrians to a similar standard of that available prior to the works (refer to fact-sheet – Pedestrians at construction works).
7. A temporary speed limit must be terminated by another regulatory speed control sign, or other means (refer to MUTCD Part 3 Cl 3.5.5).

Refer to MUTCD Part 3 Cl 4.2 (c)(iii) and MUTCD Part 3 Cl 4.13.5 and MUTCD Part 3 Cl 3.9

This factsheet is for information only and is based on the Manual of Uniform of Traffic Control Devices (MUTCD) Part 3 – Works on Roads 2003 Edition Seventh Issue July 2016.

Traffic Guidance Schemes must be prepared by a competent person with Traffic Management Design certification.

Other Works on Roads Factsheets related to this topic include:

- Cyclists and road works
- Pedestrians at construction works
- Short Term Low Impact Works
- Mobile Works on Two Lane Roads

For more in-depth information on any of these topics contact trafficengineering.support@tmr.qld.gov.au.