

INTERIM ADVICE NOTE 150/16

Guidance on Alternative Temporary Traffic Management Techniques for Relaxation Works on Dual Carriageways

Summary

Guidance for temporary traffic management (TTM), on the approach zones at road works where “relaxation scheme” works criteria apply, in order to reduce risks to road workers.

This IAN introduces optional alternative TTM techniques which reduce the number of advance warning signs provided on the approach to road works on dual carriageways.

Instructions for Use

This document is supplementary to (but does not replace any elements of) the existing guidance provided in the DfT Traffic Signs Manual – Chapter 8 (2009), IAN 163/12, IAN 180/14 and IAN 181/14.

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1. Introduction

1.1 Background

Highways England has set out its overarching Aiming for Zero (AfZ) Strategy and belief that “no one should be harmed when travelling or working on the Strategic Road Network”. As part of this, the AfZ Road Worker Safety Strategy seeks to reduce health and safety risk to road workers, eliminating road worker fatalities and serious injuries and significantly reducing road worker personal injury accidents and “near miss incidents”.

Highways England and its service providers have carried out research to determine alternative temporary traffic management (TTM) techniques which significantly improve road worker safety without adversely affecting road user safety. This research, detailed in Section 8, has been implemented in previous versions of this Interim Advice Note.

While omission of some temporary traffic signs from relaxation schemes helps Highways England to fulfil its future vision for improving safety, any work activity involving installation, maintenance and removal of TTM on high speed roads is hazardous. The selection of the actual method of work should always be made by a competent service provider and should reflect the risks of the planned work.

1.2 Scope

This IAN provides guidance to service providers for alternative TTM techniques that may be used in the approach and lane change zones for relaxation schemes on dual carriageways (as defined in TSM Chapter 8 paragraph D/O1.6.3). This document builds upon the guidance given in the Traffic Signs Manual Chapter 8 Part 1: Design and Part 2: Operations. In particular, this document builds on the guidance given in those sections of the TSM Chapter 8 dealing with relaxation schemes.

This IAN applies to relaxation schemes on dual carriageways, including relaxation schemes which are being provided either as part of major works or relaxation schemes which are being used to install, maintain, alter or remove the standard scheme traffic management for major works. This IAN does not apply to standard schemes (as defined in TSM Chapter 8 paragraph D/O1.6.2).

This IAN applies to the Highways England network. Application of this document on any other road is subject to approval for its use being given by the appropriate Highway Authority.

This interim guidance makes two alternative techniques for relaxation schemes available for consideration by the service provider:

- Removal of all offside signs in advance of the taper when:
 - closing one or more nearside lane(s) on a motorway or trunk road
 - closing one or more offside lane(s) on a motorway or trunk road
- Removal of the nearside and offside 200yd and 600yd signs plus omission of Detail ‘A’ when
 - closing one nearside lane on a motorway or trunk road
 - closing one offside lane on a motorway or trunk road

This guidance is supplementary to (but does not replace any elements of) the existing guidance for TTM at road works, provided in the TSM Chapter 8, Parts 1 and 2. The intention is that the guidance given in this document may be included within future revisions or updates to TSM Chapter 8.

1.3 Temporary Traffic Management Options

The service provider should always determine the most suitable TTM for any given situation, in order to minimise safety risks to road workers to As Low As Reasonably Practicable (ALARP), whilst managing safety risks to road users to an acceptable or tolerable/ALARP level. This is in accordance with the general principles applied in the Traffic Signs Manual Chapter 8.

One of the two alternative techniques described in this Interim Advice Note may be considered for use in place of one of the more traditional techniques shown in the Plans in the TSM Chapter 8, provided the eligibility criteria for the alternative technique are met. The service provider should not assume that one of the alternative TTM techniques can be automatically used in place of one of the more traditional techniques shown in the TSM Chapter 8. In all cases, selection of traffic management technique should be based on a location specific risk assessment of all available TTM options and should consider the balance of risks between road users and road workers.

The table below provides guidance on the mitigation hierarchy for road worker risk. It should be noted that this table does not constitute a checklist from which techniques may simply be selected. It is intended to demonstrate the change in relative risk to road workers associated with the different alternative temporary traffic management techniques described in this IAN and so assist with determining possible approaches that could be used to manage these risks.

Table 1 Risk Mitigation Hierarchy for road workers

Risk mitigation hierarchy for road workers	Relaxation scheme requiring closure of nearside lane(s)		Relaxation scheme requiring closure of offside lane(s)	
	Single lane	Two or three lanes (Note 1)	Single lane	Two or three lanes (Note 1)
Technique with lower relative risk	Offside Signs Removal (Note 2)	Offside Signs Removal (Note 2)	Offside Signs Removal	Offside Signs Removal
Decreasing ↑ Risk	Temporary Traffic Management Sign Simplification	-	Temporary Traffic Management Sign Simplification	-
Technique with higher relative risk	Chapter 8	Chapter 8	Chapter 8	Chapter 8

Note 1: Closure of three nearside lanes, or three offside lanes, applies only to dual carriageways with four traffic lanes, including Smart Motorways all lane running.

Note 2: Closure of one nearside lane on a five lane carriageway or one or two nearside lanes on a six lane carriageway may be carried out using the 'near side only lane closure and signing' technique given in the Traffic Signs Manual Chapter 8 Part 1: Design paragraph D6.13.11

The location specific risk assessment should consider the type of work being undertaken together with all other appropriate factors, such as those given in TSM Chapter 8 Part 1 2009 paragraphs D1.6.3 to D1.6.5, D3.8 and TSM Chapter 8 Part 2 2009 paragraphs O1.6.3 to O1.6.5, with the definition of “low traffic flows” given in TSM Chapter 8 Appendix A2.41. Sizes of advance warning signs used for either alternative TTM technique shall be as given in TSM Chapter 8 Appendix A1.2.

As described in the guidance given in TSM Chapter 8 Part 2 2009 paragraphs O2.3.1 and O2.4.5, the potential for signing conflict during set-out of all TTM (whether of an alternative technique or a technique described in TSM Chapter 8) should be considered in the method statement and location specific risk assessment. Signing conflict shall be eliminated where possible; where it cannot be eliminated it shall be reduced and controlled to ensure it does not create a hazard. Contingency plans should also be considered for the foreseeable situation where conditions at site make the initial application of an alternative technique unsuitable, necessitating the installation of supplementary signing to bring the site signing up to the Chapter 8 relaxation scheme standard.

Guidance contained within this document is given on the basis that the service provider ensures a competent person carries out a suitable and sufficient site specific risk assessment, in accordance with the requirements and guidance in GD 04/12 in the Design Manual for Roads and Bridges, well before site works and ensures that it is appropriately recorded.

1.4 Eligibility Criteria

The alternative techniques detailed in this document apply only to TTM which meets all of the generic eligibility criteria shown below:

- relaxation scheme road works, as defined in TSM Chapter 8.
- the permanent mandatory speed limit that would normally apply to the carriageway without road works (as defined in TSM Chapter 8 Part 1: Design, paragraph D6.14.2) is 30mph or more.
- backlit sequentially flashing warning lamps shall be used in accordance with the requirements given in TSM Chapter 8 Part 2: Operations, paragraph O4.7.19.
- the service provider has carried out a suitable site specific risk assessment (see Section 1.5 of this IAN) which indicates that it is safe to implement the selected alternative technique.

The alternative technique “offside signs removal” applies only to TTM which meets all of the generic eligibility criteria given above and also meets the specific criteria below:

- the TTM design used is consistent with the design shown in the appropriate Plan in Annex A of this IAN.

The alternative technique “sign simplification” applies only to TTM which meets all of the generic eligibility criteria given above and also meets the specific criterion below:

- the TTM design used is consistent with the design shown in Plan SS1 in Annex A of this IAN.

It is not appropriate to use either alternative TTM technique:

- for signing of standard schemes; or
- on single carriageways.

2. Guidance – Offside Signs Removal

This Section provides interim guidance to the service provider regarding advance signing in the approach and lane change zones for relaxation scheme road works on two, three and four lane dual carriageways where up to three lanes are closed and the permanent speed limit is 30mph or more. This interim guidance provides an alternative TTM technique where, for these types of lane closure, offside TTM signs upstream of the taper may be omitted, provided that all of the eligibility criteria described in section 1.4 in this IAN are met.

The “nearside only lane closure and signing” technique for relaxation schemes on dual carriageways with five or more lanes, as described in TSM Chapter 8 Part 1: Design (2009) paragraph D6.13.11, may also be safely applied to certain specified types of relaxation scheme on two, three and four lane dual carriageways.

Research, on road trials and monitored roll-out of this technique have shown that for relaxation schemes on a dual carriageway all of the central reserve (offside) signs upstream of the taper shown within the current TTM plan drawings within the TSM Chapter 8 may be removed without significantly affecting road user safety.

It has been shown that the principles in the “nearside only lane closure and signing” technique can be safely applied in the approach zone of relaxation schemes for closure of one, two or three nearside or offside lanes on a two, three or four lane dual carriageway. This alternative temporary signing arrangement eliminates one of the major risks to road workers by removing the need for road workers to cross the live carriageway to install, maintain and remove the signs on the central reserve. The service provider may wish to consider this alternative TTM technique as an option when planning the TTM and assessing the risks and benefits of the various alternatives.

Therefore, where the eligibility criteria described in section 1.4 in this document are met the service provider may choose to omit the “road works ahead” sign and distance plate (TSRGD 2002 sign diagrams 7001 & 572) and the “lane closed to traffic ahead” signs (TSRGD 2002 sign diagrams 7202 & 7208) from the central reserve (offside) as shown in the Plans in Annex A. Lane closure options using Offside Signs Removal are shown in Table 2.

Relaxation scheme signing plans contained within TSM Chapter 8 apply the general principle that signing for relaxation schemes is a subset of signing for standard schemes. This alternative TTM technique is consistent with this principle, in that the central reserve (offside) signs can be reinstated if required to bring the signing up to that suitable for a standard scheme. This may be necessary, for example if on arrival at site to install the site conditions are found to be inappropriate for the use of this alternative TTM technique, or when weather or traffic conditions at the site deteriorate once the TTM has been installed. Service providers should take these factors into account when planning the works.

Any decision to omit central reserve (offside) signing for relaxation schemes should take account of all appropriate factors, including traffic flows per hour per lane and the percentage of HGVs per hour per lane. Factors to be taken into account should include those given in TSM Chapter 8 Part 1 2009 paragraphs D1.6.3 to D1.6.5, D3.8 and TSM Chapter 8 Part 2 2009 paragraphs O1.6.3 to O1.6.5, O2.3.1 and O2.4.5 with the definition of “low traffic flows” given in TSM Chapter 8 Appendix A2.41. Sizes of advance warning signs used on the nearside for this alternative TTM technique shall be as given in TSM Chapter 8 Appendix A1.2.

In particular, when installing TTM consideration shall be given in the method statement and location specific risk assessment to the potential for signing conflict during set-out. Signing conflict shall be eliminated where possible; where it cannot be eliminated it shall be reduced and controlled to ensure it does not create a hazard.

If appraisal of the aspects given in these sections of TSM Chapter 8 indicates that the omission of the central reserve (offside) signing is inadvisable, the use of other appropriate TTM, for example a Chapter 8 relaxation scheme for a single lane closure, may be required.

Table 2 Lane closure options using the Offside Signs Removal technique.

	Relaxation scheme requiring closure of nearside lane(s)			Relaxation scheme requiring closure of offside lane(s)		
	Single nearside lane	Two nearside lanes	Three nearside lanes	Single offside lane	Two offside lanes	Three offside lanes
All Purpose Trunk Roads with permanent speed limits 30mph or more						
APTR 2L	Plan OSSR1	N/A	N/A	Plan OSSR5	N/A	N/A
APTR 3L	Plan OSSR2	Plan OSSR3	N/A	Plan OSSR6	Plan OSSR7	N/A
Motorways						
D2M	Plan OSSR2	N/A	N/A	Plan OSSR6	N/A	N/A
D3M	Plan OSSR2	Plan OSSR3	N/A	Plan OSSR6	Plan OSSR7	N/A
D4M	Plan OSSR2	Plan OSSR3	Plan OSSR4	Plan OSSR6	Plan OSSR7	Plan OSSR8
D5M	See TSM Ch8	N	N	N	N	N
D6M	See TSM Ch8	See TSM Ch8	N	N	N	N
All Smart Motorways						
SM3L	Plan OSSR2	Plan OSSR3	N/A	Plan OSSR6	Plan OSSR7	N/A
SM4L	Plan OSSR2	Plan OSSR3	Plan OSSR4	Plan OSSR6	Plan OSSR7	Plan OSSR8
SM5L	See TSM Ch8	N	N	N	N	N
SM6L	See TSM Ch8	See TSM Ch8	N	N	N	N

Plan OSSRx
See TSM Ch8

Allowed by IAN 150/16 using Plan in Annex A

Allowed by Chapter 8 (Part 1: Design paragraph D6.13.11)

N
N/A

Not an available option

Not a possible option

3. Guidance – Temporary Traffic Management Signs Simplification

3.1. Introduction

This Section provides interim guidance to the service provider with regard to simplification of the advance signing in the approach and lane change zones for a single nearside or offside lane closure for relaxation schemes on a dual carriageway where the speed limit is 30mph or more.

This interim guidance provides an alternative TTM technique where, for these types of lane closures, specified nearside and offside TTM signs upstream of the taper may be omitted, provided that all of the eligibility criteria described in section 1.4 in this IAN are met.

3.2 Issues

HA research and on road trials have shown that for relaxation schemes on a dual carriageway where the national speed limit applies, some of the nearside and central reserve (offside) signs upstream of the taper may be omitted without affecting the safety of road users. This alternative temporary signing arrangement significantly reduces one of the major risks to road workers, because it reduces the need for road workers to cross the live carriageway to install, maintain and remove the signs on the central reserve.

The service provider may consider this alternative TTM technique as an option when planning the TTM and assessing the risks and benefits of the various alternatives. The safety benefit that this alternative TTM technique can deliver for road workers is significant.

3.3 Omission of TTM Signs at 600 yards and 200 yards plus Detail 'A'

For a single nearside lane closure or a single offside lane closure on a dual carriageway where the section 1.4 eligibility criteria are met, the service provider may choose to omit the "lane closed to traffic ahead" signs (TSRGD 2002 sign diagrams 7202 & 7208) from both the nearside and offside at 600 yards and 200 yards upstream of the taper, as shown in Plan SS1 in Annex A. The "Detail A" elements (Table A.1.5 of the TSM Chapter 8) on the hard shoulder adjacent to the entry taper may also be omitted (where applicable), as shown in Plan SS1.

Relaxation scheme signing plans contained within TSM Chapter 8 apply the general principle that signing for relaxation schemes is a subset of signing for standard schemes. This alternative TTM technique is consistent with this principle, in that the nearside and central reserve (offside) signs can be reinstated if required to bring the signing up to that suitable for a standard scheme. This may be necessary, for example if on arrival at site to install the site conditions are found to be inappropriate for the use of this alternative TTM technique, or when weather or traffic conditions at the site deteriorate once the TTM has been installed. Service providers should take these factors into account when planning the works.

Any decision to omit signing for relaxation schemes should take account of all appropriate factors, including traffic flows per hour per lane and the percentage of HGVs per hour per lane. Factors to be taken into account should include those given in TSM Chapter 8 Part 1 2009 paragraphs D1.6.3 to D1.6.5, D3.8 and TSM Chapter 8 Part 2 2009 section O1.6.3 to O1.6.5, O2.3.1 and O2.4.5 with the definition of "low traffic flows" given in TSM Chapter 8 Appendix A2.41. Sizes of advance warning signs used on the nearside for this alternative TTM technique shall be as given in TSM Chapter 8 Appendix A1.2.

In particular, when installing TTM consideration shall be given in the method statement and location specific risk assessment to the potential for signing conflict during set-out. Signing

conflict shall be eliminated where possible; where it cannot be eliminated it shall be reduced and controlled to ensure it does not create a hazard.

If appraisal of the aspects given in these sections of TSM Chapter 8 indicates that the omission of the central reserve (offside) signing is inadvisable, the use of other appropriate TTM, for example a Chapter 8 relaxation scheme for a single lane closure, may be required.

4. Withdrawal Conditions

This IAN will remain in force until such time as this guidance can be incorporated permanently in to a future revision of the DfT Traffic Signs Manual Chapter 8, or is superseded by revised guidance issued by Highways England.

5. Training

5.1 Road worker training

Service providers should ensure that suitable and sufficient training is given to road workers. This training should include the following:

- (a) Safe use of works vehicles when using the TTM techniques described in this IAN.
- (b) Safe working when using the TTM techniques described in this IAN.

5.2 National Highway Sector Schemes

The development of an accredited training module for the Temporary Traffic Management techniques introduced by this IAN is ongoing. Training materials (including production of presentation material, the drafting of suitable test questions and where appropriate determining the assessment criteria) need to be developed and piloted before the training and assessment module can be provided to recognised training instructors and training bodies by the Awarding Organisation.

The training committee, which has been established by industry via National Highway Sector Scheme 12 for Temporary Traffic Management, is fully aware of these Temporary Traffic Management techniques and development work has been included in their current programme of work.

6. Contacts

Further information may be obtained from:

Ian Smith,
Health and Safety Division,
Highways England,
Woodlands,
Manton lane,
Bedford,
MK41 7LW.

Tel: 01234 796276.

GTN: 3013 6276.

Email: Standards_Feedback&Enquiries@highwaysengland.co.uk

7. Normative References

- DfT Design Manual for Roads & Bridges GD 04/12 Standard for Safety Risk Assessment on the Strategic Road Network.
<http://www.dft.gov.uk/ha/standards/dmrb/vol0/section2/gd0412.pdf>
- DfT Traffic Signs Manual (TSM) Chapter 8 (2009) Traffic Safety Measures and Signs for Road Works and Temporary Situations, Part 1 – Design & Part 2 – Operations.
<https://www.gov.uk/government/publications/traffic-signs-manual>
- Statutory Instrument 2002 No. 3113 Traffic Signs Regulations and General Directions 2002 (TSRGD).
<https://www.gov.uk/government/policies/managing-improving-and-investing-in-the-road-network>

8. Informative References

8.1 Highways England - Health & Safety 5 Year Plan and Traffic Management Guidance

Documents can be downloaded from the appropriate web site using the links provided:

- Highways England Health & Safety 5 Year Plan:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/474102/S150501_Health_and_Safety_Summary_3.pdf
- Guidance for Safer Temporary Traffic Management. 2002.
<http://webarchive.nationalarchives.gov.uk/+http://www.highways.gov.uk/aboutus/1091.aspx>

8.2 TRL Reports

The following documents provide the evidence base for introduction of Off Side Signs Removal and Sign Simplification and are available from the HA Knowledge Compendium.

- TRL Report RPN 479 (2009) - Driver Interaction with Temporary Traffic Management.
- TRL Report RPN 887 (2010) - Driver Interaction with Temporary Traffic Management Phase 2 Project Report -Simulation Trial.
- TRL Report RPN 1813 (2011) - Driver Interaction with Temporary Traffic Management Phase 1 Project Report – On Road Trials.
- TRL Report CPR 1242 (2011): Offside Signs Relaxation for Single Nearside Lane Closures - Results from monitored roll-out in HA Area 3, 2011.
- TRL Report CPR 1381 (2012): Offside Signs Relaxation for Closure of Two Nearside Lanes - Results from monitored roll-out in HA Area 2, 2012.
- TRL Report CPR 1736 (2013) - Offside Signs Relaxation for Closure of Three Nearside Lanes - Results from monitored roll-out in HA Area 5 on the M25, 2013.
- TRL Report CPR 1807 (2014) - Offside Signs Relaxation for Closure of Single Offside Lane- Results from monitored roll-out in HA Areas 4 and 10, 2014
- TRL Report RPN 2819 (2014) - Offside Signs Relaxation for Closure of Two Offside Lanes- Results from monitored roll-out in HA Area 5 on the M25, 2014

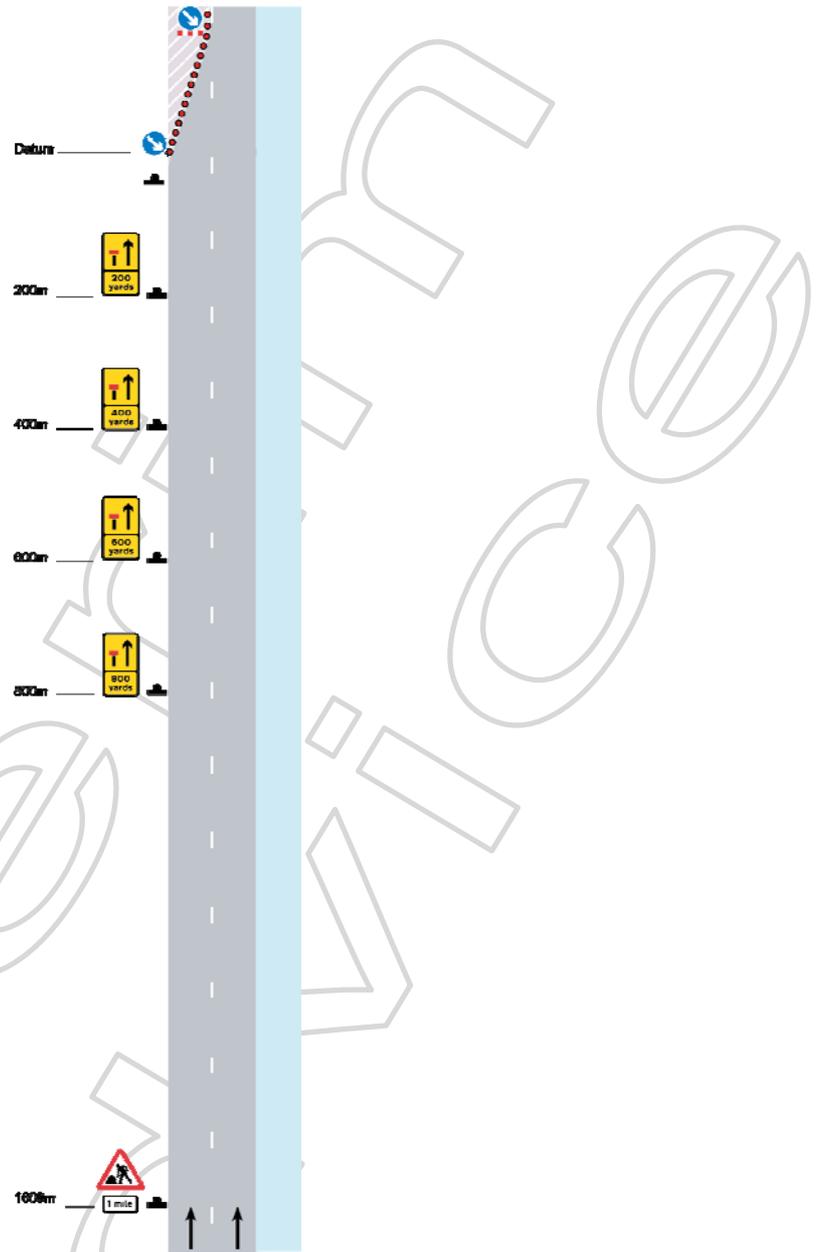
- TRL Report RPN 3177 (2014) - Offside Signs Relaxation for Closure of Three Offside Lanes- Results from monitored roll-out in HA Area 5 on the M25, 2014

Annex A: TTM Plan Drawings

Within all Plans in Annex A:

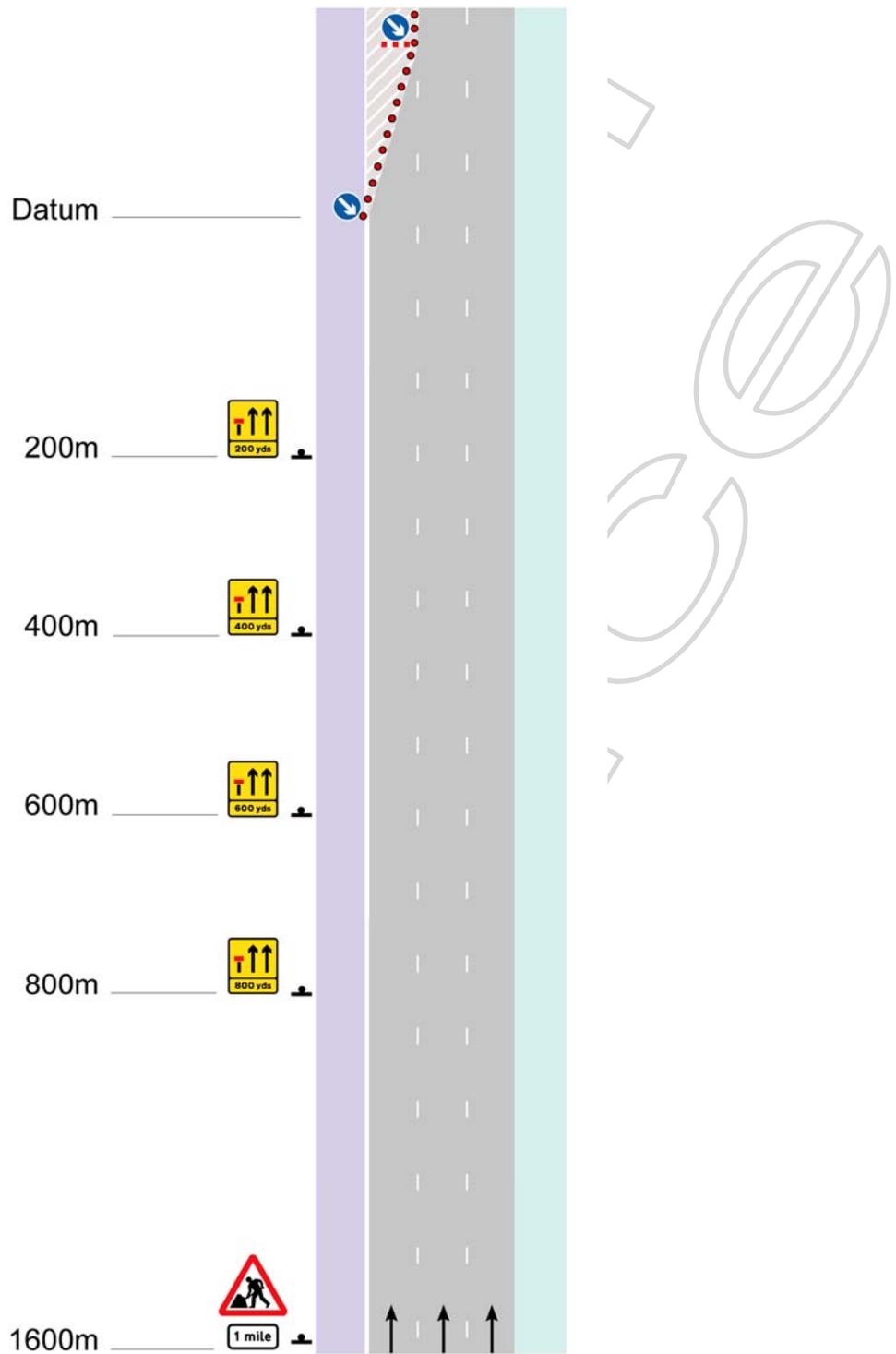
- temporary mandatory speed limit signing is not shown. Where required, it should be placed at the distances from the Datum shown in Plan DZB6, TSM Chapter 8 Part 1: Design 2009
- where a lead-in taper is shown in the following Plans, any arrangement deemed an operationally valid alternative to the Chapter 8 TTM scheme arrangements shown in Plan DZB3 of TSM Chapter 8 Part 1: Design may be used.

Plan OSSR1 - Approach and lane change zones for a single nearside lane closure on an all-purpose trunk road where the central reserve (offside) signs are omitted



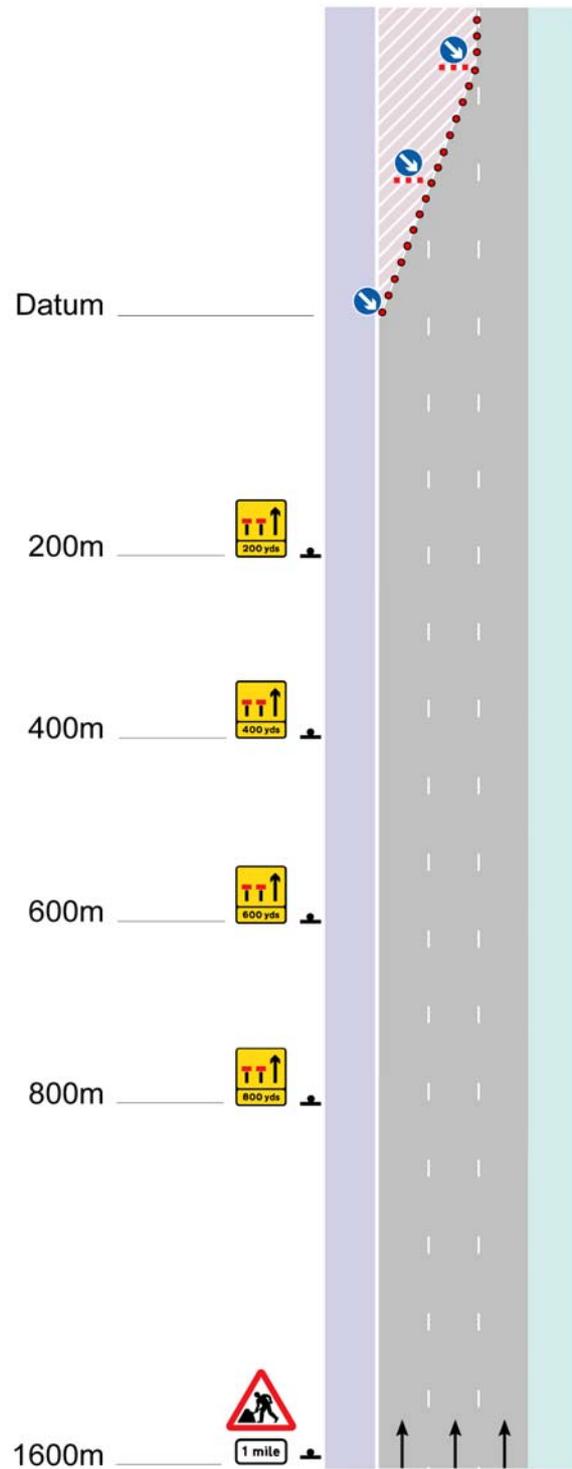
Note: This plan may be used for a single nearside lane closure, for relaxation schemes on a two lane all-purpose trunk road

Plan OSSR2 - Approach and lane change zones for a single nearside lane closure on a dual carriageway road where the central reserve (offside) signs are omitted



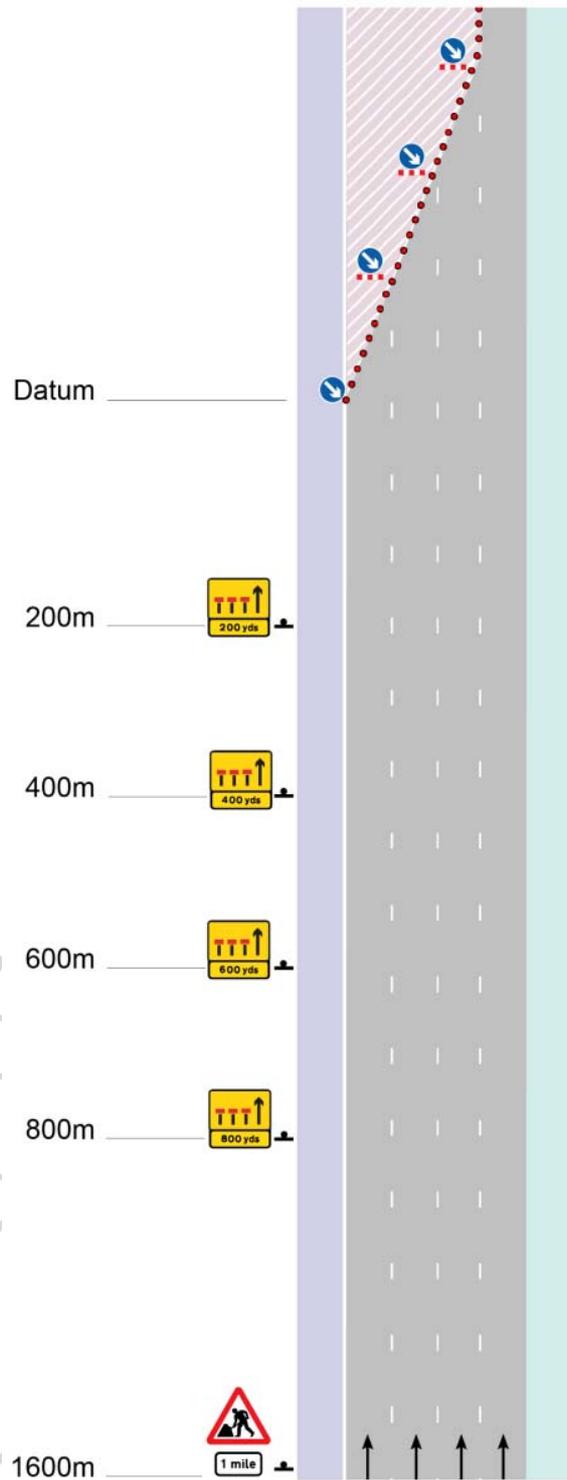
Note: This plan may be used for a single nearside lane closure, for relaxation schemes on a dual carriageway (all-purpose trunk road or motorway) with two, three or four lanes

Plan OSSR3 - Approach and lane change zones for closure of two nearside lanes on a dual carriageway road where the central reserve (offside) signs are omitted



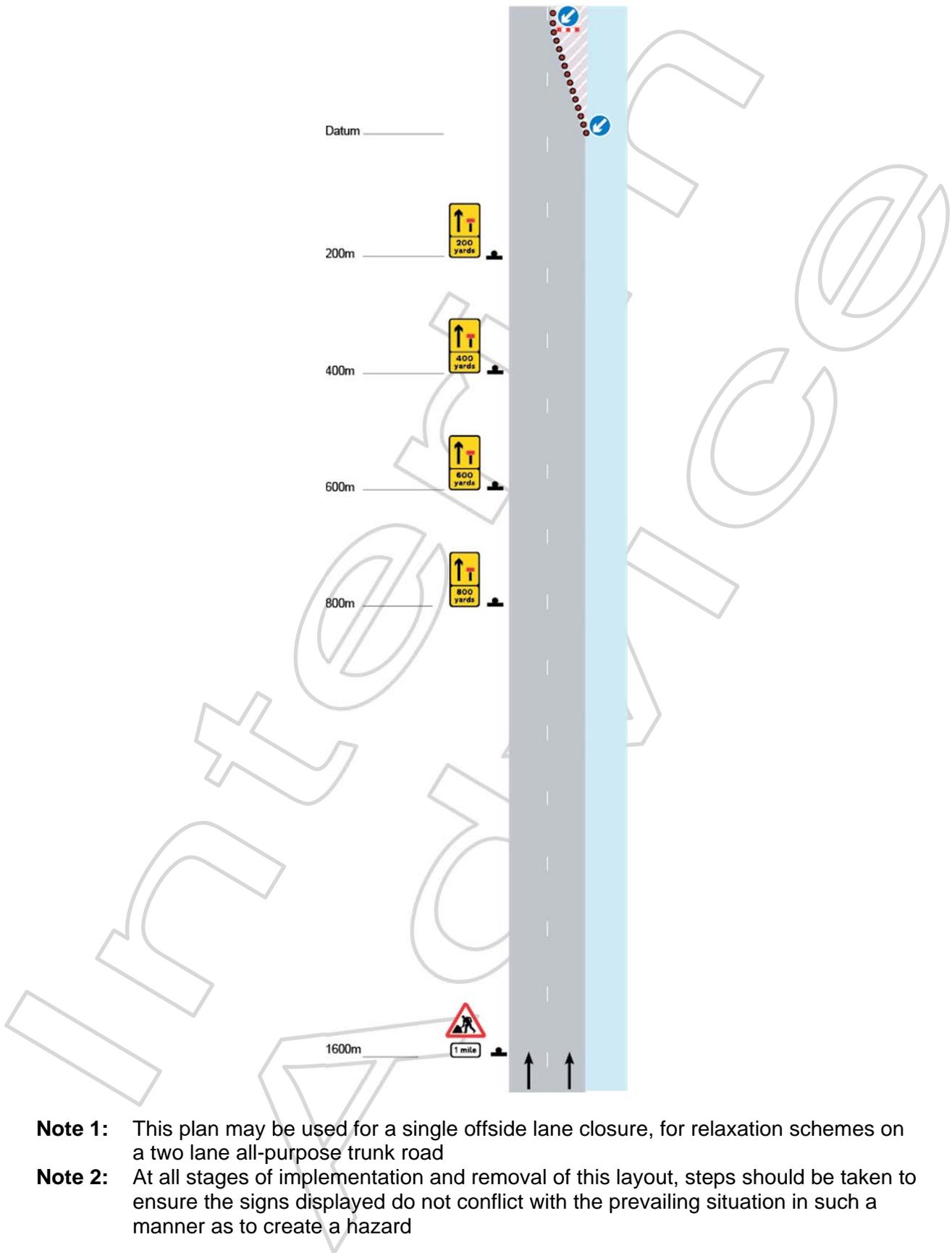
Note: This plan may be used for a two lane nearside closure, for relaxation schemes on a dual carriageway (all-purpose trunk road or motorway) with three or four lanes

Plan OSSR4 - Approach and lane change zones for closure of three nearside lanes on a dual carriageway road where the central reserve (offside) signs are omitted



Note: This plan may be used for a three nearside lane closure, for relaxation schemes on a dual carriageway (all-purpose trunk road or motorway) with four lanes, including Smart Motorway All Lane Running routes.

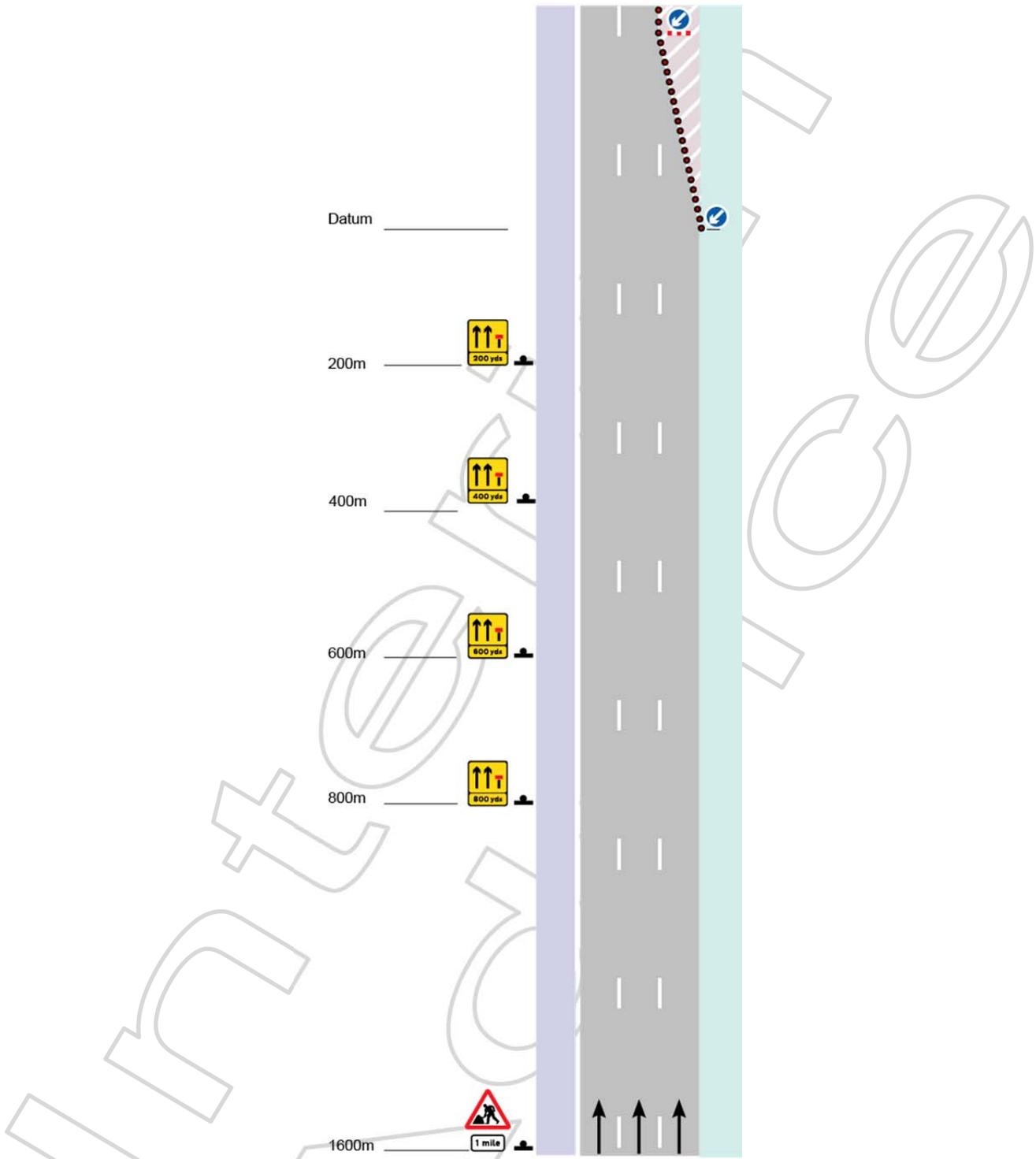
Plan OSSR5 - Approach and lane change zones for a single offside lane closure on an all-purpose trunk road where the central reserve (offside) signs are omitted



Note 1: This plan may be used for a single offside lane closure, for relaxation schemes on a two lane all-purpose trunk road

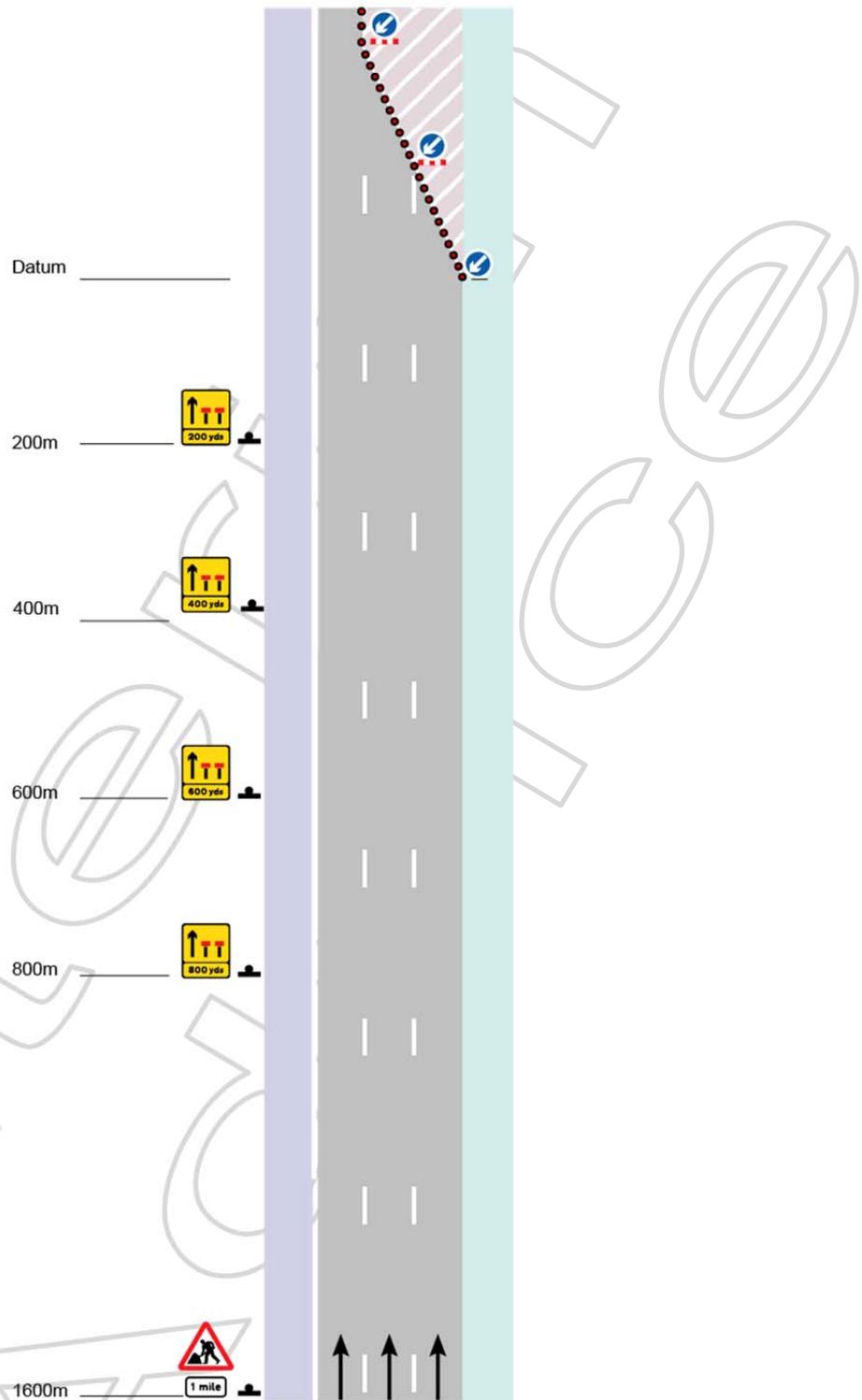
Note 2: At all stages of implementation and removal of this layout, steps should be taken to ensure the signs displayed do not conflict with the prevailing situation in such a manner as to create a hazard

Plan OSSR6 - Approach and lane change zones for closure of a single offside lane on a dual carriageway road where the central reserve (offside) signs are omitted



- Note 1:** This plan may be used for a single offside lane closure, for relaxation schemes on a dual carriageway (all-purpose trunk road or motorway) with two, three or four lanes.
- Note 2:** At all stages of installation and removal of temporary traffic management, service providers should take particular care to ensure that any signs, including any vehicle mounted signs, do not conflict with the prevailing situation in a manner which would create a hazard. In general vehicles displaying signs should be positioned during this period within the limits recommended in TSM Chapter 8 O10, so that they are at least as visible and conspicuous as any fixed plate signs indicating permanent or temporary lane closure information.

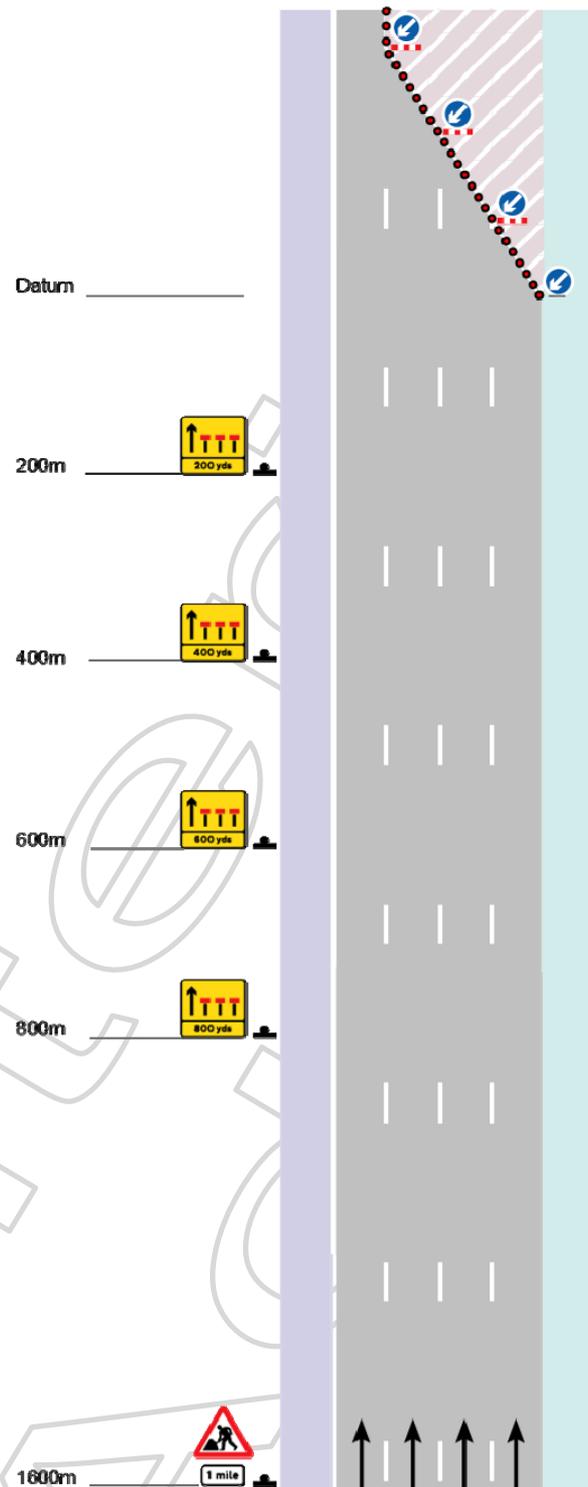
Plan OSSR7 - Approach and lane change zones for closure of two offside lanes on a dual carriageway road where the central reserve (offside) signs are omitted



Note 1: This plan may only be used for a two offside lane closure, for relaxation schemes on a dual carriageway (all-purpose trunk road or motorway) with three or four lanes.

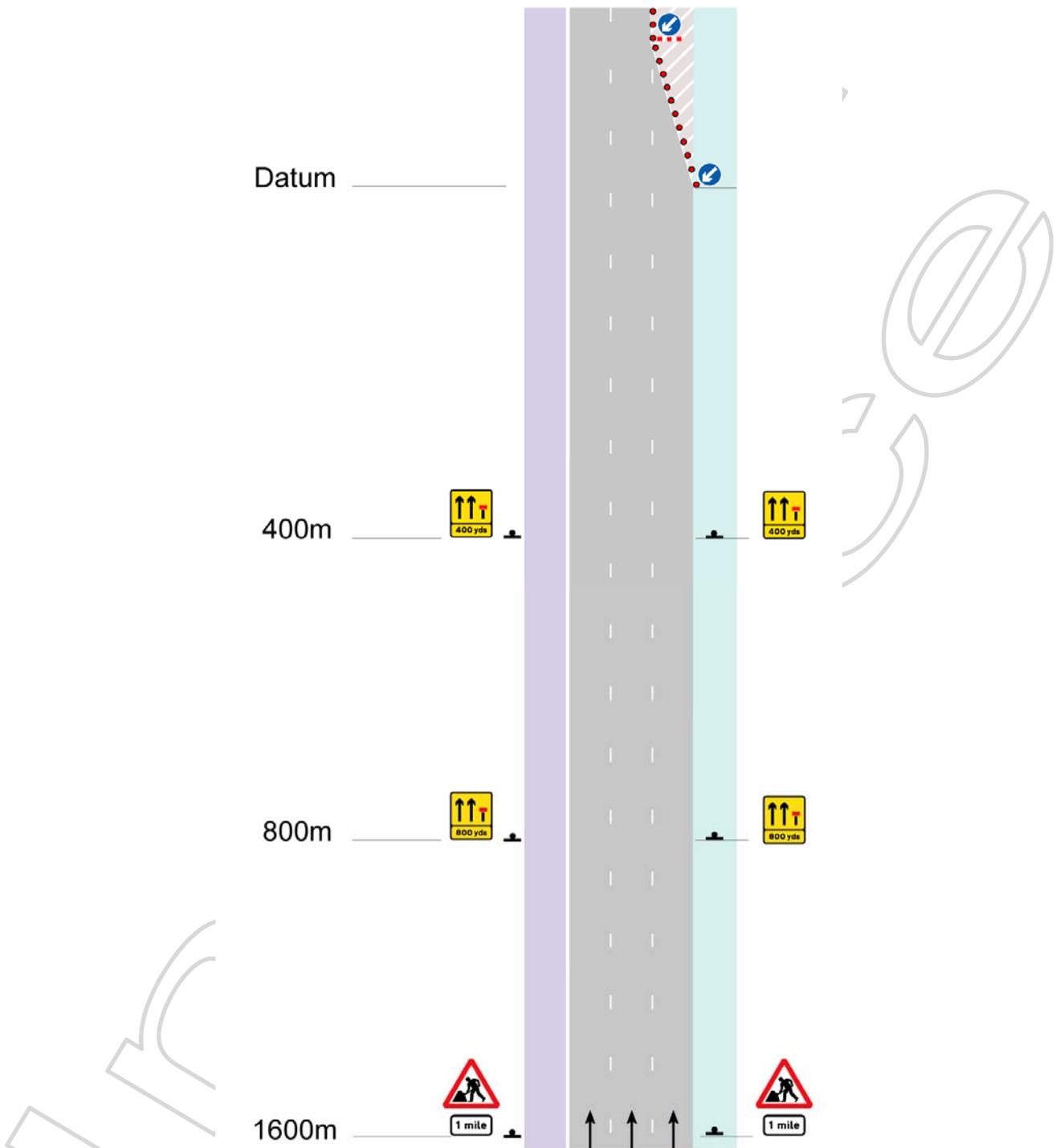
Note 2: At all stages of installation and removal of temporary traffic management, service providers should take particular care to ensure that any signs, including any vehicle mounted signs, do not conflict with the prevailing situation in a manner which would create a hazard. In general vehicles displaying signs should be positioned during this period within the limits recommended in TSM Chapter 8 O10, so that they are at least as visible and conspicuous as any fixed plate signs indicating permanent or temporary lane closure information.

Plan OSSR8 - Approach and lane change zones for closure of three offside lanes on a dual carriageway road where the central reserve (offside) signs are omitted



- Note 1:** This plan may only be used for a three offside lane closure, for relaxation schemes on a dual carriageway (all-purpose trunk road or motorway) with four lanes, including Smart Motorway All Lane Running routes.
- Note 2:** At all stages of installation and removal of temporary traffic management, service providers should take particular care to ensure that any signs, including any vehicle mounted signs, do not conflict with the prevailing situation in a manner which would create a hazard. In general vehicles displaying signs should be positioned during this period within the limits recommended in TSM Chapter 8 O10, so that they are at least as visible and conspicuous as any fixed plate signs indicating permanent or temporary lane closure information.

Plan SS1 Approach and lane change zone for a lane closure on a dual carriageway road with Sign Simplification



- Note 1:** This plan may only be used for a single nearside or offside lane closure on relaxation scheme TTM on a dual carriageway (motorway or trunk road).
- Note 2:** At all stages of installation and removal of temporary traffic management, service providers should take particular care to ensure that any signs, including any vehicle mounted signs, do not conflict with the prevailing situation in a manner which would create a hazard. In general vehicles displaying signs should be positioned during this period within the limits recommended in TSM Chapter 8 O10, so that they are at least as visible and conspicuous as any fixed plate signs indicating permanent or temporary lane closure information.