



TRAFFIC MANAGEMENT TEAM

Police rolling road blocks for motorway closures

Relevant Documents: MSM Briefing note – Police block TM & MSM Police rolling closures – Virtus technical note

Date of briefing : _____

Prepared by : _____

Closure Location : _____

Time of Closure : _____

I hereby acknowledge that I have been briefed on the above titled documents and fully understand the content of the briefing.

Name	Position	Signed	Date
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Installing Full Carriageway Closures under Police Rolling Blocks

Background:

MSM have an ongoing programme of overnight road closures in order to complete the installation of the Smart Motorway. The closures used are extended in length (i.e. covering more than just Jct to Jct) in order to provide sufficient linear safe working area to meet the works programme. These extended road closures were agreed by Highways England Regional Board (see document *Extended Road Closures – V01 – 29.11.2016*)

To ensure Traffic Management can be installed safely and efficiently, providing maximum working periods for the Smart Motorway works, a rolling road block is implemented by a dedicated Police resource. The Police resource is booked weekly and paid for as an additional cost over and above the cost of the usual temporary traffic management operational crews (supplied by MSM TM contractor Chevron Traffic Management Ltd).

This document sets out to describe the nightly briefing and safe implementation of a full carriageway closure when working within a sterile carriageway, provided by the Police rolling block.

This document is to be read in conjunction with Virtus Traffic Management Solutions Ltd Technical Note: *Installation of motorway closures using Police rolling block 29.09.2017*

Resource:

PO = Police Officer

TSCO = Traffic Safety and Control Officer

TMS = Traffic Management Supervisor

TMF = Traffic Management Foreman

TMC = Traffic Management install crew

Special considerations:

- Contact between TSCO/TMS and PO to be via dedicated 2 way radio (provided by MSM TSCO)
- Due to the sterile area provided by the Police Rolling block, Traffic Counts **will not** be used to determine start time of the TM install. (see technical note 29.09.2017)
- The main carriageway will not be closed prior to **22:00hrs**, although it is accepted that lane closures leading up to the point of closure may be installed from **21:00hrs**
- Rolling road blocks will not be implemented during adverse weather conditions
- The final decision on whether a rolling road block will be implemented will be made by the PO
- For specific Traffic Management installation methodology refer to appropriate Chevron TM method statement

Installing Full Carriageway Closures under Police Rolling Blocks

Briefing and operational requirements:

Police resource booked on a weekly basis via MSM TM team and meeting points, contact numbers of PO and TSCO shared between both parties prior to the following stages

At designated PO meeting point, TSCO/TMS/PO to confirm if conditions are acceptable to proceed with road closure operation (considering weather/network events/emergencies etc).

Stage 1

TSCO/PO/TMS meet at agreed location for start of shift briefing
TMS to instruct TMC to install Ch8 lane closure approach signs and await in safe position for rolling block – See Chevron MS for details of TM installation process

Stage 2

TMS to confirm once TMC are in position and ready for rolling block

Stage 3

4 way radios (2 way channel) to be provided to TSCO/PO/TMS & TMF and communication channel tested

Stage 4

Relevant TM drawings to be reviewed and details of TM layout briefed to PO by TSCO

Stage 5

TSCO/PO to determine route for rolling block, sequence of vehicle convoy and location where PO will have full control of traffic under block

Stage 6

TMS to contact TMF/TM crews to confirm rolling block is being executed

Stage 7

Rolling block convoy to proceed via agreed route

Continued . . .

Installing Full Carriageway Closures under Police Rolling Blocks

From start of convoy mobilisation, TSCO/PO/TMS/TMF to remain in contact at all times during rolling block operation. PO to call block off at any time if conditions change. If instructed by PO the TSCO is to abort TM install immediately and instruct TM crews to proceed to a safe place until rolling block can be safely implemented.

Stage 8

Once Police have traffic under blue light control at the agreed location as per stage 5, TSCO/TMS to proceed along sterile carriageway and signal TMF/TMC to proceed with TM implementation



Stage 9

TSCO and PO to remain in radio contact at all times until TM taper has been installed



Stage 10

On completion of taper installation, once TMC/TSCO/TMS are in safe area within closed lanes, TSCO to confirm to PO that traffic can be released



Stage 11

Once lane closure lead taper is installed remaining TM to close carriageway to be installed as per agreed TM methodology. If required a secondary rolling road block will be provided by the PO to install road closure cones at appropriate time (no earlier the 22:00hrs)

Project: Manchester Smart Motorways	To: [REDACTED]
Subject: Installation of motorway closures using Police rolling blocks	From: [REDACTED]
Date: 29/09/2017	cc:

1. Scope

To consider the use of a fully liveried and equipped motorway Police vehicle in order to give effect to a rolling closure to facilitate short term works associated with implementing lane or carriageway closures.

2. Background

There is and always will be a need to close off lanes or whole carriageways of Highways England roads, both Motorway and Trunk Roads. This can be either urgent works, following a collision, or where a road becomes unsafe (large voids, joint failures etc) or can be a part of a bigger scheme where ongoing works are in place and there is a pre-determined need to effect some form of temporary closure.

There are already many existing protocols and policies in place at a national level which give clear and precise instructions as to how various closure methods can be used. In many cases these existing protocols will be perfectly suited to facilitate pre-planned works and this Technical Note does not seek to change the use or methodology in these existing protocols.

Aside from the various issues concerning booking road space and obtaining a temporary TRO etc it has to be considered how these closures are implemented physically.

Drivers need to be given clear information to process and act upon so that they have a clear and timely advance warning of what is happening and what they are required to do.

In many cases this is achieved using Traffic Management vehicles displaying various warning and directional requirement signs along with more permanent warning signs of the actual road lane layout ahead in the form of temporarily installed hard signing on the verge or hard shoulder. This is clearly shown and demonstrated in volume 2 of Chapter 8 of the Traffic Signs manual.

To a large extent this relies upon compliance by drivers (the TM staff have no powers to direct traffic other than by authorised signs) and the fact that the lanes (in a rolling block) will be physically restricted by the TM vehicles.

However, there are many circumstances on a daily basis where such rolling blocks are effected by either HETO vehicles or Police Vehicles in order to allow access to a safe working area ahead of the rolling closure for example to allow the removal of carriageway debris which is in a live lane.

These methods are simple and safe as long as they are implemented by suitably trained staff in suitable vehicles.

This note will therefore consider the suitability of using this method of implementing a rolling road block to allow the implementation of temporary pre-planned TM.

As it is the policy of HE & HETO's not to perform rolling blocks for pre-planned works it will only consider the use of Police resources for this function.

3. Traffic Volume & Queues

When following the guidance in Ch 8 etc, consideration is given to the likely build-up of queues before implementing closures or restrictions. This uses the number of vehicles passing a fixed point in an hour (or more commonly over a 3 minute period as a 1/20 of that).

Whilst in the planning stages consideration must necessarily be given to traffic flows and queue build up etc there is some considerable ambiguity as to how far this extends to being for safety reasons.

In implementing a Ch 8 TM rolling or moving block it will not normally be commenced until a certain flow rate or volume of traffic is noted. However, a careful consideration of this data shows that Ch 8 only indicates advance warning signs to a certain distance (800 metres prior to the start) but the volume/queue length charts clearly show that this length is very quickly exceeded and thus approaching drivers are relied upon to notice slowing or braking traffic ahead and react accordingly.

There are of course options to use VMS and overhead gantries where available to give further advance warning of queues etc but as these are not available in many locations they are not mandated in TSM.

There is also some debate about which is the safer option to implement traffic management. Heavy or saturated traffic flows will necessarily be going at much lower speeds than free flow traffic will be.

Whilst therefore there may be more logistical problems in implementing the rolling road blocks in heavy flows, the speeds will be much lower so the relative risk is somewhat in favour of implementing TM when flows are slowest and by default likely to be heaviest.

It should also be noted that once the TM is in place and where there is no VMS present then drivers approaching beyond the mandated 800 m signing are required to use their observational skills to notice slowing or braking traffic ahead and react accordingly. There is no mandated requirement to sign out many kilometres into predicted queue lengths.

It should also be noted that where spontaneous incidents occur there is no option to give advance notice to drivers; each should be reacting to the developing road ahead and this is in effect the de-facto situation in normal traffic conditions.

4. Safety Issues

This note is specifically looking at the potential use of Police rolling road blocks on the Manchester MSM scheme (albeit it is likely to be able to be transferable to other schemes and non-existing road works situations).

The significant majority of Motorways (and dual carriageways) are subject to the national speed limit of 70 mph. However, within the confines of MSM there is a mandated, signed and enforced 50 mph limit.

The faster a vehicle is travelling the greater the distance it will travel in a given time. Given drivers reaction times and braking time there is already a significant inbuilt safety benefit within MSM as the majority of vehicles will be driving at or below the lower temporary limit; the achieved speed being even lower as traffic volumes increase as more drivers will be compliant and in effect imposing their speed on following drivers.

In more general terms everything that is planned and controllable (to whatever level) should be done with safety in first place. This includes road users and any staff required to work within the road environment. A significant safety benefit is already provided by the lowered speed limit of 50 mph and the more permanent works are provided with physical segregation thus offering the greatest level of protection to the workers.

The safest work environment on a motorway is one where there are no vehicles passing the works area. In the majority of cases this is unrealistic and unless there is an imperative reason why all lanes must be closed (gantry demolition for example) then a balance must be struck (as in the case of Variogard segregation) and the environment made as safe as possible given competing demands for road space between works and travelling vehicles.

Much has been done in recent years to minimise the necessity for workers to cross live lanes (removal of offside signing for example) as the risks outweigh any benefits.

However, when doing TM there must be a point in time when staff must be present in a non-closed lane in order to implement TM signing and coning etc.

This is achieved by creating a buffer between approaching traffic and the works vehicles where it is in effect a sterile area.

It is therefore a simple situation in reality; we must introduce a method of implementation that creates this sterile area. As long as that method is safe and effective then the TM works can proceed in as safe a manner as can be planned for.

5. Legal Issues

As previously indicated there will always be a requirement to book road space and obtain any necessary temporary TRO's to facilitate lane closures (the TTRO for the scheme may well already cover such matters).

Any signing used must be compliant with the latest version of TSRGD.

The placement of cones and signs must follow Ch 8 TSM.

In considering the use of Police to effect the rolling block, none of the above change as these are functions ancillary to the rolling block.

5.1 Police Powers

The Police are given very wide-ranging powers in statute to control, direct and restrict vehicle movements and it is a criminal offence to ignore any such direction or requirement.

Whilst not being aware of any formal research into this matter, it is within the authors considerable experience of operational policing, that a very high degree of compliance is obtained when a driver is given a clear indication by a uniformed officer in a suitably marked up police vehicle, not to pass them.

Police officers who work within the Motorway environment are not only provided with such vehicles but will also have received additional training to allow them onto the motorway environment. They will not have any TM sector scheme training or qualifications but that is of no consequence as they are not performing those roles. They will however as part of their motorway training have been given instruction about laying out cones and signs and will thus be familiar with what the MSM crews are doing and trying to achieve.

There is nothing in statute to prevent the police performing rolling road blocks for MSM as a part of their normal duties. However, this is a request that will not be acceded to by the police as they simply do not have the necessary duty time staff to take off mainstream duties. We must therefore look to procuring police officers out of normal duty time.

Section 25 of the Police Act 1996 specifically provides for Chief Constables to supply Special Police services at a charge. This section does not in any way alter their powers, it merely allows for charges to be made which in practical terms means police officers are provided on rest days and are charged for. The benefit of this is that the officer is effectively not part of the day to day policing operations and is dedicated to the payer.

It should be noted however, that the payer cannot control or direct the officer, that must always remain their prerogative. This simply means that when requesting s25 Police assistance that a

clear descriptive of what they will be asked to do is supplied such that they can accept the request. It then becomes a matter of local discussion on the day between the attending officer and MSM such that each has a clear understanding of what will happen etc.

It is strongly suggested that this be by way of a formalised and documented briefing so that sufficient clarity is guaranteed and each party understands their roles and responsibilities, not only in delivering what is planned but also has a contingency built in for unexpected events happening (i.e. a breach of the block).

6. Analysis

The foregoing sections have recognised that there are different ways of implementing the delivery of temporary TM.

One of these is the use of paid for special police services where the police will provide the rolling block of approaching traffic to facilitate a safe working area for the TM crews.

This is not at variance with any legislative or known HE policy.

There are no identified reasons why this cannot be considered by the relevant Traffic Manager as an option in the planning stage.

7. Recommendations

This note should be reviewed and agreed with HE and Greater Manchester Police if the proposal is to be taken forwards.

If Special Services are to be used then it falls largely to how that is managed.

It is strongly suggested that a formalised briefing package be developed and this would include the following:

- Details of the work to be done, where and when.
- Details of all those involved alongside clearly understood job titles / roles.
- Descriptive of the methodology to be used by both parties indicating clearly the roles to be performed.
- Methods of real time communication (the use of direct link personal radios should be used with mobile telephones (hands free) used only as a backup
- A section detailing any relevant other works or incidents that may affect the operation

This briefing would then be given in real time between the Police officer and MSM person in charge of the works, agreed and signed for.

The Police will not look for a specific traffic flow in order to effect the rolling block. It will therefore be in the planning stage by MSM to decide on a suitable anticipated start time and agreed in real time by both parties.

The package should also include a section on the procedure to be followed if there is a breach of the rolling block. This aspect should already be considered as a standard block can also be breached.

The use of VMS and gantry signing should also be considered in advance of any mandated signing.