

HS2 Phase 2a Additional Provision 2 SCC Consultation Response



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This is a response to HS2 Phase 2a Consultation on Additional Provision 2, prepared jointly by Staffordshire County Council, Lichfield District Council, Stafford Borough Council and East Staffordshire Borough Council.

Paragraph	Comments
	General
Traffic and Transport General	The authorities have concerns around the level of car parking at several compounds along the line of route. These concerns and the authorities' views on sustainable travel requirements for these sites are not discussed in detail here. However, it is expected by the authorities that detailed local traffic management will be dealt with comprehensively in the Local Traffic Management Plans for each compound, which will be discussed with the County Council along with other relevant stakeholders.
PRoW General	All temporary and permanent alternative routes must be open prior to the closure of the legal lines.
	As stated in previous responses, non-motorised users should not be diverted on to the vehicular highway network without appropriate mitigation, during construction. This is not a suitable alternative and presents safety concerns for pedestrians, horse riders and cyclists (specific examples are provided below).
	All new path furniture must conform to the British Standard for Gaps, Gates and Stiles (currently BS5709:2018); British Horse Society (BHS) advice and the least restrictive principle (Equality Act 2010).
	Public Footpaths should be designed to be a minimum of 3 metres wide and Public Bridleways should be designed to be a minimum of 4 metres wide.
	Standards for overbridges carrying bridleways and rural lanes should be in accordance with the Design Manual for Roads and Bridges (DMRB) and BHS standards.
	Headroom in underpasses should be in accordance with DMRB and BHS standards. Underpasses should be designed with drainage systems in place and surfaced accordingly. HS2 Ltd will be responsible for the underpasses and their surface post-construction. Some may also need to be lit, where appropriate (determined by a risk assessment).
	Footways should be provided on bridges, underpasses and highway verges where they are shared with vehicles. A verge for equestrians or a shared use footway/cycleway will be required in certain locations.
	Case by case specification for path surfaces to be agreed with the Highways Authority. There is an expectation that some non-sealed paths will be built with compacted stone and to MOT specification. This applies during the construction phase and on completion of the scheme.
	Schedule for path signage to be agreed with the Highways Authority, considering location, design and destination signage where appropriate.
	Any new fencing erected alongside the PRoW network must not use barbed wire, razor wire or electric fencing, and must not create a tunnelling effect for path users. HS2 Ltd and affected landowners should note that the Highways Authority is not responsible for maintaining fencing either during or post-construction.

	Each diversion or new crossing of the line must be designed according to Equality Act standards and consideration must be given to ramps to improve accessibility where appropriate.
	The Highways Authority requires sight of all draft Orders, Plans and Schedules to ensure they accurately reflect the Definitive Map and Statement. HS2 Ltd need to ensure that where paths are split because of the line, their numbering may need to change. Ideally this needs to be reflected in the Hybrid Bill so that the Definitive Map and Statement can be amended.
	HS2 Ltd also need to recognise that paths must be shown very clearly in large scale on the correct alignments. This will ensure no ambiguity with landowners regarding the alignment of a right of way or its status.
	Construction traffic will, in some locations, use the public rights of way network. Where PRoW are kept open, signage must accurately reflect that the public have the legal right and construction traffic must give way.
	In places where construction traffic has used the PRoW network the Highways Authority expect HS2 Ltd to ensure all path surfaces are fully repaired and improved before routes reopen. The original character of some of these routes, particularly those along hedge lined tracks, needs to be retained as far as possible.
	HS2 Ltd will need to ensure that planting schemes, new hedgerows, wetland areas, etc. do not impact on the PRoW network. Appropriate natural screening should be in place alongside the PRoW network although this is addressed elsewhere in this response. Similarly, material stockpiles during construction should not be allowed to obstruct rights of way unless clear, formal diversions are in place.
	Where comments have been submitted at the ES stage about routes not subsequently affected by AP2 those comments remain applicable and have not been repeated.
Flood Risk General	Where concerns or potential issues have been raised, it is expected by the authorities that this will be discussed with the Lead Local Flood Authority (or Environment Agency for watercourses for which they are responsible) at the Flood Risk Subgroup to the Planning Forum or appropriate bilateral meeting.
Air Quality General	<p>There are predicted to be significant impacts for Stafford during construction. The predicted impacts are new: the changes in the background air quality monitoring model used to gauge future traffic pollution have increased by 30% since the last modelling exercise in 2016.</p> <p>This means that although the Stafford Borough Council's on-site monitoring has not shown that the air quality standards have been breached at these locations for the past 10 years, the new models (which are cautious) indicate future failures.</p> <p>The HS2 contribution to the increased air pollution at the M6 motorway is mainly during the construction phase (laden lorries). There is little impact on the M6 during operation. It is noted that HS2 Ltd are carrying out additional monitoring at the indicated sites to refine their models, but live data will need to be collected for a minimum of one year.</p>

Landscape General	The authorities may wish to provide more detailed landscape comments at a later date as this resource is not currently available.
Non-Technical Summary	
2.2	<p>A review of the earthworks and movement of materials has resulted in changes across the whole route, which include identifying:</p> <ul style="list-style-type: none"> • 17 sites for the local placement of surplus excavated material on land already required for construction; • changes to assumed borrow pit depths based on additional historical information relating to likely ground conditions; • changes to the design of several borrow pits relating to the recharge of groundwater; and • the reduction in the area of borrow pits to allow for utility works. <p>In addition, hydrogeological models have been developed for the relevant borrow pits. The detail of these changes relating to local placement of excavated materials and borrow pits will be subject of schemes for approval by the County Council, including restoration. Effective information provision and early pre-application engagement during the consents and approvals process will be required.</p>
3.2 Table 1	Pipe Ridware Compound will see an increase of 40 HGV movements per day albeit reduced occupation of three months compared to SES1. Further detail is required as regards the increased impact.
4.2 Table 3	Brancote South Compound will see an increase of 70 HGV movements per day (albeit over nine months rather than the SES1 assumption of four years). Further detail is required as regards the increased impact.
4.4	Yarlet Lane features a left in/left out restriction. Further details are required on how this will be enforced.
5.2 Table 5	Swynnerton Embankment Compound will see an increase of 78 HGV movements per day compared to SES1. Further detail is required as regards the increased impact.
6.2 Table 7	Whitmore Heath South Compound will see an increase of 142 HGV movements per day compared to SES1 and Madeley North Compound will see an increase of 62 HGV movements per day compared to SES1. Further detail is required as regards the increased impact.
9.2	It is noted that Shaw Lane is now proposed to be closed for two and a half years as opposed to one. Further discussion on mitigation and (how this length of time can be reduced) with the Highways Authority is required.
9.5	The Highways Authority requires further discussion on mitigation for the major adverse significant effect for non-motorised users of Wood End Lane, between the A38 Rykneld Street and the A515 Lichfield Road.
10.5	The Highways Authority requires further discussion on mitigation for the major adverse effect on the A34 Stone Road between the A513 Beaconside and Whitgreave Lane.
Volume 1: Introduction and Methodology	

3.2.2	Traction power supply equipment often requires the movement of very large/heavy loads on the highway network. Early consultation with the Highways Authority is required in order to minimise impact on the network.
Volume 2: Community Area Reports and Maps Community Area report CA1: Fradley to Colton	
Ecology General	<p>It is apparent that limited ecological surveys have been conducted across the proposed additional provision and amendment areas.</p> <p>The ecological information provided by HS2 Ltd at this time is incomplete, with several areas along the proposed route having only partial protected/priority species and habitat data. HS2 Ltd have not applied best practice and worked to the mitigation hierarchy as the authorities would expect. In the absence of such information, HS2 Ltd are proposing mitigation without having a full understanding of what their impact.</p> <p>In these areas of the project where there is currently a dearth of ecological understanding, HS2 Ltd has adopted a 'worst case scenario approach' (however it remains unclear how they have reach the determination of what represents an ecological 'worst case'). The worst-case scenario approach is appropriate for impact assessment but not for the approach to avoidance, minimisation and mitigation, as it does not meet the 2017 EIA Regulations requirement to demonstrate reduction and avoidance of impacts. Where important features e.g. veteran trees and important hedgerows are outside the construction footprint but could potentially be affected by construction route widening, clear measures should be stated to protect these. It is apparent that there are further opportunities for avoidance and reduction of ecological impact and that these have not been considered.</p> <p>It is recognised that HS2 Ltd are assessing biodiversity impact using their own bespoke quantitative assessment metric and that their proposed target of 'no-net-loss' to biodiversity value is to only be achieved at a route wide level.</p> <p>However, it is to be noted that based upon the information supplied in the Phase 2a SES, Lichfield District is likely to suffer a notable net-loss to its biodiversity value (i.e. net-habitat value) should the project proceed as stated.</p> <p>Even in situations where the ES details compensatory habitat creation to account for losses of notable habitat (UK BAP habitats) it is apparent that the compensation is likely to result in notable net-loss. This is due to compensatory habitat within the LDC district only being described in terms of size (ha). This means the loss of a 10ha priority habitat will (in some cases but not all) be compensated for via the creation of 10ha of same habitat type elsewhere within the boundary of the Hybrid Bill. This is presented as a no-net-loss scenario, but the authorities consider it to represent a notable net-loss. This is because of two factors not recognised within the ES:</p>

	<ul style="list-style-type: none"> • Failure of the ES to recognise any temporal factor in the creation of compensatory habitat (i.e. when creating woodland, a minimum of 20 years should be considered necessary to allow for establishment, and to reach a biodiversity value similar to the established woodland that has been lost and compensated for). • Regulation 63 (1) of the Conservation of Habitats and Species Regulations 2017 requires that a competent authority (such as an LPA) must undertake and complete a Habitat Regulations Assessment (HRA), including Appropriate Assessment (AA), where it is considered that approving an application, plan or project which will, or may potentially, result in a negative impact upon the reasons of designation of a Special Area of Conservation (SAC). <p>Following the recent CJEU ruling (case C 323/17, April 12, 2018), LPAs are unable to take into account any avoidance and mitigation measures as part of the application at the first stage of HRA (screening). As such, applications deemed likely or potentially to significantly impact upon the reasons for designation of the SAC (sans mitigation) must now progress to Appropriate Assessment.</p> <p>As such the Phase 2a ES must consider the potential significant impact of the project proposed on all European sites (SCA, SPA and Ramsar) where such impacts are considered likely, or else cannot be ruled out. HS2 Ltd must undertake suitable assessment, using the best available scientific method and/or data, to determine both the scale of likely impact to the European Site/s and recommend mitigation that is: proportional to the development; logical; and achievable.</p> <p>This requirement is placed upon HS2 Ltd by Regulation 63 part (2) of the Conservation of Habitats and Species Regulations 2017.</p> <p>Further information is requested with respect to hedgerow and woodland loss at the Handsacre Link, and hedgerow loss at Wood End Lane and Bishton Lane. Further information is also requested with respect to Tomhay Wood Ancient Scheduled Natural Woodland.</p> <p>Construction of two pylon lines will require removal of vegetation along Newlands Lane to enable vehicular access to the crane pads. Lichfield District Council were given assurances regarding the retention and safeguarding of Noddy's Oak, a veteran tree alongside Newlands Lane. Since the requirements and design have changed it is necessary to ensure these assurances are communicated effectively to contractors to make certain the veteran oak in question is not affected.</p>
Highways General	The positive reductions in impact from construction traffic and routes are welcomed. Mitigation for increases will be discussed with the Highways Authority. There are several roads/junctions that appear to have an increased adverse impact for non-motorised traffic within SES2: mitigation for this will also need to be discussed.
2.2.24	Three of the four borrow pits in this area can be extracted to greater depths (see table 3). Further ground investigation is considered

	<p>necessary, so the extent of excavations remains unconfirmed. The impact on mineral resources in this area also remains uncertain along with assessing the environmental impacts associated with mineral extraction and then backfilling the voids.</p> <p>HS2 Ltd are advised to discuss proposals for mineral extraction at these borrow pits to assess the balance of benefits in terms sourcing mineral locally and minimising the impact on sensitive properties. Extracting the full depth of mineral would minimise sterilisation but measures should be considered to minimise the effect of backfill in sterilising adjoining mineral resources.</p>
2.2.50	The amendment to the height of the Kings Bromley Viaduct and River Trent Viaduct is noted and the acknowledgement that significant headroom will be maintained for the PRoW that pass beneath. Further reduction in height will be discussed at detailed design stage, as per the assurance received by the authorities.
2.2.71 – 2.2.76	SES2-001-004: The local placement of surplus excavated material to the south of Pipe Ridware embankment is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.99 – 2.2.105	SES2-001-007: Local placement of surplus excavated material to the south-east of Newlands Lane auto-transformer feeder station is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.112 – 2.2.117	SES2-001-008: Local placement of surplus excavated material to the south of Moreton South embankment is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.112 – 2.2.117	SES2-001-008: Local placement of surplus excavated material to the south of Moreton South embankment is noted. Details of placement and reinstatement should be agreed with the County Council.
3.7.24	Further detail is required on whether the assessment on the River Trent includes impact on the lakes created from the former mineral workings of Manor Park Quarry. Please also note previous comments made in relation to 15.4.39 of the Community Area Report CA1: Fradley – Colton.
5.15.11 – 5.15.21	AP2-001-015: National Grid Parkgate substation is proposed over a length of 7.7 km. The works will affect 20 existing and 75 new landowners. The authorities expect the noise impact from this substantial new proposal to be assessed and appropriately controlled during the construction phase.
5.3.11-5.3.22	<p>AP2-001-003: The provision of pipework for the second pipe for groundwater recharge from the Pyford North Embankment to the Trent and Mersey Canal proposed as part of this amendment lies within an area of known archaeological potential. Later prehistoric remains have been identified as cropmarks on aerial photography and confirmed during recent archaeological investigations undertaken on behalf of HS2 (e.g. at Heritage Asset Reference Number FRC021).</p> <p>Although the pipe route and associated access road will be temporary they will result in ground disturbance which could affect any previously unrecorded heritage assets which have the potential to survive within this area. Further assessment and investigation may be required across the additional land required for this pipe route to ensure that appropriate</p>

	archaeological mitigation can be secured in line with the Code of Construction Practice (CoCP) and Heritage Memorandum.
5.25.	States that Wood End Lane would be widened to a minimum width of 6m. The widening will tie in with the Wood End Lane diversion works proposed in the Phase One consented scheme, to the west of Big Lyntus woodland. However, it has been agreed with the County Council that the width of the carriageway should be no less than 7.3m in order to provide safe cycling space and to tie in with the widening proposals authorised by Phase One.
5.4	AP2-001-004: The realignment of the maintenance access route requires additional land outside the original limits of the Phase 2a Bill. Geophysical survey undertaken on behalf of HS2 to the west of Brokendown Wood within the area of additional land required for this amendment identified features of potential archaeological origin (Site CN048 in Phase 1 Environmental Statement Volume 5 CFA 22 Whittington to Handsacre Cultural Heritage Survey Reports (CH-004-022)). It is possible that further previously unrecorded archaeological remains could extend into the area of additional land required. Construction works for the realigned access route and any associated ecological mitigation could impact on any such remains, and further archaeological assessment and investigation may be appropriate to mitigate for this, as set out in the CoCP and the Heritage Memorandum.
5.5.9	<p>AP2-001-005: No reassessment of the environmental effects of this amendment have been included in the Supplementary Environmental Statement 2 (SES2) and Additional Provision 2 Environmental Statement (AP2). The original Phase 2a Environmental Statement (ES) and the SES2 and AP2 Technical Appendices for Cultural Heritage identify circular enclosures of probable Bronze Age date immediately adjacent to the route within the vicinity of the potential additional land required for this amendment (HS2 Heritage Asset Reference Number FRC018) and it is considered possible that further, previously unrecorded remains of similar nature also survive below ground across this area.</p> <p>The original ES Cultural Heritage Impact Assessment (HS2 Document Reference CH-003-001) identified that a portion of Heritage Asset FRC018 would be lost to the construction of the Pyford Embankment and this would be appropriately mitigated as set out in the CoCP and Heritage Memorandum. Should the realignment of utilities here result in more extensive impact on Heritage Asset FRC018 (or any other associated below ground remains within this area) then the proposed archaeological mitigation should also be revised as appropriate.</p>
5.8.10-5.8.21	AP2-001-008: The assessment of the impacts of this amendments for cultural heritage are discussed in relation to the Trent and Mersey Canal Conservation Area only and potential additional impacts on archaeological remains. The original Phase 2 ES and the SES2 and AP2 Technical Appendices for Cultural Heritage identify extensive prehistoric and later remains to the east and west of Shaw Lane (HS2 Heritage Asset References FRC020 and FRC030). It is possible that further remains of archaeological interest could extend into the additional areas of land required for the pipe routes an associated access. Although the provision of these pipe routes is only temporary their construction will involve

	<p>intrusive ground works which could impact upon below ground archaeological remains. Should this be the case appropriate assessment and mitigation should be secured in line with requirements set out in the CoCP and Heritage Memorandum.</p>
5.11	<p>AP2-001-011: Additional land required for the revised alignment of a haul road at Pipe Lane could impact on the remains of a possible Iron Age Square barrow and other below ground features identified in the original Phase 2a ES (HS2 Heritage Asset Reference Number FRC083). The original ES identifies this heritage asset lying outside the land required for construction (HS2 Document Reference: CH-003-001) while the AP2 reports that a significant effect will be added as a result of this amendment, however this is not discussed in SES2 and AP2 (see section 5.11.8) It is recommended that an appropriate level of further assessment and investigation be undertaken to properly assess the impact of the haul road construction on this heritage asset so that an appropriate programme of archaeological mitigation can be put in place (as required by the CoCP and Heritage Memorandum).</p>
5.15.95-5.15.130	<p>AP2-001-015: The SES2 and AP2 do not include reference to any area of historic water meadows north of Blithford Farm. The proposed OHLs cross over the area of water meadow, and as such their construction and any associated ecological mitigation could impact on any surviving associated above or below ground remains. Any impacts should therefore be appropriately mitigated as set out in the CoCP and Heritage Memorandum.</p> <p>The OHL also crosses the River Blithe north of Blithford Farm. This watercourse was not assessed as part of the original route-wide geoarchaeology desk study (HS2 Document Reference: CH-006-000) undertaken as part of the original Phase 2a Environmental Statement. However, the cultural heritage baseline report for SES2 and AP2 recognises that it contains significant deposits of Pleistocene sands and gravels and Holocene alluvium with significant archaeological and paleoenvironmental potential. The construction of the OHLs and the establishment of any associated ecological mitigation could impact on these deposits and therefore works here should be appropriately assessed and mitigated for, as set out in the CoCP and Heritage Memorandum.</p> <p>The course of the OHLs also cross the Ash Brook here (north of Ashbrook Farm). As with the River Blithe this watercourse was also not assessed as part of the route-wide geoarchaeology desk study (HS2 Document Reference: CH-006-000) undertaken as part of the original Phase 2a Environmental Statement. The cultural heritage baseline report for SES2 and AP2 recognises that the River Blithe, which the Ash Brook feeds into, contains significant deposits of Pleistocene sands and gravels and Holocene alluvium with significant archaeological and paleoenvironmental potential. It is possible that the Ashbrook also has the potential to contain deposits of similar interest. The construction of the OHLs and the establishment of any associated ecological mitigation could impact on these deposits and therefore works here should be appropriately</p>

	<p>assessed and mitigated for, as set out in the CoCP and Heritage Memorandum.</p> <p>The proposed OHLs cross the Pur Brook south-east of Parkgate. This watercourse was not assessed as part of the route-wide geoarchaeology desk study undertaken as part of the original Phase 2a Environmental Statement (HS2 Document Reference: CH-006-000). The cultural heritage baseline report for SES2 and AP2 recognises that the River Bliithe, which the Pur Brook feeds into, contains significant deposits of Pleistocene sands and gravels and Holocene alluvium with significant archaeological and paleoenvironmental potential. It is possible that the Pur Brook also has the potential to contain deposits of similar interest. The construction of the OHLs and the establishment of any associated ecological mitigation could impact on these deposits. Therefore, works here should be appropriately assessed and mitigated, as set out in the CoCP and Heritage Memorandum.</p>
5.15.256	Construction of the amendment will therefore give rise to a high magnitude of change on the landscape character of the Bromley Park Plateau Farmland LCA and a new major adverse significant effect. What mitigation is proposed for this?
5.16.13	AP-002-001: The SES2 and AP2 identifies that Pipewood Camp School for Girls (HS2 Heritage Asset Number FRC381) was not assessed by the original ES. The proposed amendment will now result in the total removal of this asset with no mitigation. This asset should be subject to a programme of recording prior to its removal.
7.3.23	The use of Wood End Lane for construction traffic is welcomed. Consideration should be given to ensuring noise impact is minimised as much as possible.
Volume 2: Community Area Reports and Maps Community Area Map Book CA1: Fradley to Colton	
CT-06-128	Further detail is required on the watercourse crossing at G8. The County Council requires confirmation that the river crossing at J8 been adequately modelled alongside the line of route.
CT-05-129	Construction here could affect the full Brook floodplain, and watercourses entering the reservoir could potentially be affected by construction.
CT-05-129 and CT-06-129	The compound here is situated close to the watercourse and could displace flood water. Construction could disrupt the floodplain of Bourne Brook from F10 to G1. The planning application proposed in G9 should also be noted. The County Council requires confirmation that the floodplain of Bourne Brook been adequately modelled alongside the line of route.
CT-06-130B	The County Council requires further details relating to the Handsacre East culvert and relocated balancing pond, and the watercourse crossing at E6.
CT-05-143	The Armitage compound has surface water flow routes running through the site. This should be taken account of during detailed design.
CT-06-143	The watercourse is very close to the modified signal gateway near G4. There is a significant floodplain in this area which could be affected by construction.

CT-05-146	The temporary crane platforms and access are potentially sited within the floodplain. Additionally, the access route crosses the watercourse. Further details are required here.
CT-06-147	Construction access and junction potentially affecting watercourse crossing.
CT-05-148 and CT-06-148	AP2-001-001: 'Change to the Handsacre Junction Connection' shows Footpath No 8(b) Lichfield City and Footpath No 7 Fradley and Streethay (incorrectly shown as Footpath No 44 Curborough and Elmhurst) as being potentially affected and clarification is sought from HS2 Ltd on this point.
CT-05-149 and CT-06-149	AP4-022-001: 'The Revised Diversion of an Electricity Transmission Line' shows Footpath No 10(b) and 13(b) Curborough and Elmhurst and Footpath No 4 Fradley and Streethay as 'within land that is potentially required during construction (Phase 1 and Phase 2a)' and clarification is sought from HS2 Ltd.
CT-05-149	Construction in this area has the potential to affect the watercourse at D4, D5, I4 and J4. It is expected that this will be discussed at the Flood Risk Subgroup to the Planning Forum or bilateral meeting.
CT-05-128 and CT-06-128	It is not clear whether the new shared accommodation and HS2 access track to Ravenshaw Cottage (P75 (5.1.7) will lead to an increase in vehicular traffic along Footpath No 0.392 Kings Bromley and clarification is sought from HS2 Ltd
CT-05-129b - L1 and CT-06-129b - L1	<p>Additional land is highlighted as being potentially required for construction (Phase 1 and Phase 2a) and this has the potential to impact on Public Footpath No 35 Longdon and Bridleway No 15 Curborough and Elmhurst. It is not clear from the plans whether the additional land required, and other associated works will impact on the routes, and clarification is sought from HS2 Ltd</p> <p>AP2-001-001: 'Change to the Handsacre Junction Connection' and AP2-001-002: 'Junction modifications and widening at Wood End Lane' both show Footpath No 17 Kings Bromley as being potentially affected, and clarification is requested.</p>
CT-05-130b and CT-06-130b	<p>The associated CA report (P.78, 5.1.19) states Footpath No 6 Kings Bromley will be closed for six months to facilitate construction of the underpass which will take the route beneath HS2 and the West Coast Main Line (WCML). The map book does not show an alternative, although the report states a lengthy temporary diversion will be installed. A temporary diversion does appear difficult due to the existence of the WCML but HS2 Ltd need to confirm their intentions here. The long-term proposal (P. 75, 5.1.10) to divert the route under the WCML and HS2 via an underpass is welcomed providing that the underpass is appropriately surfaced, and drainage installed to ensure it can be used at all times. The map referred to (CT-06-130a) was not in the Map Book.</p> <p>The new shared HS2 and Network Rail access road from the B5014 to both lines will run along the same route as part of Public Footpath No 6 Kings Bromley (P. 80, 5.1.33). This route must be appropriately surfaced, and signage displayed informing all maintenance vehicles that pedestrians have priority over any private access rights and vehicles must give way to them not the other way around.</p>

CT-05-142 and CT-06-142	AP2-001-001: 'Change to the Handsacre Junction Connection' and land shown as being potentially required for construction (Phase 2a only) could impact on Footpath No 26 Mavesyn Ridware and clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-143 and CT-06-143	AP2-001-001 'Change to the Handsacre Junction Connection' and AP2-001-015 'Grid supply point to National Grid Parkgate substation' could impact on Footpath No 13 Mavesyn Ridware. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-143-R1 and CT-06-143-R1	AP2-001-001: 'Change to the Handsacre Junction Connection' could impact on Footpath No 12 Mavesyn Ridware. Clarification is required regarding the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-144	A temporary access road to install signals and gantries is shown crossing Footpath No 21 Colton. This is not recognised in the Area Report and the potential impact of this road needs to be clarified. This route will need to be appropriately surfaced and signage displayed informing all maintenance vehicles that pedestrians have priority over any private access rights and vehicles must give way to them not the other way around.
CT-05-144 and CT-06-144	AP2-001-001: 'Change to the Handsacre Junction Connection' could impact on Footpath No 21 Colton. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-145 and CT-06-145	AP2-001-001: 'Change to the Handsacre Junction Connection' could impact on Footpath No 70 and 71 Colton. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-146 and CT-06-146	AP2-001-001: 'Change to the Handsacre Junction Connection' could impact on Bridleway No 20 Colwich. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-147 and CT-06-147	AP2-001-001: 'Change to the Handsacre Junction Connection' could impact on Footpath No 6, 38(b), 39(a) and 62 Colwich. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-200	AP2-001-003: Provision of pipework for groundwater recharge may affect watercourse (Pyford Brook).
CT-05-201	Details on the Pyford Brook Viaduct are required in due course.
CT-05-202	AP2-001-008: Provision of pipework for groundwater recharge may affect the watercourse. AP2-001-007: Realignment of utility diversion also potentially may affect the watercourse. There are significant operations potentially in the floodplain.
CT-05-202-L1	Main utility works are crossing watercourse. The A515 Lichfield Rd Underbridge Main Compound is potentially in floodplain. Shaw Lane Transfer Node is likewise potentially within the floodplain.
CT-05-202-L1	Additional land is highlighted as being potentially required for construction (Phase 1 and Phase 2a) and this has the potential to impact on Public

	Footpath No 0.391 Kings Bromley. It is not clear from the plans whether the additional land required, and other associated works will impact on the route and this needs to be clarified.
CT-05-202 and CT-06-202	AP2-001-006: 'Diversion of Common Lane' is described as impacting on the bridleway around Pyford North Embankment (p. 65) yet this is not shown on the Map Book, nor does a bridleway exist on the Definitive Map at this point. It appears that HS2 Ltd Intend to create a new bridleway at this point, and this should be shown in the Map Book. The route will provide a link between Common Lane and the realigned A515, running beneath the Kings Bromley Viaduct where sufficient headroom and manoeuvring space will need to be provided.
CT-05-202-R1	A main utility crosses the watercourse here.
CT-05-202-R1 and CT-06-202-R1	Additional land is highlighted as being potentially required for construction and this has the potential to impact on Public Footpath No 8 and 11 Kings Bromley. It is not clear from the plans whether the additional land required, and other associated works will impact on the routes. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-203 and CT-06-203	HS2 Ltd have confirmed that SES2-001-003 'Lowering of the HS2 route' will not impact on the diverted Footpath No 1 Kings Bromley which will run beneath the viaduct and this is welcomed.
CT-05-204	AP2-001-103: 'Diversion of a utility crossing watercourse' is noted here for discussion with HS2 Ltd.
CT-06-204	Issues raised by SCC about Footpath No 30 Mavesyn Ridware in the ES have not been addressed and the proposed scheme plan still shows this route being obstructed by hedgerow habitat creation. This needs to be addressed prior to the related Schedule 4 consent being submitted.
CT-06-204	Public Footpath No 32 Mavesyn Ridware appears to be obstructed by new hedgerow planting as it approaches Dawson Lane to the north of the viaduct and this needs to be addressed.
CT-06-204	Details of modelling of River Trent and viaduct sizing are required. Further details are required regarding the ways in which the proposed modifications have considered flood risk.
CT-05-206 and CT-06-206	AP2-001-013: 'Provision of a HS2 maintenance access' is shown over land crossed by Public Footpath no 7 Mavesyn Ridware. This route will need to be appropriately surfaced and signage displayed informing all maintenance vehicles that pedestrians have priority over any private access rights and vehicles must give way to them not the other way around. Previous comments submitted in respect of the proposed hedgerow alongside the B5014 still stand.
CT-05-207 and CT-06-207	AP2 has not taken account of the authorities' previous comments regarding Public Footpath No 17 Colton. The proposed temporary and permanent alterations to this route remain a concern and will need to be addressed prior to the submission of any Schedule 4 consent.
CT-05-207 and CT-06-207	AP2-001-015: 'Grid supply point connection to National Grid Parkgate substation' may affect several routes, most of which were outlined in our response to the ES. The temporary diversion of Public Footpath No 19 Colton which was missed off the Construction Phase plan has now been included on the amended plan.

CT-05-206-R1	The northern end of Public Footpath No 17 Colton is shown as 'land potentially required during construction'. It is unclear from the plans whether the additional land required, and other associated works will impact on the routes. Clarification is required regarding the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-207-L1 and CT-06-207-L1	<p>AP2-001-015: 'Grid supply point connection to National Grid Parkgate substation' may affect several routes, most of which were outlined in our response to the ES: Public Bridleway No 7, No 8 and No 33 Colton, Footpath No 4, 5, 10, 11 and 12 Colton.</p> <p>The Main Utility Works and land which may be required both for construction and mitigation planting could impact on a number of these routes. Clarification is required about both the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.</p>
CT-06-207-L1	Overhead power lines crossing watercourse which could therefore be affected by construction.
CT-05-207-L2	Underground drilled cables are shown as crossing River Trent and ordinary watercourse.
CT-05-207-L2 and CT-6-207-L2	<p>AP2-001-015 'Grid supply point connection to National Grid Parkgate substation' may affect a number of routes, most of which were not outlined in our response to the ES: Public Bridleway No 3 Colton, Public Footpath No 10 and 13 Mavesyn Ridware, Public Footpath No 20 and 21 Colton.7, No 8 and No 33 Colton, Footpath No 4, 5, 10, 11 and 12 Colton.</p> <p>The Main Utility Works and land that may be required both for construction and for mitigation planting could impact on a number of these routes. Clarification is required regarding the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.</p>
CT-06-207-R	Mitigation for AP2-001-015 would damage part of the Local Wildlife Site: Hart's Farm (south of). The boundary of the LWS is shown in green below with area of mitigation that overlaps in yellow highlight. The authorities request that this is revisited, and alternative mitigation developed which removes damage to the LWS.
CT-05-207-R1 to R7	Overhead power lines are shown as crossing the watercourse: this could therefore be affected by construction.
CT-05-207-R2 and CT-06-207-R2	AP2-001-015: 'Grid supply point connection to National Grid Parkgate substation' may affect several routes, most of which were not outlined in our response to the ES: Public Footpath No 30 and 49 Abbots Bromley. The Main Utility Works and land that may be required both for construction could impact on these routes. Clarification is required about both the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used. CT-05-207-R2 indicate two temporary diversions, neither of which appear to be onerous.
CT-05-207-R3 and CT-06-207-R3	AP2-001-015: 'Grid supply point connection to National Grid Parkgate substation' may affect several routes, most of which were not outlined in our response to the ES: Public Footpath No 23, 24, 26, 29, 30, 38 and 39 Abbots Bromley. The Main Utility Works and land that may be required

	<p>both for construction and for mitigation planting could impact on a number of these routes. Clarification is required about both the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used. CT-05-207-R3 does show temporary diversions of Footpath No 26, 29, 30, 38 and 39 although the routes that will be temporarily stopped up are not shown in the correct legend on the map. None of the temporary diversions appear onerous.</p> <p>None of these routes are proposed to be permanently diverted but CT-06-207-R3 does show proposed wetland habitat creation across the line of Public Footpath No 26 Abbots Bromley. This is not acceptable because the wetland could impact on walkers' ability to use the route. If the wetland area cannot be relocated, then HS2 Ltd need to provide mitigation measures they will need to put in place.</p> <p>Footpath No 26 and 29 Abbots Bromley were diverted in 2017 and are incorrectly shown in the Map Book. The temporary diversion of these routes may therefore alter as a result. HS2 Ltd will need to contact Rights of Way to discuss further.</p>
<p>CT-05-207-R4 and CT-06-207-R4</p>	<p>AP2-001-015: 'Grid supply point connection to National Grid Parkgate substation' may affect three routes, most of which were not outlined in our response to the ES: Public Footpath No 39, 40 and 44 Abbots Bromley (P292, 5.15.371). The Main Utility Works and land that may be required both for construction could impact on these routes. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.</p> <p>CT-05-207-R4 shows that Footpath No 39 Abbots Bromley will be diverted for 350m further south to its junction with Glass Lane. The timescale for the temporary diversion needs to be clarified as it will lead to potential pedestrian and vehicular conflict on Glass Lane for walkers wishing to access Footpath No 41 Abbots Bromley; a route currently opposite the eastern end of Footpath No 39.</p>
<p>CT-05-207-R5 and CT-06-207-R5</p>	<p>AP2-001-015: 'Grid supply point connection to National Grid Parkgate substation' may affect Public Footpath No 46 Abbots Bromley. The Main Utility Works and land that may be required for construction could impact on this route. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. CT-05-207-R5 shows that Footpath No 46 Abbots Bromley will be diverted to the south to its junction with Abbots Bromley Road. The temporary diversion does not appear onerous, but the timescale needs to be clarified.</p>
<p>CT-05-207-R6 and CT-06-207-R6</p>	<p>AP2-001-015 'Grid supply point connection to National Grid Parkgate substation' may affect Public Bridleway No 76 Abbots Bromley. The Main Utility Works and land that may be required for construction could impact on this route. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.</p>
<p>CT-05-207-R7 and</p>	<p>AP2-001-015 'Grid supply point connection to National Grid Parkgate substation' may affect Public Footpath No 10 Hoar Cross. The Main Utility</p>

CT-06-207-R7	Works and land that may be required for construction could impact on this route. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-208	Colton footpath diversion 36 could potentially affect the watercourse.
CT-05-208 and CT-06-208	Comments made in the ES still apply to Public Footpath No 34 and 36 Colton (incorrectly referred to as a Bridleway) and points raised previously have not been addressed.
CT-06-209	Further details are required for Hanley (south) culvert and Hanley (north) drop invert culvert. Detail of Moreton Brook modelling and Viaduct design required.
CT-05-303	AP2-001-100: Main utility crossing watercourse.
CT-06-308	Details of Finners Culvert crossing required.
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Highways General	Some of the changes from SES1 are positive reductions in impact from construction traffic and routes, and these are welcomed. There are also several roads/junctions that appear to have slightly reduced impact on non-motorised traffic within SES2.
Ecology General	<p>No mention is made in the ES of the potential to impact upon Cannock Chase SAC or Pasturefields Saltmarsh SAC via increased deposition of NOx. The negative impact of increased atmospheric deposition on NOx must be considered in the demolition (where occurring), construction and operational phases of the proposed project.</p> <p>Pasturefields Saltmarsh SAC is designated on its 'inland saltmarsh habitat' (please see Joint Nature Conservation Committee UK SAC listings http://jncc.defra.gov.uk/page-1458) which is considered by Natural England as being sensitive to increased NOx deposition (please see ESCO: Supplementary advice on conserving and restoring site features; Pasturefields Salt Marsh SAC. (http://publications.naturalengland.org.uk/publication/6292877810335744).</p> <p>Whilst Pasturefields Salt Marsh SAC lies close to the proposed route of HS2 phase 2a, it also lies less than 75m from the A51. The A51 is likely to see increased traffic impact through the demolition, construction and operational phase of this development. Consideration should have been given to the scale of the likely traffic increase along the section of the A51 which runs adjacent to the site. If the likely scale of increased Annual Average Daily Traffic (AADT) is sufficient to meet or exceed the thresholds for likely negative impact (as set in the Wealden PINS determination: Case No Co/3943/2016 and further clarified in the Natural England's: Approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations, June 2018) then further assessment, sufficient to determine the scale of this impact, should have been undertaken by HS2 Ltd. Based upon this information proportional mitigation should have been detailed with the ES to allow the statutory process of HRA to be completed in an open, clear and understandable manner.</p>

	<p>The methodology of assessment detailed in paragraph 4.7 should have also been used in the assessment of NOx impacts on Cannock Chase SAC which similarly has a number of major traffic routes which run immediately adjacent it (i.e. A460, A34 and A513).</p> <p>The ES fail to make any reference to the Site Improvement Plan for Cannock Chase SAC (17/10/2014) (http://publications.naturalengland.org.uk/publication/4957799888977920) or the ESCO: Supplementary advice on conserving and restoring site features; Pasturefields Salt Marsh SAC (link provided in para 4.6.). This information should have then been considered in tandem with the critical N load/level (Kg N ha⁻¹ year⁻¹) of each habitat type (please refer to the Air Pollution Information System (APIS) website (http://www.apis.ac.uk/)). In line with advice previously received by the Cannock Chase SAC Team, for Pasturefields Salt Marsh (which represents a unique habitat), the critical N load/level for coastal salt marsh should be considered most applicable in absence of more habitat specific information.</p> <p>Oversight of the potential impact on the reasons for designation on two European sites are a significant ecological issue.</p>
2.2.24 – 2.2.29	The extension of a noise fence barrier from Moreton North embankment to Moreton South embankment (SES2-002-001) by 1 km is welcomed in providing additional noise mitigation to nearby receptors. The appearance of the barrier should be sympathetic to the character of the area.
2.2.32 – 2.2.36	Local placement of surplus excavated material to the south of Moreton cutting (SES2-002-002) is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.42 – 2.2.47	Local placement of surplus excavated material to the north of Moreton cutting (SES2-002-003) is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.60 – 2.2.65	Local placement of surplus excavated material to the south of Brancote North cutting (SES2-002-007) is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.72 – 2.2.77	Local placement of surplus excavated material to the north of Marston North embankment (SES2-002-008) is noted. Details of placement and reinstatement should be agreed with the County Council.
3.6.9 - 3.6.15	It is noted that temporary screening is proposed at worksites close to Yarlet School to mitigate against construction noise. The authorities welcome any improved mitigation for the school but expect that further mitigation measures will be sought wherever possible to protect a highly sensitive location from adverse noise effects.
3.6.13	The revised construction operations at Hopton will mean an increase in the number of properties subject to significant construction noise from 20 to 25 and for a longer period, from one year to one year and nine months. The authorities request that HS2 Ltd look to reduce this period and provide temporary measures such as screening to reduce the impact.
5.1.1	Whilst Stafford rail station is not directly on the high-speed line, the authorities are concerned at the lack of recognition of the importance of the station to the wider geography which has previously been acknowledged by HS2 Ltd in its 'Changing Britain: HS2 taking root'

	<p>report. Stafford is already an important hub station, providing vital links including the quickest route to London from Shrewsbury and large parts of the Black Country. This will only increase with the commencement of HS2 'classic-compatible' services at Stafford, whilst the number of HS2 and other services stopping at the station may need to increase from the current planned one train per hour due to levels of demand.</p> <p>Through the Constellation Partnership we are also currently considering the wider growth within the area, including a new settlement and the Stafford Gateway scheme which will deliver a mixed used development next to the station. As stated in previous responses, we would therefore question the approach taken to assess impacts at 'off route stations' as it seems very likely that some stations, including Stafford, do have the potential to see large increases in passenger numbers.</p> <p>This may require mitigation whilst the delivery of supporting infrastructure schemes may ensure the economic benefits of HS2 can be maximised. This is of course not the sole responsibility of HS2 Ltd but there remains the need for a commitment to engage with relevant organisations to further consider how negative impacts can be mitigated and wider opportunities realised through the delivery of HS2.</p>
5.4.40 – 5.4.43	<p>AP2-002-004: The SES2 and AP2 ES identifies an increased impact on a probable late prehistoric or Roman enclosure to the south of Tolldish Lane (HS2 Heritage Asset Reference Number COY019). The proposed amendment will result in the total removal of this heritage asset. Therefore a programme of assessment, investigation and recording should be undertaken to appropriately mitigate for this loss, as set out in the CoCP and Heritage Memorandum.</p>
5.10.45 – 5.10.61	<p>AP2-002-010: Ingestre Park Golf Club partly occupies the former extent of Ingestre Hall Park (HS2 Heritage Asset Reference Number COY144) and adjacent to Tixall Park (HS2 Heritage Asset Reference Number COY149), two significant areas of historic parkland. While the SES2 and AP2 ES and original Phase 2a ES set out impacts and appropriate archaeological mitigation for these heritage assets, the amendment also provides an opportunity for restoration of historic parkland in that part of the former golf course to the south of HS2 line, which will become redundant as part of the proposed reconfiguration.</p>
5.27.41- 5.27.53	<p>AP2-002-027: There is an increased impact on earthworks associated with the medieval settlement at Yarlet (HS2 Heritage Asset Reference Number COY137). Given that the proposed amendment will result in the removal of at least a portion of this heritage asset, a programme of assessment, investigation and recording should be undertaken to appropriately mitigate for this loss, as set out in the CoCP and Heritage Memorandum.</p>
6.15.2	<p>AP2-002-115: The proposed utility diversion (including the additional land required by this amendment) runs long the boundary to Yarlet Estate (HS2 Heritage Asset Reference COY142), which is thought to be of potential early medieval origin. Any proposed ground works associated with this diversion or the additional land required by this amendment should seek to respect and avoid the boundary.</p>

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CT-05-210	Moreton Auto-transfer station is potentially within the floodplain. AP-002-101 utility diversion is shown to be affecting the watercourse.
CT-05-210 and CT-06-210	Public Bridleway No 19 Colwich is within an area of land potentially required for construction. The proposed scheme does not indicate any significant change to this route but clarification as to whether this will be affected during construction is required.
CT-05-210 and CT-06-210	AP2-002-101: 'Diversion of a utility' may affect the eastern diversion of Public Footpath No 36 Colwich. The Main Utility Works and land that may be required for construction could impact on this route. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-211 and CT-06-211	AP2-002-003: 'Additional land for construction activities' may affect Public Bridleway No 35 Colwich. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-211 and CT-06-211	Concerns previously raised in the response to the ES remain about the temporary and permanent diversion of Public Footpath No 26 Colwich. These need to be addressed prior to the submission of any schedule 4 consent. Clarification is requested that the material and landscape planting for SES2-002-003 'Local placement of surplus excavated material' will not impact on the right of way.
CT-05-211 and CT-06-211	AP2-002-004: 'Realignment of a utility diversion and provision of a utility compound' may affect several routes: Colwich 54, 55, 58. Impact is unclear and needs to be clarified. The CA2 Area Report (p.117) makes it clear that although the works will cross Footpath No 54, the level of disruption is not expected to be significant for non-motorised users which is welcomed. The Area Report (p.57) states that the diversion of Bridleway No 58 Colwich will be upgraded to allow it to become a HS2 maintenance accommodation access. Comments submitted at the ES stage about potential public/private conflict remain applicable and need to be addressed.
CT-05-212	The accommodation and compounds between F2 and F5 are potentially within the floodplain. AP-002-005: the realignment of utility diversion potentially affects the watercourse at I7. Construction activities may also affect the watercourse in E5.
CT-06-212	Great Haywood Viaduct modelling and viaduct detail required. Several watercourses cross the route and more detail is required as regards the impact.
CT-05-212 and CT-06-212	AP2-002-008: 'Additional land for construction activities' may impact on the northern most temporary diversion of Footpath No 63 Colwich and any potential impact needs to be clarified.
CT-05-212 and CT-06-212	Despite previous requests, HS2 Ltd have not engaged with the County Council's Legal Services team about DMMO application Hoo Mill Lane (LG602G) and other applications submitted under section 53 of the Wildlife and Countryside Act 1981. This application could be further affected by AP2-002-009 'Realignment of a utility diversion and provision of a utility compound'. HS2 Ltd should rectify this at the earliest opportunity.

CT-05-213-R1	AP2-002-010: 'Proposed re-configuration of Ingestre Golf Course. Information is requested on the construction impact of imported materials required to complete the new course location.
CT-05-213-R1 and CT-06-213-R1	AP2-002-010: 'Reconfiguration of Ingestre Park Golf Club' may affect the southern end of Public Footpath No 21 Hixon. Clarification is required as regards the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-214 and CT-06-214	<p>AP2-002-003: 'Additional land for construction activities' may affect Public Bridleway No 0.1628 and Footpath No 0.1630(b) Tixall during construction. Clarification is required about the potential impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used. P.99 of the Area Report states that due to the requirement to take additional land for the purposes of construction the temporary diversion of Bridleway 0.1628 and Footpath No 0.1630(b) will be required but that the realignment should be up to 10m which should not be significant enough to have any impact on path users.</p> <p>Similarly, AP2-002-012 'Realignment of a utility diversion and provision of a utility compound' and SES2-002-5 'Provision of utility working areas and a utility compound' could impact on Bridleway No 0.1628 Tixall and Footpath No 0.1630(b) Tixall diversion. Clarification of both amendments is required.</p> <p>Comments submitted at the ES stage about the DMMO application affecting Public Footpath No 0.1630(b) Tixall remain unanswered. HS2 Ltd Have still not engaged with the County Council's Legal Services team about this and other applications submitted under section 53 of the Wildlife and Countryside Act 1981. This should be rectified at the earliest opportunity.</p>
CT-05-215	Details are required for the drainage crossing in the shared underbridge at G6. Construction activities may affect the watercourse in H5. Hopton and Coton Footpath 6 diversion potentially affects the watercourse.
CT-06-215	Details are required for the drainage crossing in the shared underbridge at G6. Berryfield north and south watercourse crossing details are also required.
CT-06-215	AP2-002-013: It is unclear whether the access off the A518 has been assessed to check whether it can accommodate traffic from the replacement car park for the County Showground.
CT-05-215 and CT-06-215	<p>AP2-002-017: 'Relocation of stockpiles and realignment of a footpath' affects Public Footpath No 6 Hopton and Coton, although the construction phase plan doesn't show this clearly and appears to indicate that Footpath No 24 Hopton will be diverted around the material stockpile (this is mentioned in the Area Report, p.196, 5.17). In fact, during the construction phase it is Footpath No 6 that needs diverting around the stockpile to connect with Footpath No 24 to cross the accommodation overbridge.</p> <p>On the proposed scheme plan the section of Footpath No 6 Hopton and Coton on the western side of the railway is subject to an amended diversion which is less direct than the one proposed in the ES. This is not acceptable to the authorities and HS2 should contact the County Council</p>

	to discuss mitigation. The comments submitted in response to the ES made it clear that the impact on this route was less than ideal and the amended plans have exacerbated it. The temporary diversion of both routes will be for 18 months in each case (p.196, 5.17.2).
CT-05-216 and CT-06-216	The provision of a new footbridge to provide a connection for pedestrians between the realigned Hopton Lane and Mount Edge (p.200, 5.19.3) is welcomed even though it will not directly link with the public rights of way network. There is an error on the Construction Phase plan which describes this a bridle bridge when on the Proposed Scheme plan it is shown as footbridge. This is then contradicted on p. 201 of the Area Report which describes the route as a bridle bridge for equestrians and cyclists use as well as pedestrians. HS2 Ltd need to clarify their intentions for this bridge although its proposed width of 3.5m suggests that a bridle bridge is the intention.
CT-05-215-R1 and CT-06-215-R1	AP2-002-013: 'Replacement car parking' may impact on Footpath No 18 Hopton and Coton and Bridleway No 19 Hopton and Coton. In respect of the latter route this could be affected by land required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-216 and CT-06-216	The DMMO application LG604G mentioned in the ES is potentially affected both during construction and the proposed scheme. HS2 Ltd have not engaged with the County Council's Legal Services team about this and other applications submitted under section 53 of the Wildlife and Countryside Act 1981 as requested, and should do so at the earliest opportunity.
CT-05-216 and CT-06-216	AP2-002-110 'Diversion of a utility' may impact on Public Footpath No 9 Hopton and Coton. This could be affected by land potentially required during construction. Clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-216 and CT-06-216	Issues raised in the ES about the potential temporary diversion of Public Bridleway No 12 Hopton and Coton do not appear to have been addressed on the AP2 plan. This route is also going to be affected by AP2-002-112 'Diversion of a Utility' and AP2-002-019 'Realignment of B5066 Sandon Road, diversion of Hopton Lane and non-motorised users provision across the HS2 route'. AP2-002-019 also affects Public Footpath No 14 Hopton and Coton and both paths are within land potentially required during construction. In all cases clarification is required about the potential impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-217 and CT-06-217	AP2-002-022 'Provision of a utility working area and a utility compound' will affect Public Bridleway No 11 and No 16 Hopton and Coton and both paths are within land potentially required during construction. The temporary and permanent diversionary routes for Public Bridleway no 16 Hopton and Coton are also within land potentially required during construction and covered by AP2-002-113 'Diversion of a utility'. A further section of Public Bridleway No 16 Hopton and Coton is within land potentially required during construction and covered by AP2-002-023 'Realignment of a utility diversion and provision of a utility compound'. In

	<p>all cases clarification is required about the potential impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.</p> <p>Concerns raised in the ES about scrub/woodland planting on the line of the diverted Public Bridleway no 16 Hopton and Coton remain unanswered. HS2 Ltd should discuss this with the County Council.</p>
CT-05-217 and CT-06-217	AP2-002-023: 'Realignment of a utility diversion and provision of a utility compound' could impact on the temporary diversion of Public Bridleway No 8 Marston. Clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted about the temporary diversion connecting to Footpath No 10 Marston still apply and need to be addressed by HS2 Ltd.
CT-06-217	Modelling and detail is required for Lion Lodge Culvert.
CT-05-218 and CT-06-218	Public Footpath No 10 Marston will be subject to a temporary diversion to the east to link with the realigned Marston lane. It is unclear whether this route will be affected permanently, and clarification is requested.
CT-05-219(a) and CT-06-219(a)	Public Footpath No 2 Whitgreave is now correctly referenced. Concerns over the proposed temporary diversion of this route during construction remain and these need to be discussed with the County Council.
CT-05-220(a) and CT-06-220(a)	AP2-003-202: 'Relocation of accommodation overbridge'. This bridge will be relocated further to the north and will mean both Footpath No 3 Whitgreave and Footpath No 28 Stone Rural will require longer temporary and permanent diversions in order to maintain network links and cross the new bridge. It is unclear why the bridge needs to be relocated and a longer, less direct diversion is disappointing. Both paths are also within areas where land is potentially required during construction. Clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
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Ecology General	<p>The amendments to the construction phase zone of influence will result in a significant number of additional trees being put at significant risk of damage and/or tree loss (42 standard trees and 16 tree groups in the CA2 area) This is true of all types of amendment including for example utility works, construction activity areas and highways alterations. In all cases both below ground excavations and above ground construction activity pose an inevitable risk of ground compaction and contamination, root severance and crown damage.</p> <p>The tree losses that will inevitably occur across the short, intermediate and long term as a result of the amended works are in addition to those already identified. This will have a significant additional impact on the landscape which must be compensated for by HS2 Ltd.</p> <p>A more comprehensive Arboricultural Impact Assessment should be carried out to determine an appropriate level of mitigation and compensation for tree losses identified. There should then be an</p>

	<p>appropriate uplift in the quantity and quality of arboricultural landscaping provision in Community Area CA2. All improvements to such landscaping provision should be relevant to the areas where the additional impacts will occur.</p>
Air Quality General	<p>There are predicted to be significant impacts for Stafford during construction of HS2. The predicted impacts are new because of the changes in the background air quality monitoring model used to gauge future traffic pollution having increased by 30% since the last modelling exercise in 2016.</p> <p>This means that although the Stafford Borough on-site monitoring has not shown that the air quality standards have been breached at these locations for the past 10 years, the new models (which are cautious) indicate future failures.</p> <p>The HS2 contribution to the increased air pollution at the M6 motorway results mainly from the construction phase. There is little impact on the M6 from subsequent operation. HS2 Ltd are carrying out additional monitoring at the indicated sites to refine their models, but live data will need to be collected for at least one year.</p> <p>It is noted that detailed mitigation measures will be developed within the Local Traffic Management Plan (LTMP) for this area.</p>
2.2.20 – 2.2.24	<p>Local placement of surplus excavated material to the south of Yarlet embankment (SES2-003-001) is noted. Details of placement and reinstatement should be agreed with the County Council.</p>
2.2.32 – 2.2.35	<p>Increase in average mineral excavation depth from 4.5m to 8m for the borrow pit west of Netherset Hey Farm (SES2-004-002): Extracting the full depth of mineral would minimise sterilisation. Measures should be considered to minimise the effect of backfill in sterilising adjoining mineral resources. Increasing the depth of the excavation would increase the capacity of the resulting void. An issue previously raised (refer to comments on paragraphs 2.3.30 – 2.3.36 of the Community Area Report CA4: Whitmore and Madeley) relates to access if the delivery of backfill materials requires use of the local road network.</p>
2.2.31 - 2.2.40	<p>Landscape earthworks in the vicinity of the Stone Infrastructure Maintenance Base-Rail (IMB-R) (SES2-003-002) are noted. Details of placement and reinstatement should be agreed with the County Council.</p>
2.2.56	<p>SES2-002-004: The new utility compounds lie within an area of known archaeology comprising earthwork remains of a trackway or hollow way and ridge and furrow earthworks of probable medieval origin lying to the west and east of the M6 motorway at Blakelow Hall Farm (HS2 Heritage Asset Reference Numbers STS029, STS38 and STS037). The original Phase 2a ES cultural heritage impact assessment table identified no change to Heritage Asset STS038 as it lay outside the area of land required for construction. The SES2 AP2 ES now shows this heritage asset falling within the land required for construction and therefore the asset should be subject to an appropriate level of archaeological assessment and mitigation, as set out in the CoCP and Heritage Memorandum.</p>

2.2.57 - 2.2.61	SES2-003-005: Local placement of surplus excavated material to the north of Swynnerton North cutting is noted. Details of placement and reinstatement should be agreed with the County Council.
2.2.68 – 2.2.72	Local placement of surplus excavated material to the north and south of Hatton South cutting (SES2-003-006) is noted. Details of placement and reinstatement should be agreed with the County Council.
5.11.38	AP2-004-001: The SES2 and AP2 ES identifies a new permanent major adverse significant effect on the remains of a possible prehistoric burial mound (HS2 Heritage Asset Reference STS044) which is located the west of the M6 at Sandyford. The amendment will result in the substantial removal of this heritage asset and it should therefore be subject to an appropriate level of archaeological assessment and mitigation, as set out in the CoCP and Heritage Memorandum.
5.19.11	AP2-003-017: The proposed junction modifications and provision of a satellite compound at the A500 Queensway / Newcastle Road junction lie immediately to the north-east of the Grade II* Registered Trentham Gardens. The SES2 and AP2 ES has not undertaken any re-assessment of the potential impact of this amendment on the setting of the Registered Park. While the impact of the proposed amendments may not cause any increased significant adverse impact on the setting, there may be an opportunity to improve the setting of the gardens here through, for example, additional mitigation planting.
6.3	AP2-003-103: The SES2 and AP2 ES Volume 5 Technical Appendices for Cultural Heritage do not include reference to an area of ridge and furrow (Staffordshire Historic Environment Record (HER) Asset Reference MST4254) nor other linear cropmark features (HER Asset Reference MST4253). Both assets lie within the area of additional land required for the overhead line diversion, north of the south-bound Stafford Motorway Service Area, between the M6 and the new HS2 route. Any groundworks associated with the proposed amendment have the potential to impact on these heritage assets and therefore these assets should be subject to an appropriate level of archaeological assessment and mitigation, as set out in the CoCP and Heritage Memorandum.
7.5.5	The authorities welcome the AP2/SES2 changes to the construction traffic which will reduce the impact on 45 properties at Pirehill Lane/Green Lane from a major construction noise impact to a moderate impact.
7.13.18	The proposed mitigation for the new adverse impact resulting from the A51 Stone Bypass/Aston Bridge Lane staggered crossroads junction is unclear.
7.13.19	The proposed mitigation for the new adverse impact resulting from the A34The Fillybrooks/Meaford Road roundabout junction is unclear.
Volume 2: Community Area Reports and Maps Community Area Map Book CA3: Stone to Swynnerton	
CT-05-219b	SE82-002-009: New railway systems compound is very close to the watercourse.
CT-06-219b	Details are required for Yarlet Wood Drop Inlet Culvert and Peasley Brook Drop Inlet Culvert.
CT-05-220b	AP2-003-101: Diversion of utility could potentially affect the watercourse here.
CT-06-220b	Details are required for Pipehill Culvert.

CT-06-221	Detail is required for the watercourse crossing at I6.
CT-05-221-R1	AP2-005-103: Diversion of watercourse may have a negative impact. Further discussion is required.
CT-06-222	Details are required for Filly Brook crossing.
CT-05-222-R1	Works associated with sidings could potentially affect the watercourse
CT-06-227	Details are required for watercourse crossing at A7.
CT-05-224	watercourse crossing at I5 details required. Drainage crossing in shared underbridge detail required in B6
CT-06-225	Details are required for the Swynnerton culvert.
CT-06-225	AP2-003-012: The new balancing pond/maintenance access off A51 Stone Rd to the east of Long Compton Farm not is identified on SES2.
CT-05-225-R2	AP2-004-001: Provision of a power supply crosses watercourses.
CT-06-227	Details are required for the watercourse crossing at G6 detail.
CT-06-228A	Details are required for the watercourse crossing in shared underbridge.
CT-06-228a	AP2-003-016: 'Dog Lane realignment New Field Accesses' Details on drainage impact are required.
CT-05-228A-R4	AP2-003-017: Junction modifications of A519 potentially affect the watercourse.
AP2-003-101	'Diversion of a utility' could impact upon the temporary diversion of the bridleway which is also within an area where land is potentially required during construction and clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. The Area Report (p. 43) makes it clear that a temporary diversion of Footpath no 28 Stone Rural will no longer be required yet the Construction Phase plan shows the route as being directly affected. HS2 need to confirm that the accommodation overbridge and diversion will be in place prior to the works that affect the current definitive line.
SES2-003-001	'Local placement of surplus excavated material' covers land crossed by Public Bridleway No 0.1335 Stone Rural although both the construction phase and proposed scheme plans indicate that the line of the path should not be affected.
CT-05-221 and CT-06-221	See comments above about the effect on Public Bridleway No 0.1335 Stone. AP2-003-102: 'Diversion of a utility' could impact upon the bridleway and on the western end of Footpath No 31 Stone Rural both of which are within an area where land is potentially required during construction. Clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. AP2-003-103: 'Diversion of a utility' could impact upon the temporary diversion of Public Footpath No 32 Stone Rural which is also within an area where land is potentially required during construction. Clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.

AP2-003-004	<p>'Realignment of footpath diversion' will lead to an amendment to the temporary and permanent diversion of the footpath although this is a relatively minor change (200m longer than the diversion proposed in the ES) from that proposed in the ES, the comments against which are still applicable. The Area Report (p.44) states that Footpath No 32 will be diverted away from the accommodation access track to Walton Heath Farm although it's not clear whether the farm will still require access via the accommodation overbridge.</p>
CT-05-223 and CT-06-223	<p>There do not appear to have been any significant changes from the ES scheme plans for either the construction nor the proposed scheme. Comments submitted at the ES stage remain applicable in relation to Public Footpath No 33 Stone Rural. SES2-002-003 'Landscape earthworks at the Stone IMB-R' and SES2-003-003 'Changes to the M6 Meaford Viaduct' could both impact upon the permanent diversion of Public Footpath No 33 Stone Rural which is also within an area where land is potentially required during construction. Clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. The Area Report (p.21, 2.2.43) makes it clear that access for the realigned Footpath 33 will be maintained via the extended underpass.</p>
CT-05-223 and CT-06-223	<p>AP2-003-109: 'New Utility' could impact upon the definitive line of Public Footpath No 27 Swynnerton and part of this is also within an area where land is potentially required during construction and clarification is required about the potential impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted at the ES stage about the temporary diversion of the Public Footpath No 17 and 27 Swynnerton and how they are shown on the plans remain unanswered and the AP2 plan does not offer the clarity required. The Area Report (p. 29, Table 4) makes it clear this route will be used for construction traffic and comments submitted at the ES stage regarding potential conflict with construction traffic remain applicable.</p>
CT-05-225 and CT-06-225 –	<p>AP2-003-010: 'Realignment of Swynnerton New Bridleway' indicates that there will no longer be a new bridleway accommodation underbridge near to Sandyford Farm. This would have provided a welcome off-road link for non-motorised users using Tittensor Road then the underbridge to cross HS2. The amended proposal now shows a longer diversion in the opposite direction taking path users to the diverted Tittensor Road and the A51.</p> <p>It is unclear why the old Tittensor Road was not left for non-motorised users and, in effect, downgraded to a bridleway. However, if bridleway users are able to access the realigned Tittensor Road (which seems to be the case) then they only have a relatively short section of on-road travel before they can connect to the new Bridleway (see below) linking to Stab Lane which will become a cul-de-sac and, as a result, should have less vehicular usage. Non-motorised users can then head south into Swynnerton village. In the Area Report this amendment is stated as substantially improving the bridleway provision in the Swynnerton area (p. 124, 5.12.21). This is inaccurate. It will lengthen bridleway provision but</p>

	not improve it as described above. The new bridleway must not be affected by woodland planting, hedgerows and other landscape mitigation.
CT-05-225 and CT-06-225	Swynnerton New Bridleway 2: There are several overlapping amendments affecting this route, but it is difficult to ascertain direct affects from the plan. Comments submitted at the ES stage remain applicable. During the Construction Phase the route appears to be obstructed by a temporary material stockpile but the Proposed Scheme clearly shows that the route will be in place which is welcomed. In the Area Report (p. 122, 5.12.4) it states that the section of the realigned Tittensor Road will have a 3.5 m wide footway/bridleway to the west of the carriageway and this will be clearly segregated which is welcomed.
CT-05-225 and CT-06-225	Public Bridleway No 54 Swynnerton: There are several overlapping amendments affecting this route, but it is difficult to ascertain direct affects from the plan. Comments submitted at the ES stage remain applicable as does our concern about the point at which the bridleway meets the A51. The concerns are also applicable at the Proposed scheme because none of the comments previously submitted appear to have been taken on board. There are safety issues for path users if this proposal is allowed to continue as currently shown and these must be discussed and resolved prior to the submission of any Schedule 4 consent.
CT-05-225-R1 and CT-06-225-R1	AP2-004-001: 'Provision of a power supply' may affect Public Footpath No 36 Stone Rural and No 49 Swynnerton. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-225-R3 and CT-06-225-R3	AP2-004-001: 'Provision of a power supply' may affect Public Footpath No 1 Barlaston Parish. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-226 and CT-06-226	AP2-003-014: 'Relocation of the stopping up point of Bottom Lane and a new agricultural access' may affect Public Footpath No 53 Swynnerton Parish. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-227 and CT-06-227	Whilst there are no AP2 amendments to Public Footpath No 52 Swynnerton the comments submitted in response to the ES remain applicable and need to be resolved.
CT-05-227 and CT-06-227	AP2-004-002: 'HS2 route alignment changes'. Whilst this does not appear to alter the changes to Footpath No 15 Swynnerton during either the construction or the proposed scheme phases, HS2 Ltd need to provide clarification about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-227-L1 and CT-06-227-L1	AP2-004-001: 'Provision of a power supply' may affect Public Footpath No 9, 15 and 21 Swynnerton. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-228(a) and CT-06-228(a)	Public Footpath No 10 Swynnerton could be affected by AP2-004-001 'Provision of a power supply', AP2-004-002 'HS2 route alignment changes' and AP2-003-018 'Stopping up of Bent Lane (south)'. It also crosses land potentially required during construction. The temporary diversion route and the proposed permanent diversion do not appear to

	have changed but, in light of the AP2 amendments, HS2 Ltd need to provide clarification about the impact on this route and the measures they will be putting in place to ensure the definitive path line can still be used. The Area Report states that the diversion of the Underbridge for Footpath No 10 will take place over one year and three months from 2021.
CT-05-228(a) and CT-06-228(a)	AP2-004-002: 'HS2 route alignment changes' could affect Public Footpath No 58 Swynnerton near to where it meets Public Footpath No 10 Swynnerton. HS2 need to provide clarification about the impact on this route and the measures they will be putting in place to ensure the definitive path line can still be used.
CT-05-228(a) and CT-06-228(a)	Swynnerton New Bridleway 3: AP2-003-019 'Diversion of Shelton under Harley Lane' will lead to a new connection between the lane and the diversion of Bent Lane (north). The new bridleway appears to be being created along a short section of the old route of Shelton under Harley Lane to provide an off-road connection between the two lanes. This minor proposal is welcomed.
CT-05-228(a) and CT-06-228(a)	Comments submitted at the ES stage regarding the DMMO application LJ639G remain applicable.
CT-05-228-L1 and CT-06-228-L1	AP2-004-001: 'Provision of a power supply' may affect Public Footpath No 26 Swynnerton. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-228-R2 and CT-06-228-R2	AP2-003-015: 'Provision of a water treatment facility' may affect Public Footpath No 19 Swynnerton which is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-228(a)-R4 and CT-06-228(a)-R4	AP2-003-017: 'Junction modifications and provision of a satellite construction compound' may affect Public Footpath No 5(b) Swynnerton. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
Volume 2: Community Area Reports and Maps Community Area Report CA4: Whitmore Heath to Madeley	
Highways General	No specific comments on community area report for CA4. Most changes from SES1 are positive reductions in impact from construction traffic and routes. There are also several roads/junctions that appear to have reduced impact on non-motorised traffic within SES2 albeit minor/moderate, however this is welcomed.
2.2.21 2.2.23 2.2.31	SES2-004-001: The SES2 and AP2 ES makes provision for the local placement of surplus excavated material north of the Whitmore South Cutting, indicating both temporary and permanent placement of material as required and the potential of ground works for land drainage as part of the requirements to restore agricultural land. The area of land required lies along the Meece Brook and while there are no known heritage assets within the area of land required the original Phase 2a ES route-wide geoarchaeological desk study report (HS2 Document Reference CH-006-000) identifies that peat and alluvium deposits associated with this watercourse have the potential to preserve waterlogged archaeology and

	are likely to contain a range of paleoenvironmental remains of high geoarchaeological potential. Further assessment of this geoarchaeological potential and the impact of the proposed placement of surplus material here should be undertaken to inform any appropriate mitigation in line with the requirements of the CoCP and Heritage Memorandum.
5.4.38	AP2-004-003: It would be desirable to see the Grade II Listed milepost, which is proposed for removal under this amendment, reinstated to its original location following the road modifications. HS2 Ltd should make appropriate provision for the secure storage of the milepost during the time in which it is removed from site.
5.6.8	AP2-004-005: This amendment makes provision for extra land required for pipework from the borrow pit west of Netherset Hey Farm. Although temporary in nature the pipework and its associated access road will involve intrusive ground works along the course of the River Lea and no further assessment of the cultural heritage impacts have been provided in the SES2 and AP2 ES. While the original Phase 2a ES route-wide geoarchaeological desk study report (HS2 Document Reference CH-006-000) notes that alluvium deposits associated with the River Lea are more limited than on other near-by water courses it still acknowledges that these deposits may still provide conditions for the preservation of waterlogged archaeology and organic sediments of high geoarchaeological potential. Further assessment of potential and the impact of the proposed temporary pipework and associated infrastructure here should be undertaken to inform any appropriate mitigation in line with the requirements of the CoCP and Heritage Memorandum.
7.5.6	The changes to the construction programme including construction traffic which will remove the indirect significant on properties on Bent Lane, Snape Hall Road and Bar Hill Road are welcomed.
Volume 2: Community Area Reports and Maps Community Area Map Book CA4: Whitmore Heath to Madeley	
CT-05-228b	B5 watercourse crossing in shared underbridge detail required. Land during construction potentially affecting watercourse around A7.
CT-06-228b	Dog Lane drop inlet culvert detail required. Shelton culvert detail required. Watercourse crossing in shared underbridge at B5.
CT-05-288b-R4	The junction here is potentially affecting the watercourse.
CT-06-230	AP-004-012 – new utility potentially affecting watercourse at B8. AP-002-001- provision of power supply potentially affecting watercourse at J1. Snape Hall Road drop inlet culvert detail required.
CT-05-230 and CT-06-230	AP2-004-002: 'HS2 route alignment changes' will incorporate land crossed by Public Footpath No 4 Whitmore. According to the Map Book and Area Report (p. 51) this route will no longer be subject to a temporary diversion during construction which is welcomed but it will cross an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted at the ES stage regarding the DMMO application are still applicable.
CT-05-230 and	AP2-004-004: 'Provision of a public right of way' will create a public right of way along the section of Snape Hall Road that will be closed to

CT-06-230	<p>vehicular traffic. The status of the right of way has been identified as Footpath in the Area Report (p. 120, 5.5.2) and the report also states that “Whitmore New Footpath will extend from the turning head to the south of the railway, via a set of steps that are 100m in length, to cross over the HS2 route”. The provision of so many steps will make access difficult for many users and HS2 Ltd will need to conduct an EIA in view of this. The maintenance responsibility for the steps also needs to be clarified, as does detail about whether the route will be added to the Definitive Map and Statement or the List of Streets.</p> <p>Overall, the addition of this route is welcomed because it will significantly reduce journey times for pedestrians. The route will be subject to a minor diversion to pass across Whitmore Heath Tunnel both during and post-construction but HS2 Ltd need to confirm that the remaining section of Snape Hall Lane on the west of the line will remain a public highway as this is not clear from the plans nor the report. The proposed temporary diversion crosses an area of land that is potentially required for construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.</p>
CT-05-230 and CT-06-230	AP2-004-102: ‘New utility’ may affect Public Footpath No 5 Whitmore which is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted at the ES stage regarding the temporary diversion of Public Footpath No 5 Whitmore are still applicable.
CT-05-230 and CT-06-230	AP2-004-002: ‘HS2 route alignment changes’ may affect Public Footpath No 6 Whitmore which is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-231	River Lea modelling and viaduct details are required.
CT-06-231	River Lea modelling and viaduct details are required. Details of Whitmore Wood culvert are also required.
CT-05-231 and CT-06-231	AP2-004-002: ‘HS2 route alignment changes’ will affect Public Footpath No 6 Whitmore which is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted at the ES stage about the temporary diversion have not been rectified and, in fact, the diversion of Footpath No 6 on the eastern side of the line is now less clear, seeming to not be in place for its middle section. The proposed scheme diversion has been amended to no longer run through the area of landscape planting and this aspect is welcomed.
CT-05-231 and CT-06-231	AP2-004-002: ‘HS2 route alignment changes’ will affect Public Footpath No 14 Madeley which is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. The proposed permanent

	diversion has been slightly amended although this is relatively minor. Comments submitted at the ES stage remain applicable.
CT-05-232	The AP004-106 utility potentially affects the Main River Lea.
CT-05-232-R1 and CT-06-232-R1	AP2-004-107: 'Provision of a power supply' may affect Public Footpath No 33 and 58 Madeley and Footpath No 33 is also within an area where land is potentially required during construction. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used. The Area Report (p.139, 5.1.10) makes it clear Footpath No 33 will be temporarily stopped up during construction.
CT-05-232-R1 and CT-06-232-R1	AP2-004-106: 'New utility' may affect Public Footpath No 59 Madeley which is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-233 and CT-06-233	AP2-004-002: 'HS2 route alignment changes' may affect Public Bridleway No 1 Madeley including its temporary diversion (Stage 2). This is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted at the ES stage remain applicable.
CT-05-233 and CT-06-233	AP2-004-105: 'Diversion of a utility' also affects part of Public Bridleway No 1 Madeley and part of the temporary diversion (Stage 1) which is shown running through an area potentially required during construction for mitigation planting. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used. Comments submitted at the ES stage remain applicable.
CT-05-233 and CT-06-233	Public Footpath No 24 Madeley: the eastern end of this route is affected by a number of overlapping AP2 amendments, but it is difficult to ascertain which directly affect it from the plan and whether or not they have an impact. The comments submitted at the ES stage remain applicable. During the Construction Phase the route appears to be obstructed by a temporary material stockpile but the Proposed Scheme clearly shows that the route will be in place which is welcomed.
CT-05-233 and CT-06-233	AP2-004-104: 'New utility' affects the northern end of Footpath No 26 and 53 Madeley. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-233 and CT-06-233	AP2-004-108: 'Diversion of a utility' affects part of Public Bridleway No 5 Madeley. This is also within an area where land is potentially required during construction. The Area Report (p.33) outlines that the new Severn Trent water mains supply will run along the realigned Bridleway No 5 Madeley. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-06-233	Inverted syphon details are required.
CT-05-233-R1	AP-004-007: Power supply potentially affects the watercourse here. AP2-004-016: Utility potentially affects the main river

CT-05-233-R2, R3 and R7	AP2-004-007: Power supply potentially affects the watercourse here.
CT-05-233-R2 and CT-06-233-R2	AP2-004-007: 'Provision of a power supply' may affect Public Footpath No 9, No 10, No 30 (incorrectly shown as 10) and No 54 Madeley. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-233-R3 and CT-06-233-R3	AP2-004-007: 'Provision of a power supply' may affect Public Footpath No 4 Keele. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
CT-05-233-R6 and CT-06-233-R6	AP2-004-007: 'Provision of a power supply' may affect Public Footpath No 21 Silverdale, Public Footpath No 165 Newcastle and DMMO application LL601G all of which are within the area of the amendment. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-233-R7 and CT-06-233-R7	AP2-004-007: 'Provision of a power supply' may affect Public Footpath No 76 (incorrectly shown as 75), 92 and 93 Newcastle all of which are within the area of the amendment. Clarification is required about the impact on these routes and the measures that HS2 Ltd will be putting in place to ensure the definitive path lines can still be used.
CT-05-234	Details are required on the watercourse crossing in shared underbridge at D6, and for. Wrinehill Wood Culvert at F5.
CT-05-234 and CT-06-234	'Diversion of a utility' may affect part of Public Bridleway No 5 Madeley. This is also within an area where land is potentially required during construction. Clarification is required about the impact on this route and the measures that HS2 Ltd will be putting in place to ensure the definitive path line can still be used.
Volume 2: Community Area Reports and Maps Community Area Report CA5: South Cheshire	
5.1.1	The authorities support the improvements to provide temporary direct access to A500 Shavington Bypass which ensures that construction traffic noise is removed from Den Lane, Wrinehill.
Volume 2: Community Area Reports and Maps Community Area Map Book CA5: South Cheshire	
CT-05-235 and CT-06-235	The Construction Phase plan incorrectly shows the temporary diversion of Public Footpath No 7 as the temporary diversion of Public Bridleway No 2 Madeley (on the northern side of the line) and this needs to be amended. The only other change from the ES appears to be AP2-005-001 which shows additional land being required for construction traffic. There is the potential for this to affect the definitive line of Footpath No 7 so construction traffic needs to be advised that the definitive line must not be affected (unless the temporary diversion is in place).
CT-05-235 and CT-06-235	Footpath No 70 Madeley is shown on both the Construction Phase and Proposed Scheme plans although it is not labelled as Footpath No 70. It will require a temporary diversion which is minimal and, as above, AP2-005-001 shows additional land being required for construction traffic. There is the potential for this to affect the definitive line of Footpath No 70 Madeley so construction traffic needs to be advised that the definitive line

	must not be affected (unless the temporary diversion is in place). The proposed effect on this footpath is not mentioned in the Area Report.
Volume 3: Route Wide Effects	
5.2.2	This paragraph lists the SES2 changes which, collectively, are considered relevant to the assessment of the likely significant environmental route-wide effects associated with waste and material resources during construction. This includes the use of local placement areas to manage surplus excavated material, i.e. land already required for construction of the scheme to be used for the permanent placement of surplus excavated materials, which will subsequently be restored for agricultural use. This is noted but this should include additional disposal capacity associated with borrow pits in the Fradley to Colton area.
5.2.3	Route-wide corrections to the estimated quantities used in the main ES were necessary and account for approximately 900,000 m ³ (1,838,000 tonnes) of the additional surplus excavated materials are noted.
12.2.22	The AP2 revised scheme will generate approximately 45,412,956 tonnes of excavated material during the period 2020 to 2026. This represents a 14% increase on the quantities reported for the original scheme. This is noted.
12.2.23	These measures provide for an estimated 96% of the excavation material generated to be managed on-route. This represents a slight decrease from the 98% reported in Volume 3 of the main ES. The figure for disposal off site is therefore 1,816,518 tonnes.
12.2.24	Total surplus excavated material is 1,620,690t which is less than the figure suggested under paragraph 12.2.23.
12.2.25	It is forecast that 8,785,934 tonnes of material will be excavated from borrow pits and that the same quantity of excavated material will be used to backfill the borrow pits. This figure is a relatively modest increase compared with the original figure of 8.3 million tonnes given the proposed increased depths of borrow pit excavations.
12.2.27	Twenty local placement areas are included in the AP2 revised scheme, with a total placement of approximately 1,992,020 tonnes of surplus excavated material, however the non-technical summary refers to seventeen local placement sites.
12.2.49	Off-site disposal of inert surplus excavated material to landfill will result in an overall reduction of inert waste landfill void space of 1,614,779 tonnes. This will be equivalent to a 4% reduction in inert waste landfill capacity void space across the aggregated two regions. A cumulative assessment with the potential impact of phase 2b should be also considered.
Volume 5: Technical Appendices and Maps Transport Assessment Addendum Part 1 (TR-001-000)	
PRoW general	The TAA provides important information about the temporary and permanent diversion of some of the affected public rights of way (those not affected by AP2 are not repeated from the original TA). The information provided predominantly includes details on the length of any of the diversions and the timescale for the closure/diversion during construction.

	<p>The Map Book indicates temporary diversions, but it does not detail them as in the Area Report and associated Map Books. As a result, these have not been checked for accuracy and the response to the Area Reports and Map Books should be treated as SCC's response.</p> <p>The TAA also includes the future baseline for the road network where construction traffic will, in all cases, lead to a rise in the number of vehicular movements. This is likely to increase conflict with walkers, horse riders and cyclists, many of whom use the vehicular network to connect with the wider rights of way network. HS2 Ltd should continually seek to minimise conflict and provide safe access for these users at all times.</p>
Transport Planning General	Where transport issues have been identified, it is expected that HS2 Ltd will continue to work through these (along with any remaining petitioning items) with the County Council at its regular meetings.
A5127/Cappers Lane/Valley Lane/Eastern Avenue Roundabout	
p.7 Table 15	The base year assessment shows this roundabout to be over capacity in the PM peak (Cappers Lane and A5127 W arms with Ratio of Flow to Capacity (RFCs) of 0.94 and 0.99 respectively). The A5127 approach is also at capacity in the AM peak with an RFC of 0.86.
p.99 Table 157	There appears to be quite an increase in traffic flows at the junction with traffic from HS2 Phase 1 included but then no additional increases when Phase 2a is included. It is unclear why the increase is so large for Phase 1 when construction traffic is not permitted through the junction (Are these all worker trips?). In addition, with Phase 2a traffic, there is no increase even though HS2 is still showing this to be on a proposed construction route. There also appear to be no worker trips routed through here, which is unlikely. SCC need to better understand the HS2 traffic flows in this area to determine whether HS2 traffic will impact at this junction.
A5127/The Friary/Sainte Foy Avenue Roundabout	
p.7 Table 16	The base year assessment shows this roundabout to be over capacity in the AM and PM peak hours (A461 Sainte Foy Avenue AM; A5127 Birmingham Road PM).
p.102 Table 160	<p>The increase in traffic from Phase One pushes the junction further over capacity. It is unclear why the increase is so large for Phase 1 when construction traffic is not permitted through the junction. The type of trips should be clarified. There is no additional traffic shown once Phase 2a is introduced, which the authorities view as unlikely as some workers may route through here.</p> <p>In addition, HS2 plans are showing this as a construction route, so construction vehicles on the route would be expected. The County Council need to better understand the HS2 traffic flows in this area to determine whether HS2 traffic will impact at this junction.</p>
A51 / Brook End Lane / High Street Priority Controlled Junction	
p. 124 Table 175.5	The County Council requested capacity and safety assessments at this location due to local concerns. A capacity assessment has been completed which indicates no future problems. HS2 Ltd need to consider the safety concerns given the level of additional HGVs they are sending along the A51 through this junction, where vehicles exiting the side roads

	have to wait in the middle of the central reserve (over 500 HGV in each direction during peak activity (Page 58, Table 142).
Construction Routes Through Lichfield	
2.5.12	<p>HS2 Ltd is aware that the County Council will not permit any construction routes through Lichfield City Centre. However, construction routes are still shown on sheets TR-03-200, TR-03-200-L1 and L2 and TR-03-201-L1 and L2. Additionally, the text in paragraph 2.5.12 (and elsewhere in the AP2 ES) states that the need to use Eastern Avenue is reduced rather than removed.</p> <p>In its petition against the Bill for Phase One, the Council objected to the use of roads in and near Lichfield City by HS2 construction traffic. Following enactment, written agreement has been provided that those roads will not be used. The County Council is therefore disappointed that the AP2 ES contains these routes, which again will not be permitted.</p> <p>Page 90 of the Transport Assessment Addendum states that, because of Phase 1 and Phase 2a construction, the A5127 through Streethay will see an increase in traffic/HGV movements up to 30%. However, this will not be a construction route in either phase. This increase in traffic contradicts Table 142 which states very little Phase 2a traffic will be present.</p>
Increase in HGV traffic around Colton	
p.60 Table 142	Table 142 shows an increase in peak HGV traffic on the B5013 (now 80 per day, previously 46 per day). As stated in the original consultation the roads in and around the Colton area are not suitable for this type of traffic. Increases in the proposed construction traffic are therefore unwelcomed by SCC.
Parkgate Construction Routes	
p.61 Table 142 (and Community Area Report CA01 p.290).	<p>The County Council note that HS2 Ltd are planning to use the B5017 via Shobnall to access the Parkgate construction site and that the volume of HGV movements are such that the construction route will require formal approval from the highway authority (Table 142 states up to 19 HGVs (each direction) will use B5017 (Shobnall) and B5234 (Newborough) at peak times).</p> <p>The County Council do not have sufficient information at this stage to understand where the HGV movements will originate from. When this is available it is likely to be preferable to route traffic via the trunk road network and the local A road network to minimise the impact on Staffordshire communities.</p> <p>The B5017 provides direct access to residential properties and serves Shobnall Primary School. In addition, the presence of on-street parking through Shobnall makes it difficult for 2-way traffic to freely pass each other. In addition, much of the route is through residential areas. The route is also narrow in places and the B5234 / A515 junction is difficult and dangerous to cross.</p> <p>The final part of the construction route through Newborough is also not desired. Further, Needwood Primary School is located in Yoxall Road in</p>

	<p>Newborough, near to where it joins the B5234, which passes through the centre of the village. The County Council is concerned about the safety of pupils and others at school dropping off and picking up times at this location. As a condition of a planning permission for a recent development, HGVs were prohibited from passing through the village between 8.15 and 9.30 and 15.00 and 16.40. The authorities consider that the same prohibition should apply to HS2 HGV traffic.</p> <p>It is also apparent that there are links from Parkgate to another facility off Newlands Lane, with a construction route showing through Abbots Bromley (TR-03-203-R3, TR-03-204-R2). This is not an acceptable construction route. The width and nature of Newlands Lane also does not lend itself to the presence of construction traffic.</p> <p>The authorities request that HS2 Ltd consider other options for HGVs to reach the Parkgate facility.</p>
Common Lane/Pipe Lane (south of Hill Ridware)	
TR-03-203	<p>To avoid routing construction traffic through Hill Ridware, HS2 Ltd has routed HGVs via Common Lane, and a new section of road near Pipe Lane, in order to access the haul route.</p> <p>Common Lane is narrow and HS2 Ltd will need to provide for 2 HGVs passing. The new section of road being provided to avoid Pipe Lane also needs to be of sufficient width. A width of 5.5m is stated in paragraphs 5.11.1 to 5.11.3 of the Transport Assessment Addendum, which is barely sufficient to accommodate two cars and is against HS2's own policy of a 6.8m width for realigned roads where HGVs regularly pass (Appendix C, Paragraph C.6.2, Technical Standards – Roads (HS2–HS2–HW–STD–000–000001)).</p> <p>In addition, TR-03-203 is still showing Pipe Wood Lane as a construction route. This needs to be removed in favour of using the haul route.</p>
A513/A515 Junction	
p.106 Table 162	<p>Table 162 demonstrates that this junction will be operating in excess of capacity in 2023 with the inclusion of Phase 2a traffic (>0.85 RFC). It is unclear from the documentation whether this relates to the existing priority junction or HS2's proposed roundabout. If these relate to the existing priority junction, then it is requested that HS2 Ltd provide capacity assessment for the proposed roundabout, as this will be the junction that will be used by HS2 construction traffic. If the results already relate to the roundabout, the new junction does not have sufficient capacity for the design flows and needs to be redesigned to provide sufficient capacity.</p>
A515/Wood End Lane Traffic Signalised Junction	
p.103 - 105	<p>The junction appears to work within capacity both during construction and afterwards. However, the County Council and HS2 Ltd have previously discussed the need to restrict right turning HGV movements from Wood End Lane towards Kings Bromley in the future. There is no description within AP2 ES about how this could be achieved.</p>

	The County Council require HS2 to design the junction or make other provision so that following completion of the HS2 construction works, no HGVs can make the right turn described above.
A515/B5014 Priority Junction	
p. 107 Table 163	In the original ES, HS2 recognised that this junction would be operating over capacity as a result of HS2 traffic impact and stated they would work with the County Council to reduce the impact. The junction is still predicted to operate significantly over capacity in the AM peak with the addition of HS2 traffic. However, HS2 have removed this statement from the conclusions. Paragraph 2.6.103 still recognises HS2 are impacting at this location. The authorities still fully expect HS2 to work with the County Council to address their impact at this location. It is noted that the 2023 baseline flows have changed somewhat, which is understood to relate to Handsacre Link changes.
A51/Borough Lane Priority Controlled Junction	
p.111 Table 166.	In the original ES, HS2 Ltd recognised that this junction would be operating over capacity as a result of HS2 traffic impact and stated they would work with the County Council to reduce the impact. The junction is still predicted to operate over capacity in the AM peak with the addition of HS2 traffic. However, HS2 Ltd have removed this statement from the conclusions. Paragraph 2.6.103 still recognises HS2 are impacting at this location. The authorities still fully expect HS2 to work with the County Council to address their impact at this location.
A51/Breretonhill Lane Roundabout	
p.112 Table 167	In the original ES, HS2 recognised that this junction would be operating over capacity as a result of HS2 traffic impact and stated they would work with SCC to reduce the impact. The junction is still predicted to operate over capacity in the AM peak with the addition of HS2 traffic. However, HS2 have removed this statement from the conclusions. Paragraph 2.6.103 still recognises HS2 are impacting at this location. The authorities still fully expect HS2 to work with the County Council to address their impact at this location.
A51/A5192/Hedgehog Pub Traffic Signals	
Page 120, Table 175.	In the original ES, HS2 recognised that this junction would be operating over capacity as a result of HS2 traffic impact and stated they would work with SCC to reduce the impact. The junction is still predicted to operate over capacity in the AM peak with the addition of HS2 traffic. However, HS2 have removed this statement from the conclusions. The authorities still fully expect HS2 to work with the County Council to address their impact at this location, however, the impact is reasonably low and an assurance that no construction traffic can travel through this junction could help reduce impact.
A51/Main Road/Tolldish Lane Priority Controlled Junction	
General	The County Council cannot find an assessment for the A51 / Main Road / Tolldish Lane or the revised A51 / Main Road junction for the period during construction. This assessment needs to be undertaken at this sensitive junction.
A518 Through Weston Village	
p. 174 Table 215	HGV flows are much reduced following the introduction of the A51 construction route between Stone and Weston. However, a closer

Map reference TR-03-207-R1	inspection of the A518 route has shown that, despite the A518 being an A road, there are width restriction through the village with road widths as low as 5m in places. HS2 will need to address this before the route can be used by this level of construction traffic.
A518 (Hydrant Way to Blackheath Lane)	
p.174 Table 215	There is a substantial reduction in HGV flows along this section of the A518 (1307 each way in the original ES but revised to 183 each way in the AP2 ES). This reduction doesn't tie in with reductions on nearby sections of the route. The authorities seek clarity on this revised figure.
Great Haywood Road (Between Ingestre Park Road and Holdiford Road)	
p.175 Table 215	There will be an increase in peak HGVs using this proposed construction route, compared to the original ES. HS2 is already aware of concerns with the use of this route, which is unsuitable for many reasons (road widths, vertical and horizontal alignment). Continued work will be required for this route to be permitted under Schedule 17.
Marston Lane	
p.176 Table 215.	HS2 Ltd is aware of concerns with the use of this route which is unsuitable for many reasons (road widths, horizontal alignment, NCN route). Table 215 shows that there will be reduction in peak HGVs using this proposed construction route and it is understood this is due to use of the haul route once the site has been set up. HS2 Ltd will need to continue working with SCC to address SCC's concerns (cyclist safety for example) about this route for it to be permitted under Schedule 17.
A34/Yarlet Lane Priority Controlled Junction	
3.6.7.	<p>The junction of A34 / Yarlet Lane will have right turning movements prohibited for a period of 12 months while the A34 is diverted at this location. HS2 Ltd state the diversion will involve a detour to the roundabouts at A34 / A513 and A34 / A51 junctions. However, it is very likely that vehicles will try to U-turn in gaps along the A34 to avoid this long detour.</p> <p>This is a concern for the County Council, and further details on the quantity of vehicles affected and how they might prevent this from occurring are requested. In addition, this may affect businesses accessed off Yarlet Lane, which would require mitigation.</p>
The A51 Lichfield Road (between Lichfield Road and Rugeley Eastern Bypass)	
p.180 and 186 Table 217 Table 218	These tables show that the A51 will carry around 2,500 vehicles in the AM and PM peak hours between Lichfield Road and Eastern Avenue. This may have implications for Link Capacity and therefore delays journey times. An analysis of the link capacity in this location is requested.
A513/Dyson Way Traffic Signalised Junction	
p.199 Table 225	The County Council did not agree to an assessment of traffic flow increases in this area and requested a full LinSig assessment of HS2's impacts in the consultation response to the original ES. Since the original consultation the County Council has provided HS2 with a copy of their calibrated LinSig model for this junction. The junction currently operates at around capacity and will be sensitive to an increase in traffic associated with HS2.

	<p>Dyson Way serves Staffordshire Technology Park, which has been hugely successful in generating a range of high-value jobs (over 2,000) within Stafford, including in digital industries which are an increasingly important part of the local and national economies. The authorities are therefore concerned that the disruption caused by the construction of HS2 will have a negative impact on the Technology Park, leading to losses in jobs and business rates to the local and national purse.</p>
<p>A513/B5066 Sandon Road Priority Controlled Junction</p>	
<p>3.6.44 – 3.6.48.</p>	<p>HS2 has proposed temporary signals in this location, which arguably only just mitigate their impact whilst leave large queues on Sandon Road and an over capacity junction. These queues will also delay HS2 construction traffic. HS2 Ltd is aware that the County Council’s preferred solution is a roundabout and that developers are committed to delivering this though the timescales are not yet clear.</p>
<p>3.6.11</p>	<p>HS2 Ltd state that they will work with the County Council to ensure disruption during construction is minimised. This is welcomed. HS2 Ltd also provided the County Council with an assurance (8 May 2018) stating that it will engage with any developers undertaking highways improvements to junctions in the vicinity of Beaconside, with the aim of securing that the developer co-ordinates its works with those related to HS2. Avoidable repeated disruption along Beaconside is not acceptable to the County Council or the many businesses and residents located off Beaconside.</p> <p>It would not therefore be acceptable to the County Council for HS2 Ltd to provide their improvement, causing disruption and delay to travellers, only for the developers to do the same a short time later. In addition, it will not benefit the project to have their construction traffic delayed in roadworks when developers improve the same locations under planning obligation a year or so later.</p>
<p>A513 Beaconside/Marston Lane/Common Road Priority Controlled Junctions</p>	
<p>Table 228 Table 228.1</p>	<p>HS2 Ltd has included this scheme as a permanent improvement (also referenced in section 5.24 of Community Area Report CA02). This is not the case and the County Council’s preferred scheme, resulting from the proposed development of 3,000 homes to the north of Beaconside, is for a roundabout at Common Road and a priority junction at Marston Lane. This also included the continuation of dualling along the A513 from the committed dualling scheme which is soon to be construction by Taylor Wimpey between A34 Redhill roundabout and Parkside (E).</p> <p>See previous comment regarding HS2’s assurance, provided on 8 May 2018 regarding junctions along Beaconside.</p> <p>Regarding the signals scheme proposed by HS2 Ltd, the capacity results in Tables 228 and 228.1 do not demonstrate that the scheme will mitigate HS2’s impact. In the AM peak the proposed junction will be operating at capacity (87% saturation), much worse than the 2023 baseline assessment for the existing junction which is well under capacity (RFC 0.63). It is also worse than the existing set up including HS2 traffic (RFC0.66). In the PM peak the worst RFC in the 2023 baseline</p>

	assessment of the existing junction is 0.83 on the Common Road arm. This increases to 1.11 with HS2 traffic added. The introduction of the HS2 scheme (and traffic) will result 108% saturation; barely an improvement on the existing junction. Therefore, the proposal is not sufficient, and must be improved.
Tixall Road/Blackheath Lane/Baswich Lane Traffic Signals	
Table 231	the County Council has concerns about the ability for HGVs to safely turn left from Blackheath Lane to Tixall Road, and how this will also impact capacity at the junction. It must be demonstrated that this manoeuvre is both possible and safe. The County Council has previously made HS2 aware that the nearby housing developer has a commitment to improve this junction and HS2 Ltd will be required to consider their impact on this scheme. The County Council also has future desires to construct a roundabout at this location, subject to securing land.
A51/New Road Priority Controlled Junction	
Table 233.4	Table 233.4 demonstrates that with the introduction of HS2 traffic at this junction becomes congested. HS2 Ltd recognise that their traffic has an impact at this junction (Community Area Report CA02, paragraph 7.3.18). HS2 Ltd will need to work with the County Council to identify ways to reduce their impact.
A51 Lichfield Road/Hilderstone Road Priority Controlled Junction	
Table 233.6	Table 233.6 demonstrates that the introduction of HS2 traffic exacerbates congestion at this junction. HS2 Ltd recognise that their traffic has an impact at this junction (Community Area Report CA02, paragraph 7.3.18). HS2 Ltd will need to work with the County Council to identify ways to reduce their impact.
A51 London Road/B5066 Sandon Bank/School Lane Priority Controlled Junction	
Table 233.9	The introduction of HS2 traffic exacerbates congestion at this junction. HS2 Ltd recognise their traffic has an impact at this junction (Community Area Report CA02, paragraph 7.3.18). HS2 Ltd will need to work with the County Council to identify ways to reduce their impact.
A34/Yarlet School Priority Controlled Junction	
Table 233.10	The County Council understands from the capacity assessments that this new junction would operate within capacity. The design will need to meet all the relevant design standards as the scheme is developed through detailed design.
Yarlet School	
CA02 5.27.2. CT-05-219a	<p>AP2 includes provision for a replacement access for Yarlet School onto the A34. The SES states that the existing school entrance will be used during the construction of the proposed temporary realignment of a section of the A34 near to the school. The authorities are concerned about the safety of school children and other users of the existing entrance, particularly if it is to be used by HGVs.</p> <p>It is not, however, shown as a new construction route on TR-03-209a and unclear exactly what the construction activity will involve. HS2 Ltd should find an alternative safe option that avoids any conflict with school children and other users accessing the school.</p>
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Pirehill Lane	
Table 277	The County Council notes that HS2 Ltd are still proposing to use Pirehill Lane as a construction route. The County Council has previously requested an alternative route is found, such as via the M6 services. HS2 Ltd will need to continue working with the County Council through their regular meetings to resolve concerns which include HGVs routing through the residential area and near to the entrance of Walton Priory Middle School where pedestrians are likely to frequently cross Pirehill Lane.
A34/Eccleshall Road/A520 Roundabout	
Table 282	The capacity results in AP2 ES are slightly worse than in the original ES due to revised construction traffic flows. In the previous consultation response, the County Council stated that although very little can be done physically to improve the junction, HS2 will need to work with the County Council to identify ways to reduce their impact. SCC's position remains the same.
A500/A519/M6J15 Junctions	
Table 287	The County Council is satisfied that the proposed junction improvements will mitigate HS2's impact. The scheme will need to meet all relevant design and safety standards as it progresses through detailed design. Residents in this area have expressed concerns about safety, and it is expected that these concerns will be taken into consideration during detailed design process.
A34/Yarnfield Lane Improvement	
Table 290	<p>The County Council is yet to see a detailed design for this improvement scheme, or the proposed phasing. It is understood following discussions with HS2 Ltd and from reviewing the capacity results contained in Table 290 that right turning vehicles from A34 (N) have been allowed in the LinSig model to turn in gaps while the A34 (S) arm is running. This is not permitted under County Council policy on roads with speeds over 30mph (a copy of the County Council's Traffic Signal Design Guide March 2017 has been forwarded to HS2).</p> <p>It should be noted that it is unlikely that Staffordshire Police would support a 30mph limit in this area, and it is also likely to be unacceptable locally. Reducing the speed limit to allow movements in gaps is therefore not a viable option. The capacity assessment will need to be re-run to understand the effects of this reduced capacity. The County Council has liaised with HS2 regarding this matter and are currently awaiting the results of additional LinSig model runs.</p> <p>The right turn facility also needs to be long enough to cater for expected queues to ensure queuing traffic does not block the ahead movement, causing safety and capacity issues. The capacity results in the AP2 ES show that the queue in the AM and PM peaks average nine and seven Passenger Car Units (PCUs) respectively. A right turn facility in the region of this length may impact on the Trent Road junction. The design will therefore need amending and needs to carefully consider how Trent Road is incorporated. The County Council has reservations as to whether the existing road space could fully accommodate the level of improvement required and are currently discussing this with HS2 Ltd.</p>

	<p>HS2 Ltd used the 2017 County Council count to replace its 2016 count, due to concerns that the count was undertaken while Meaford roundabout was under construction. However, in Table 265 there are two major discrepancies between the counts (A34 (N) ahead, and A34 (N) Right). The County Council understand that the 2016 count was adjusted upwards to take into account some Automatic Traffic Count (ATC) data which showed the A34 SB flow to be higher. However, the County Council believe that there may be errors in the ATC as the flow in the 2017 count matched the 2016 count reasonably well, as does the downstream count at Walton roundabout. The County Council has been in correspondence with HS2 Ltd on this matter and some sensitivity testing is being undertaken. The County Council is awaiting the results of this work.</p>
A34 / Meaford Road Roundabout	
Table 291	<p>The capacity results demonstrate that HS2 have a significant impact at this junction. This is the first analysis of the roundabout, with the original ES modelling the old priority junction. HS2 will need to work with SCC to mitigate the impact at this location.</p>
A51/Aston Bridge Staggered Junction	
Table 300.2	<p>This junction was assessed for the first time in AP2 ES. This was necessary following the introduction of the new A51 (Stone to Weston) construction route and helps to alleviate some of the issues and mitigation works which would be required on Beaconside. The capacity analysis shows that HS2 traffic has an impact in the AM peak. HS2 Ltd need to work with the County Council to mitigate the impact (Aston Bridge north RFC 1.16 from 1.03, queue 25 to 14).</p>
New M6 bridge on Yarnfield Lane	
CA03 p.94	<p>There is insufficient detail contained in the AP2 ES regarding the new bridge. It is understood that it will be 12m wide including a 6m road width. The County Council believes this should be no less than 6.8m. This reflects HS2 Ltd's own policy, which states there should be road widths of at least 6.8m where HGVs regularly pass (Appendix C, Paragraph C.6.2, Technical Standards – Roads (HS2–HS2–HW–STD–000–000001)).</p> <p>The County Council currently has no plans to improve cycle facilities along Yarnfield Lane. However, the bridge must be designed in such a way that it doesn't preclude the provision of a facility across it in the future. The bridge must therefore have enough width on one or both sides to provide a 3m footway / cycleway, plus additional clearance for any other required infrastructure, such as safety barriers.</p>
Yarnfield North Transfer Node	
CA03 Table 207	<p>The AP2 ES reports a very substantial increase in the number of HGVs associated with the transfer node at Yarnfield North embankment satellite compound. In the original ES the predicted number of two-way HGV trips during the twelve-month busy period and within the peak month of activity was 935-1185, which itself was a significant number. According to the AP2 ES, that figure rises to 1886-2329, although the busy period has reduced to five months.</p>

	<p>AP2-003-008 is described In the Stone and Swynnerton section of the AP2 ES in the table at page 45. It authorises the inclusion of additional land required for modifications to the Yarnfield Lane M6 overbridge replacement. The description of the revised scheme says that the additional land will be required to permanently provide a redesigned replacement overbridge which can be constructed earlier in the programme and without requiring substantial traffic management on the M6 motorway. It says that this enables the replacement overbridge to be operational concurrently with the existing Yarnfield Lane overbridge during construction, thus segregating construction traffic from public traffic on Yarnfield Lane and resulting in safety improvements and reduced disruption to existing users of Yarnfield Lane.</p> <p>HS2 Ltd need to provide a commitment that the replacement overbridge and associated infrastructure (including roundabouts and M6 slip roads) will be operational concurrently with the existing Yarnfield Lane overbridge during the main construction period for the main works at this location (including during the operation of the Yarnfield Transfer Node) and that construction traffic will be segregated from public traffic during that period.</p>
A51 / A53 / A51 junction	
<p>Table 343 Table 343.1.</p>	<p>The County Council is satisfied that the proposed junction will mitigate HS2's impact. HS2 Ltd has been made aware the design needs cater for and avoid impact on the Swan with Two Necks public house and minimise internal queuing, and they have assured the County Council that this will be the case. The scheme will need to meet all the relevant design standards as it progresses through detailed design.</p>
Required Capacity Assessments	
	<p>In the original consultation response, the County Council requested various additional capacity assessments at junctions where there may be issues. Some of these junctions have now been assessed. Others have become less critical with the reduction in HGV flows related to the new A51 construction route and the decision to re-locate excess materials locally. However, the County Council re-iterate that capacity assessments are required at the following junctions.</p>
<p>CA2</p>	<ul style="list-style-type: none"> • A513 Beaconside / Paton Drive • A513 Beaconside / Dyson Way • A513 Beaconside / MOD • A513 Beaconside / Tollgate Drive • A513 Beaconside / Parkside Avenue and New Development Accesses (This is the Urban Boulevard associated with TW development, which will be constructed imminently). It is unclear if all these junctions have been assessed or if it is only the signalised A34 roundabout scheme) • A34 / Redhill Business Park
<p>CA4</p>	<ul style="list-style-type: none"> • A53 / Bent Lane / Three Mile Lane (Reason: Addition of HS2 traffic and realignment of Bent Road)
Traffic and Transport Map Book	
Construction Routes in Lichfield	
	<p>These plans include new and previously documented construction routes through Lichfield. This includes Streethay, Cappers Lane, Eastern</p>

TR-03-200, TR-03-200-L1, TR-03-200-L2, TR-03-200-L4, TR-03-200-L5, TR-03-201-L1, TR-03-201-L2.	Avenue, A51, Lichfield Road (to Whittington), A5206, A5127 Birmingham Road through to A51 Stafford Road, and Flats Lane. In its petition against the Bill for Phase One, the County Council objected to the use of roads in and near Lichfield City by HS2 construction traffic. Written agreement has since been provided to the effect that those roads will not be used. The County Council is therefore disappointed to note that the AP2 ES includes these as construction routes. The County Council will not permit these routes to be used for construction traffic.
Seedy Mill	
TR-03-202-L1.	A new construction route has been proposed off the A515 to a short section of the B5014 and on to Hanchwood House. The A515 / B5014 junction is already well over capacity as a result of HS2 traffic and is not mitigated. This further exacerbates the situation and HS2 Ltd need to consider what improvements they can make to this junction.
Hill Ridware Area	
TR-03-203 and TR-03-203-R1	<p>The construction route through Hill Ridware is not showing either as a removed route or a current route. The County Council assume this has been removed following extensive discussion on this matter.</p> <p>There are new routes to Rugeley School off the Blythbury Road (required for replacement of Mayfield Children's Home). The roads leading to Rugeley School are very narrow and rural in nature. Whilst construction vehicles are accessing the site, care will be required to ensure the safety of residents, pupils and staff at all times. Given that the Hill Ridware construction route has been removed, the County Council would like more information on how this part of the B5014 will be reached by construction traffic heading to Rugeley School. Will the haul route be used as a bypass to the B5014 section through Hill Ridware (i.e. B5014, Common Lane, the new section of road in the vicinity of Pipe Lane, the haul route, and then back on to the B5014?). Clarification is required.</p> <p>TR-03-203 is still showing Pipe Wood Lane as a construction route. This needs to be removed in favour of using the haul route.</p>
Abbots Bromley Area	
TR-03-203-R2, TR-03-203-R3, TR-03-203-R4, TR-03-204-R2	New construction routes are shown through Abbots Bromley and also along Pinfold Lane, which is single track, and on towards Newborough. These appear to be linked to the Parkgate facility, for which a construction route via B5017 / B5234 has already been proposed by HS2. Neither of these routes are suitable for construction traffic, and SCC is highly unlikely to permit them.
New Route on Newlands Lane	
TR-03-204, TR-03-204-R1	Newlands Lane is a very narrow single-track road in this location and is not appropriate for use by HGV traffic. Further information is required as to the necessity of this route and what alternatives or mitigation are available.
New Construction Route: Utility works for Whitmore Heath Power Supplies	
TR-03-211, TR-03-211-R1 and CA03 5.11	The maps show a new construction route along Winghouse Lane, Chase Lane, A34, Tittensor Road and Meaford Road. Much of this route is unsuitable for large volumes of HGV (single track and residential) and movements across A34 could be dangerous, as this requires crossing and

	<p>storing in gaps between A34 carriageways. It is understood this route is proposed for utility works to provide power connections (underground cables) from the Meaford area for construction machinery, and that the likely movements are less than 10 per day.</p> <p>It is understood that Traffic Management and shuttle working will be required to provide underground cables to the tunnel at Whitmore Heath. HS2 Ltd will need to ensure that these works are carried out efficiently and with speed so that delays and disruption on the routes to the location are minimised. Effective communication with all stakeholders including local authorities at all levels will be crucial.</p>
New Construction Route: Mill Meece Marsh	
TR-03-211-L1	This map shows a new construction route along the A519 (south of the A51) to Mill Meece Marsh (south of Cotes Heath). The latter is unsuitable for substantial HGV movements. It is understood this route is required for short term utility work and the flows will be very low.
New Construction Route: Drayton Road	
TR-03-212a-R1	<p>This map shows a new construction route from the A519 to Drayton Road. It is understood that this is required for utility works and that following site set up the HGV flow is likely to be restricted to a few HGVs per day.</p> <p>Hanchurch Wood is located in this area: a popular visitor location for walking and cycling. Careful consideration will be required to ensure the safety of visitors at all times.</p>
New Construction Route – Utility works for Madeley Power Supplies	
TR-03-214, TR-03-214-R1, TR-03-214-R2, TR-03-214-R3, TR-03-214-R4 and CA04 5.8	<p>These maps show a new construction route along the A525 through Madeley, then onto B roads through Silverdale, Knutton to Brymbo Road. It is understood that these new routes are associated with utility works to provide underground cables to support power supply for construction machinery. These roads are unsuitable for substantial HGV movements (narrow, residential, schools).</p> <p>It is understood that Traffic Management and shuttle working will be required to provide underground cables to the tunnel at Madeley. HS2 Ltd will need to ensure that these works are carried out efficiently and with speed so that delays and disruption on the routes to the location are minimised. Effective communication with all stakeholders including local authorities at all levels will be crucial.</p>
Flood Risk	
Flood Risk General	Technical Appendices Map Book: It is unclear why only Fradley to Colton have been mapped. Confirmation is required as to whether other rivers have been adequately modelled e.g. Meece / Lea catchments, and whether this modelling also include smaller ordinary watercourses. It should be noted that the flood zones published by the Environment Agency generally do not include catchment areas less than 3km ² .
CA2: Colwich to Yarlett	
(VR-003-002). Page 7	Pools should be placed outside of surface water risk area (with or without mediation) otherwise they may not function effectively.
5.2.1	Surface water can also be re-routed around the site.
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**Sound, noise and vibration report
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CA1: Fradley to Colton

SES2 Construction Table 2	Changes to the construction programme and construction vehicle numbers using the haul routes will lead to several properties at Pipe Ridware, Blithbury and Stockwell Heath experiencing a significant effect from the level of construction noise. The authorities expect that noise levels will be mitigated through appropriate site management and where possible through screening, in addition to the mandatory control measures detailed within the Code of Construction Practice (CoCP).
SES2 Operation 2.1.11	The proposed noise barrier located on the Kings Bromley viaduct and the adjacent new earthwork bund are welcomed in providing additional mitigation to Woodhouse Farm and other receptors.

CA2: Colwich to Yarlet

SES2 Construction Table 8	Changes are proposed to the construction programme and construction traffic flows as well as works associated with Openreach and Cadent Gas. This will have an impact on some dwellings in Hopton and will lead to an increased number of properties experiencing a significant effect from the level of construction noise over a longer period. The authorities expect noise levels to be mitigated through appropriate site management, in addition to the mandatory control measures detailed within the CoCP.
AP2 Construction Table 13	Additional construction noise identified due to Cadent Gas and WPD diversion works and realignment of Sandon Road and diversion of Hopton Lane. Several dwellings at Hopton will experience high levels of noise and the authorities expect that noise will be mitigated through appropriate site management in addition to the control measures detailed within the CoCP, with particular reference to permitted working hours.
AP2 Operation Table 14	Additional noise impact on Priory School, Rugeley and Moreton House. The authorities expect noise levels to be mitigated in addition to the mandatory control measures detailed within the CoCP

CA3: Stone to Swynnerton

AP2 Construction Table 18	Dwellings at Pirehill Lane, Stone are subject to high noise levels during Western Power powerline diversion works. The authorities expect that noise will be mitigated through appropriate site management in addition to the control measures detailed within the CoCP, with particular reference to permitted working hours.
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CA4: Whitmore Heath to Madeley

SES2 Construction Table 20	One dwelling on Snape Hall Road is marginally affected by changes. The level of noise is above the Lowest Observed Adverse Effect Level (LOEAL) but below the Significant Observed Adverse Effect Level (SOAEL) and therefore the change is not considered significant.
AP2 Construction Table 22	Several dwellings at Whitmore, Madeley and Wrinehill are marginally affected by works required by water and power utility works. The level of noise likely to be above the LOEAL but below the SOAEL, therefore the change is not considered significant.
AP2 Operation Table 24	A small number of dwellings were identified at Hill Chorlton as being marginally affected by the changes. The level of noise is above the LOEAL but below the SOAEL, therefore the change is not considered significant.

	<p>A significant effect is identified at properties on Snape Hall Road and one property at Madeley (Hey House). A noise level increase of 17-19 dB at Snape Hall Road and 24 dB at Hey House are not acceptable. The authorities request that further mitigation measures are introduced to reduce this unacceptable increase.</p>
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