

What traffic management arrangements have been considered?

General traffic management

What has been considered?	Advantages	Disadvantages	Decision	
Road closure	Allows work to take place on full width of road (essential for safely laying hot-rolled asphalt surface course)	Entails long diversion routes to ensure that route is suitable for all traffic	Use road closure only for activities that are directly associated with surface course laying operations.	
	Provides safe environment for workers	Access still needs to be made available for frontagers and roads that are only accessible through the closure		
Standard two-way traffic lights	Allows everyone to travel along the route that they want to.	There is significant 'lost time' - where a traffic stream cannot advance - for any temporary traffic lights set-up. Typically the lost time can be around 75% for two-way traffic lights; leaving only around 25% of normal capacity	Traffic data and Experience show that, in this location, queues and delays will be unacceptably long, even with optimising manual control at peak times.	
	Simple for road users to understand	Length of works area restricted, so construction work will take longer than for some other systems		
	Can bias the green-signal times in favour of dominant flow	Does not deal with any side road flows		
		In this location, could give the impression that the traffic issues are not being taken very seriously		
Standard multiple-way traffic lights	Allows everyone to travel along the route that they want to, while also dealing with side road flows.	There is very significant 'lost time' - where a traffic stream cannot advance - for a multi-way temporary traffic lights set-up. Typically the lost time is in excess of 80% for three-way traffic lights; leaving less than 20% of normal capacity	Not to be used. Queues and delays will be unacceptably long.	
	Can bias the green-signal times in favour of dominant flows	In this location, could give the impression that the traffic issues are not being taken very seriously		
	Simple for road users to understand	Length of works area restricted, so construction work will take longer than for some other systems		
One-way system	Keeps traffic moving	System likely to surprise unfamiliar road users	Use for narrow section of Radford Bank between Radford Rise and Signed diversion route to be used for opposite flow.	
	Avoids any lost time caused by waiting for traffic lights to change	Diversion route very long and time-consuming for those wanting to travel against		
	Side road traffic can simply join flow	Diversion routes different for different types of vehicle due to low bridge etc.		
	No journey disruption in one direction	Alternative arrangements need to be made for emergency vehicles and buses		
	System clear and consistent	Will significantly affect residents within the one-way closure		
	Enables greater length of road to be worked on than traffic signals at one time, thereby reducing duration of work			
Tidal traffic management system, with one-way system supporting dominant flow and opposing flow sent around diversion	Keeps traffic moving	Potentially confusing for some road users, as regime may be different from previous encounters	Not to be used. Potentially confusing to road users and introduces a number of additional safety risks.	
	Enables system to cater for the dominant flow, therefore avoiding delay to the majority of road users on the dominant flow	Causes great inconvenience to those travelling against the dominant flow; with longer, more time-consuming journeys		
	Avoids any lost time caused by waiting for traffic lights to change	Causes difficulties at system changeover, with drivers rushing to try to get through before the changeover		
	Side road traffic can simply join flow	This type of system can lead to aggression from drivers who are not able to proceed as they expect/hope.		
		Uncertainty from road users who may not know which phase will be in operation.		
Signed diversion route	Provides a clear route for traffic unfamiliar with the traffic management regime	No obvious route that is suitable for all road users	Sign long diversion route for HGVs.	
	Essential for road closures for night-time surfacing works	Local roads not suitable for large or heavy vehicles		Sign shorter diversion route for vehicles under 4.6m in height.
	Essential for traffic travelling against one-way flow	A51 near Pasturefields has a low headroom bridge Diversion route that meets all requirements for all traffic is very long		

Traffic management proposals will displace traffic people onto other routes	Reduces congestion on main affected route	May encourage road users along unsuitable residential routes May encourage road users along unsuitable narrow or weight-restricted routes	Sign acceptable diversion route and accept that people will use other routes. Try to address potential highway defects on routes with anticipated extra traffic.
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At northern end of Baswich Lane

What has been considered?	Advantages	Disadvantages	Decision
Traffic management proposals may displace traffic onto weight-restricted narrow bridges on Baswich Lane	Reduces congestion on main affected route	Road unsuitable for HGVs	Do not sign as an acceptable diversion route.
		Road twisty and unsuitable for two-way traffic in many locations	Install some form of temporary traffic control system over section including tight bend and bridges.
		Increased likelihood of head-on collisions on narrow bridges with poor forward visibility Bridge parapets regularly damaged by errant vehicles, with consequent potential additional restrictions for protection and repair Properties on route that need access	
		Could affect emergency vehicles, depending upon system chosen	
Installation of a single set of temporary traffic signals on weight-restricted narrow bridges and tight bend on Baswich Lane	Reduces chance of road traffic collisions	Will significantly delay displaced traffic	Temporary one-way operation preferred
		Reduces chance of bridge strikes	
		No chance of queuing traffic blocking other set of traffic lights	
Installation of two temporary sets of traffic signals over short lengths on weight-restricted narrow bridges and tight bend on Baswich Lane	Reduces chance of road traffic collisions	Will delay emergency vehicles that cannot use Radford Bank	Temporary one-way operation preferred
		Will delay displaced traffic	
		Reduces chance of bridge strikes	
		Less time lost than using longer single set of traffic lights	
Installation of a temporary one-way system on weight-restricted narrow bridges and tight bend on Baswich Lane	Reduces chance of road traffic collisions	Will delay emergency vehicles that cannot use Radford Bank	Implement temporary one-way operation
		Will significantly affect residents within the one-way closure	
		Reduces chance of bridge strikes	
		No lost time due to traffic lights No chance of breakdown of traffic lights Will ease path for emergency vehicles that cannot use Radford Bank	

At northern end of Baswich Lane during night-time closures

What has been considered?	Advantages	Disadvantages	Decision
Reverting to two-way running at northern end of Baswich Lane while night-time closures are in effect on Weeping Cross double mini-roundabouts	Enables users of light vehicles to get travel towards the town centre in evening	Would introduce uncertainty about what system applies. Some drivers may expect to take the same route during the day that they successfully took at night	Maintain temporary one-way operation
		Drivers who have been using the one-way are not expecting other people to be coming in the other direction	
Maintain temporary one-way system at northern end of Baswich Lane while night-time closures are in effect on Weeping Cross double mini-roundabouts	Avoids uncertainty about what system in operation	Will remove a potential route into Stafford for road users to the southeast when night-time surfacing closures are in operation.	Maintain temporary one-way operation
		Reduces chance of road traffic collisions Reduces chance of bridge strikes Will provide a clear path for ambulances avoiding Weeping Cross junction*	

* - Note: A path for emergency vehicles on call-out will be cleared through the road closure to enable them to pass through.