

**APPENDIX 4.2A CEMP
ANNEX E OUTLINE TRAFFIC MANAGEMENT PLAN**

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Appendices:

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

Appendix 2 – Incident Management Plan

Appendix 3 – Bridges Work Sites Access Plans

1. INTRODUCTION

1.1 Purpose

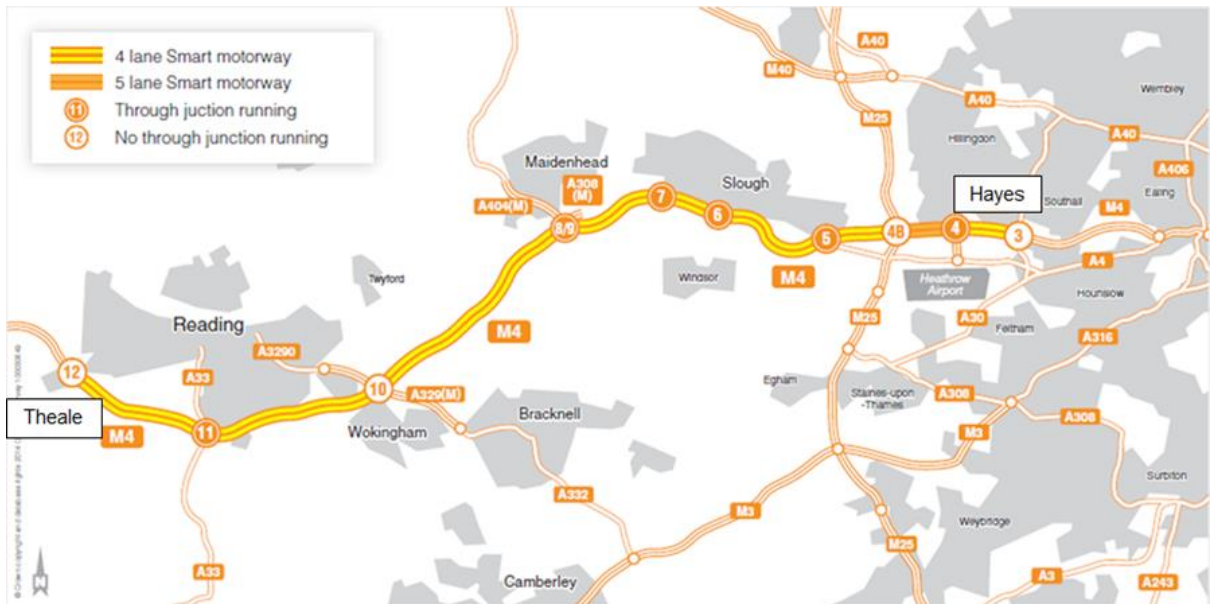
1.1.1 This Construction Traffic Management Plan (“CTMP”) sets out the proposed traffic management and maintenance responsibilities during construction of M4 J3 to 12 Smart Motorway scheme (“Scheme”). The Scheme is the subject of an application for development consent under the Planning Act 2008. That 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. The Scheme is currently in the Examination stage and detailed design commenced in late 2015. The actual traffic management design and proposals will be determined by the Contractor, 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. As there will be numerous updates to the CTMP, especially during construction, Highways England will not consult stakeholders on every amendment. However, where the construction planning identifies that works may adversely affect particular stakeholders, then they will be consulted as appropriate.

1.2 Description of Scheme

- 1.2.1 The Scheme is some 52km (32 miles) in length, between junctions 3 and 12. 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 completed smart motorway are as shown in Table 1.

Table 1 – Proposed lane widths

		Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	
Four lane ALR	nearside	3.65m	3.50m	3.40m	3.20m	n/a	offside
Five lane ALR		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 2021.
- 1.3.2 The outline construction 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 current options are a work in progress and will vary as the detailed design and detailed planning is progressed during the development phase of the Scheme.
- 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 The overbridge replacements, widening of underbridges and ALR required within the 24km between junction 8/9 and junction 3, will commence before the section between junction 12 and junction 8/9 is complete.
- 2.1.3 Significant 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 (“IPV”). It is intended that all traffic management measures will be installed, maintained and removed without the need for traffic management operatives to cross live traffic lanes.
- 2.1.5 The Contractor’s Traffic Manager will oversee all aspects of traffic management. In addition 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 the temporary speed limit is likely to be 50mph 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 to be provided as evidence for prosecutions if necessary. A regular check of the 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 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

		Lane 1	Lane 2	Lane 3	Lane 4	
Four lane ALR	nearside	3.25m	3.0m	2.75m	n/a	offside
Five lane ALR		3.25m	3.0m	3.0m	2.75m	

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 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 Local Authorities, Thames Valley Police, the Metropolitan Police, Area 5 Connect Plus, Area 3 maintenance service provider, the Traffic Officer Service and the various local authorities affected by the works. Others to be consulted in the development of traffic management proposals will be Fire and Rescue, Ambulance Services, public transport operators, relevant developers, relevant statutory undertakers, including Network Rail, and district and parish councils (the last of these particularly when planning road closures and diversion routes).

2.5 Overnight works/closures

- 2.5.1 The installation of narrow lanes and/or contraflow systems 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 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 installation time will be subject to traffic counts on the night of implementation.
- 2.5.3 Once narrow lanes and/or contraflow systems are in place, there may be a need to close lanes overnight to facilitate works 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 a 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 particular 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. Information obtained about these events will particularly influence whether works can be undertaken at night. 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. Consideration of major events and their consequences on works will be undertaken in liaison with Highways England's maintenance service providers' teams, Emergency Planners and discussed at the regular Traffic Management Working Group meetings and Traffic Management Clinics, held with Highways England and stakeholders during the works (see paragraph 4.3.7 of the Construction Environmental Management Plan).

- 2.6.2 During bank holiday periods the M4 will typically remain under narrow lanes traffic management (see 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 & Driver information

- 2.7.1 A CCTV system for identifying vehicles in need of recovery 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, seven days a week including all bank holidays. There will also be a link from the monitoring room to 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 Temporary variable message signs ("VMS") in conjunction with Mobile temporary Intelligent Transport Systems ("ITS") will be located throughout the extents of the Scheme and will be used to provide journey time and other real time information to road users.

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 agree suitable arrangements for adjacent maintenance operations.
- 3.1.2 The Contractor will allow the maintenance service providers access to the managed areas within traffic management for asset inspection activities, as specified within the Detailed Local Operating Agreement (“DLOA”), subject to appropriate health and 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 and will be the subject of consultation with the Emergency Services and other relevant parties, such as statutory undertakers and local authorities.

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. The dates specified below for the duration of compound usage are indicative and based on the current programme. The programme will be developed further during the development phase following completion of the detailed design.
- 5.1.2 Where possible the chosen routes will use major roads and attempt to keep traffic away from residential areas.
- 5.1.3 The anticipated usage of this compound would be in line with the final construction programme. The compounds will be used for construction activities and may also be used for siting 24hr vehicle recovery bases, CCTV control, rooms and traffic management/maintenance vehicles and equipment.

5.2 Construction Compound 2

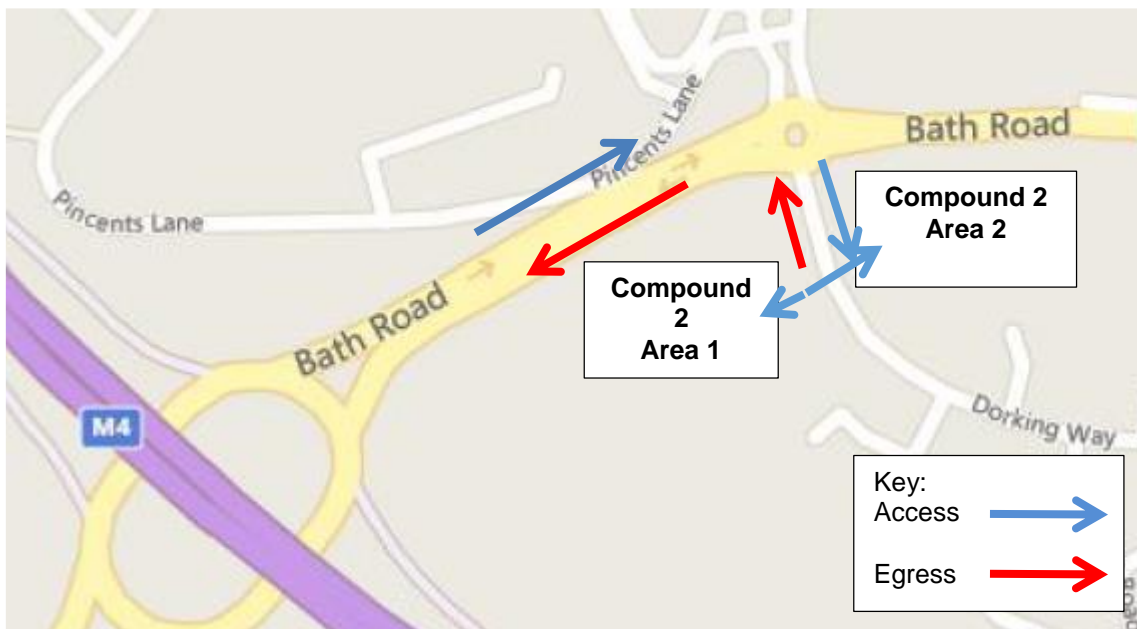


Figure 1 – Construction Compound 2

- 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 It is anticipated that this compound will be used for the entire duration of the works until the completion of the Scheme.

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.

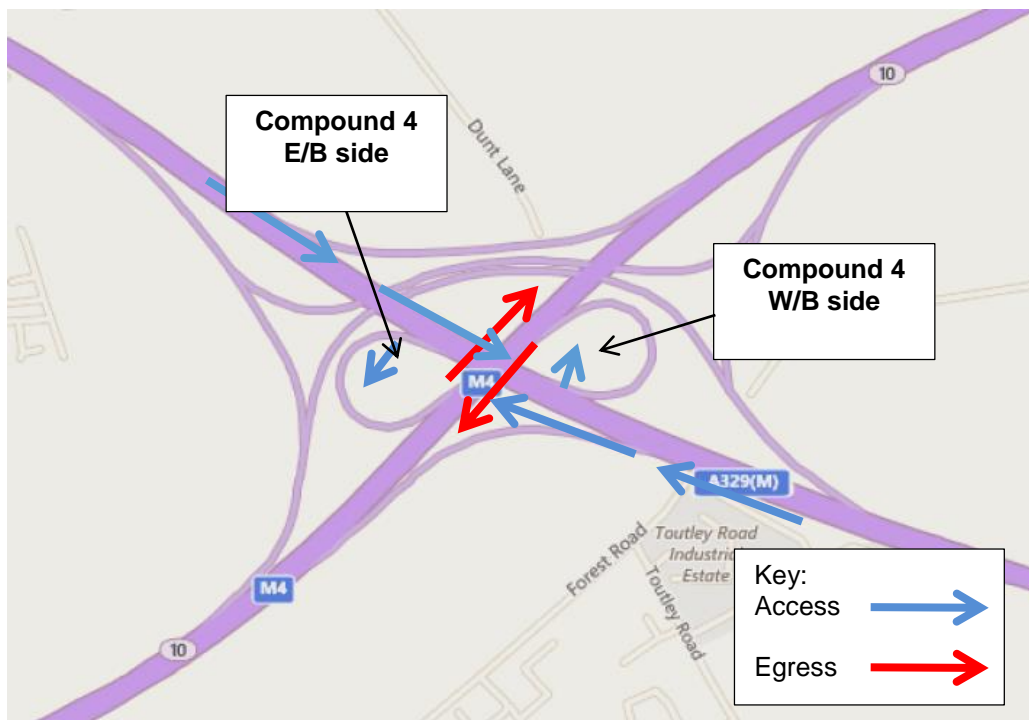


Figure 2 – Construction Compound 4

- 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

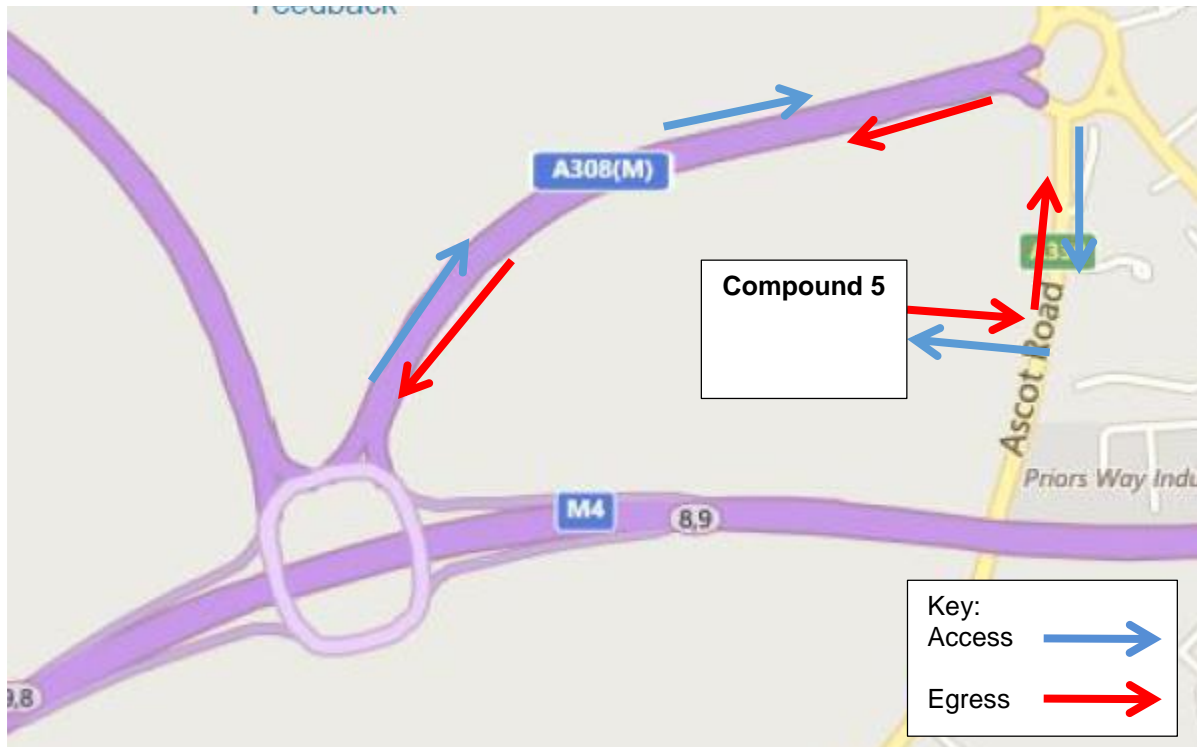


Figure 3 – Construction Compound 5

- 5.4.1 Construction Compound 5 will be the main compound to service the Scheme. 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 of the Scheme works and the subsequent maintenance period.

5.5 Construction Compound 6

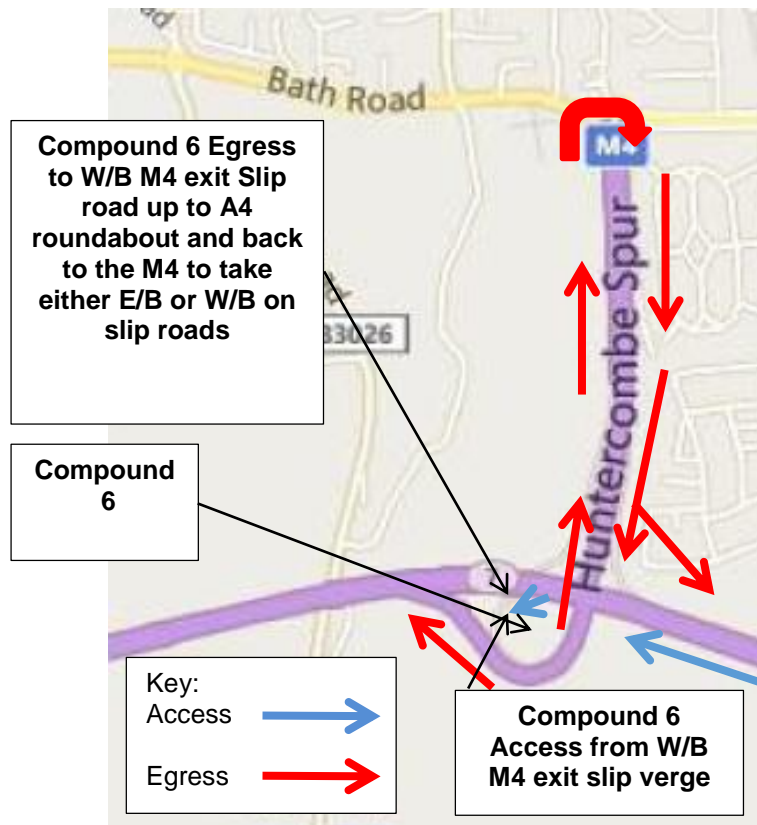


Figure 4 – Construction Compound 6

- 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 It is anticipated that this compound will be established as a construction compound in November 2017, and is anticipated to be operational from January 2018 to June 2021. However, depending on the final construction programme, it may continue to be used for recovery/CCTV monitoring operations outside of these dates to facilitate traffic management phases outside of this immediate area.

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 located 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 It is anticipated that the compound will be established as a construction compound in October and November 2018 and is anticipated to remain in use until June 2021. However, depending on the final construction programme it may continue to be used for recovery/CCTV monitoring operations outside of these dates to facilitate traffic management phases outside of this immediate area.

5.7 Construction Compound 8

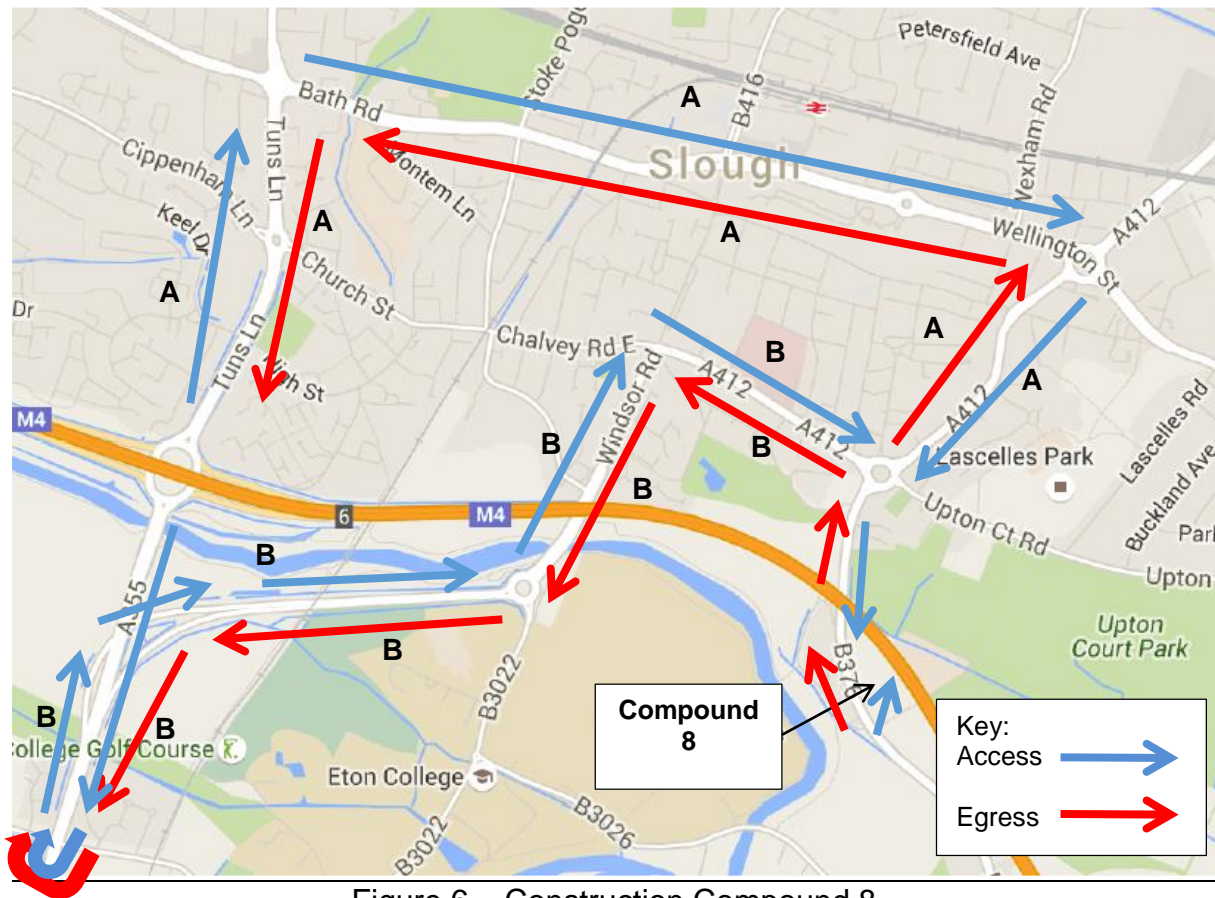


Figure 6 – Construction Compound 8

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 to 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 Depending on the final construction programme 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; and

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 to allow deliveries to access the compound and bridge sites from the motorway rather than the local network. Vehicles will have to use the motorway as an access/egress 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 from the motorway 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 Construction Compound 9 is via the A4 linking to the M25.

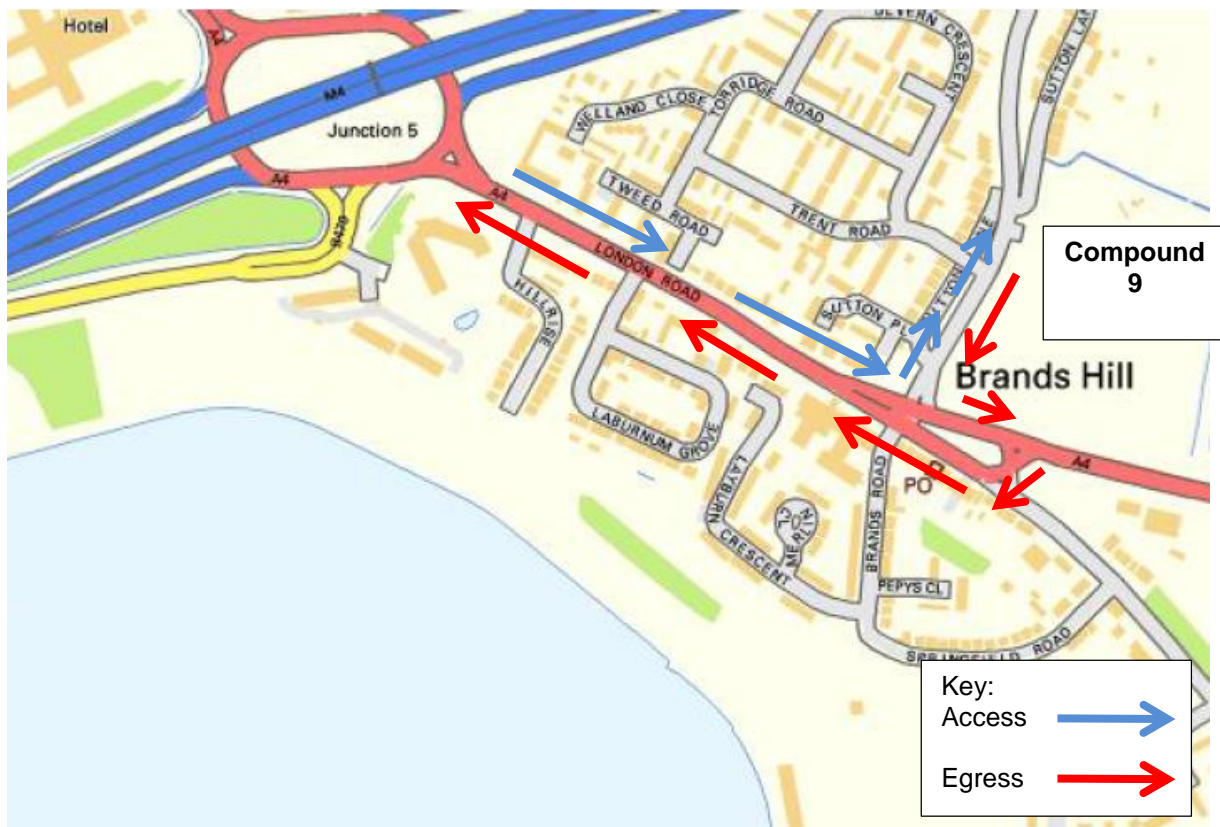


Figure 7 – Construction Compound 9

- 5.8.3 Compound 9 is close to residential properties so night time usage will be kept to a minimum. It is anticipated that the compound will be established in May/June 2018 and will support the bridge works until June 2020. From July 2019 until June 2021, the compound will provide support to the works between junctions 4 and 6. However, depending on the final construction programme, it may continue to be used for recovery/CCTV monitoring operations outside of these dates, to facilitate traffic management phases outside of this immediate area.

5.9 Construction Compound 11

- 5.9.1 Construction Compound 11 is located on Stockley Park Road. The only access available is 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.

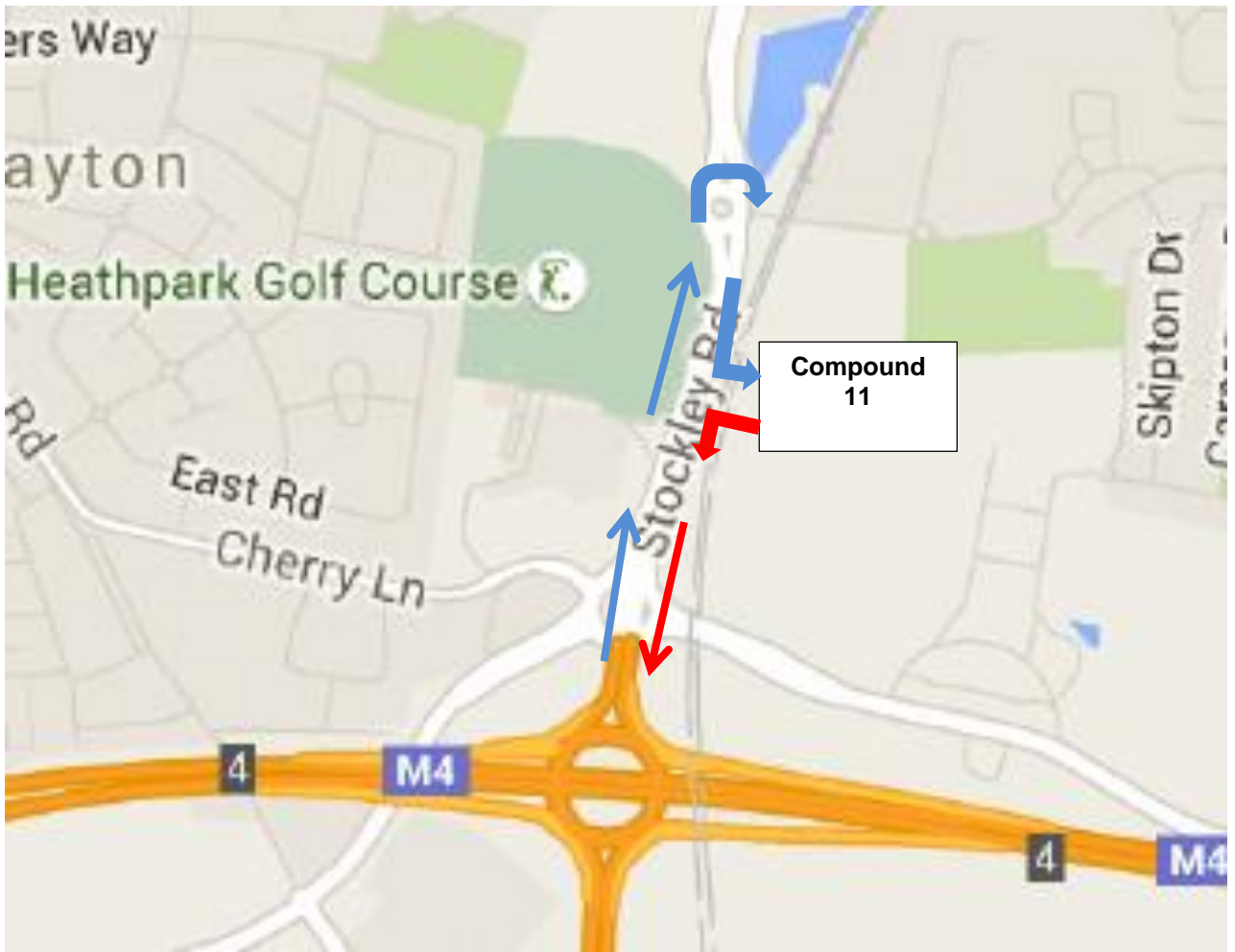


Figure 8 – Construction Compound 11

6. ANTICIPATED TRAFFIC ROUTING AT INDIVIDUAL BRIDGE SITES

6.1 Ascot Road Overbridge

- 6.1.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/001 in Appendix 3.
- 6.1.2 The new Ascot Road overbridge is an offline replacement to the east of the existing structure, with the north approach embankment incorporating a retaining wall to the east verge adjacent to commercial properties.
- 6.1.3 In the initial phase of the works, access from Ascot Road will be required for establishing the working area, site clearance, erecting temporary fencing and constructing the temporary access route up to the M4 boundary. With this work completed, traffic management will be installed on the M4 to allow linking of the temporary access to the M4 hard shoulder and the removal of the safety barriers at the existing structure.
- 6.1.4 After completing the accesses along the toes of the north-east, south-east and south-west embankment edges, the structure can then be accessed via either Ascot Road from the north, past the main compound access point, or from the eastbound M4 carriageway. The existing structure will provide connectivity between the north and south sides of the motorway.
- 6.1.5 The north-east quadrant will be an exit and run from Ascot Road down the batter, onto the hardstanding (parallel to the proposed retaining wall), adjacent to the individual building to remain prior to turning eastbound and connecting with the M4 eastbound hard shoulder.
- 6.1.6 Throughout the construction period of Ascot Road overbridge, a combination of accesses from the M4 westbound carriageway and from the junction 8/9 roundabout to the north will be used.
- 6.1.7 Vehicles using Ascot Road will access this bridge site from the north via junction 8/9 and not from the south through the village of Holyport in order to minimise the disruption to the village.
- 6.1.8 Following demolition of the existing structure, the new mainline carriageway will be constructed from the M4 only.

6.2 Monkey Island Lane Overbridge and the West Abutment of Thames Bray Underbridge

- 6.2.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/002 in Appendix 3.
- 6.2.2 Monkey Island overbridge replacement is an off line structure to be constructed to the west of the existing bridge. Due to the close proximity of the adjacent Thames Bray underbridge works, the two sites are interrelated. As a result, the west abutment site of the Thames Bray underbridge and Monkey Island Lane overbridge will share the same access and egress points, from either the M4 or the local road network.
- 6.2.3 The initial enabling phase of work to both sites will be accessed via the village of Bray, down to Monkey Island Lane overbridge. This phase of work will involve site clearance, erecting temporary fencing, establishing diversions and closures of footpaths and partial construction of the accesses outside the motorway boundary.
- 6.2.4 After completing the enabling works, traffic management can be installed on the M4 allowing connection of the accesses to the M4 hard shoulder in the location where the footpaths were previously located.
- 6.2.5 Access and egress to both bridge sites can be serviced from the M4 carriageways from this point in time onwards. The access via Bray will only be used in exceptional circumstances. Access to Bray will be via the A4 from the north or from Windsor Road from the south. Both routes have pinch points which could restrict the size of vehicles that can access the site via Bray.

6.3 The East Abutment of the Thames Bray Underbridge

- 6.3.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/003 in Appendix 3.
- 6.3.2 To establish the principal access to the east abutment of the Thames Bray underbridge, initially an access will be required using Marsh Lane from the A4, turning onto the Old Marsh Lane, then right into Amerden Lane. The site access then turns left across the fields after the farm buildings. This route will be used to establish the working site, divert the footpaths and commence the construction of the access from the M4 eastbound carriageway.

- 6.3.3 After completing sufficient enabling works to permit access from the M4, traffic management on the M4 will be installed and the access completed from the motorway rather than using the route from the A4.
- 6.3.4 This will become the access and egress for the construction of the bridge and the embankment widening. The access via Marsh Lane will be maintained, but only used in exceptional circumstances.
- 6.3.5 After completing the embankment and bridge works, the Marsh Lane access will be reinstated. The M4 access will remain in use to service the completion of the works.

6.4 Marsh Lane Overbridge

- 6.4.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/003 in Appendix 3.
- 6.4.2 The work at Marsh Lane overbridge is on line replacement of the existing bridge. Marsh Lane is located in close proximity to the east side of the Thames Bray underbridge east abutment works. The distance between access and egress points for the two work sites is relatively close. To enable the two structures to be constructed concurrently, the access for the Thames Bray site from the M4 will be combined with the exit of the Marsh Lane north abutment site, providing egress for both sites.
- 6.4.3 In the initial enabling works phase to undertake the site clearance, utility diversions, temporary fencing and construction of the access around Marsh Lane tie-ins, vehicles will use Marsh Lane from the A4, rather than from the southern direction using Lake End Road.
- 6.4.4 After completing the enabling works, the bridge replacement works can be serviced from the M4 routing traffic around the works sites on the temporary accesses built in the enabling works phase. The reconstruction of the bridge, new carriageway and Marsh Lane embankments will be constructed using the M4 accesses. However, the construction of Marsh Lane carriageway will require access for construction traffic along Marsh Lane from the M4.
- 6.4.5 Access for the mainline works in this area will be from the hard shoulder of the motorway.

6.5 Lake End Road Overbridge

- 6.5.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/004 in Appendix 3.
- 6.5.2 Lake End Road overbridge will be a new bridge built offline to the west of the existing bridge with a new section of road tied into the existing road.
- 6.5.3 To establish the bridge site, the enabling works phase will be accessed using Lake End Road from the M4. The site clearance, temporary fencing and accesses will then be constructed. The final tie-in with the M4 hard shoulders will be completed following the enabling works phase.
- 6.5.4 The M4 hard shoulder access will only be from the eastbound carriageway, with the exit on the eastbound carriageway. This is due to the close proximity of the slip roads at junction 7 and areas of land which cannot be accessed, but lie within the highway boundary.
- 6.5.5 Therefore, in order to build the road embankment and the bridge, access will be required via the eastbound carriageway of the M4, along the temporary access routed at the toe of the north embankment to the northern tie in. Vehicles will then proceed south along Lake End Road, over the existing bridge to the southern tie in. Here, they will use the access route along the toe of the south embankment back to the eastbound M4 carriageway and merge from the hard shoulder into the traffic.
- 6.5.6 After completing the embankments and bridge, construction of the new road and tie-ins, and removal of the existing road will be undertaken by accessing the site along Lake End Road from the A4 to the north.

6.6 Huntercombe Spur Overbridges

- 6.6.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/005 in Appendix 3.
- 6.6.2 Access for the construction of these bridges will be confined to the existing motorway network and the roundabout to the north where the junction slip roads link with the A4.
- 6.6.3 Traffic servicing these two replacement bridge sites will use the eastbound and westbound carriageways, combined with the slip roads depending on which area of the bridge site is to be accessed.

6.7 Oldway Lane Overbridge

- 6.7.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/006 in Appendix 3.
- 6.7.2 This is the on line replacement of an existing vehicular bridge that is now used as a footpath/bridleway. Access to either side is therefore very restricted. From the north, access provision is possible, but is along a non-motorised paved route linking to the local road network within a heavily built up housing estate. It would be preferable not to use this as a means of access. This non-motorised route forms part of the highway boundary up to the local road network, permitting access if necessary. To the south the footpath/ bridleway extends onto open land and a link to access does not exist.
- 6.7.3 Therefore, the access provisions to construct this bridge must be from the M4 hard shoulder on each side of the motorway. Access will be created from the eastbound and westbound carriageways just prior to the bridge around the rear of the existing abutments, up and over Oldway Lane and then back to the M4 hard shoulder.
- 6.7.4 On the north side, care will be taken to route the access between the trees that line Oldway Lane.

6.8 Wood Lane Overbridge

- 6.8.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/007 in Appendix 3.
- 6.8.2 The replacement bridge at Wood Lane is a new structure built off line to the west of the existing bridge. Wood Lane is currently the only access to the Thames Water facility and residential properties south of the M4. Throughout the construction of the new bridge and realignment of the road, access must be maintained. Thames Water benefits from Protective Provisions within the DCO, and these must be complied with at all times. This access is used by a mixture of light and heavy commercial vehicles. To the immediate north-east of the Wood Lane site is an Asda supermarket which is serviced by the same route that the traffic passing over Wood Lane overbridge uses.
- 6.8.3 The construction of the new bridge, approach road retaining wall and realigned Wood Lane will be serviced by routing vehicles either off the

hard shoulder of the M4 into the working site or via junction 6 and down Wood Lane from the north.

- 6.8.4 Initially, all access will be from Wood Lane to undertake the site clearance, install temporary fencing, relocate public footpaths and partial construction of the temporary accesses.
- 6.8.5 Traffic management will be installed on the M4 hard shoulders to allow the linking of the temporary accesses to the M4 hard shoulders. Access and egress will then be via a combination of either route, dependant upon the direction of flow of the traffic.

6.9 Windsor Branch Railway Underbridge

- 6.9.1 This section is to be read in conjunction with Drawings MHF01039/BB/TW/015 and MHF01039/BB/TW/016 in Appendix 3.
- 6.9.2 At the Windsor Branch railway underbridge the main work to widen the existing bridge is on the south side of the M4, i.e. westbound carriageway and off slip to junction 6.
- 6.9.3 The railway cuts the working area for the bridge in two necessitating separate accesses and egresses to both sides of the railway. These are then further constrained by the Jubilee River running to the south and parallel to the M4 at this location.
- 6.9.4 The abutment and piers to be constructed west of the railway need to be accessed from the roundabout at junction 6. An access to the site will be created off of the roundabout and run parallel to the toe of the new widened embankment. The final routing will be such that the site clearance of trees and shrubs planted within this corridor between the M4 and the Jubilee River will be minimised. The existing footpaths/cycle route will need to be rerouted/diverted as part of the enabling works.
- 6.9.5 Vehicles exiting the roundabout onto this access will be routed around the roundabout so that a U-turn manoeuvre is not required to access the bridge site. As a result, vehicles will be required to approach from the north, under the eastern bridge of the interchange and to turn left into the access/exit point.
- 6.9.6 The exit from the western haul road will be onto the motorway roundabout.
- 6.9.7 For the eastern extension to the bridge, there will be two access routes onto the work site, but only one exit. The accesses will be either from the westbound M4 carriageway, using the hard shoulder onto an access ramp

down to the toe of the embankment, or along the toe of the proposed embankment that is routed from the A355 junction 6 roundabout.

- 6.9.8 The exit from the eastern bridge work site will be the same route in reverse order, returning to the M4 junction 6 roundabout. An exit requiring vehicles to drive up the ramp, complete a U-turn and merge with diverging slip road traffic would be unacceptable on safety grounds, and for that reason, the A355 will be used as the exit.

6.10 Datchet Road Overbridge

- 6.10.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/008 in Appendix 3.
- 6.10.2 The replacement of Datchet Road overbridge requires the construction of a new bridge offline to the east of the existing structure and the realignment of Datchet Road to tie into the new bridge. The bridge site abuts Construction Compound 8 to the south, which will provide access to the south abutment.
- 6.10.3 Throughout the reconstruction phases for the bridges, Construction Compound 8 will be in use. Access to the compound will be from Datchet Road, and construction traffic will be routed from junction 6 north along Tuns Lane to the A4, then eastbound along the A4, before turning right onto the A412. At the next roundabout, the second exit leads onto the B376 (Datchet Road). This will be the same route for accessing the Datchet Road overbridge work site.
- 6.10.4 In the initial stages, the areas around the bridge and the road embankment will be cleared, temporary fences erected and temporary accesses installed using the route from junction 6.
- 6.10.5 Traffic management will then be installed on the M4 to allow completion of the eastbound temporary access, including its connection to the M4 hard shoulder. This access will also make provision for access to the northern end of the water main subway. When locating the exit point back onto the M4, consideration will be given for the works at the adjacent Recreation Ground overbridge works site.
- 6.10.6 The westbound access from the M4 will be located at Recreation Ground overbridge and pass through Construction Compound 8. Due to the geometry of the motorway at this location, it is not feasible or safe to install an egress point directly onto the westbound carriageway. Therefore, the

exit for construction traffic will be via Datchet Road, crossing the M4 and then using the route to junction 6 or by the temporary access back onto the M4 eastbound carriageway.

6.11 Recreation Ground Overbridge

- 6.11.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/008 in Appendix 3.
- 6.11.2 Recreation Ground overbridge is an on line replacement of a vehicular bridge with usage restricted to keyholders approved by the local authority. To the south approach ramp there are land constraints, which mean that retaining walls to the road embankment approaches will need to be constructed. The result of these land constraints is that an access is not feasible around the embankment to the south side. This is alleviated by the access from the westbound M4 into Construction Compound 8 which bounds the west side of the south embankment approach to Recreation Ground overbridge.
- 6.11.3 For the north side, the close proximity of the bridge to Datchet Road overbridge north abutment site means that a combined access and exit for both work sites is necessary. The access will be from the eastbound carriageway just before Datchet Road. Construction traffic will then use the temporary access for Datchet Road, before proceeding along the hard shoulder between the bridges to Recreation Ground overbridge. The route will then extend around the north approach embankment of the bridge, and back onto the M4 hard shoulder before extending to the gas and water main subway site. After this, the exit will be located as a merge from the existing hard shoulder.
- 6.11.4 Access onto the bridge will be available from the north using the access from the M4 and from the south from Datchet Road. These will be used initially to clear the site, install temporary fence and prepare access arrangements. For the main construction works, access will be via the M4 and Datchet Road. The reconstruction of Recreation Ground overbridge will be serviced from the north access from the M4 and Datchet Road to the south, as the temporary accesses will have been removed at this stage.
- 6.11.5 To the east of this site and Datchet Road overbridge is the village of Datchet. Traffic movements will be prohibited in this direction unless there are exceptional circumstances, such as following an accident.

6.12 Riding Court Road Overbridge

- 6.12.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/009 in Appendix 3.
- 6.12.2 The new Riding Court Road overbridge is an offline replacement to the west of the existing structure.
- 6.12.3 Access to the works site will be from the M4 junction 5 at Langley, the A4 and then Riding Court Road. This will ensure access and egress will be from the west and not from the south via the village of Datchet. Access via Datchet will be permitted for cars and pick-ups, but all other types of vehicle will be prohibited.
- 6.12.4 During the initial phase of the works, access from Riding Court Road will be used to undertake site clearance, fencing and construct the temporary access routes up to the highway boundary as detailed on drawing MHF01039/BB/TW/009. Traffic management will be installed on the M4 and the connection of these routes to the M4 hard shoulder will be completed.
- 6.12.5 Then, the overbridge and road embankments will be constructed, using the accesses from the M4 and Riding Court Road from Langley. The former will be the predominant means of access and egress.
- 6.12.6 Access for construction of the new carriageway over the bridge will be from Langley. Removal of the temporary access will be undertaken in conjunction with constructing the new M4 carriageway after removal of the existing bridge. Access for this work will be predominantly from the M4.

6.13 Old Slade Lane Overbridge

- 6.13.1 This section is to be read in conjunction with Drawing MHF01039/BB/TW/010 in Appendix 3.
- 6.13.2 Old Slade lane is an on line reconstruction of the existing bridge.
- 6.13.3 Initially, to establish the site, the preferred access will be via the corridor leading from the Lakeside Estate, south of the bridge. This will require separate agreement between Highways England and the land owners. This access would be used during the site clearance, and while temporary fencing and temporary haul roads are constructed. The traffic management on the M4 will be installed, which will allow the removal of the existing vehicle restraint system alongside the existing overbridge and verge.

- 6.13.4 Once the traffic management has been installed, the temporary access routes around the work sites will be finished using access from the M4 and the Lakeside Estate routes to tie into the M4 hard shoulder. With the access completed, then the bridge replacement works will be accessed from the M4. The access via Lakeside Estate will be maintained and only used when absolutely necessary such as in the event of an accident or emergency. Similarly, access from the north using Richings Way and Old Slade Lane is feasible but will only be used in exceptional circumstances.
- 6.13.5 After completing the construction of the overbridge, the embankments will be reconstructed and the works to both the northern and southern abutments will be serviced from the M4 access. Once these works are completed, the temporary accesses will be removed, which will allow construction of the new carriageway below the bridge. These works will be accessed from the M4. For the construction of the new carriageway over the bridge, access will be via Lakeside Estate from the south. After completing the new carriageway over the new overbridge, the sites around the bridge will be reinstated and the temporary access from Lakeside Estate will be removed.

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 considers that an assessment is required in light of the nature of the risk identified and the likelihood of it occurring. 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 through the measures outlined in paragraphs 7.4.2 to 7.4.5.

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. 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 start of the construction phase. Those invited to join the TMWG will include representatives from the Emergency Services, appropriate Local Authorities, Traffic Officers, Local Network managers, relevant statutory undertakers, other developers 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 Highways England’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 update the CTMP prior to the commencement of the Scheme construction works and will update the CTMP further prior to the installation of the main traffic management scheme. Further updates to the CTMP will align it to any subsequent amendments to the construction programme as the Scheme progresses. The CTMP will describe the traffic management, safety and control measures proposed to be implemented during construction of the Scheme. The CTMP will include details of the following, where appropriate, in relation 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) procedures to be followed to obtain consent to work on or over railways;
- d) measures to be implemented to reduce construction traffic impacts or impacts associated with local roads and residential streets;
- e) monitoring requirements in relation to the plan;
- f) a programme of traffic management measures to be implemented and details of traffic management proposals for the works on or adjacent to public roads;
- g) drawings showing traffic management layouts, signing and apparatus to be implemented, including proposed routes for pedestrians, equestrians and cyclists;
- h) timing of operations;
- i) the name and contact details of the Contractor's Traffic Manager and information and advice for the public regarding ways to raise complaints or request information; and
- j) a register of applications for consents associated with temporary traffic management measures.

7.2.7 The responsibilities of the Traffic Manager 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 Health & Safety Manager, 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 construction Project Management Plan (in accordance with paragraph 1.1.4 of the CEMP) will include an organogram identifying the named Traffic Manager and their lines of reporting.

7.3 General measures to reduce construction traffic impacts

7.3.1 Where practical, 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.

7.4 Traffic safety and control

- 7.4.1 Throughout the construction of the Scheme, the Contractor will consult with the following agencies/organisations as safety on the local road network will be the priority consideration:
- a) relevant local authorities;
 - b) Highways England;
 - c) Emergency responders. Police, Fire, Ambulance & network maintainers; and
 - d) other relevant organisations and businesses, identified by the Stakeholder Manager, regarding traffic management and control measures to be implemented.
- 7.4.2 The Contractor will undertake appropriate measures, including the design and installation of traffic management schemes, in order to:
- a) reduce the likelihood of drivers "rat running" through 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 Scheme's traffic management. Throughout the duration of the Scheme, local communities will be informed of any significant works two weeks in advance, as outlined in section 4.3.15 (d) of the CEMP, and the works will be clearly sign posted throughout their duration. The Contractor will be required to work with the Highways England's communications team to 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 required.

- 7.4.5 Should further surveys on the local road network indicate that further modelling should be undertaken, verification appraisals will be undertaken. If any verification appraisals predict capacity problems at a particular location, traffic management measures on the M4 will be reviewed by Highways England 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, which will be agreed through consultation with the relevant local authorities and emergency services.
- 7.4.6 When necessary during construction on the M4, 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 in accordance with the Traffic Signs Manual Chapter 8 to establish suitability for the traffic anticipated to use the route.
- 7.5.2 Temporary or substitute routes will be established by the Contractor during the works to provide 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. 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 Liaison 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,

the local authorities and public transport operators will be invited to propose appropriate measures (for instance, the provision of alternative routes or additional services) which could be implemented to mitigate the effects.

- 7.6.2 Where separate footways and bridleways 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 section 257 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 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