Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

Volume 2 Community forum area map book CFA22 Whittington to Handsacre

July 2015

SES and AP2 ES 3.2.2.22

SES and AP2 ES – VOLUME 2



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Volume 2 | Community forum area map book CFA22 | Whittington to Handsacre

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High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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## Contents

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Map series name	Map series description
	These maps show the land potentially required during construction
CT or Construction Phase	requirements and infrastructure associated with construction of the
CT-05 – Construction Phase	construction phase arrangements for public access using Public Rig
	The base mapping shown on the maps is reflective of 2014 Ordnand
	These maps show permanent features, infrastructure, restored land
CT-o6 – Proposed Scheme	ecological mitigation associated with the Proposed Scheme.
	The base mapping shown on the maps is reflective of 2014 Ordnand
LV-01 – Photomontages	Photomontages illustrating the Proposed Scheme during construct
LV on Construction Phase Significantly Affected Viewneints	Maps showing the viewpoint locations from which the Proposed Sc
LV-03 – Construction Phase Significantly Affected Viewpoints	significant effects during the construction phase.
1) ( a. Operational Phase Significantly Affected Viewpoints	Maps showing the viewpoint locations from which the Proposed Sc
LV-04 – Operational Phase Significantly Affected Viewpoints	significant effects during the operational phase.
	SV-05 presents the direct operational noise impacts and likely signi
CV of Operational Airborne Naice and Vibration Impacts and Likely Cignificant Effects	The SV-05 figure series contains a large amount of information rela
SV-05 – Operational Airborne Noise and Vibration Impacts and Likely Significant Effects	assessment. It is designed to communicate visually the assessment
	determination of likely residual significant effects. The correspondi

on, the construction features, access he Proposed Scheme. The maps also show the ights of Way. Ince Survey (OS) data.

nd, and areas for landscaping, screening and

ince Survey (OS) data.

ction and/or operation.

Scheme has been assessed to give rise to

Scheme has been assessed to give rise to

nificant effects of the scheme. elating to the operational noise and vibration nt process from the prediction of impacts to the ding text is included in Vol2.

### Mapping explanatory notes

#### Structure of the HS2 Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

The Supplementary Environmental Statement (SES) and Additional Provision 2 Environmental Statement (AP2 ES) comprises:

- Non-technical summary (NTS). This provides a summary in non-technical language of the SES (Part 1) and AP2 ES (Part 2) and of any likely significant environmental effects, both beneficial and adverse, which are new or different to those reported in the High Speed 2 (HS2) Phase One Environmental Statement (ES) submitted to Parliament in November 2013 in support of the hybrid Bill ('the Bill') for Phase One of HS2 (hereafter referred to as 'the main ES') and, where relevant, the AP ES submitted in September 2014 (hereafter referred to as 'the AP1 ES').
- Volume 1: Introduction to the SES and the AP2 ES. This introduces the supplementary environmental information and design changes included within the SES and amendments which have resulted in the need to amend the Bill within the AP<sub>2</sub> ES. It also explains any changes to the scope, methodology, assumptions and limitations required for the environmental impact assessment.
- Volume 2: Community Forum Area (CFA) reports and map books. These describe the supplementary environmental information and design changes included within the SES (Part 1), amendments within the AP2 ES (Part 2) and report any new or different likely significant environmental effects arising from these changes in each CFA compared to those reported in the main ES and, where relevant, the AP1ES. The main local alternatives that have been considered are described, where relevant. The approach for Whittington to Handsacre (CFA22) however, is different to the approach adopted for the other CFAs due to the extensive nature of amendments in this area. The SES (Part 1) provides an assessment of the updated baseline from the main ES and corrections to the main ES. The AP2 ES is split into two parts: Part 2A provides a comparison between the original scheme and the AP2 revised scheme (Section 4) and a summary of the key changes to the likely significant residual effects arising from the AP2 revised scheme (Section 5). Part 2B provides a complete reassessment of the AP2 scheme as a direct replacement for main ES and SES CFA 22 'Whittington to Handsacre' (Section 6). The main local alternatives that have been considered are described, where relevant.
- Volume 3: Route-wide effects. This reports new or different likely significant route-wide effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP<sub>2</sub> ES (Part 2) compared to those reported in the main ES and, where relevant, the AP<sub>1</sub> ES.
- Volume 4: Off-route effects. This reports new or different likely significant off-route effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP<sub>2</sub> ES (Part 2) compared to those reported in the main ES and, where relevant, the AP<sub>1</sub> ES.
- Volume 5: Appendices and Map Books. This contains supporting environmental information and associated maps in support of the CFA sections of Volume 2.
- Glossary of terms and list of abbreviations. This contains any new or different terms and abbreviations used throughout the SES and AP2 ES compared to those included in the main ES and AP1 ES.

### **Copyright statements**

Copyright statements are presented in the Data dictionary and definitions section at the front of the map book, due to limited space to include this on the individual maps themselves.

#### **Ordnance Survey data**

All maps produced as part of the London-West Midlands Supplementary Environmental Statement (SES) and Additional Provision 2 Environmental Statement (AP2 ES) contain Ordnance Survey (OS) data. HS2 Ltd use the most up to date mapping available, where possible, supplied by the OS and as such, we cannot be held responsible for any inaccuracies within this data.

As part of our licence conditions, all digital maps carry a watermark.

#### Chainage

Most of the maps presented as part of the SES and AP2 ES have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XX+YYY. E.g. 77+000 or 158+500.

Chainage (known as reference chainage) is referenced from Euston Station, which is 0+000, and the value presented is in metres. E.g. 77+000 refers to the point, 77,000m, or 77km, from Euston Station. Chainage values increase in intervals dependant on the map scale. For maps at 1:50,000 scale chainage is shown at 5km intervals. For maps at 1:25,000 scale chainage is shown at 2km intervals. For maps at 1:10,000, 1:5,000 and 1:2,500 scales, chainage is shown at 1km intervals.

Chainage has been included on the maps as a useful tool for comparing different map sets showing the different environmental themes or engineering plans, due to map sets having different scales and therefore showing different amounts of alignment on the map.

### Map sheet layout

Each map in Volume 2 is presented twice, with the main ES map (published November 2013) on the left hand page and the SES and AP2 ES map on the right. For the CT-05 and CT-06 map series, the SES and AP2 ES map is annotated with different coloured clouds which highlight the areas of change. The coloured text box provides a brief description of the design change and amendment, and gives the SES and AP2 ES reference number. Only maps which have been amended as a result of the SES and AP2 ES are included within the map books. Other design changes which are within the existing limits of the Bill and do not result in new or different likely significant effects are also shown on the maps, but are not indicated by a cloud. The below table highlights the coloured clouds used, and their description.

Cloud / text box colour	Description
Blue	Design changes relating to the SES (Part 1 of each Volume 2 CFA report).
Red	Proposed amendments relating to AP2 (Part 2 of each Volume 2 CFA report).
Grey	Proposed amendments relating to AP1, as they appeared in the AP1 ES, provided for reference.

Each Volume 5 map is annotated to describe the change to a receptor or significant effect, and to give the SES and AP<sub>2</sub> ES reference number. For more detailed information about the SES and AP<sub>2</sub> ES annotation, refer to the map series legend. Only maps which have been amended as a result of the SES and AP<sub>2</sub> ES are included within the map book.

#### **Map orientation**

The majority of the maps presented in these map books are presented with the railway alignment running horizontally across the page. The direction of travel to London would be following the alignment to the right hand side of the page, and the West Midlands to the left.

The exception to this, are map series LV-03 and LV-04, which present the alignment running from bottom to top of the page. This is to allow more of the modelled outputs to be shown at the appropriate map scale. In this instance, the direction of travel to London would be to the bottom of the page, and the West Midlands to the top.

### Map books

In total there are 53 map books which make up the SES and AP2 ES, spread across volumes 2, 4 and 5. A list of the titles is provided below for reference.

Name	Name
Volume 2 Community forum area map book: CFA4 Kilburn (Brent) to Old Oak Common	Volume 5 Technical appendices map book: Ecology - London Metropolitan (CFA4-6)
Volume 2 Community forum area map book: CFA5 Northolt Corridor	Volume 5 Technical appendices map book: Ecology - CFA7 Colne Valley
Volume 2 Community forum area map book: CFA6 South Ruislip to Ickenham	Volume 5 Technical appendices map book: Ecology - CFA8 The Chalfonts and Amersham
Volume 2 Community forum area map book: CFA7 Colne Valley	Volume 5 Technical appendices map book: Ecology - CFA9 Central Chilterns
Volume 2 Community forum area map book: CFA9 Central Chilterns	Volume 5 Technical appendices map book: Ecology - CFA10 Dunsmore, Wendover and Halton
Volume 2 Community forum area map book: CFA10 Dunsmore, Wendover and Halton	Volume 5 Technical appendices map book: Ecology - CFA11 Stoke Mandeville and Aylesbury
Volume 2 Community forum area map book: CFA11 Stoke Mandeville and Aylesbury	Volume 5 Technical appendices map book: Ecology - CFA12 Waddesdon and Quainton
Volume 2 Community forum area map book: CFA12 Waddesdon and Quainton	Volume 5 Technical appendices map book: Ecology - CFA13 Calvert, Steeple Claydon, Twyford and Chetwode
Volume 2 Community forum area map book: CFA13 Calvert, Steeple Claydon, Twyford and Chetwode	Volume 5 Technical appendices map book: Ecology - CFA14 Newton Purcell to Brackley
Volume 2 Community forum area map book: CFA14 Newton Purcell to Brackley	Volume 5 Technical appendices map book: Ecology - CFA15 Greatworth to Lower Boddington
Volume 2 Community forum area map book: CFA15 Greatworth to Lower Boddington	Volume 5 Technical appendices map book: Ecology - CFA16 Ladbroke and Southam
Volume 2 Community forum area map book: CFA16 Ladbroke and Southam	Volume 5 Technical appendices map book: Ecology - CFA17 Offchurch and Cubbington
Volume 2 Community forum area map book: CFA17 Offchurch and Cubbington	Volume 5 Technical appendices map book: Ecology - CFA18 Stoneleigh, Kenilworth and Burton Green
Volume 2 Community forum area map book: CFA18 Stoneleigh, Kenilworth and Burton Green	Volume 5 Technical appendices map book: Ecology - CFA19 Coleshill Junction
Volume 2 Community forum area map book: CFA19 Coleshill Junction	Volume 5 Technical appendices map book: Ecology - CFA20 Curdworth to Middleton
Volume 2 Community forum area map book: CFA20 Curdworth to Middleton	Volume 5 Technical appendices map book: Ecology - CFA21 Drayton Bassett, Hints and Weeford
Volume 2 Community forum area map book: CFA21 Drayton Bassett, Hints and Weeford	Volume 5 Technical appendices map book: Ecology - CFA22 Whittington to Handsacre
Volume 2 Community forum area map book: CFA22 Whittington to Handsacre	Volume 5 Technical appendices map book: Ecology - West Midlands Metropolitan (CFA23-26)
Volume 2 Community forum area map book: CFA23 Balsall Common and Hampton-in-Arden	Volume 5 Technical appendices map book: Ecology - Off-route
Volume 2 Community forum area map book: CFA24 Birmingham Interchange and Chelmsley Wood	Volume 5 Technical appendices map book: Land quality
Volume 2 Community forum area map book: CFA25 Castle Bromwich and Bromford	Volume 5 Technical appendices map book: Landscape and visual
Volume 2 Community forum area map book: CFA26 Washwood Heath to Curzon Street	Volume 5 Technical appendices map book: Socio-economics
Volume 4 Off-route effects map book	Volume 5 Technical appendices map book: Sound, noise and vibration
Volume 5 Technical appendices map book: Agriculture, forestry and soils	Volume 5 Technical appendices map book: Traffic and transport
Volume 5 Technical appendices map book: Air quality	Volume 5 Technical appendices map book: Water resources
Volume 5 Technical appendices map book: Community	Volume 5 Technical appendices map book: Cross-topic appendix 1 - Committed developments
Volume 5 Technical appendices map book: Cultural heritage	

Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

Volume 2 | Data dictionary and definitions

SES and AP2 ES – VOLUME 2



## Data dictionary and definitions

Legend features	Definition	Source	Copyrigh
5m contours	A contour line showing points of equal elevation (height) above a reference level, such as mean sea level and therefore gives indication of the topography, showing valleys and hills, and the steepness of slopes. Spaced at intervals of 5m.	High Speed Two (HS2) Ltd	
Airborne sound study area	This defines the area within which operational airborne sound impacts of the scheme have been quantitatively assessed. This area is defined as within 1km of surface sections of the route in rural areas and within 500m of surface sections of the route in urban areas.	High Speed Two (HS2) Ltd	
Balancing pond	The proposed location and extent of balancing ponds for drainage attenuation and infiltration. Outer boundary represents the perimeter.	High Speed Two (HS2) Ltd	
Chainage	<ul> <li>Chainage (known as reference chainage) is referenced from Euston Station, which is 0+000, and the value presented is in metres. E.g. 77+000 refers to the point, 77,000m, or 77km, from Euston Station. Chainage values increase in intervals dependant on the map scale. For maps at 1:50,000 scale chainage is shown at 5km intervals. For maps at 1:25,000 scale chainage is shown at 2km intervals. For maps at 1:10,000, 1:5,000 and 1:2,500 scale chainage is shown at 1km intervals.</li> <li>Chainage has been included on the maps as a useful tool for comparing different map sets showing the different environmental themes or engineering plans, due to map sets having different scales and therefore showing differing amounts of alignment on the map.</li> </ul>	High Speed Two (HS2) Ltd	
Committed developments	This informs the assessment of the future baseline. Committed consents are unimplemented but committed developments or Local Plan development allocations that are likely to be largely built out prior to commencement of the Proposed Scheme. Cumulative development is unimplemented but committed developments or Local Plan development allocations that are likely to be largely built out during implementation of the Proposed Scheme and give rise to potential cumulative effects, when considered alongside the Proposed Scheme.	High Speed Two (HS2) Ltd	© Crown Ordnance Publicatio
Community forum boundary	The Environmental Statement has been split into 26 sections called Community Forum Areas.	High Speed Two (HS2) Ltd	© Crown Ordnance Publicatio
Construction compounds	See main construction compounds.	High Speed Two (HS2) Ltd	
Construction traffic route	Public highways which may be used for HGV construction traffic.	High Speed Two (HS <sub>2</sub> ) Ltd	1
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown Ordnance Publicatio

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Legend features	Definition	Source	Copyrigh
Depot, station, headhouse or portal building	Extends to cover operational footprint of each depot and station and the footprint of each tunnel vent shaft and headhouse at surface level. Excludes any ancillary buildings associated with these structures.	High Speed Two (HS2) Ltd	
District/Borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown Ordnance Publicatio
Ditches – new	The proposed location and extent of drainage ditches.	High Speed Two (HS2) Ltd	
Ecological mitigation pond	Ponds whose primary function is to provide ecological mitigation. This could be a standalone pond or part of a wider wetland habitat creation plan.	High Speed Two (HS2) Ltd	
Electricity substation	Includes all auto-transformers and feeder stations.	High Speed Two (HS2) Ltd	
Engineering earthworks	Engineering (structural) earthworks which include railway slopes and crossings (roads etc.).	High Speed Two (HS2) Ltd	
Engineering earthworks: Cutting	Cuttings created in the construction of the railway and associated works such as highways.	High Speed Two (HS2) Ltd	
Engineering earthworks: Embankment	Embankments created in the construction of the railway and associated works such as highways.	High Speed Two (HS2) Ltd	
Envisaged mitigation to avoid / reduce significant noise effects	Landscaping and/or fence barriers: These lines represent the envisaged mitigation provided specifically to reduce sound levels from the Proposed Scheme at sensitive receptors in order to reduce or remove likely operational significant noise effects. Examples include noise fence barriers or earth bunds (non- engineering earthworks) acting as noise barriers. These features are labelled with the height of the top of the barrier/bund above rail level. Engineering e.g. cuttings (green tunnels marked separately): These lines represent engineering features of the route which reduce sound levels from the Proposed Scheme at potentially significant sensitive receptors. These features, therefore, serve a material purpose in reducing or avoiding likely significant noise effects. Examples include engineering cuttings near to sensitive receptors. These features are labelled with the height of the top of the feature above rail level.	High Speed Two (HS2) Ltd	
Envisaged mitigation further reducing noise effects	Other environmental features e.g. landscaping: These lines represent environmental mitigation features provided for reasons other than noise mitigation which also reduce sound levels from the Proposed Scheme to the surrounding environment. These features are not placed specifically to reduce or remove a likely significant noise effect. Examples include landscaping and visual mitigation earthworks (non-engineering earthworks). Engineering e.g. cuttings: These lines represent engineering features which reduce sound levels from the Proposed Scheme to the surrounding environment but are not placed specifically to reduce or remove a likely significant noise effect. Examples include cuttings and safety barriers on viaducts which are not close to sensitive receptors.	High Speed Two (HS2) Ltd	

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Legend features	Definition	Source	Copyrigh
Existing public right of way (PRoW)	See Public Rights of Way.	See Public Rights of Way.	See Publ
Existing watercourse	See Watercourse.	See Watercourse.	See Wate
	A dataset showing large areas of trees that are likely to have an		
Existing woodland and tree belts	impact on whether the scheme is visible during construction and	High Speed Two (HS2) Ltd	
	vegetation. It was used in the ZTV as part of the base models.		
Grassed areas	Any other area grassed not included in landscaped earthworks or	High Speed Two (HS2) Ltd	
	ecological habitat.	High speed 1 wo (H32) Ltd	
	Soft landscape design that can include any seeded areas for the		
Grassland habitat creation	purpose of creating grassland except for the engineering	High Speed Two (HS2) Ltd	
	earthworks.		
	This defines the area within which direct operational ground-		
Ground-borne sound & vibration study area (highly	borne sound and vibration impacts of the scheme at highly	High Speed Two (HS2) Ltd	
sensitive non-residential)	sensitive non-residential receptors have been quantitatively	High speed 1 wo (HS2) Ltd	
	assessed. This area is defined as within 200m of the route.		
	This defines the area within which direct operational ground-		
Ground-borne sound & vibration study area (residential	borne sound and vibration impacts of the scheme at residential	High Speed Two (HS2) Ltd	
and non-residential)	and non-residential receptors have been quantitatively assessed.		
	This area is defined as within 85m of the route.		
	Ecological mitigation to provide new hedgerow planting,		
Hadaarow babitat croation	connectivity enhancements to existing areas and areas for	High Speed Two (HSp) Ltd	
Hedgerow habitat creation	ecological management. This level does not include screening	High Speed Two (HS2) Ltd	
	planting for visual mitigation purposes.		
HS <sub>2</sub> Access road	Access road to HS2 infrastructure such as electricity substations,	Llich Crossed Two (LLCo) Ltd	
H52 ACCESS TOdu	balancing ponds and maintenance access points to the railway.	High Speed Two (HS2) Ltd	
	Provision of land to attenuate or infiltrate overland flows at or		
	beyond the HS2 railway boundaries; for example, where existing		
Land drainage area	land drainage systems are altered by the HS2 works, where the	High Speed Two (HS2) Ltd	
	existing landform is reshaped by landscape earthworks or where	High speed 1wo (HS2) Ltd	
	surface water from third party land is intercepted by the HS2		
	perimeter drainage system.		
	Boundary defining the maximum possible extent of construction		
	works required to build HS2 as far as the current level of design		
Land potentially required during construction	allows. This only covers surface works and includes all tunnel	High Speed Two (HS2) Ltd	
Land potentially required doiling construction	portals, vent shafts and headhouses, but does not apply to wholly		
	tunnelled sections or to air rights. It also encompasses associated		
	highway, access, drainage and utility works.		
Landscape earthworks	Landscape earthworks to provide permanent landscape, visual or	High Speed Two (HS2) Ltd	
	acoustic mitigation.		
Landscape mitigation planting (scrub / woodland)	Screening planting, using woodland, for visual mitigation and	High Speed Two (HS2) Ltd	
	landscape integration purposes.		
Main construction compound	Main Construction Compounds in which main contractors offices	High Speed Two (HS2) Ltd	
	and welfare facilities will be located.		
	Represents all new major utility installations (included in the		
Main utility works	hybrid Bill) and also modifications to existing utilities required to	High Speed Two (HS2) Ltd	
	construct the scheme. Includes water, electricity,		
	telecommunications and gas.		
Minor ground-borne noise or vibration impact	Buildings at which a minor operational ground-borne sound or	High Speed Two (HS2) Ltd	
5	vibration impact is predicted from the Proposed Scheme.		
New, diverted or realigned PRoW	New, realigned or diverted Public Rights of Way (PRoW).	High Speed Two (HS2) Ltd	

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Legend features	Definition	Source	Copyrigh
Noise fence barrier	Denotes fence-style barriers provided as part of the noise mitigation measures. Note that other noise barriers have also been included in the form of landscaping and engineering cuttings - see the SV map series for more detail on noise mitigation.	High Speed Two (HS2) Ltd	
Non engineering earthworks: Cutting	Cuttings created in the construction of landscape features and mitigation measures.	High Speed Two (HS2) Ltd	
Non engineering earthworks: Embankment	Embankments created in the construction of landscape features and mitigation measures.	High Speed Two (HS2) Ltd	
Operational airborne sound impacts at buildings	The buildings shown on SV-02 and SV-05 are colour-coded according to the magnitude of the predicted noise impacts of the Proposed Scheme. Noise impacts are calculated by comparing the sound levels predicted if the Proposed Scheme did not go ahead with those if it did (details of this process can be found in Volume 5: Appendix SV001-000). Panel B on SV-02/SV-05 contains a key showing the colours used with the corresponding impact categories. The impacts presented are the greatest (i.e. worst-case) of the impacts predicted for daytime and night-time.	High Speed Two (HS2) Ltd	
Photomontage location	Shows the locations from which verifiable photomontages have been produced. The locations are based on a fully surveyed point.	High Speed Two (HS2) Ltd	
Potential additional noise insulation (triggered by maximum sound levels at night)	This represents dwellings which would potentially be provided with noise insulation due maximum sound levels from the Proposed Scheme (further information regarding assessment criteria can be found in Volume 5 Appendix SV-001).	High Speed Two (HS2) Ltd	
Potential additional noise insulation (triggered by WHO Night Noise Guidelines Interim Target)	This represents dwellings which would potentially be provided with noise insulation due to noise from the Proposed Scheme exceeding the World Health Organization (WHO) night noise guidelines interim target (further information regarding assessment criteria can be found in Volume 5 Appendix SV-001).	High Speed Two (HS2) Ltd	
Potential noise insulation (triggered by Noise Insulation Regulations 1996)	This represents dwellings which would potentially qualify for noise insulation under the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996 (further information regarding assessment criteria can be found in Volume 5 Appendix SV-001).	High Speed Two (HS2) Ltd	
Proposed tree planting	A dataset showing proposed planting that may have an impact on whether the scheme is visible during construction and operation. It was used in the operation year 15 ZTV.	High Speed Two (HS2) Ltd	
Public realm/Replacement community facility	Public realm: Specifically provided to show areas to be used for public realm. This layer is mainly associated with station sites and is to be used to indicate general areas for designed soft and hard landscaping. Replacement community facility: Area of land for the provision of a permanent replacement community facility, such as a playground, community centre or activity centre.	High Speed Two (HS2) Ltd	

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Legend features	Definition	Source	Copyrigh
Public Rights of Way	Public rights of way are highways which can be used for the following purposes: - Footpaths - pedestrians only - Bridleways - pedestrians, cyclists and equestrians - Restricted byways - as bridleways plus non-motorised vehicles - Byways open to all traffic. Definitive Map data supplied by surveying authorities (i.e. county councils, London Boroughs and metropolitan borough councils in the West Midlands).	Buckinghamshire County Council Birmingham City Council Coventry City Council City of Westminster Hertfordshire County Council London Borough of Brent London Borough of Camden London Borough of Ealing London Borough of Hammersmith & Fulham London Borough of Hillingdon Northamptonshire County Council Oxfordshire County Council Royal Borough of Kensington & Chelsea Solihull Metropolitan Borough Council Staffordshire County Council Warwickshire County Council	© Crown Ordnance Publicatio This map the perm Controlle Copyrigh Copyrigh proceedin No. 1000 County C © Copyri
Rail alignment	Longitudinal geometry of the tracks consisting of a series of straights and curves.	High Speed Two (HS <sub>2</sub> ) Ltd	
Rail alignment formation	The space required to accommodate the railway infrastructure which typically includes the tracks, overhead line equipment, drainage, lineside access paths and cable routes for electrification and communication systems.	High Speed Two (HS2) Ltd	
Replacement floodplain storage	Provision of storage to replace floodplain occupied by the Proposed Scheme. Equivalent storage is provided for events up to the 1 in 100 (1%) annual probability event with an allowance for climate change.	High Speed Two (HS2) Ltd	
Returned to suitable development use	Post construction land will be reinstated to enable potential future development.	High Speed Two (HS2) Ltd	
Route in tunnel Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Satellite construction compound	Represents satellite construction compounds which serve local works for major construction elements within a main contract.	High Speed Two (HS2) Ltd	
Significantly affected viewpoint	This dataset shows the locations of the visual receptors from which the schemes visual impact has been assessed and shows whether or not the impact is significant or non-significant during construction and operation.	High Speed Two (HS2) Ltd	
Stopped-up PRoW	Public rights of way that will be closed due to construction of the scheme.	High Speed Two (HS2) Ltd	
Sustainable placement	Sustainable placement: the on-site placement for disposal of surplus excavated material to avoid causing environmental effects (e.g. transport) that would otherwise be associated with the off-site disposal of that material. "On-site" in this context means within the land required for the purposes of the Proposed Scheme and "off-site" means external land (or landfill site) which is not specifically required for the purposes of the Proposed Scheme.	High Speed Two (HS2) Ltd	
Temporary highway diversion / realignment	Indicative temporary highway diversion layouts during the construction phase.	High Speed Two (HS2) Ltd	
Temporary material stockpile	Represents temporary stockpiling of topsoil, subsoil and other	High Speed Two (HS2) Ltd	

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Legend features	Definition	Source	Copyrigh
	excavated materials to be used for reinstatement purposes, and also stockpile areas for managing movement of excavated materials during construction.		
Temporary PRoW diversion / realignment	Indicative temporary diversions to public rights of way as a result of construction of the scheme. These will vary depending on construction phase and local conditions.	High Speed Two (HS2) Ltd	
Temporary replacement community facility	Area of land for the provision of a temporary replacement community facility, such as a playground, community centre or activity centre, whilst construction works are in progress.	High Speed Two (HS2) Ltd	
Tunnel portal	The footprint of a tunnel portal.	High Speed Two (HS2) Ltd	
Tunnels external extent	The external excavated extent of each tunnel bore.	High Speed Two (HS2) Ltd	
Water body	Based on Ordnance Survey Vector Map District.	Ordnance Survey	© Crown Ordnance Publicatio
Watercourse	The Detailed River Network (DRN) is the only large-scale, accurate and fully attributed digital river centreline covering England and Wales.	Environment Agency	© Enviror 2015. All I
Watercourse diversion	Includes rivers, streams, ditches and other open channels, diversions to these, together with any new culverts required.	High Speed Two (HS2) Ltd	
Wetland habitat creation	Ecological mitigation area to provide new wetland habitat creation, enhancements to existing areas and areas for ecological management. This level does not include screening planting for visual mitigation purposes.	High Speed Two (HS2) Ltd	
Woodland habitat creation	Ecological mitigation area to provide new woodland planting, connectivity enhancements to existing areas and areas for ecological management. This level does not include screening planting for visual mitigation purposes.	High Speed Two (HS2) Ltd	

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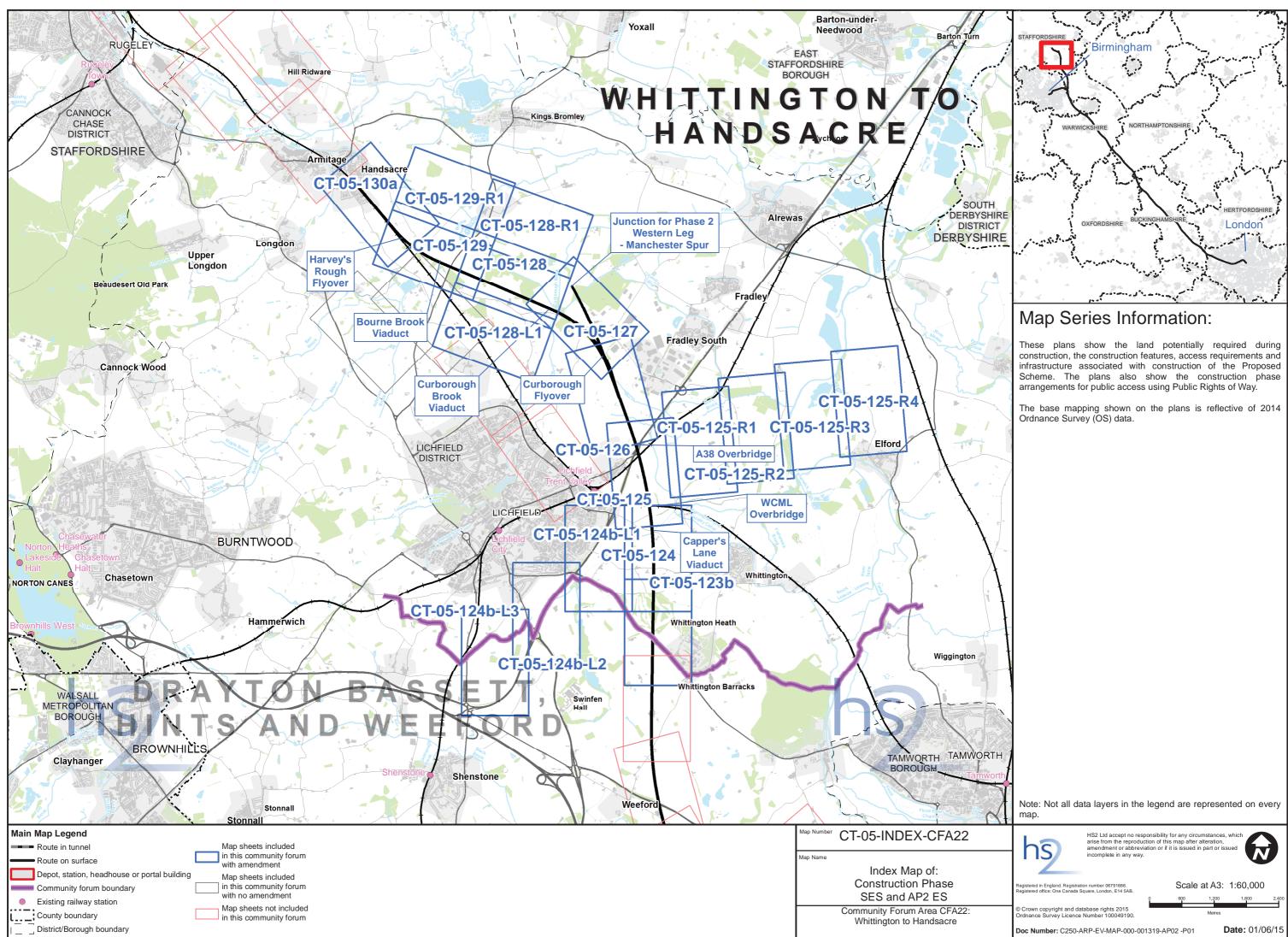
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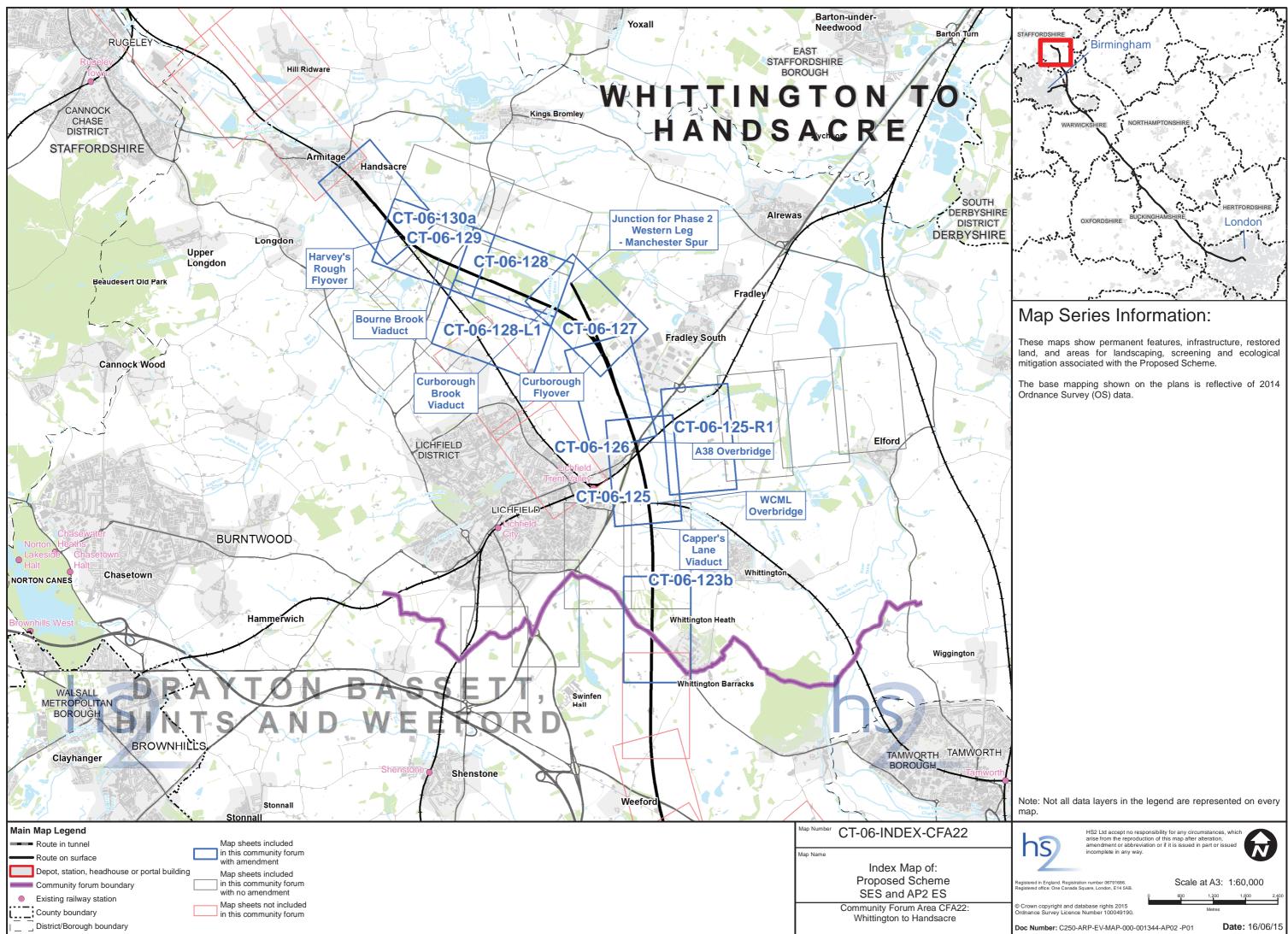
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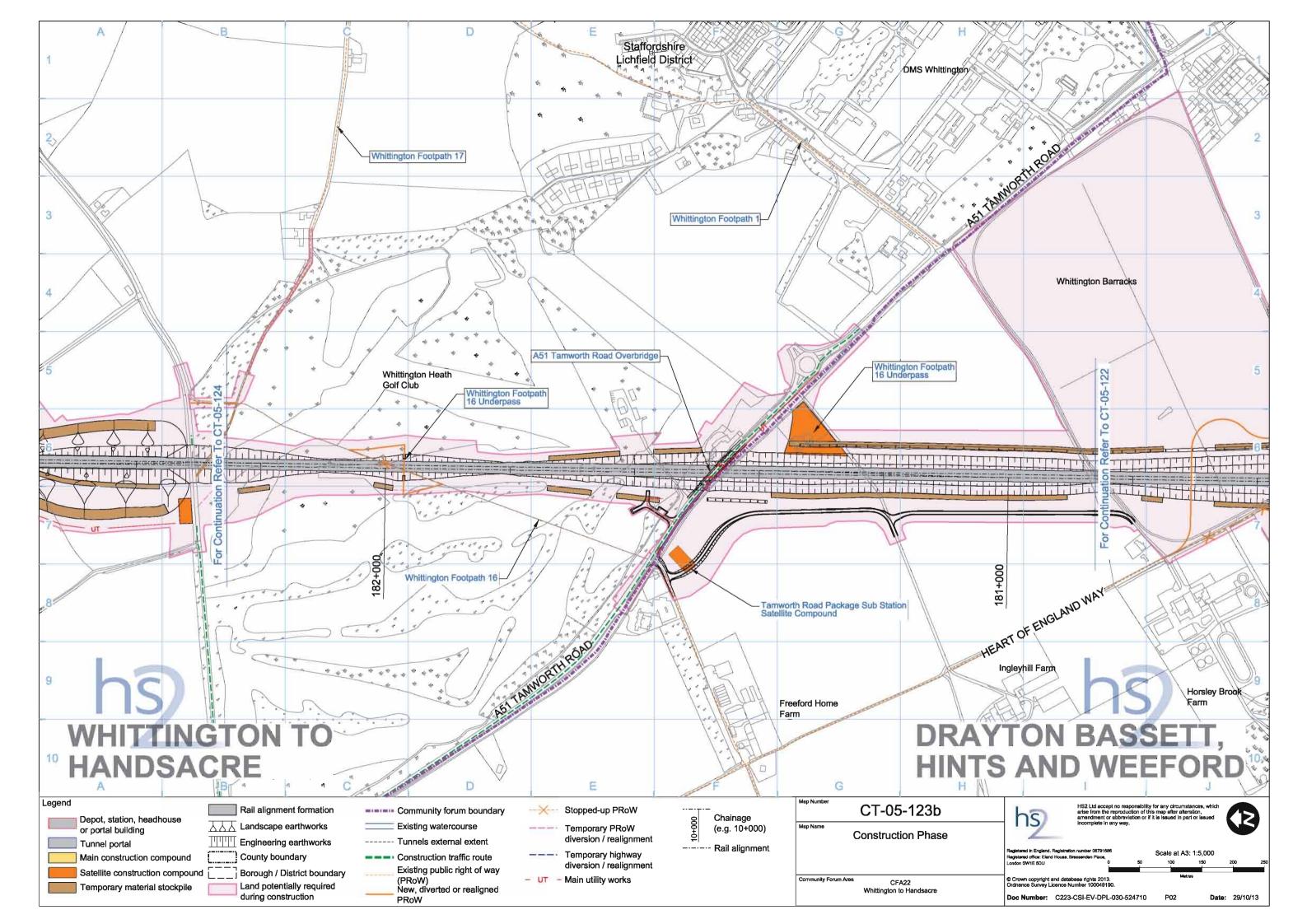
Volume 2 | CT-05 – Construction Phase CT-06 – Proposed Scheme

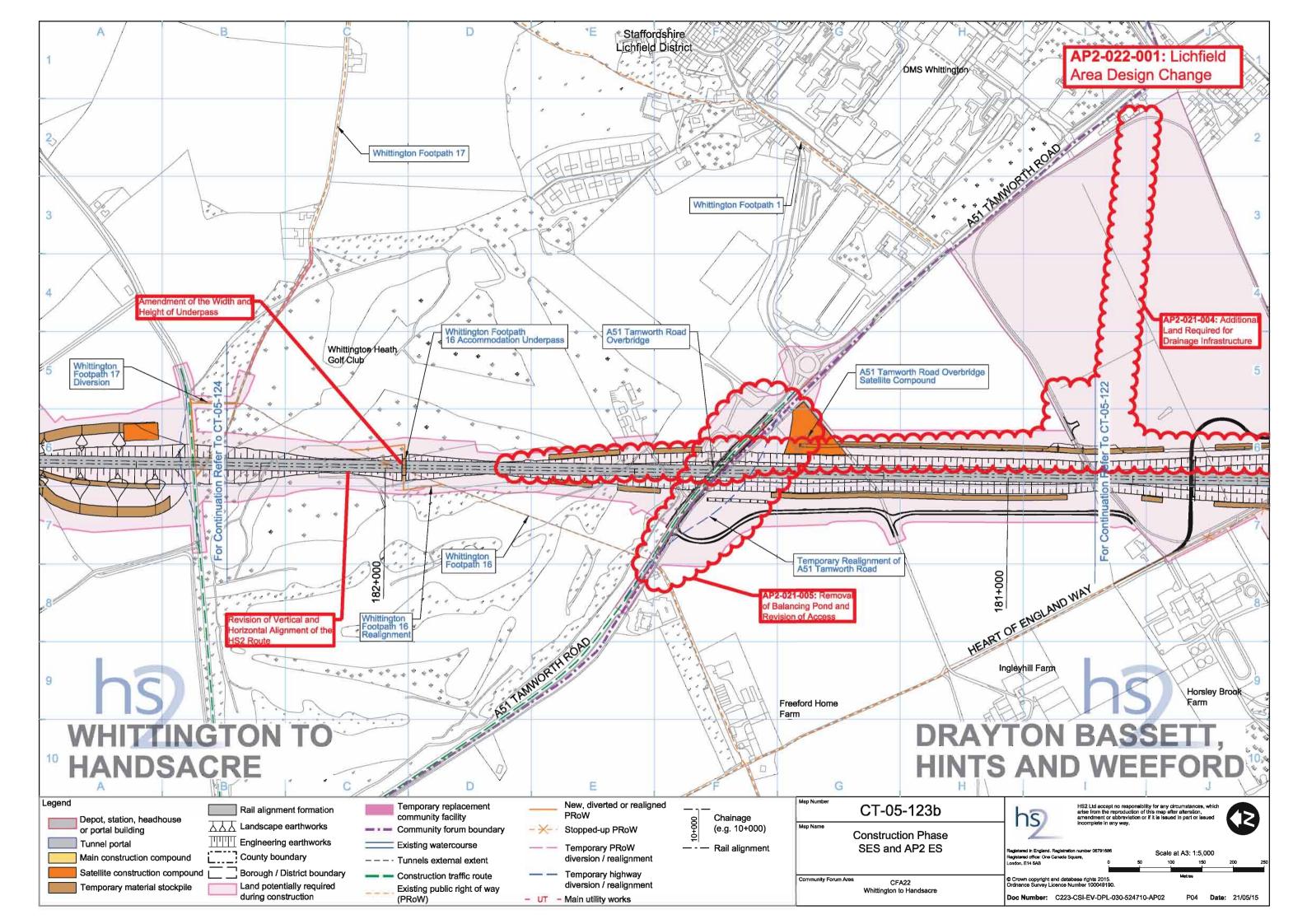
SES and AP2 ES – VOLUME 2

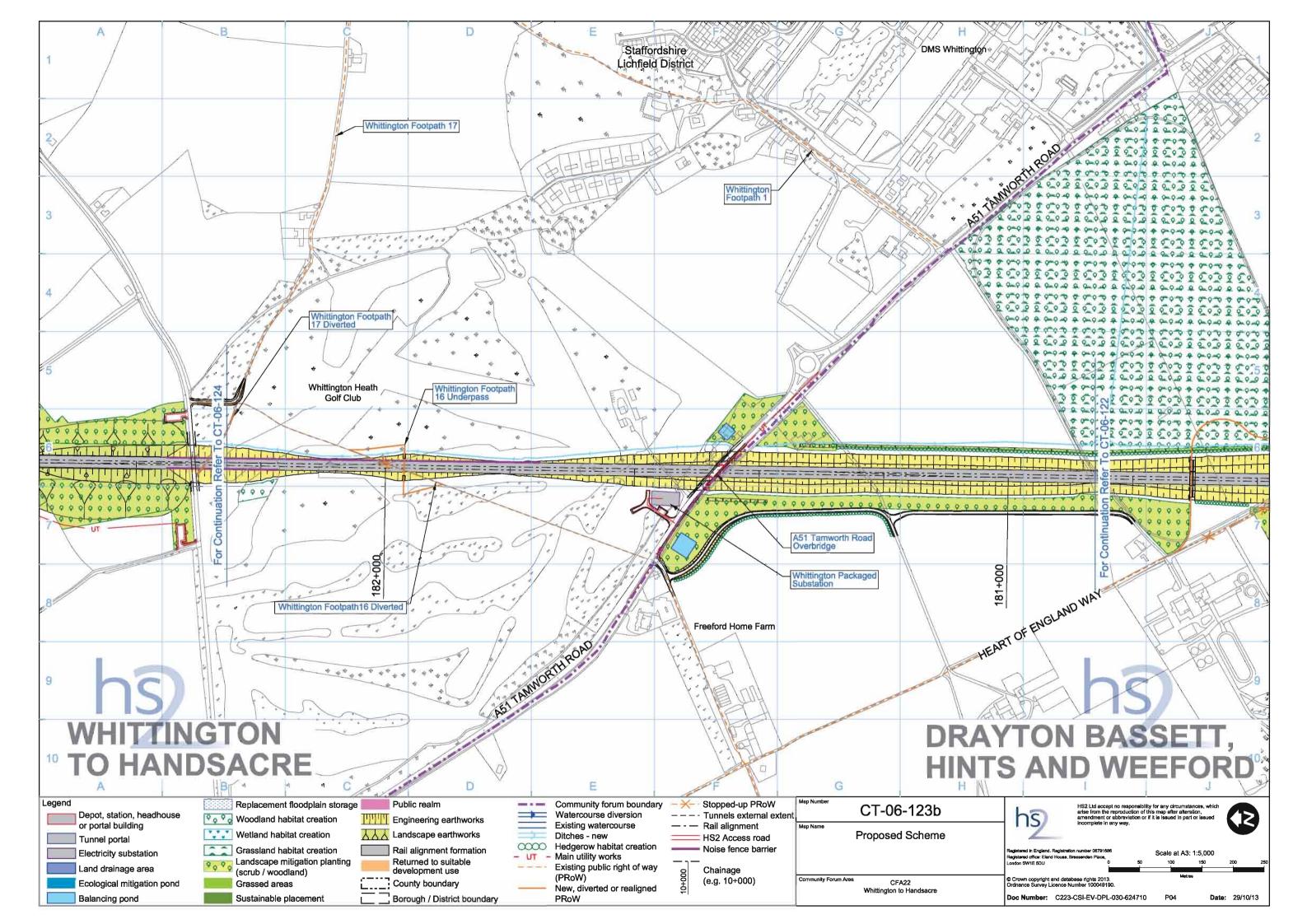


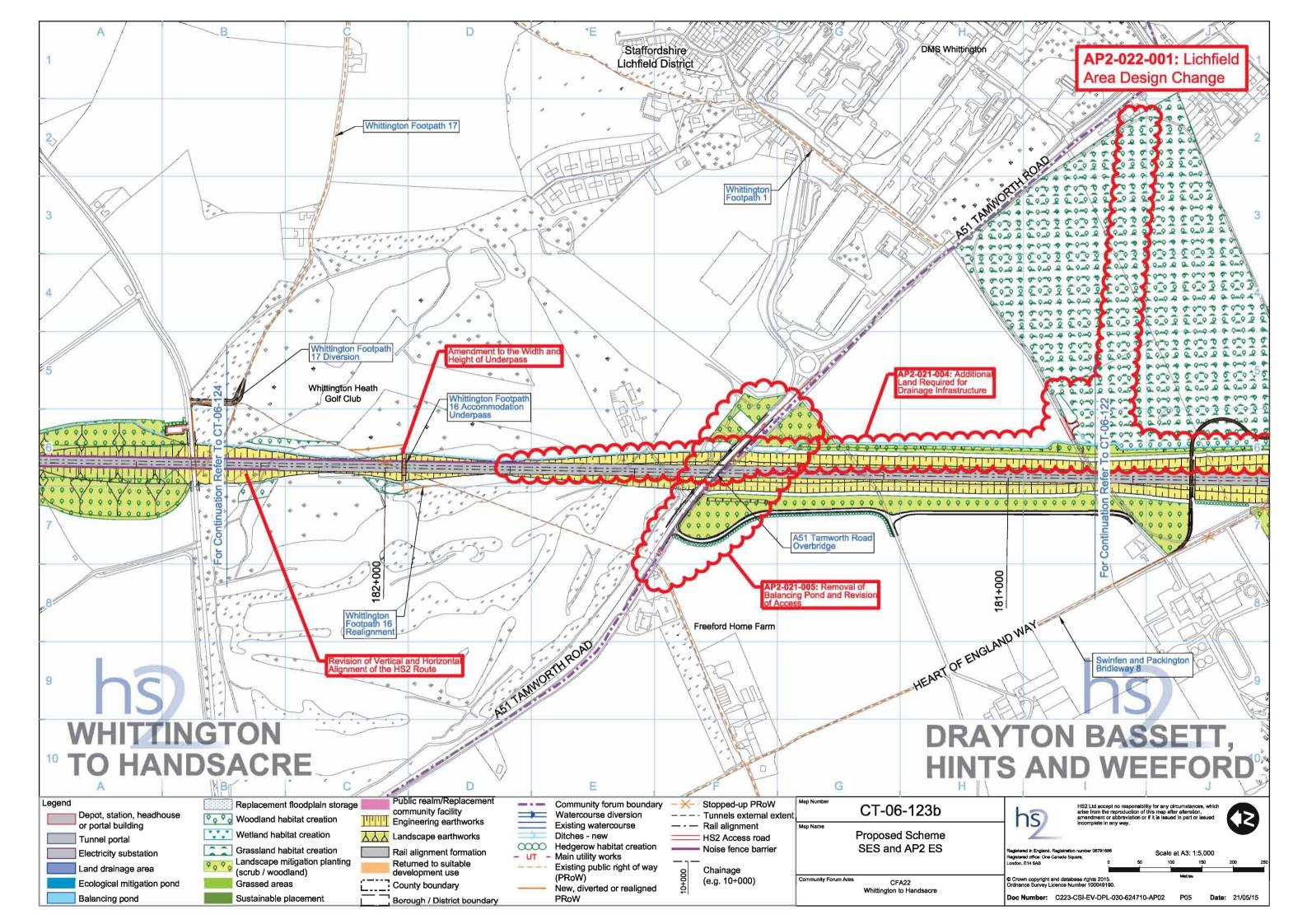


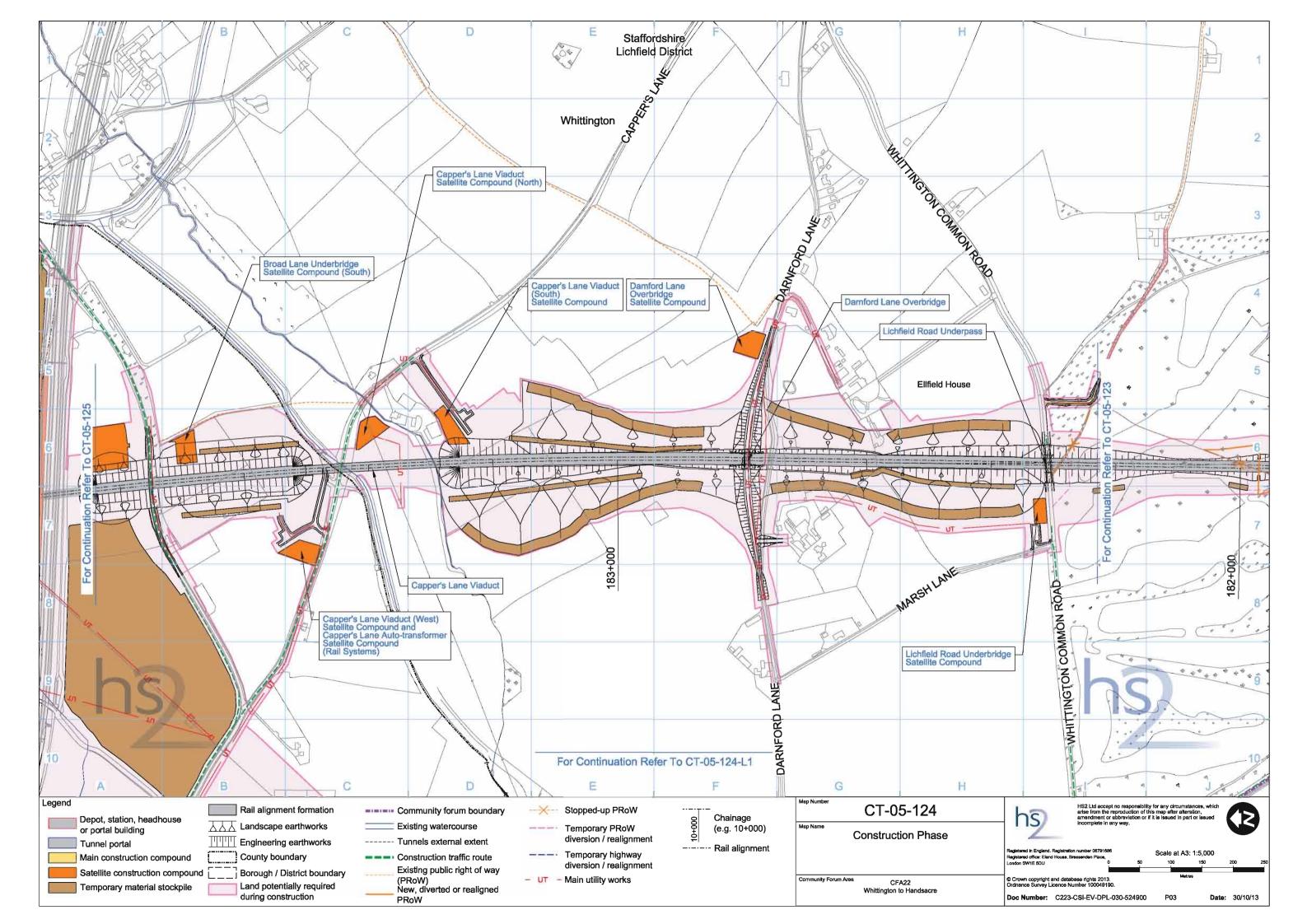


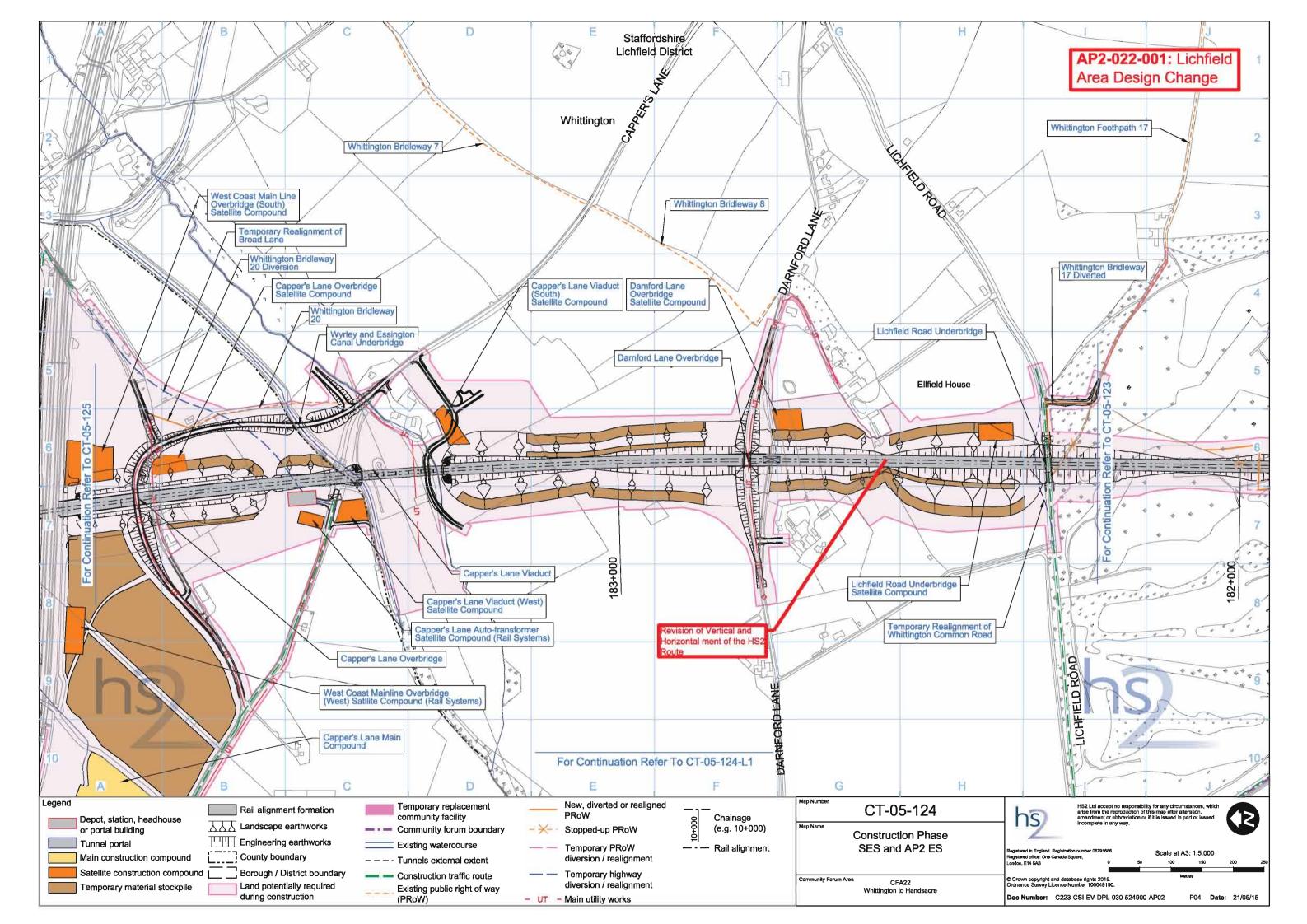


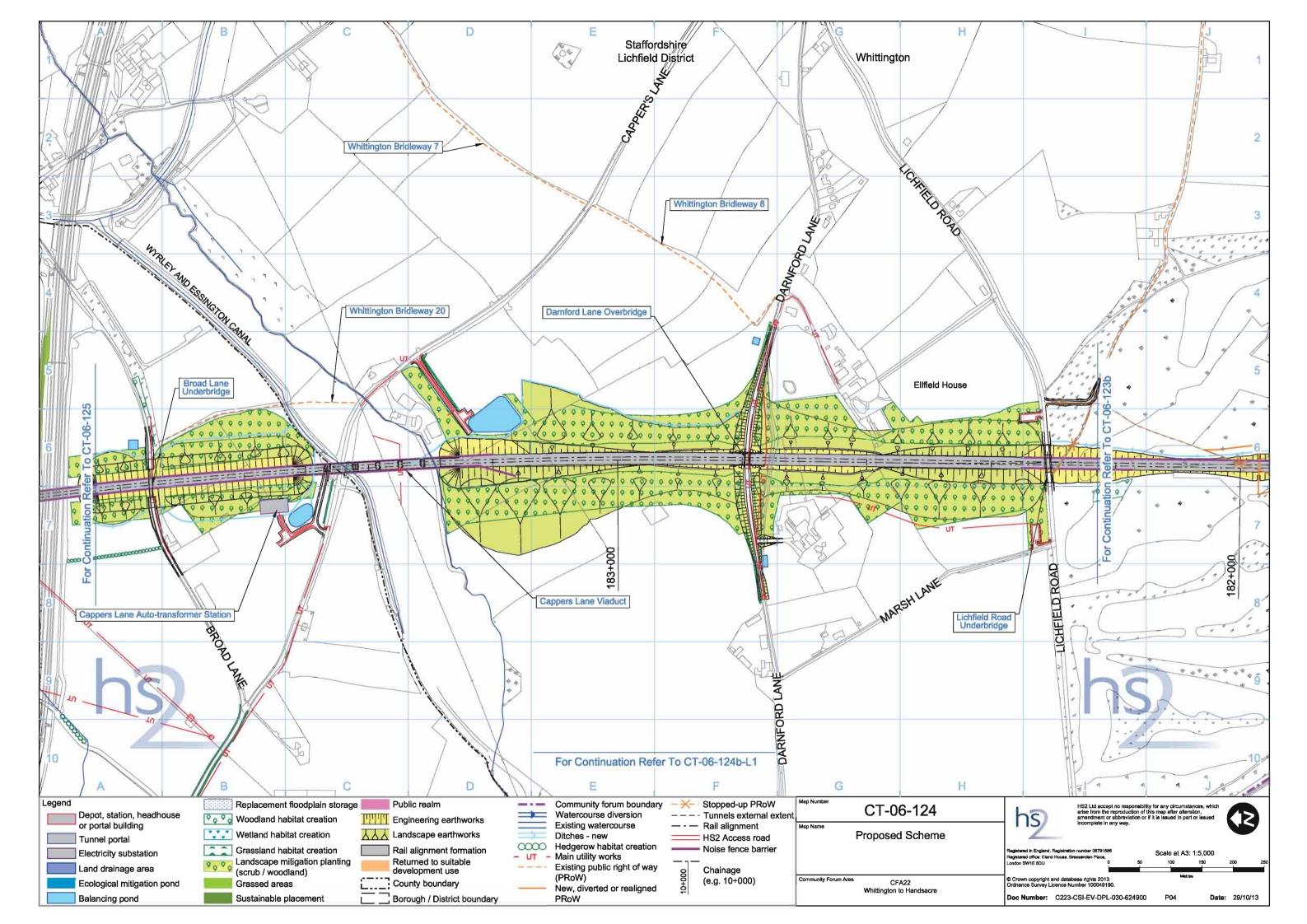


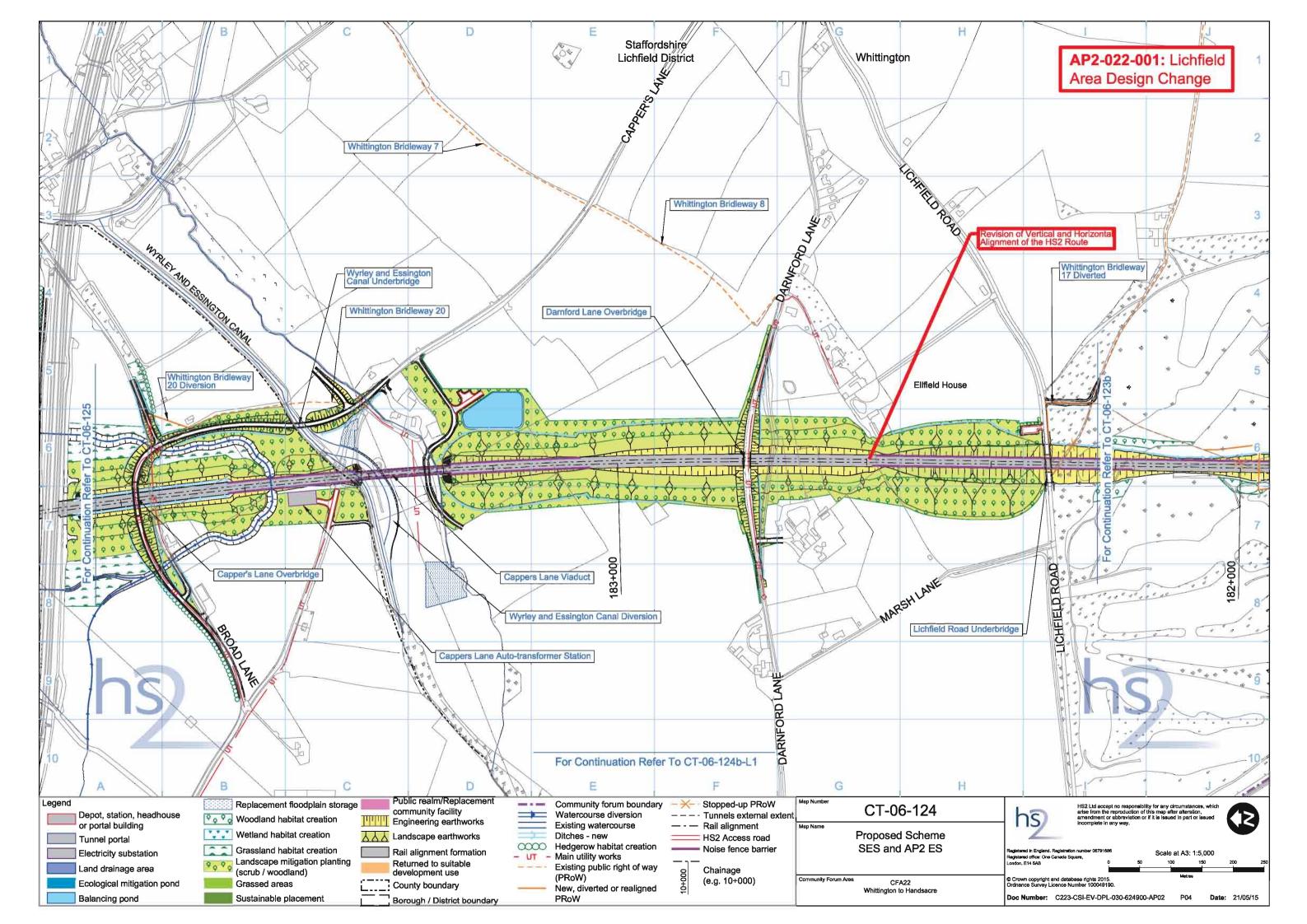


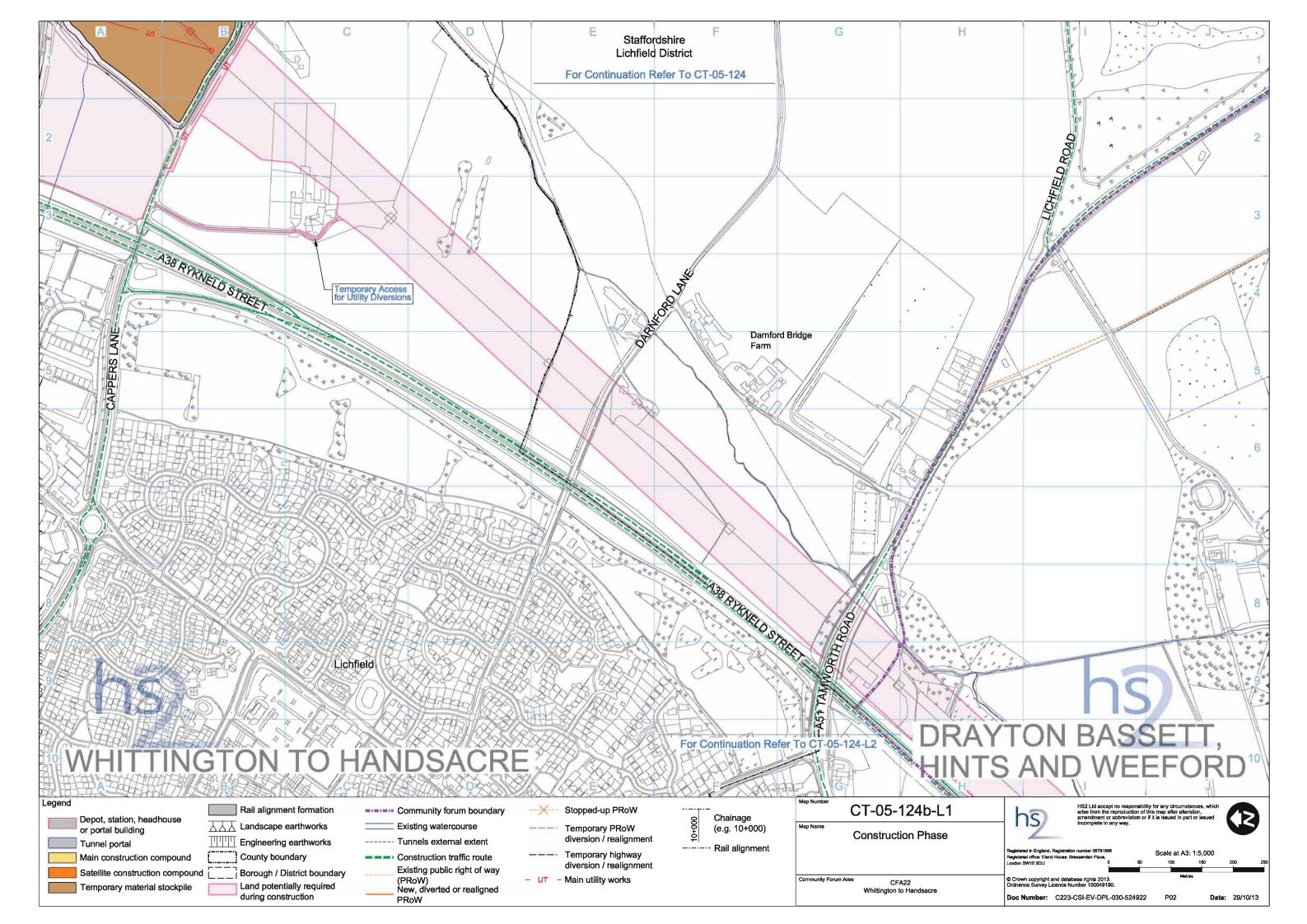


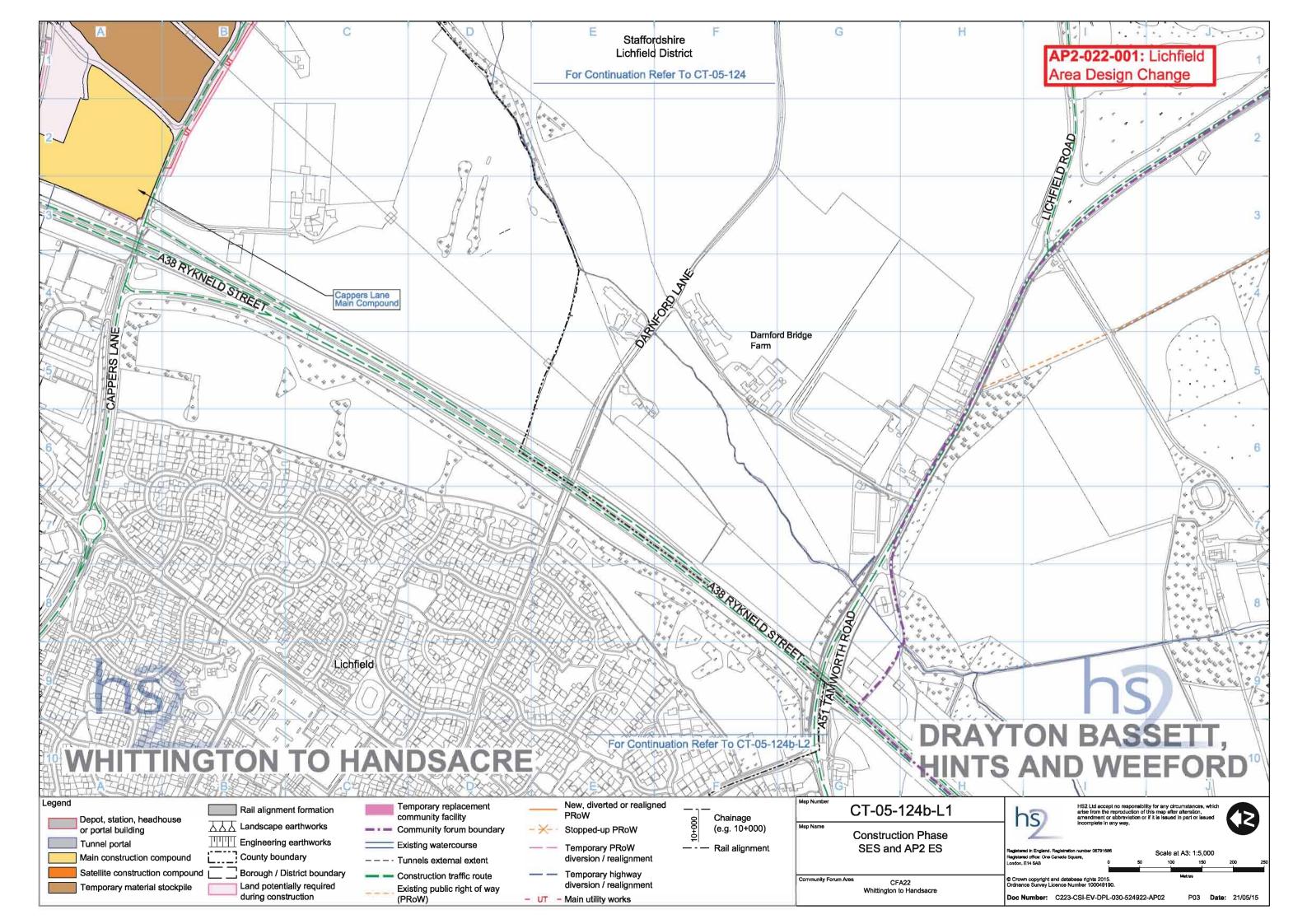


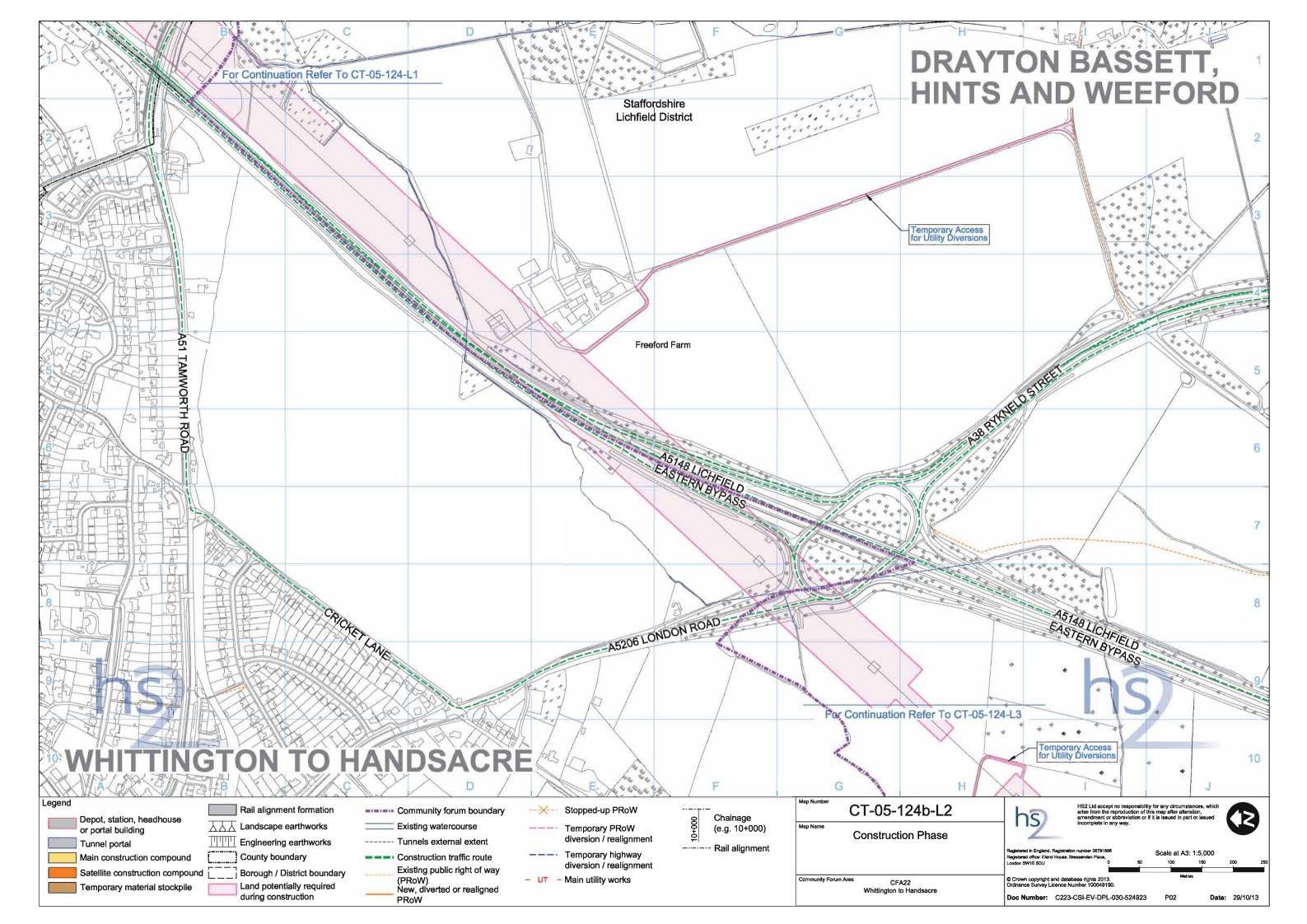


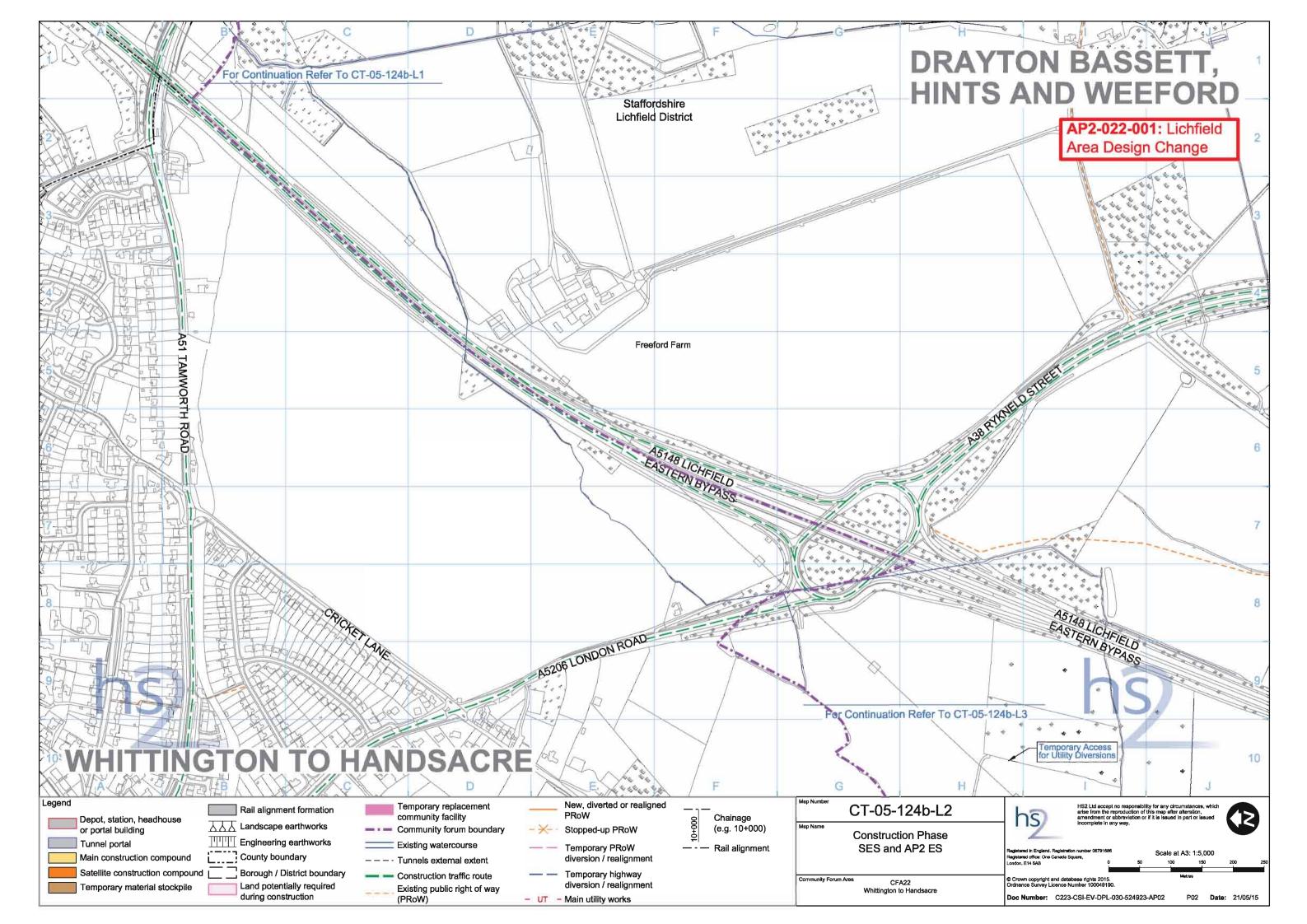


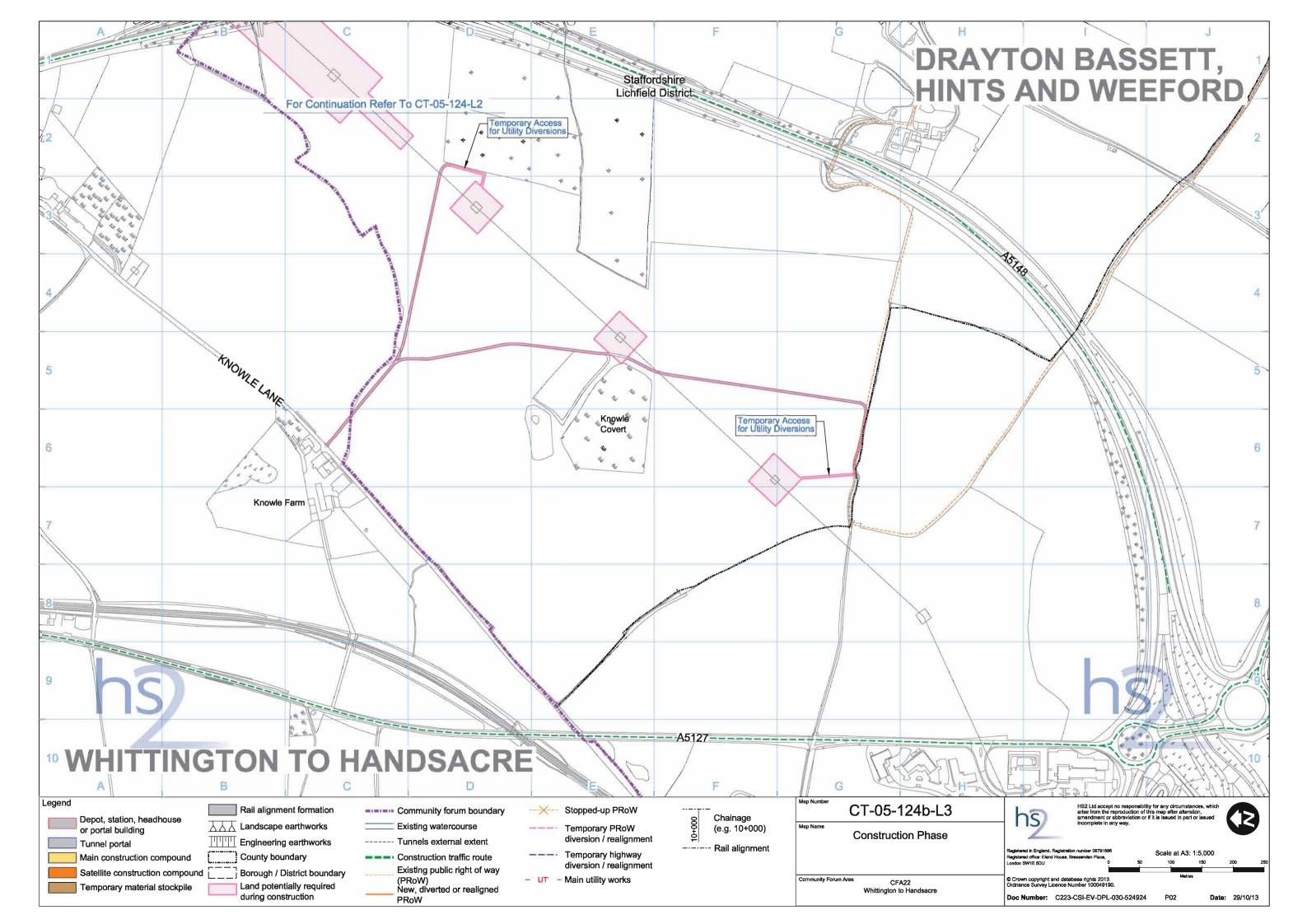


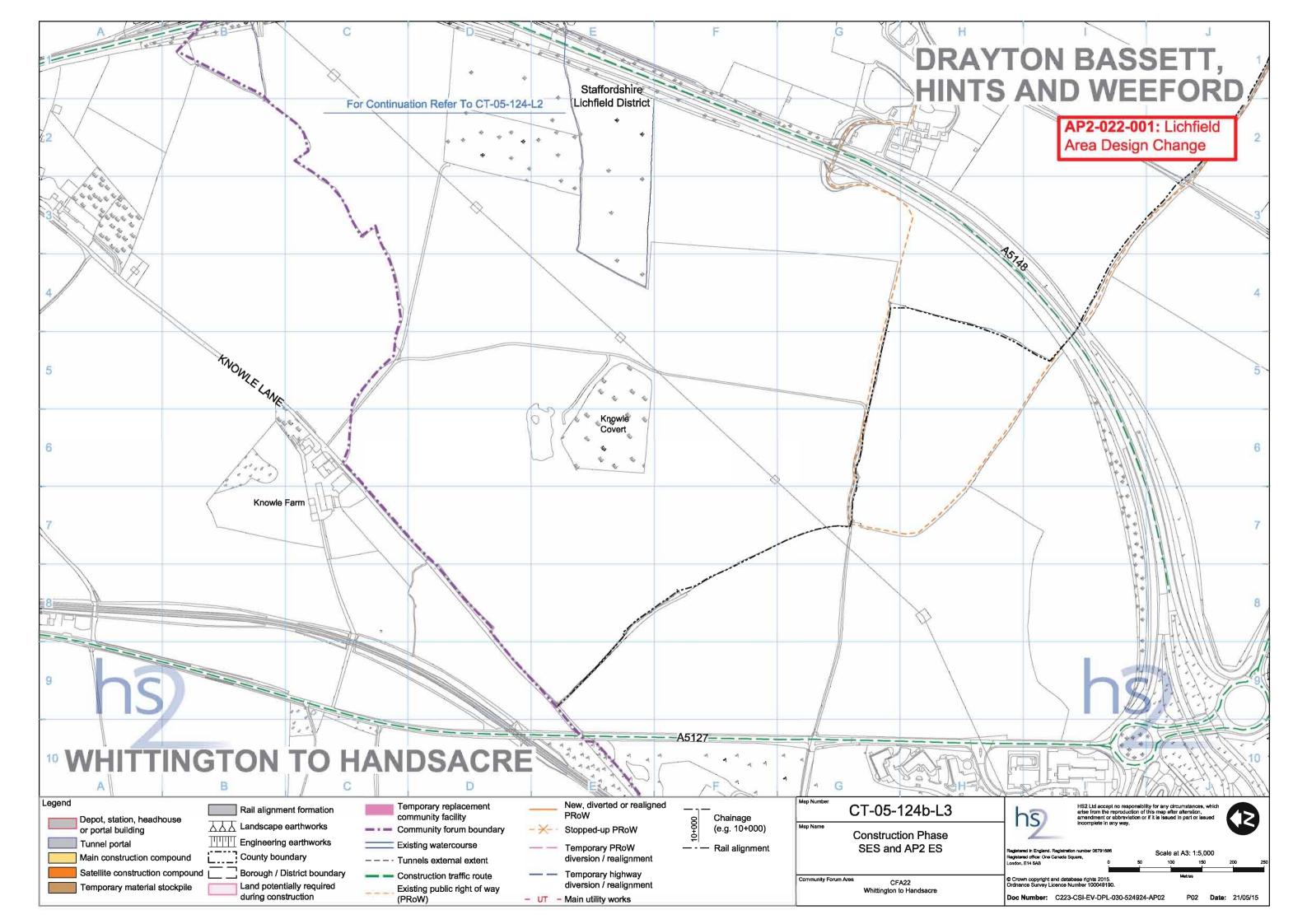


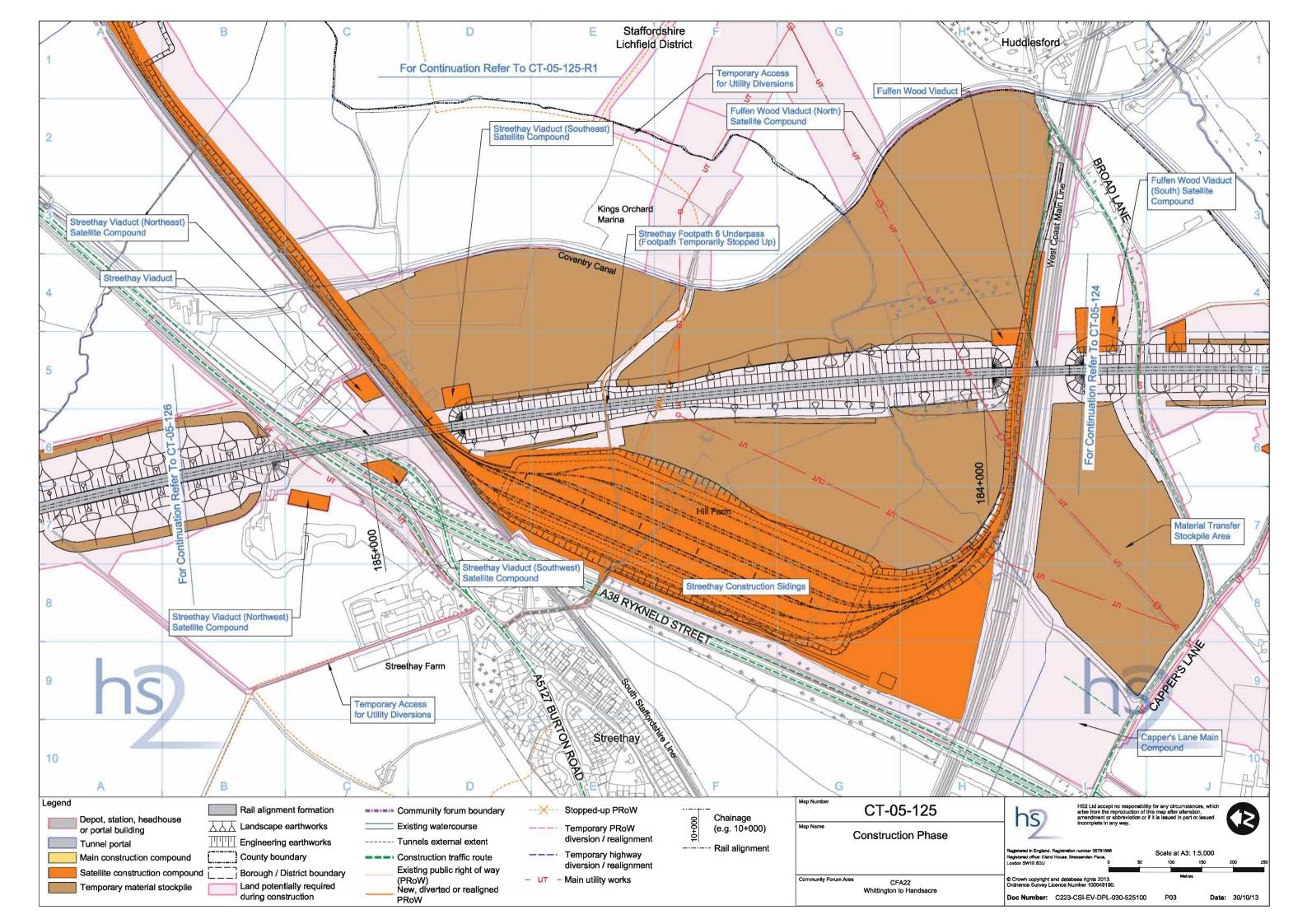


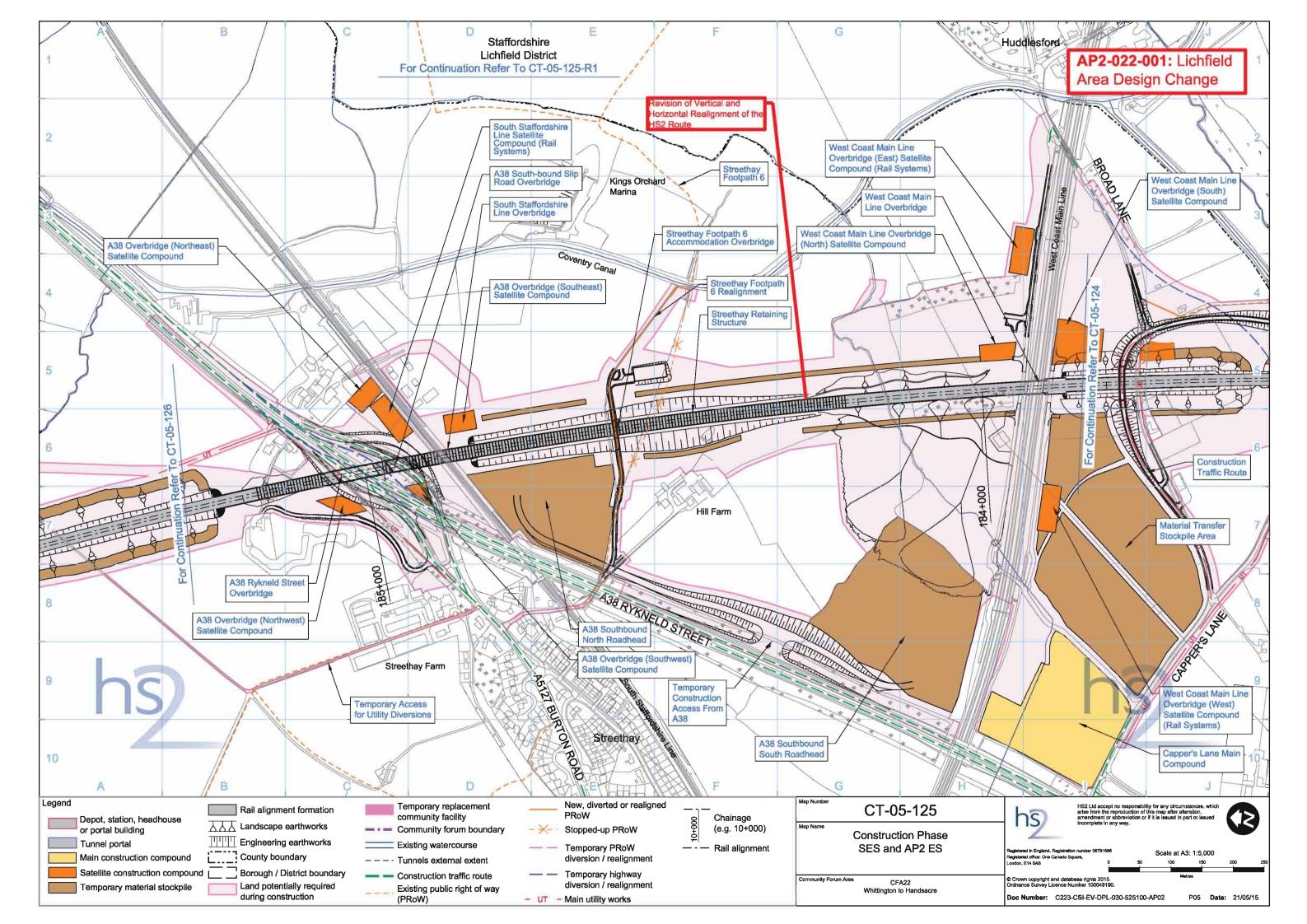


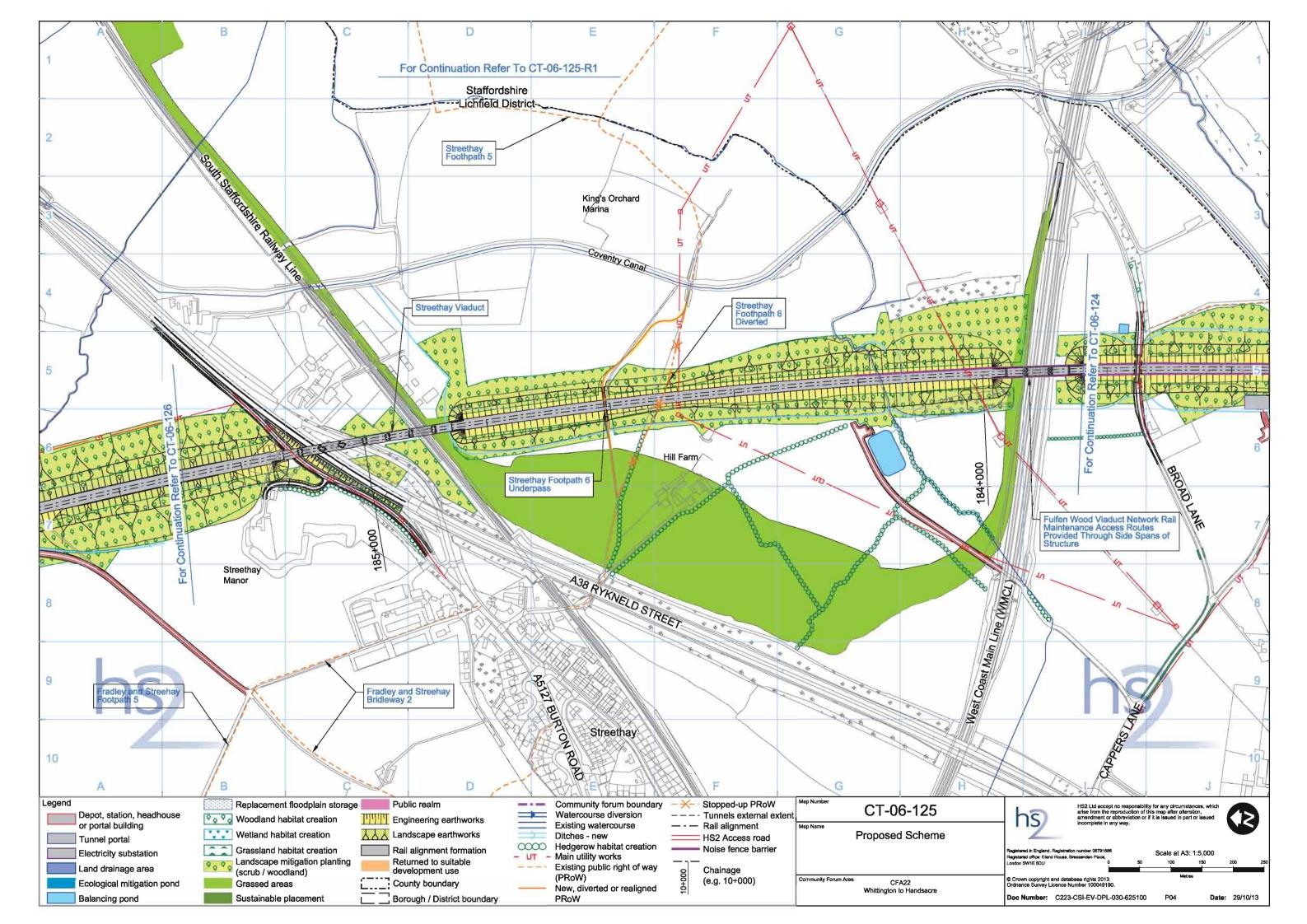


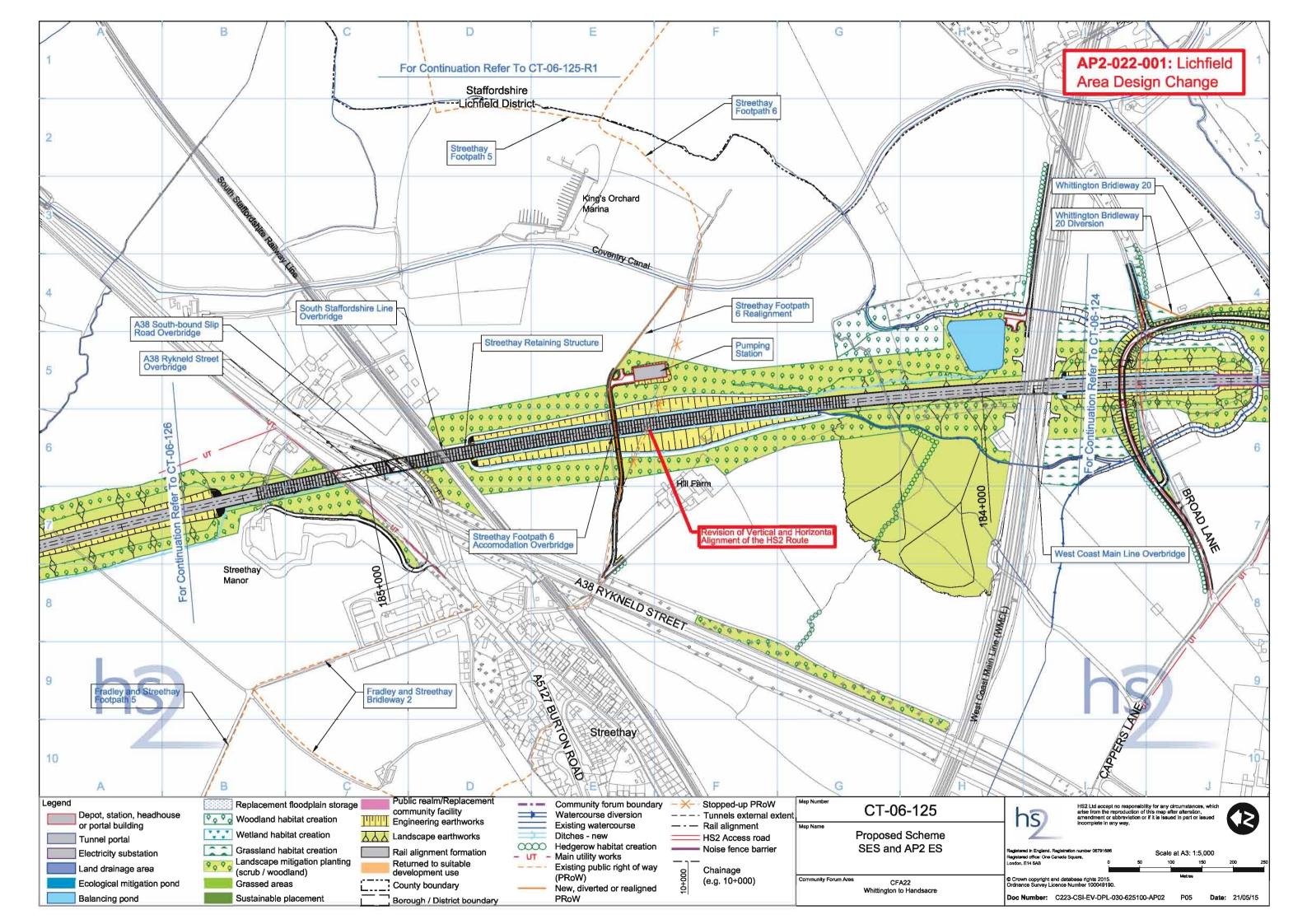


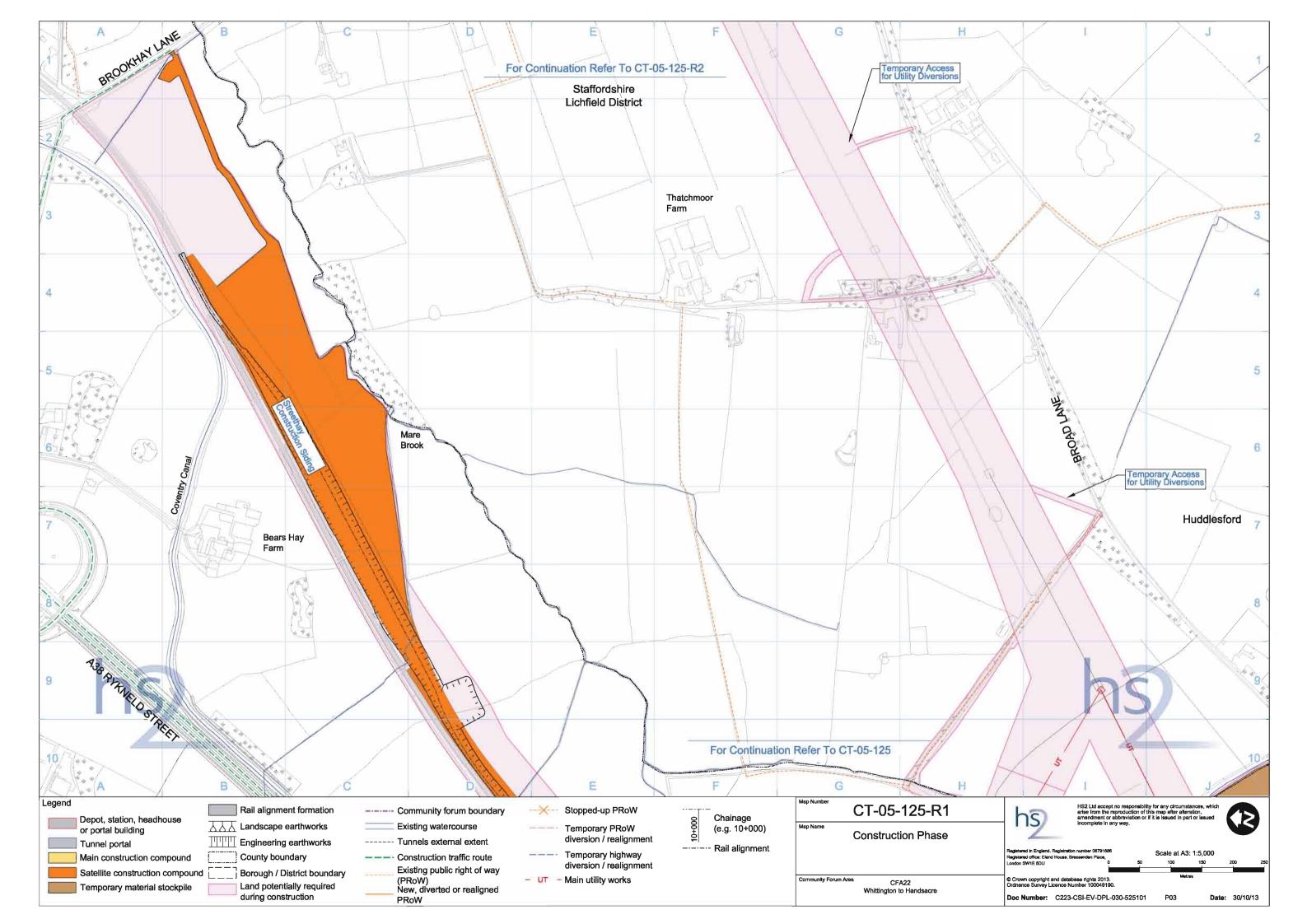


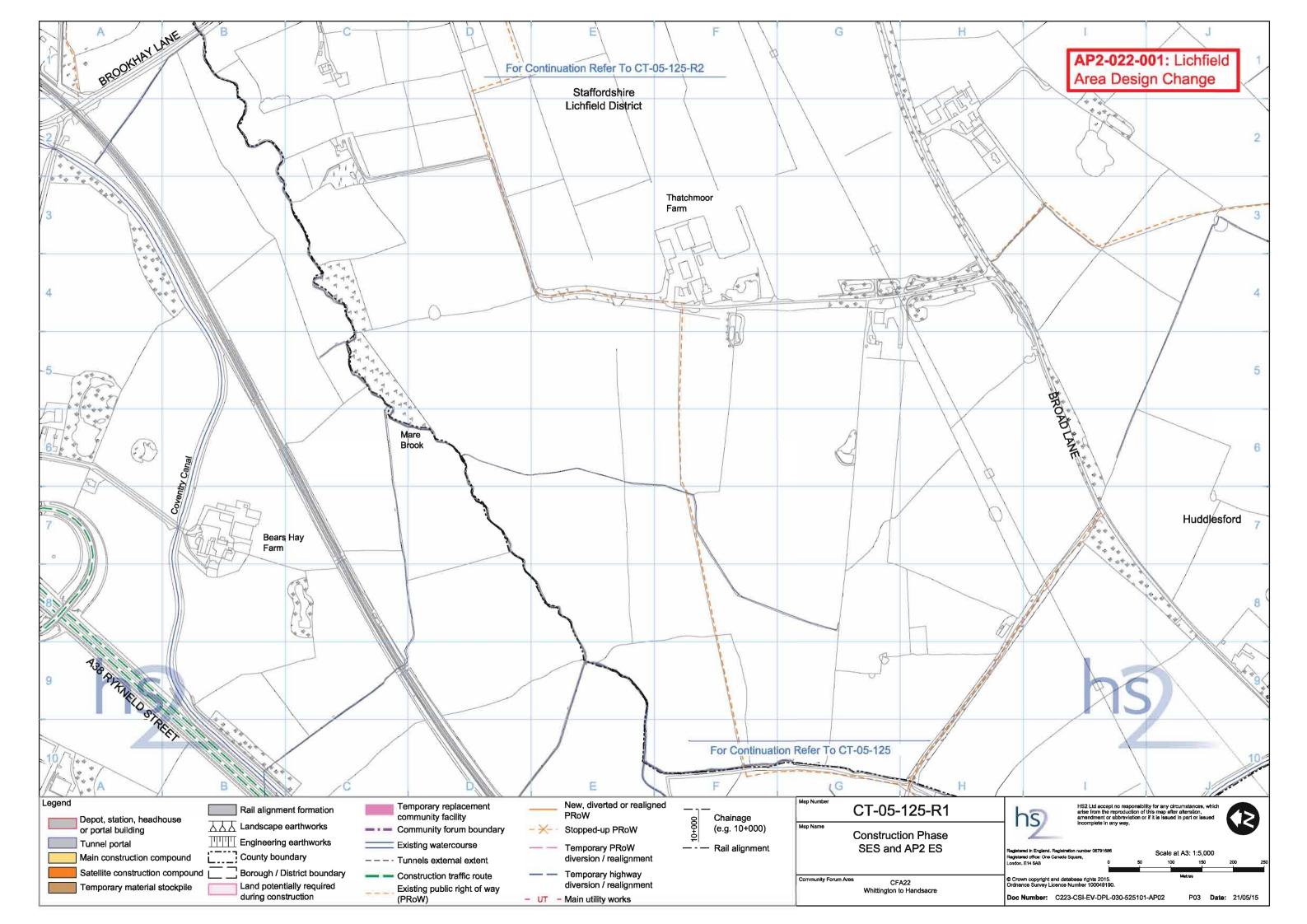


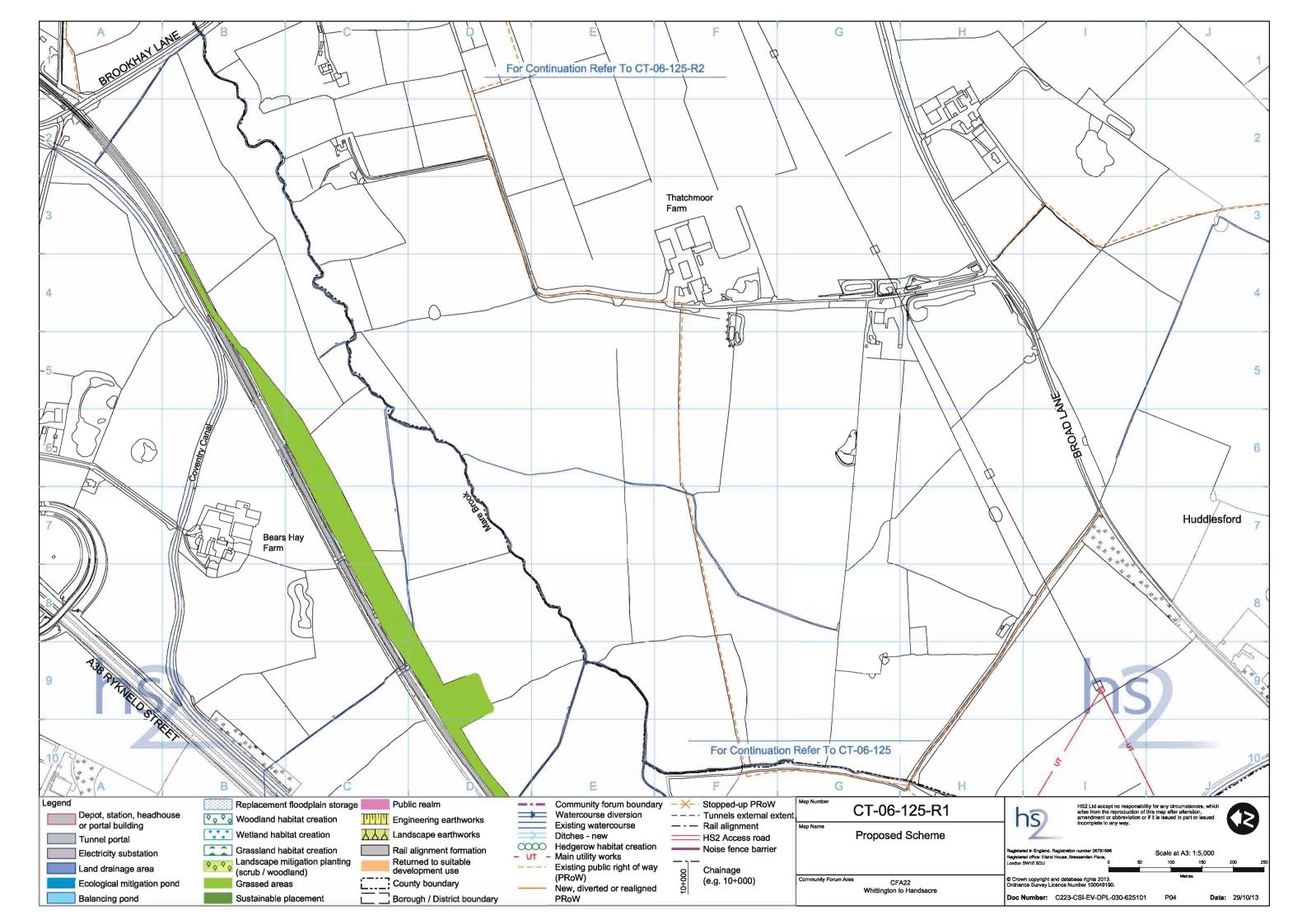


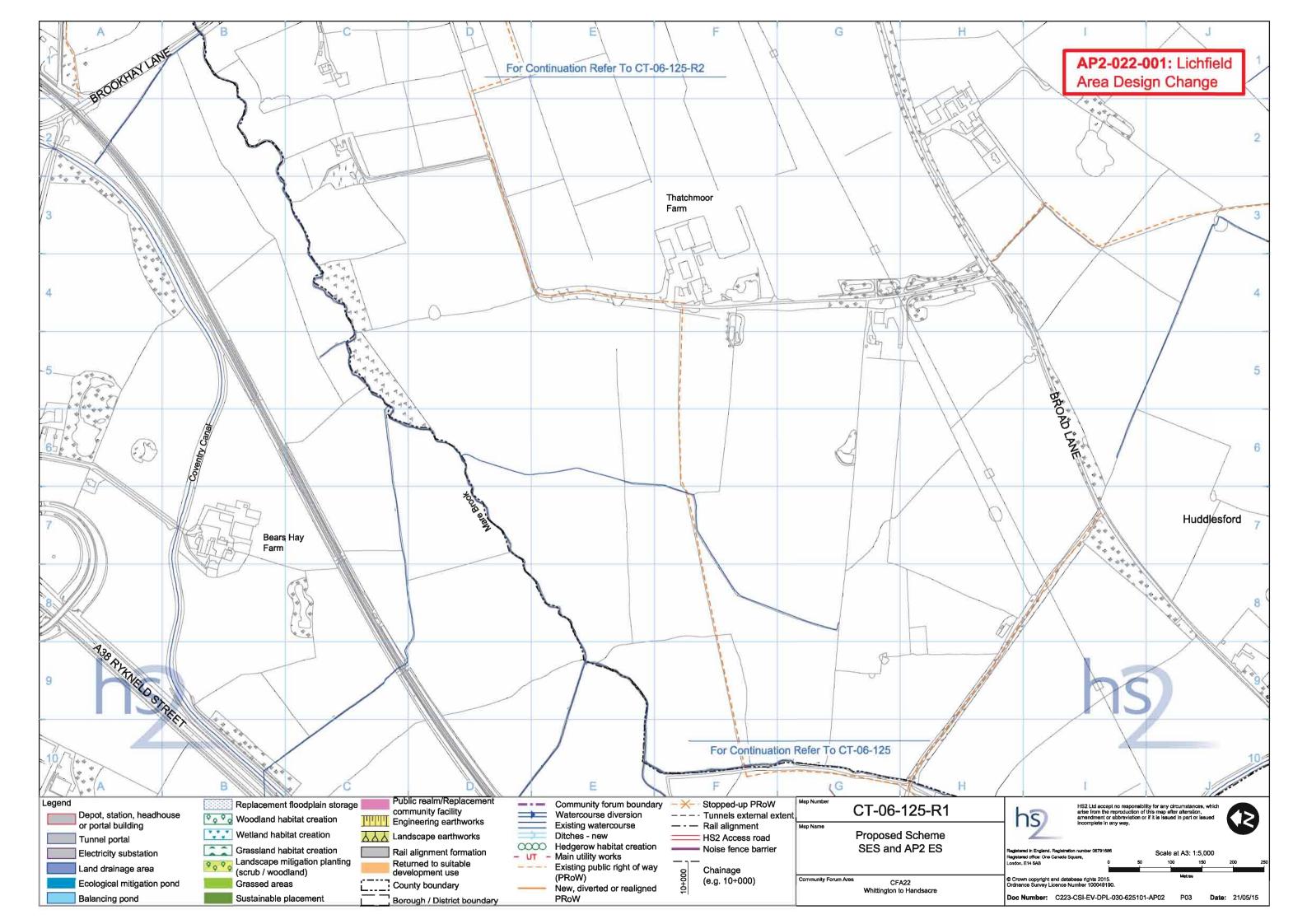


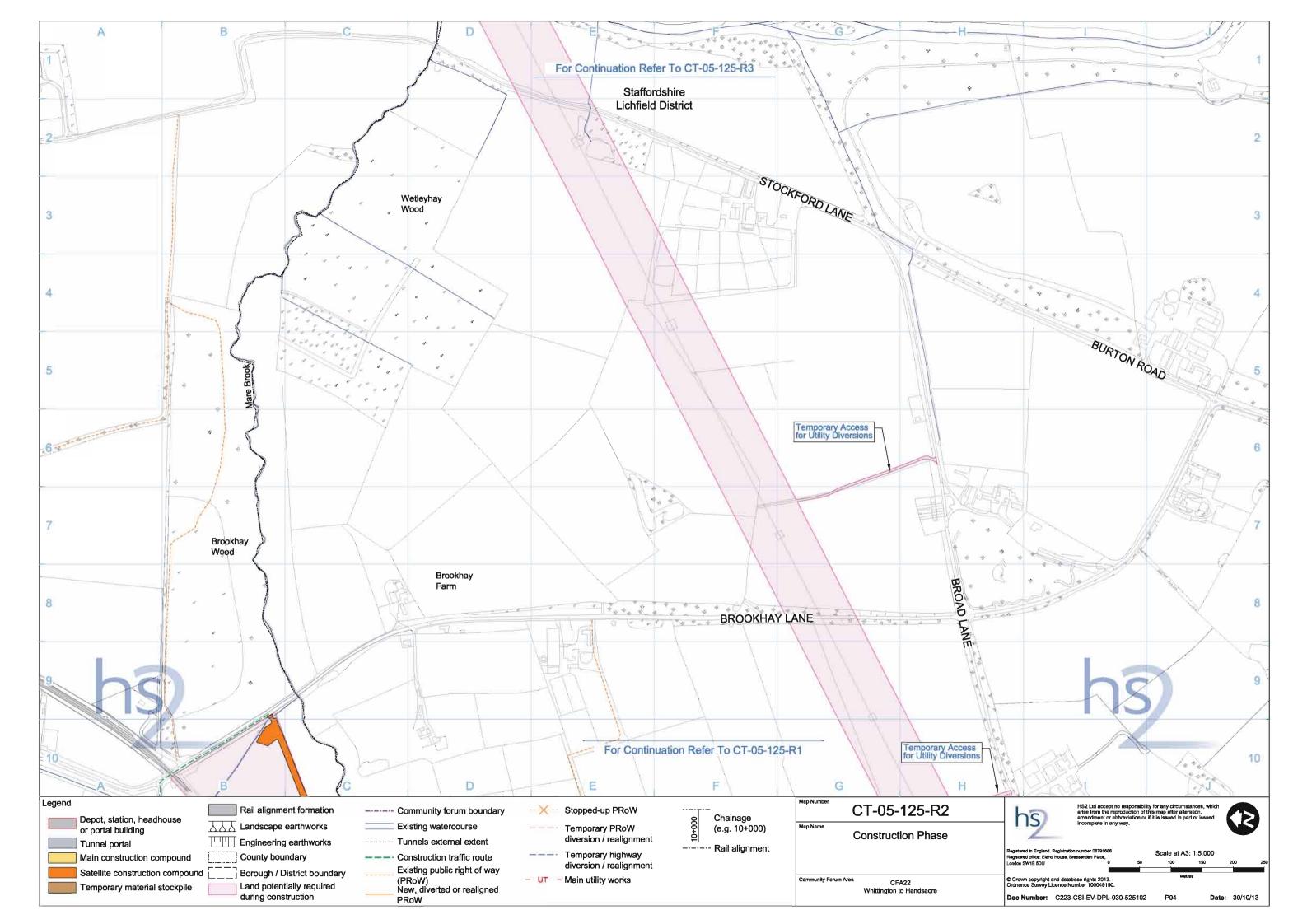


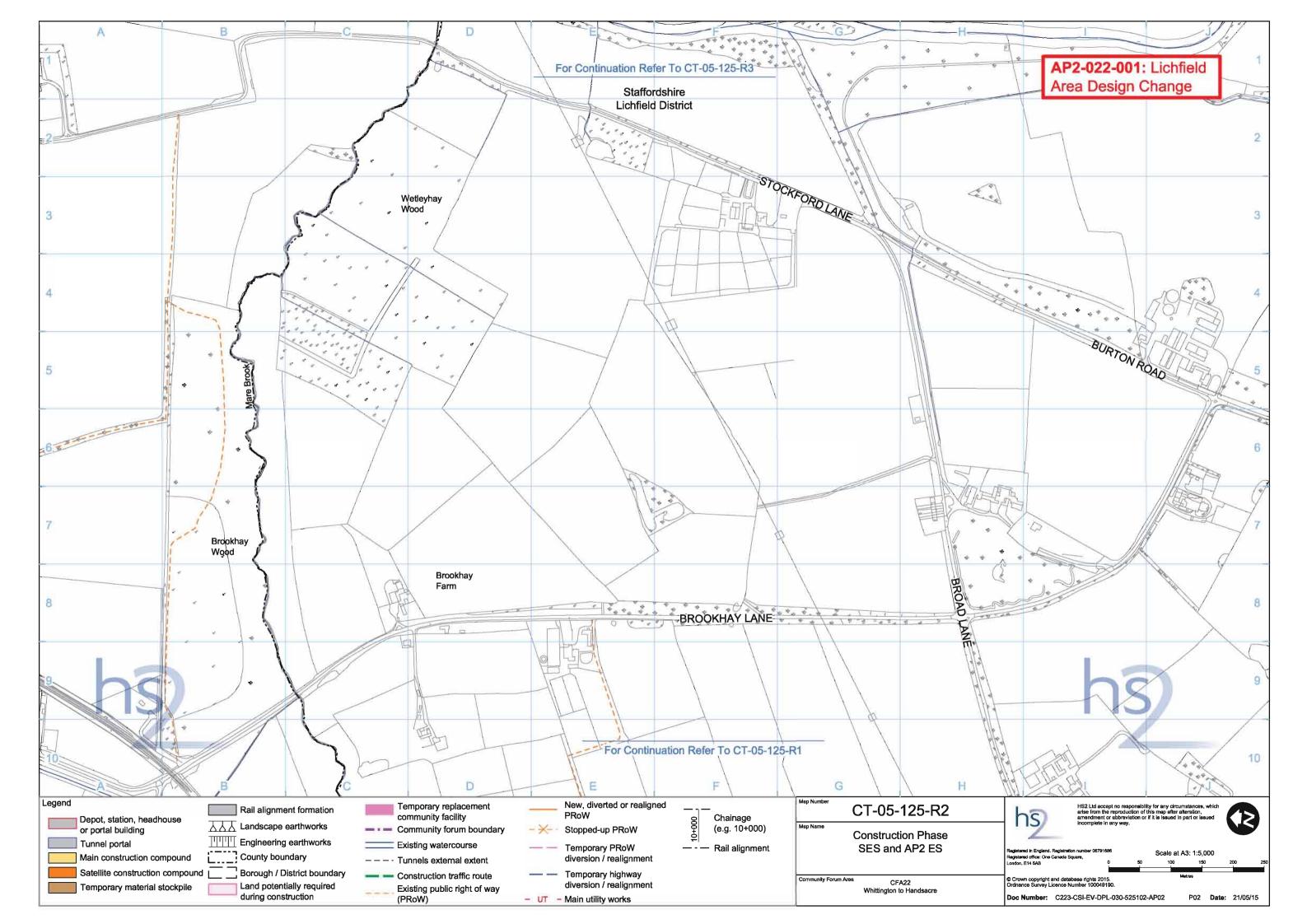


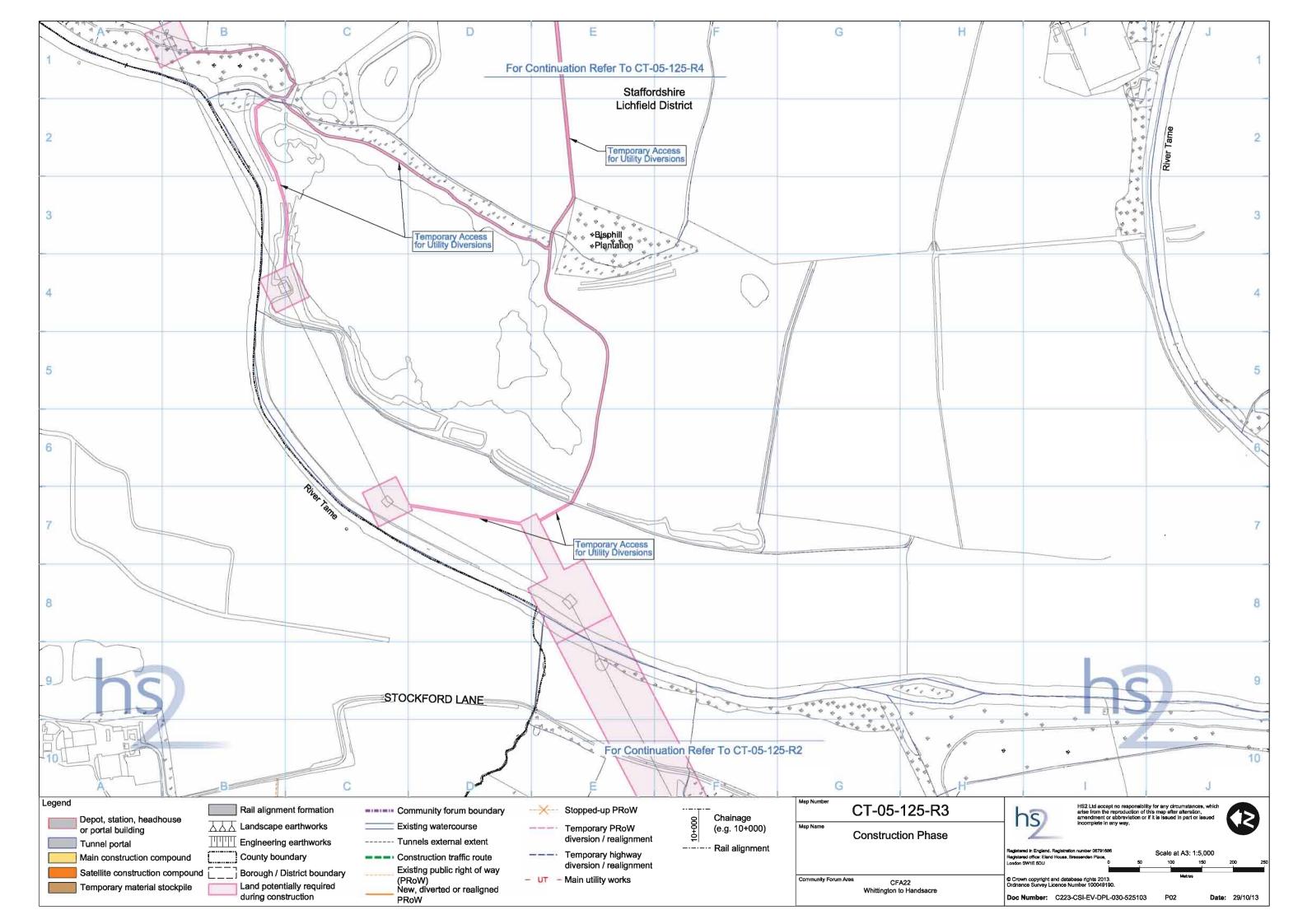


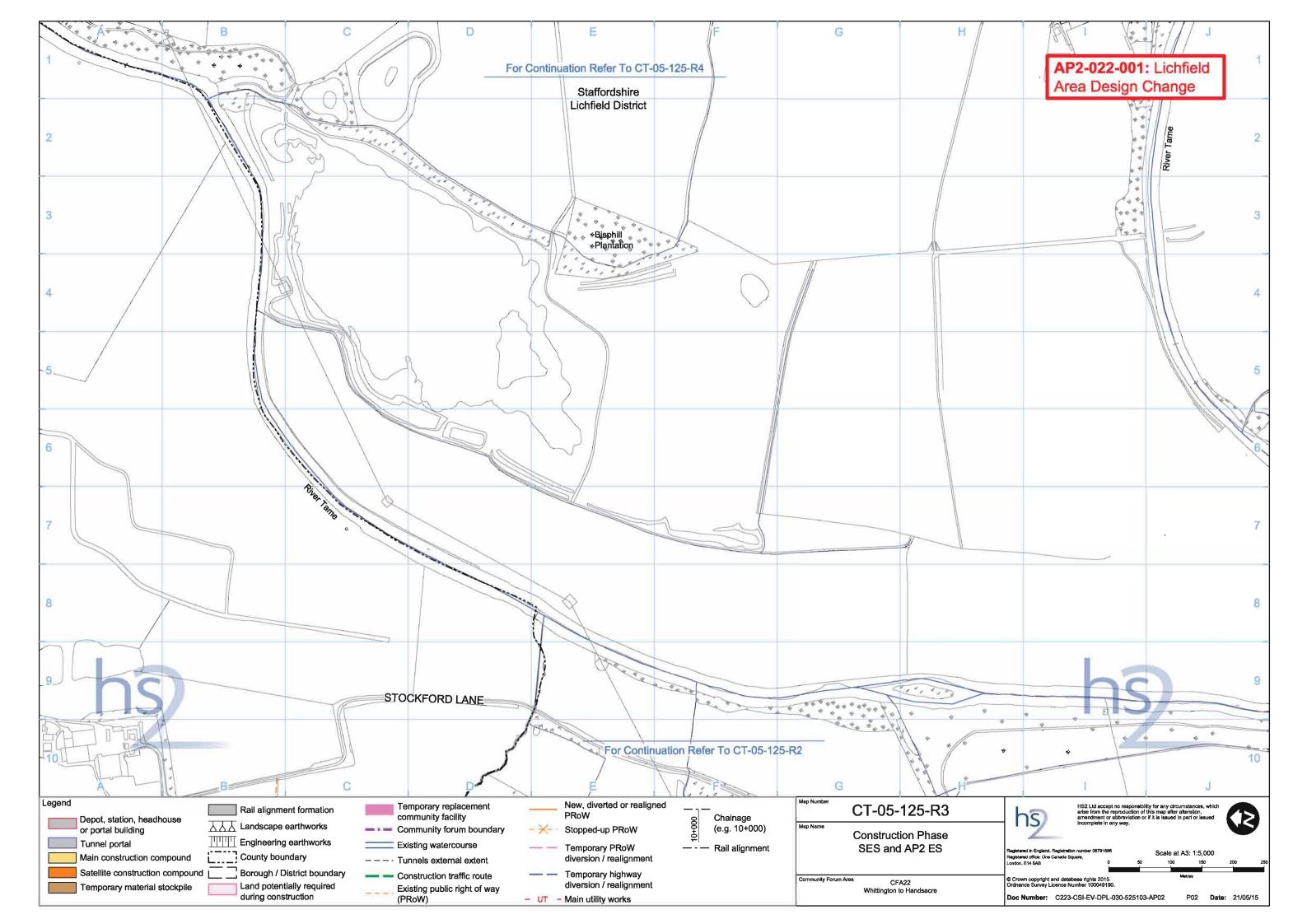


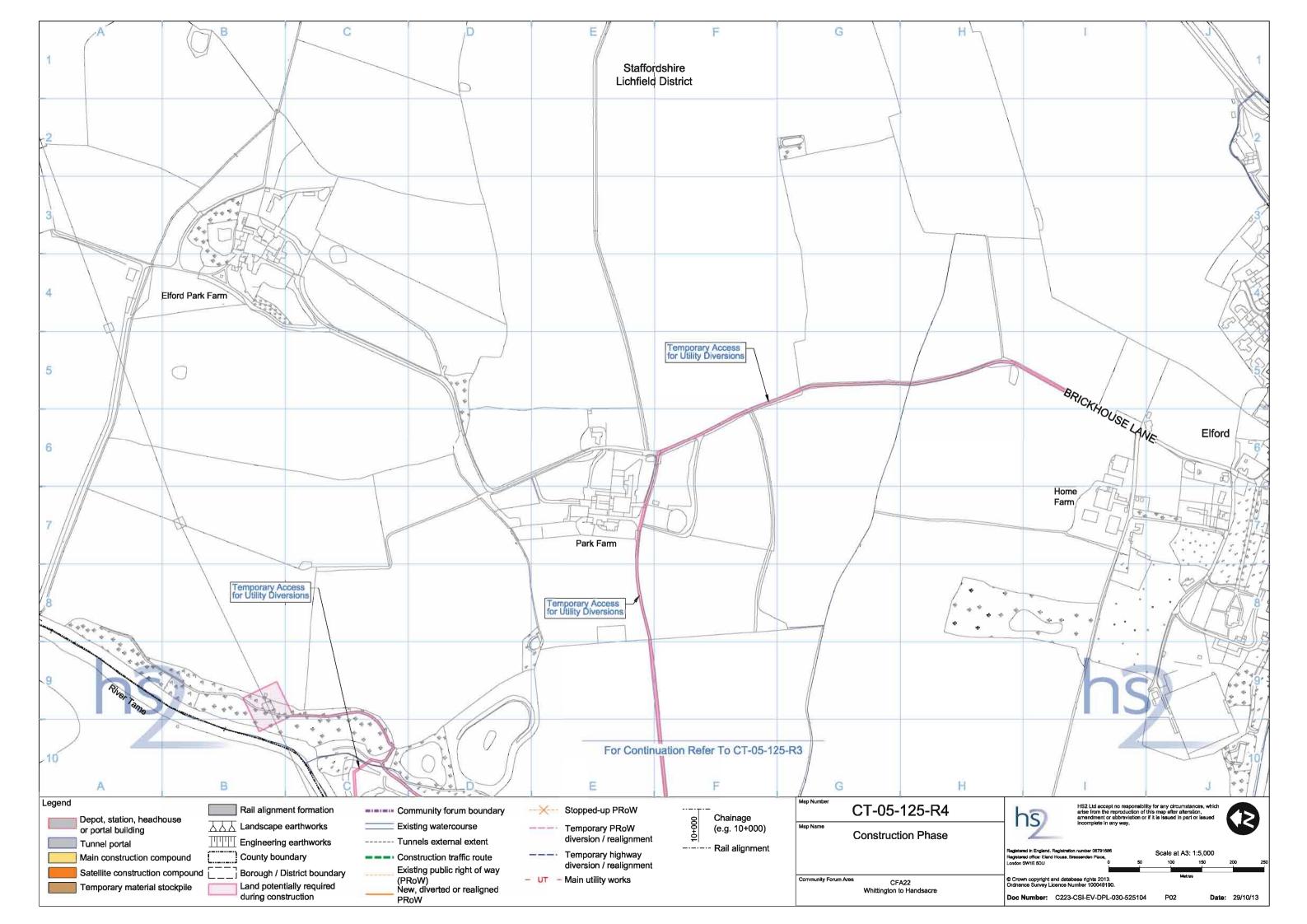


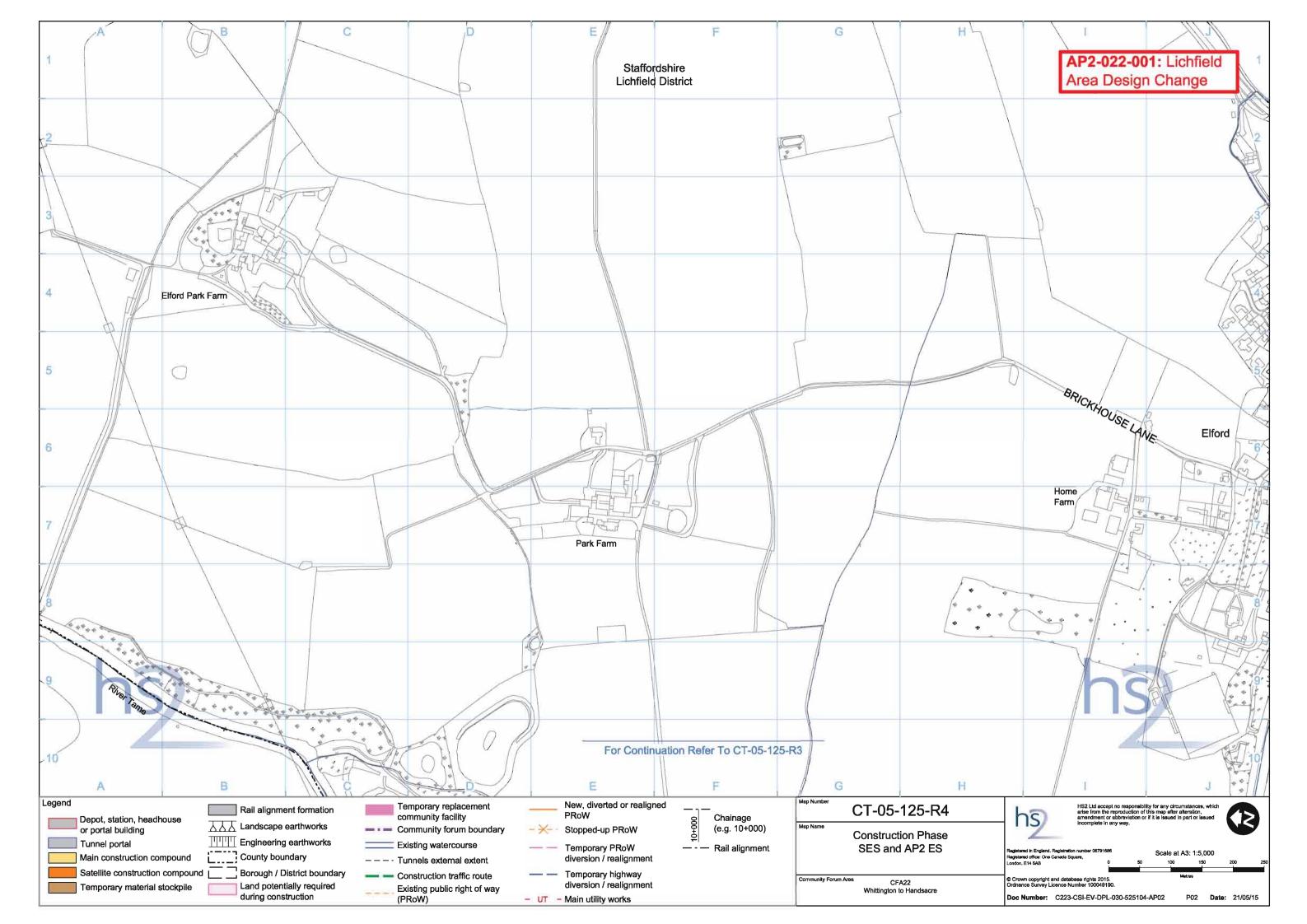


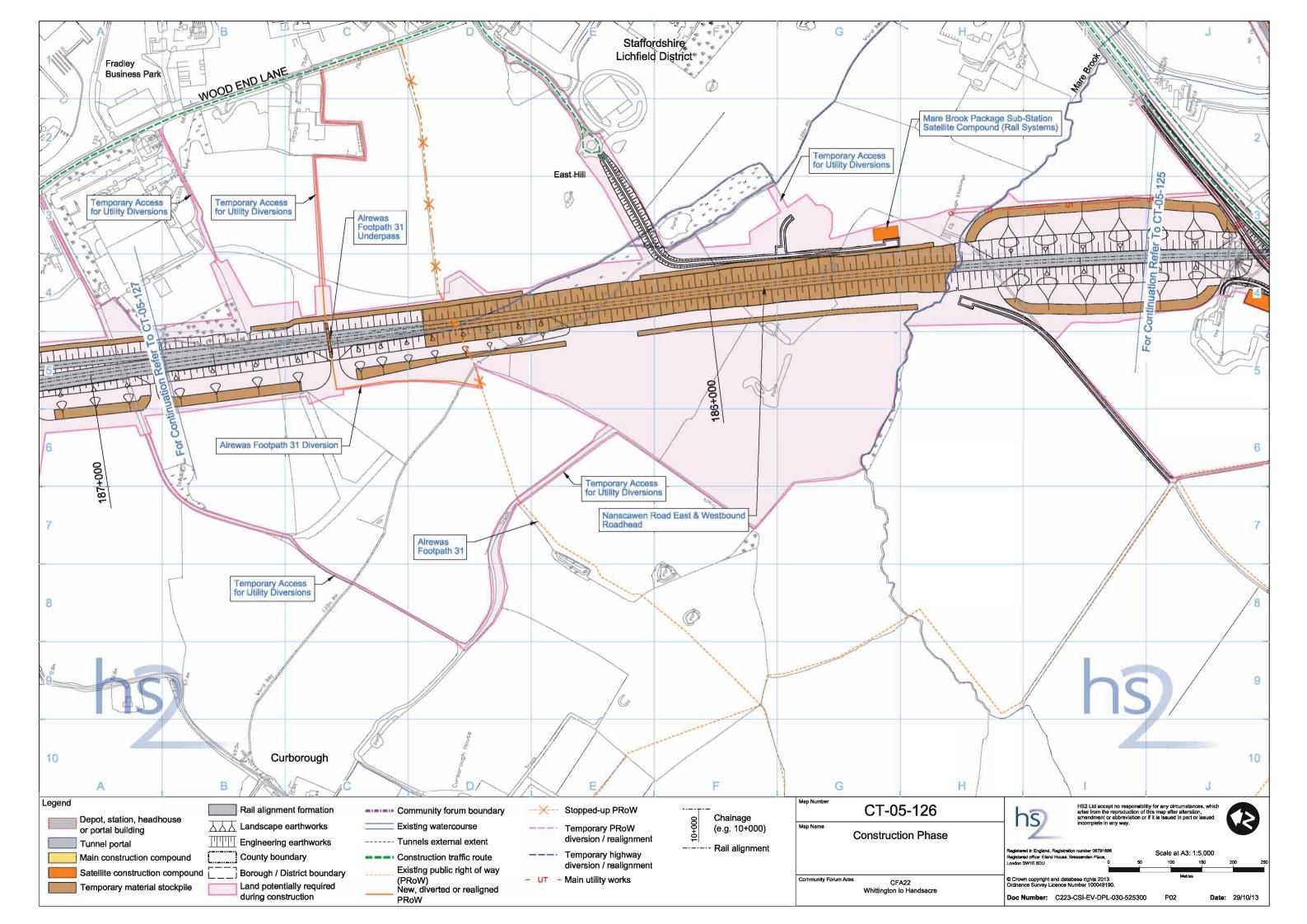


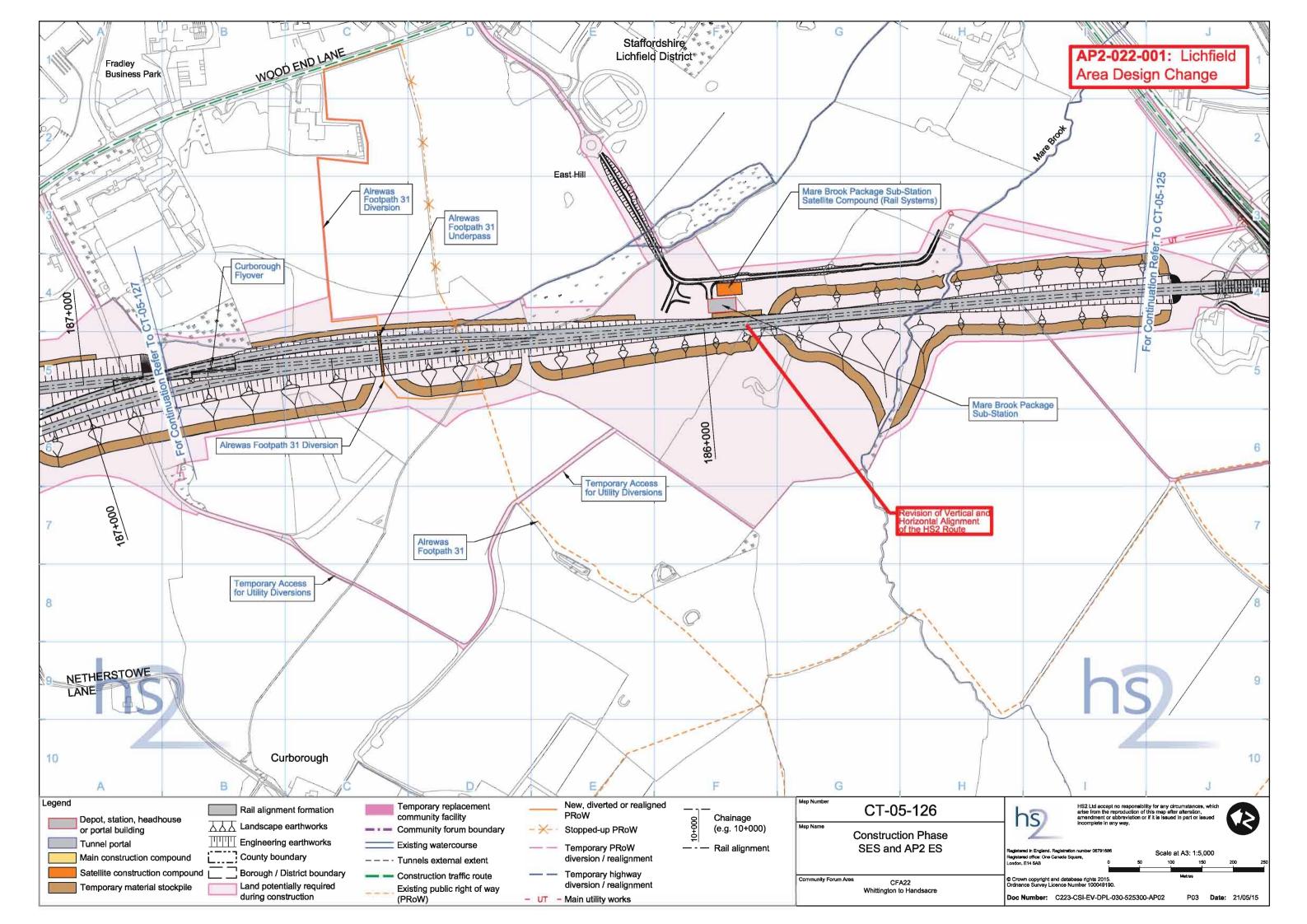


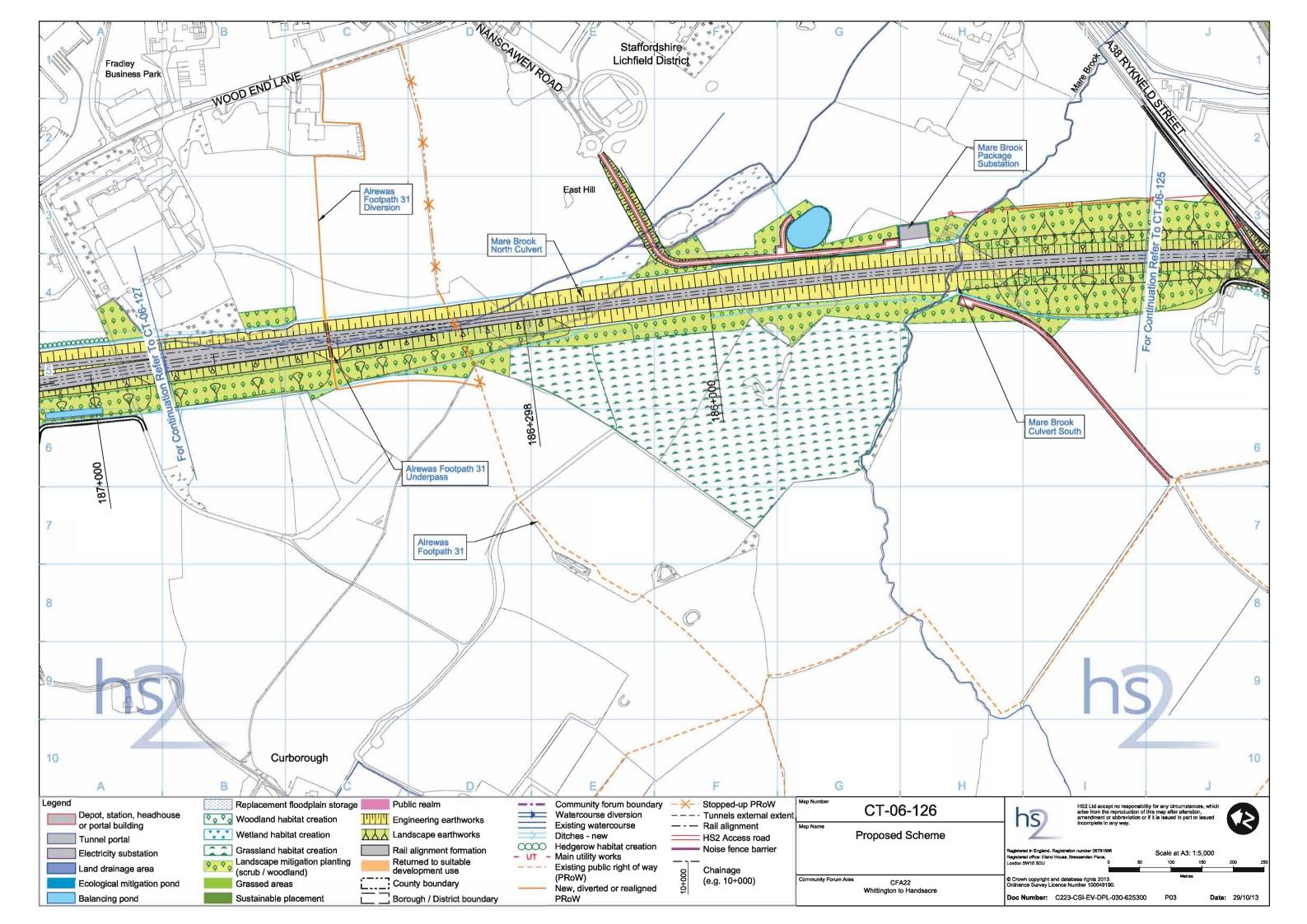


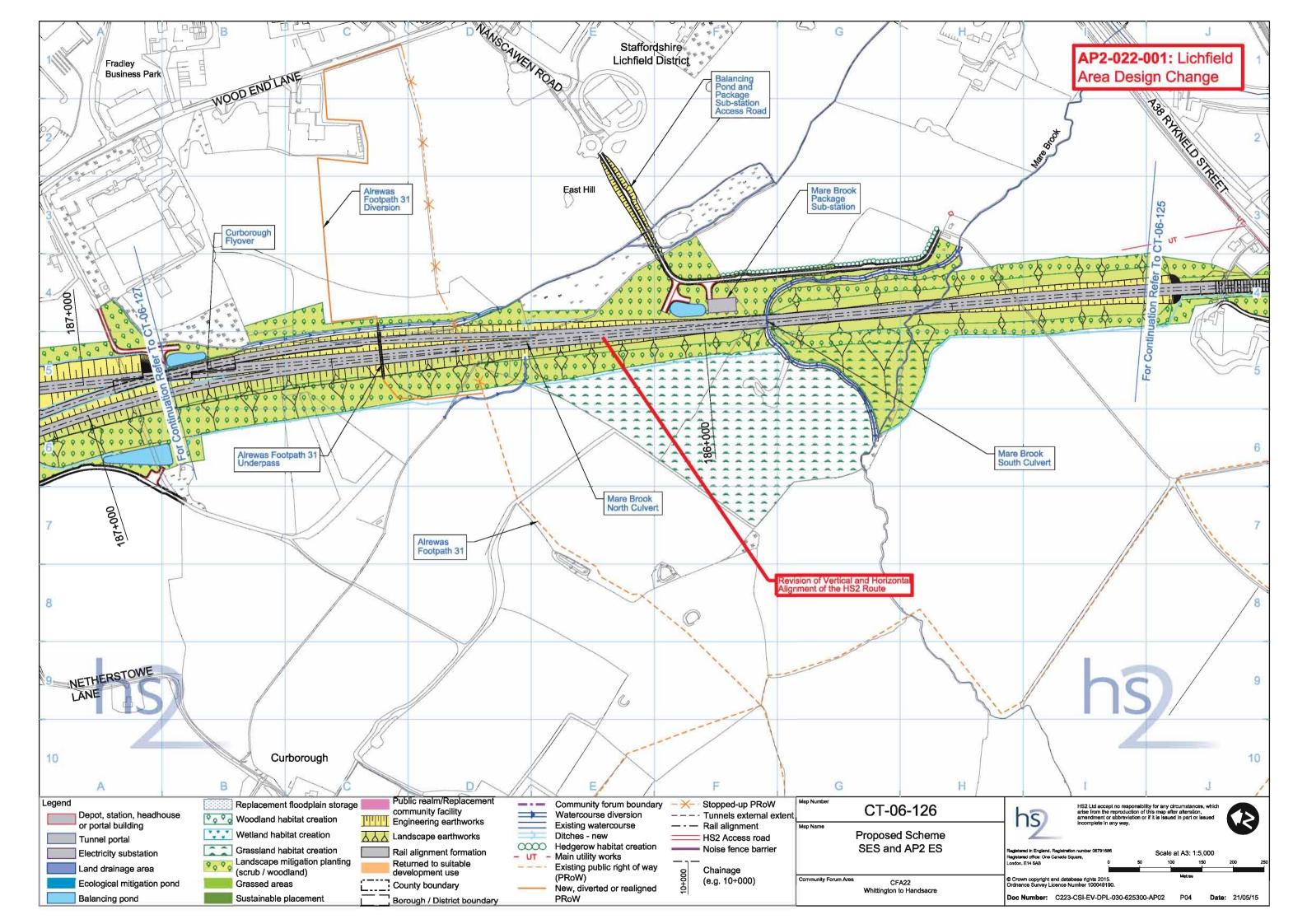


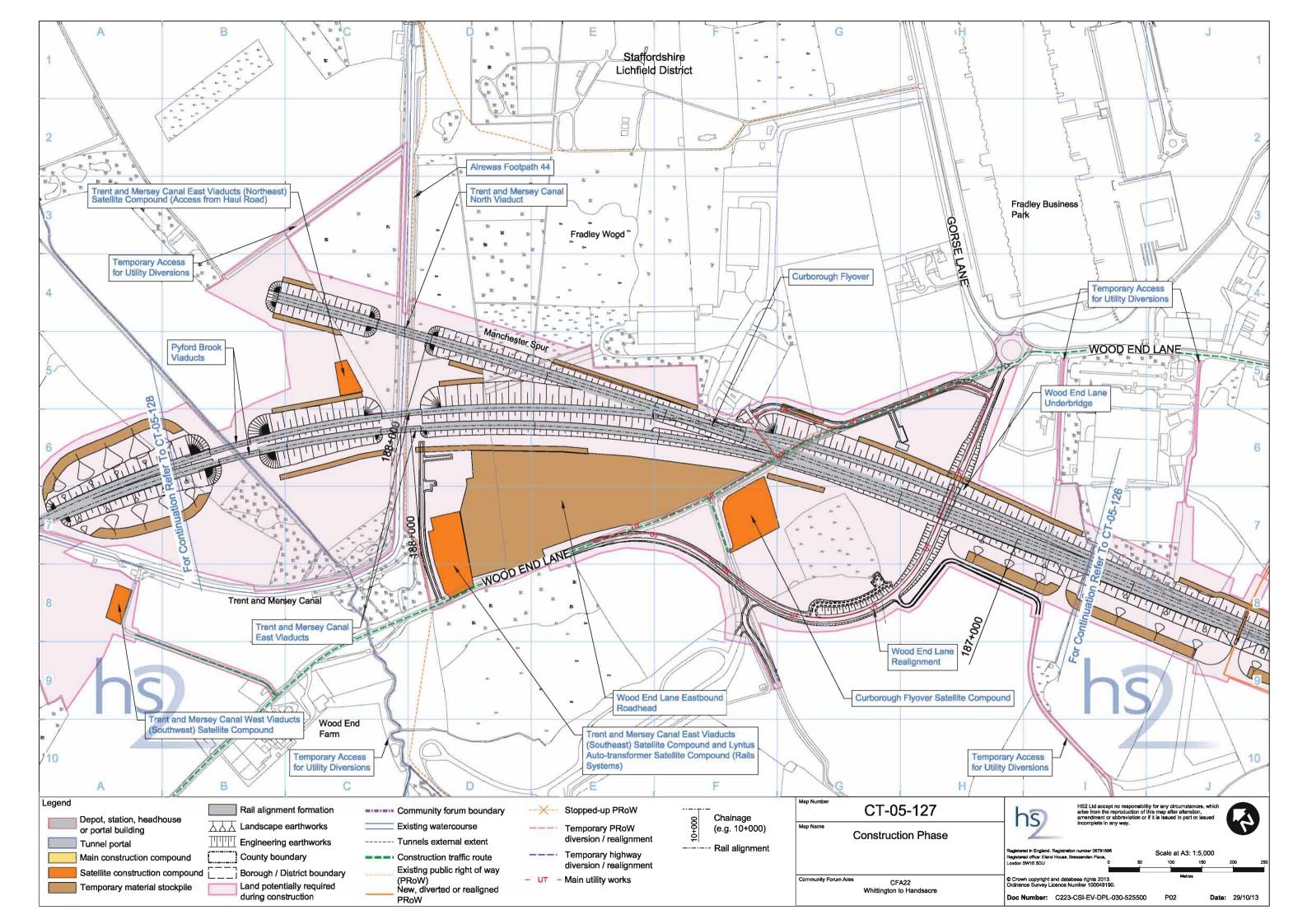


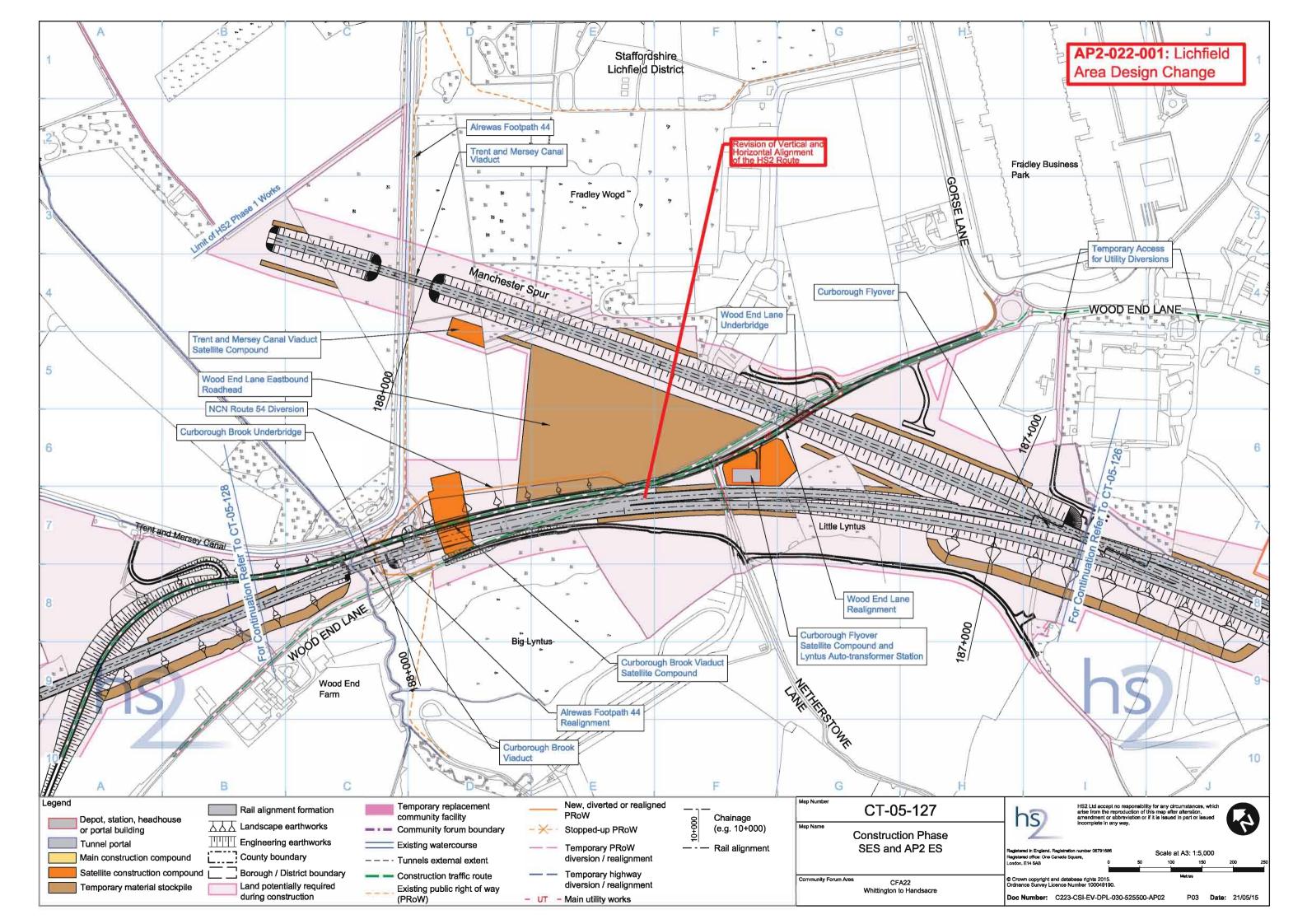


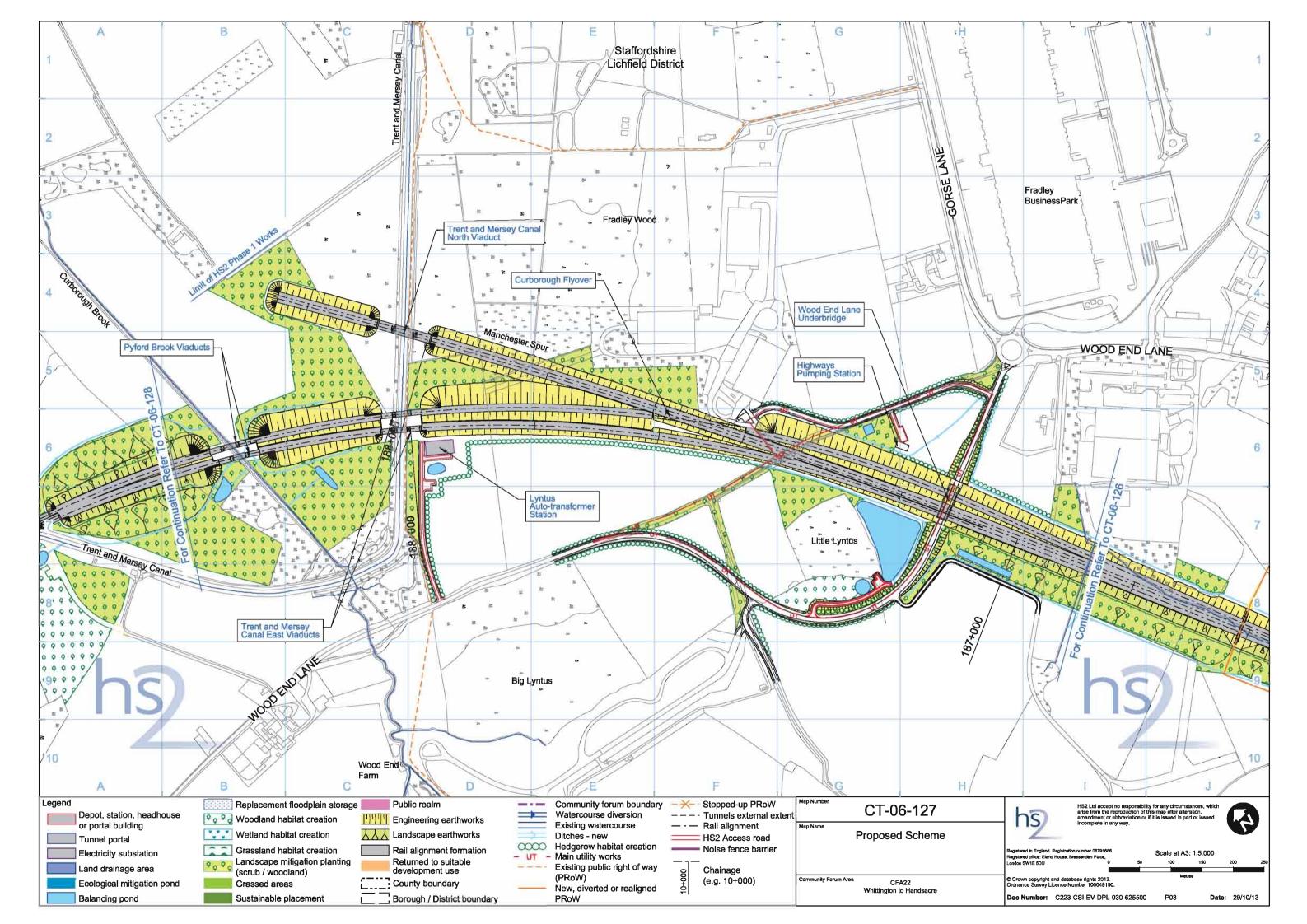


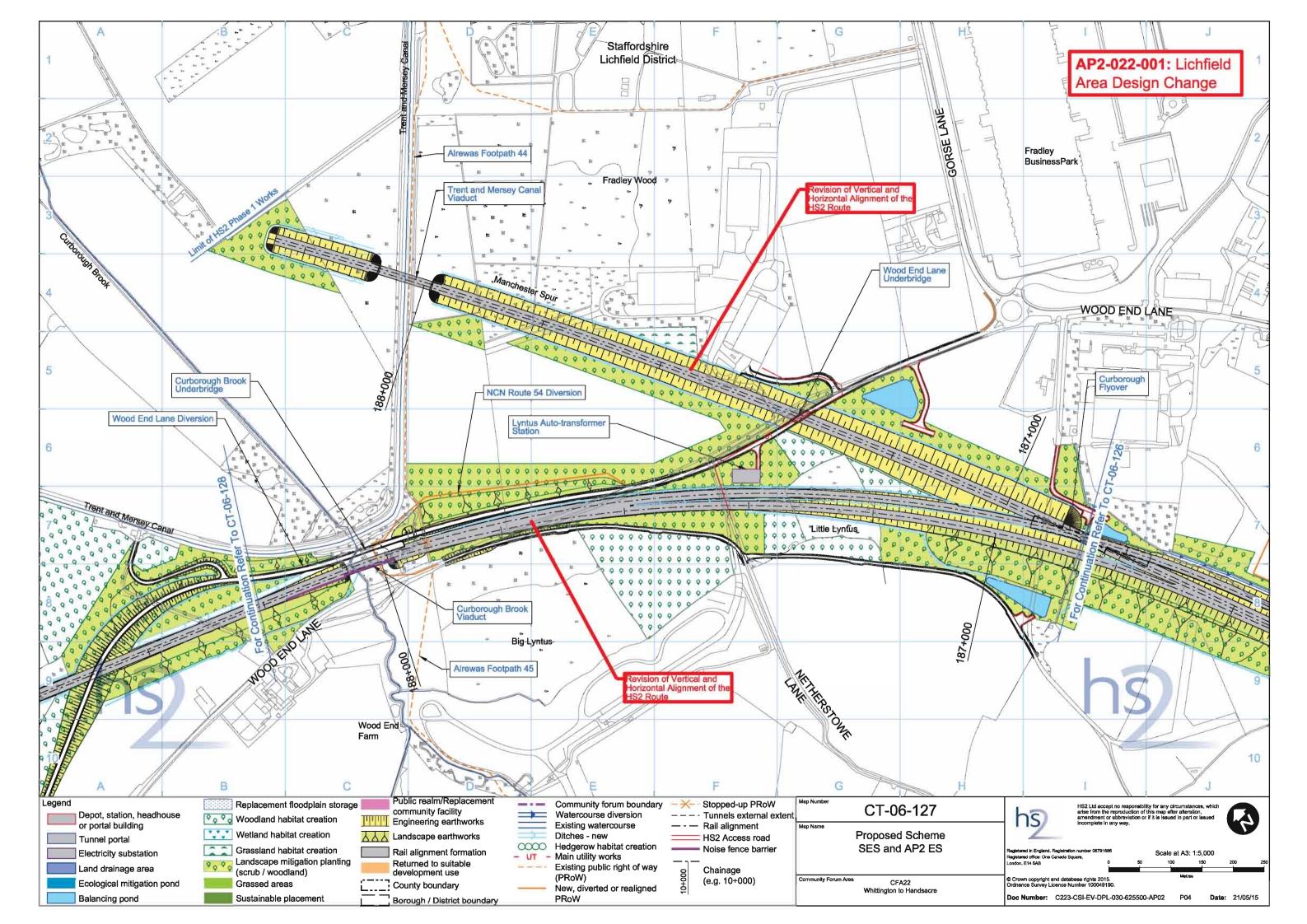


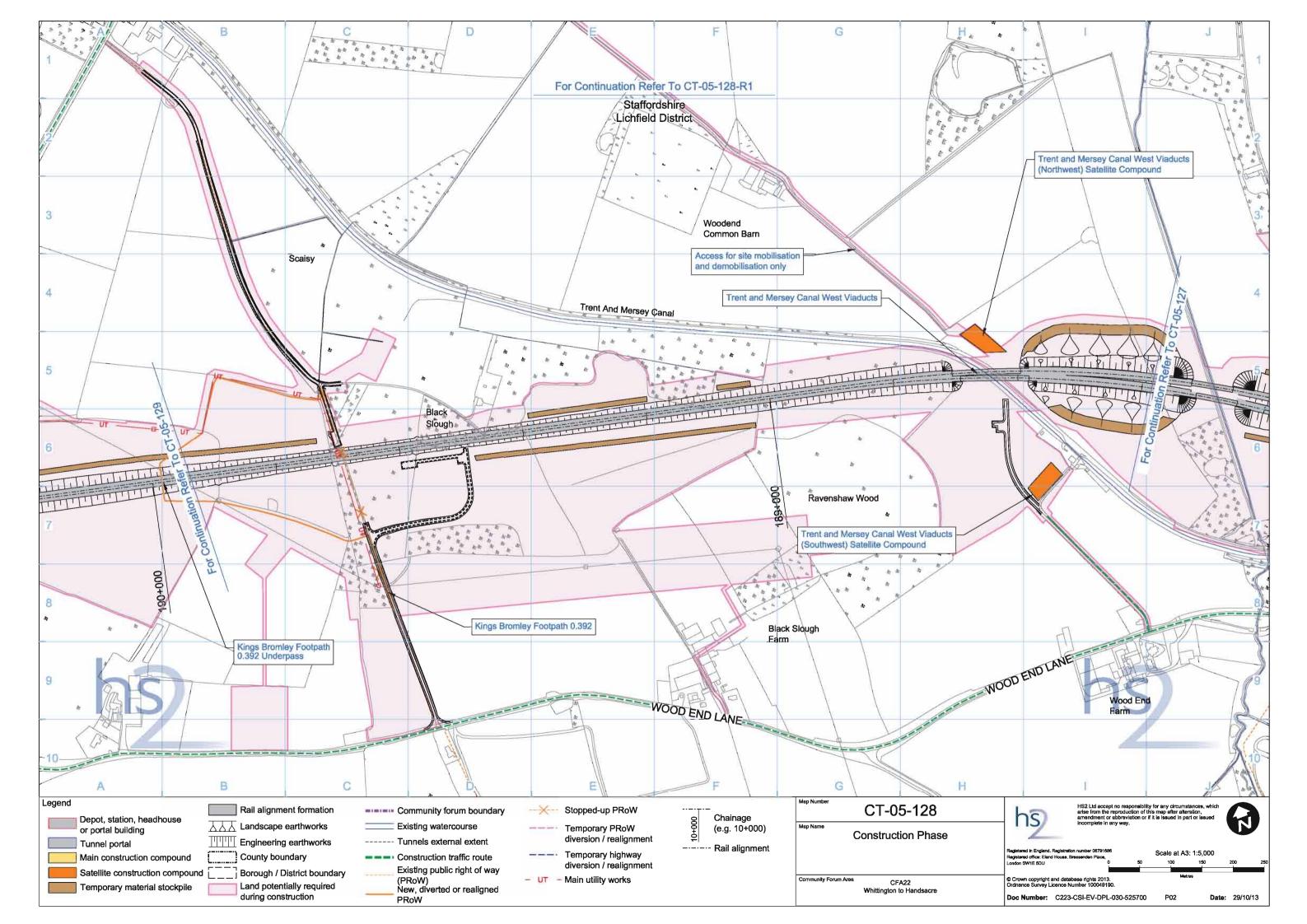


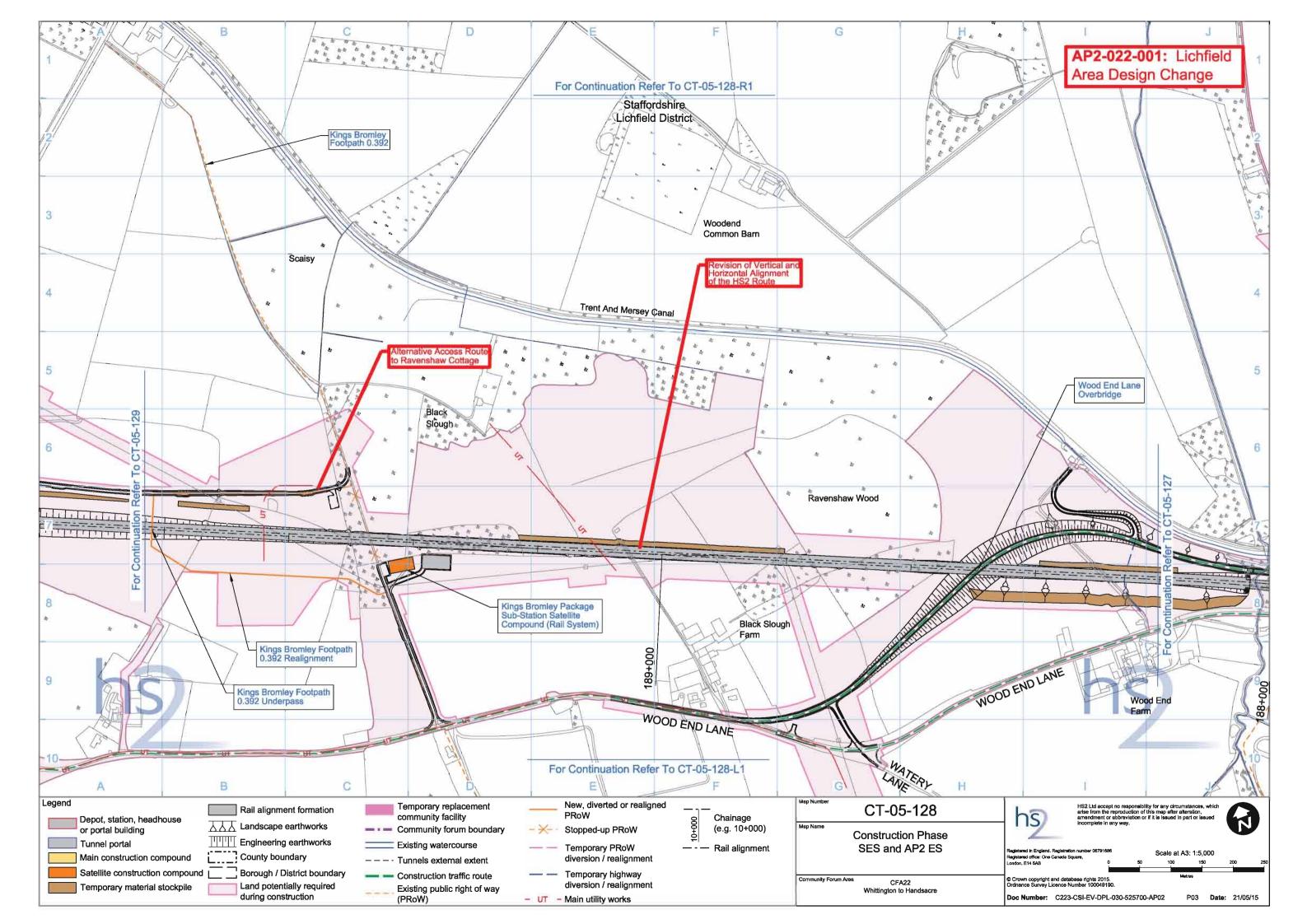


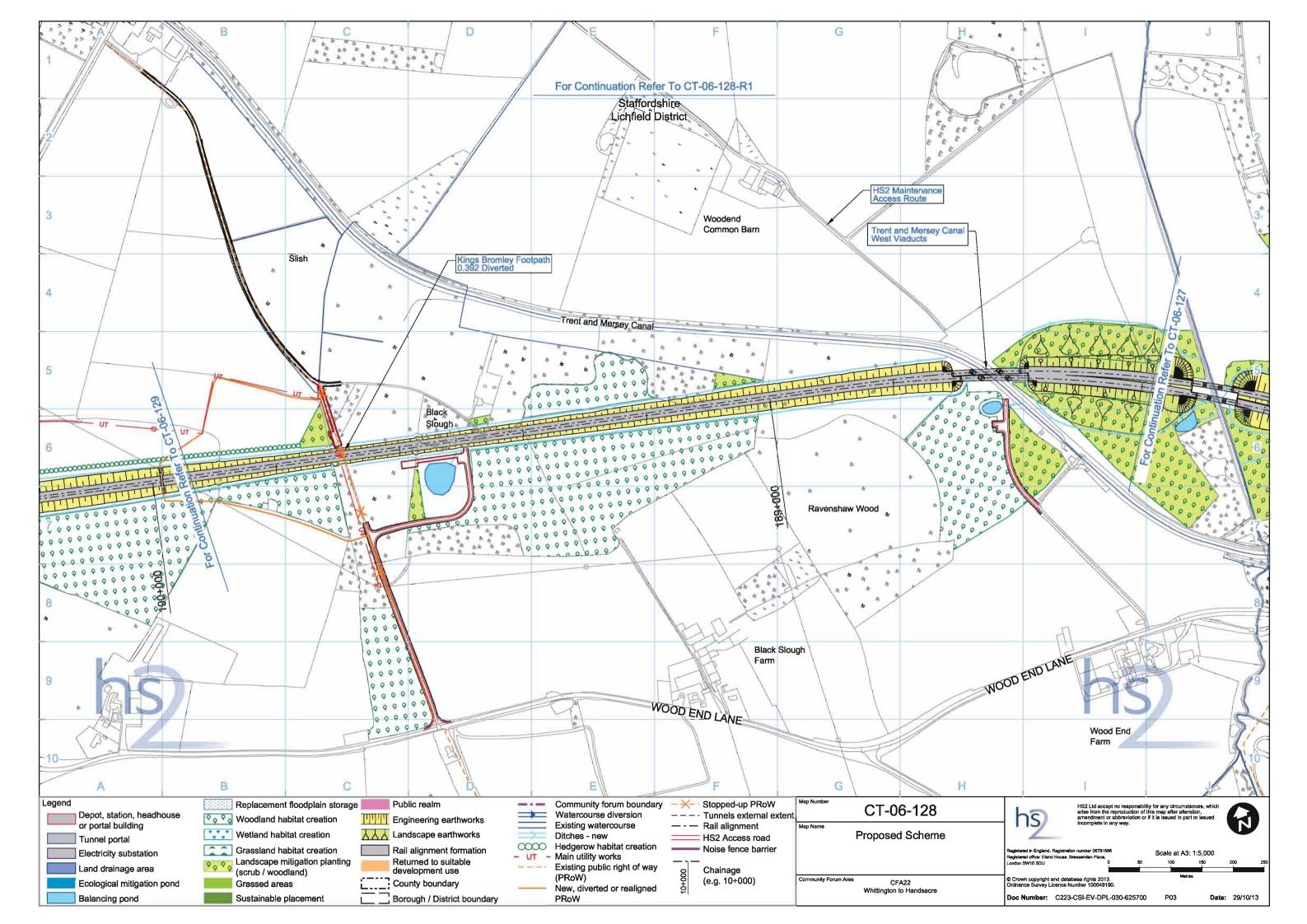


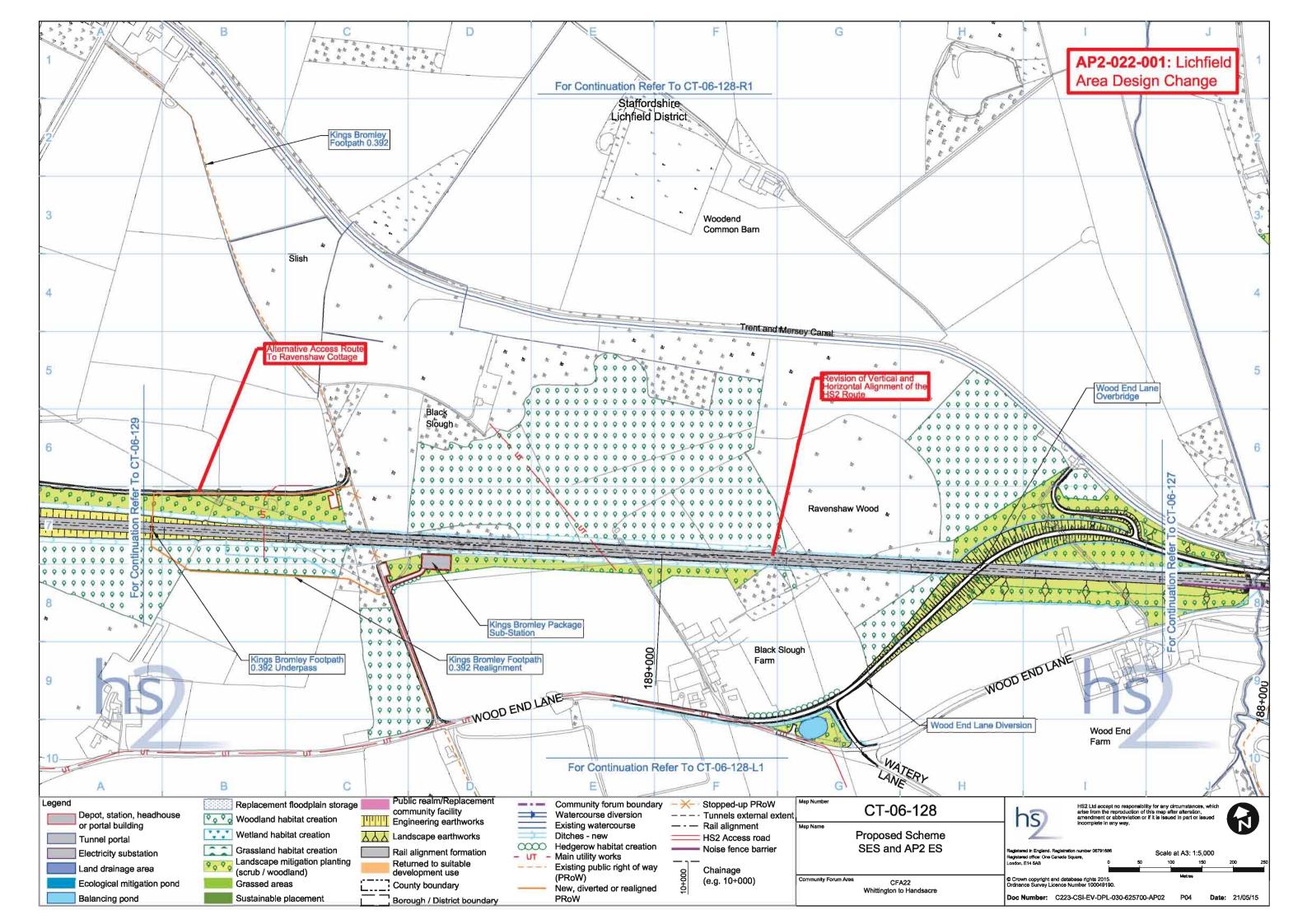




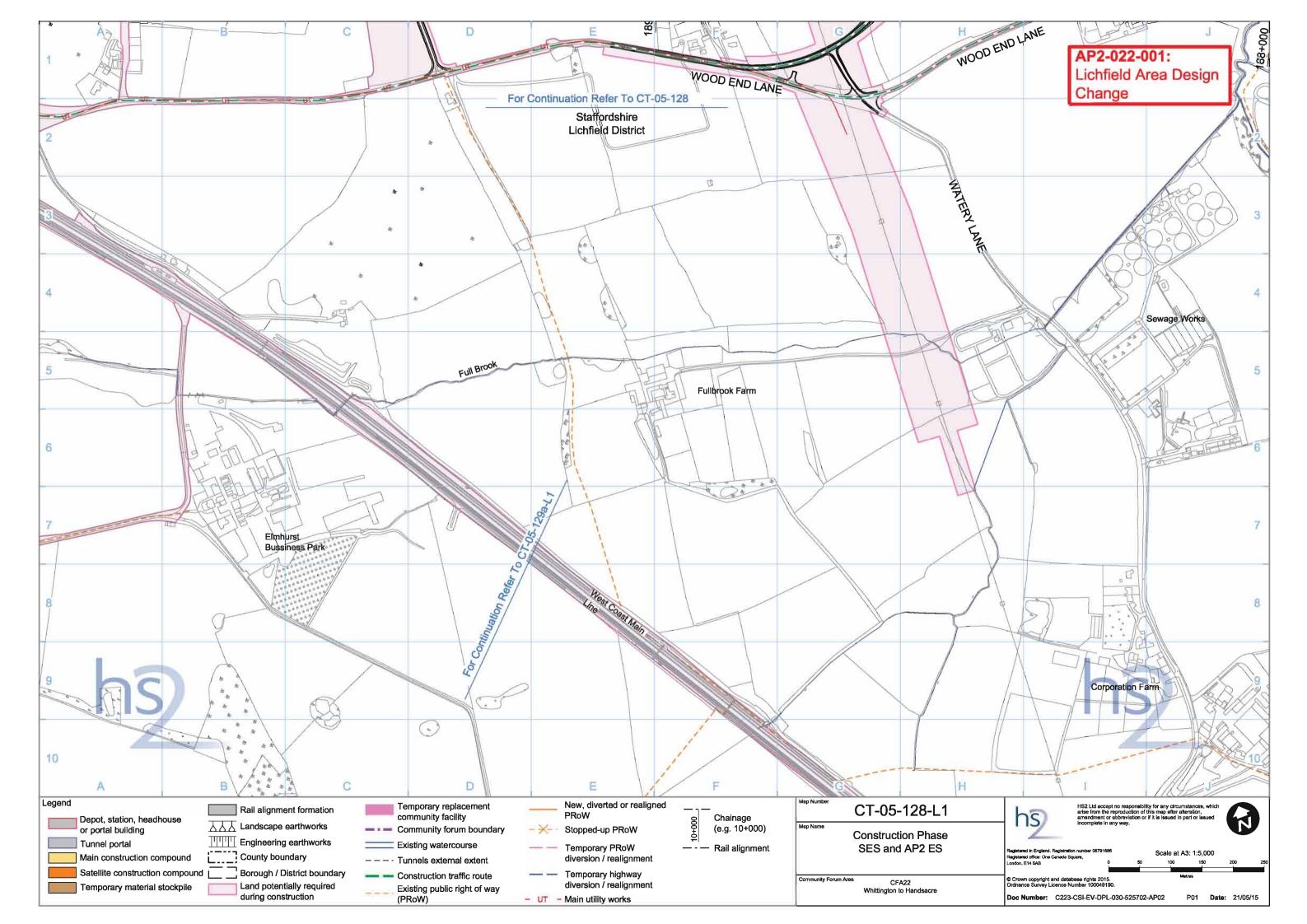




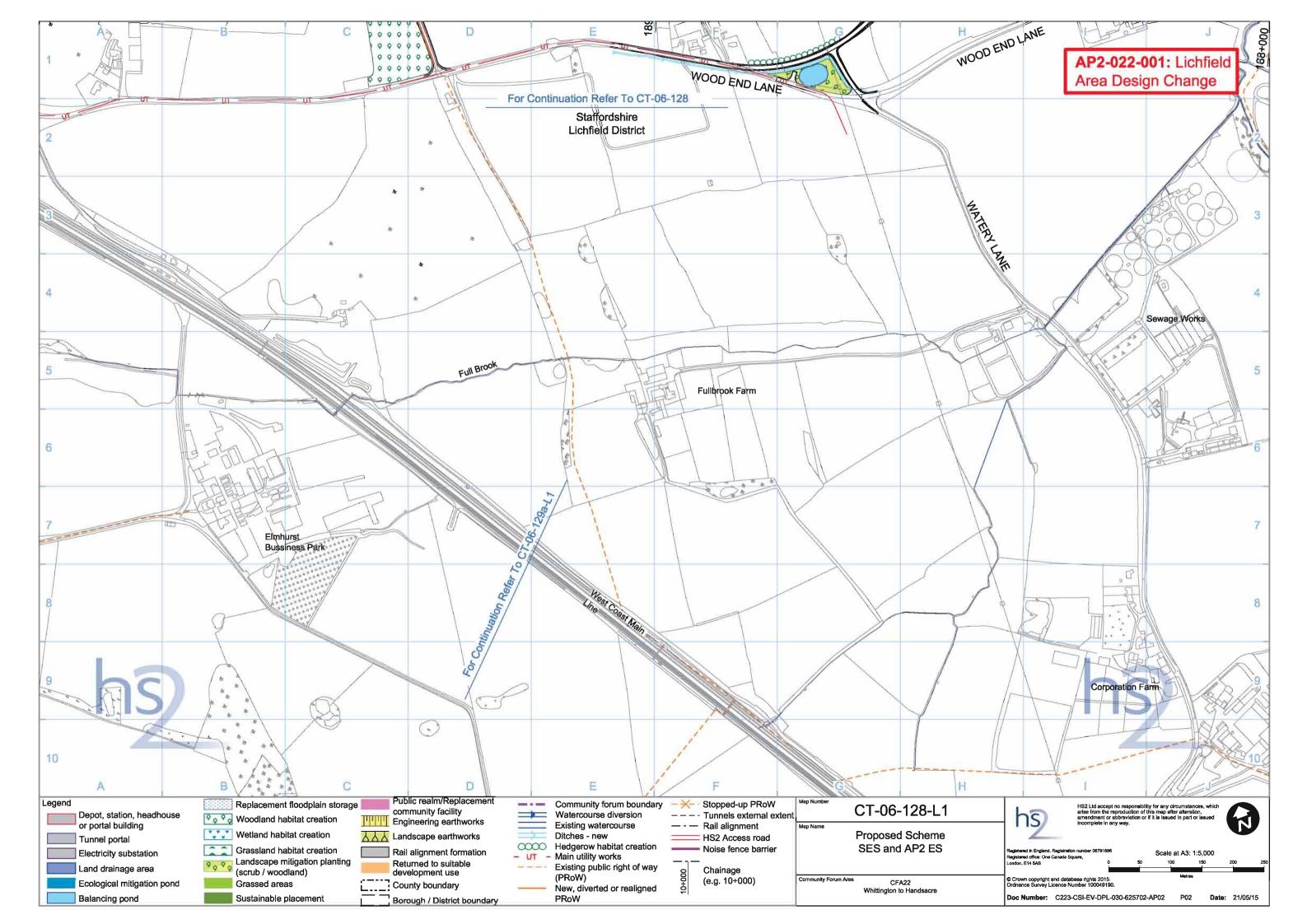


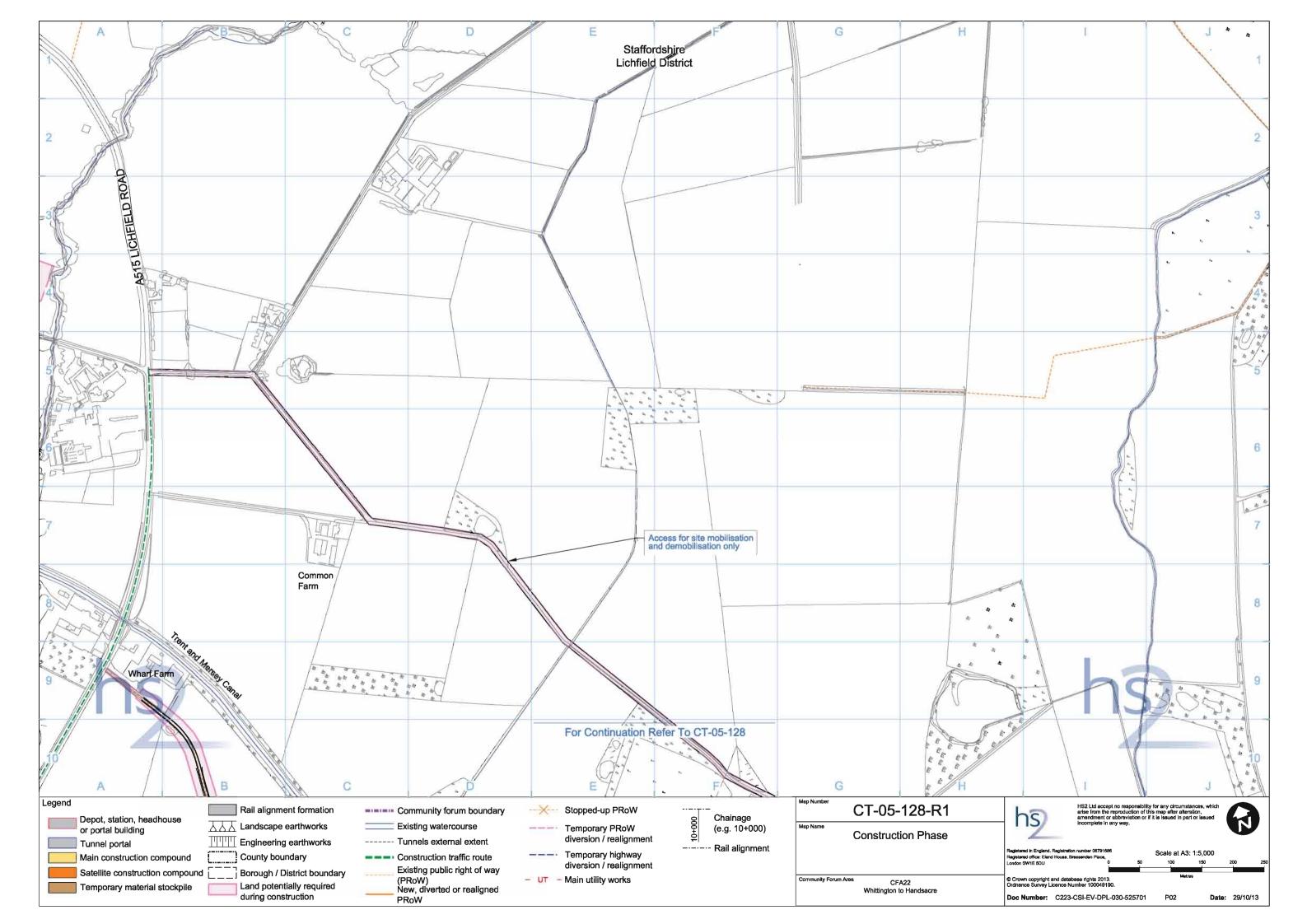


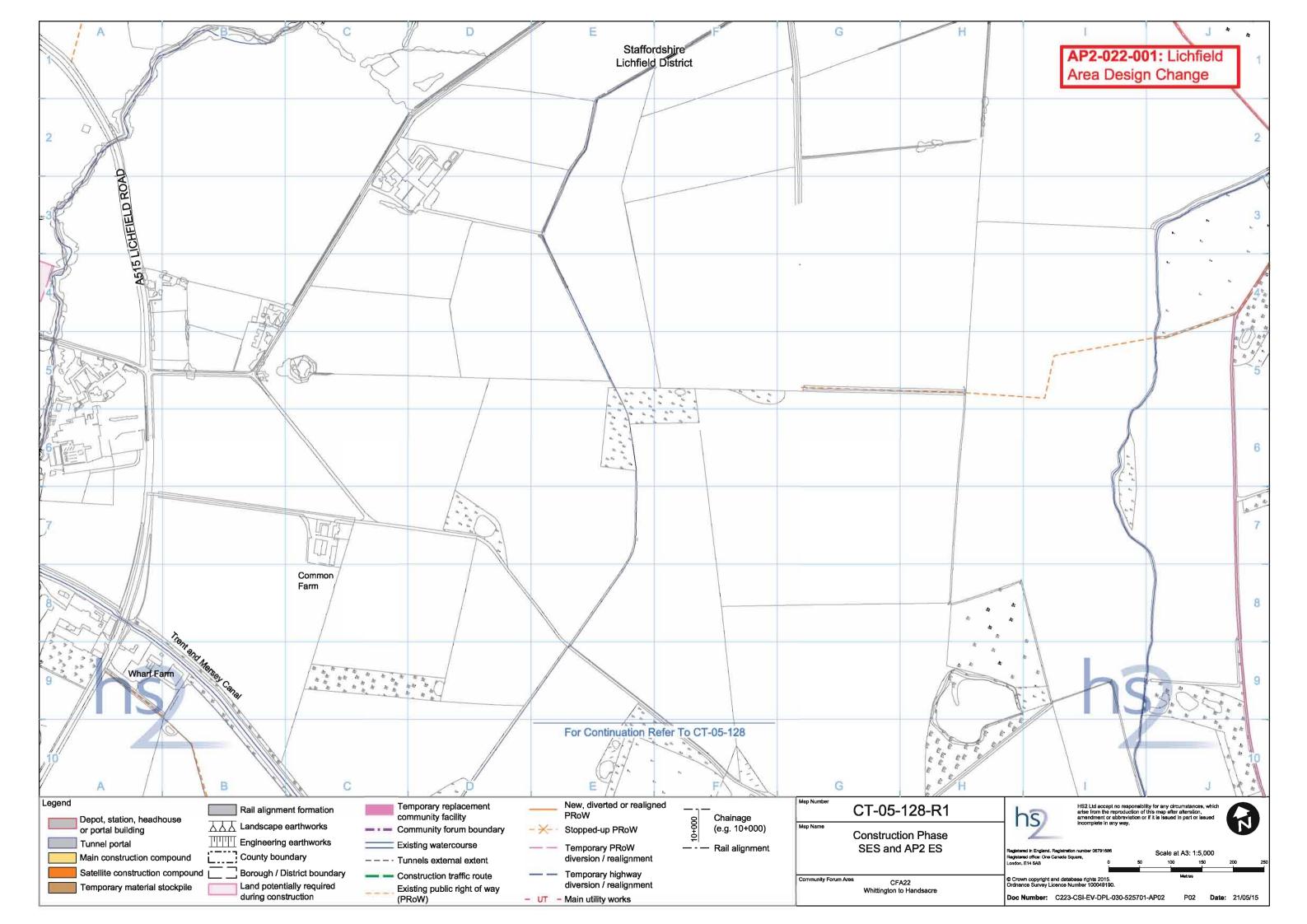
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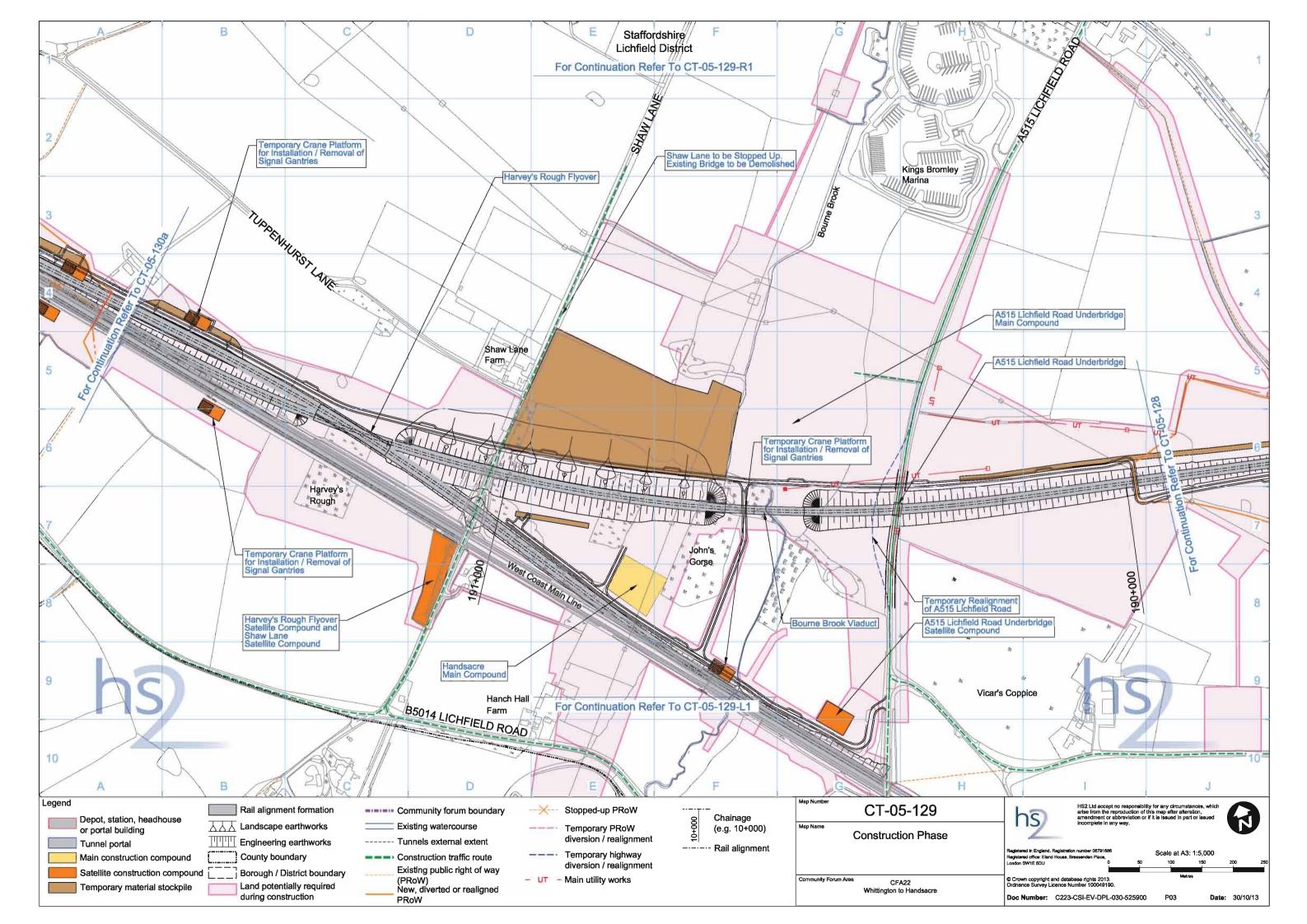


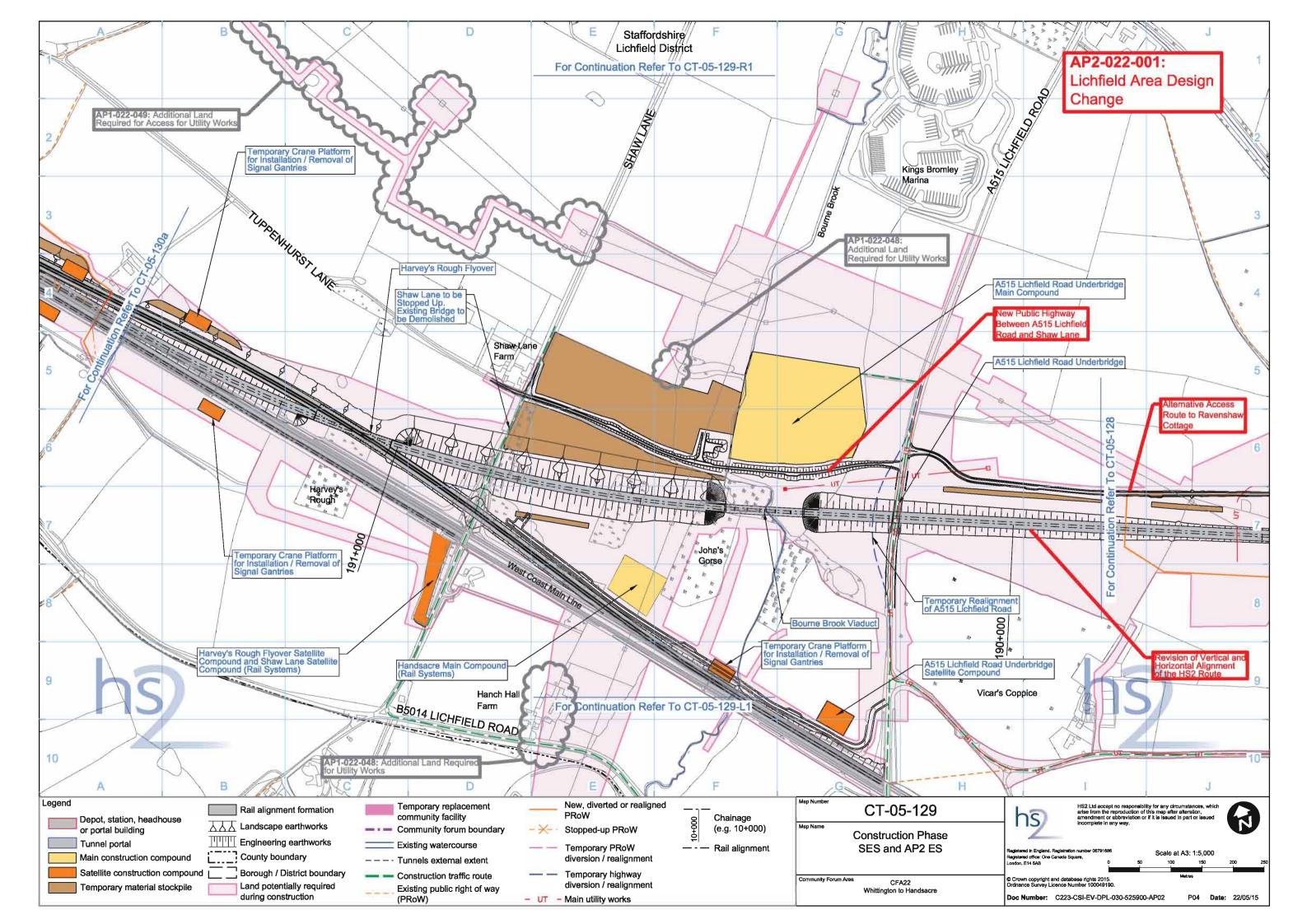
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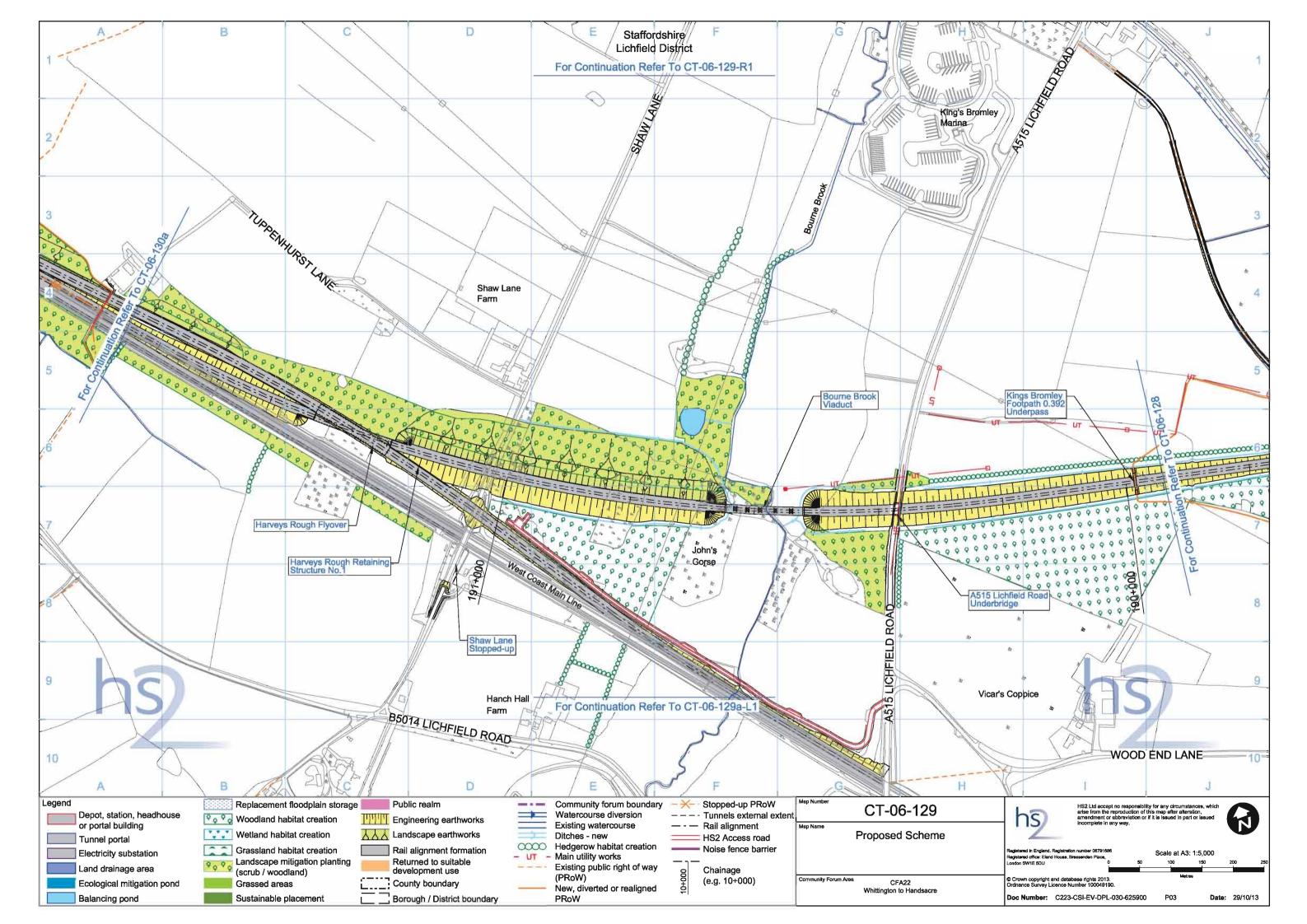


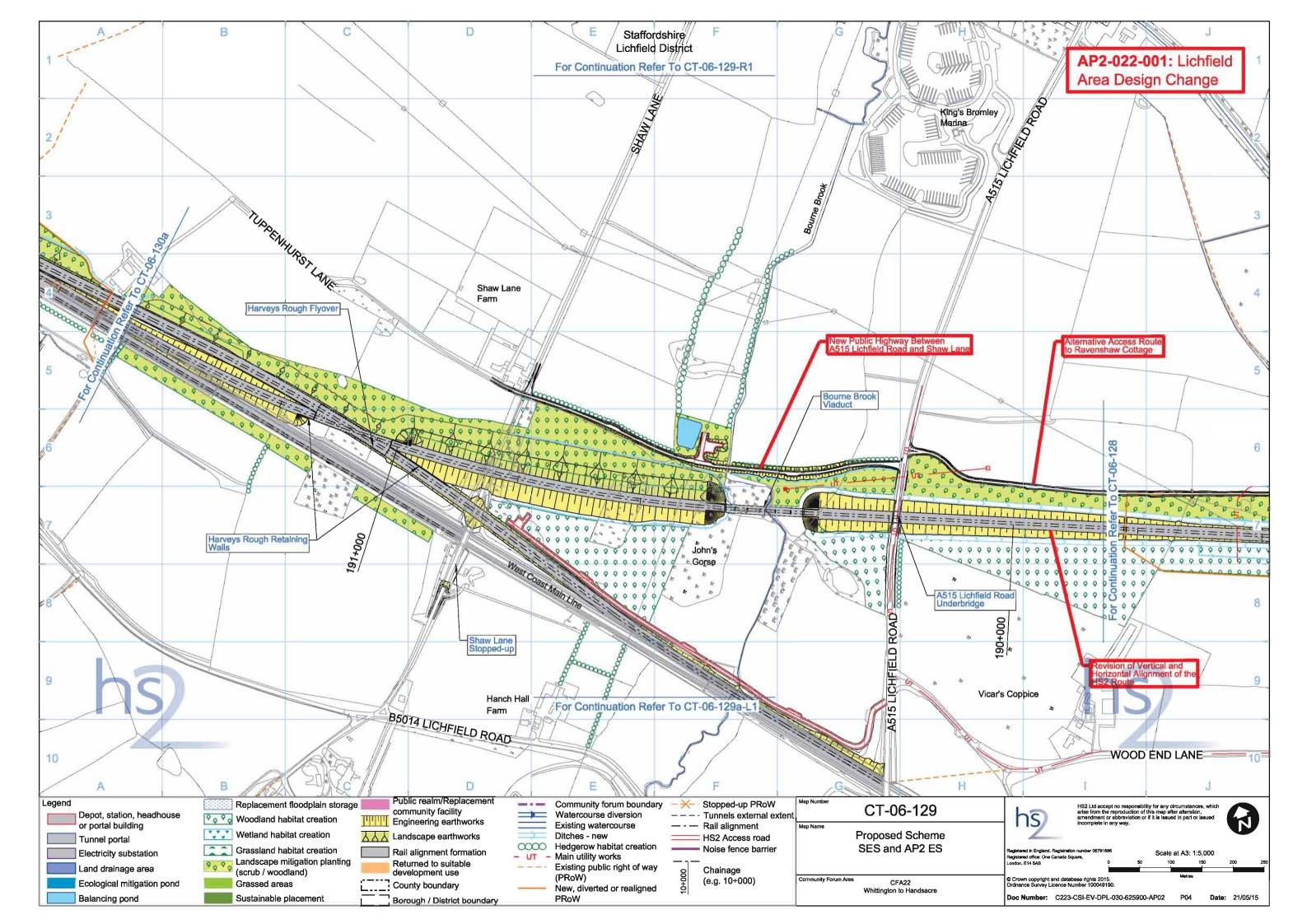


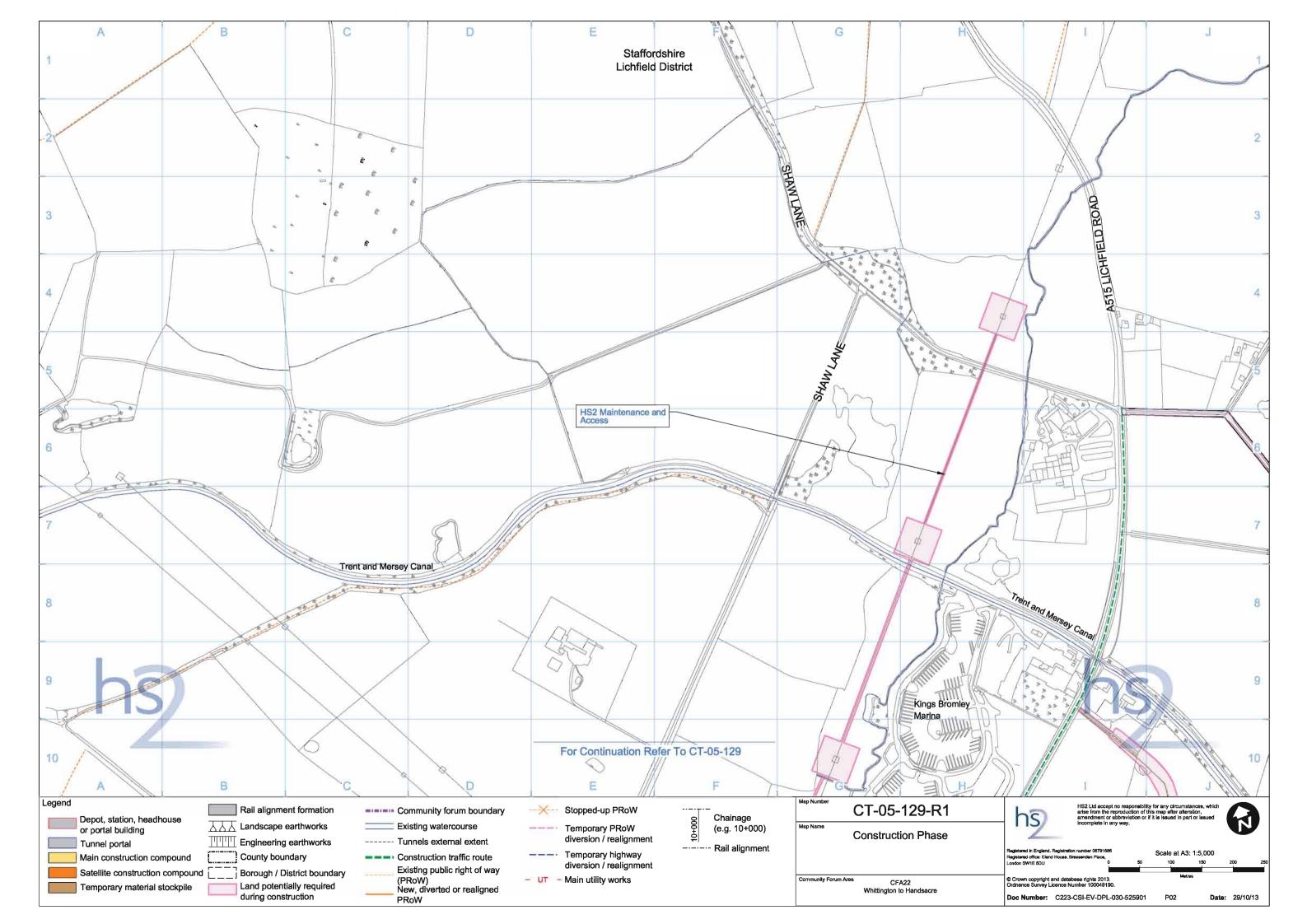


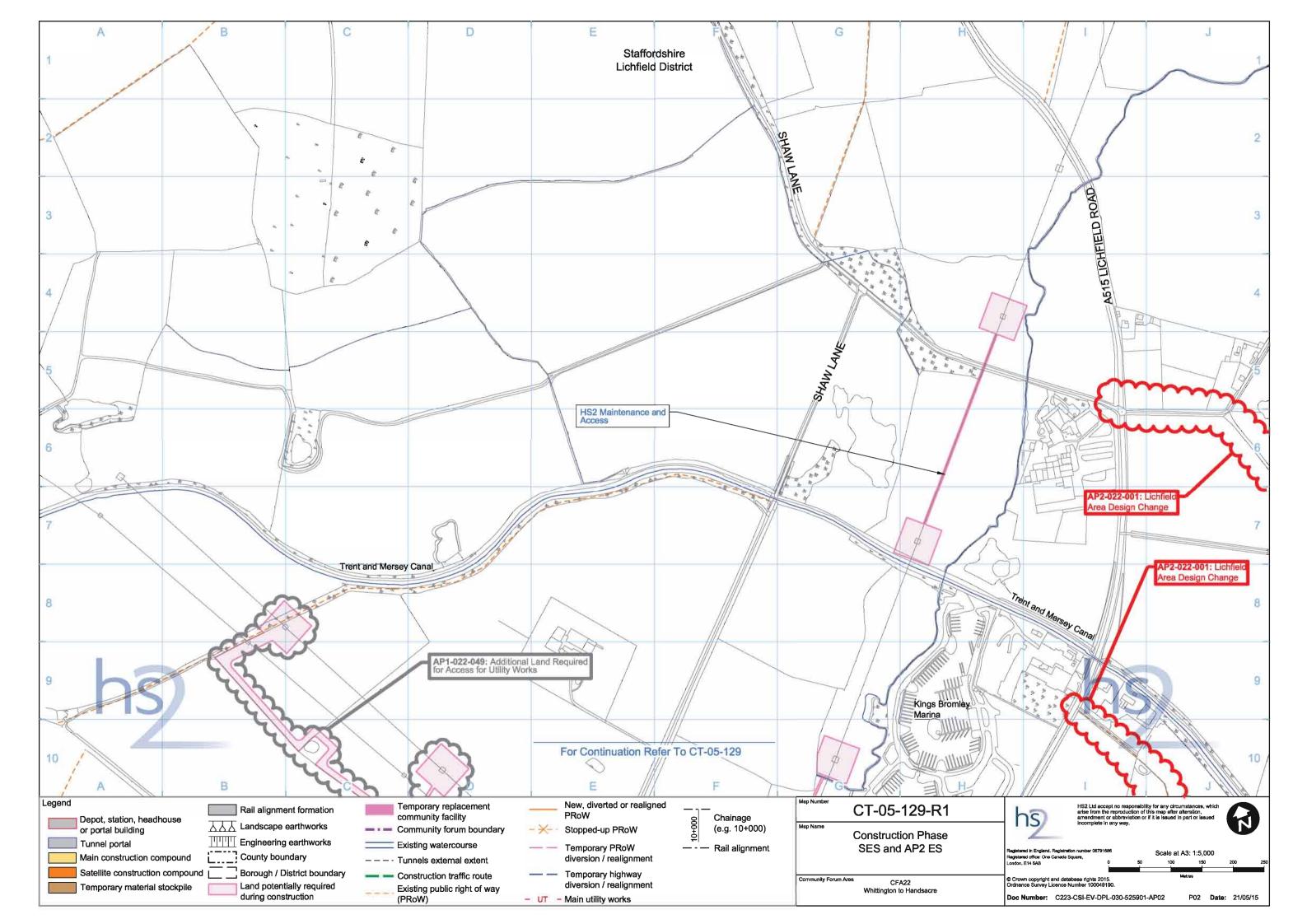


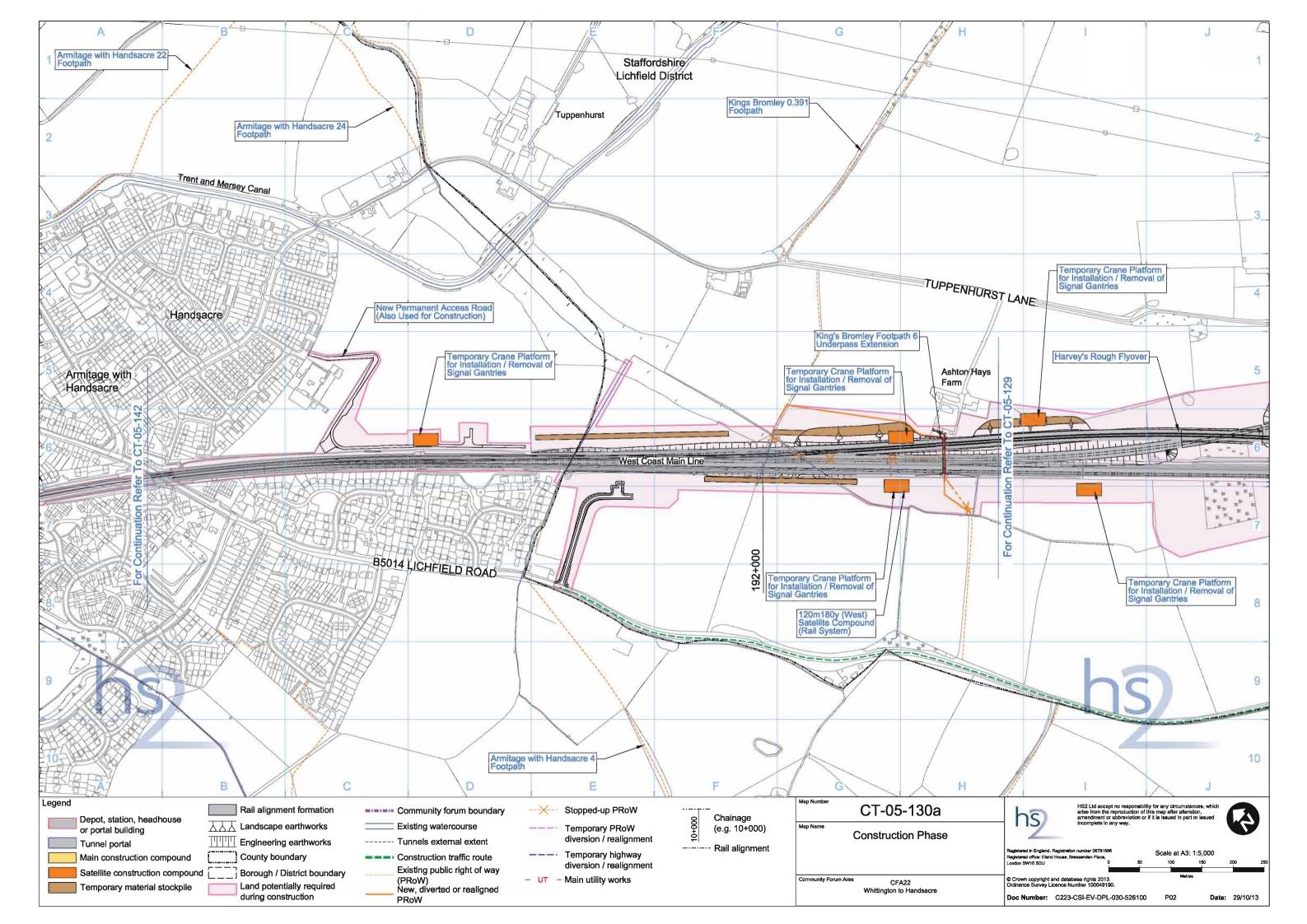


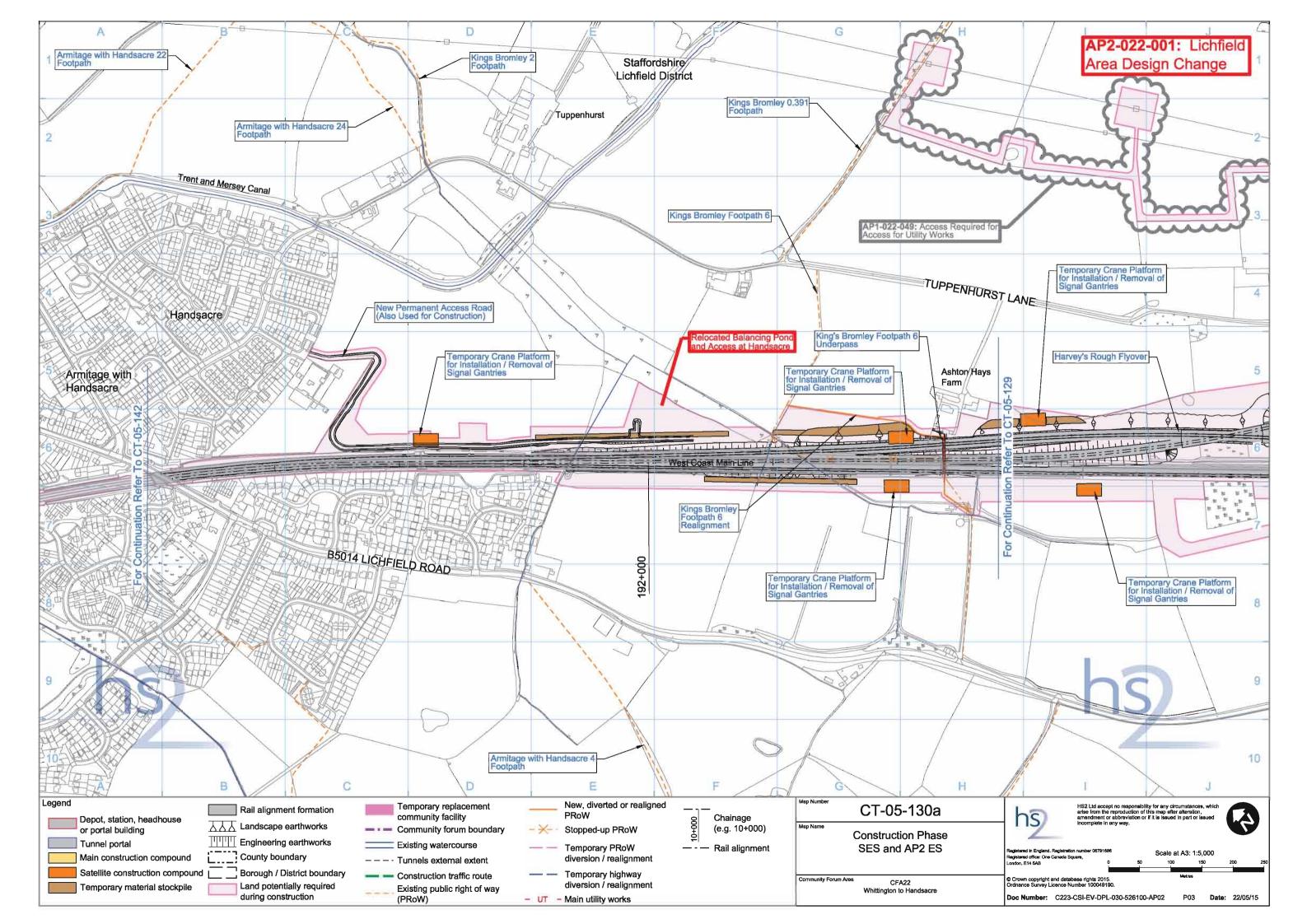


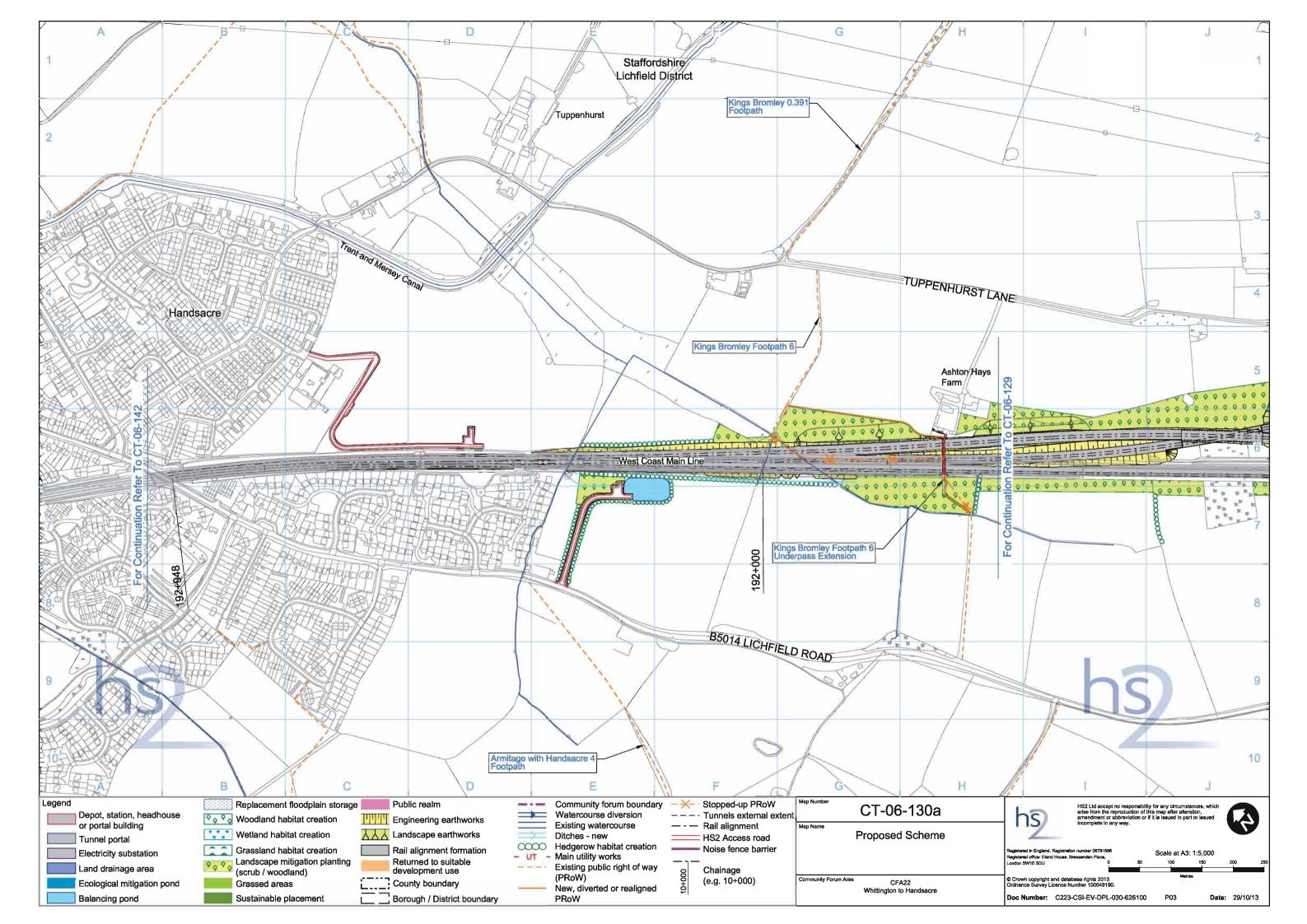


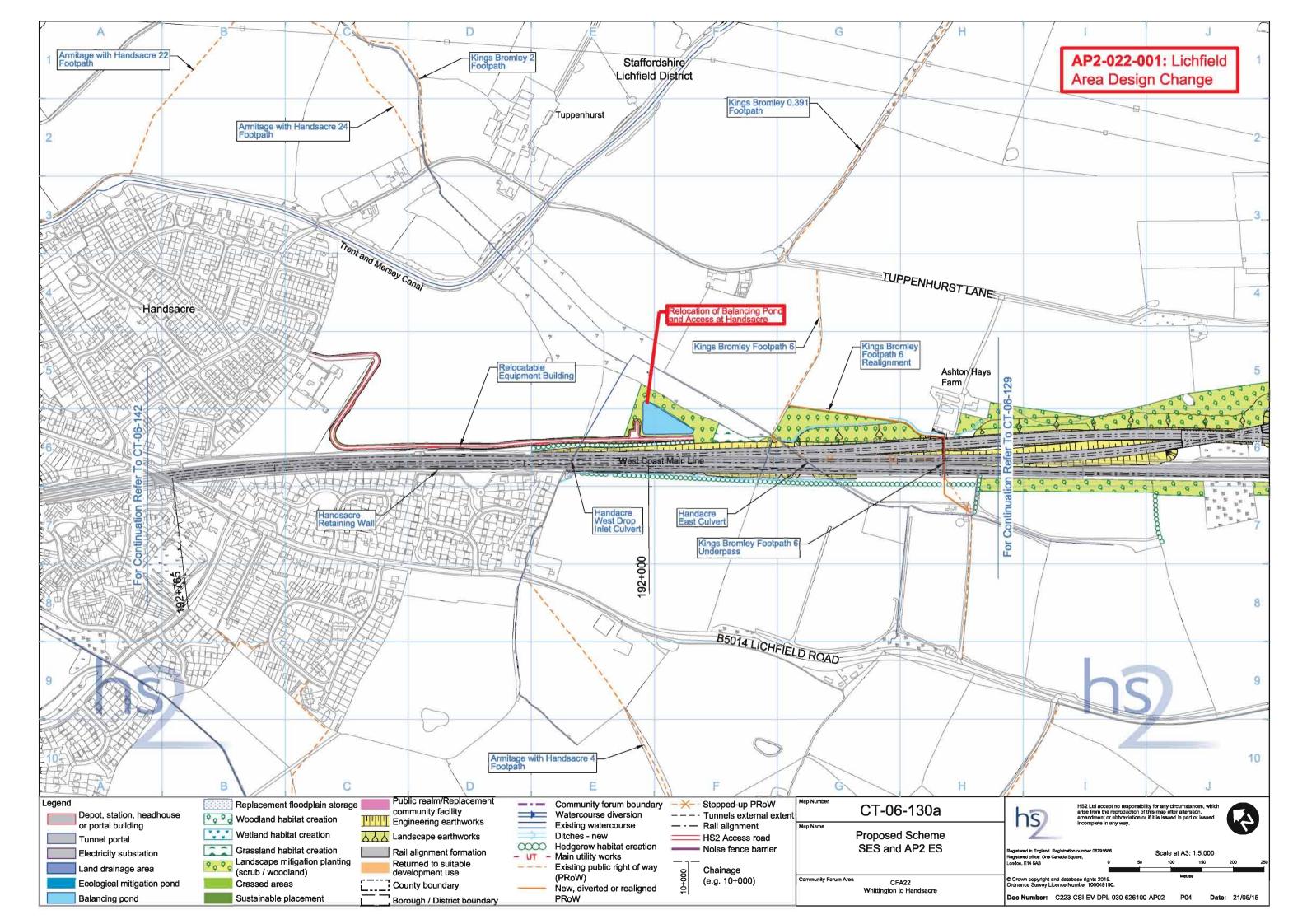












# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

Volume 2 | LV-01 – Photomontages

SES and AP2 ES – VOLUME 2



www.gov.uk/hs2

#### Current baseline (2013)



#### Operation Year 1 (2026) - Summer verifiable photomontage



Technical Information Location: Viewpoint 361-3-003: View south-west from the PRoW Alrewas F/P 44, adjoining Trent and Mersey Canal.

Date taken: 18/09/13 Time taken: 15:14 Focal length: 57.296mm

Viewpoint location shown on Map LV-04-095 For key plan legend refer to map series LV-04. This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2026 (the opening year). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.



LV-01-158

Verifiable Photomontage Operation Year 1 (2026) - Summer Viewpoint 361-3-003

> Community Forum Area CFA22: Whittington to Handsacre



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Date: 17/10/13

#### Current baseline (2013)

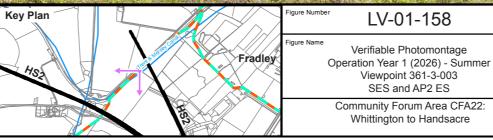


Operation Year 1 (2026) - Summer verifiable photomontage



**Technical Information** Location: Viewpoint 361-3-003: View south-west from the PRoW Alrewas F/P 44, adjoining Trent and Mersey Canal. Date taken: 18/09/13 Time taken: 15:14 Focal length: 57.296mm AP Reference: Status: Revised photomontage Viewpoint location shown on Map LV-04-095 For key plan legend refer to map series LV-04.

This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2026 (the opening year). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.





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lete in anyway

Date: 09/06/15



Operation Year 1 (2026) - Winter verifiable photomontage



**Technical Information** Location: Viewpoint 365-2-004: View south-west from Tuppenhurst Lane near Show Lane Farm and Shaw House.

Date taken: 19/03/13 Time taken: 09:35 Focal length: 57.296mm

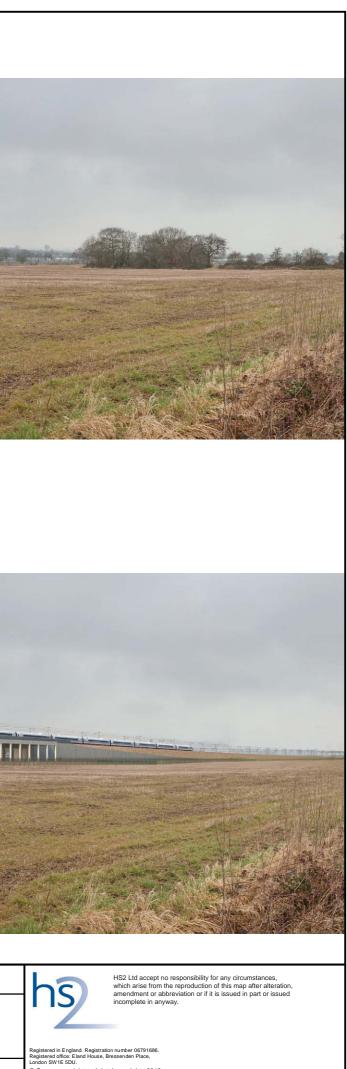
Viewpoint location shown on Map LV-04-096. For key plan legend refer to map series LV-04. This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2026 (the opening year). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.



LV-01-161

Verifiable Photomontage Operation Year 1 (2026) - Winter Viewpoint 365-2-004

> Community Forum Area CFA22: Whittington to Handsacre



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Date: 17/10/13

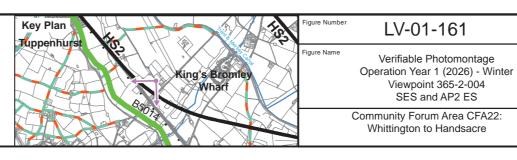


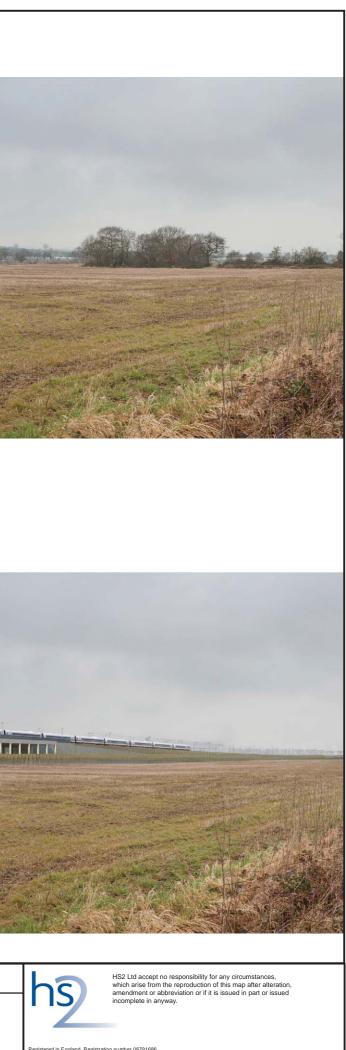
Operation Year 1 (2026) - Winter verifiable photomontage



Technical Information Location: Viewpoint 365-2-004: View south-west from Tuppenhurst Lane near Show Lane Farm and Shaw House. Date taken: 19/03/13 Time taken: 09:35 Focal length: 57.296mm AP Reference: AP2-022-001 Status: Revised photomontage Viewpoint location shown on Map LV-04-096. For key plan legend refer to map series LV-04.

This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2026 (the opening year). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.





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Date:09/06/15



#### Peak construction phase - Winter verifiable photomontage

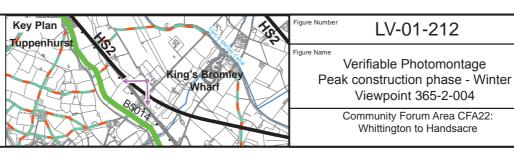


Technical Information Location: Viewpoint 365-2-004: View south-west from Tuppenhurst Lane near Shaw Lane Farm and Shaw House.

Date taken: 19/03/13 Time taken: 09:35 Focal length: 57.296mm

Viewpoint location shown on Map LV-03-096. For key plan legend refer to map series LV-03.

This verifiable photomontage provides an illustration of how the Proposed Scheme may look during the peak construction phase for this part of the route. The construction methods and siting of construction activities may be subject to change in response to consultation and ongoing design. The extent of land required temporarily to construct the scheme will not extend beyond that shown in the photomontage. Changes in the construction of the Proposed Scheme will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme.





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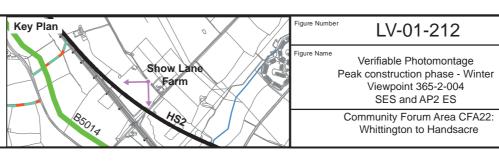


Peak construction phase - Winter verifiable photomontage



Technical Information Location: Viewpoint 365-2-004: View south-west from Tuppenhurst Lane near Shaw Lane Farm and Shaw House. Date taken: 19/03/13 Time taken: 09:35 Focal length: 57.296mm AP Reference: AP2-022-001 Status: Revised photomontage Viewpoint location shown on Map LV-03-096. For key plan legend refer to map series LV-03.

This verifiable photomontage provides an illustration of how the Proposed Scheme may look during the peak construction phase for this part of the route. The construction methods and siting of construction activities may be subject to change in response to consultation and ongoing design. The extent of land required temporarily to construct the scheme will not extend beyond that shown in the photomontage. Changes in the construction of the Proposed Scheme will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme.





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Date:09/06/15





Operation Year 15 (2041) - Summer verifiable photomontage



**Technical Information** Location: Viewpoint 365-2-004: View south-west from Tuppenhurst Lane near Show Lane Farm and Shaw House.

Date taken: 18/09/13 Time taken: 16:15 Focal length: 57.296mm

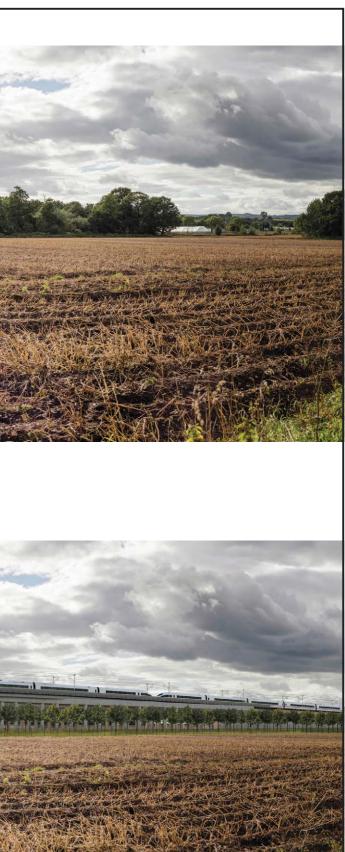
Viewpoint location shown on Map LV-04-096. For key plan legend refer to map series LV-04. This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2041 (15 years after opening). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as semi-mature trees which have put on 15 years of growth to illustrate how the Proposed Scheme will further integrate into the landscape over time.



LV-01-262

Verifiable Photomontage Operation Year 15 (2041) - Summer Viewpoint 365-2-004

> Community Forum Area CFA22: Whittington to Handsacre



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Date: 17/10/13





Operation Year 15 (2041) - Summer verifiable photomontage



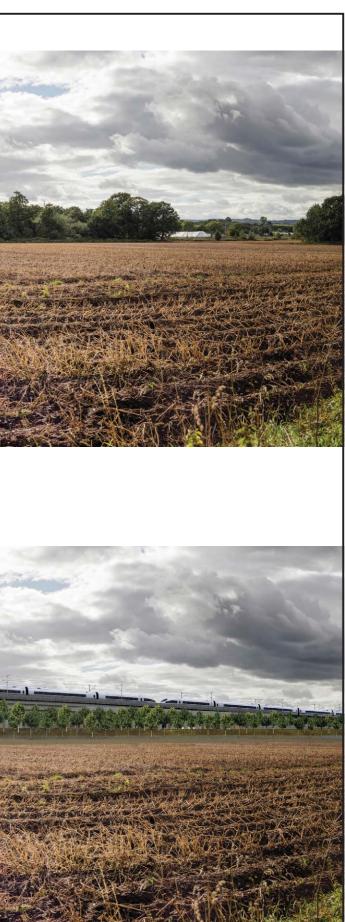
Technical Information Location: Viewpoint 365-2-004: View south-west from Tuppenhurst Lane near Show Lane Farm and Shaw House. Date taken: 18/09/13 Time taken: 16:15 Focal length: 57.296mm AP Reference: AP2-022-001 Status: Revised photomontage Viewpoint location shown on Map LV-04-096. For key plan legend refer to map series LV-04. This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2041 (15 years after opening). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as semi-mature trees which have put on 15 years of growth to illustrate how the Proposed Scheme will further integrate into the landscape over time.



LV-01-262

Verifiable Photomontage Operation Year 15 (2041) - Summer Viewpoint 365-2-004 SES and AP2 ES

> Community Forum Area CFA22: Whittington to Handsacre



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Date:09/06/15

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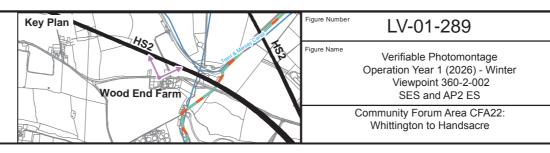


Operation Year 1 (2026) - Winter verifiable photomontage



Technical Information Location: Viewpoint 360-2-002: View north from Wood End Farm on Wood End Lane. Date taken: 24/02/15 Time taken: 15:30 Focal length: 57.296mm AP Reference: AP2-022-001 Status: New photomontage Viewpoint location shown on Map LV-04-095. For key plan legend refer to map series LV-04.

This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2026 (the opening year). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.







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Date:09/06/15

No corresponding map in the main ES

Current baseline (2015)

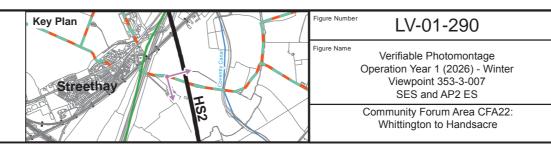


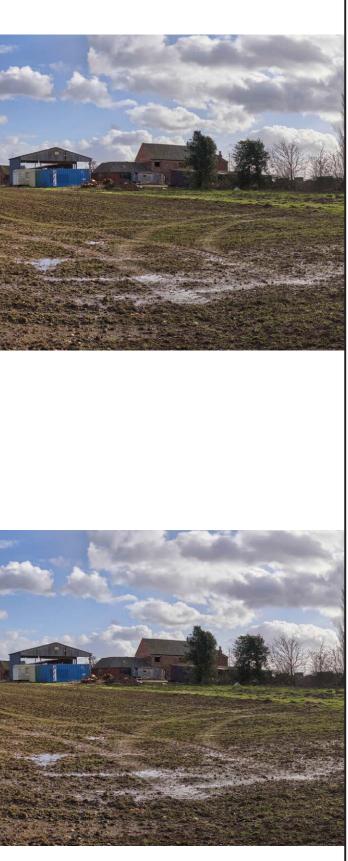
#### Operation Year 1 (2026) - Winter verifiable photomontage



Technical Information Location: Viewpoint 353-3-007: View east from PRoW Streethay Footpath 6 adjacent to Hill Farm Date taken: 24/02/15 Time taken: 14:36 Focal length: 57.296mm AP Reference: AP2-022-001 Status: New photomontage Viewpoint location shown on Map LV-04-093 For key plan legend refer to map series LV-04.

This verifiable photomontage provides an illustration of how the Proposed Scheme may look in 2026 (the opening year). The design of the Proposed Scheme may be subject to design development in response to consultation. Design development will not result in any significant adverse change in the environmental effects detailed in the photomontages of the Proposed Scheme. Where new planting is proposed, it has been shown as immature plants which would mature over time to further integrate the Proposed Scheme into the landscape.







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Date: 09/06/15

## HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

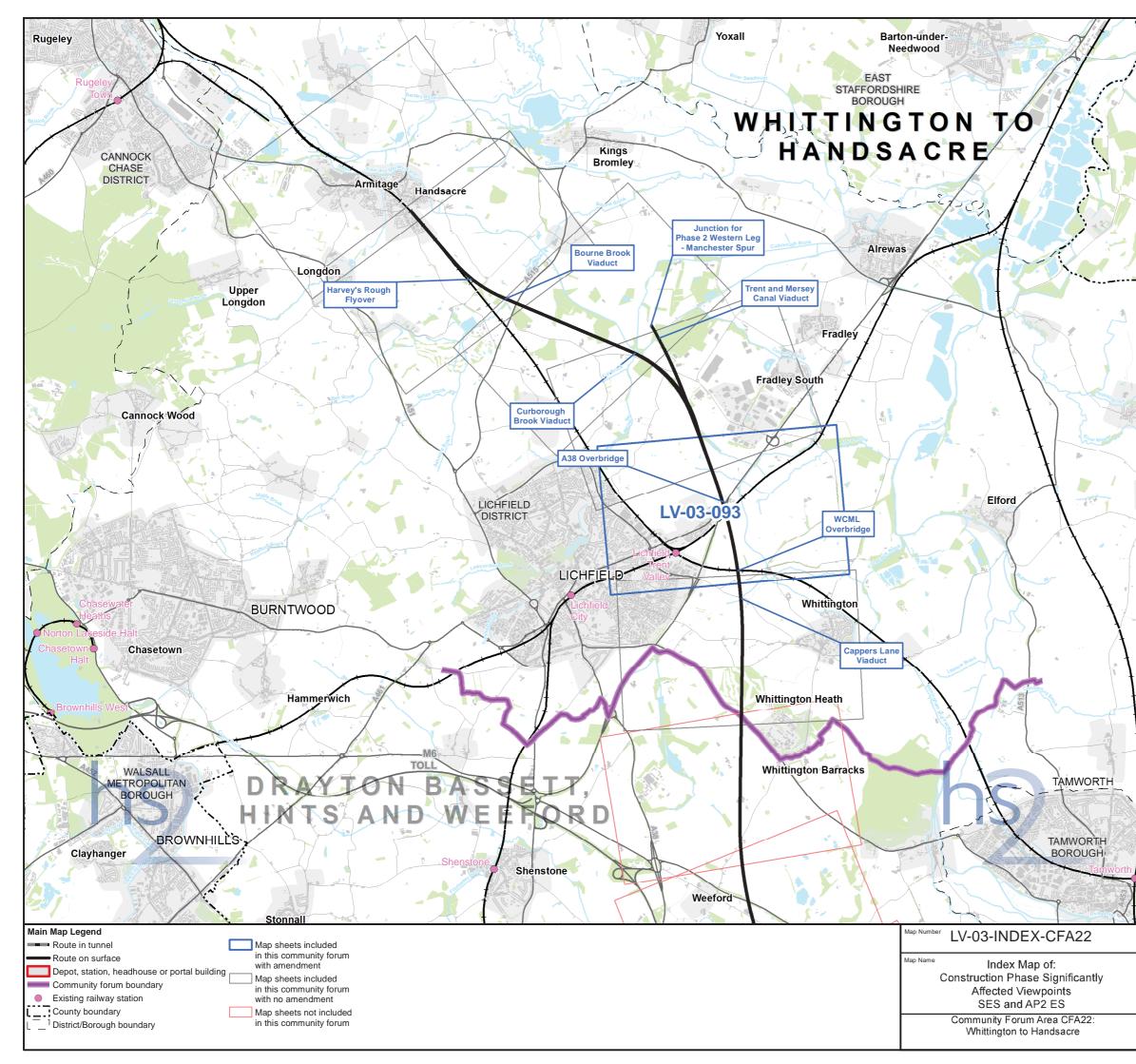
Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

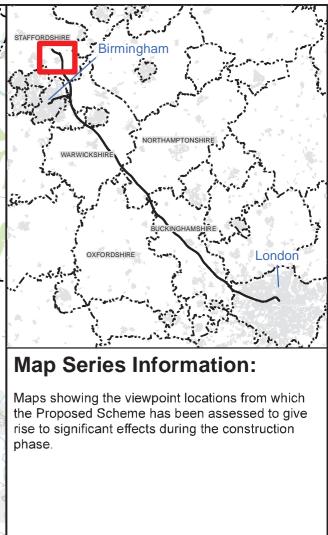
Volume 2 | LV-03 – Construction Phase Significantly Affected Viewpoints LV-04 – Operational Phase Significantly Affected Viewpoints

SES and AP2 ES – VOLUME 2

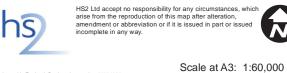


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Note: Not all data layers in the legend are represented on every map.

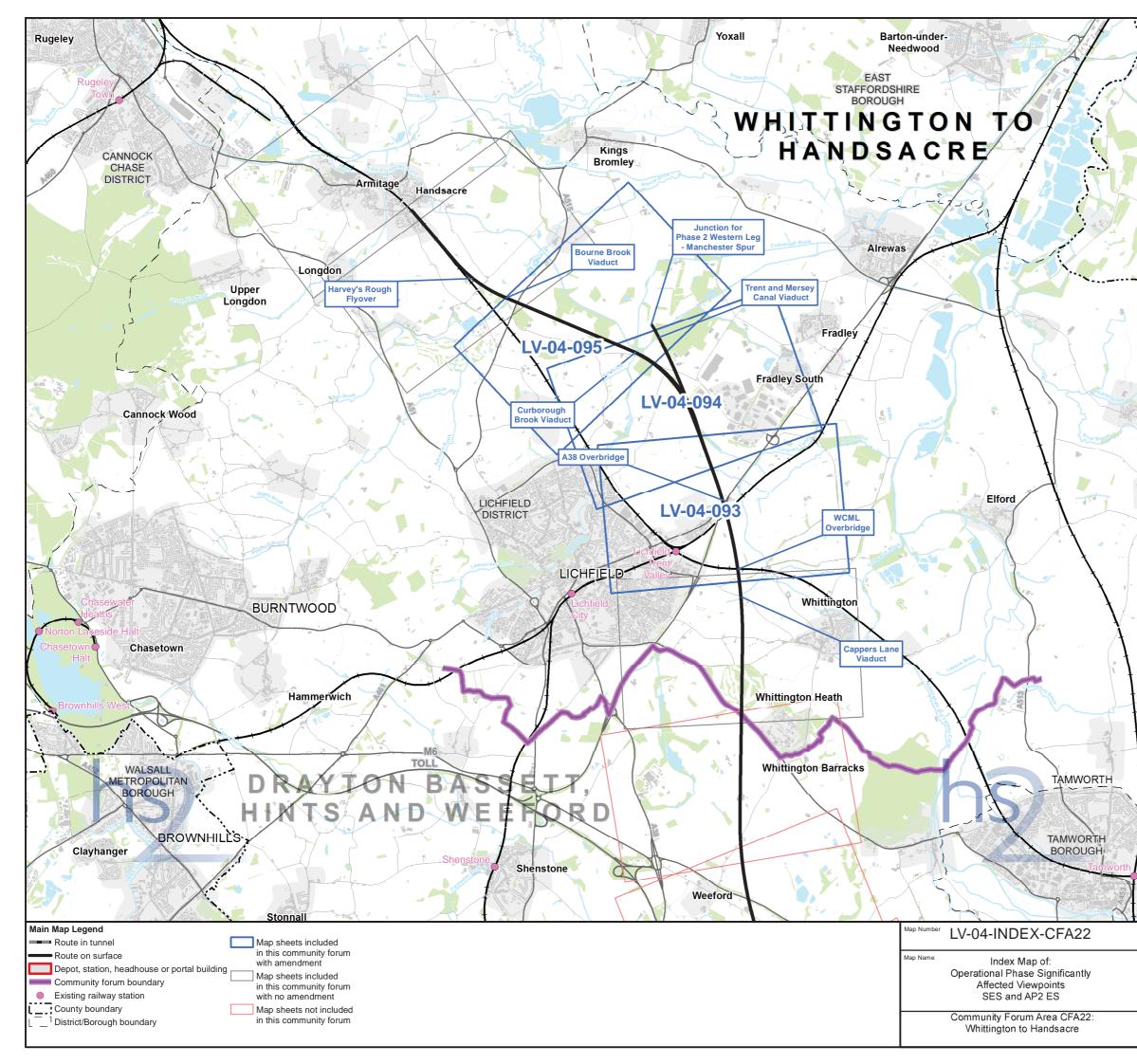


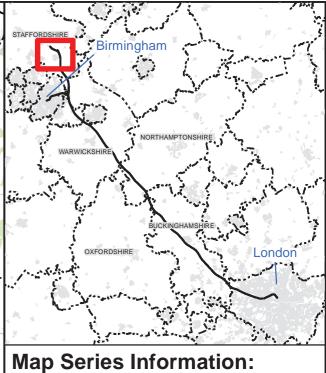
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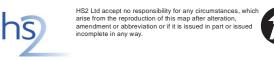
Date: 08/06/15





Maps showing the viewpoint locations from which the Proposed Scheme has been assessed to give rise to significant effects during the operational phase.

Note: Not all data layers in the legend are represented on every map.



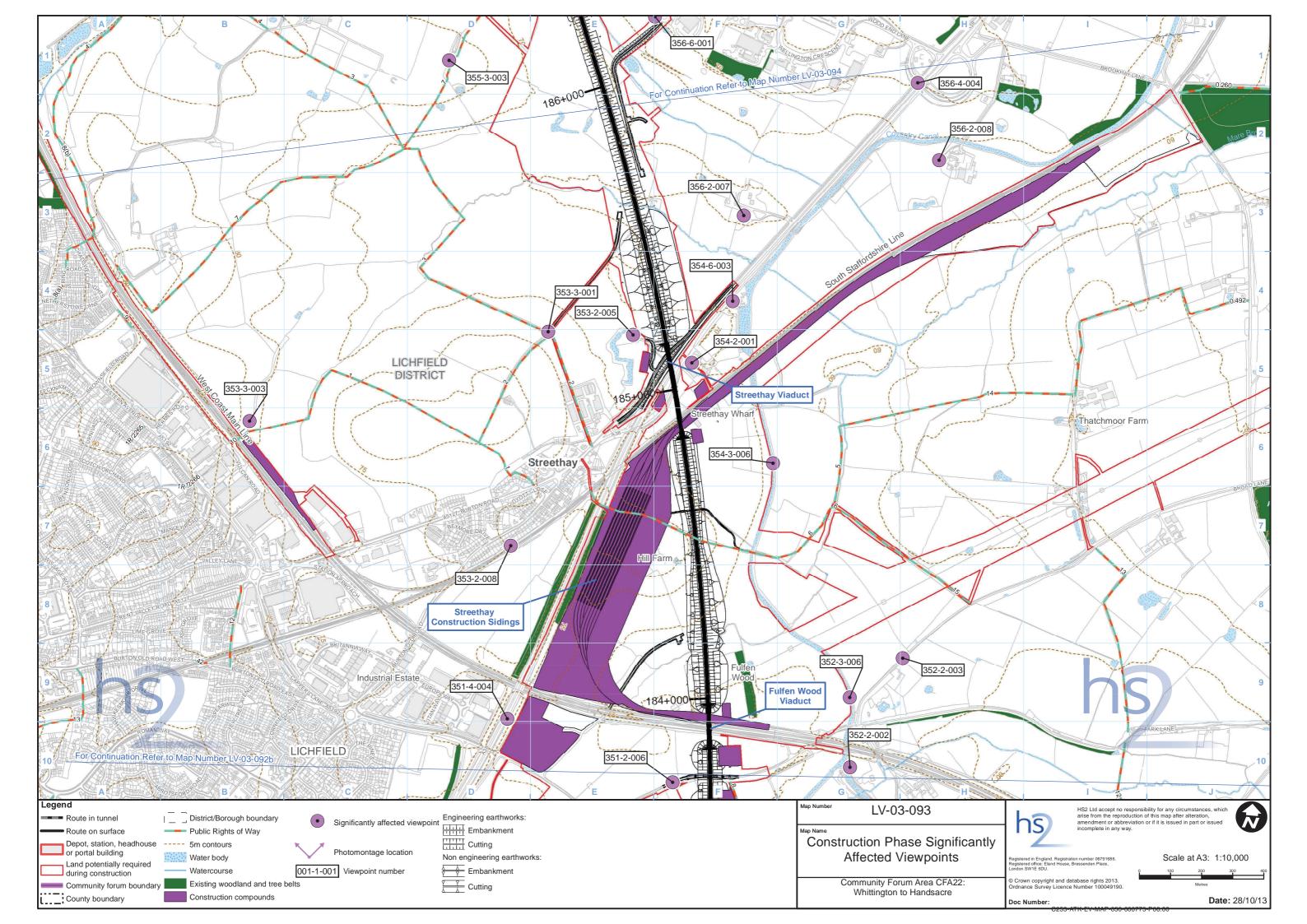


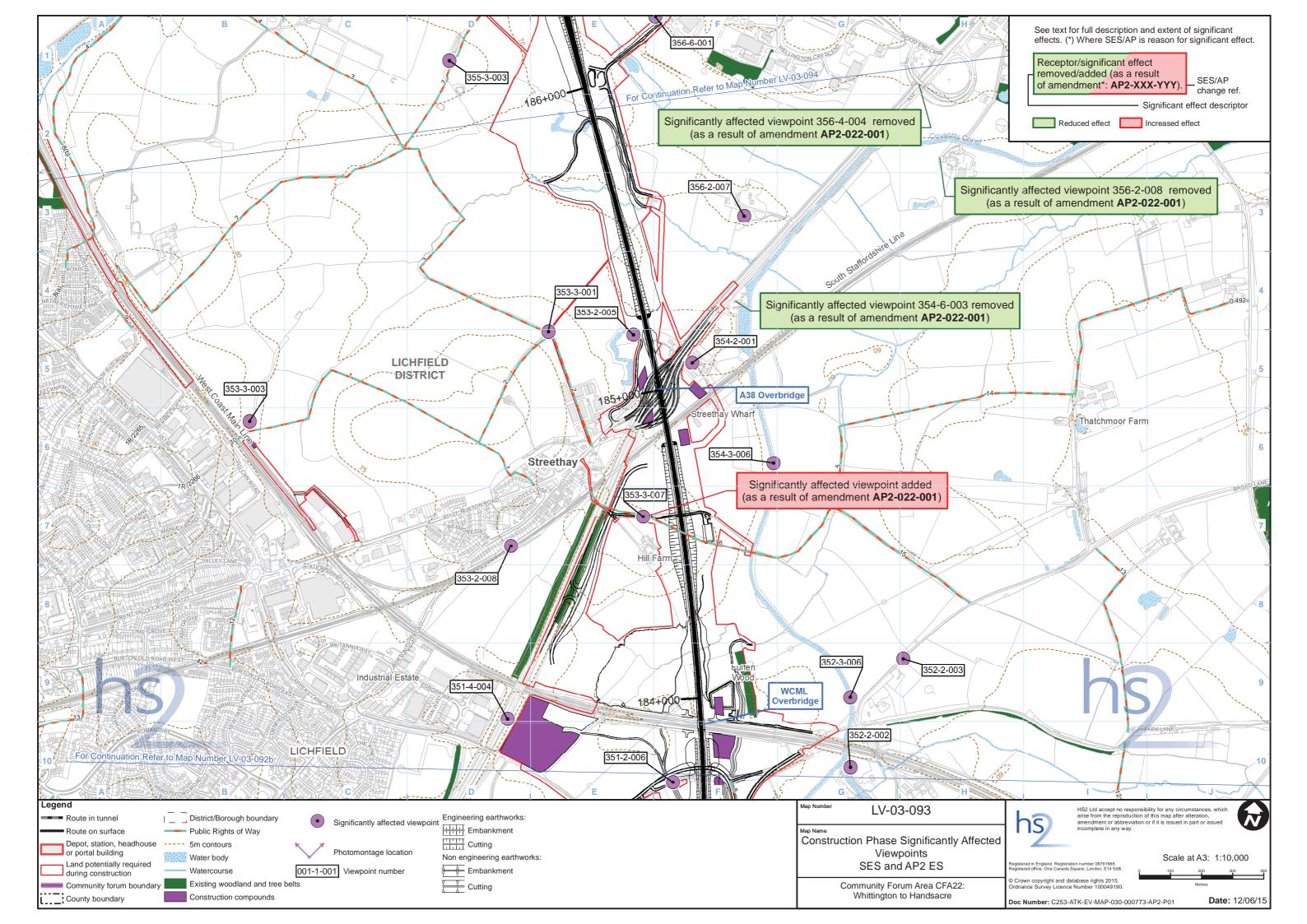
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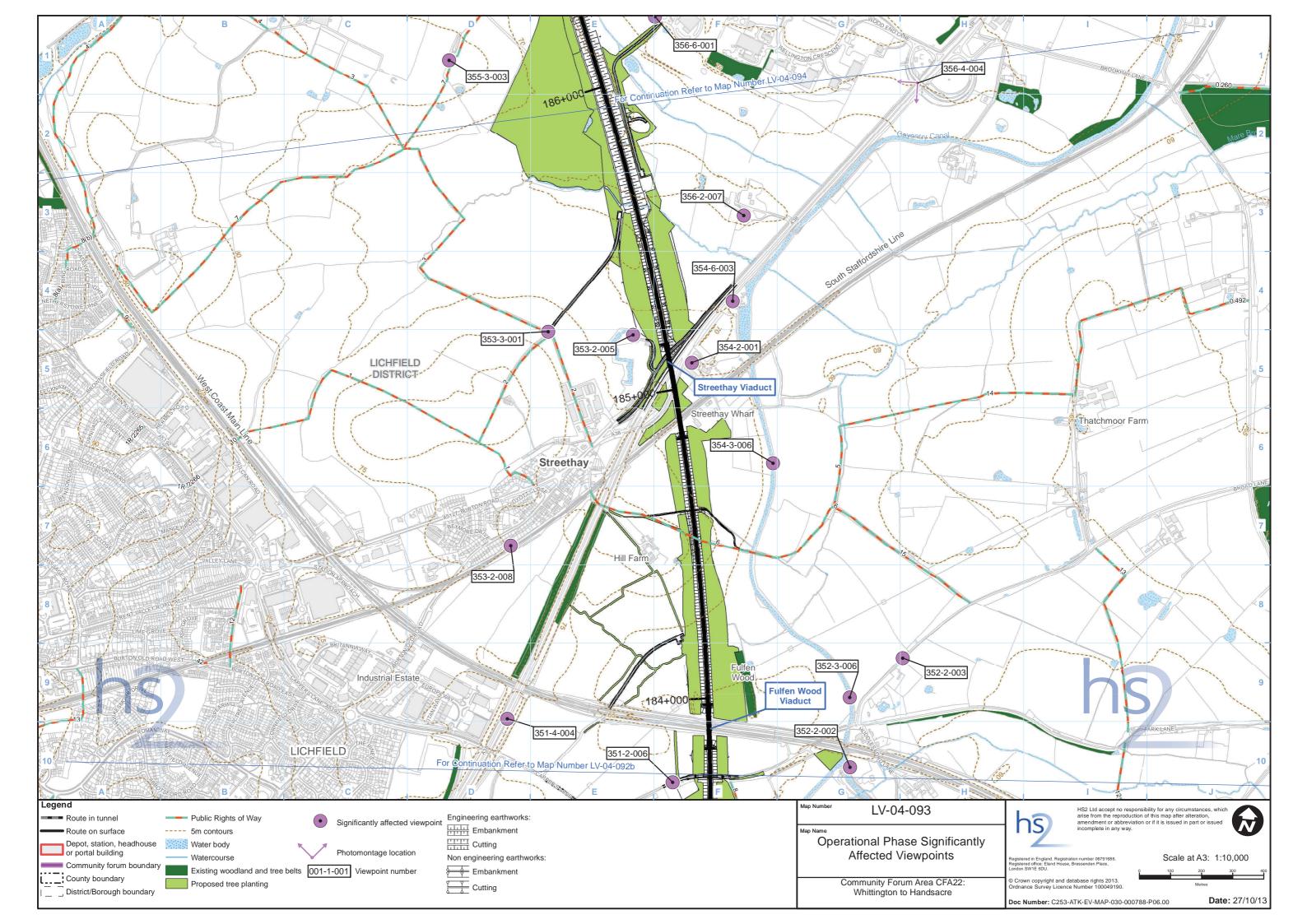
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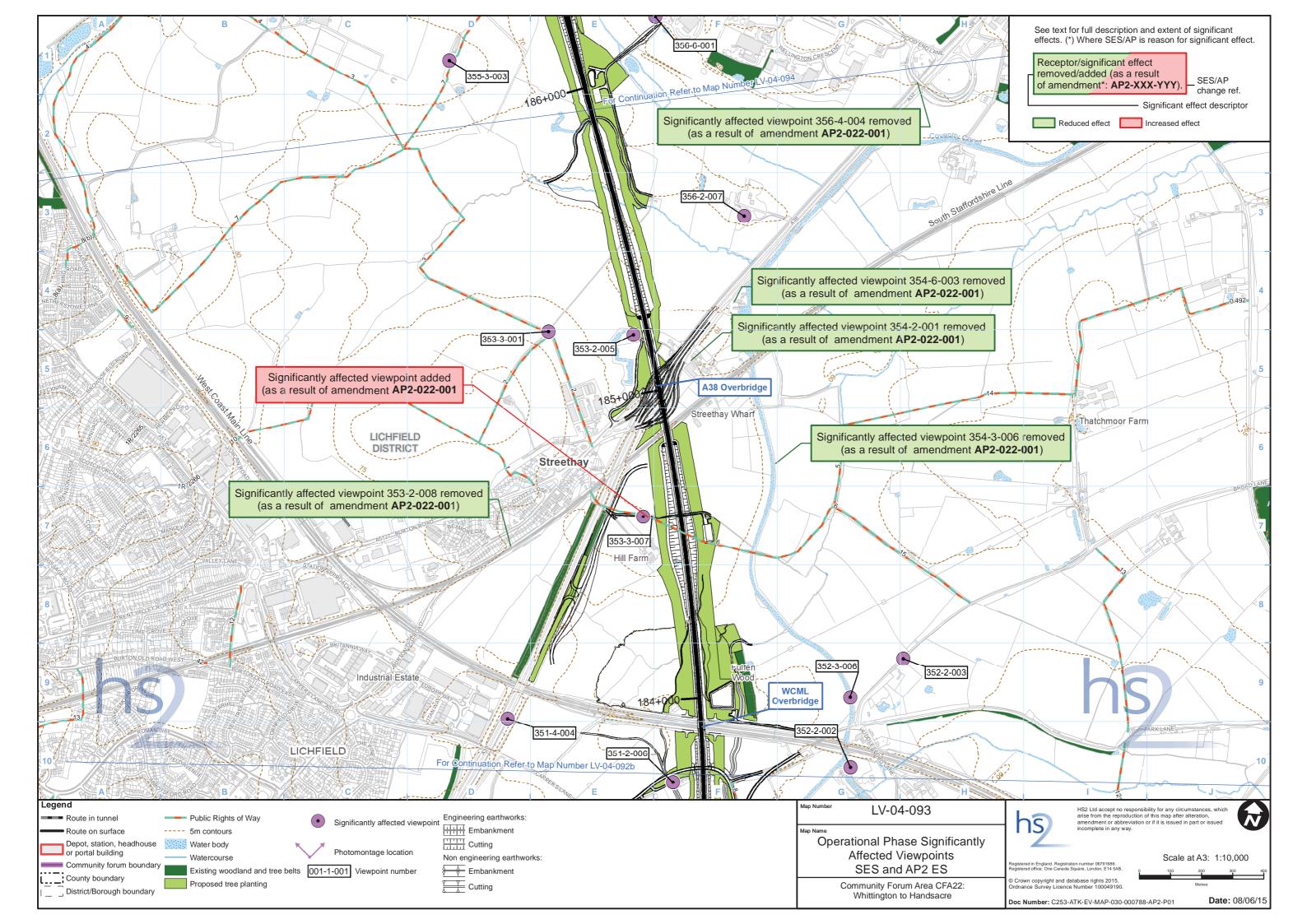
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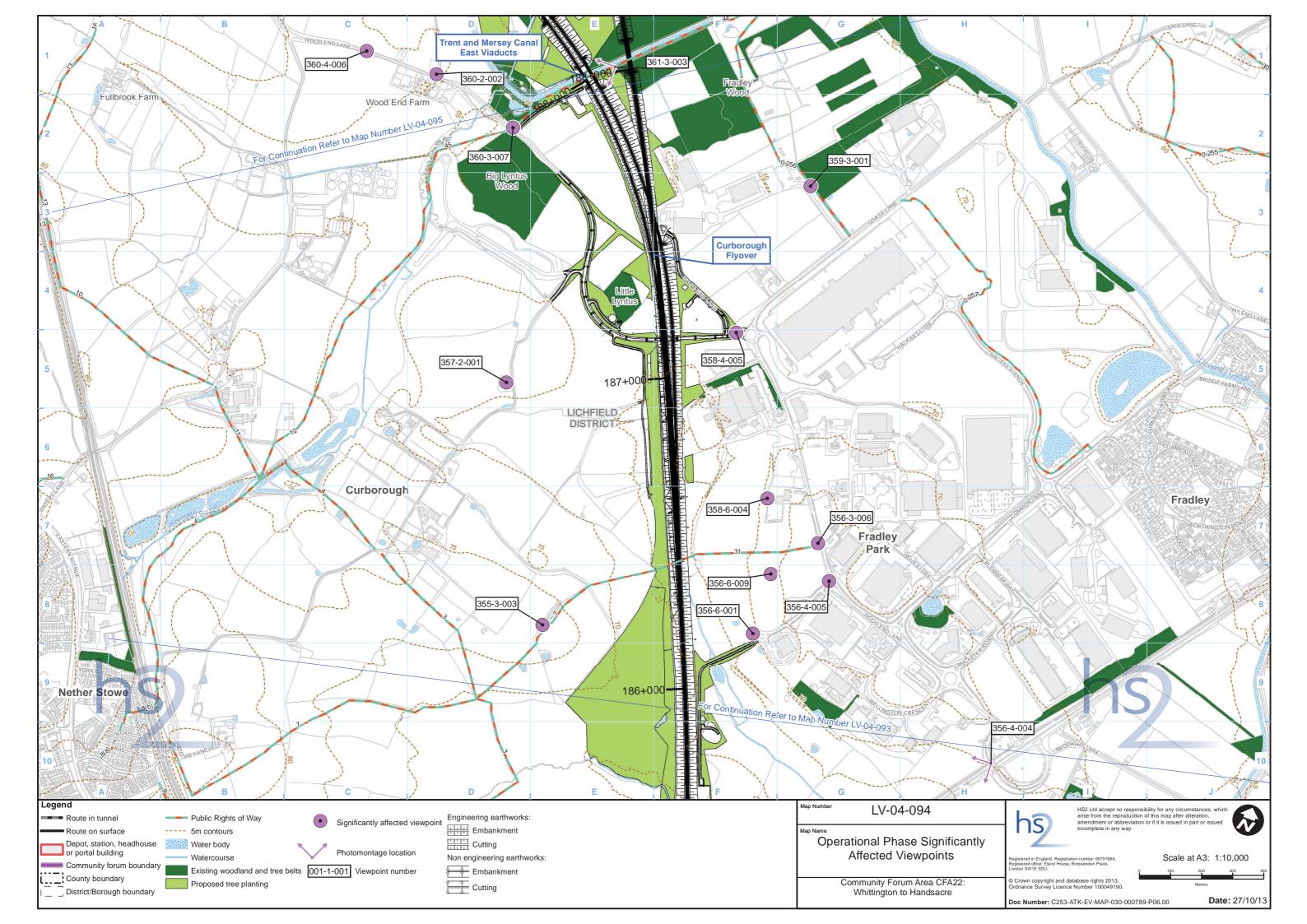
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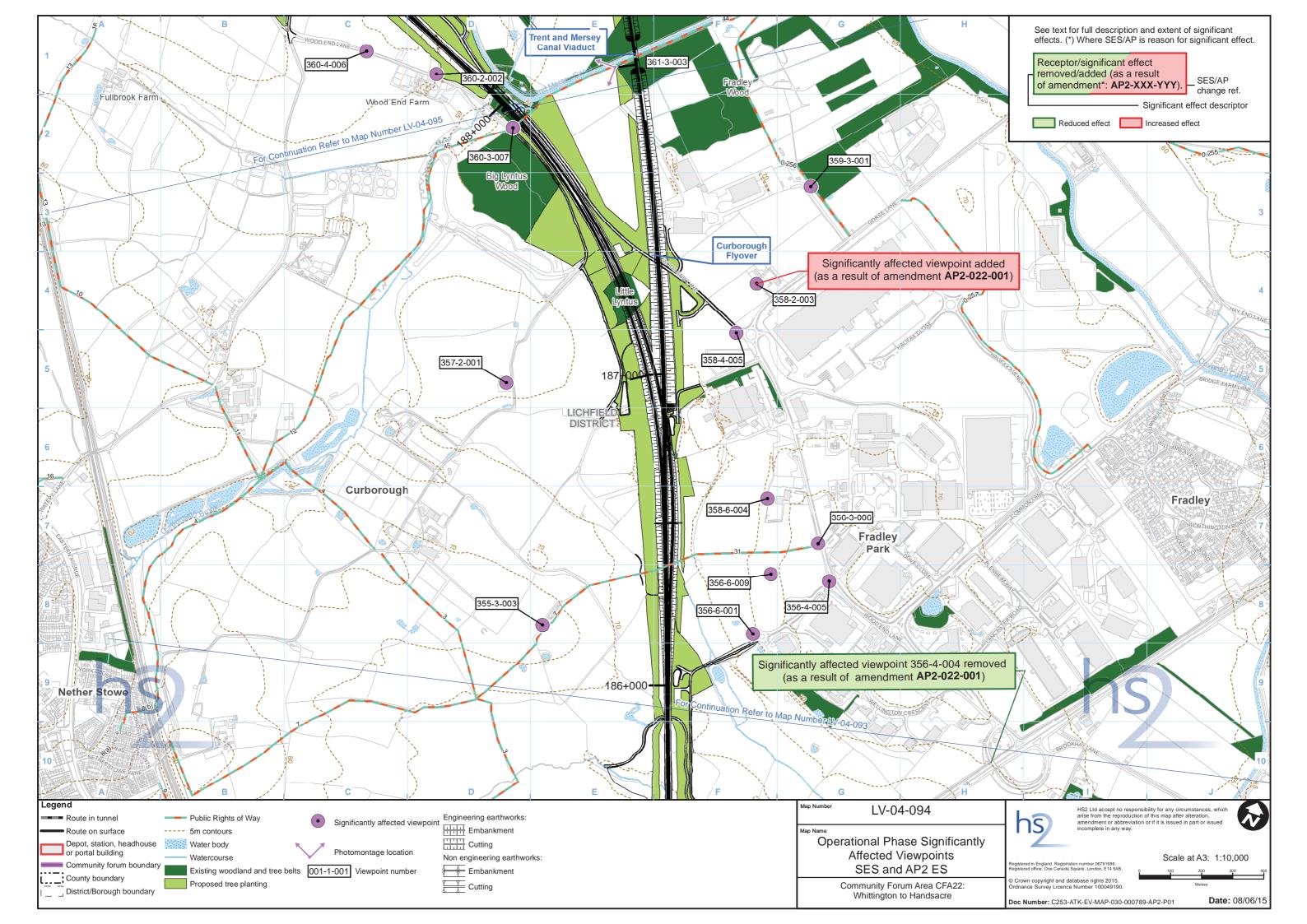


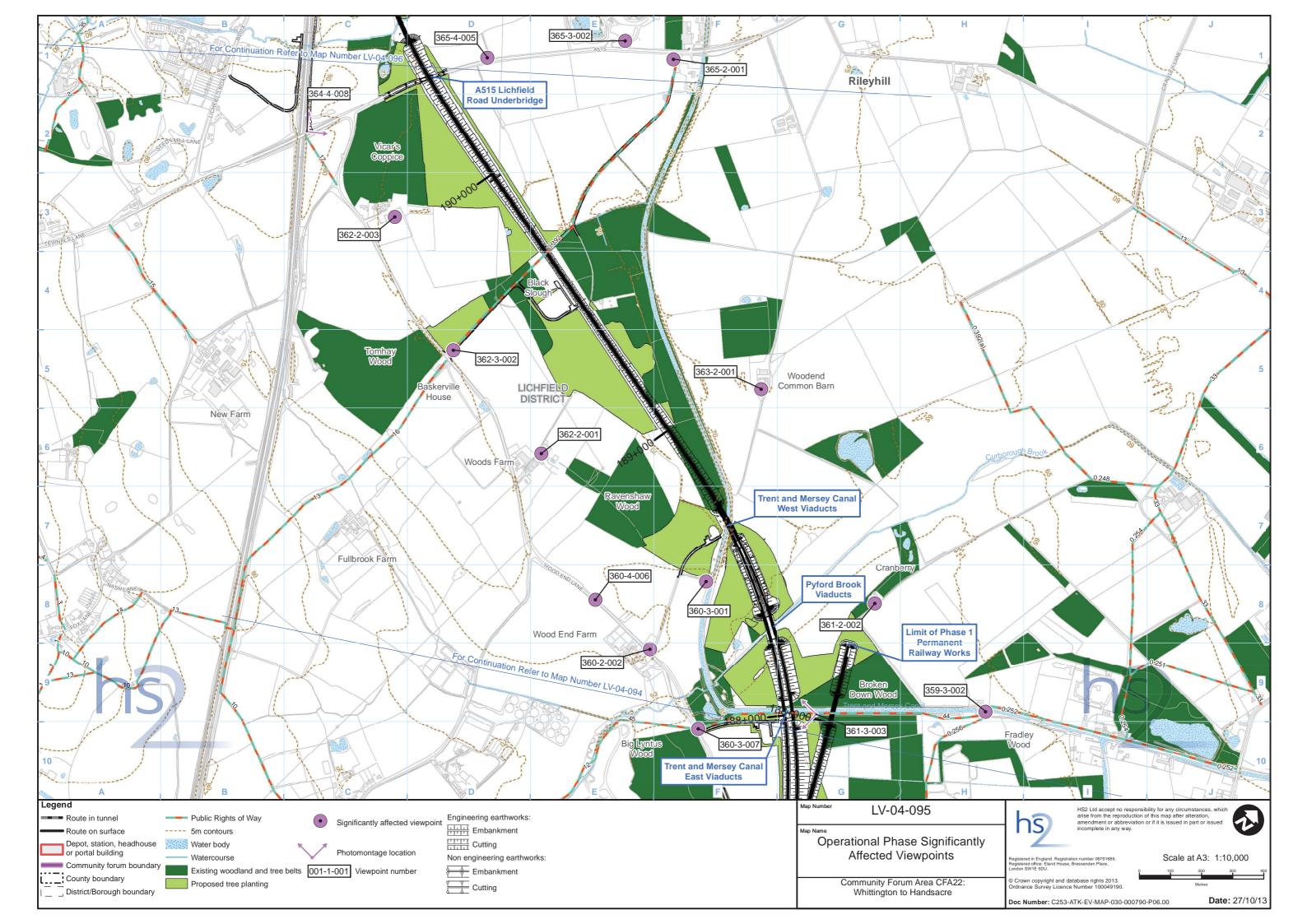


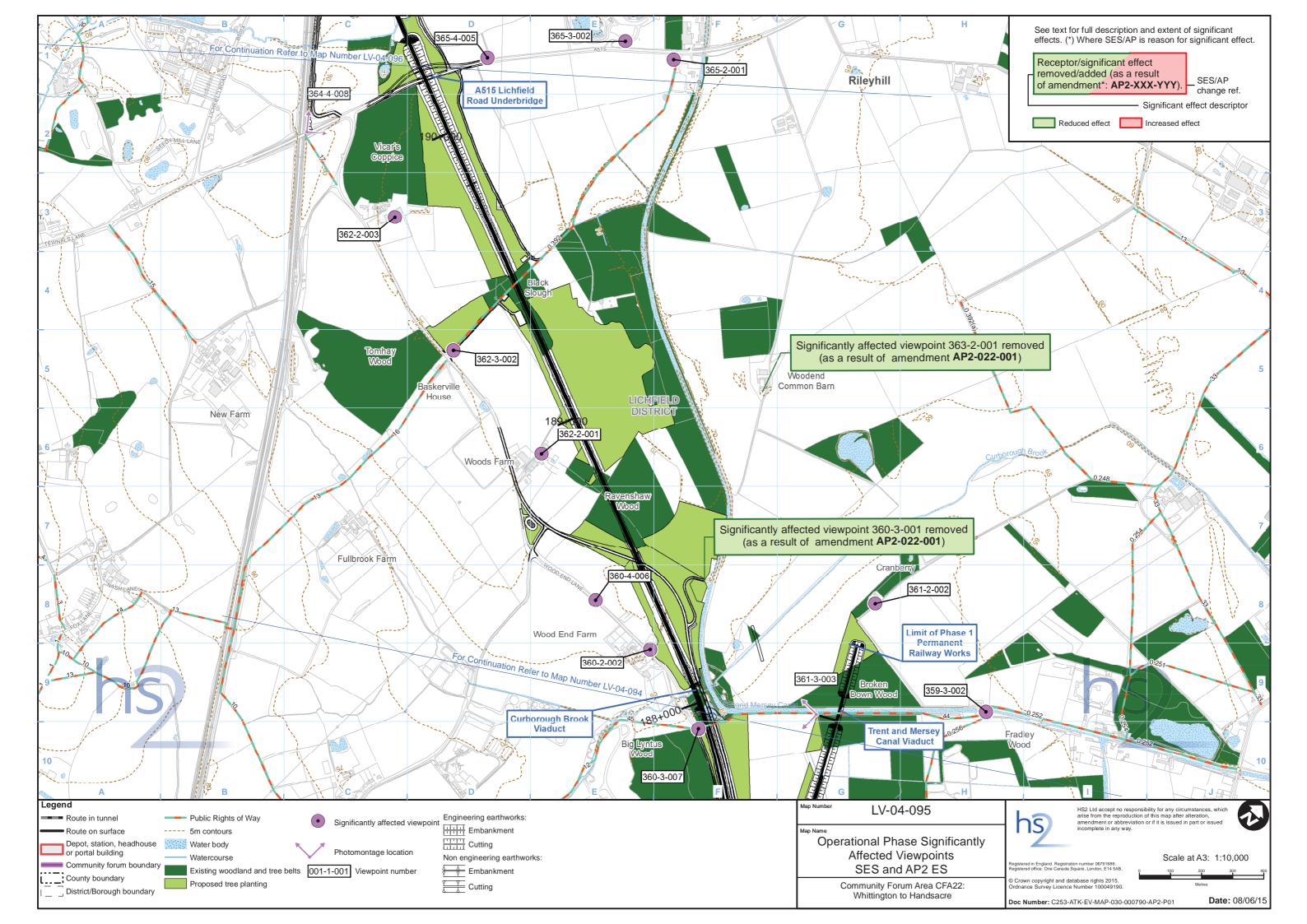












# HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

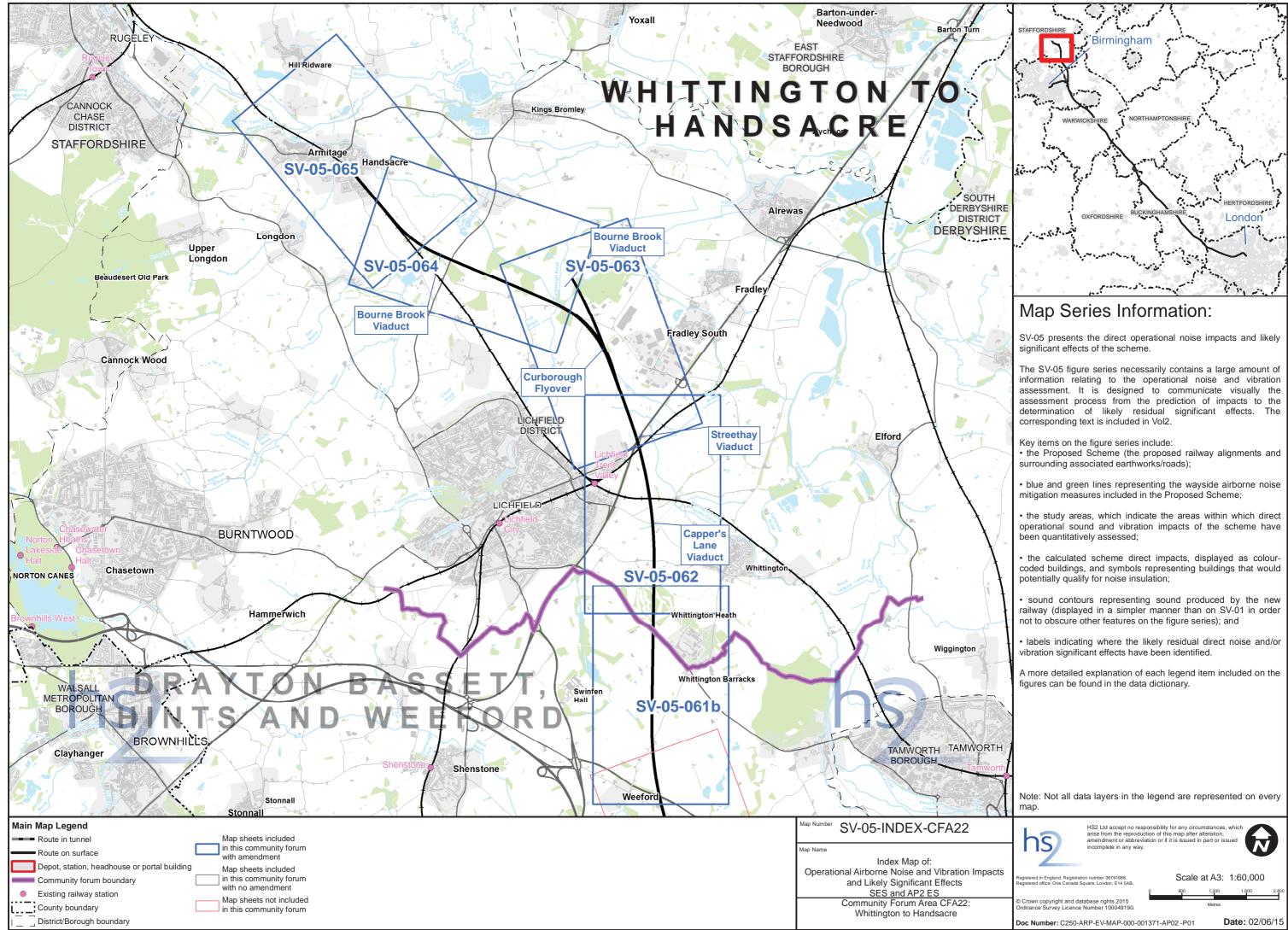
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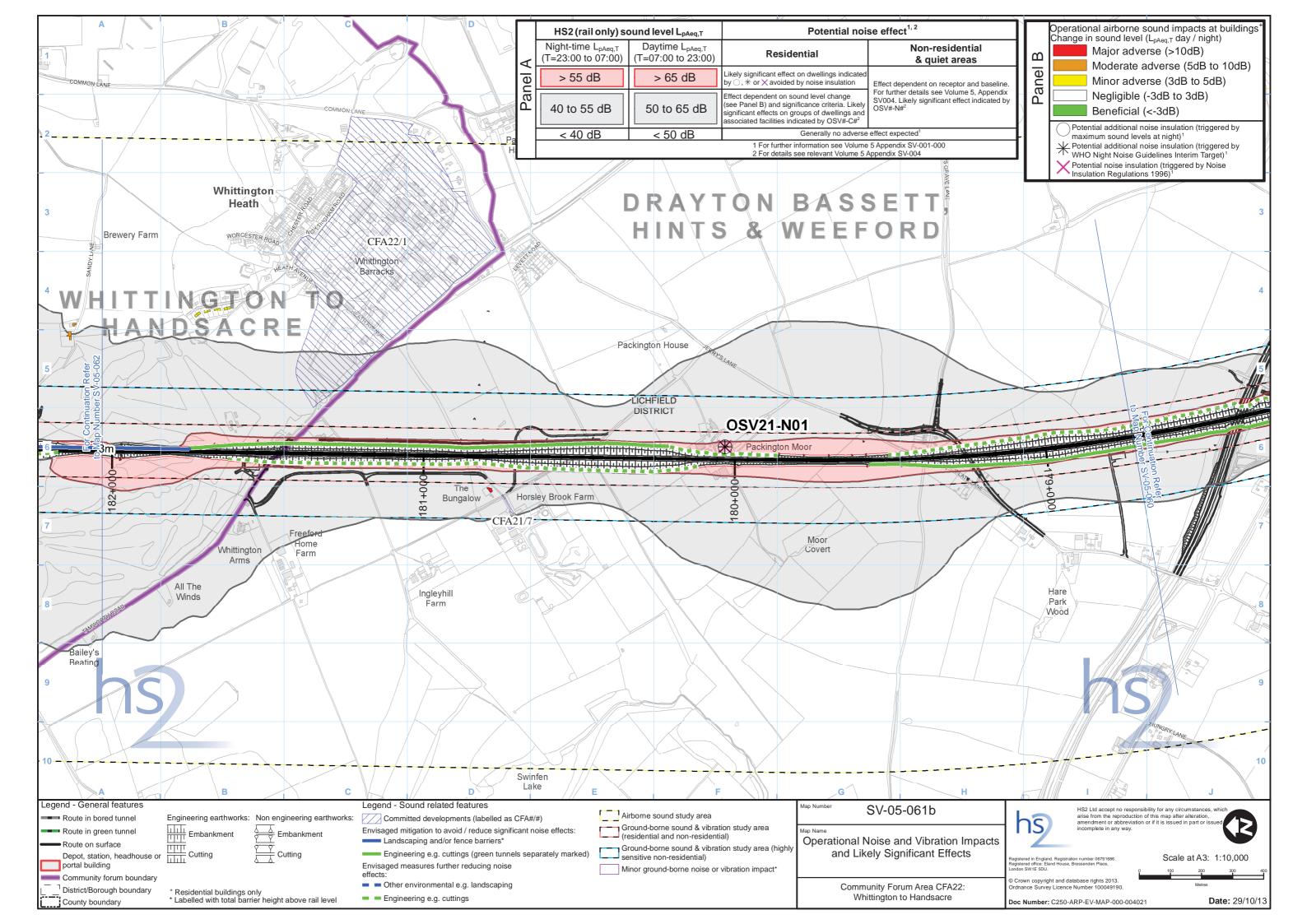
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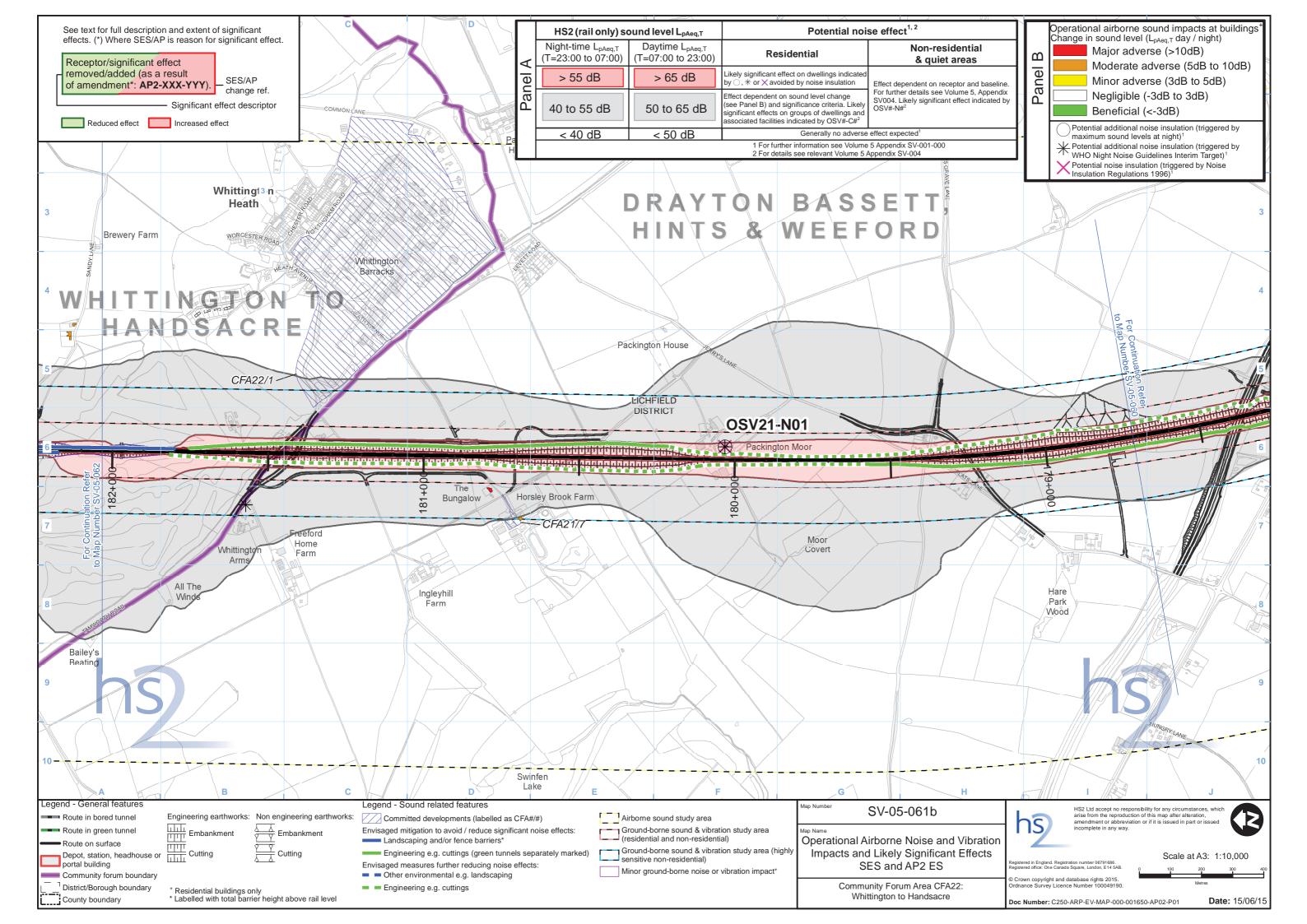
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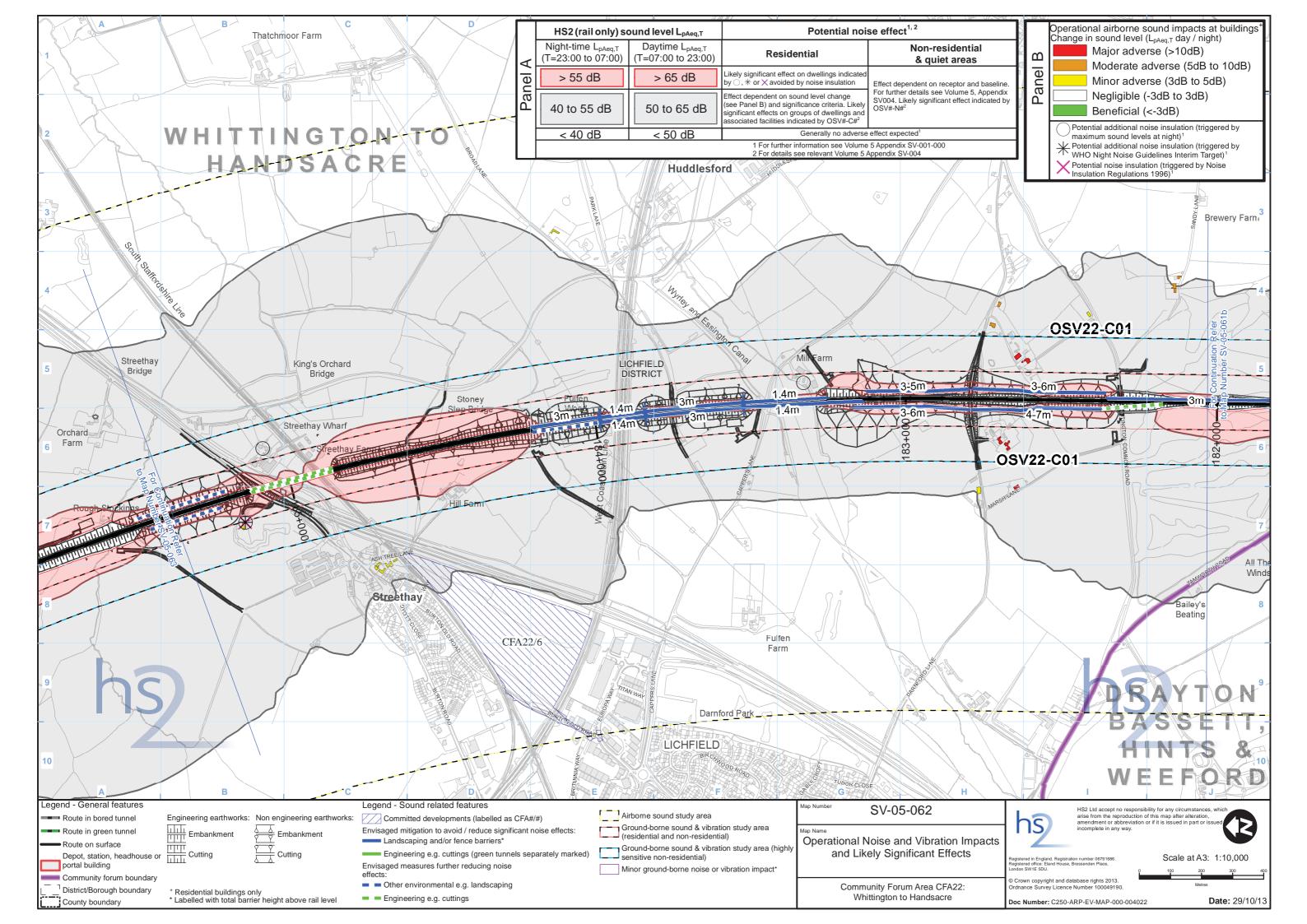


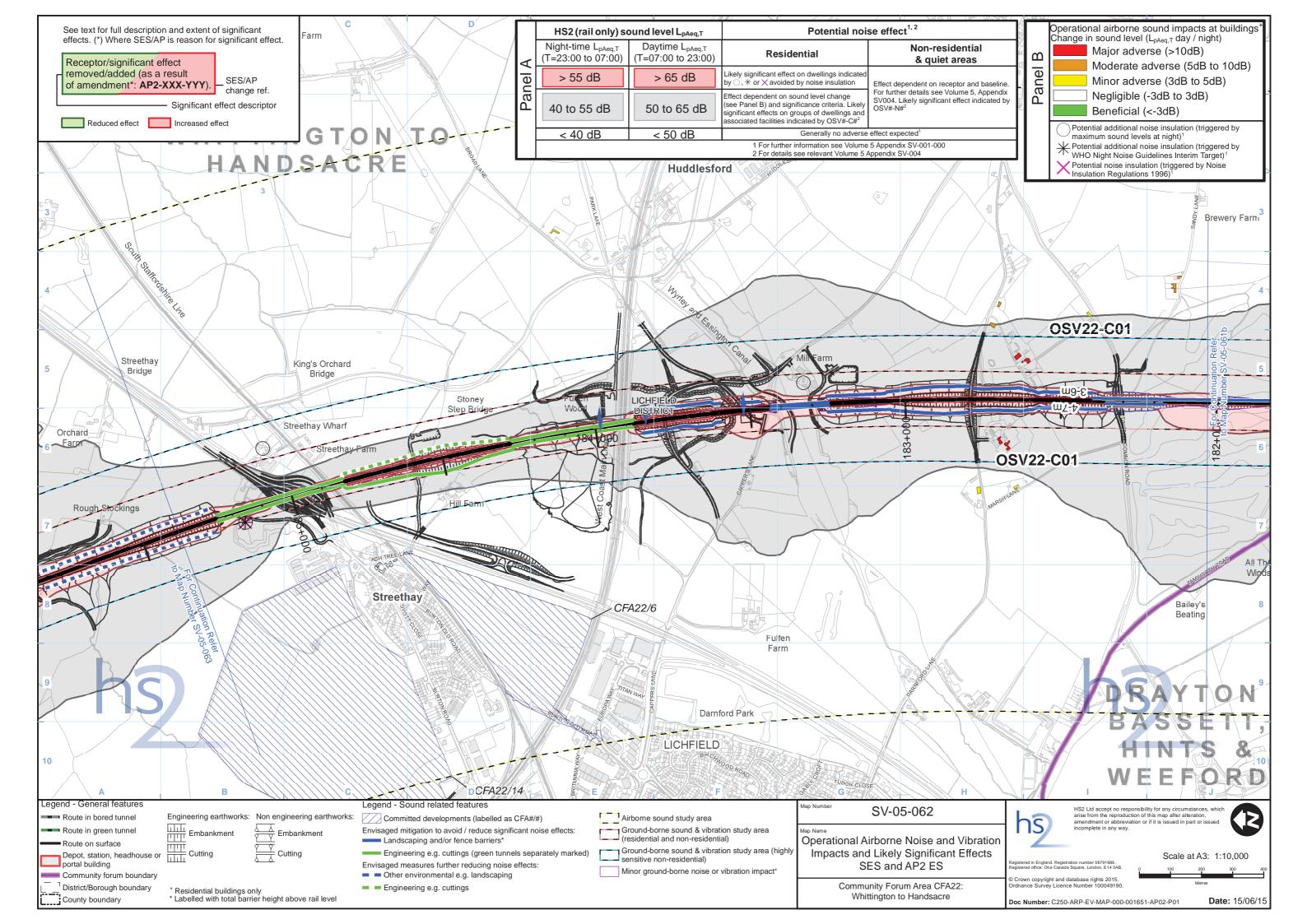
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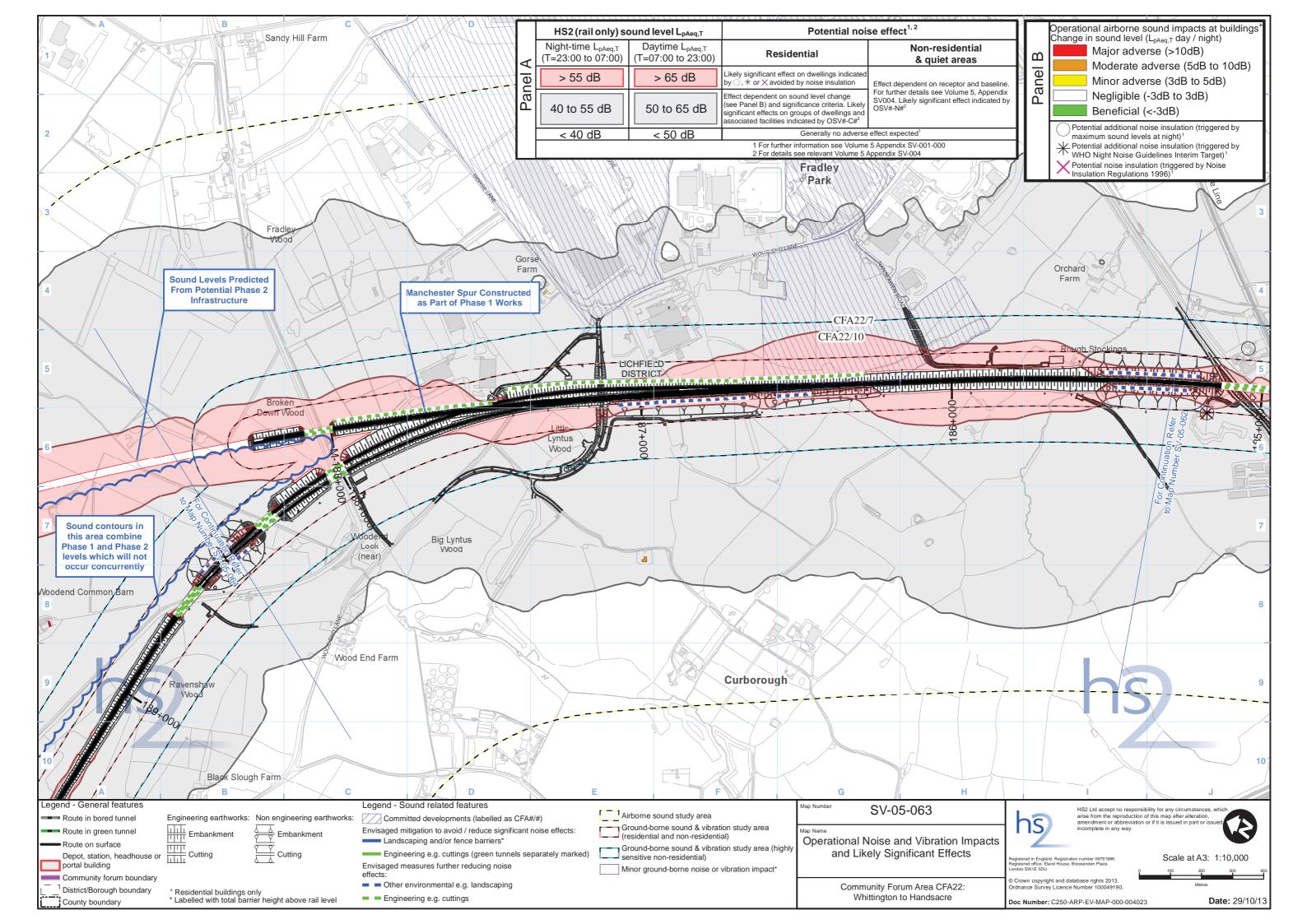


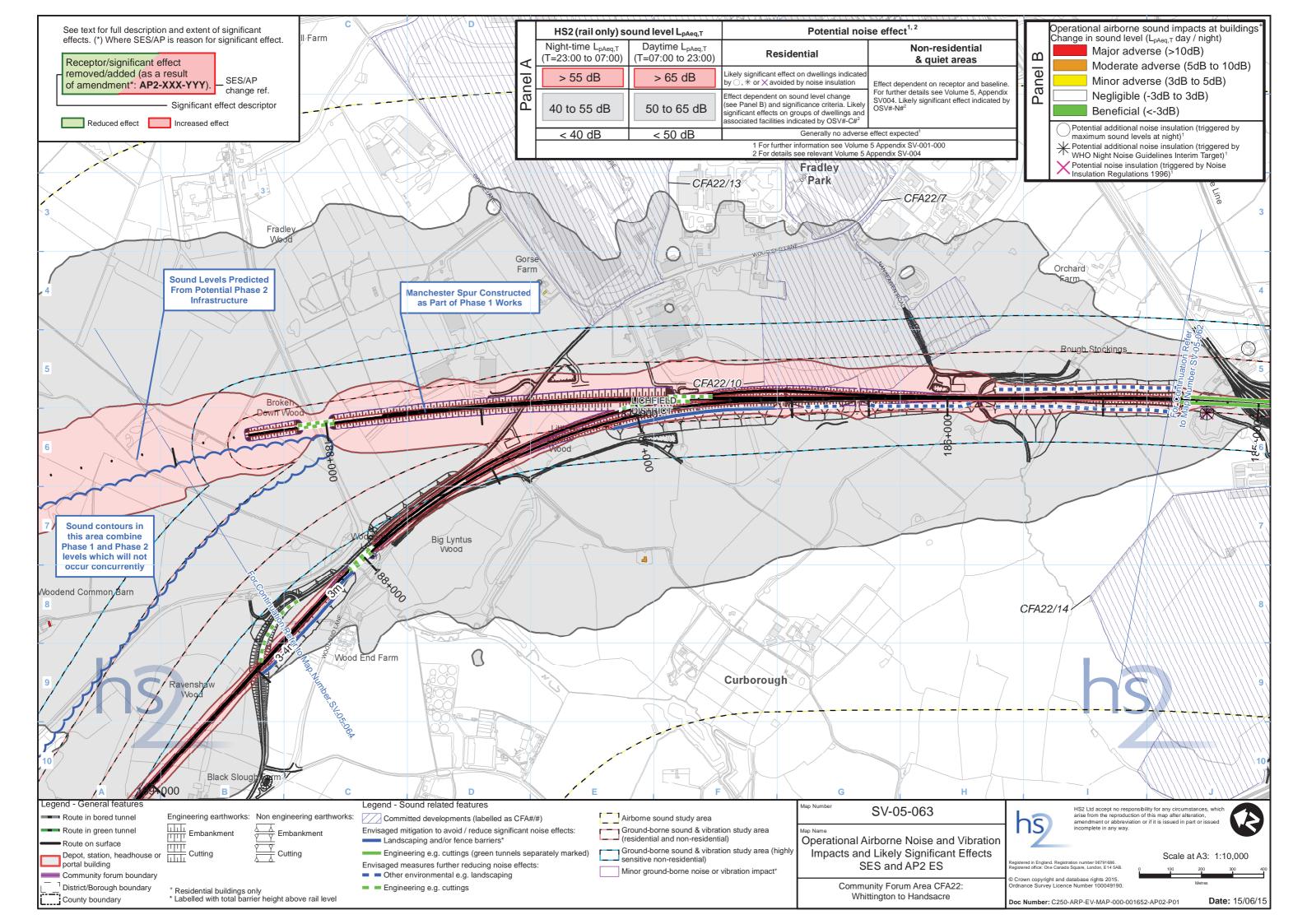


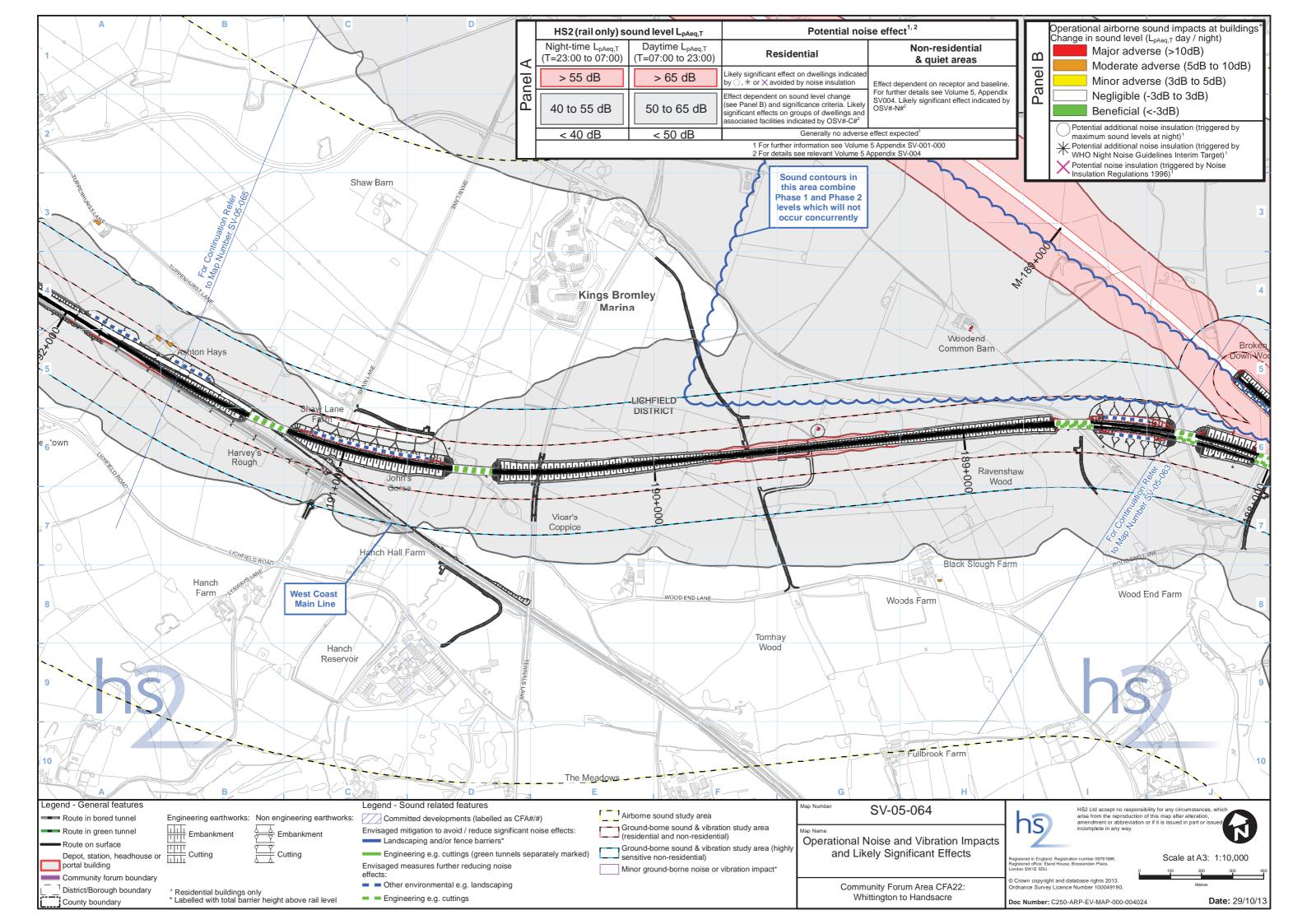


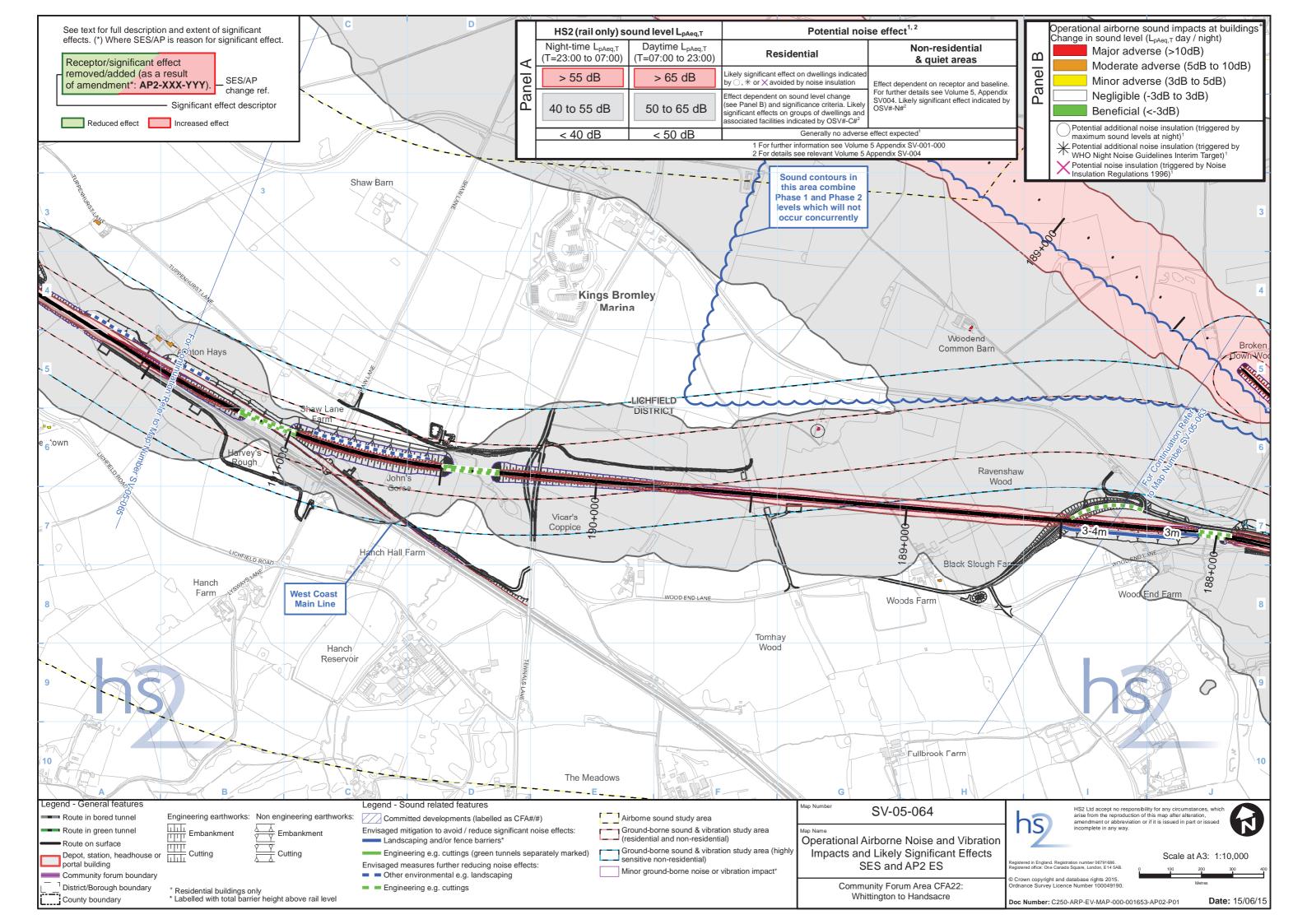


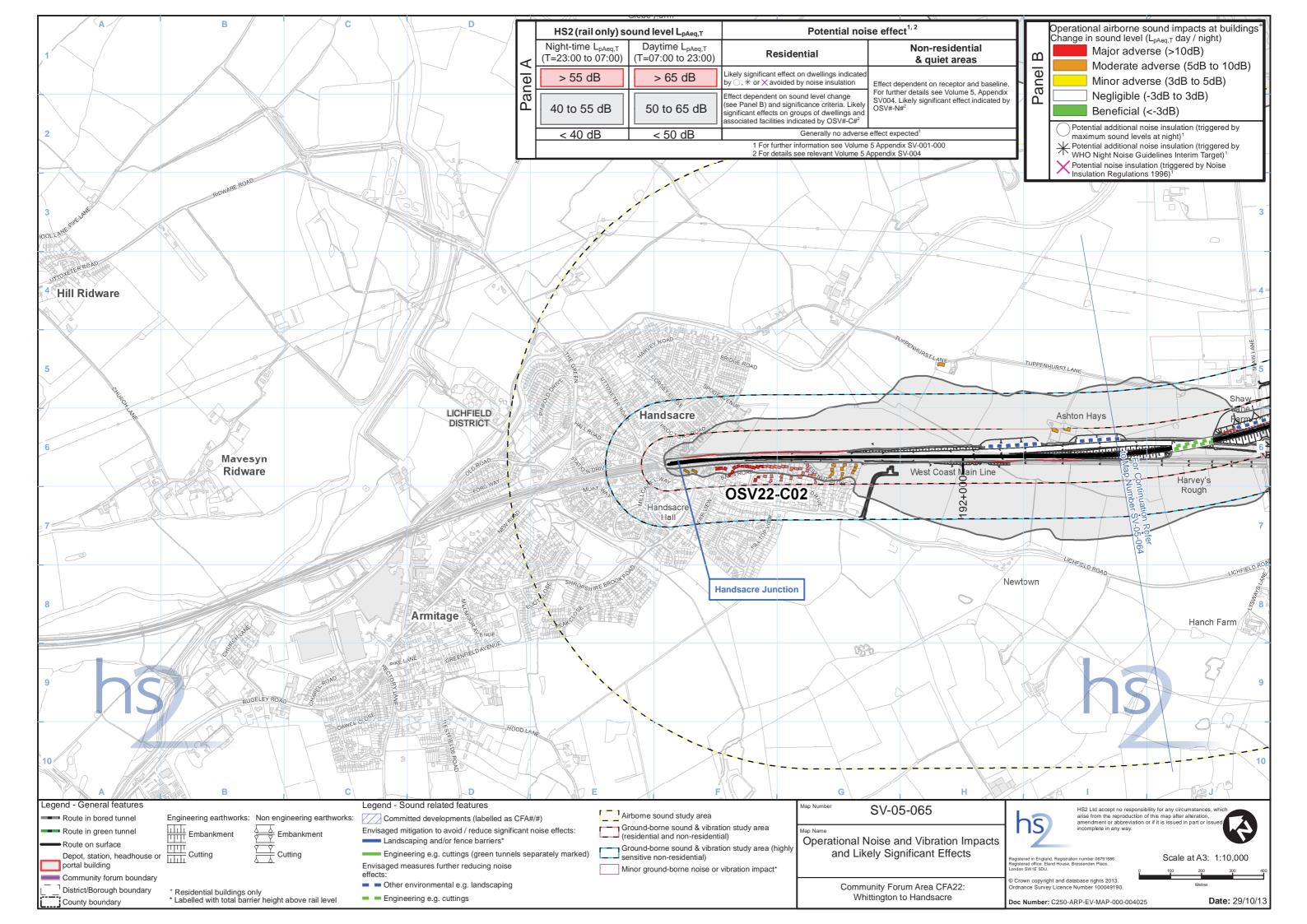


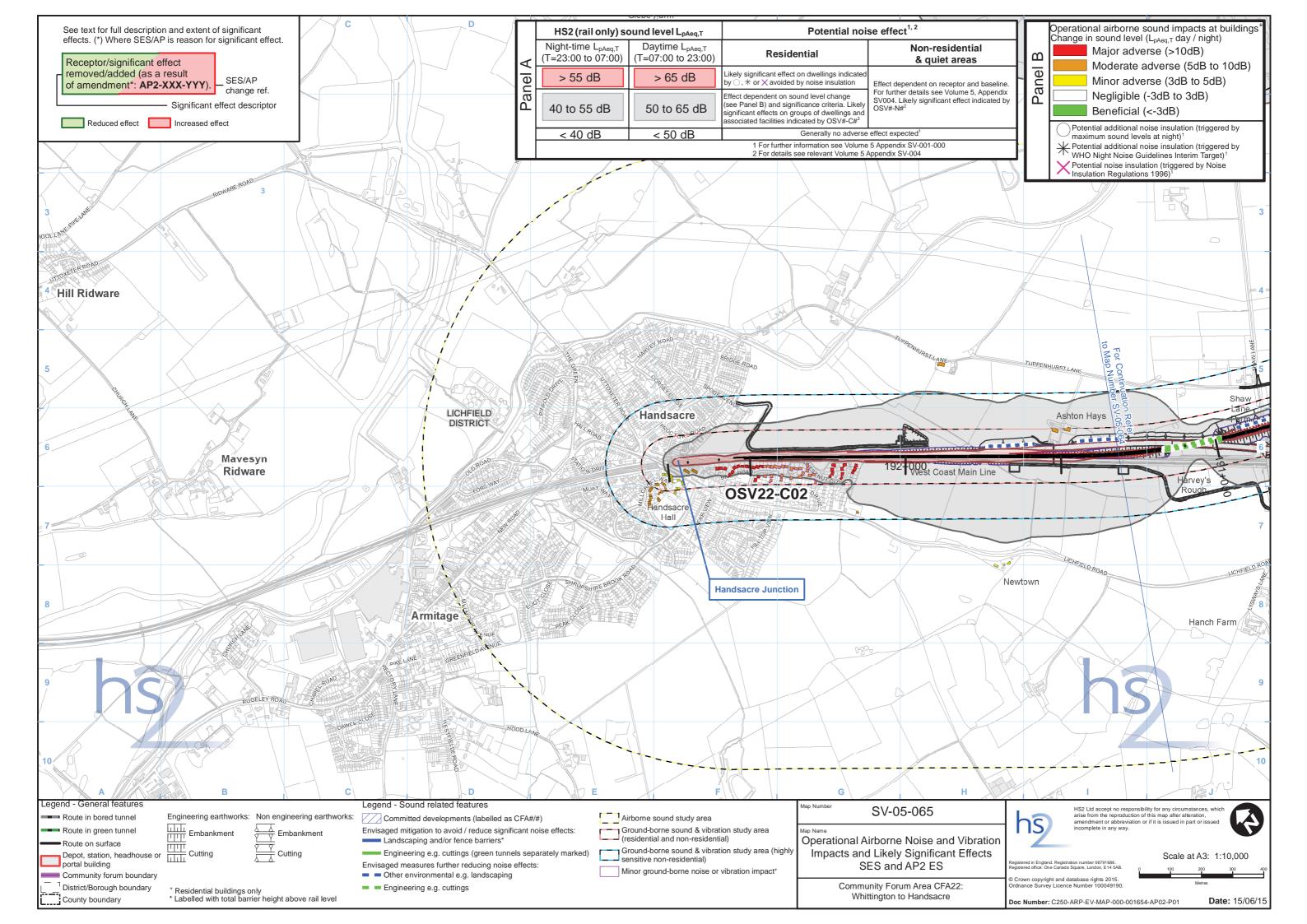












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### SES and AP2 ES – VOLUME 2

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