

# **M3 Junction 9 Improvement**

Scheme Number: TR010055

7.8 Outline Traffic Management Plan

APFP Regulation 5(2)(q)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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## 7.8 OUTLINE TRAFFIC MANAGEMENT PLAN

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### 1 Executive Summary

#### 1.1 Purpose

- 1.1.1 The M3 Junction 9 Improvement Scheme (the Scheme) is a Nationally Significant Infrastructure Project (NSIP). Therefore, the Scheme requires an application for a Development Consent Order (DCO) to be submitted to the Planning Inspectorate, acting on behalf of the Secretary of State (SoS).
- 1.1.2 This Outline Traffic Management Plan (TMP) forms part of Volume 7 of the application for a DCO authorising National Highways to construct and operate the Scheme. The purpose of the TMP is to set out the proposed Temporary Traffic Management (TTM) measures for implementation during the construction of the Scheme.
- 1.1.3 The M3 Junction 9 is a key transport interchange connecting South Hampshire (facilitating an intensive freight-generating industry) and the wider sub-region, with London via the M3 and with the Midlands and the North of England via the A34 (which also links to the principal east-west A303 and M4 corridors). The M3 is also a key strategic route for freight traffic accessing the Port of Southampton. In addition, Junction 9 is one of the access points to the City of Winchester from the M3 motorway. As a result, the Scheme would have an impact not only on the Strategic Road Network (SRN), but also to some extent on the local traffic to and from Winchester.

### 1.2 Background

- 1.2.1 The Scheme has been developed in National Highways' Project Control Framework (PCF) and this report provides an overview of the development and assessment of PCF Stage 3 (Preliminary Design).
- 1.2.2 The traffic management during construction will be phased in order to undertake the works for the proposed Scheme with the minimum disruption to the customer.



### 2 Introduction

### 2.1 Objectives

- 2.1.1 The Outline Traffic Management Plan (TMP) has been prepared to support the application by National Highways for a Development Consent Order (DCO) to authorise the construction, operation and maintenance of the M3 Junction 9 Improvement Scheme (hereafter referred to as the Scheme).
- 2.1.2 The final version of the plan developed during the Detailed Design stage will identify the necessary Temporary Traffic Regulation Orders (TTRO) required to permit these works to be undertaken. Hampshire County Council and Hampshire Police will be consulted in consideration to the emergency services, public and other interested parties such as the bus companies.
- 2.1.3 This plan provides details of how the works will be phased and how the associated TTM measures will be implemented for each phase. This will allow the Scheme to be delivered safely and efficiently, while minimising the impact on the road users and other stakeholders affected by the Scheme, including the operations of National Highways, Winchester City Council and any activities carried out by their asset management and maintenance providers.
- 2.1.4 Feedback on this version of the plan will be used to inform the TMP for Phases 1 to 4. Major local businesses and other stakeholders that are likely to be impacted by the proposed traffic management will also be consulted regarding this plan. This will ensure that a comprehensive, detailed TMP is available and understood by all parties prior to commencing the works on site.
- 2.1.5 This TMP is a requirement of Part 4 of the Network Management Manual Traffic Management and Chapter 8 of the Traffic Signs Manual (TSM) – Roadworks and Temporary Situations.
- 2.1.6 The traffic management strategy and design has been developed to ensure that the following key objectives are considered and achieved:
  - Safety of the travelling public, non-motorised users and roadworkers to ensure that no person is injured either working within or travelling through the site on the strategic road network:
  - Clarity of temporary traffic management Schemes to ensure that the TMP is built around the customers and stakeholders.
  - Minimising delays to travellers on both trunk and local roads.
  - Meeting the needs of the Local Highway Authorities and their maintainers.
  - Meeting the needs of key local stakeholders, including Winchester City Council, Hampshire County Council and South Downs National Park Authority



- Maintaining adequate access for the emergency services including Hampshire Police, Ambulance, Fire and Rescue and National Highways Traffic Officer Service (HETO).
- Maintaining adequate access to all affected properties during the construction works.
- 2.1.7 The purpose of the traffic management plan is to outline the traffic management requirements for the Scheme. To achieve this, the plan explains the construction sequencing of the replacement bridges for the Scheme's proposed separated junction, and the associated works. These include:
  - Slip roads with accompanying widening
  - Carriageway widening in the vicinity of the roundabout
  - Alteration to existing and construction of new retaining structures
  - Removal and installation of highway infrastructure such as gantries, drainage, fencing and street lighting
  - Construction of new bridge structures and associated foundations and earthworks
  - Decommissioning of the old bridges and associated infrastructure
- 2.1.8 As there will be numerous updates to the TMP, especially prior to, and during main works construction, where the construction planning identifies that works may adversely affect stakeholders, then these details will be tabled for discussion at the monthly traffic management meetings, attended by the TM Manager, Construction Manager, Local Stakeholders from the Area Team and Emergency Services.

#### 2.2 Details of the Scheme

#### Background

- 2.2.1 The Scheme is located in Southeast England within the county of Hampshire. The existing M3 Junction 9 is a grade separated, partially signalised gyratory roundabout connecting multiple nationally and locally significant routes; key strategic interchange which connects South Hampshire and the ports of Southampton and Portsmouth with the wider sub region.
- 2.2.2 It also connects the region to London, the north-west via the M3, the Midlands and the North via the A34. To the north of the junction, circa 1 km is the A33 from Basingstoke which connects to the A34 and approximately 1 km to the south of the junction the A31 from Alton links up with the A272 which joins the M3 as shown in **Figure 2.1** below.





Figure 2.1: General Location of M3 Junction 9 Improvement Scheme

### Scheme objectives

- 2.2.3 The Scheme has five strategic objectives, supported by the National Highways Delivery Plan 2015-2020 (Highways England, 2015):
  - To reduce delays at M3 Junction 9 on all links M3, A33 and A34
  - Smooth the flow of traffic by improving journey time reliability and reducing delays (time lost per vehicle per mile) at M3 Junction 9 and the exit and entry roads for the A33 and A34
  - Improve the safety for all road users and reduce the annual collision frequency and severity ratio on the M3 Junction 9
  - Support economic growth and ensure the junction can accommodate additional traffic
  - Improvements for walkers and cyclists including connecting the National Cycle Network Route 23 which is severed by the current junction layout



2.2.4. The proposed Scheme aims to improve the existing connectivity whilst providing enhanced capacity, simplified routing, and improved facilities for non-motorised users.

#### Scheme description

- 2.2.1 The improvements proposed as part of the Scheme both maintain existing connectivity on the road network, whilst providing enhanced capacity, simplified routing and improved facilities for walking, cycling and horse-riding routes and landscaping enhancements. The Scheme would provide new free flow links between the M3 and A34, as well as a dedicated new A33 alignment. The Scheme elements are as follows:
  - Widening of the M3 from a dual two-lane motorway (two-lane motorway with hard shoulders) to a four-lane motorway (with hard shoulders) between the proposed M3 Junction 9 gyratory north and south slip roads.
  - A new smaller grade separated gyratory roundabout arrangement within the footprint of the existing roundabout, incorporating new connections over the M3 with improved walking, cycling and horse-riding routes.
  - Connector roads from and to the new gyratory roundabout.
  - Improved slip roads to/from the M3.
  - New structures (in the form of gyratory bridges, underpasses, retaining walls, subway and a new cycle and footbridge over the River Itchen).
  - A new surface water runoff system with associated drainage and infiltration features.
  - New signage and gantries.
  - Utility diversions.
  - New lighting (subways, underpasses and gantries).
  - Modifications to topography through cuttings and false cuttings as well as re-profiling of existing landform.
  - New walking, cycling and horse-riding provision.
  - Creation of new areas of chalk grassland, woodland, scrub planting and species rich grassland.
- 2.2.2 The Application Boundary covers an area of approximately 109 hectares (ha). This includes the proposed land required for gantries, signage, temporary construction compound areas, areas for environmental mitigation, areas for drainage requirements (some of which would be temporary) and traffic management.



- 2.2.3 The Scheme includes a package of environmental mitigation and enhancement measures to reduce the impacts from the Scheme to the environment where possible. Consideration has also been given to the enhancement of the South Downs National Park where reasonably practicable.
- 2.2.4 Bridleways, footpaths and cycleways have been designed to allow all gradients to be less than 1:20 to comply with Department for Transport's (DfT) inclusive mobility impaired users. The walking, cycling and horse-riding routes are designed for cyclists, and therefore as all horizontal radii are suited for cyclists, they are also considered acceptable for mobility impaired users. The range of opportunities and barriers to all forms of users have been given due consideration in the design of the Scheme.
- 2.2.5 A number of new structures are required to be both constructed and demolished to facilitate the Scheme. Some of the main structures are as follows:
  - The existing bridges at the M3 Junction 9 gyratory roundabout are proposed to be demolished and replaced by the two new bridge structures carrying the new gyratory
  - A new underpass is proposed to carry the A34 southbound under the new A33 link road and the existing M3. The A34 northbound underpass would carry the new A34 northbound over the new A33 link
  - The existing subways (Winnall Subway East and Winnall Subway West) located under the existing gyratory are proposed to be demolished to facilitate the construction of the reconfigured roundabout. New subways are proposed along the proposed walking, cycling and horse-riding route
  - A new footbridge over the River Itchen is proposed between the existing Itchen Bridge, (which carries the A34 northbound carriageway), and the existing Kings Worthy Bridge which will carry the A33 north and southbound carriageways and the A34 southbound carriageway, respectively.
- 2.2.6 The walking, cycling and horse-riding facilities around and within the Scheme are to be upgraded. This includes an improvement to the National Cycle Network (NCN) Route 23. An additional footpath, cyclepath and bridleway is proposed on the eastern side of the Scheme to link Easton Lane with Long Walk. Such a route would provide a circular leisure path for those using the South Downs National Park with a link to the other paths around Long Walk with their links to local villages. A new combined footpath and cyclepath for the western side of the Scheme is proposed to link the A33 / B3047 Junction to Winnall Industrial Estate situated on Easton Lane.
- 2.2.7 A detailed description of the Scheme is provided in **Chapter 1 (Introduction)** and **Chapter 2 (The Scheme and its Surroundings)** of the **Environmental Statement (ES) (Document Reference 6.1)**.



#### **Definition under the Planning Act 2008**

- 2.2.8 The Scheme is a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(h) and Section 22(1)(b) of the Planning Act 2008.
- 2.2.9 Section 14(1)(h) of the Planning Act 2008 defines an NSIP as highway-related development falling within the criteria set out in Section 22 of the Planning Act 2008. Under Section 22(1) of the Planning Act 2008 an NSIP for highway-related development must fall within one of three specified categories, namely construction, improvement or alteration of a highway.
- 2.2.10 The Scheme constitutes an 'alteration' to a highway within the meaning of Section 22(1)(b) and meets the requirements of this definition under Section 22(3) and 22(4) as follows:
  - The highway is wholly in England (Section 22(3)(a)).
  - The Applicant, (as the strategic highways company), is the highway authority for the highway (Section 22(3)(b)).
  - The area of development within the Application Boundary is greater than 15 hectares (Sections 22(3)(c) and 22(4)(a)).
- 2.2.11 As the Scheme is an NSIP, development consent must be obtained from the Secretary of State (SoS) for Transport to authorise it, and an application for a DCO must be made to the Planning Inspectorate who administer the DCO process on behalf of the SoS under Section 37 of the Planning Act 2008. If granted by the SoS, the DCO would provide the necessary authorisation to allow the Scheme to be constructed and operated.

#### Challenges and considerations

- 2.2.12 A selection of the key considerations can be found below:
  - Existing gyratory bridges need to be demolished and replaced to allow for the new highway alignment
  - The Scheme requires the construction of an underpass beneath the M3
  - Presence of several key ecological and environmental receptors, e.g. River Itchen Special Area of Conservation, Site of Special Scientific Interest and the Presence of Protected Species.
  - The Scheme's close proximity to Winchester and partially being within the South Downs National Park.
  - The presence of chalk geology which is subject to seasonal constraints
  - The Scheme is close to National Highways Easton Lane depot where access must be a key consideration



## **3** Traffic Management Plan – detailed description

#### 3.1 Customer requirements

- 3.1.1 Key customers and stakeholders include the following:
  - National Highways (including Operations Directorate)
  - Travelling Public
  - Hampshire County Council
  - Winchester County Council
  - Local residents and businesses
  - South Downs National Park Authority
  - Environment Agency
  - Emergency Services Representatives
- 3.1.2 This TMP is required by National Highways to describe the TTM arrangement needed to facilitate the construction of the M3 Junction Improvement Scheme.
- 3.1.3 The TMP and associated TTM designs have been prepared with the aim of:
  - Maintaining Lane Capacity with reduced lane widths
  - Maintaining HGV/LGV vehicle movements with reduced lane widths
  - Maximising full lane widths where possible
  - Ensuring clear navigable Temporary Traffic Management
  - Journey Time Reliability
  - Advance warning of Carriageway/Slip Closure
  - 24hr CCTV cameras in place with 24hr monitoring
  - 24hr Free Recovery in place
  - Safe alternative crossing points for walkers, cyclists and horse riders.
  - Appropriate diversion routes for walking, cycling and horse-riding.
  - No increase in accidents
  - Protection to vulnerable road users



- Protection for the workforce from adjacent live traffic during construction of the works
- 3.1.4 The National Highways 2020-2025 Delivery Plan states a Key Performance Indicators target to achieve 90% customer satisfaction. Currently satisfaction of 'Roadworks Management' scores a low 63%. 'Roadworks – A Customers View' identifies 20 key principles which outline what customers want designers to consider when planning and managing roadworks.
- 3.1.5 The principles are detailed in **Table 3.1**, along with how the Scheme aims to achieve these principles in order to improve customer satisfaction.

Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
Customer	HGV drivers	<ul> <li>Journey time reliability</li> <li>Advance warning of closures and/or diversions</li> <li>Appropriate diversion routes</li> <li>Maximised lane widths where possible</li> <li>Clear easily navigable TTM</li> <li>Review Use of Speed Control</li> <li>Co-ordination with existing Schemes</li> </ul>	<ul> <li>Sufficient notification of closures through consultation with local authorities and network managers</li> <li>Free recovery optimisation</li> <li>Work off peak/night- time to minimise impact of any lane restrictions</li> <li>Diversion routes avoid narrow roads and low bridges</li> <li>Road Haulage Association to be notified via emailed communications</li> </ul>
			<ul> <li>Consideration given to' roadworks: A customers view'</li> <li>Efficient locating of lead in zones/zone of</li> </ul>

Table 3.1: Customer requirements



Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
			<ul> <li>influence to minimise traffic flow impact</li> <li>TTM to be designed, installed and maintained in accordance with TSM.</li> <li>Incident Management Planning with all responders</li> </ul>
Customer	Pedestrians and cyclists	<ul> <li>Existing crossing points (signal controlled)</li> <li>Clear and concise pedestrian routes</li> <li>Adequate segregation between works and pedestrians</li> <li>Safe passage through the site</li> <li>Clear information and safety signs</li> <li>Safe access for disabled users/elderly/pregnant women.</li> <li>Consideration of cycle routes around the works</li> </ul>	<ul> <li>Pedestrians and cyclists have been a major consideration within this TMP due to the pedestrian routes affected by the works, the plan ensures we can maintain clear and well signed pedestrian diversion of routes affected by the works.</li> <li>The site will provide clear and concise messages/signs to ensure pedestrians and cyclists are adequately segregated from the work areas.</li> <li>Site security will ensure no pedestrians can enter the site.</li> </ul>



Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
			<ul> <li>TM designs to consider TAL 15/99 'Cyclists at Road Works'. narrowing of lanes raises major concerns for cyclist safety. Therefore, diversion routes and clear and easy to follow signs will be provided.</li> </ul>
			<ul> <li>Closure of combined footway and cycle track required during all phases 1 to 4. Diversion of pedestrians and cyclists</li> </ul>
			<ul> <li>Required clear signage of diversion. Advanced publicity of closure. Review of diversion route.</li> </ul>
			• Route to be lit where required, guarding and step free where required.
			• Crossing point to be assessed with provision of tactile paving or alternative suitable measures, i.e. audible warnings
Customer	Disabled car drivers	<ul> <li>Method of recovery that is suitable for Person with Reduced Mobility and their vehicles</li> </ul>	Recovery vehicles     are wheelchair     accessible



Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
		<ul> <li>Suitable roadside facilities for disabled users (toileting and medication stops)</li> </ul>	Welfare points with disabled access
Stakeholder	Winnall Trading Estate Adjacent Local Businesses* Adjacent communities: • Kings Worthy • South Downs National Park	<ul> <li>Closures/diversions that may impact on journey time reliability to and from venue</li> <li>Communicate and seek approval of LHA network use for full closures/diversions.</li> <li>Sufficient notification of above closures</li> <li>Co-ordinated and appropriate diversion routes</li> <li>Minimise impact to Journey Time Reliability.</li> <li>Business access is maintained throughout the works</li> <li>Use local media for Scheme updates</li> <li>Account for seasonal peaks e.g. Black Friday, Christmas, Key School Holiday "break ups".</li> <li>Use Variable Message Signage to better inform users of incidents</li> </ul>	<ul> <li>Due to the location of the Scheme, the TM Plan has been developed with particular recognition of the impact the Scheme could have on the numerous stakeholders directly affected by the works.</li> <li>The TM strategy ensures 2 lanes remain open throughout the construction works and minimises restrictive TM operations to night- time/off peak hours.</li> <li>A detailed stakeholder management plan will be developed as the Scheme progresses to ensure consistent communication and engagement with ALL stakeholders</li> <li>Advance warning and particular sensitivity around significant events,</li> </ul>



Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
			<ul> <li>particularly evenings and weekends</li> <li>Advance warning of proposed full closures with approval from Local Authority's road space team/s</li> <li>Liaise with Local Authority's to agree proposed/approved diversion routes</li> <li>TM design to consider minimum impact to surrounding road networks</li> <li>Works planning to consider events and embargos.</li> </ul>
Stakeholder	Nearby hotels – Holiday Inn	Closures/diversion that may impact on journey time reliability to and from the facility	<ul> <li>Advance warning and particular sensitivity to night- time works and noise mitigation.</li> <li>Provide adequate notification of any restrictions</li> </ul>
Stakeholder	Area 3: Maintenance and Response Contractor	<ul> <li>Journey time reliability</li> <li>Advance warning of closures and/or diversions</li> <li>Appropriate diversion routes</li> </ul>	<ul> <li>Sufficient notification of closures</li> <li>Closure clash avoidance – not having closures on alternative routes</li> </ul>



Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
		<ul> <li>Maximised lane widths where possible</li> <li>Access for routine maintenance including for winter service vehicles</li> </ul>	<ul> <li>that are not subject to diversions</li> <li>Liaison with road space team to ensure appropriate/ approved diversion routes are utilised.</li> <li>Liaison with road</li> </ul>
			space team to avoid event clashing i.e. Wide load movements.
Partner	Aggregate suppliers	<ul> <li>Clear route for ease of delivery</li> <li>Journey time reliability to site</li> <li>Suitable access and egress</li> </ul>	<ul> <li>Manage haul roads to facilitate site deliveries</li> <li>Access and egress points clearly marked and close to delivery site</li> <li>Use of banksman where applicable</li> <li>Delivery and Haul Route plan briefed to</li> </ul>
Partner	Emergency services/Traffic Officers	<ul> <li>Access through haul road during emergencies</li> <li>Appropriate diversion routes</li> <li>Clear route for blue light journeys</li> <li>Early engagement to understand impact and their needs.</li> </ul>	<ul> <li>all suppliers</li> <li>Process and procedure for allowing blue-light travel through the works/haul road</li> <li>Diversion routes avoid narrow roads and low bridges</li> <li>Consider traffic signal timing modifications or</li> </ul>



Customer group	Who is affected by the Scheme?	What are their requirements and how are they impacted?	How has the TMP taken these requirements into account and proposed mitigations using the principles?
		<ul> <li>Advance warning of closures and/or diversions</li> </ul>	<ul> <li>preventing right hand turns to improve traffic flow.</li> <li>Sufficient notification of closures</li> <li>Incident Management Plan produced collaboratively with all responders.</li> <li>Provision of up-to-date 24/7 emergency contact details at all times.</li> </ul>
Community	e.g. Residents local to project	<ul> <li>Advance warning of closures and/or diversions</li> <li>Sensitivity to local requirements e.g. market days</li> <li>Minimal disruption due to works, including environmental factors (e.g. noise, dust, lighting) and diversion routes</li> </ul>	<ul> <li>Notification and liaison with individuals and/or local group representatives</li> <li>Diversion route signs and information to meet customer service standard for diversion routes for planned works and activities.</li> <li>Optimise usability to reduce opportunities for error and therefore reduce congestion</li> </ul>



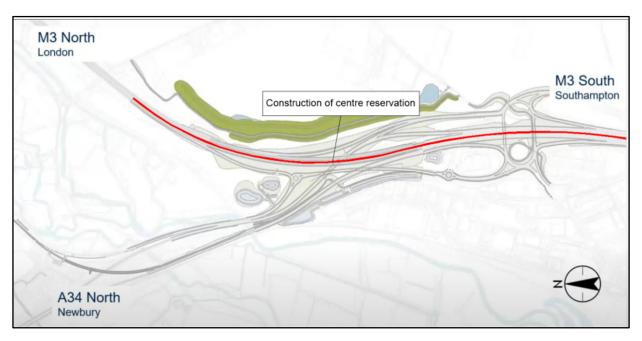
#### 3.2 Nature of the works

3.2.1 During main works, there are several construction phases that need to be in place to fully complete the new constructed road layout for M3, M3 Junction 9, A34, A33 and pedestrian walk/cycle ways.

#### Phase 1A

3.2.2 This includes work to the M3 Northbound and Southbound carriageways. There will be a need for narrow lanes to be installed with traffic running on the hard shoulder and lane 1, maintaining existing lane capacity. This will leave lane 2 closed in both directions to allow centre reservation works to take place. Two locations in the centre reservation will only be constructed to allow for traffic to travel over these locations as this will be the entry cross-over to the contraflow and exit crossover from the contraflow. This phase is depicted in **Figure 3.1**. Contraflow will be required in Phase 2.

#### Figure 3.1: Phase 1A



#### Phase 1B

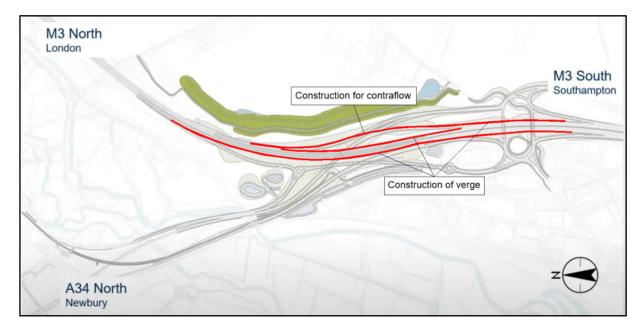
- 3.2.3 On the M3 Northbound and Southbound carriageways, the narrow lane layout shall be switched from narrow lanes to verge to narrow lanes to centre. Traffic will now be running in lane 2 and lane 1 with the hard shoulder closed to allow for all verge construction to take place. Temporary Traffic Management Layout shall incorporate the existing permanent road layout within the Scheme limits (Zone of Influence)
- 3.2.4 Following Phase 1, both entry and exit crossovers shall be closed with temporary barrier in place. Throughout Phase 1, earthworks will be carried out "offline". A key activity in this is the construction of the Southeast verge shown



below (**Figure 3.2**) in preparation to switch the Northbound and Southbound carriageway of the M3 onto a complete new temporary road layout for Phase 2.

- 3.2.5 This phase will also allow for:
  - Piling works for bridges
  - Bridge works
  - Utility diversions
  - Retaining wall construction
  - Earthworks
  - Slip road widening and associated pavement, drainage and barrier works.
  - New super span gantry, spanning across all of the M3 carriageway prior to Junction 9 exit-slip Northbound.

Figure 3.2: Construction for contraflow



3.2.6 The Junction 9 gyratory shall be maintained as 3 lanes where possible including approaches. There will be a series of overnight lane closures as per requirements of the construction programme.

#### Phase 2

3.2.7 M3 Northbound and Southbound traffic will be switched onto the new road layout constructed from Phase 1B. This will allow for the new underpass to be constructed in full.



- 3.2.8 In construction Phase 2, the Junction 9 gyratory will remain with a lane closed for the entire phase.
- 3.2.9 The Junction 9 Northbound On-Slip will also be closed with a diversion route in place. Safe and continual access to the National Highways Easton Lane depots (Maintenance and Traffic Officers) will be maintained. The entry-slip will become a works access. The diversion route for this for the travelling public will be clearly signed and will be involve travelling south from the gyratory and turning around at M3 Junction 11 to return North.

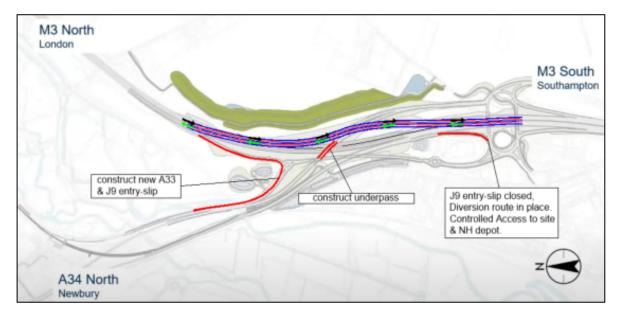
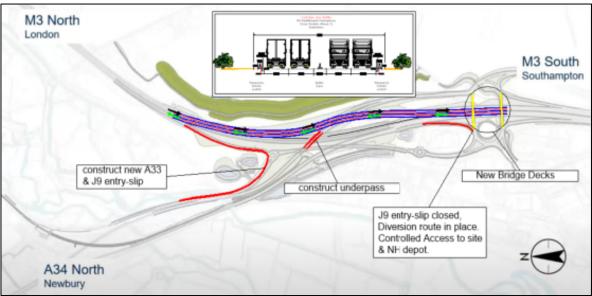


Figure 3.3: Phase 2

3.2.10 Within Phase 2 of the construction programme, two bridge decks will be installed for Junction 9 gyratory, as shown below in **Figure 3.4**.



#### Figure 3.4: New bridge decks



- 3.2.11 The installation of the bridge beams will require full closures on the M3 Northbound and Southbound with strategic diversion routes in place. Carriageway closures are to be implemented on a Friday night, from 9pm, to the following Monday morning, at 6am. There will be a minimum of four full carriageway closures required to;
  - 1. Install the North Bridge.
  - 2. Install the South Bridge.
    - Contingency weekend
  - 3. Decommissioning of existing North Bridge.
  - 4. Decommissioning of existing South Bridge.
    - Contingency weekend

#### Phase 3A

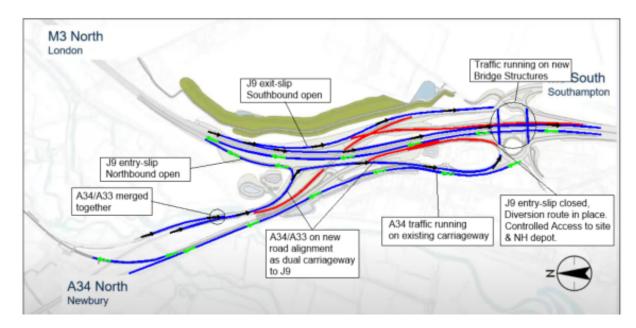
- 3.2.12 Upon completion of Phase 2 construction, traffic will be switched back to Phase 1B TM layout (narrow lanes to centre). This TM phase will continue with all works that are outstanding to be completed on the verge. Note that the Junction 9 Northbound On-slip will remain closed. Please refer to **Figure 3.5**.
- 3.2.13 The A34 Southbound traffic will be diverted onto the new A33 layout towards the gyratory (heading South).
- 3.2.14 The A34 Southbound tie in from the underpass to the gyratory can now be completed. Thus, the A34 Southbound merge to the M3 Southbound can also be finalised. Works can commence to complete the M3 Northbound diverge to the A34 Northbound. There will be a need for narrow lanes/overnight



carriageway closures to complete this tie in prior to altering the road layout in Phase 3B.



Figure 3.5: Phase 3A

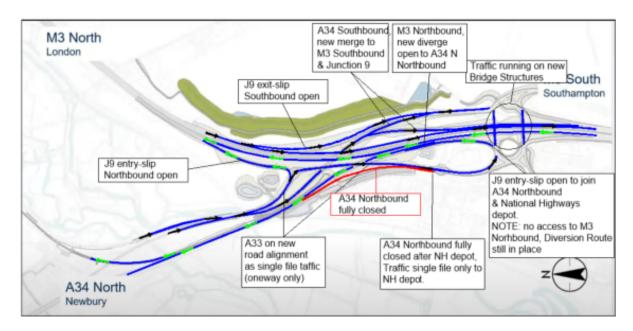


#### Phase 3B

- 3.2.15 Narrow Lanes will remain on the M3 carriageway Northbound and Southbound to complete and commission all of the outstanding work activities. Please refer to **Figure 3.6**.
- 3.2.16 The M3 northbound to the newly completed link to A34 North will be open leaving one lane closed as there will be two lanes constructed for this link. The nearside lane that connects from M3 North to A34 North results in a lane gain for the new slip-road joining from Junction 9. Once the connecting slip-road joins the new A34 heading Northbound, the road opens up to a two-lane dual carriageway. At the end of this phase, the A34 Southbound and A33 Southbound are both fully open.
- 3.2.17 A33 Southbound to Junction 9 is fully open, there will be construction works taking place outside the National Highways Easton Lane depot to construct the new roundabout. As traffic is in single file in a one-way direction this allows construction to be safer with the temporary TM not being complicated or confusing to the road user.
- 3.2.18 From Junction 9 to the National Highways depot will be open with traffic down to one lane (single file); this allows access to the National Highways depot only, with the existing A34 Northbound fully closed from here.



Figure 3.6: Phase 3B



- 3.2.19 During the course of the Scheme construction, there will be an initial Traffic Management installation, with Traffic Management changes in order to safely construct each phase with as little disruption to the customer as is possible.
- 3.2.20 All Traffic Management installations, switches and removal will be undertaken within night time off-peak carriageway closures to enable lateral safety zones to be maintained for the workforce.

#### 3.3 **Proposed traffic management measures**

#### Restrictions

3.3.1 **Table 3.2** outlines the traffic management measures the Scheme will adopt to carry out the construction works. While construction works are taking place in each area there will be a number of restrictions in place 24 hours a day, seven days a week; this includes peak traffic periods, both on the M3, A34, A272, Easton Lane and associated slip roads.



## Table 3.2: Restrictions during Construction

Restriction to be implemented	Time of Day (start to end)	Location (start to end with respect to nearest junction or Marker Posts (MP), if known)
Hard shoulder closure	24 hours a day, Monday to Friday	M3 northbound from MP 102/7 to MP 101/3 M3 southbound from MP 101/2 to MP 103/5.
Narrow lanes	24 hours a day, 7 days a week	M3 northbound from MP 103/7 to MP 101/0 M3 southbound from MP 100/8 to 104/0
Narrow lanes leading to contraflow (phase 2)	24 hours a day, 7 days a week	M3 northbound from MP 104/0 to MP 101/0 M3 southbound from MP 100/8 to 104/0
Narrow lanes	24 hours a day, 7 days a week	A34 northbound from M3 Junction 9 to Three Maids Hill Junction A34 southbound from Three Maids Hill junction to M3 Junction 9
Lane 1 closure	24 hours a day, 7 days a week	A33 southbound from B3047 to A34 southbound
Exit and entry slip road closures northbound and southbound	From 9pm to 6am, as per programme throughout construction phase	M3 Junction 9 northbound and southbound
Full carriageway closure (up and over)	From 10pm to 6am	M3 Junction 9 northbound and southbound
Full carriageway closure	From 10pm to 6am	M3 northbound Junction 11 to Junction 9
Full carriageway closure	From 10pm to 6am	M3 northbound Junction 9 to Junction 8
Full carriageway closure	From 10pm to 6am	M3 southbound Junction 8 to Junction 9



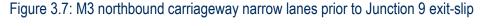
Restriction to be implemented	Time of Day (start to end)	Location (start to end with respect to nearest junction or Marker Posts (MP), if known)
Full carriageway closure	From 10pm to 6am	M3 southbound Junction 9 to Junction 10
Full weekend carriageway closure	From Friday night 9pm to Monday morning 6am	M3 northbound Junction 9 to Junction 8 and M3 southbound Junction 8 to Junction 9
Full carriageway closure	From 10pm to 6am	A34 northbound from M3 Junction 9 to Three Maids Hill Junction A34 southbound from Three Maids Hill junction to M3 Junction 9
Full road closure	From 9pm to 6am	Easton Lane
Full road closure	From 9pm to 6am	A272 northbound and southbound
Lane 1 closure (off peak)	From 8pm to 6am	M3 northbound from MP 102/7 to MP 101/3.
		M3 southbound from MP 101/2 to MP 102/7
		A34 northbound from M3 Junction 9 to Three Maids Hill Junction
		A34 southbound from Three Maids Hill junction to M3 Junction 9
		A33 southbound
Lane 1 and 2 closure (off peak)	From 10pm to 6am	M3 northbound from MP 102/7 to MP 101/3.
		M3 southbound from MP 101/2 to MP 102/7
Lane 3 closure (off peak)	From 8pm to 6am	M3 northbound from MP 102/7 to MP 101/3
Lane 3 and 2 closure (off peak)	From 10pm to 6am	M3 northbound from MP 102/7 to MP 101/3

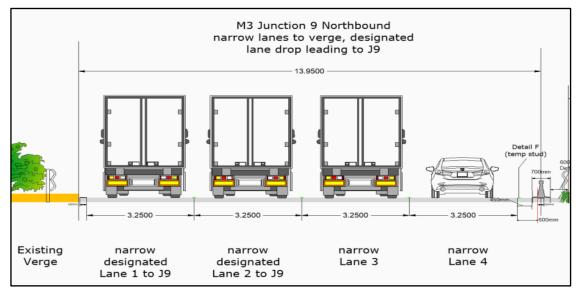


Restriction to be implemented	Time of Day (start to end)	Location (start to end with respect to nearest junction or Marker Posts (MP), if known)
Lane 2 closure (off peak)	From 8pm to 6am	A34 northbound from M3 Junction 9 to Three Maids Hill Junction
Junction 9 gyratory (one lane to be closed)	24 hours a day, 7 days a week.	Gyratory

### M3 carriageway Narrow Lanes to Verge (Phase 1A)

3.3.2 Phase 1A - Narrow Lanes will start prior to M3 Junction 9 with lane widths being narrowed to the verge and maintaining 3 lanes operational travelling northbound. Prior to the Junction 9 exit-slip, 3 lanes become 4 lanes operational with lanes 1 and 2 being designated lanes for Junction 9 leading to A34 Northbound. This cross section is shown below.

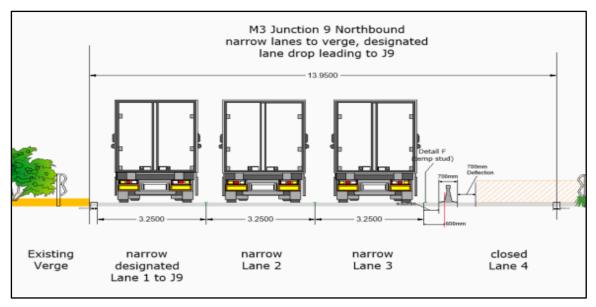




3.3.3 From the above layout maintaining all 4 lanes prior to Junction 9, it would be preferable to close the offside lane (lane 4) to create more working space for the Scheme to progress the construction programme quicker. This is illustrated below.



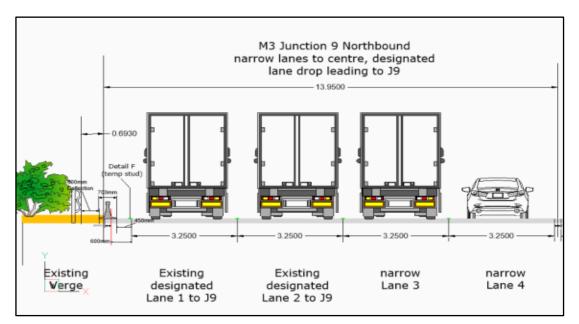




M3 Carriageway Narrow Lanes to Centre (Phase 1B)

- 3.3.4 Switch traffic to the lanes nearest to the central reservation, to allow for verge works.
  - a. The Traffic Management proposal maintains 3 lanes operational on the Northbound carriageway.
  - b. Prior to the Junction 9 exit-slip, 3 lanes become 4 lanes operational with lane 1 and 2 being designated lanes for Junction 9 leading to A34 northbound.

Figure 3.9: Phase 1B





- c. After Junction 9 exit-slip, the M3 carriageway becomes 2 running lanes and traffic will be switched to narrow lanes to centre lane 1 and 2, keeping the hard shoulder closed for works to the verge.
- 3.3.5 M3 Southbound will also be mirrored with traffic running lane 1 and with the hard shoulder closed. The cross section below illustrates the slips of Junction 9 Northbound and Southbound.
  - a. Southbound entry-slip from Junction 9 will be reduced to narrow lanes (maintaining 2 lanes operational) until the slip-road merges with the main M3 carriageway to allow construction of nearside verge.

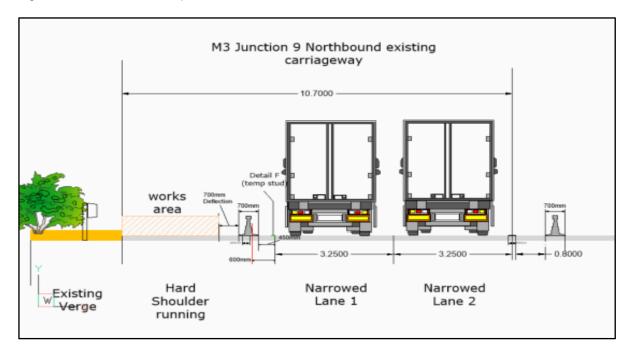


Figure 3.10: Between the slips of Junction 9 northbound and southbound

### M3 re-aligned with Narrow Lanes to Centre (Phase 2)

- 3.3.6 Traffic will remain in the TM layout outlined in Phase 1B on approach to the contraflow system where a temporary re-alignment carriageway has been constructed in Phase 1B offline on Southbound. The locations of these crossovers are outlined below:
  - Entry cross-over to contraflow is located to the north of new M3 Southbound off slip
  - Exit cross-over from contraflow will be located beneath the gyratory
- 3.3.7 The exact locations of these cross-overs will be confirmed during the Detailed Design phase.
- 3.3.8 Once M3 Northbound traffic passes the Junction 9 exit-slip, traffic will be guided through the newly constructed centre reservation entry cross-over into 2x2



contraflow (maintaining 2 lanes). This leads to the recently constructed carriageway and continues to the exit cross-over that's been constructed for traffic to re-join the Northbound carriageway.

3.3.9 The Southbound traffic will be guided onto the newly constructed carriageway to continue South, or to exit for M3 Junction 9 (Winchester). The cross section below illustrates this Contraflow.

Desirable Lane Widths M3 Southbound Carriageway Cross Section (Phase 2) Contraflow 17.35 3.2500 3.2500 1.6000 3.2500 3.2500 Buffer Temporary Temporary Barrier Barrier Zone system system

#### Figure 3.11: Contraflow

#### M3 Carriageway Narrow Lanes to Centre (Phase 3A)

3.3.10 The TM layout shall be the same as TM layout for Phase 1B narrow lanes to centre facilitating works to be carried out the verges.

#### M3 Carriageway Narrow Lanes to Centre (Phase 3B)

3.3.11 The TM layout shall be the same as TM layout Phase 1B narrow lanes to centre with the new diverge open from M3 to link with A34 Northbound.

#### **Speed limits**

- Table 3.3 presents the speed limits that will be used. These speed limits have been developed from an assessment of the Highest Safe Speed in line with GD 904 and risk assessments. A variable speed TTRO will be in place to enable opportunities for different speed limits to be investigated / implemented throughout the lifetime of the Scheme. These speed limits will be further reviewed as the Scheme enters the detailed design phase of the Scheme.
- The enforcement for this temporary speed limit will be operated using an average speed camera system with prosecutions dealt with by Hampshire Safety Camera Partnership. The Contractor will liaise with Hampshire Safety



Camera Partnership and will have enforcement zone/zones on each carriageway, due to the length of the Scheme.

- Signing requirements for speed limits will be detailed on the traffic management drawings, agreed in advance with the Police/Safety Camera Partnership, and checked in situ prior to enforcement commencing. Video recording of the speed limit signing and surrounding motorway will take place, and will provide evidence for prosecutions if necessary. Regular check of the speed limit signing shall be carried out by the project Traffic Safety and Control Officer TSCO after each TM switch.
- **Table 3.3** below shows the proposed extents of start and end of speed restriction.

Speed Limit	Location (start to end with respect to nearest junction or Marker Posts (MP), if known)	Justification for Speed Limit (suitable for external communications)
50mph	Northbound MP 104/6 to MP 100/8	Narrow lanes, contraflow and temporary barrier in place
50mph	Southbound from MP 100/0 to MP 104/0	Narrow lanes, contraflow and temporary barrier in place
40mph (for M3 traffic - Phase 2)	Northbound MP 103/5 to MP 100/8	Narrow lanes, contraflow and temporary barrier in place
40mph (for M3 traffic - Phase 2)	Southbound from MP 100/0 to MP 104/0	Narrow lanes, contraflow and temporary barrier in place

Table 3.3: Speed limits

#### Length of the traffic management

3.3.12 The overall length of the TTM, from first cone to last cone, will be 2.7km on the Northbound carriageway, and 3km on the Southbound carriageway. This is due to the geographical layout of the M3 and the TTM requirements.



#### Table 3.4: Length of traffic management

TM Length	Location (start to end with respect to nearest junction or Marker Posts, if known)	Duration
3km	M3 northbound from MP 104/0 to MP 101/0 to include Junction 9 exit and entry-slips.	Jan 2025 to Dec 2027
3.2km	M3 southbound from MP 100/8 to 104/0 to include Junction 9 exit and entry-slips.	

#### Carriageway and slip road closures

- 3.3.13 Working with the Regional Intelligence Unit (RIU), traffic flows and working windows can be predicted throughout the Scheme to recognise any potential problems to inform the timings of lane closures to ensure minimum delays for road users and maximum working times of the Scheme may be faced with.
- 3.3.14 All temporary closures will be overnight off-peak times from 8pm on Easton Lane and A33 and 10pm (latest) to 6am on gyratory, M3 Mainline and A34, listed in **Table 3.5**. These timings will be dependent on traffic counts.
- 3.3.15 There will be several key locations where the road will be closed, ensuring that we only close lengths of road that are required.
- 3.3.16 Full closures will also be required for certain activities, such as surfacing, road markings and anti-skid operations, including at all tie-ins to the existing network. Full closures will be required for establishing traffic management (temporary barrier and roadmaking's) for each phase.
- 3.3.17 Details and a full schedule of closures will be provided in future versions of this Plan prior to the construction works commencing and will be discussed in the Scheme's monthly TM stakeholder meetings.
- 3.3.18 Where full carriageway closures are required, suitable temporary diversion routes shall be agreed with Local Highway Authorities and other stakeholders. Full closures will only be implemented during off-peak times (see below Table 3.5 for restrictions on road space bookings), unless otherwise agreed with the National Highways Project Manager and key stakeholders, where appropriate.

**Note:** Full weekend carriageway closures are being proposed on the M3 northbound and southbound at Junction 9 from Friday night to Monday morning for the installation of the new bridges and will then be repeated a further 3 times until installation of new structures are in place and existing over bridges have been removed in Phase 2.



- 3.3.19 Diversion routes as above (carriageway and slip road closures) to be used as required as part of the ongoing construction plan. Notice will be given three weeks in advance as part of the 12-week TM look ahead. All operations requiring TM will be carried out at night and will only involve overnight temporary lane closures. Slip-road closures will be required occasionally utilising (National Highways) Area 3 diversion routes.
- 3.3.20 Diversion routes will be consulted with the local authority, National Highways and Area 3 Network Management team (NOMS).

Type of Closure (slip road / full carriageway)	Location (start to end with respect to nearest junction or Marker Posts, if known)	Time of Day (start to end) / Stage in Programme	Closure Details
M3 Junction 9 exit-slip	Northbound and southbound	10pm to 6am from Jan 2025 to Dec 2027	As per construction programme
M3 Junction 9 entry-slip	Northbound and southbound	10pm to 6am from Jan 2025 to Dec 2027	As per construction programme
M3 Junction 9 entry-slip	Northbound On- Slip (Entry)	Phase 2 and 3A	Continuous (access only for National Highways depot)
M3 Full carriageway closure	Northbound Junction 11 to Junction 9	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations
M3 Full carriageway closure	Northbound Junction 9 to Junction 8	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations
M3 Full carriageway closure	Southbound Junction 8 to Junction 9	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and

#### Table 3.5: Carriageway and slip road closures



Type of Closure (slip road / full carriageway)	Location (start to end with respect to nearest junction or Marker Posts, if known)	Time of Day (start to end) / Stage in Programme	Closure Details
			removal. Along with any safety critical operations
M3 Full carriageway closure	Southbound Junction 9 to Junction 10	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations
M3 Full carriageway closure	Northbound Junction 9 to Junction 8 and southbound Junction 8 to Junction 9	4No during 2026 Friday 10pm – Monday 6am	For installation of new bridge decks and decommissioning of existing bridges
A34 Full carriageway closure	Northbound from M3 Junction 9 to Three Maids Hill	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations
A34 Full carriageway closure	Southbound from Three Maids Hill to M3 Junction 9	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations
A272 Full carriageway closure	M3 Junction 9 to Spitfire Island	10pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations



Type of Closure (slip road / full carriageway)	Location (start to end with respect to nearest junction or Marker Posts, if known)	Time of Day (start to end) / Stage in Programme	Closure Details
Easton Lane		8pm to 6am from Jan 2025 to Dec 2027	Full road closure for TTM installation, switching and removal. Along with any safety critical operations

# Hard shoulder running

3.3.21 **Table 3.6** outlines the details for Hard Shoulder Running including location, timing and justification.

Table 3.6: Hard shoulder running

Hard Shoulder Running Location (start to end with respect to nearest junction or Marker Posts (MP), if known)	Time of Day (start to end) / Stage in Programme	Hard Shoulder Running Details	Justification
M3 northbound MP 102/7 to MP 101/3 M3 southbound MP 100/8 to MP 103/5	In place for 24 hours, 7 days of the week Phase 1 and Phase 3B	Narrow Lanes implemented and to maintain to lanes running as permanent road layout	To construct centre reservation with temporary barrier system in pace

#### Adjacent roadworks and other traffic management

- 3.3.22 There will be regular liaison with projects within the vicinity of the M3 Junction 9 footprint. Considerations will be made regarding roadspace and these projects and TM requirements will be discussed in the monthly TM meetings and the regular meetings held with local stakeholders.
- 3.3.23 Please note that due consideration must be given to the National Highways policy for roadworks spacing.



- 3.3.24 We will liaise with the Local Authority and Area 3 Network management team to ensure they are aware of the Scheme's timescales and extents so that we can avoid or manage potential conflicts with road space.
- 3.3.25 Details will be added to this TMP as needed as the Scheme progresses.
- 3.3.26 TTROs will be sought to allow the implementation of relevant restrictions e.g., lane and road closures, changes to running lanes and speed restrictions.
- 3.3.27 Consultation on TTROs will be carried out with all relevant stakeholders during their preparation and completed orders will be submitted to the National Highways Project Manager for action a minimum of twelve weeks in advance of their being required.

Nearby Traffic Management Location	Distance from Scheme	Interaction with Diversion Route(s)	Duration	Contact Details	Road Spacing Compliant?
Central Reserve Barrier Upgrade Junction 9 -14	Adjacent	Yes	Up to 1 year		Yes – constant liaison with M3 Junction 9 -14 team

Table 3.7: Adjacent roadworks and other traffic management

#### Bank holidays and embargos

3.3.28 **Table 3.8** outlines a typical example of Traffic Management embargoes, a Scheme specific table will be produced during the next phase of the Scheme.

Table 3.8: Bank Holidays and embargos

Bank Holidays	Dates	TM removed by:	TM embargo to:	
Easter	Good Friday Easter Monday	06:00 Thursday before Good Friday	00:01 Tuesday after Easter Monday	
Early May Bank Holiday	Monday	Low key – no specific request for TM to be removed		
Spring Bank Holiday	Monday	06:00 Friday 00:01 Tuesday		
Summer Bank Holiday	Monday	06:00 Friday	00:01 Tuesday	



Bank Holidays	Dates	TM removed by:	TM embargo to:
Christmas / New Year	25 December 26 December 01 January	06:00 24 December*	00:01 2 January*
Black Friday and**Cyber Monday Weekend	Friday after the fourth Thursday in November to following Friday	National Highways will confirm embargo arrangements for this peri- in advance	

\*The Christmas embargo dates will be published annually by National Highways having been determined by the day of the week on which the bank holidays fall.

\*\*This is not a bank holiday, but specific embargo arrangements are applied.

## Significant events and seasonal traffic

- 3.3.29 Due to the Scheme's location being close to the South Coast, it is likely there will be seasonal impacts/festivals/events that will need to be taken into account such as the Southampton International Boat Show. There will be extensive liaison with Stakeholders regarding these events.
- 3.3.30 This could also help to identify opportunities to schedule work during seasonal quiet periods.
- 3.3.31 The below are examples of seasonal events local to the Scheme. The details/timings will be confirmed during the Detailed Design phase.

Event	Implications with TM	Proposed Mitigation Measures
Boomtown Fair	Additional traffic flow around Junction 9	Installation of traffic management measures may be restricted if heavy traffic flows are anticipated before or after an event
Matterley Motocross	Additional traffic flow around Junction 9	Installation of traffic management measures may be restricted if heavy traffic flows are anticipated before or after an event

Table 3.9: Significant events and seasonal traffic



Event	Implications with TM	Proposed Mitigation Measures
Southampton International Boat Show	Additional traffic flow around Junction 9 and potentially wide loads	Installation of traffic management measures may be restricted if heavy traffic flows are anticipated before or after an event

#### Incident management

## Recovery and CCTV

- 3.3.32 As a significant proportion of the of the works require narrow lane running that would restrict access for broken down vehicles and recovery services to places of relative safety (e.g., Emergency refuge bays, hard shoulder and verges), - a 'Free Recovery' service will be provided for the duration of the works.
- 3.3.33 To offer appropriate levels of service, and to reduce response times as much as is practicable, the plan includes two recovery bases to cover the Scheme. The following considerations will be taken into account when choosing locations for each recovery base locations:
  - Rapid deployment to each section including associated slip roads and link roads.
  - Utilisation of secure compound areas for holding areas.
  - Location of temporary CCTV monitoring station which will be manned 24/7.
- 3.3.34 The road recovery operator will be accredited to PAS 43 and National Highways Sector Scheme for Vehicle Recovery 17/17b and will carry out their duties in accordance with the requirements of PAS 43.2008 and Best Practice Guidelines for dealing with Breakdowns/Removals on Motorways and High-Speed Dual Carriageways.
- 3.3.35 From the Start of Works, the recovery bases will be operated 24 hours a day, seven days a week, 365 days a year by a recovery team consisting of three personnel at each location.
- 3.3.36 Once vehicles are recovered, they will be transported to a safe location where they will be set down in an allocated space. From here they can arrange and await further recovery by any relevant third-party companies.
- 3.3.37 A phone will also be made available to the drivers to contact another recovery service if required.



- 3.3.38 Designated safe vehicle drop off point and the welfare facilities- will be required. As set out in Chapter 8 of the Traffic Signs Regulation and General Directions (TSRGD) 2016, this set down location will provide:
  - Access to a telephone for drivers to make onward travel arrangements
  - WC facilities
  - Shelter with heat and lighting, and
  - Drinking water
- 3.3.39 A CCTV system will be installed to provide visual cover to the site, this will cover an area from the "Free recovery starts here" sign, to the "Free Recovery End" sign in each direction.
- 3.3.40 The temporary CCTV system will be provided to cover the TTM, with access given to the Regional Operation Centre (ROC) monitor traffic within the roadworks. The CCTV operatives will identify any stranded vehicles and notify the Traffic Safety and Control Officers and Free Recovery operator to commence recovery operations.
- 3.3.41 Roadworks are a complex and demanding environment for both road users and workers. As such, there is the potential for added or increased risk when an incident occurs compared to a section of road with no works present. This places emphasis on the importance of ensuring that plans are in place for managing incidents as efficiently and safely as possible.
- 3.3.42 Evidence of an Incident Management Plan (IMP) should be provided. The IMP will set out how the construction supplier, Traffic Officer Service (TOS) and emergency services will respond to incidents during the works period. All parties should be involved in the development of the IMP, which should be based upon the industry best practice and should include the debriefing of incidents within roadworks. The IMP should be tested through desktop exercises with all parties present. This will facilitate training of the IMP to all parties. (*Note: The IMP is recommended to be completed 3 to 6 months ahead of traffic management being deployed on site*).
- 3.3.43 Prior to commencing with the main works, an Incident Management Planning workshop will be held with members of the emergency services teams, National Highways emergency planning team and third-party stakeholders to establish a robust, workable Incident Management Plan to enable incidents on the network to be managed appropriately. This plan will be updated and revised accordingly throughout the life of the Scheme.
- 3.3.44 The Project Traffic Safety and Control Officer (TSCO) and TM provider will coordinate and support the Traffic Officers and emergency services to effectively deal with any incidents within the Scheme extents listed below as detailed in the IMP:



- Short Term Breakdowns and Minor Road Traffic Collisions (RTC's)
- Long Term Breakdowns
- Fatal / Serious Injury / Suspicious Death due to RTC
- Multiple Vehicle Road Traffic Collision
- Hazardous Chemical Containers / Spillage
- Shed Loads / Debris in road / Dead Animals and Carcasses
- Structure Impact Strikes (Bridge, Gantry, Street Furniture, etc...)
- Potholes and openings in the carriageway
- Vehicle Fire
- Over Running Roadworks
- Suicides or threats of

#### Incursion risk management

- 3.3.45 In order to manage incursions in line with best practice, the traffic management has been designed following industry guidance and the first two of the five principles in National Highways raising the Bar 27.
  - 1. Assess: Identify the risk of incursions and where they are likely to happen.
  - 2. Address: Design methods to eliminate or reduce the likelihood of incursions
  - 3. Implement: Install traffic management to eliminate or reduce the likelihood of incursions.
  - 4. Monitor: Review the effectiveness of the traffic management and report all incursions
  - 5. Manage: Manage an incursion in the event of control methods failing
- 3.3.46 The design and implementation of the traffic management layout is under continual review, with additional measures implemented should trends start to appear at certain locations or activities.

 Table 3.10: Incursion Risk Management

Incursion Risk	Proposed Control / Mitigation Measures		
Driver following works vehicles into works access	Close access immediately after works vehicles have entered site		



Incursion Risk	Proposed Control / Mitigation Measures
Driver entering works access of own accord	Ensure works access location is in suitable place i.e. consider alignment of both existing carriageway and traffic management
Breakdown – Driver entering closure due to vehicle breaking down and becoming stationary	Close monitoring of site surveillance Regular maintenance checks/TSCO checks
Driver coming into contact with gate point	Full gate point SSOW of work
Driver entering works at night due to confusion/sign blindness	Ensure TM design caters for associated human factors and site is easily navigable
Vehicles entering a road closure	Clear and concise signing. Marshalls at road closure points. 'Air-lock' systems at road closure points. Incursion reporting
Non-motorised users close to works area	Ensure that all signing, lighting and guarding is well maintained and isn't a hazard to other road users. Ensure that all works activities are planned thoroughly and checked for any areas of concern regarding working close to walking and cycling routes
Non-motorised users entering works	Ensure that all physical barriers are identified as required, are in place, and are maintained
Cyclists entering the narrow lane section of road works	Signage advising cyclists to dismount and use the footway prior to entering the narrow lanes zone will be installed. Supported by mandatory road signs to sign ref 951 'Cyclists prohibited beyond this point'



#### Driver compliance

- 3.3.47 Where it is proposed to impose temporary reduced speed limit restrictions for safety reasons, measures will be put in place to encourage driver compliance.
- 3.3.48 Temporary Automatic Speed Cameras At Roadworks (TASCAR) will be in place to cover the TM extents where the speed limit is reduced to 50 miles per hour (mph).

#### Communication Plan

- 3.3.49 All stakeholders will be notified of the Traffic Management. Regular advanced stakeholder liaison and consultation will be undertaken with local emergency services to minimise negative impact on services such as response time. The Scheme will maintain access and egress for emergency services at all times.
- 3.3.50 Advanced notification will be provided prior to start of works and any restrictions/closures via the following platforms:
  - Announcement on local and regional radio.
  - Notices in local newspapers.
  - The Regional Control Centre.
  - Emergency Planning Team.
  - National Highways Digital Channels via the 'Roadworks' tab of each Scheme's project webpage and via the Traffic England webpage – information comes from road-space booking system, 'Network Occupancy Management System' (NOMS).
  - Advance warning signs and Scheme information boards at the roadside on affected routes in accordance with TSM Chapter 8 (a minimum of four weeks in accordance with 'Roadworks – A Customers View').
  - Additional advance warning will be provided to key Stakeholders in the vicinity of the Scheme that may be affected by the works via letter drops, emails and on-going stakeholder liaison with particular sensitivity around significant events and holidays.
  - Consult and liaise with National Traffic Operational Centre (NTOC) regarding regional and possible national VMS Displays to minimise impact to SRN.
  - Additional temporary Variable Message Signs (VMS) displays being installed on M3/A34 Northbound and Southbound Carriageways.
- 3.3.51 The Scheme will aim to seek and act on feedback from customers regarding traffic management measures. This information will be used by the Contractor



alongside other sources of evidence and insight to continuously improve traffic management on the Scheme.

- 3.3.52 The following measures will be adopted by the Scheme in order to keep customers informed of progress on the Scheme and improve the customer experience through roadworks or overall customer satisfaction:
  - Scheme boards will be provided to communicate Scheme information. They will be located at the start of works.
  - The Scheme shall incorporate the use of a progress-o-meter to update customers about overall progress via signage within roadworks (and through other media). This should be allied to updates on key milestones and what has been completed.
- 3.3.53 During the development of the detailed communication plan for the Scheme, consideration has been given to improve engagement with customers by:
  - Up-to-date information should be provided frequently via multiple methods including social media and roadside.
  - Periods where no visible activity is undertaken should be explained with clear signage to reduce customer frustrations.
  - In addition to factual information about the Scheme, message which resonate positively with customers (meeting local priorities, delivering safety benefits and reducing disruption to customers).
  - Information will be provided via signage within roadworks (and through other media) to show how customer input has influenced delivery as well as highlighting benefits when these are realised.
- 3.3.54 Notice of TM restriction, including full closures will be advertised in local papers. Announcement on local and regional radio prior to start of works including any restrictions/closures.
- 3.3.55 The project team will maintain their commitment to improving the customer experience through roadworks, by working with the National Highways communication team, to ensure that the strategy for the selection of diversion routes is clear. This will enable the team to mitigate the concerns of discontent road users, in line with the project strategy.

#### **Diversion route selection**

- 3.3.56 For PCF Stage 3 (Pre DCO submission), the following will be required:
  - Identification of selected diversion route options, including consideration of the use of Area Team's diversion routes for unplanned events.



- Review of suitability against all areas of the customer service standard for diversion routes for planned works and activities.
- Defining who the proposed diversions routes have been agreed with, including details of consultation with Area Team and other impacted non-National Highways parties.
- Overall length of the diversion route and the additional time required to use the diversion route.
- 3.3.57 The planned diversion routes for main carriageway closures have been issued for consultation with all stakeholders for review and comments prior to the TTRO being submitted and approved. Coordination meetings will take place with the Local Authority network management teams and all diversion routes to be discussed.
- 3.3.58 For PCF Stage 5 (Post DCO Submission), the following will be required in addition to those already developed for Stage 3:
  - Description of the type of closures needed and diversion routes proposed to be used for each with an indication of how many times this closure/diversion is anticipated to be utilised during the works.
  - Confirmation that the diversion routes have been agreed with the Operations Directorate, Regional Control Centre, local authorities and emergency services.
  - Final review of suitability against all areas of the customer service standard for diversion routes for planned works and activities and explanation of where the standard is not met.
  - Description of the signing provision and any other activities required to reduce the disruption to customers and communities, including the use of VMS.
- 3.3.59 **Table 3.11** outlines the anticipated diversion routes and associated drawings outlined in **Figure 2.5 (Temporary Traffic Diversion Routes)** of the **ES (Document Reference 6.2)**.
- 3.3.60 Further to this the number of closures required will be confirmed during detailed design resulting from the development of the construction programme.



## Table 3.11: Diversion routes

Closed Road	Location (start to end with respect to nearest junction or Marker Posts, if known)	Signs to be Implemented	Length of Diversion		Additional Journey Time for the Customer due to Diversion Route
M3 Northbound exit-slip	Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	2.1 miles	4 minutes	1 minute
M3 Northbound entry-slip	Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	5.9 miles	7 minutes	6 minutes
M3 Southbound exit-slip	Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	5.7 miles	6 minutes	5 minutes
M3 Southbound entry-slip	Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	2 miles	4 minutes	3 minutes
M3 Northbound, full carriageway closure	Junction 9 (up and over)	Standard Chapter 8 TTM and diversion route signage Standard	0.6 miles	2 minutes	3 minutes
M3 Northbound, full carriageway closure	Junction 11 to Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	9.1 miles	16 minutes	1 minutes
M3 Northbound, full carriageway closure	Junction 9 to Junction 8	Standard Chapter 8 TTM and diversion route signage Standard	15.9 miles	16 minutes	10 minutes



Closed Road	Location (start to end with respect to nearest junction or Marker Posts, if known)	Signs to be Implemented	Length of Diversion		Additional Journey Time for the Customer due to Diversion Route
M3 Southbound, full carriageway closure	Junction 9 (up and over)	Standard Chapter 8 TTM and diversion route signage Standard	0.6 miles	2 minutes	3 minutes
M3 Southbound, full carriageway closure	Junction 8 to Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	15.8 miles	16 minutes	6 minutes
M3 Southbound, full carriageway closure	Junction 9 to Junction 10	Standard Chapter 8 TTM and diversion route signage Standard	2.1 miles	4 minutes	2 minutes
A34 Northbound	M3 Junction 9 to Three Maids Hill Junction	Standard Chapter 8 TTM and diversion route signage Standard	9.7 miles	18 minutes	14 minutes
A34 Southbound	Three Maids Hill Junction to M3 Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	9.4 miles	16 minutes	12 minutes
A272 Northbound Carriageway closure	Spitfire roundabout to M3 Junction 9	Standard Chapter 8 TTM and diversion route signage Standard	12 miles	18 minutes	16 minutes
A272 Southbound Carriageway closure	M3 Junction 9 to Spitfire roundabout	Standard Chapter 8 TTM and diversion route signage Standard	4.2 miles	8 minutes	6 minutes



Closed Road	Location (start to end with respect to nearest junction or Marker Posts, if known)	Signs to be Implemented	Length of Diversion		Additional Journey Time for the Customer due to Diversion Route
Easton Lane South	M3 Junction 9 to Tesco roundabout	Standard Chapter 8 TTM and diversion route signage Standard	5 miles	8 minutes	7 minutes
Easton Lane North	M3 Tesco to Junction 9 roundabout	Standard Chapter 8 TTM and diversion route signage Standard	5 miles	8 minutes	7 minutes

#### Safety measures

- 3.3.61 **Table 3.12** outlines the customers affected and the safety measures put in place to suit their requirements.
- 3.3.62 Following best practice and lessons learnt from other smart motorway projects the traffic management design will include measures that will be in place to ensure the safety of all customer groups, including road users and the workforce.
- 3.3.63 Temporary Vehicle Restraint Systems (TVRS) will be used throughout the length of the Scheme including the side road structures where required. Learning from incidents on other projects it is proposed to use a higher containment temporary barrier product in areas where working space is limited. Subject to risk assessment of installation and maintenance, cones may be preferred in other locations.
- 3.3.64 The use of hatching and temporary barrier for the start of narrow lanes tapers instead of temporary studs and cones. This will reduce the maintenance requirements in a high-risk area and offer higher level of protection for the workforce.
- 3.3.65 Body worn CCTV cameras will be worn by any operatives carrying out gate duties at road closures points, for both personal protection and data capture for continual improvement.
- 3.3.66 Throughout the Scheme, a speed restriction is to be in place and will be enforced utilising TASCAR.



# Table 3.12: Safety measures

Customer Group	Safety Measure	
Motorists / Construction team	Temporary VRS to be utilised throughout the Scheme to segregate the traffic safely.	
Motorists / Construction team	There will be a controlled site access / egress point to allow construction traffic to enter and leave the site safely.	
Construction team	If incursions become an issue, then an electronic early warning system will be installed should be considered at road closure points to warn the workforce of any incursions or breaches to road closures.	
Traffic Management / Road User	Installation of off-peak Lane Closure, subject to Traffic Counts (1200 per hour).	
Workforce / Road User	Works carried out within temporary VRS separated/segregated work zone	
Traffic Management / Road User	HETO/Police Rolling Roadblocks for installation of Lane Closures.	
Traffic Management / Workforce	Full Closure of Slip Roads (exit or entry slips.	
Road User	To follow visible and clearly signed diversion route.	
Pedestrians, cyclists and disabled users	Cyclist will be required to take an alternative route, or to dismount and use the footways for the length of the Scheme, as the lane widths aren't suitable for cyclist to be safely overtaken. This will be supported by fixed signage. Pedestrian barriers shall be used to separate pedestrians from construction activities and/or vehicular traffic	
All road users	Body worn CCTV equipment shall be worn by operatives in high risk situations, such as carrying out gate duties and vehicle recovery. This will offer a greater level of personal protection, and also allow for continual improvement upon review	



Customer Group	Safety Measure
All road users	Portable Variable Message Signs will be used on approach to the Scheme to warn and inform all users of Castle Street of any current incidents and/or any planned restrictions

# **Human factors**

- 3.3.67 In relation to the design of the Temporary Traffic Management plans, Human Factors will be considered to ensure the following compliance:
  - Workplace fatigue
  - (Particular attention to) the effect on non-motorised users
  - Design of traffic and information signs
  - Clear and legible signs
  - Sign placement and obscurity
  - Sign clutter

#### 3.4 Proposals for management of network occupancy

- Network Management Manual (NMM)
- Asset Maintenance and Operational Requirements (AMOR) or
- National Highways Managing Network Occupancy Requirements
- Accurately updating NOMS and our Digital Channels guidance
- 3.4.1 This will include, but not be exclusive to:
  - Occupancy planning and consultation with the area maintenance provider.
  - Management of Network Occupancy Planning within the Major Projects Contractor organisation.
  - Management and contact protocol with the area maintenance provider during times of occupancy.
  - Communication of high impacting works as defined in the operational requirements, for high impacting works, bookings are to be confirmed and not amended after:



- 13.00 hrs on the day of the closure for closures between 19.00hrs and 23.59hrs
- $\circ~$  13.00 hrs on the day preceding the closure for closures between 00.00hrs and 19.00hrs
- 3.4.2 Unless, in exceptional circumstances, the amendment is due to safety, an incident or weather conditions which could not have been reasonably foreseen. This requirement applies to start times, changes to traffic management layout and end/stop times except for early finishes to end/stop times.

#### 3.5 Implications of traffic management measures

#### Intelligent Transport Service

- The implications for traffic monitoring, data collation and driver information services during construction.
- If any roadside infrastructure related information services (e.g. VMS, existing cameras, traffic loops) will be moved/removed during construction.
- The associated implications for the National Traffic Operational Centre (NTOC) and Regional and National Intelligence Unit (RIU/NIU).
- The strategy or interim measures in place/that have been agreed with National Highways information services and NTOC to mitigate the disruption and impact.

Infrastructure	Impact on Infrastructure	Duration
Traffic loops	De-commissioned	For the project duration
Permanent CCTV	De-commissioned	For the project duration
Roadside telephones	De-commissioned	For the project duration

#### Table 3.13: Intelligent Transport Service Infrastructure impacts

#### **Operations**

- 3.5.1 Whilst developing the plan we will liaise with the ROC and TOS to discuss their requirements in order to develop a robust plan which meets their needs. A dedicated live link from our CCTV room will be installed to the ROC to enable all incidents to be viewed by them as they happen.
- 3.5.2 Portable VMS will be installed throughout the Scheme, these are utilised to not only display Journey Time, but also messages should incidents occur.



- 3.5.3 As a minimum, this section should include:
  - A strategy to mitigate any risks on operations consideration must be given to the implications on day-to-day operations (such as incident management). Provide reference and link to Incident Management Plan.
  - If any roadside infrastructure that impacts the operation of TOS/RCC(s) (e.g. VMS, existing cameras, traffic loops) will be removed during construction.
  - Suitable measures/strategies that are being proposed/have been agreed with the TOS/ROC(s) to mitigate the disruption and impact.
  - Access will be maintained to the maintenance depot at Junction 9 for Traffic Officer Service and other staff members who work or need access to this depot.

#### Maintenance activities

- 3.5.4 As a minimum, this section will include:
  - Impact on the maintenance service provider, including those responsible for maintenance of technology (in liaison with NTOC for existing cameras and inductive loops equipment).
  - Suitable measures / strategies that are being proposed / have been agreed with the maintenance service provider (following liaison with NTOC for existing cameras and inductive loops equipment) to mitigate the disruption and impact.
  - Status of the Detailed Local Operating Agreement (DLOA) and include reference and link to document.
- 3.5.5 Refer to DLOA for full guidance on term maintenance and maintenance within ZOI.

#### Other service providers

- 3.5.6 As a minimum, this section will include:
  - Impact on these other service providers
  - Suitable measures / strategies which are being proposed / have been agreed with these other service providers to mitigate the impacts on their services
- 3.5.7 Prior to implementing TTM on any Local Authority roads, agreements will be sought with the relevant highway authorities through their own permitting systems.



#### 3.6 Traffic Management Plan management

- 3.6.1 The TMP should be used as a live document that is updated regularly and reviewed in line with changes in the works on site.
- 3.6.2 Gathering data is an important part of TMP management. The data can be used to understand and monitor how the TM is impacting on the road performance and help to identify opportunities to mitigate any issues. A Traffic Impact Assessment (TIA) tool will be used for lane and speed adjustments, and lane closures to ascertain impacts. The TIA tool cannot be used for full closures, or measure traffic flows not on the SRN.
- 3.6.3 The TMP will be monitored and reviewed by the Scheme TM Manager.
- 3.6.4 For this Scheme, the management of the TMP will incorporate procedures that involve regular reviews as part of a continuous improvement approach to ensure its continuing suitability, adequacy and effectiveness.
- 3.6.5 The management review process will ensure that sufficient information is gathered over the term of the Scheme to allow management to undertake an effective review.
- 3.6.6 The TMP is to be used as a live document and will be updated regularly and reviewed in line with changes in the works on site.
- 3.6.7 Data will be regularly gathered and input into the TMP, including incident locations and frequency. The data will be used to understand and monitor how TM is impacting on the road performance and help to identify opportunities to mitigate any issues related to the Scheme.



## Appendix A Dynamic roadworks benchmarking template

**Table A.1** below defines the Dynamic Road Works Benchmarking RAG rating descriptions for the 5 Visions in accordance with the Dynamic Road Works Benchmarking Template v2.0, which should be used to complete the following Dynamic Road Works Benchmarking Scores in **Table A.2**.



# Table A.1: RAG descriptions for visions

	Green (aligned to vision)	Amber (just outside vision)	Red (well outside vision)
Speeds	Over 50% of the Scheme (in distance and time) is at the permanent speed limit	Less than 50% is at the permanent speed limit, but there is clear evidence showing what alternative methods of construction were used.	Less than 50% is at the permanent speed limit, and there is no evidence showing what alternative methods of construction were used.
Length	The total length of TM on any one 'journey' (i.e. on 2 arms of a roundabout that could form a realistic journey) is shorter than 6km, or 1 link if on a motorway. Or, the total length of TM is more than 6km (or 1 link if a motorway) but there is evidence the increased length is proportional to a reduced delivery time. Or, the total length of TM is more than 6km (or 1 link if a motorway) but the additional length is operating at a minimum of 60mph. AND the average journey time created by the road works is not more than an additional seven minutes thirty seconds.	The total length of TM is more than 6km (or 1 link if a motorway) and there is evidence that the reduced delivery time is halfway proportional to the increased length. e.g. a fifty percent increase in length for a 25% reduction in the time taken to deliver the additional length. AND the average journey time created by the road works is not more than an additional seven minutes thirty seconds.	The total length of TM is more than 6km (or 1 link if a motorway) and there is no evidence of reduced delivery time even halfway proportional to the increased length, nor is the additional length a minimum of 60mph. AND/OR the average journey time created by the road works is more than an additional seven minutes thirty seconds.
Closures and diversions	No more than 1 full closure (including slip	No more than 1 full closure (including slip	More than 1 full closure (including slip



	Green (aligned to vision)	Amber (just outside vision)	Red (well outside vision)
	road closures) every 3 months And / or the diversion route has a comparable journey time, and impact on communities along the diversion route are minimal	road closures) every month	road closures) every month
Delivering quicker	Benefits are delivered to the customer before full opening (NA if offline project) AND construction is undertaken at least 6 days a week AND restrictions are lifted during embargo periods (unless full productivity is maintained)	Benefits are delivered to the customer before full opening (NA if offline project) OR construction is undertaken at least 6 days a week OR restrictions are lifted during embargo periods (unless full productivity is maintained)	No benefits are delivered to the customer before full opening (NA if offline project) NOR is construction undertaken at least 6 days a week NOR are restrictions lifted during embargo periods (and full productivity isn't maintained)
Explaining activity	There is evidence of a comprehensive on- road/off-road communications approach, which updates customers as required of activities undertaken, works completed and progress made	Evidence of an off-road only communications approach, which updates customers as required of activities undertaken, works completed and progress made	No evidence of a communications approach which updates customers as required of activities undertaken, works completed and progress made



# Table A.2: Dynamic roadworks benchmarking template

Vision	Green/ Amber/ Red/ NA/ Not yet known	Scheme Evidence for RAG Rating
<b>Speeds:</b> Varying the speed limits so they are appropriate for the work taking place	Not yet known	The first phase to build the central reserve will run at 50mph which was the output form the highest safe speed assessment. Further phases are still to be assessed.
Length: Shortening the length of roadworks	red	Total Scheme length is 3km, however journey time increase is not more than 2 ½ minutes.
<b>Closures and</b> <b>diversions:</b> Appropriate use of full road closures (including slip road closures) and associated diversions	amber	Carriageway closure in place multiple nights per month (21.00hrs – 06.00hrs) to speed up construction that can only be done with full closures.
<b>Delivering quicker:</b> Delivering road works quicker	red	Junction upgrades must be completed and commissioned in full before the customer can realise the benefits.
<b>Explaining activity:</b> Explaining clearly what activities are, or are not, taking place	green	Comprehensive on- road/off-road communications will be taking place detailing activities and progress of works completed.



# Appendix B

# Proposed Traffic Management Layout Drawings

