



# **HS2 Phase One Planning Forum – Highways Subgroup**

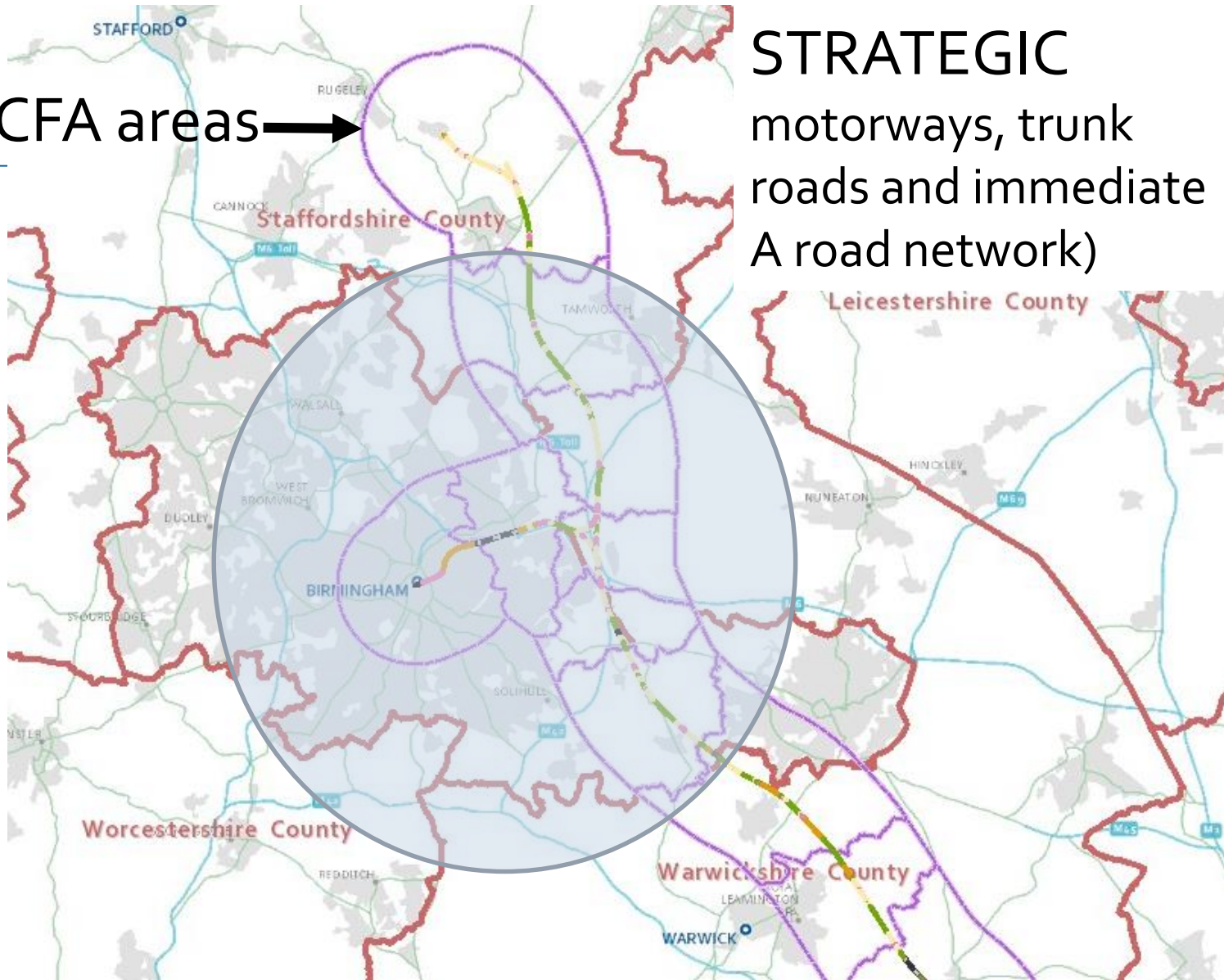
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Meeting #12

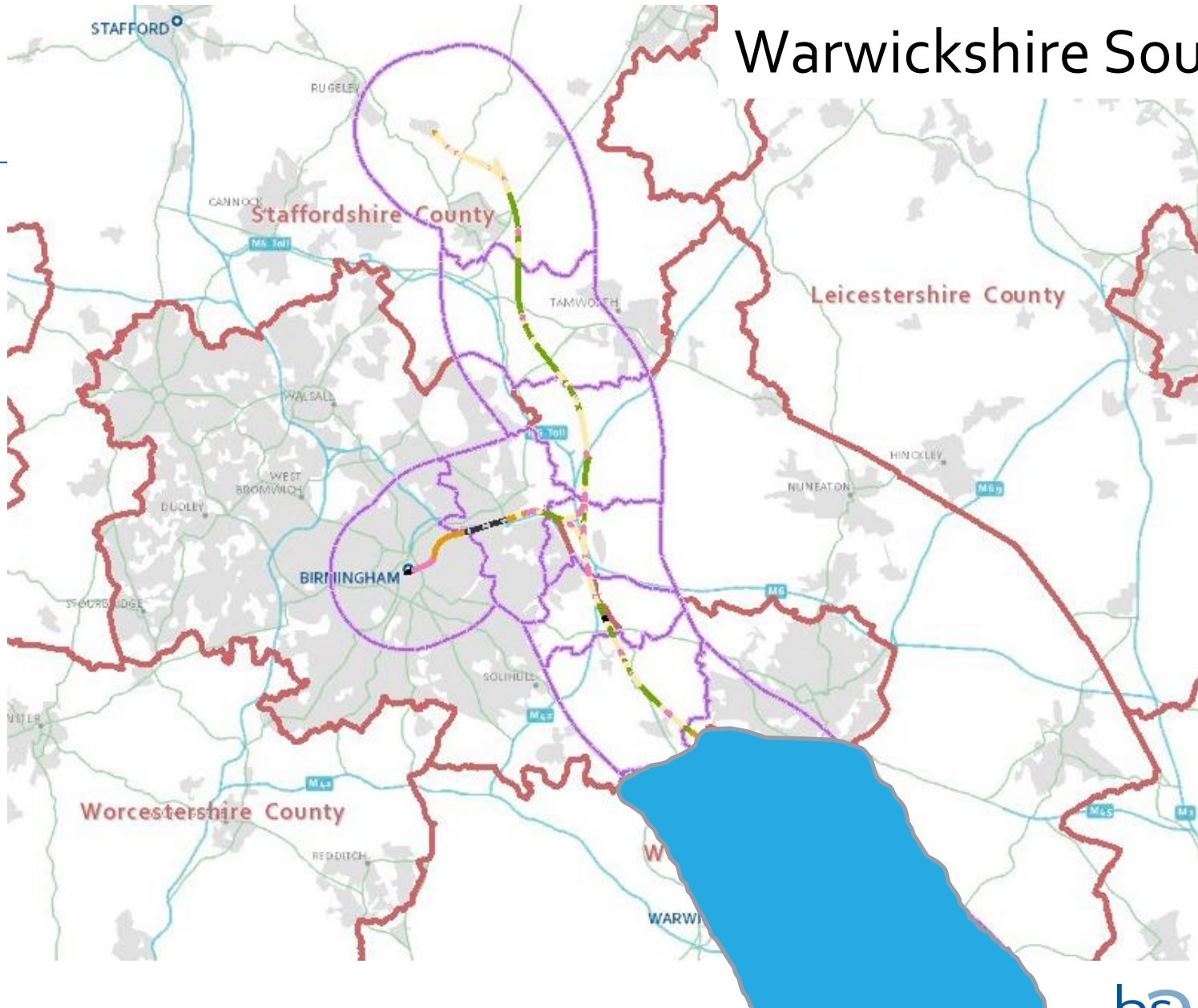
16 December 2015

CFA areas →

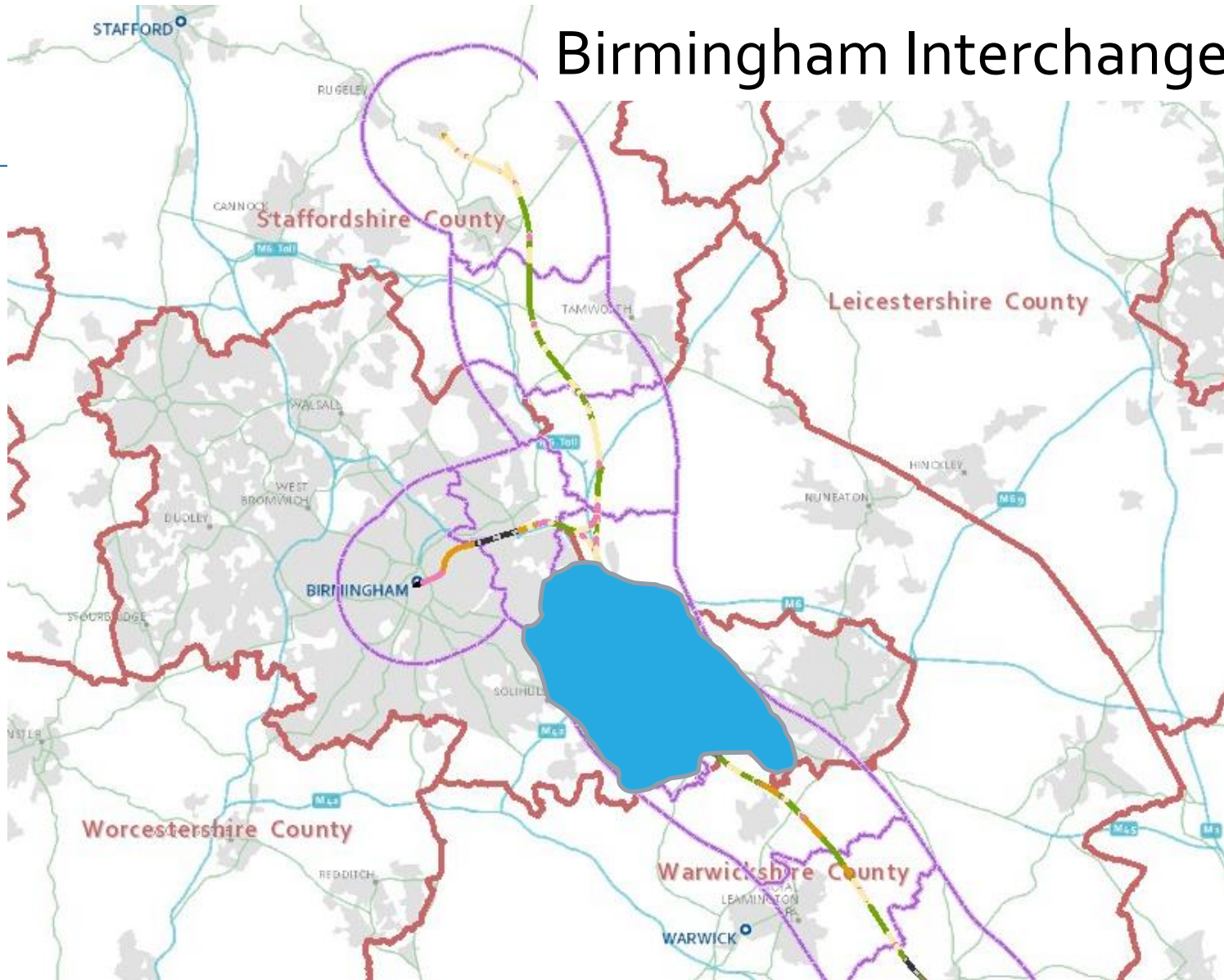
STRATEGIC  
motorways, trunk  
roads and immediate  
A road network)



# Warwickshire South



# Birmingham Interchange



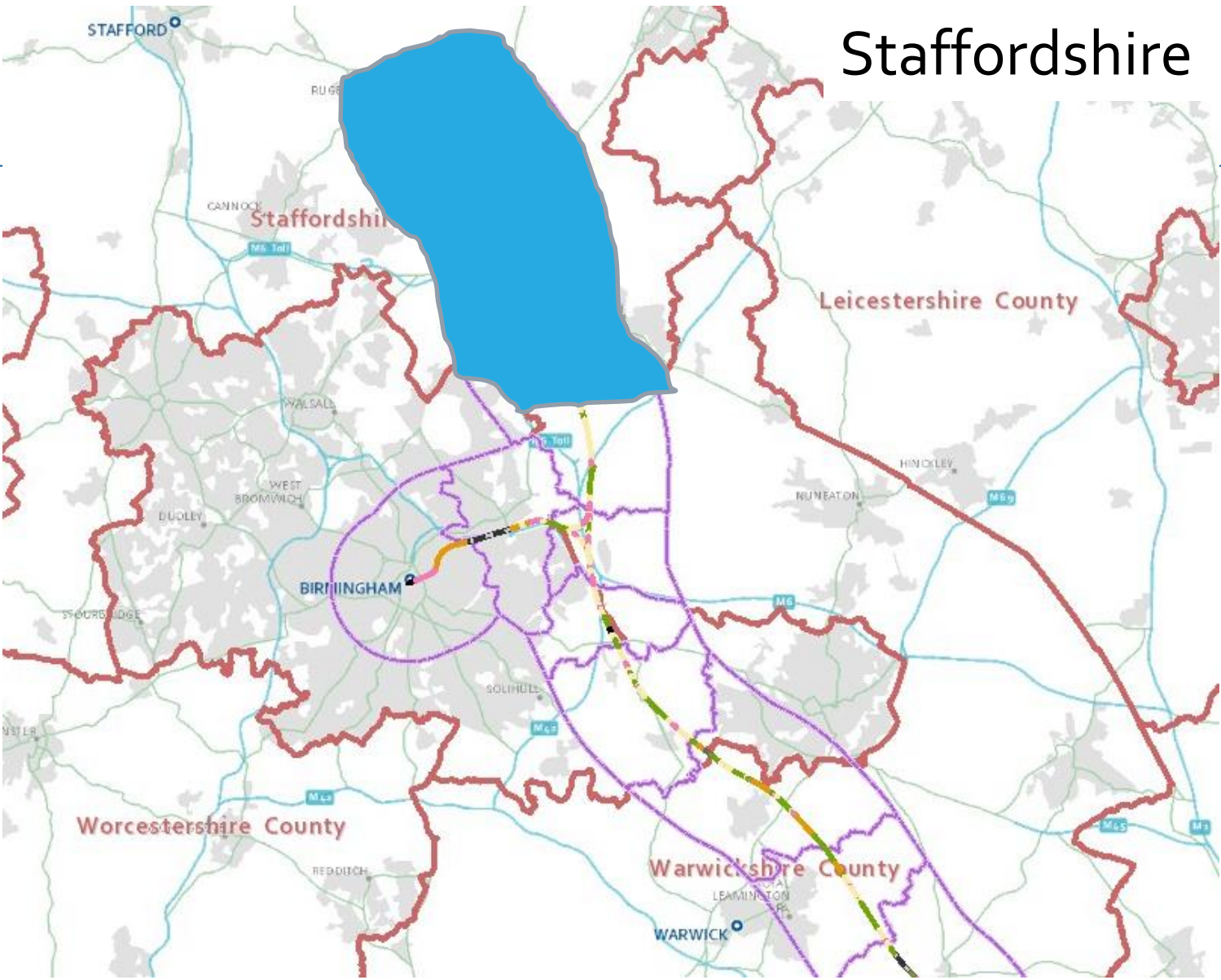
# Birmingham junction



# Birmingham Central & Curzon Street



# Staffordshire





# Traffic Management Update

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# Traffic Management Update

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1. Enabling works framework TMP pre Royal Assent
  - Comments received and incorporated.
  - Final version circulated for internal review.
  - Next step – circulate final version

# Traffic Management Update

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2. Highway works scope pre-Royal Assent
  - No assumed highway works to be undertaken prior to Royal Assent by enabling works contractors
  - Next step – continue to monitor the requirements of the area teams

# Traffic Management Update

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3. Route-wide Traffic Management Plan
  - Version 1 issued
  - Used to prepare MWCC employers requirements
  - Referenced in Select Committee
  - Next step – update as necessary

# Traffic Management Update

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4. Local Traffic Management Plan areas
  - Proposed revised areas south of Birmingham
  - Use CFA areas around Birmingham
  - Next step – commence Enabling Works  
Local TMPs for post-Royal Assent

# Traffic Management Update

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5. Bridge structure/route reviews
  - First round of data gathering complete
  - Next step – review data, gaps and develop next stage of work early 2016

# Traffic Management Update

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6. Highway Condition Surveys
  - Further discussions on developing monitoring methodology with TRL
  - Next step – seek appointment of specialist to write the scope for tendering for independent assessor

# Traffic Management Update

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5. Traffic Signals agreements
  - Continued meetings with local highway authorities (except London)
  - Next step – review information and the extent that there can be model agreements

# Traffic Management Update

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6. Direction Signing to Worksites
  - Internal governance to appoint route-wide contractor
  - Next step – tendering



# Traffic Management Update

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7. Vehicle Booking System
  - Internal governance to appoint route-wide contractor
  - Next step – tendering

# Traffic Management Update

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## 8. Driver and Vehicle Safety

- Motorcycle safety evaluation
- Training modules
- Meetings with stakeholders
- Review of technology
  
- Next step – continued development

# Traffic Management Update

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## 9. Transport Management Team

- Recruitment completed:

Head of Transport Management: Peter Tomlin 1/3/16

Traffic Manager – North: Gary Moreia 29/2/16

Traffic Manager – Central: Chris Casey

Traffic Manager – South: Chris Boylan

Transport Manager – C&E: Neil Cox

Transport Manager – FC: John Pinnock

Transport Strategy Manager: Marny Moruzzi



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# Technical Standard – Roads Response to comments

James Fearnley

# Technical Standard - Roads

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Of the 62 comments received:

31 – no action /  
suggestion not  
incorporated

23 – propose to  
update 'Technical  
Standard – Roads'

6 – comments  
answered in other  
documents

2 – proposed to be  
covered in future  
agenda item

# Technical Standard - Roads

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## Answered in other docs

Consents and approvals strategy – Permanent highway works

Information Paper E14

Technical Standard – Errant vehicle protection

## Future agenda items

Departures

Technical standards relating to structures

# Technical Standard - Roads

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- 2.7.6 Statutory undertakers
  - “Where new or diverted roads are to be provided utilities are to be installed within purpose-built utility tunnels.” (L.B. Camden)
- HS2 response: Following note is proposed

*NOTE – Combined utility conduits for new, realigned or diverted utilities should be considered where appropriate.*

# Technical Standard - Roads

- 4.2.5 Potential treatment options
  - “Add potential disadvantages of traffic light pollution. Increase in traffic noise (need to consider quite road surfacing at certain locations)” (Warwickshire)

Table 2: On-line overbridge or underbridge – HS2 close to existing ground level

Potential advantages	Potential disadvantages
<ul style="list-style-type: none"><li>• Very limited severance or lengthening of journeys for users in the permanent situation</li></ul>	<ul style="list-style-type: none"><li>• Steep approaches can introduce some severance for non-motorised users</li><li>• Some visual impact of the structure and its approaches due to changed vertical alignment in the permanent situation (particularly for an overbridge)</li><li>• Overbridge may have some visual and/or noise impacts due to vehicular traffic using the amended vertical alignment in the permanent situation</li><li>• Potentially difficult tie-ins during construction</li><li>• Underbridge may require pumped drainage and/or lighting</li></ul>



# Technical Standard - Roads

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- 4.2, 4.3 Potential treatment options
  - “The minimum of severance must be ensured during the design of replacement routes keeping replacement routes as close to the existing during construction and back at the original route once construction is complete. Where a replacement route is not on the original alignment evidence must be shown to the highway authority that the new route is SHORTER than the original.” (L.B. Camden)
- HS2 response: Section 4 contains guidance on potential advantages and disadvantages of
  - on-line and off-line crossings
  - overbridges and underbridges
  - individual crossings and combined crossings

# Technical Standard - Roads

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- 4.7 Permanent stopping-up
  - “Where a permanent closure or diversion is required the London Borough of Camden will expect that it will be served with a made special order (HS2 Railway Act) or application and fee for an order under S247 of the Town & Country Planning Act or S113 of the Highways Act. Only once the order is made will the Highway Authority permit works on the associated site to be undertaken.” (L.B. Camden)
- HS2 response:
  - Schedule 4, Part 2 of the hybrid Bill allows the Nominated Undertaker to permanently stop up those highways in Tables 1 and 2.

# Technical Standard - Roads

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- 5.1.4 Cyclists
  - “All routes should provide appropriate dedicated provision for cyclists to be approved by the Highway Authority.” (L.B. Camden)
- HS2 response:
  - ‘Dedicated provision’ may not be appropriate for some types of roads.

## 5.1.4 Issues to consider for cyclists include:

- Will there be dedicated provision for cyclists (e.g. cycle lanes, combined footway/cycleways or other off-carriageway cycle routes)?
- If not, will it be safe for cyclists to use the carriageway (taking account of factors such as carriageway width, traffic levels and speed, visibility around bends, etc.)?
- Will the gradient of the route be suitable for cyclists?

# Technical Standard - Roads

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- Specific comments received:
  - Footway materials and layer depths. E.g. Base: 150mm ST1 concrete, etc. (L.B. Camden)
  - Specific signage (L.B. Camden)
  - Local design guidance and standards (L.B. Camden)
  - Only buff and red tactile paving should be used (L.B. Camden)
  - Minimum K-values (Herts)
- HS2's response:
  - Technical Standards are routewide – not particular to one highway authority
  - Where agreed, local highway authority standard or guidance can be incorporated under **Section 7** of the Technical Standard.

# Technical Standard - Roads

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- Urban and rural road design criteria
  - 60kph alignment should be as per DMRB not MfS2 (Warwickshire)
- HS2 response:
  - MfS2 was prepared using a cross-industry steering group. Given the broad cross-section of industry, research institutions and government bodies that have contributed to creating these documents, it follows that the values contained within the documents can be used with confidence.
  - DMRB TD 9 is appropriate for trunk roads and motorways.
  - Urban streets: Given the urban nature, the criteria contained in MfS2 is considered more appropriate than DMRB.
  - Rural roads: Adoption of the horizontal radii given in MfS2 for 60kph rural roads will assist in achieving the Guiding Principles contained in Section C.2.

Rural roads, and in particular low-speed rural roads, are often **highly valued** by local communities. Many rural roads **have evolved over several hundreds of years** and its design and visual characteristics (such as alignment, cross-section and visibility) **reflect a time before the modern use of the motor vehicle**. Terms such as 'quaint', 'scenic', 'enclosed', 'charming' and 'inviting' are often used to describe them, which **differs from the 'traditional' highway engineering** focus of capacity and engineering standards.

# Technical Standard - Roads

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- C.6.20 Width of unbound paths
  - “1.3m is considered too narrow” (Warwickshire)
- HS2 response:
  - See existing text (below)
- ◀ C.6.18 Where provided, separate paths for non-motorised users should have a desirable minimum width of 2.0 metres if intended for pedestrians only or 3.0 metres when shared with cyclists and/or equestrians.
- C.6.19 The absolute minimum width for paths shall be 1.3m for pedestrians only, or 2.0 metres where shared with cyclists and/or equestrians.
- Bridge verge widths should be 3m where there is equestrian use to avoid the risk of ‘horse flight’ (Warwickshire)

# Technical Standard - Roads

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- C.8.3 Lighting
  - “... required to be lit in accordance with BS5489 LED Lamp source fully Telensa enabled manufactured by Philips” (L.B. Camden)
- HS2 response:
  - HS2, like all public sector projects, has to comply with European procurement rules and therefore cannot specify individual products



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# Technical Standard – Public rights of way Response to comments

James Fearnley

# Technical Standard - Public Rights of Way

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Of the 41 comments received:

22 – no action /  
suggestion not  
incorporated

15 – propose to  
update 'Technical  
Standard – Public  
rights of way'

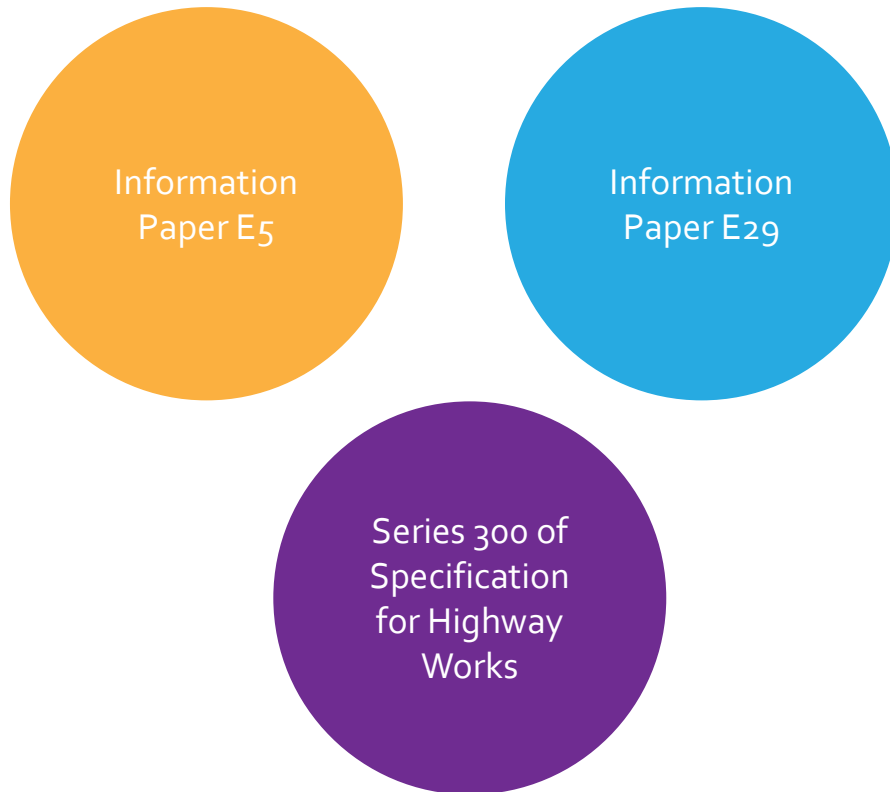
3 – comments  
answered in other  
documents

1 – proposed to be  
covered in future  
agenda item

# Technical Standard - Public Rights of Way

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## Answered in other docs



## Future agenda items



# Technical Standard – Public Rights of Way

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- 2.5.10 'Dead end' public rights of way
  - “As well as routes appearing to be dead ends, there are also instances of routes changing status along its entire length - the status needs to be clarified with the Local Authority.” (Warwickshire)
- HS2 response: The following requirement is proposed

## Public right of way whose status changes along the route

2.5.11 There may be instances where the status of a public right of way changes along the length of the route without apparent reason. Where encountered, clarification shall be sought from the surveying authority.

# Technical Standard – Public Rights of Way

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- 4.7 Provision for future development
  - “...betterment as opposed to simple mitigation, can be secured, such as new bridleways and footpaths to create circular walks or routes to work, school, shops, etc...” (general comment, Bucks)
  - “Local Authorities will look for opportunity to ‘finish off’ route by connecting to the nearest highway... to eliminate the dead end”. (2.5.8, Herts)
- HS2 Response:
  - It is not within HS2’s scope to provide betterment, rather to mitigate the impacts of the scheme.
  - Important that HS2 and highway authorities work together to achieve good outcomes for the local community
  - HS2 is governed by the limits in the hybrid Bill, Assurances and the Environmental Minimum Requirements.

# Technical Standard – Public Rights of Way

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- 4.7 Provision for future development
  - “Future proofing – this needs stronger positive inducement” (Herts)
- HS2 response:
  - For planned future developments or aspirations, Technical Standard already states that consideration should be given to ensuring that the design does not preclude plans (where reasonably practicable)
  - Requires specific authorisation through HS2 Ltd’s governance procedures.

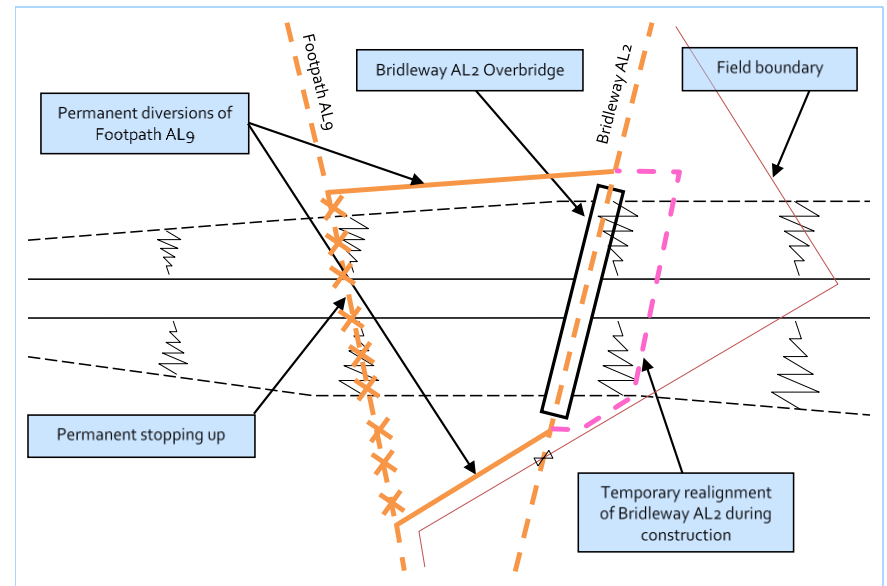
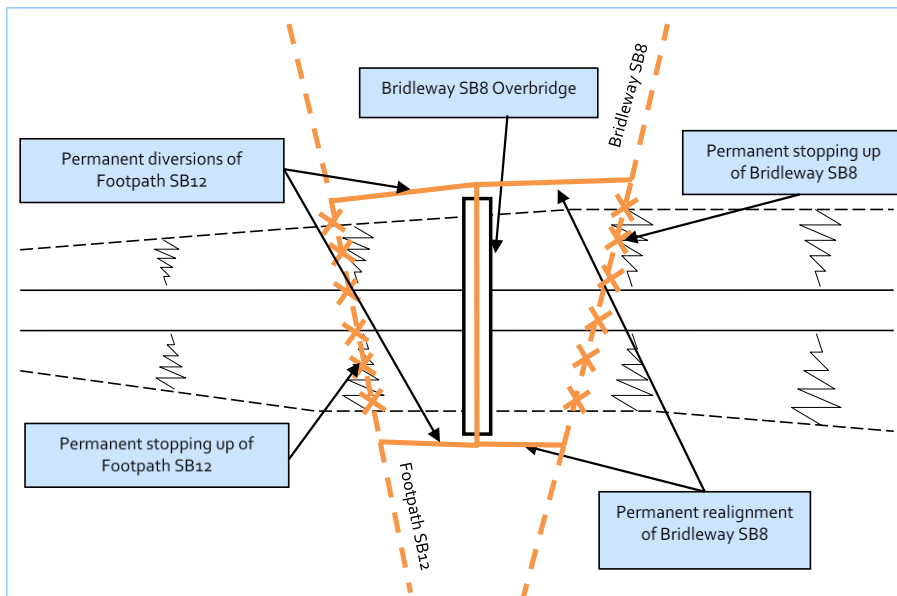
# Technical Standard – Public Rights of Way

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- 4.9.2 Temporary impacts during construction
  - “Does this mean that TTROs will not be used at all, even when the path will be re-instated over a tunnel?” (Northants)
- HS2 response:
  - Schedule 4 Part 2 relates to interference with highways, which means TTROs for PRow is unlikely
  - Temporary interference relevant for all PRow, not just those at tunnels

# Technical Standard – Public Rights of Way

- 5 Alignments and crossings
  - 'Break' in PRow, needing renumbering (Northamptonshire)





# Technical Standard – Public Rights of Way

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- 6 Legal width
  - “...all replacement paths are a minimum of 4 metres wide and ...where existing paths are wider than 4 metres the existing width is the minimum” (Camden)
  - HS2 response:
    - ▶ Minimum width to considered on a case-by-case basis.
    - ▶ Technical Standards routewide, not by authority
    - ▶ Principles shown below relate:
      - (ii) Therefore, as a general rule, the starting point for design should be the existing engineering parameters when a public right of way is diverted or reinstated.
      - (iii) For new routes, the requirements should be based on other similar public rights of way of the same status in the area.

# Technical Standard – Public Rights of Way

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- Section 6.1.3 – 6.1.8 – Legal width
  - “...there are routes which have Legal Orders on them which contain widths. HS2 should check with the authority...” (Staffs & Warwickshire)
  - “...The actual width in use may be wider than the minimum and this should be taken into consideration...” (Warwickshire)
  - “Reference should be made to a Local Authority’s Rights of Way Improvement Plan...”(Warwickshire)
- HS2 response: Cl 6.1.4 now shown in black box

6.1.4 Appropriate legal widths for each type of public right of way shall be discussed with the highway authority, with any variances to be considered on a case-by-case basis to take account of local constraints and landscape character. However, the absolute minimum requirements are given below.

# Technical Standard – Public Rights of Way

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- 7.12 Lighting
  - “Sometimes minimal lighting can be very effective when showing a “clear tunnel” of visibility along a route i.e. one at each end.” (Herts)
- HS2 response:
  - For discussion.
  - Crime Prevention Through Environmental Design considerations covered in Section 4.4.

# Technical Standard – Public Rights of Way

- 7.3.3 and 7.3.5 Gradient
  - “These appear contradictory to the statements preceding them. Care should be taken to ensure that these are not used as the default position. Regard should be given to DDA compliance: it should be borne in mind that users of wheelchairs also use bridleways, restricted byways and byways and consideration should be given to the gradients in these circumstances...” (Warwickshire)
- HS2 response:
  - Guidance regarding people with reduced mobility in Section 4.1 and 4.2

## Footpaths

7.3.2 Footpaths preferably should not exceed 1:20, unless steeper gradients are already a feature of the route. An increase in gradient to 1:15 may be appropriate in situations where the footpath alignment is constrained or to reduce environmental impacts.

7.3.3 Footpaths shall not be steeper than 1:12 unless gradients steeper than this are already a feature of the route, in which case the gradient shall not exceed the existing maximum prevailing gradient.

## Bridleways, restricted byways and byways open to all traffic

7.3.4 Bridleways, restricted byways and byways open to all traffic preferably should not exceed 3%, unless steeper gradients are already a feature of the route.

7.3.5 Bridleways, restricted byways and byways open to all traffic shall not be steeper than 5% (100 metres maximum) or 7% (50 metres maximum) unless gradients steeper than this are already a feature of the route, in which case the gradient shall not exceed the existing maximum prevailing gradient.

# Technical Standard – Public Rights of Way

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- 7.3.7 Steps and ramps
  - “Steps - only in the most exceptional of circumstances. See Network Rail Standards: Ramps – 1st; Steps- last resort.” (Herts)
- HS2 response: new requirement inserted

7.3.8 Steps shall only be provided where there are reasonable alternatives available for people with reduced mobility (e.g. nearby ramps).

# Technical Standard – Public Rights of Way

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- 7.7.3 Gates
  - “No mention is made of extended hierarchy or BS 5709 or HA 1980 S66 safety gates.” (Herts)
- HS2 response:
  - Extended hierarchy –please discuss.
  - BS5709 – covered in SHW Series 300
  - Highways Act S66 – does not appear to further assist Designer as project is under hybrid Bill

# Highways Maintenance Agreement

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- Held bi-lateral on 30<sup>th</sup> November with WCC and LBC
- Number of changes accepted
- Sent to WCC for review
- V13 circulated to sub-group.

# Highways Maintenance Agreement

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## Next steps

- Minor changes to make to create V14 (expand on descriptive text in Schedules), remove final comments and highlight areas of disagreement.
- HS2 to consider Demarcation line wording and examples.
- Main area of remaining concern is the unlimited liability on authorities.






# Forward Plan


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# Planning Forum Document Route Map – Dec 2015

Title	Engagement	1 <sup>st</sup> Draft	2 <sup>nd</sup> Draft	3 <sup>rd</sup> Draft	4 <sup>th</sup> Draft	Final
<b>Environmental Minimum Requirements</b>						
<b>General principles</b>	NEF, Planning Forum	Autumn 2013	Nov 2013	May 2015	End of HoC	Royal Assent
<b>Environmental Memorandum</b>	NEF, Planning Forum	Autumn 2013	Nov 2013	May 2015	End of HoC	Royal Assent
<b>Planning Memorandum</b>	Planning Forum	Sept 2013	Nov 2013	April 2015	End of HoC	End of HoL Select Committee
<b>Heritage Memorandum</b>	EH and Planning Forum	Autumn 2013	Nov 2013	April 2015	End of HoC	Royal Assent
<b>CoCP</b>	NEF, Planning Forum	Autumn 2012/ May 2013	Bill deposit	July 2015	End of HoC	Royal Assent
<b>U&amp;As register</b>	TBC	During parliamentary process				Royal Assent
<b>Other</b>						
<b>Planning Regime (Principles)</b>	Planning Forum	April 2013	Sch 16 of the Bill subject to petitions and Select Committee. Discussion on common issues – Planning Forum			Royal Assent
<b>Statutory Guidance</b>	Planning Forum	April 2013	October 2015		End of HoC	Post Royal Assent
<b>Construction arrangements class approval</b>	Planning Forum	July 2014	July 2015		End of HoC	Post Royal Assent
<b>Pre-submission funding</b>	Planning Forum	Agreement in principle -April 2014	Discussion on funding and mechanisms - Planning Forum			End of HoL Select Committee
<b>Fee Regulation</b>	TBC	TBC				Post Royal Assent*

\*This does not preclude earlier discussion on additional funding, eg during the Bill process

 Action with LPAs

 Action with HS2/DfT

# Forward Programme – Dec 2015

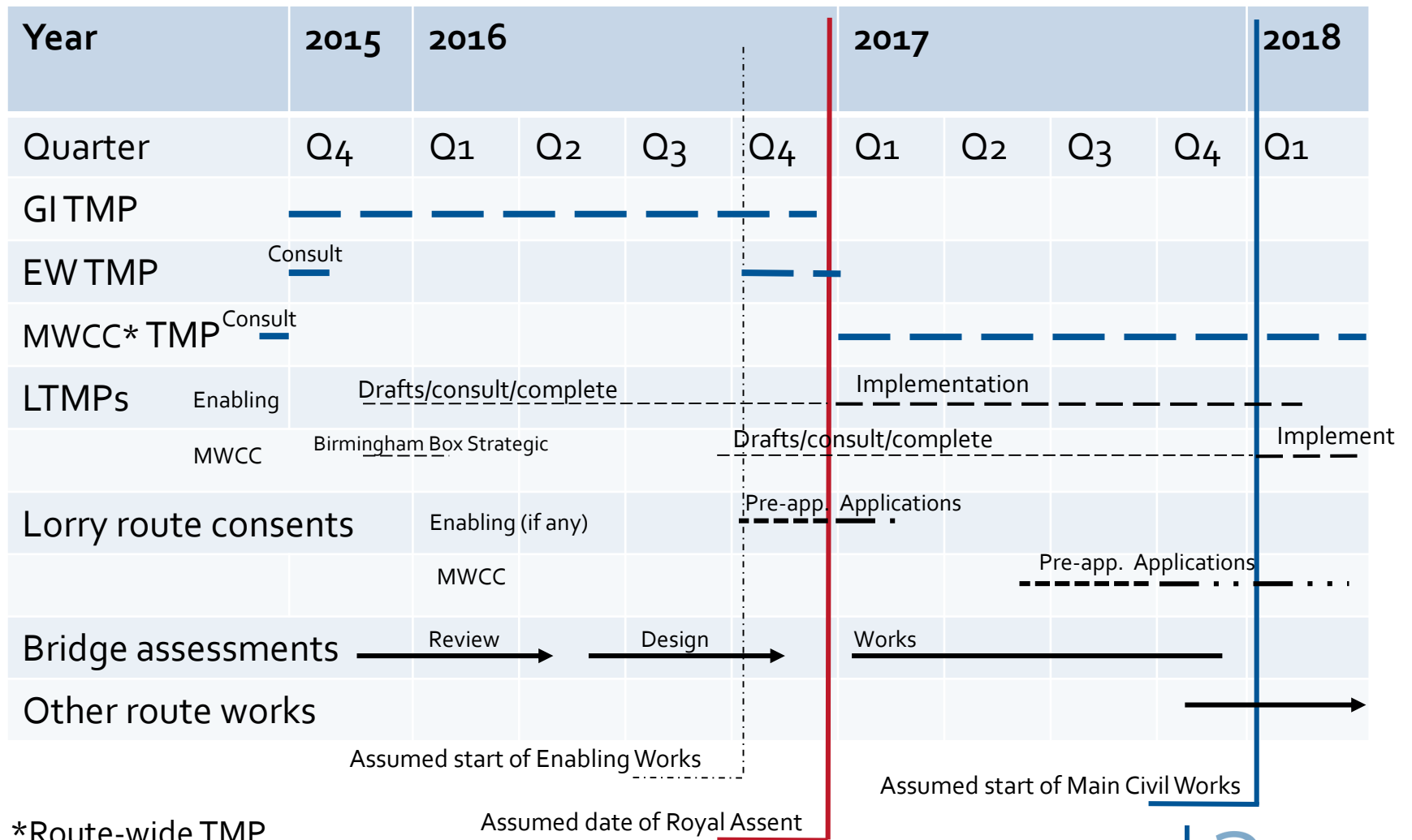
2015/16	HS2 Phase One Planning Forum
	<b>9<sup>th</sup> / 10<sup>th</sup></b>
<b>Dec</b>	<ul style="list-style-type: none"> <li>• LPA feedback on Schedule 16 Statutory Guidance 2<sup>nd</sup> Draft</li> <li>• HS2 Ltd/DfT approach to community engagement in design development</li> <li>• Lead local authority feedback on petition negotiations</li> </ul>
	<b>27<sup>th</sup> / 28<sup>th</sup> TBC</b>
<b>January</b>	<ul style="list-style-type: none"> <li>• Code of Construction Practice</li> <li>• Planning Forum Note – Standard Conditions</li> <li>• Design approaches – stations</li> </ul>
	<b>TBC</b>
<b>March</b>	<ul style="list-style-type: none"> <li>• Construction programme</li> <li>• Planning Forum Note – Content of Sch. 16 submission</li> <li>• Design approaches – Headhouses and ventshafts</li> </ul>
	<b>TBC</b>
<b>May</b>	<ul style="list-style-type: none"> <li>• Planning Forum Notes</li> <li>• Design approaches – Bridges</li> <li>• Fee Regs and Appeal Regs</li> </ul>
	<b>TBC</b>
<b>July</b>	<ul style="list-style-type: none"> <li>• Construction programme</li> <li>• Planning Forum Notes</li> <li>• Design approaches – Depots</li> </ul>

# Forward Programme – Dec 2015

Updated highways tracker to be provided in New Year

2015	Subgroup: Environmental Health	Subgroup: Highways	Subgroup: Heritage	Subgroup: Flood Risk and Drainage
Dec		<b>16<sup>th</sup> Euston</b> <ul style="list-style-type: none"> <li>• Technical Standards feedback Pt1</li> <li>• Traffic Management Updates</li> <li>• LTMP, RTMP, Enabling Works TMP</li> </ul>	<b>10<sup>th</sup> Birmingham</b> <ul style="list-style-type: none"> <li>• HERDS Update</li> <li>• External speaker</li> <li>• Project updates</li> </ul>	
Jan 16	<b>22<sup>nd</sup> London</b> <ul style="list-style-type: none"> <li>• Agenda TBC</li> </ul>			<b>TBC Birmingham</b> <ul style="list-style-type: none"> <li>• Consents workshop</li> </ul>
Feb 16		<b>2<sup>nd</sup> Warwick</b> <ul style="list-style-type: none"> <li>• Technical standards feedback Pt2</li> <li>• Consents and approvals</li> <li>• Signals works agreements</li> <li>• Highways maintenance agreement</li> <li>• Local authority funded transport</li> </ul>		<b>TBC</b> <ul style="list-style-type: none"> <li>• Feedback on consents workshop</li> <li>• Other technical standards</li> </ul>
Mar 16		<b>16<sup>th</sup> Euston</b> <ul style="list-style-type: none"> <li>• Schedule 16 – lorry route approvals</li> <li>• Technical Standards Bridges</li> <li>• Highways Maintenance Agreement</li> <li>• Structures and asset protection</li> </ul>	<b>TBC</b> <ul style="list-style-type: none"> <li>• Schedule 16 – briefing</li> <li>• HERD's update</li> <li>• Select committee update</li> <li>• Enabling works contract ITT</li> </ul>	
Apr 16				
May	TBC	<b>4<sup>th</sup> Warwick TBC</b> <ul style="list-style-type: none"> <li>• Lorry route consents – work plan</li> <li>• Specification for Highway Works</li> <li>• LTMP's for enabling works</li> <li>• Methodology for condition surveys</li> <li>• Winter maintenance</li> </ul>		

# Draft Traffic management programme



# HS2 Indicative Programme (Dec 2015)

ACTIVITY	2013				2014				2015				2016				2017				2018	2019-2026
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>Phase One</b>																						
<b>Bill programme</b>																						
Hybrid Bill preparation																						
Bill submission to Parliament																						
Formal ES publication																						
Hybrid Bill Parliamentary process																						
Royal Assent																						
<b>Documents</b>																						
EMR general principles																						
Planning Memorandum																						
Environment Memorandum																						
Heritage Memorandum																						
Code of Construction Practice																						
Undertakings & Assurance register																						
Statutory Guidance																						
Con. arrangements class approval																						
Fee regulations																						
<b>Delivery</b>																						
NU established																						
Procurement																						
Design Development																						
Planning submissions																						
<b>Construction</b>																						

**NB: Subject to change. Delivery dates dependent on Royal Assent**