
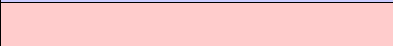
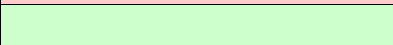
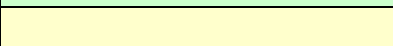



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APPENDIX 4.2A CEMP

ANNEX E OUTLINE TRAFFIC MANAGEMENT PLAN

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1 Workshare Compare comparison of interwovenSite://GBDMS/UKMATTERS/73211348/1 and interwovenSite://GBDMS/UKMATTERS/73211189/1. Performed on 08/01/2016.

Appendices:

Appendix 1 – Outline construction programme Rev M (March 2015).

Appendix 2 – Incident Management Plan

~~Abbreviations Used~~

~~CCTV Closed Circuit Television~~

~~IPV Impact Protection Vehicle~~

~~ITS Intelligent Transport Systems~~

~~MAC Managing Agent Contractor~~

~~MOU Memorandum of Understanding~~

~~TM Traffic Management~~

1. INTRODUCTION

1.1 Purpose

1.1.1 This ~~document~~Construction Traffic Management Plan ("CTMP") sets out the proposed traffic management and maintenance responsibilities during construction of M4 J3 to 12 Smart Motorway scheme ("Scheme"). The Scheme is the subject of an application for development consent under the Planning Act 2008. That application is supported by a number of documents including environmental management plans which will mitigate its effects, particularly during construction.

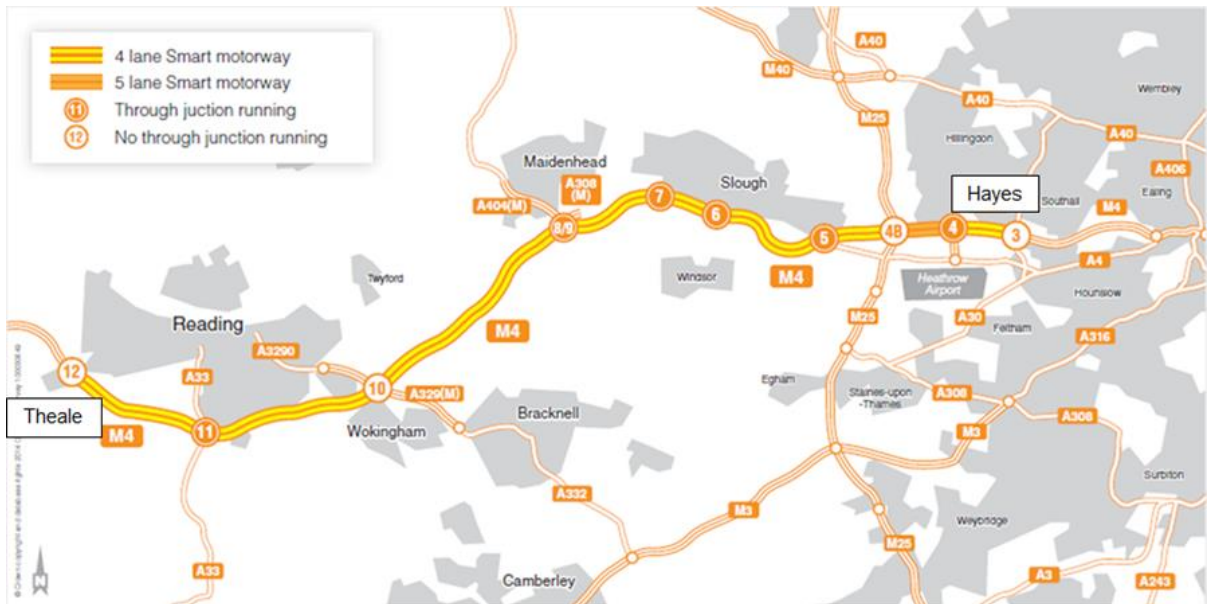
1.1.2 This document supports the application for development consent and the environmental management plans. ~~It will be developed as the Scheme progresses.~~The Scheme is currently in the ~~preliminary design stage and a Contractor to construct the works has not yet been appointed by the Highways Agency ("Agency").~~Examination stage and detailed design commenced in late 2015. The actual traffic management design and proposals will be determined by the Contractor ~~once appointed and reflected in a final version of this,~~ as the detailed design develops, to inform planning of the construction phase. During the construction planning process and construction phase, the Contractor will be liaising with all relevant stakeholders to ensure the works minimise disruption. Hence this CTMP is a live document and will be developed as the Scheme progresses. The description of traffic management which follows provides a framework for the methodology for the works which will enable the final traffic management measures to evolve.

1.2 Description of Scheme

1.2.1 The Scheme is some ~~50~~52km (32 miles) in length, between junctions 3 and 12. ~~Preliminary design is complete and the~~The Scheme comprises the following principal elements:

- a) conversion of the hard shoulder to a permanent running lane and, where no hard shoulder is in place at present, the construction of a new lane. This will mainly take place between junction 4b and junction 8/9;
- b) replacement of overbridge structures where portals are too narrow to accommodate the improved motorway;
- c) extension of underbridges and other structures such as culverts and subways to accommodate the improved motorway;

- d) changes to junctions and slip roads needed to accommodate traffic joining and leaving the improved motorway, and to allow use of the hard shoulder as a running lane, as well as allowing "through junction running";
- e) provision of new gantries and signs to allow the motorway to function as a smart motorway with a variable speed limit, and to provide messages to road users; and
- f) other infrastructure needed for the improved motorway, such as Emergency Refuge Areas, enhanced communication systems, closed circuit television ("CCTV") and electrical supplies, as well as works to accommodate statutory undertakers' apparatus and other parties who may be affected by the Scheme.



1.2.2 The proposed lane widths for the [permanent works completed smart motorway](#) are as shown in [the following table: Table 1.](#)

[Table 1 – Proposed lane widths](#)

	nearside	3.65m	3.50m	3.40m	3.20m	n/a	offside
		3.65m	3.65m	3.50m	3.40m	3.20m	

1.3 Programme

- 1.3.1 Mobilisation and construction is programmed to commence in September 2016 with completion by ~~2022~~2021.
- 1.3.2 The outline construction ~~plan~~programme Rev M (March 2015) is attached in Appendix 1.

2. TRAFFIC MANAGEMENT PLAN

2.1 Proposed traffic management measures

- 2.1.1 A number of options have been considered for the traffic management measures required for the construction of the permanent works; ~~the full 52km under traffic management ("TM"), splitting the works into two phases (Phase 1 and Phase 2) and phased working with 4km under traffic management with 10km gaps~~;
- a) the full 52km subject to traffic management measures; and
 - b) implementing traffic management measures in a number of phases. The traffic management works will be phased in varying lengths of Traffic Management influenced by the construction and commissioning constraints. Detailed plans showing the extents for each phase will be developed and consulted on during the construction planning phase.
- 2.1.2 ~~Phase 1 comprises~~ Traffic management measures would be implemented in the 28km section between Junction 12 near Reading and junction 8/9 at Maidenhead and J12 at Reading (West) and this would be constructed first. The bridge overbridge replacements and widening of underbridges required for Phase 2 will commence before Phase 1 is complete and Phase 2, which is within the 24km between Junction 8/9 and Junction 3 at Hounslow, will commence after Phase 1 is completed before the section between Junction 12 and Junction 8/9 is complete.
- 2.1.3 Significant ~~TM~~ resources will be required for the installation of traffic management measures and their subsequent maintenance during construction of the Scheme. Separate installation and maintenance crews will be utilised for traffic management on the side roads for bridge construction.
- 2.1.4 All live lane traffic management installation on the M4 will be carried out using two vehicles with a separate impact protection vehicle. ~~All TM will be planned for installation, maintenance and removal ("IPV"). It is intended that all traffic management measures will be installed, maintained and removed without the need for traffic management operatives crossing to cross live traffic lanes without IPV protection.~~ It is envisaged that up to 5 No. two man ~~TM~~ traffic management maintenance crews will be required, with additional resources when layouts are installed, altered or removed.

2.1.5 ~~A~~The Contractor's Traffic Manager will oversee all aspects of ~~the TM~~traffic management. In addition up to ten Traffic Safety and Control Officers will provide 24 hour cover for the works.

2.2 Lane restrictions speed limits and enforcement

2.2.1 During construction ~~a~~the temporary speed limit ~~of~~is likely to be 50mph ~~will be imposed~~ to facilitate narrow lanes on the M4. The enforcement will be through average speed cameras with prosecutions dealt with by the Police/Safety Camera Partnership. Signing requirements for speed limits will be detailed on the traffic management drawings and agreed in advance with the Police/Safety Camera Partnership, and will be checked in situ prior to enforcement commencing. Video recording of the speed limit signing and surrounding motorway will take place ~~and a two hourly~~to be provided as evidence for prosecutions if necessary. A regular check of the variable speed limit signing will be carried out and recorded.

2.3 Narrow lanes

2.3.1 The proposed traffic management for the construction works on the M4 verges and shoulders will involve narrowing the existing running lanes in order to provide a safety zone to the existing hard shoulder from where the works will be accessed and constructed. The installation of narrow lanes for carriageway works will be undertaken at night under full carriageway closures.

2.3.2 The proposed lane widths ~~for four lane sections lanes are as follows:~~may vary between phases; these will be detailed on the traffic management drawings and will be influenced by a number of factors, e.g. current number of running lanes, existing carriageway widths, construction activity and working space required. Typical narrow lane widths are shown in Table 2.

Table 2 – Traffic management narrow lane widths

	nearside	3.25	3.0	2.75	n/a	offside
		3.25m	3.0	3.0	2.75	

2.3.3 For works to the central reserve, the narrow running lanes will be switched to the verge side, thus freeing working space for access and construction.

2.3.4 It is proposed that all works areas will be segregated from traffic lanes by suitable protective barriers. Terminal ends of barriers will be risk assessed and fitted with ~~crash cushions~~suitable and approved products suitable to each location. The barriers will be relocated to suit progress of the works. The principles of the temporary Road Restraint Risk Assessment Process (http://www.standardsforhighways.co.uk/tech_info/rrrap.htm) will be used, but the default position will be to use temporary barriers.

2.4 Consultation

2.4.1 Detailed traffic management proposals and drawings will be produced and consultation will be held with external stakeholders including Thames Valley Police, the Metropolitan Police, Area 5 Connect Plus, Area 3 ~~EM Highways~~maintenance service provider, the Traffic Officer Service and the various local authorities affected by the works (~~West Berkshire, Reading, Wokingham, Bracknell Forest, Windsor & Maidenhead, Slough, Buckinghamshire, Transport for London, London Borough of Hillingdon and London Borough of Hounslow~~). Others to be consulted in the ~~formation~~development of traffic management proposals will be Fire and Rescue, Ambulance Services, public transport operators, relevant developers, Network Rail, and district and parish councils (the ~~latter~~last of these particularly when planning road closures and diversion routes).

2.5 Overnight works/closures

2.5.1 The installation of narrow lanes for carriageway works will be undertaken at night under full carriageway closures. Other night time restrictions will be in accordance with the Area 3 and Area 5 ~~schedules~~schedules of permitted traffic management ("Schedules").

2.5.2 The timings of overnight lane closures will be based on historical data which will be used to identify less sensitive times for works to be undertaken. The ~~timings selected~~installation time will be subject to traffic counts on the night ~~before implementation on the basis of a trigger value of less than 1200 vehicles per lane left open to ascertain that the consequences of closures will be acceptable~~of implementation.

2.5.3 Once narrow lanes and/or contraflow systems are in place, there ~~will~~may be a need to close lanes overnight ~~for~~to facilitate works ~~such as including, but not limited to: Deliveries~~, Motorway Incident Detection and Automatic Signalling ("MIDAS") loop cutting, erecting cantilever signs, and resurfacing.

Lane closures and slip roads will be subject to ~~scheduled road works and~~ roadspace booking through Area 3 and Area 5.

- 2.5.4 Some operations will require the closure of slip roads and the main carriageway in order to undertake a particular ~~operation~~ operations such as demolition, new bridge beam erections, installation of narrow lanes and duct crossings, or erection of gantry beams and signs.

2.6 Major events and bank holidays

- 2.6.1 Co-ordination will be required to ensure all major events served by the M4 and/or relevant side roads are known. ~~This~~ Information obtained about these events will particularly ~~impact on~~ influence whether works can be undertaken at night, ~~which~~. Works to implement traffic management measures may be restricted if heavy flows are anticipated after an event such as a football match, rowing at Eton Dorney or similar. ~~This~~ Consideration of major events and their consequences on works will be undertaken in liaison with ~~the~~ Highways ~~Agency~~ Area Maintenance England's maintenance service providers' teams and discussed at the regular Traffic Management ~~Co-ordination~~ Working Group meetings and Traffic Management Clinics, held with ~~the~~ Highways ~~Agency~~ England and stakeholders during the works (see paragraph 4.3.7 of the Construction Environmental Management Plan).
- 2.6.2 During ~~Bank Holiday~~ bank holiday periods the M4 will typically remain under narrow lanes traffic management (see 2.3.2 Table 2), maintaining three or four lanes as appropriate. All other traffic management measures would be minimised as far as practicably and safely possible. No lane or carriageway closures would take place during these periods.

2.7 Breakdown and recovery temporary CCTV

- 2.7.1 A CCTV system for identifying vehicles in need of recovery ~~will be required during the works~~ and monitoring traffic and other incidents will be required during the works. This will be a temporary system relaying pictures to a monitoring room staffed by suitably qualified staff 24 hours a day, ~~7~~ seven days ~~per~~ a week including all bank holidays. There will also be a link from the monitoring room to ~~the Agency~~ Highways England's Regional Control Centre to enable the Traffic Officer Service to view images from the site monitoring room. The CCTV monitoring staff will despatch breakdown recovery vehicles and crews to ensure speedy removal of breakdowns.
- 2.7.2 The alternative method of using off site recovery operators on a call out basis will be investigated to determine if it is suitable for some or all of the

works. This system has been used on a number of projects on ~~the~~ [Agency Highways England](#)'s network.

3. IMPLICATIONS OF TRAFFIC MANAGEMENT MEASURES ON MAINTENANCE OPERATIONS

3.1 Working with adjacent maintenance schemes

3.1.1 The Contractor will be responsible for all maintenance works (normally the responsibility of the maintenance service provider) within the traffic management. During construction of the Scheme, co-ordination meetings will be held with the maintenance service providers to ~~allow access to complete essential maintenance operations. Consideration will be given to the distance between sites or maintenance works and joining up maintenance schemes if necessary to complete maintenance operations.~~ All details will be included in the maintenance responsibilities' Memorandum of Understanding ("MOU"). agree suitable arrangements for adjacent maintenance operations.

~~3.2 MOU maintenance responsibilities~~

3.1.2 ~~3.2.1~~ The MOU will be developed and agreed with the Agency's Area 3 and Area 5 management teams to define the roles and responsibilities for each party for the ongoing maintenance of the existing motorway assets. The basis of this procedure will be for the party best placed to carry out a repair or maintenance to do so. This typically means the MAC will attend to emergency situations and repairs, with the Contractor carrying out planned and major reactive maintenance. Contractor will allow the maintenance service providers access to the managed areas within traffic management for asset inspection activities, subject to appropriate health & safety considerations.

4. IMPLICATIONS OF TRAFFIC MANAGEMENT MEASURES ON OPERATIONS

4.1 Incident management plan

- 4.1.1 A Draft Incident Management Plan is included in Appendix 2 for consultation with [the](#) Emergency ~~Responders~~[Services](#).

5. ANTICIPATED TRAFFIC ROUTING FOR PROPOSED SITE COMPOUNDS

5.1 Context

5.1.1 The following proposed access routes are the preferred routes developed by Highways England, the Scheme designers and the Contractor. In due course consultation with stakeholders and a greater understanding of their concerns and considerations may lead to revisions of the following preferred routes to each of the compounds.

5.1.2 Where possible the chosen routes use major roads and attempt to keep traffic away from residential areas.

5.2 Construction Compound 2

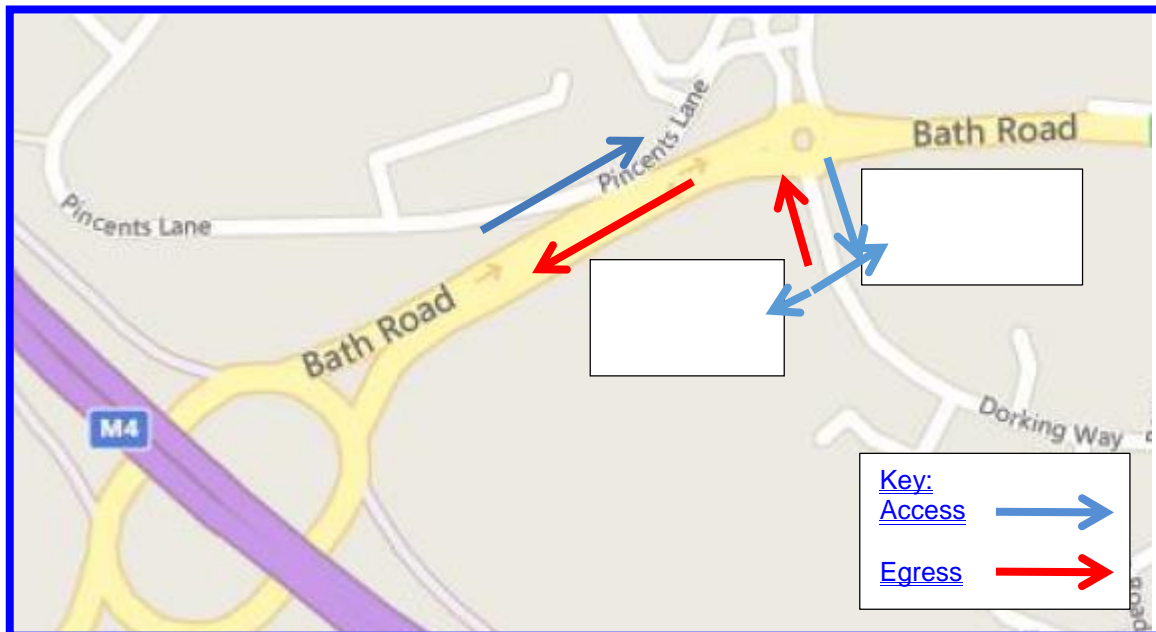


Figure 1 – Construction Compound 2

5.2.1 Construction Compound 2 is located north of junction 12. Access to the site will primarily be from junction 12, along the A4 Bath Road turning onto Dorking Way and then either left or right into the compound areas either side of the road. However, access from the A4 from the Reading direction is possible, though not preferable.

5.2.2 The anticipated usage of this compound would be for the duration of Phase 1 works.

5.3 Construction Compound 4

5.3.1 The proposed areas for Construction Compound 4 are located within the centre of junction 10. The usage of these areas is limited and constrained by their location as they will require all vehicles entering and exiting to be in accordance with Chapter 8 for their signage, markings and traffic beacons.

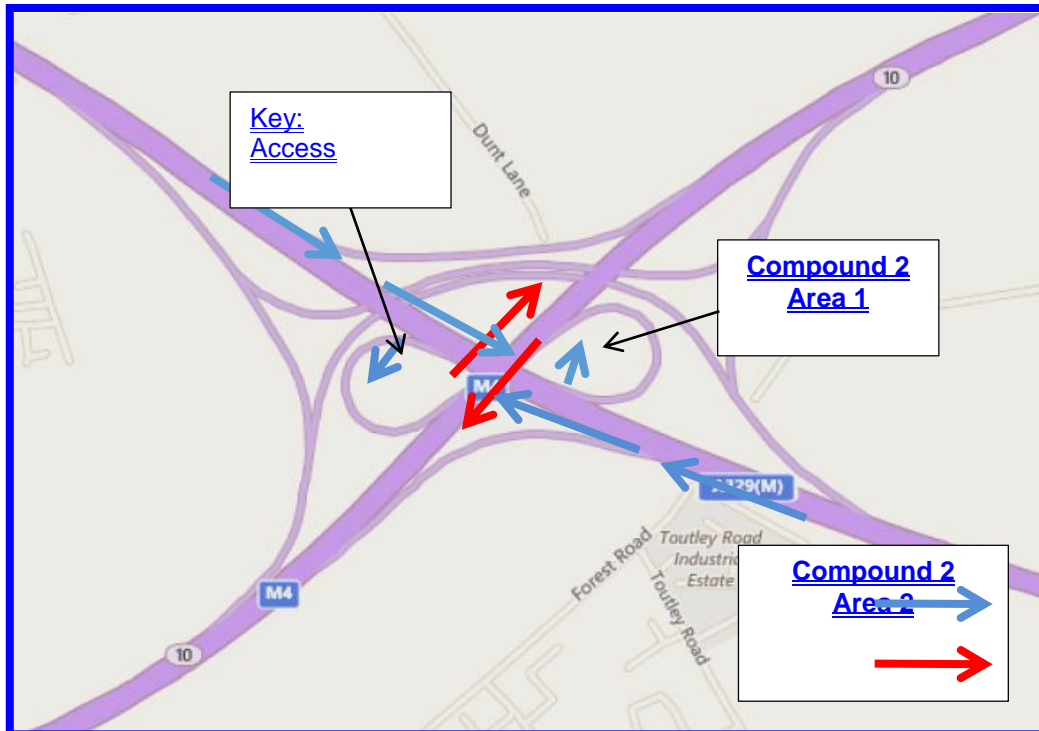


Figure 2 – Construction Compound 4

5.3.2 Within this section of the works there are no bridge sites and the compound areas are to provide support to the main carriageway works only.

5.3.3 The accesses into the two areas will be via the A329 (M) to get to the east and westbound sides. At either end of the A329(M) there is a junction that will allow vehicles to turn around after exiting the M4 and then go to the respective compound area.

5.3.4 It is envisaged that the traffic using these two compounds will not use the local road network but will remain on the motorway network.

5.4 Construction Compound 5

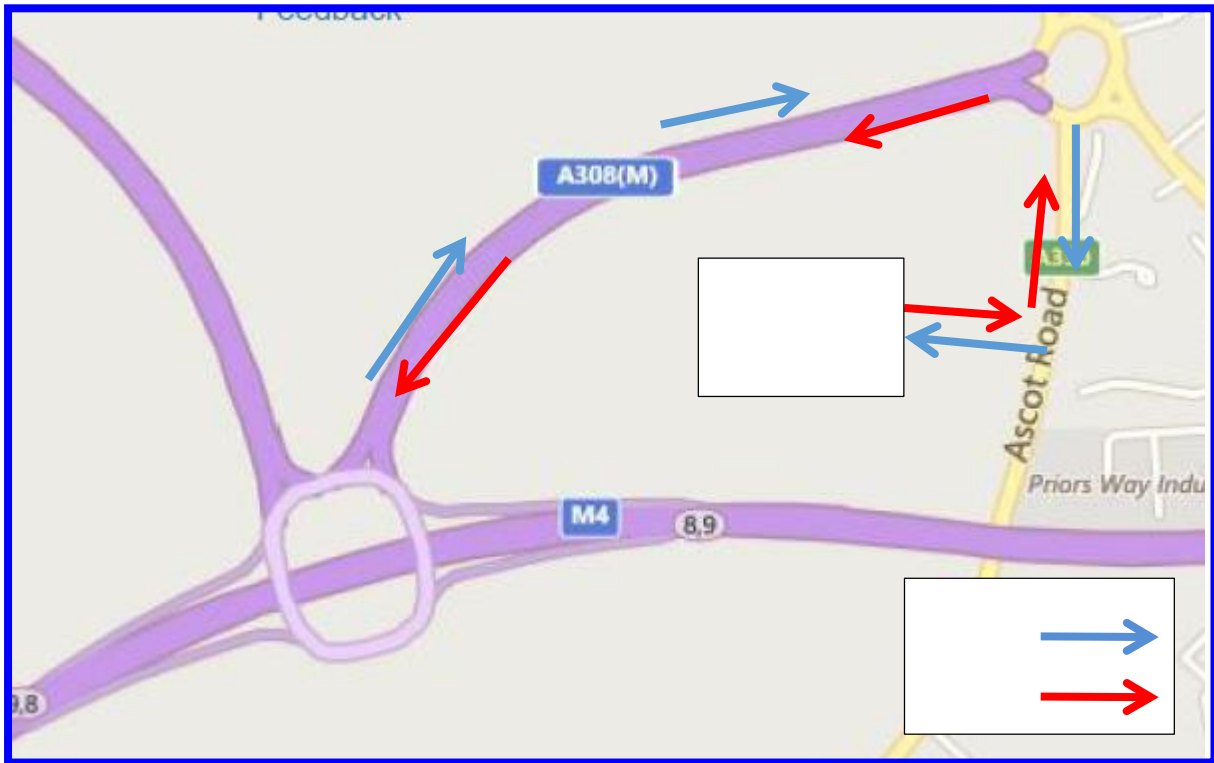


Figure 3 – Construction Compound 5

- 5.4.1 Construction Compound 5 will be the main compound to service the project. Access and egress will be from junction 8/9 using the A308(M) and Ascot Road, approaching from Maidenhead. To the south of the M4, Ascot Road passes through the village of Holyport. HGV access to the compound will be via the above defined route and not through the village of Holyport.
- 5.4.2 Use of the compound will be for the entire duration of the works. The compound will be established in early 2017 and remain in use until completion in September 2021.

5.5 Construction Compound 6

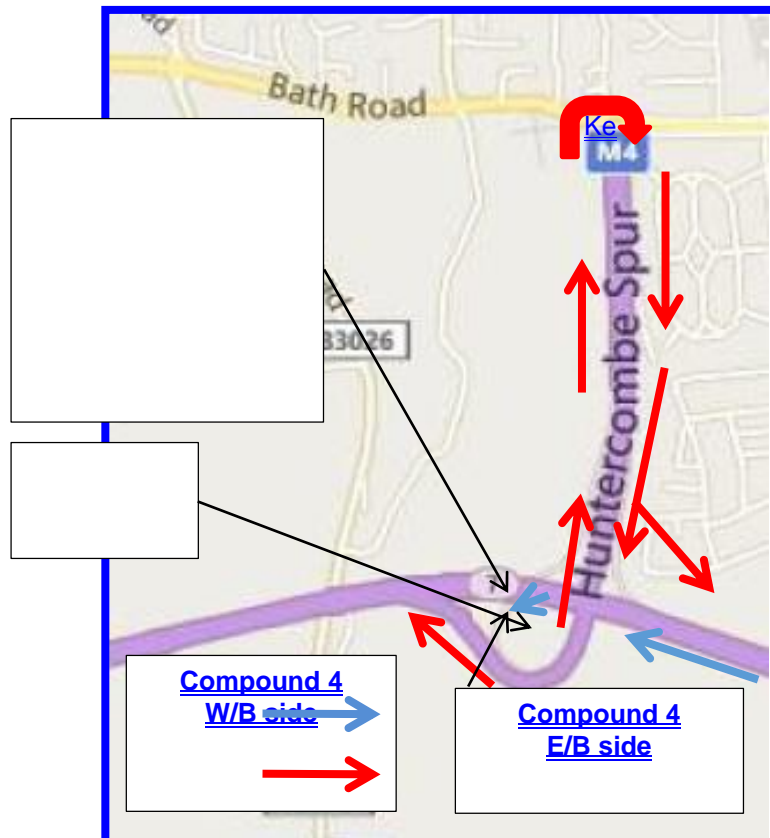


Figure 4 – Construction Compound 6

- 5.5.1 Construction Compound 6 is located at junction 7, within the ring created by the westbound off slip road. Access and egress to this area can only be from the verge/hard shoulder of the westbound off slip road. All traffic must therefore be Chapter 8 compliant to enter or exit this compound.
- 5.5.2 For traffic exiting the compound, these vehicles will merge from the hard shoulder/ verge into the single lane of traffic using the slip road. At the M4/A4 Bath Road roundabout the vehicles will complete a 180 degree turn and proceed along the slip road and either merge with the eastbound or westbound carriageways as required.
- 5.5.3 This compound will be established in November 2017, and operational from January 2018 to June 2021.

5.6 Construction Compound 7

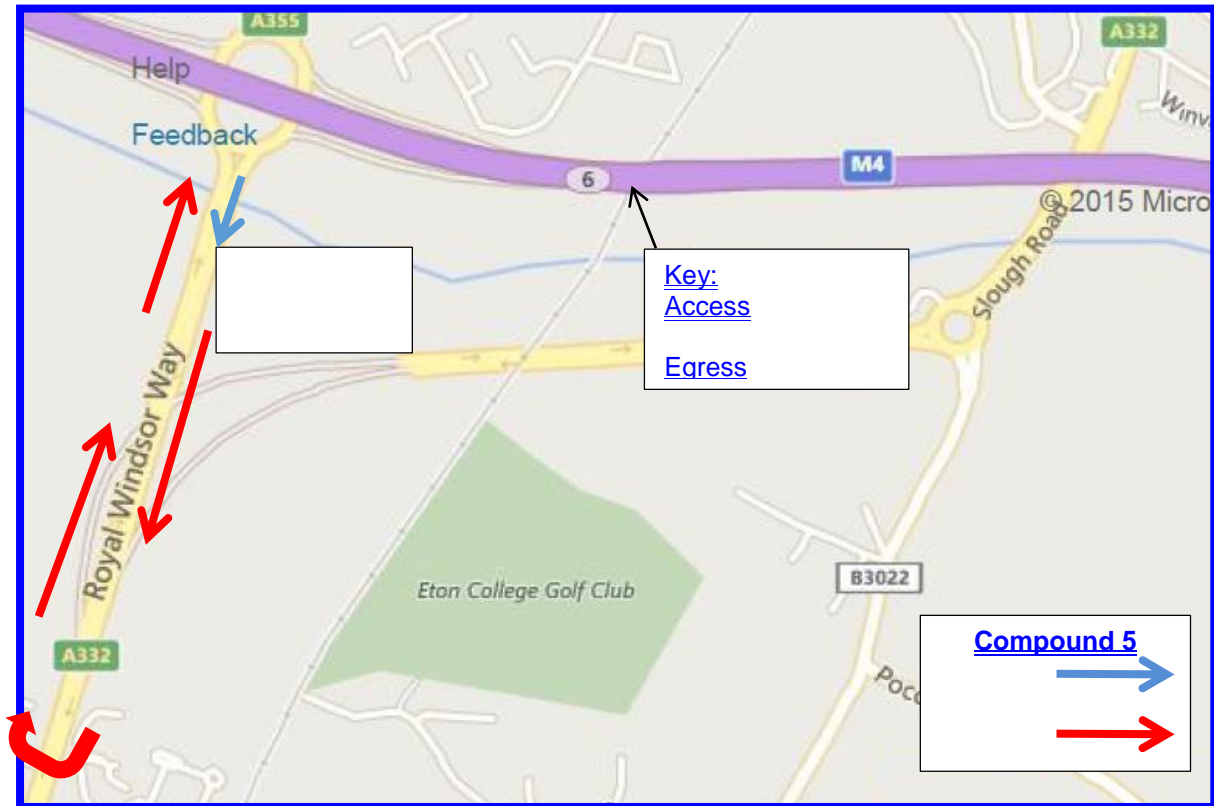


Figure 5 – Construction Compound 7

5.6.1 Construction Compound 7 is located just south of junction 6 on the southbound side of Royal Windsor Way. This road is dual carriageway at this location resulting in the access/egress point being off the southbound carriageway as detailed in Figure 5. The proposed routing for traffic using this compound is via the junction 6 roundabout and the roundabout on the A332 approximately 1km south of the compound.

5.6.2 The compound will be established in October and November 2108 and remain in use until June 2021.

5.7 Construction Compound 8

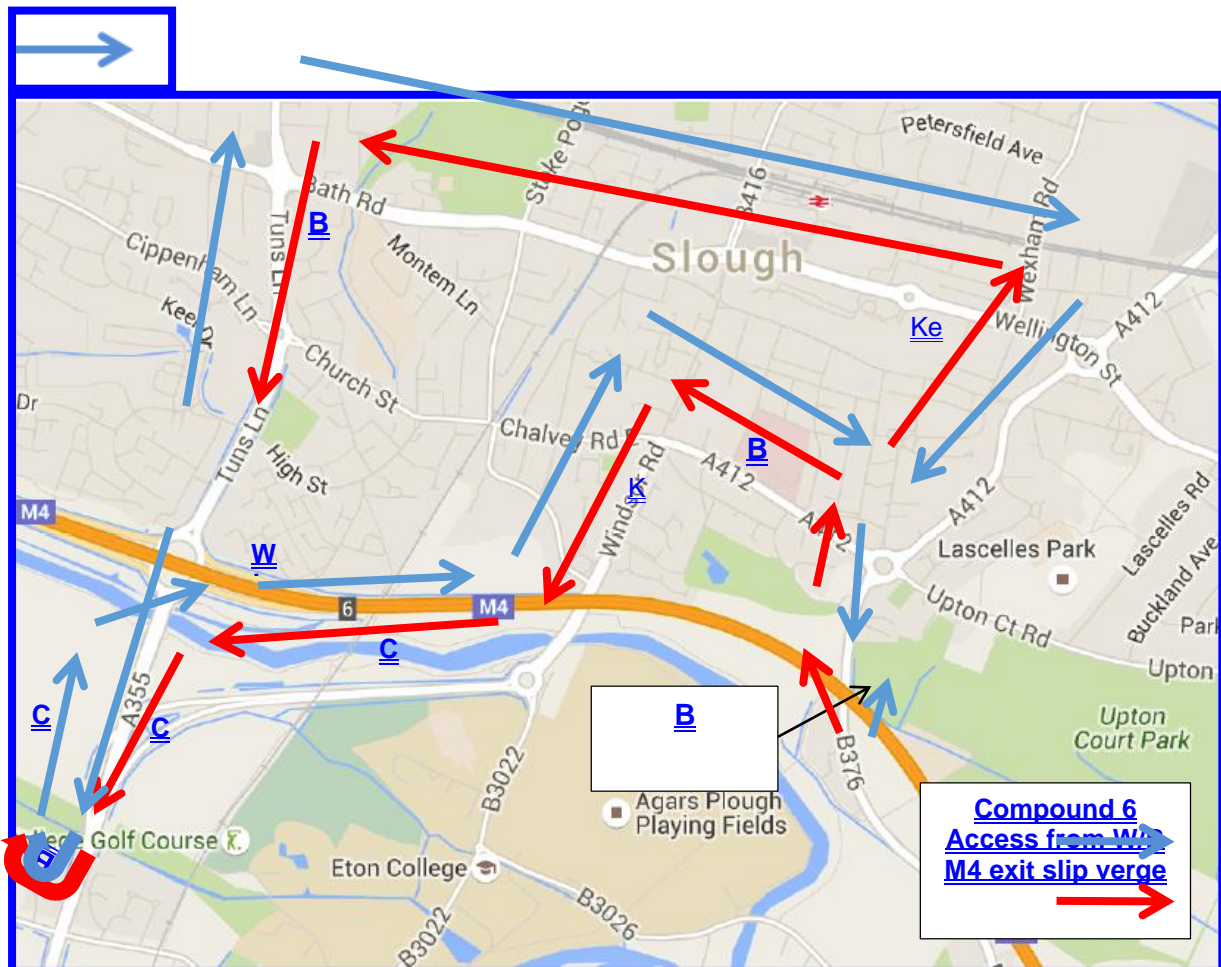


Figure 6 – Construction Compound 8

5.7.1 Construction Compound 8 is located at Datchet Road. Access and egress will be from junction 6 via either Tuns Lane and the A4 (Bath Road) to the A412 (Route A) or the A355 and the A332 (Windsor Road) to the A412 (Route B). The traffic movements using the above routes will be to the compound and the adjacent structures. To the south of the compound along the B376 is the village of Datchet. Construction traffic will not be routed through Datchet village.

5.7.2 The timescales for the compound are:

- a) Establishment in May 2018
- b) Support to bridge works operations from June 2018 to January 2020
- c) Support to main carriageway works (junctions 6 to 5) from January 2020 to June 2021
- d) Reinstatement in Autumn 2021.

5.7.3 For the period of June and July 2018, access and egress will be from the B376. From July 2018, an access (constructed for the purposes of the Scheme) from the motorway verge will be used allowing deliveries to access the compound and bridge sites from the motorway rather than the local network. Vehicles will have to return to the motorway during the works to the bridges until safe exiting is feasible, i.e. when the new westbound hard shoulder has been built under Datchet Road overbridge. This will be at the later stages of the work to Datchet Road overbridge and will be at approximately the same time that the works on the main carriageway will start on this section (around January 2020). When the works to this section of the motorway move to the central reserve the compound access will be closed and access and egress will be from the B376 until the compound is no longer required.

5.8 Construction Compound 9

5.8.1 Access to Construction Compound 9 will be principally via junction 5, then heading east along the A4 towards London/Heathrow; at the first traffic light controlled junction vehicles will turn left into Sutton Lane and after 150 m they will turn right into the compound. The exit route from the compound will be to turn left, proceed to the traffic lights and follow the one-way system around the tear-shaped gyratory back towards junction 5.

5.8.2 The secondary route to access Compound Nr 9 is via the A4 linking to the M25.

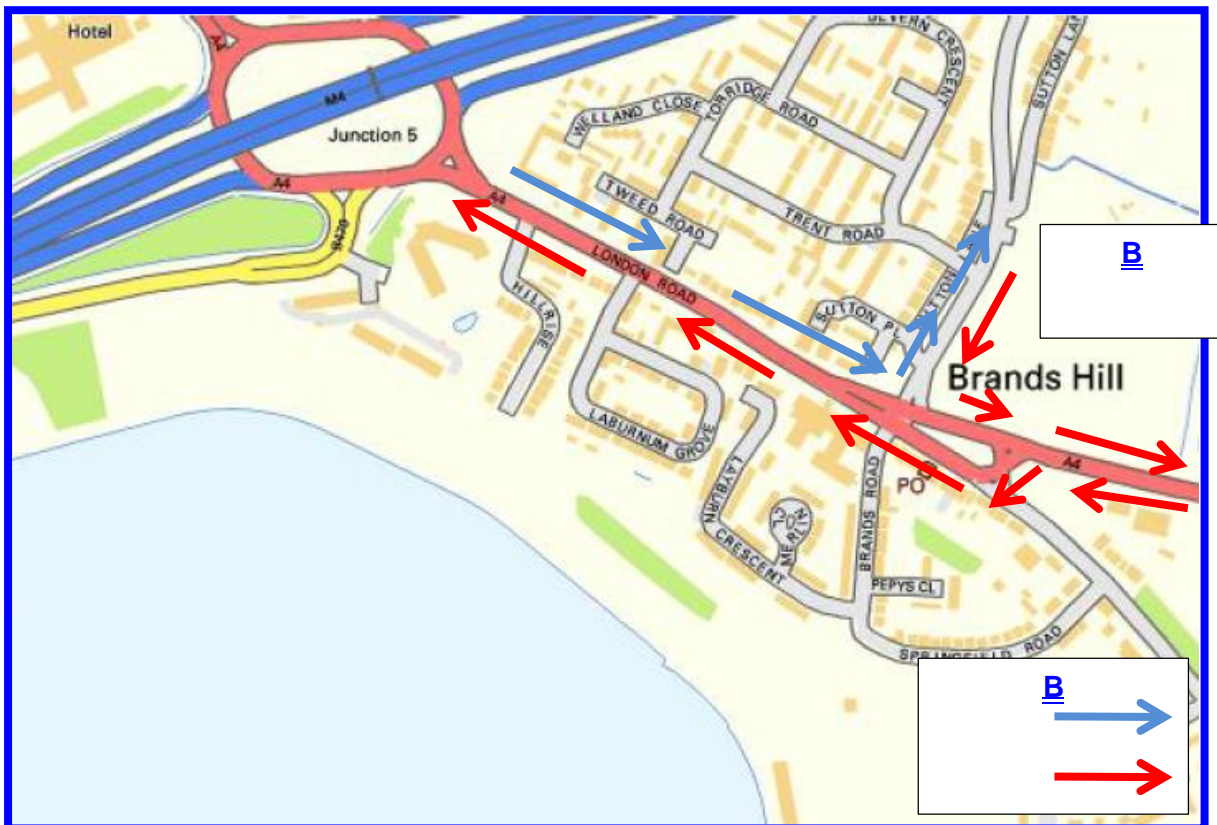


Figure 7 – Construction Compound 9

5.8.3 Compound 9 is close to residential properties and as such night time usage will have to be kept to a minimum. It is anticipated that the compound will be established in May/ June 2018 and support the bridge works until June 2020. From July 2019 until June 2021 the compound will provide support to the Smart Motorway installation between junctions 4 and 6.

5.9 Construction Compound 11

5.9.1 Construction Compound 11 is located on Stockley Park Road, with access only being available from junction 4 just to the south of the compound.

5.9.2 Restrictions on the deliveries to the compound will be required due the very high traffic flows at junction 4 between the hours of 08:00 to 09:00 and 16:30 to 17:30.

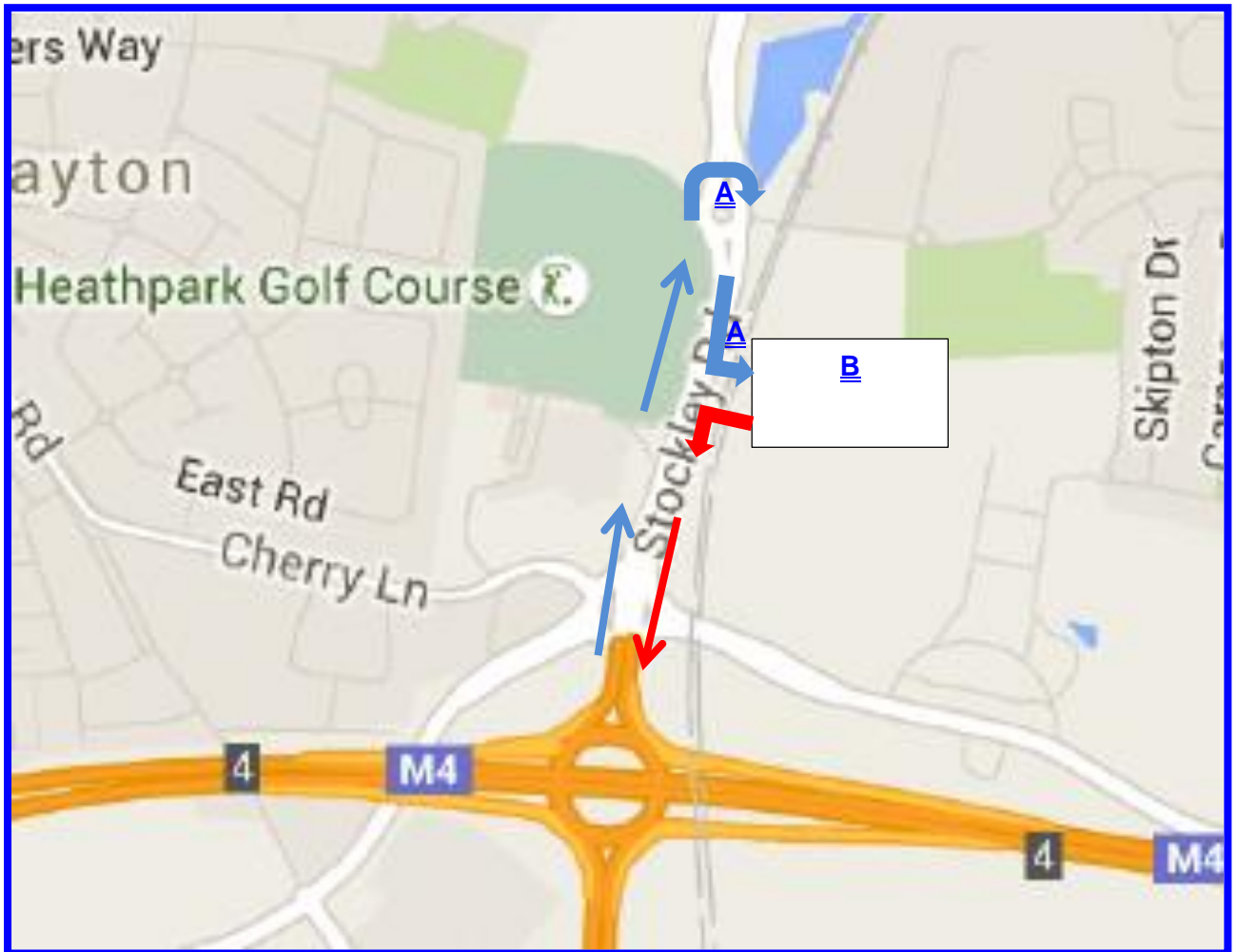


Figure 8 – Construction Compound 11

6. ANTICIPATED TRAFFIC ROUTING AT INDIVIDUAL BRIDGE SITES

This section will be updated as the construction planning progresses.

7. EFFECT OF TRAFFIC MANAGEMENT MEASURES ON LOCAL ROADS

7.1 Introduction

7.1.1 The proposed traffic management for the construction works on the M4 in the form of narrow lanes is expected to maintain sufficient capacity to cater for the current traffic flows. Nevertheless, it is recognised that some drivers may choose to use alternative routes to avoid the road works.

7.1.2 As part of the ongoing consultation throughout the period of construction, Highways England will liaise with local highway authorities to identify potential routes at risk from traffic diverting from the M4.

7.1.3 Where it is agreed that such a risk could materialise, Highways England will instigate monitoring of traffic flows, including junction surveys where it is necessary for assessment. In the event that the monitoring suggests that traffic diversion from the M4 has occurred, Highways England will undertake a verification assessment to determine whether there has been detriment to the operation of the local road and, where appropriate, bring forward measures in conjunction with the local highway authority to mitigate the impacts.

7.2 General provisions

7.2.1 The procedure set out in this section of the Outline CTMP for Traffic Management Measures on Local Roads shall have due regard to the Network Management Duties within Clause 16 Part 2 of the Traffic Management Act 2004 to manage the effects upon all travellers throughout the works. All staff are responsible for complying with the requirements of the procedure.

7.2.2 The Contractor will implement traffic management measures during the construction of the Scheme on all public roads and non-motorised user (“NMU”) paths as detailed within this Outline CTMP (refer to Annex E). A notice period may be required prior to the implementation of certain temporary traffic management measures including the occupation or temporary closure of existing roads.

7.2.3 Traffic management works will be required to comply with the provisions of the Traffic Signs Manual: Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations. Traffic signs will comply with the Traffic Signs Regulations and General Directions (Highways Agency, 2002).

- 7.2.4 The Contractor for the works will be required to implement a detailed Traffic Management Plan throughout the duration of the construction period to ensure the safe transition for road users from existing roads to any traffic managed sections or local roads. Temporary signs erected during the works will be consistent with permanent signs (as per the requirements of the Traffic Signs Manual), and signs will be located where they are clearly visible to road users and cause minimum disruption.
- 7.2.5 A traffic management working group (“TMWG”) will be formed for the Scheme at the construction phase. The TMWG will include representatives from the Emergency Services, appropriate Local Authorities, Traffic officers, Local Network managers, and the Contractor’s specialist traffic management contractors. The Contractor will consult with the TMWG regarding traffic management and NMU issues. The members of the TMWG (including the employer’s representative) will agree a resolution procedure for disputes relating to traffic management and other traffic related measures to be implemented during the construction of the Scheme.
- 7.2.6 The Contractor will prepare the final CTMP prior to the commencement of the Scheme construction works and installation of the main traffic management scheme. The CTMP will describe the traffic management, safety and control measures proposed to be implemented during construction of the Scheme. The final CTMP will include details of the following, as appropriate with regard to local roads:
- a) measures to provide for the safety of traffic, the public and construction staff during traffic management works and temporary traffic control measures;
 - b) procedures to be followed for the temporary diversion onto local roads;
 - c) measures to be implemented to reduce construction traffic impacts or impacts associated with local roads and residential streets;
 - d) monitoring requirements in relation to the plan;
 - e) a programme of traffic management measures to be implemented and details of traffic management proposals for the works on or adjacent to public roads;
 - f) drawings showing traffic management layouts, signing and apparatus to be implemented, including proposed routes for pedestrians, equestrians and cyclists;
 - g) timing of operations;

- h) the name and contact details of the Contractor's traffic safety and control officer and information and advice for the public regarding ways to raise complaints or request information; and
- i) a register of applications for consents associated with temporary traffic management measures.

7.2.7 The responsibilities of the traffic safety and control officer will include:

- a) management and implementation of traffic management measures associated with the Scheme;
- b) ensuring compliance with all relevant health and safety directives in liaison with the Contractor's HSM, relating to operations and live traffic;
- c) management of the layout of site access and egress points for all construction sites and compounds;
- d) arranging for site inspections at regular intervals;
- e) equipment to be attended to and maintained;
- f) in the event of accidents or incidents, having replacement signs, cones, bollards and lights, etc. erected without delay; and
- g) maintaining a log of all complaints received in relation to traffic during Scheme construction.

7.2.8 The CEMP and associated CTMP will include an organogram identifying the named traffic safety and control officer and their lines of reporting.

7.3 General measures to reduce construction traffic impacts

7.3.1 Haul routes through the works for use by construction vehicles will be provided by the Contractor in order to reduce the potential for impacts upon the public road network. Site access points will be positioned to enable the use of haul routes to be maximised throughout the works.

7.3.2 The Contractor will be required to comply with the requirements of the national and local roads authorities regarding the layout and positioning of site accesses.

7.3.3 Construction workforce travel plans will be prepared by the Contractor to encourage the use of sustainable modes of transport where possible and to reduce the impact of workforce travel on the local road network and associated communities.

7.4 Traffic safety and control

7.4.1 Throughout the construction of the Scheme the Contractor will consult with the following agencies/organisations to ensure safety on the local road network is a priority consideration:

- a) relevant local authorities;
- b) Highways England;
- c) Emergency responders. Police, Fire, Ambulance & network maintainers; and
- d) other relevant organisations and businesses regarding traffic management and control measures to be implemented.

7.4.2 The Contractor will take appropriate actions, including the design and installation of traffic management schemes, to:

- a) reduce the likelihood of 'rat running' onto local roads, which may result in adverse impacts upon the local community; and
- b) mitigate impacts on the local road network and communities and to keep delays and disruptions to traffic to a minimum.

7.4.3 Traffic control on local roads will be implemented as necessary as part of the traffic management schemes. Throughout the duration of the Scheme local communities will be informed of any significant works in advance and the works will be clearly sign posted throughout their duration. A coordinated approach with the Highways England communications team will ensure that the most suitable form of communication, whether it be letter drop, local radio or strategic signing etc., is identified and utilised.

7.4.4 The Contractor will consult the TMWG regarding the traffic management measures proposed in relation to local roads and will undertake road safety audits in accordance with the DMRB where deemed necessary.

7.4.5 Should further surveys on the local road network reveal the need for further modelling, verification appraisals will be undertaken. Were those appraisals to predict capacity problems at a particular location, traffic management measures on the M4 will be reviewed and implemented to mitigate these issues. This will be carried out in conjunction with a review of temporary signage and traffic management measures on the local road network to be agreed through consultation with the relevant local authorities and emergency services.

7.4.6 When necessary during construction on the line of the trunk roads, the Contractor will operate a vehicle recovery system to minimise the impact of breakdowns or accidents on the flow of traffic.

7.5 **Temporary diversion**

7.5.1 Where the Contractor proposes to provide a temporary or substitute route or diversion, the width and standard of construction and any lighting and signage required will be assessed to establish suitability for the traffic anticipated to use the route.

7.5.2 Temporary or substitute routes will be established by the Contractor throughout the works to provide adequately for the traffic using the affected routes. The Contractor will apply for any consents and prepare any orders or regulations required for temporary traffic management schemes or closures and comply with the requirements of the relevant roads authority in this regard to ensure that temporary or substitute roads have the appropriate legal status.

7.5.3 Where temporary road closures are required to facilitate construction works, the Contractor will consult with, and comply with the requirements of Highways England, the relevant local authority and the police. The Contractor will be required to demonstrate to the relevant authorities that the construction work cannot be carried out safely without the road closure. Agreement between the Contractor and the relevant authorities on diversion routes will also be required prior to works commencing.

7.6 **Public transport, pedestrian, equestrian or cycle routes**

7.6.1 Consultation will be undertaken by the Contractor with relevant local authorities and public transport operators regarding the proposed traffic management procedures along the length of the Scheme. Where the proposed traffic management measures may affect the flow of public transport vehicles appropriate measures will be implemented. These could be in the form of alternative routes or the provision of additional services. Details of the proposed works will be displayed at key locations such as train stations and bus depots.

7.6.2 Where separate routes used by pedestrians and other NMUs are affected, the Contractor will provide alternative routes within the traffic management Scheme being implemented. Once agreed, the specific right of way affected will need to be scheduled with appropriate nomenclature and diversion routes suitably signposted throughout the works. Diversion works will require to be confirmed in consultation with the relevant local authority and consent applied for under s257 of the Town and Country Planning Act 1990.

7.6.3 Where the Scheme works impact directly on existing Public Rights of Way (“PRoW”), they will be properly reinstated and returned to their

pre-construction condition. The condition of the PRow will be recorded as part of the pre-construction surveys.

7.6.4 The final CTMP will be required to include information relating to traffic management layouts, signing and apparatus to be implemented on all affected NMU routes.

Appendix 1

Outline construction programme Rev M (March 2015)

Appendix 2

Incident Management Plan