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High Speed Rail (West Midlands - Crewe) Supplementary Environmental Statement and Additional Provision Environmental Statement

Volume 5: Map book

Agriculture, forestry and soils (AG-01)

Cultural heritage (CH-01)

Community (CM-01)

Committed developments (CT-13)

Landscape and visual (LV-07, LV-08)

Sound, noise and vibration (SV-01, SV-02)

Traffic and transport (TR-03, TR-04)

Water resources (WR-02, WR-05, WR-06)

March 2018

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March 2018



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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A report prepared for High Speed Two (HS2) Limited:







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Mapping explanatory notes

Structure of the HS2 Phase 2a Supplementary Environmental Statement and the Additional Provision Environmental Statement

This map book is part of the suite of documents that make up the Supplementary Environmental Statement (SES) and the Additional Provision Environmental Statement (AP ES) for Phase 2a of the proposed High Speed Two (HS2) rail network between the West Midlands and Crewe.

The SES and the AP ES are separate documents. However, they are bound together and presented in a number of volumes as described below:

- Non-technical summary (NTS). This provides a summary in non-technical language of the SES (Part 1) and the AP ES (Part 2). It presents a summary of any likely residual significant environmental effects (i.e. effects that are likely to remain after mitigation measures are put in place), both beneficial and adverse, which are new or different to those reported in the main ES, and where relevant the SES;
- Glossary of terms and list of abbreviations. This contains any new or different terms and abbreviations used throughout the SES and the AP ES, which are not already explained in the main ES;
- Volume 1: Introduction to the SES and the AP ES. This introduces the supplementary environmental information and changes to the design and construction assumptions included within the SES and amendments within the AP ES. The report explains the environmental impact assessment (EIA) process which has been applied;
- Volume 2: Community area reports and map books. These report the supplementary environmental information and changes to the design and construction assumptions included within the SES (Part 1), amendments within the AP ES (Part 2) and any new or different likely significant environmental effects arising from these changes and amendments in each community area. These effects are compared to those reported in the main ES, and where relevant, the SES. The maps relevant to each community area are provided in separate Volume 2 map books and should be read in conjunction with the relevant community area report;
- Volume 3: Route-wide effects. This describes any new or different likely significant environmental effects arising at a route-wide level from the supplementary environmental information and changes to the design and construction assumptions included within the SES (Part 1) and the amendments within the AP ES (Part 2) compared to those reported in the main ES, and where relevant the SES; and
- Volume 5: Appendices and map books. These contain supporting environmental information and associated maps.

A Volume 4: Off-route effects report was produced as part of the main ES. A separate Volume 4 has not been produced as part of the SES and AP ES as off-route effects are very limited in number and are reported in the most relevant Volume 2 community area report.

Certain reports and maps containing background information and data (BID) have been produced, which do not form part of the SES and AP ES. These documents are available on the HS2 website. The BID documents and maps present background survey information and other relevant background material.

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 SES and the AP 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 the AP 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. 192+000 or 239+500.

Chainage (known as reference chainage) is referenced from Euston Station, which is 0+000, and the value presented is in metres. E.g. 192+000 refers to the point, 192,000m, or 192km, from Euston Station. Chainage values increase in intervals dependent on the map scale. For maps at 1:50,000 scale chainage is shown at 2km intervals. For maps at 1:20,000, 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 July 2017) on the left hand page and the SES and the AP ES map on the right. For the CT-05 and CT-06 map series, the SES and the AP 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 the AP ES reference number. Only maps which have been amended as a result of the SES and the AP 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 report).
Red	Proposed amendments relating to the AP ES (Part 2 of each Volume 2 report).

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

Further details on the approach to mapping is set out in Section 6 of Volume 1 of the SES and AP ES.

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 Crewe to the left.

The exception to this, are map series LV-03, LV-04, LV-07 and LV-08, 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 Crewe to the top.

Map books

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

Name		
Volume 2: Map book – CA1: Fradley to Colton		
Volume 2: Map book – CA2: Colwich to Yarlet		
Volume 2: Map book — CA3: Stone and Swynnerton		
Volume 2: Map book — CA5: South Cheshire		
Volume 5: Map book		

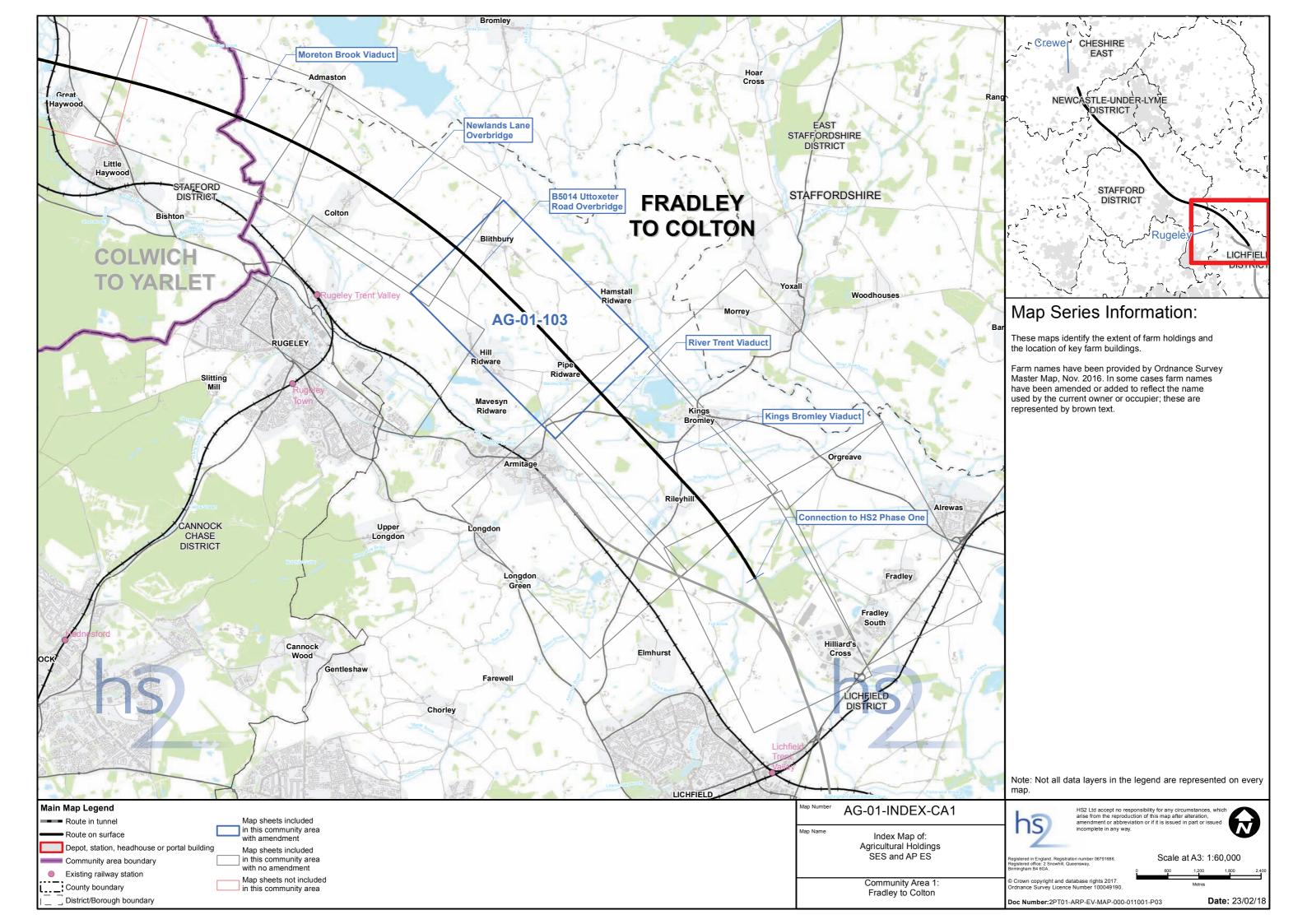
Agriculture, forestry and soils (AG-01)

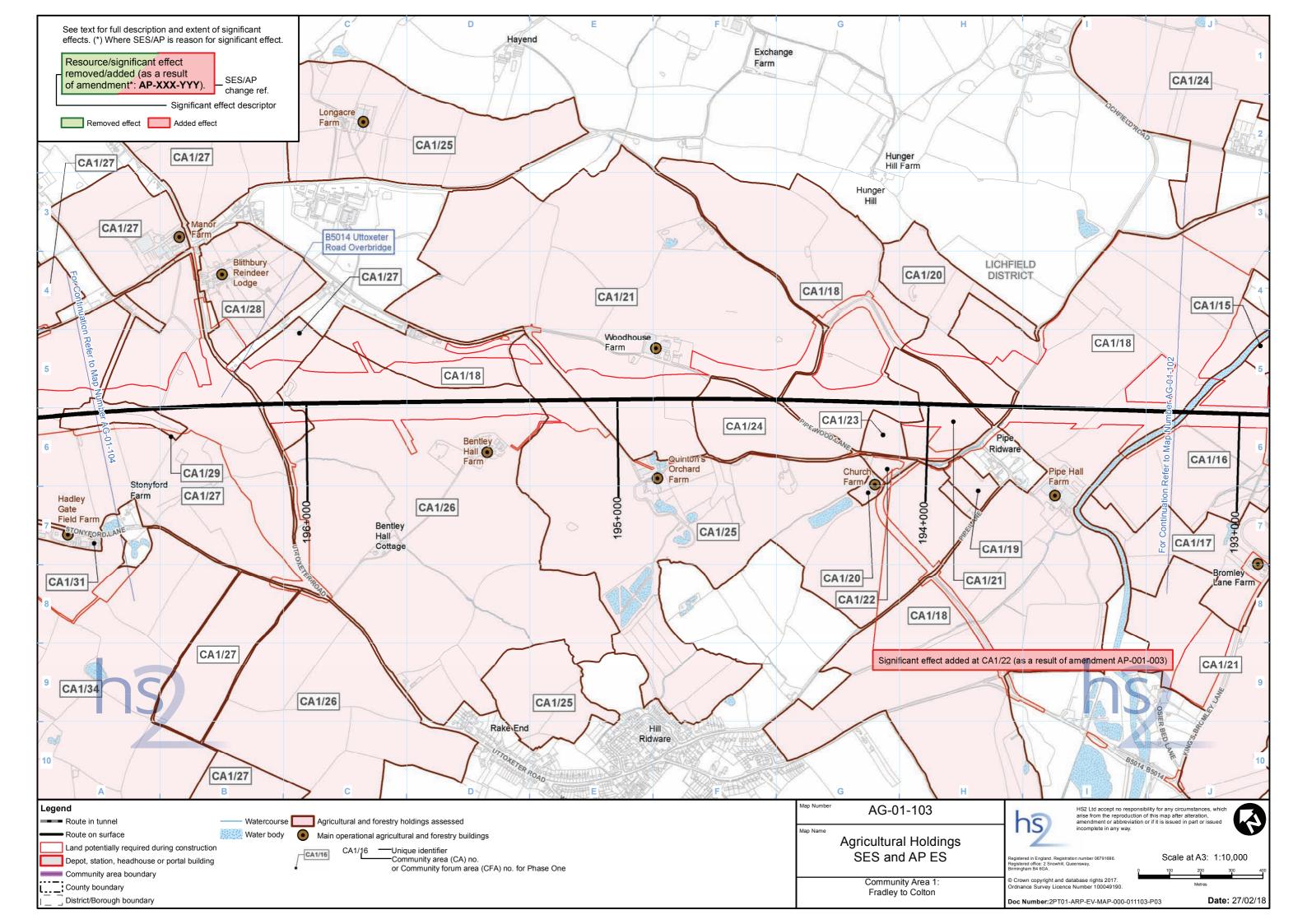
Contents

Map series name	AG-01 - Agricultural Holdings	
Map series description	These maps identify the extent of farm holdings and the location of key farm buildings. Farm names have been provided by Ordnance Survey Master Map, Nov. 2016. In some cases farm names have been	
Community Area name	amended or added to reflect the name used by the current owner or occupier; these are represented by brown text.	
CA1 Fradley to Colton	\checkmark	
CA ₂ Colwich to Yarlet	×	
CA ₃ Stone and Sywnnerton	×	
CA ₄ Whitmore Heath to Madeley	×	
CA ₅ South Cheshire	✓	

Legend features	Definition	Source	Copyright
Agricultural and forestry holdings assessed	Holdings assessed derived from the Farm Impact Surveys undertaken by the environmental consultants for HS2 Ltd, augmented where access was not available by published information from Defra.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	High Speed Two (HS2) Ltd	
Main operational agricultural and forestry buildings	Main operational buildings derived from the Farm Impact Surveys undertaken by the environmental consultants for HS2 Ltd.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.

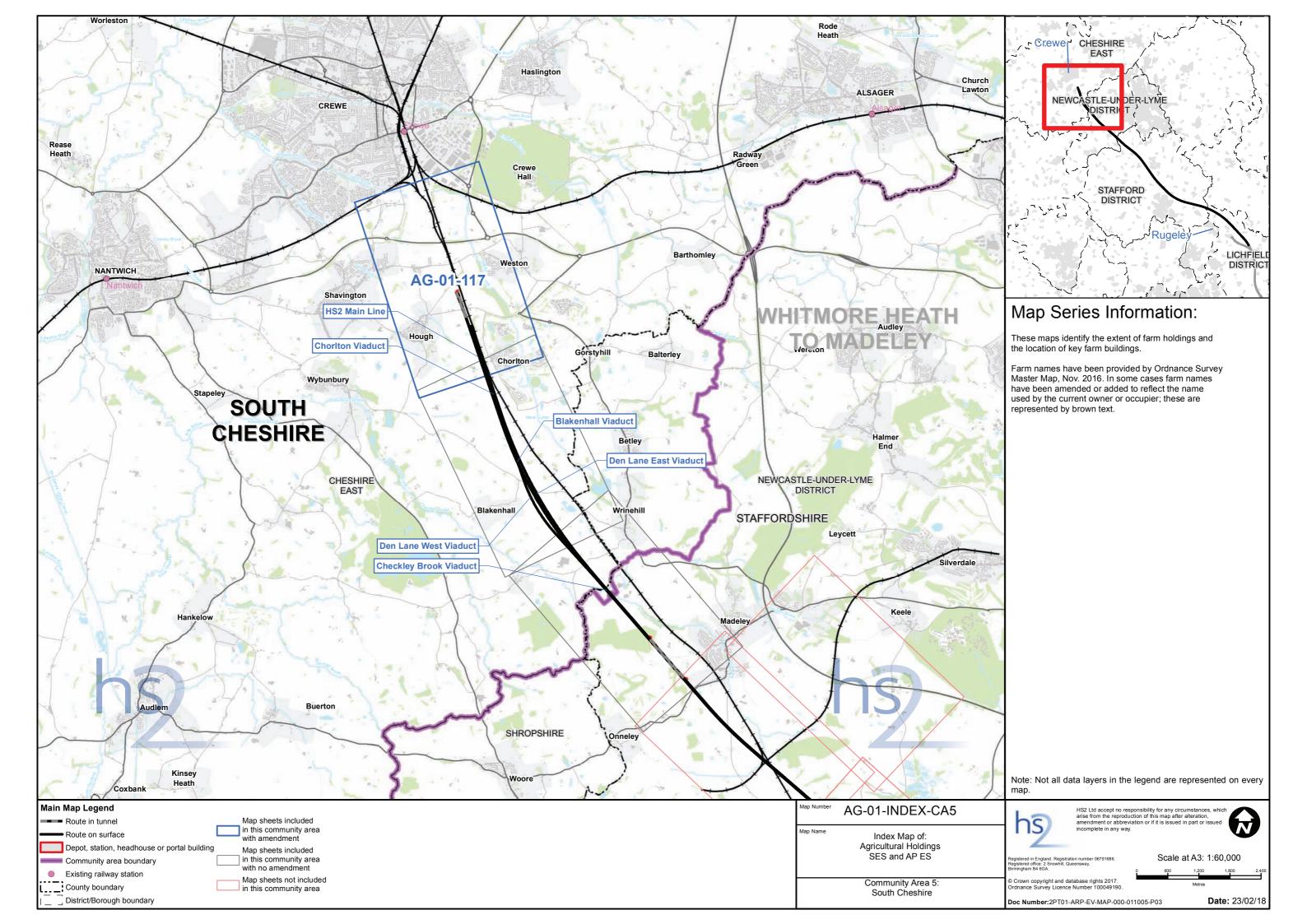
CA1 Fradley to Colton
AG-01 - Agricultural holdings

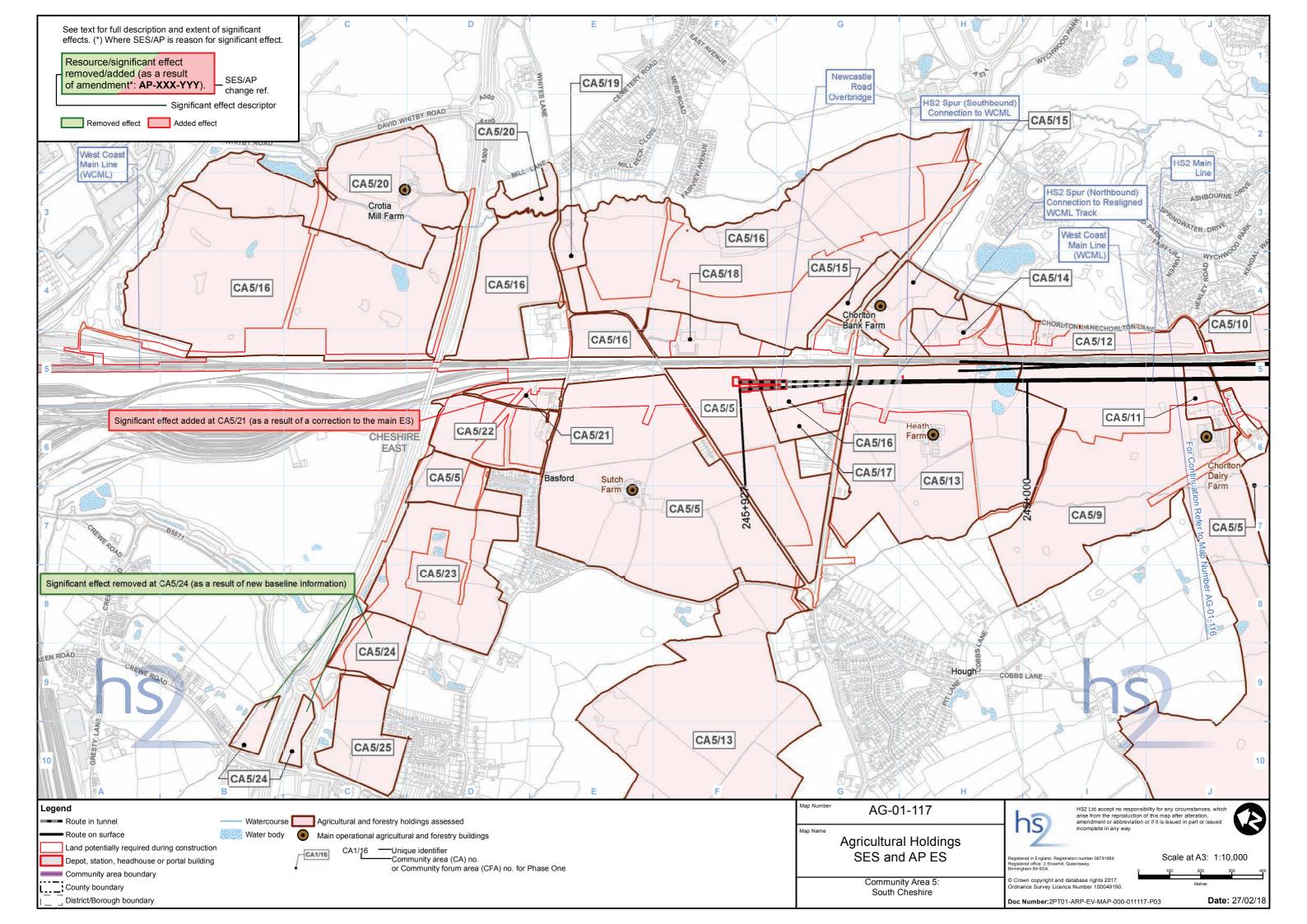




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CA5 South Cheshire AG-01 - Agricultural holdings





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Cultural heritage (CH-01)

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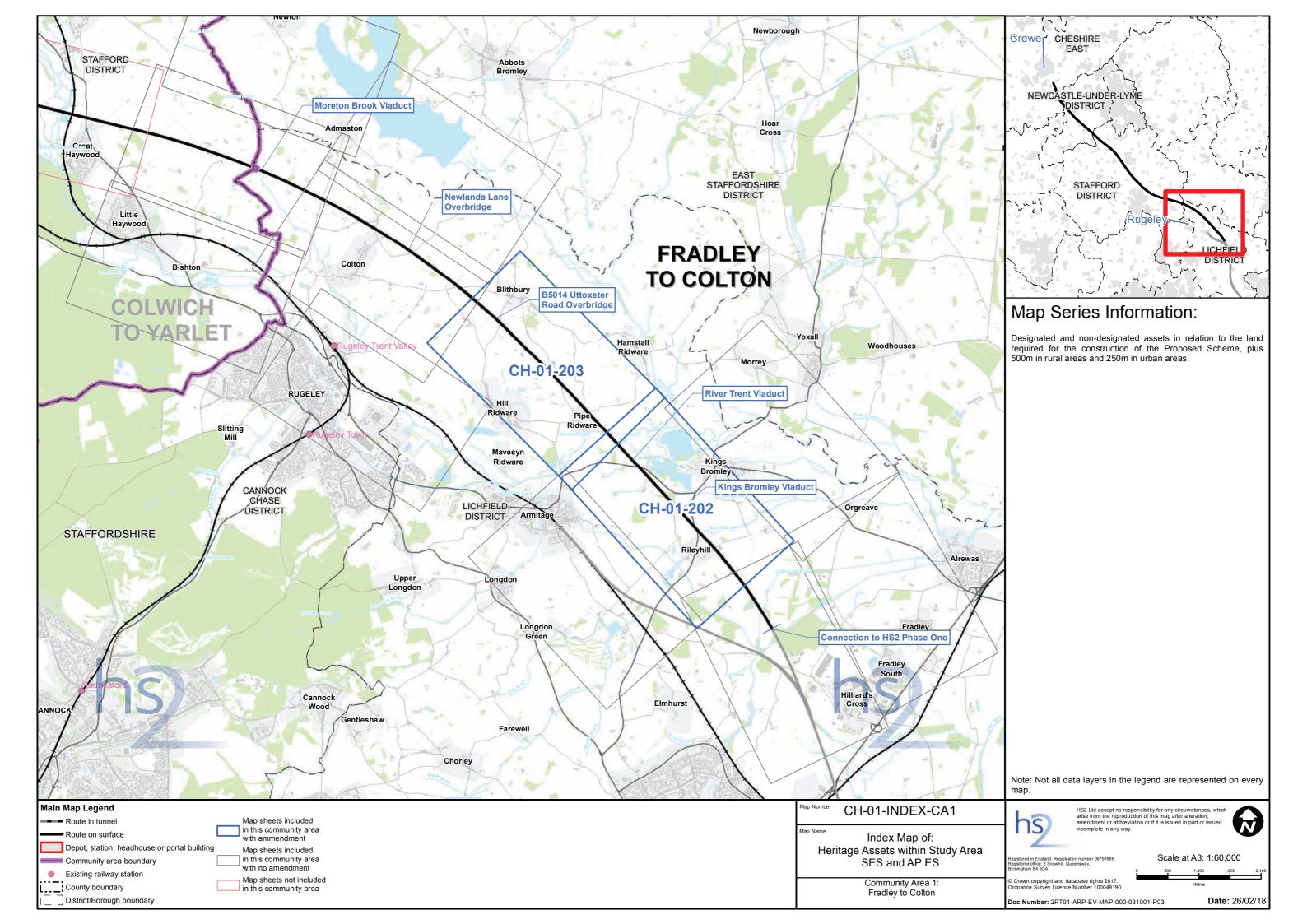
Map series name	CH-o1 - Heritage Assets within Study Area	
Map series description	Designated and non-designated assets in relation to the land required for the construction of the Proposed Scheme,	
Community Area name	plus 500m in rural areas and 250m in urban areas.	
CA1 Fradley to Colton	✓	
CA ₂ Colwich to Yarlet	×	
CA ₃ Stone and Sywnnerton	×	
CA ₄ Whitmore Heath to Madeley	×	
CA5 South Cheshire	×	

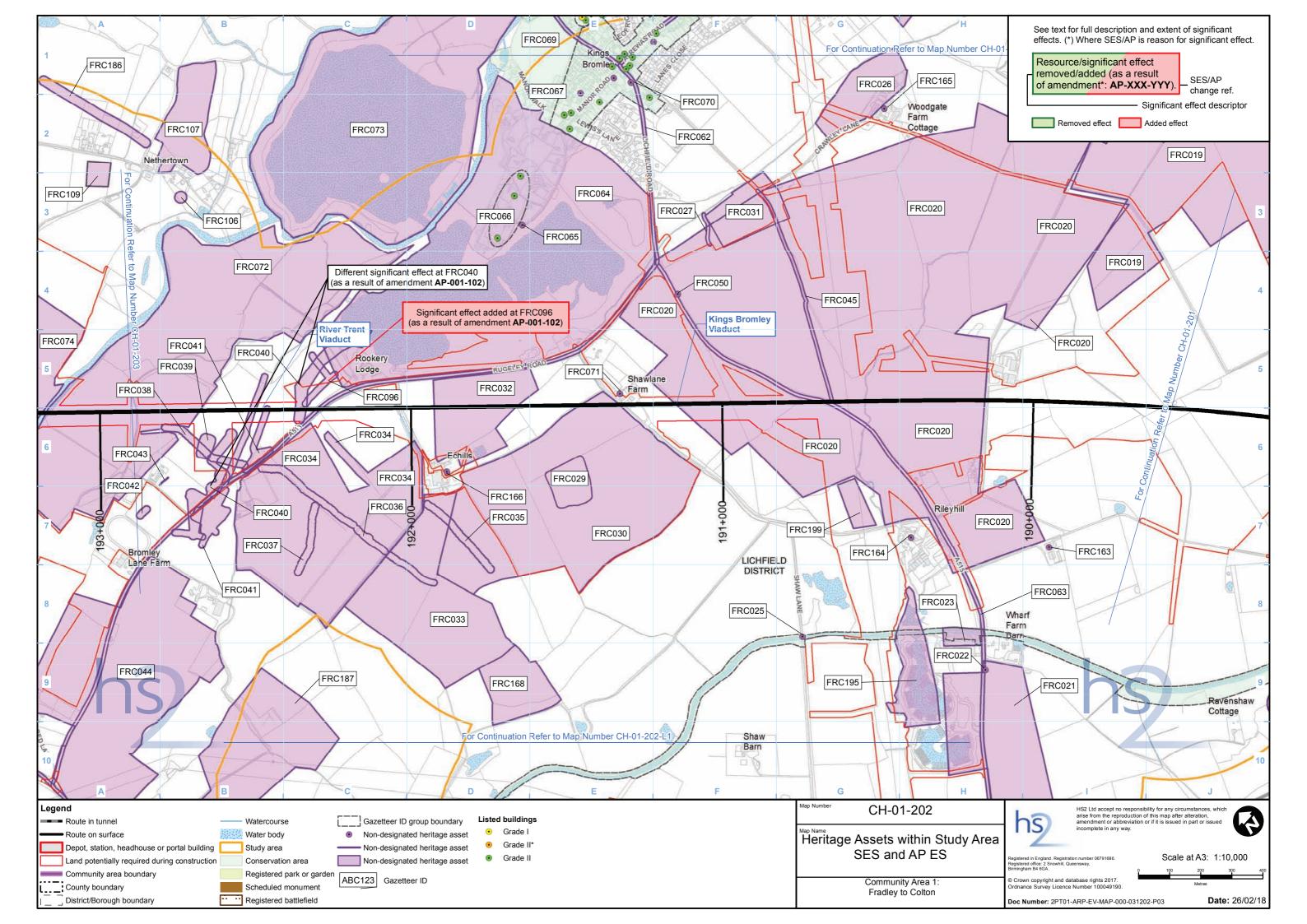
Legend features	Definition	Source	Copyright
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Conservation area	Areas considered worthy of preservation or enhancement because of their special architectural or historic interest. Conservation areas have been captured and digitised from desktop based studies using publically available local authority information. Accuracy of the data is dependent upon that of the individual data source and areas are provided as indicative site boundaries only.	Staffordshire County Council Cheshire Historic Environment Record	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form. © Staffordshire County Council © Cheshire Historic Environment Record
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Gazetteer ID	Heritage assets identified for the purposes of assessment in the Environmental Statement.	High Speed Two (HS2) Ltd	
Gazetteer ID group boundary	The boundary that defines a grouping of heritage assets identified for the purposes of assessment in the Environmental Statement.	High Speed Two (HS2) Ltd	
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	High Speed Two (HS2) Ltd	
Listed buildings: Grade I Grade II* Grade II	Buildings and structures in England of special architectural or historic interest. In some instances the source data for individual buildings is grouped under a single grid reference, in these instances the data may have been interrogated further to identify addresses of individual buildings with Listed Building status so that these can be displayed individually on the map. The Listed Building data consists of approximately 375,000 standing structures. The information has been converted from paper records georeferenced to digital mapping. A small percentage of the data was manually located. The data is subject to continuous review and regularly updated as new structures are designated and positional accuracy improves.	Historic England	© Historic England 2017. Contains Ordnance Survey data © Crown copyright and database right 2017 The Historic England GIS Data contained in this material was obtained on 25 January 2017. The most publicly available up to date Historic England GIS Data can be obtained from HistoricEngland.org.uk.
Non-designated heritage asset	Assets that are not designated as, for example Scheduled Monument, Listed Building, Registered Park and Garden, Registered Battlefield or Conservation	Staffordshire County Council	© Staffordshire County Council
	area.	Cheshire Historic	© Cheshire Historic Environment Record 2017

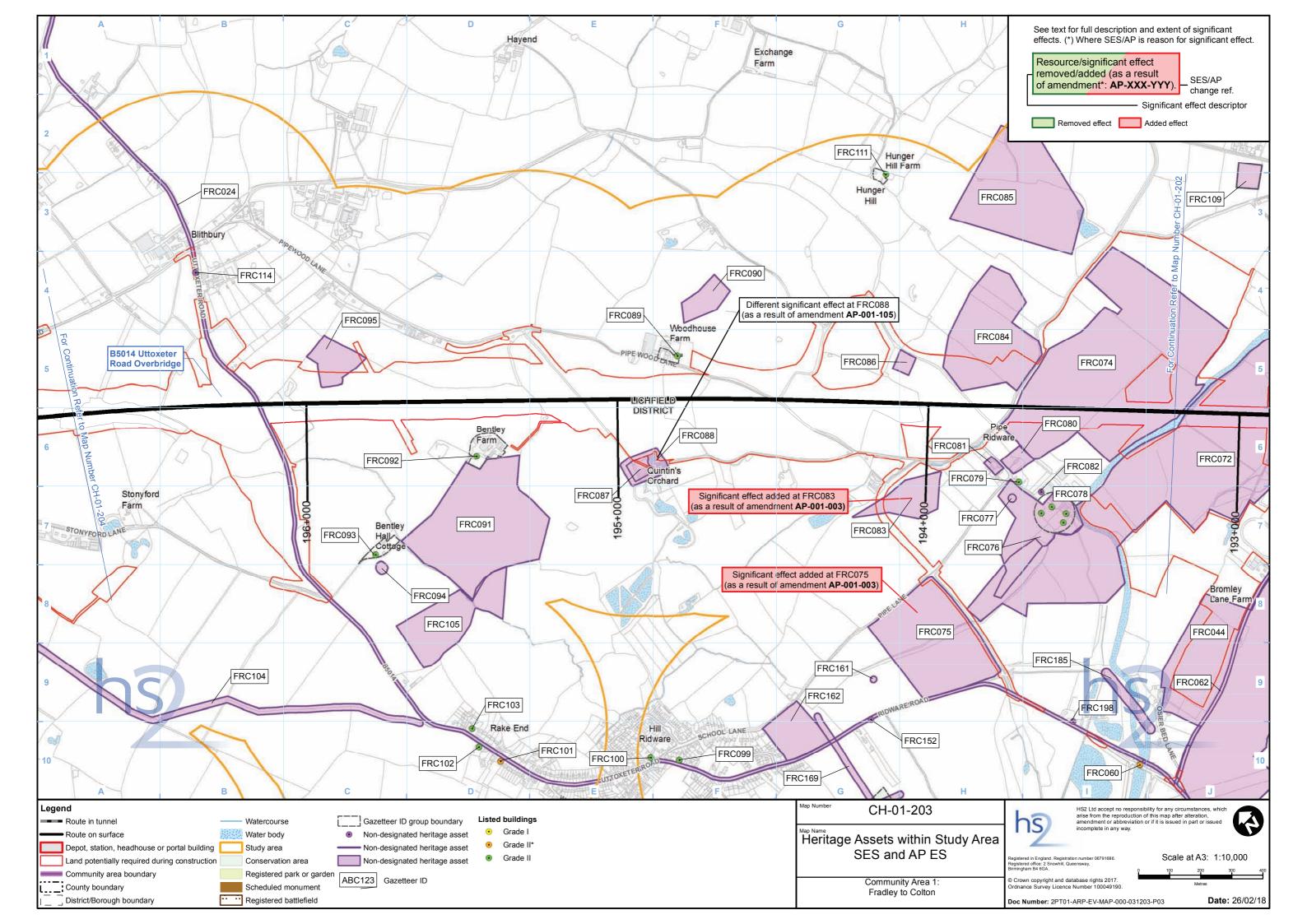
Legend features	Definition	Source	Copyright
		Environment Record	
Registered battlefield	A Registered Battlefield is a battlefield that is considered to be sufficiently important to be worth identifying by their inclusion on the Register. All 43 Registered Battlefield sites are captured against the 1:10000 Raster product	Historic England	© Historic England 2017. Contains Ordnance Survey data © Crown copyright and database right 2017 The Historic England GIS Data contained in this material was obtained on 17 September 2015. The most publicly available up to date Historic England GIS Data can be obtained from HistoricEngland.org.uk.
Registered park or garden	Parks and Gardens of special historic interest. Supplied by Historic England. Of the 1,590 Registered Parks and Gardens, over 91% were captured against the 1:10,000 Ordnance Survey Raster product. 135 records are potentially subject to movement under Positional Accuracy Improvement (PAI) improvements.	Historic England	© Historic England 2017. Contains Ordnance Survey data © Crown copyright and database right 2017 The Historic England GIS Data contained in this material was obtained on 25 January 2017. The most publicly available up to date Historic England GIS Data can be obtained from HistoricEngland.org.uk.
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	
Scheduled monument	A schedule has been kept since 1882 of monuments considered to be of national importance by the government. The current legislation, the Ancient Monuments and Archaeological Areas Act 1979, supports a formal system of Scheduled Monument Consent for any work to a designated monument. The Scheduled Monument layer consists of approximately 22,380 monuments tied into the Ordnance Survey. The majority of these are fixed; however, a small number of records may be updated as digital positional accuracy improves. The data is subject to continuous review and regularly updated as new monuments are designated.	Historic England	© Historic England 2017. Contains Ordnance Survey data © Crown copyright and database right 2017 The Historic England GIS Data contained in this material was obtained on 25 January 2017. The most publicly available up to date Historic England GIS Data can be obtained from HistoricEngland.org.uk.
Study area	250m for urban and 500m for rural.	High Speed Two (HS2) Ltd	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.

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CA1 Fradley to Colton
CH-01 - Heritage assets within study area







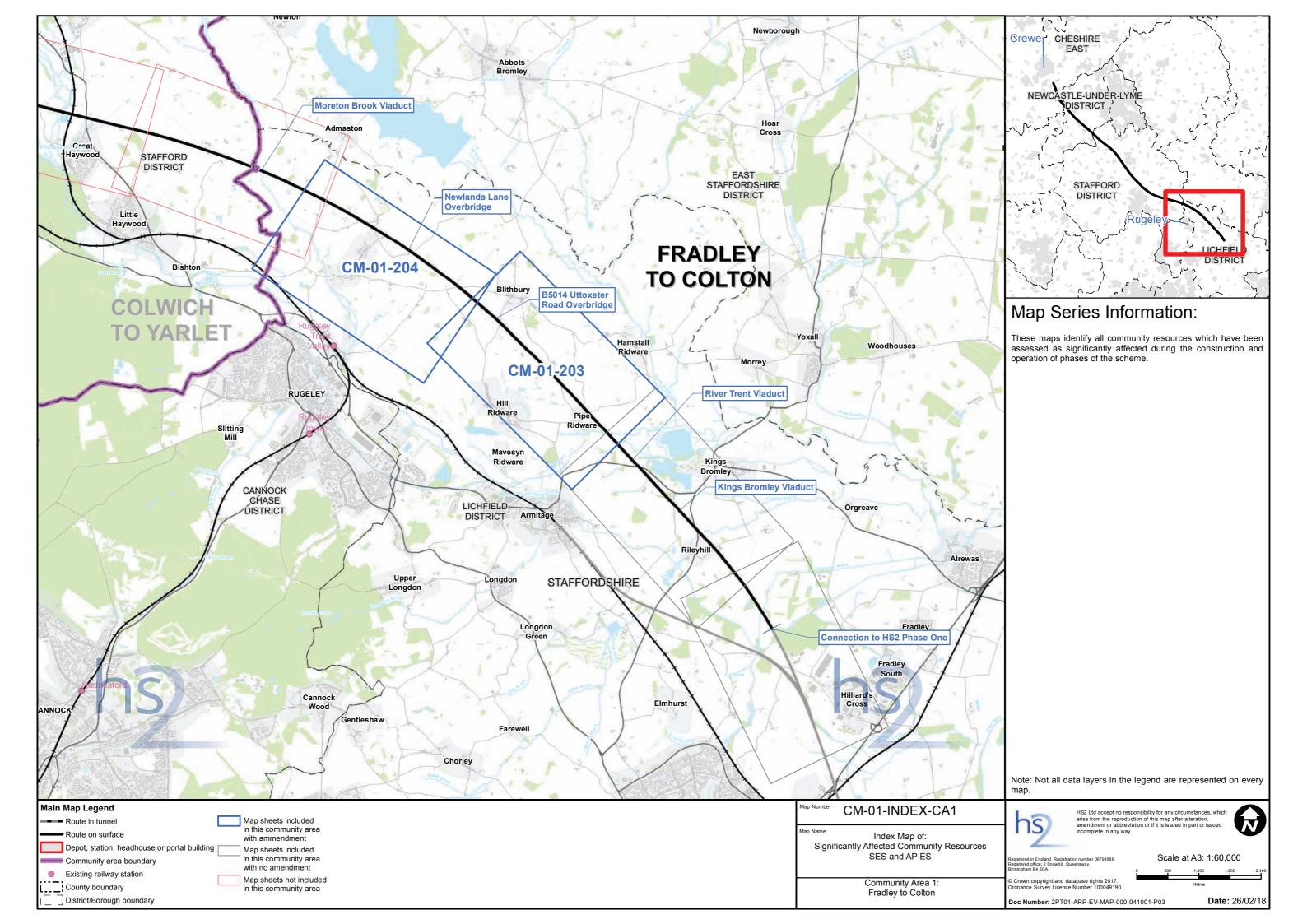
Community (CM-01)

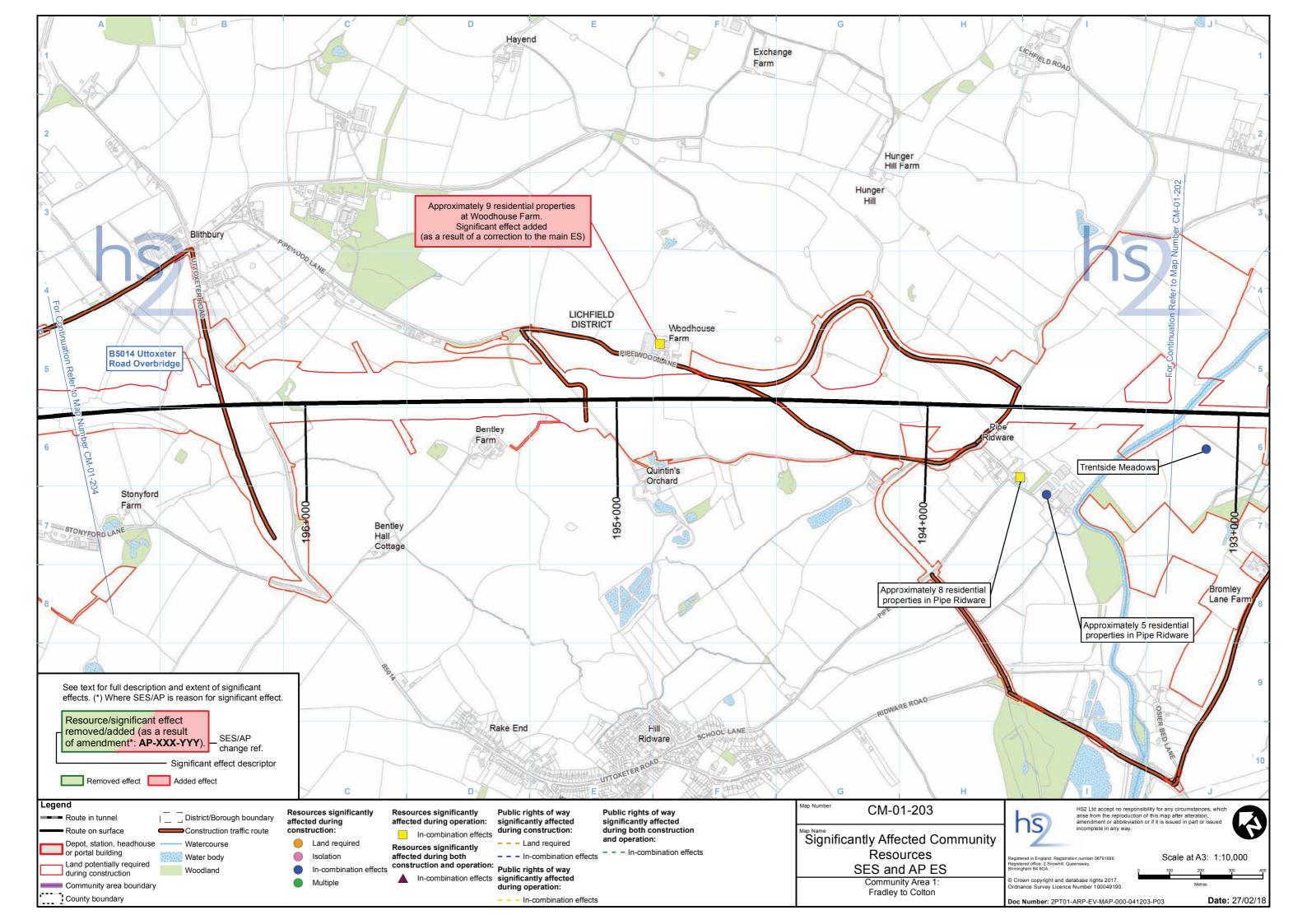
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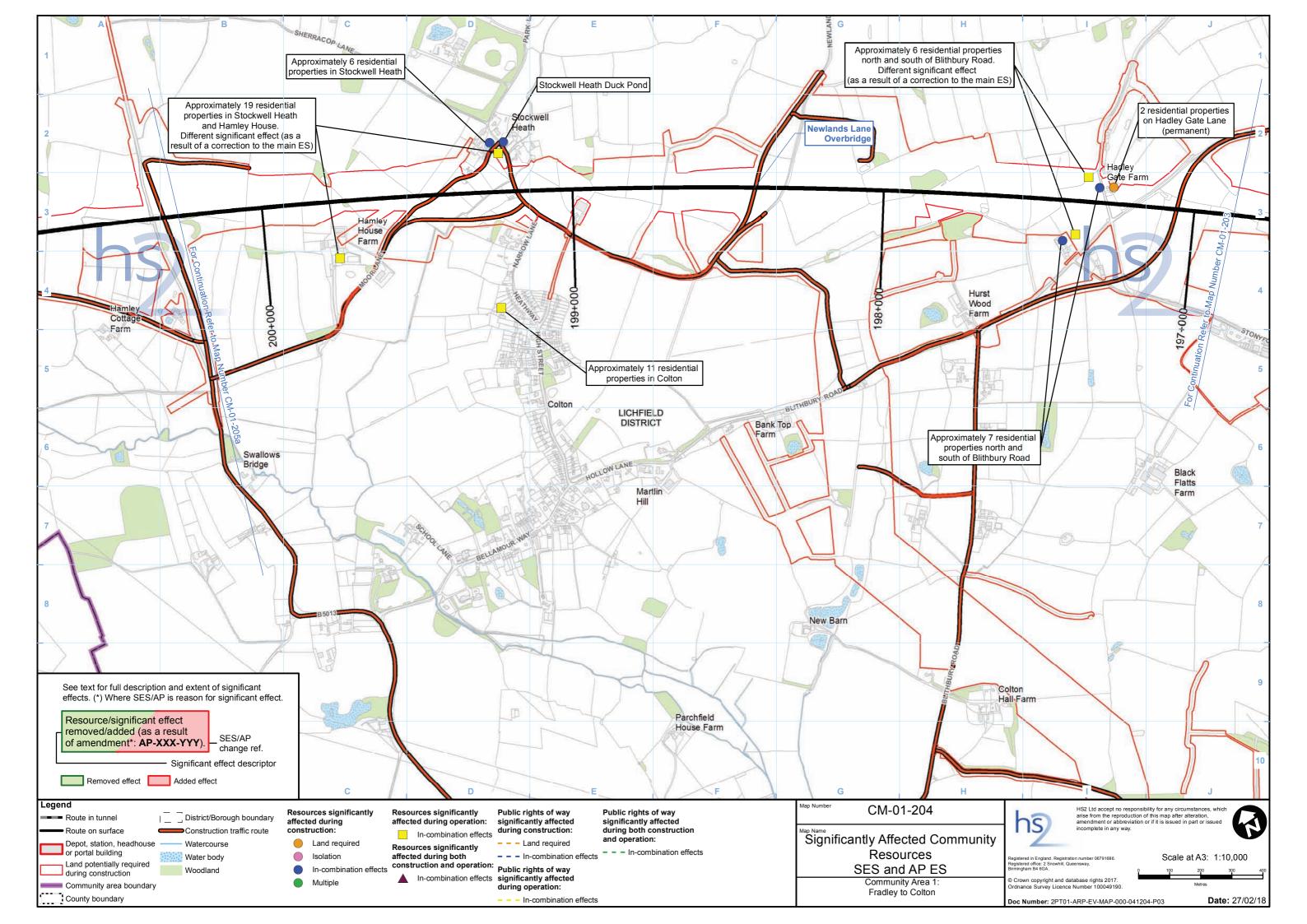
Map series name	CM-o1 - Significantly Affected Community Resources
Map series description	These maps identify all community resources which have been assessed as significantly affected during the
Community Area name	construction and operation of phases of the scheme.
CA1 Fradley to Colton	✓
CA ₂ Colwich to Yarlet	\checkmark
CA ₃ Stone and Sywnnerton	×
CA ₄ Whitmore Heath to Madeley	✓
CA ₅ South Cheshire	\checkmark

Legend features	Definition	Source	Copyright
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Construction traffic route	Public highways which may be used for HGV construction traffic.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	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	
Significantly affected public rights of way	Public Rights of Way identified as significantly affected by either construction or operation of the scheme.	High Speed Two (HS2) Ltd	© Staffordshire County Council © Cheshire East Council
Significantly affected resources	Community resources and residential properties identified as significantly affected by either construction or operation of the scheme. Derived from Ordnance Survey MasterMap data.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Woodland	Woodland areas derived from Ordnance Survey MasterMap data.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

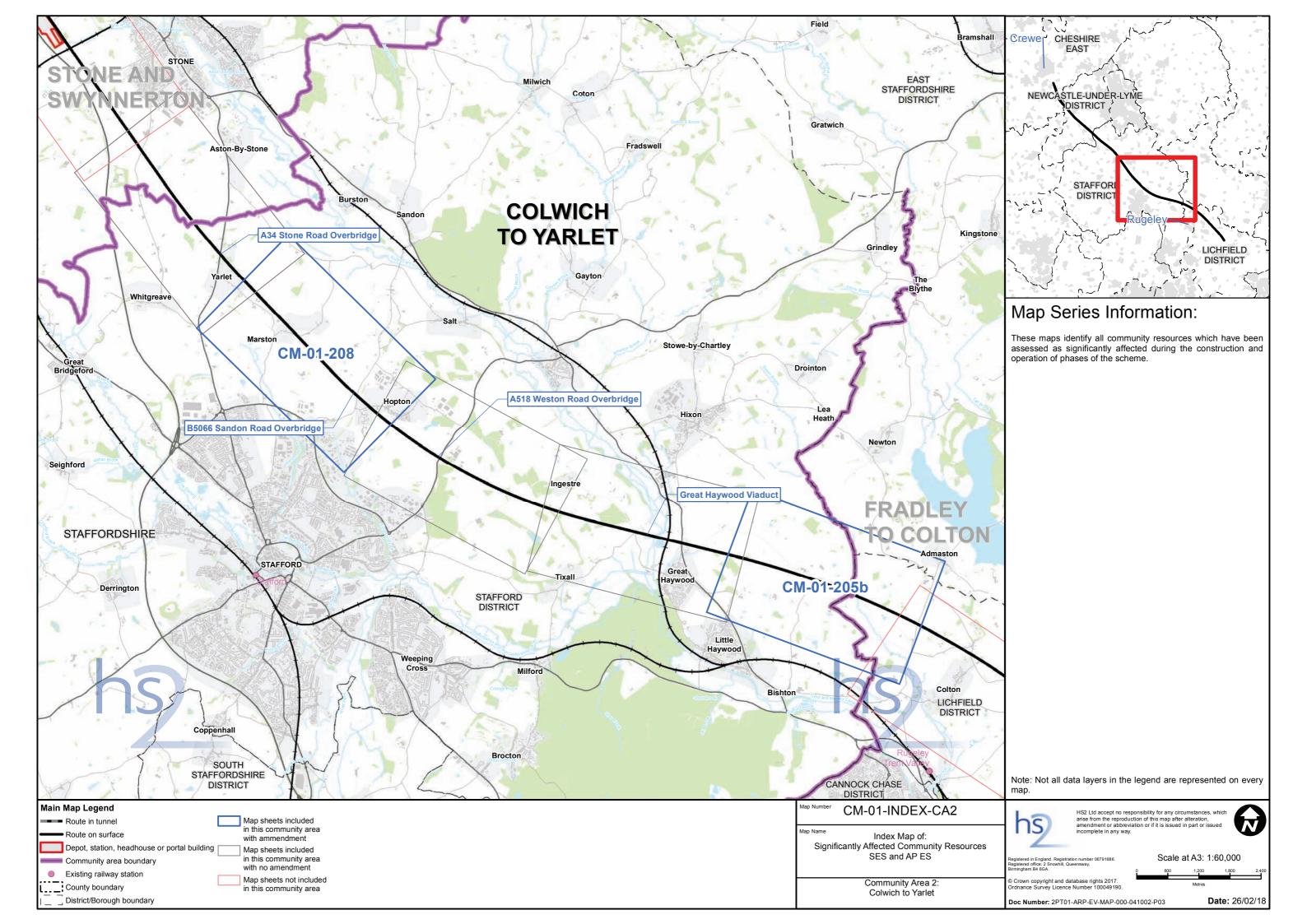
CA1 Fradley to Colton
CM-01 - Significantly affected community resources

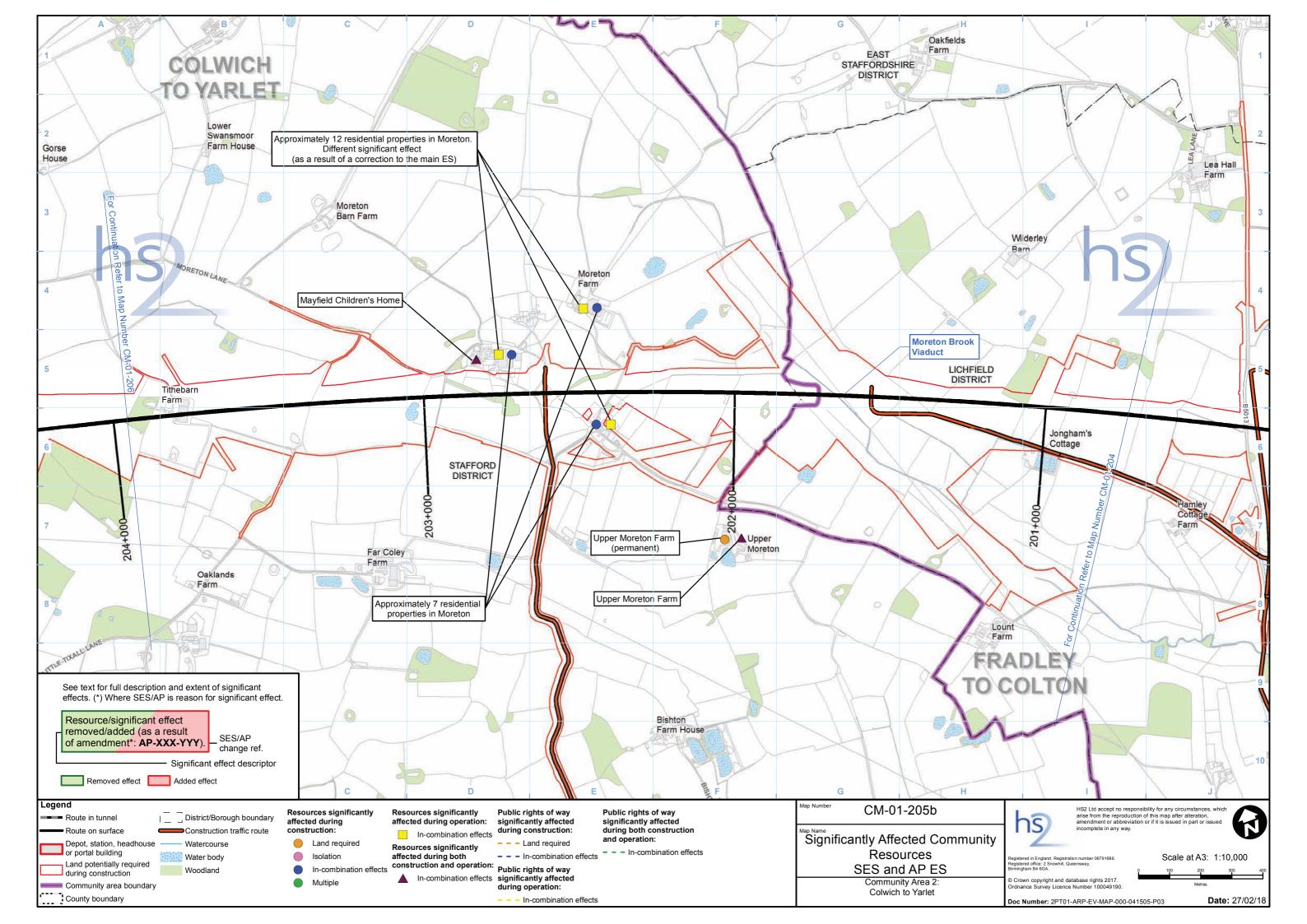


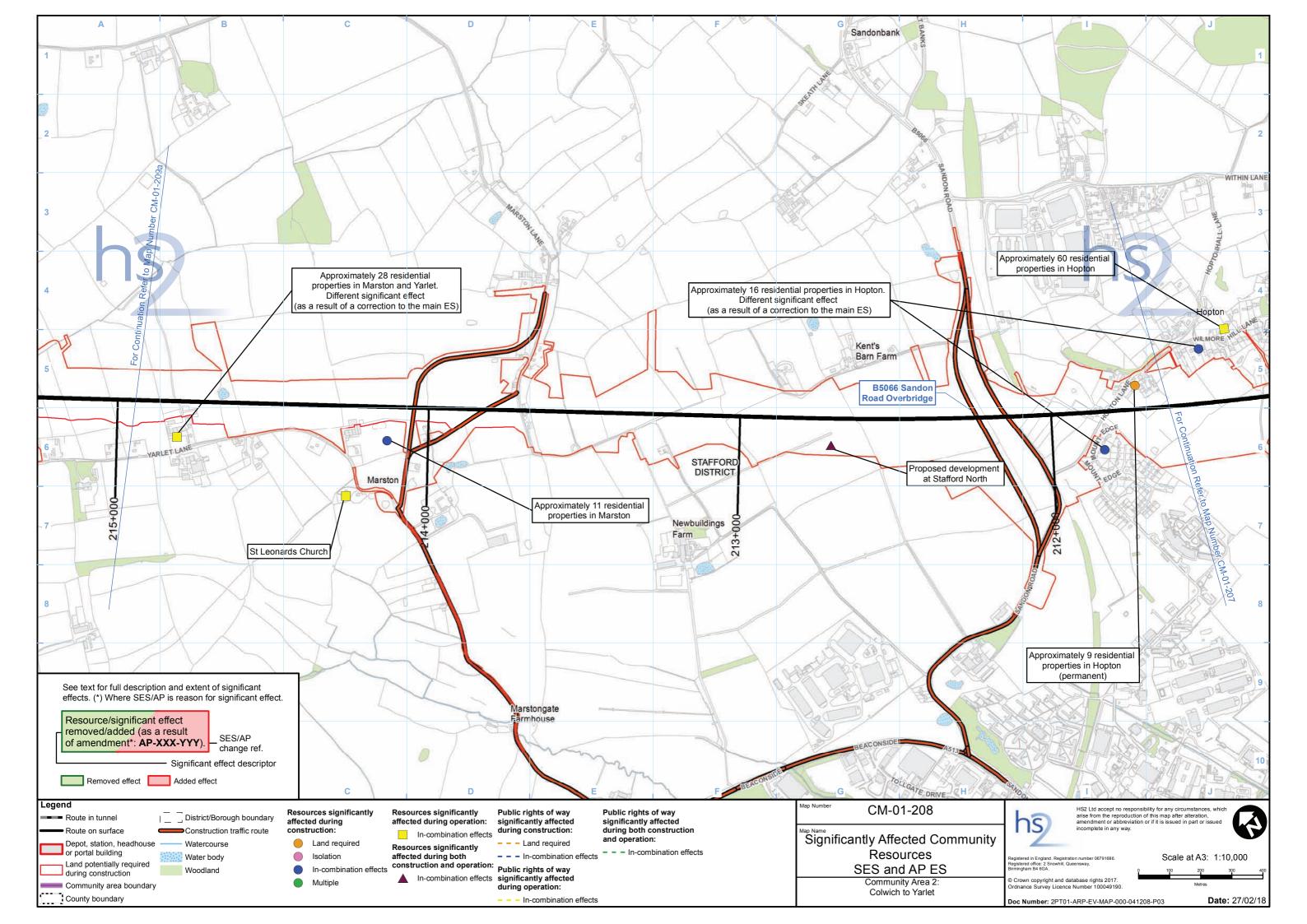




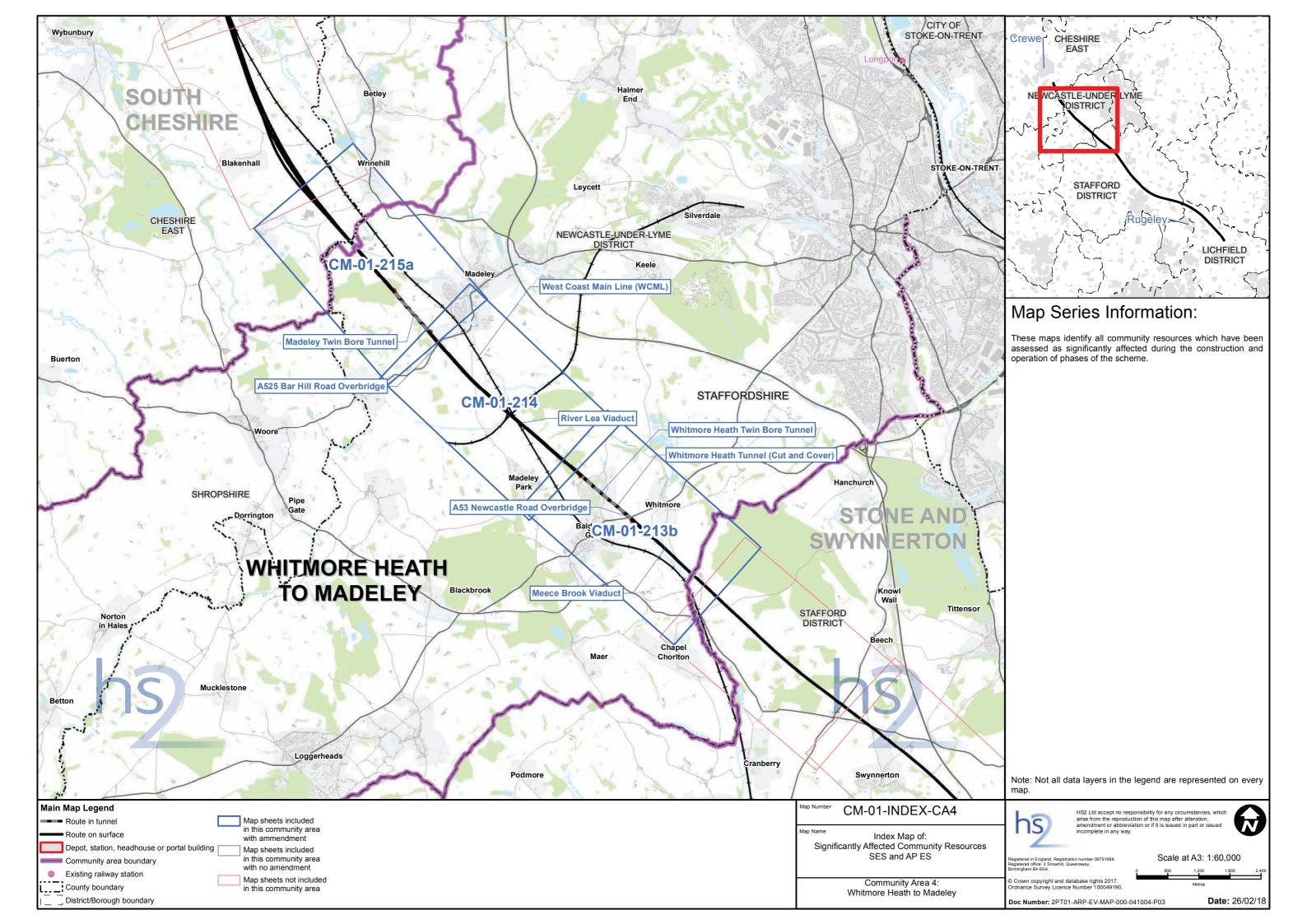
CA2 Colwich to Yarlet
CM-01 - Significantly affected community resources

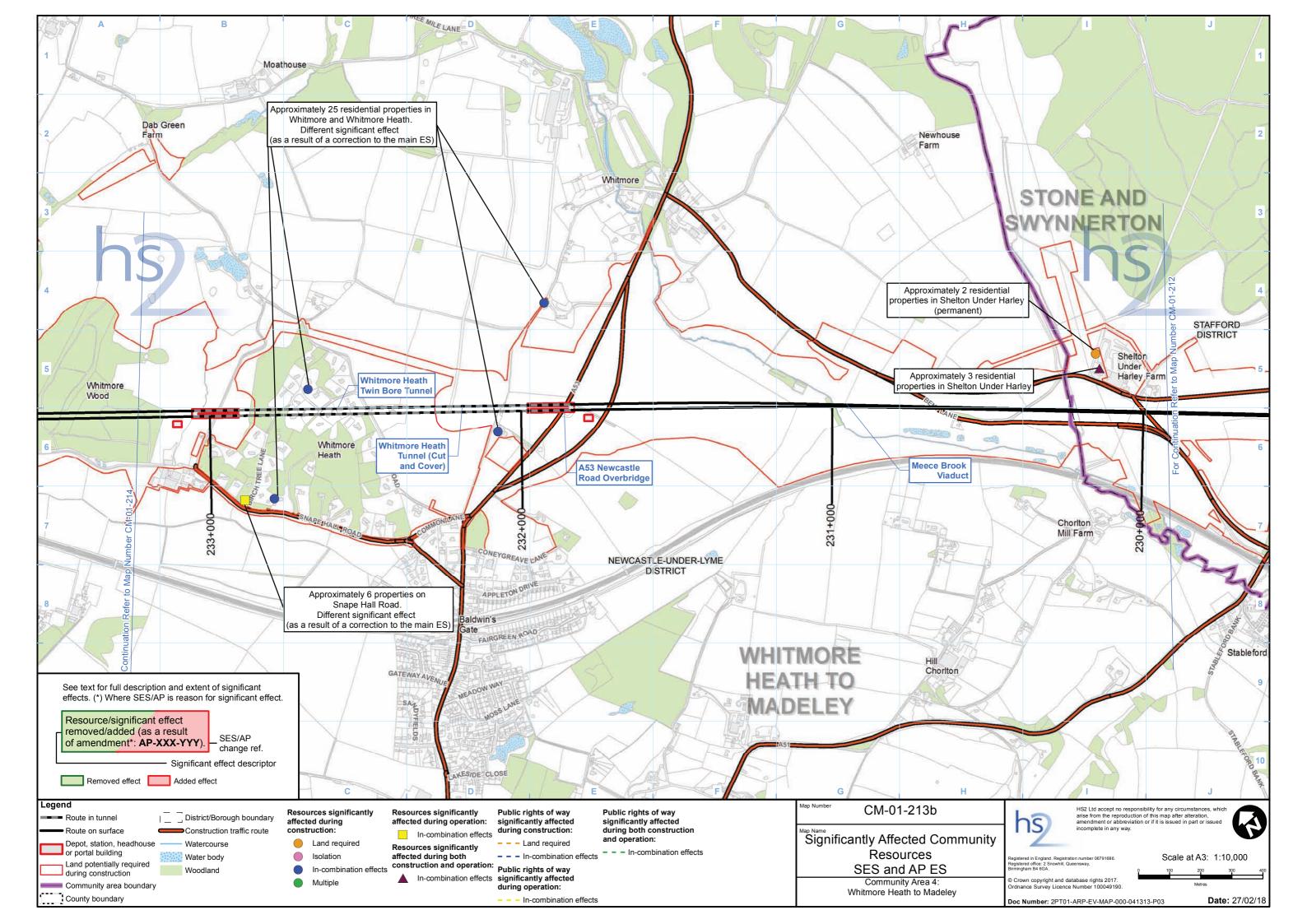


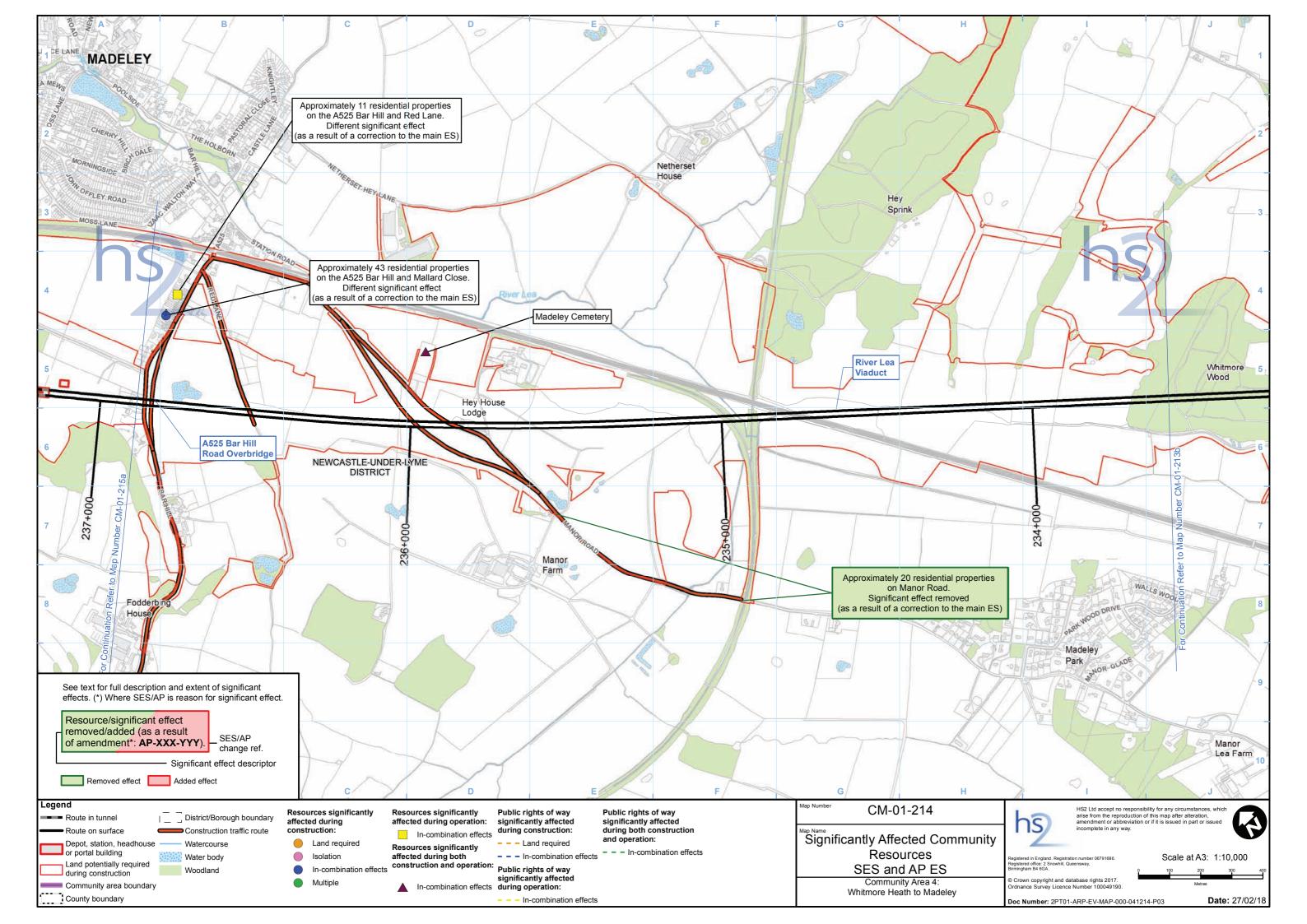


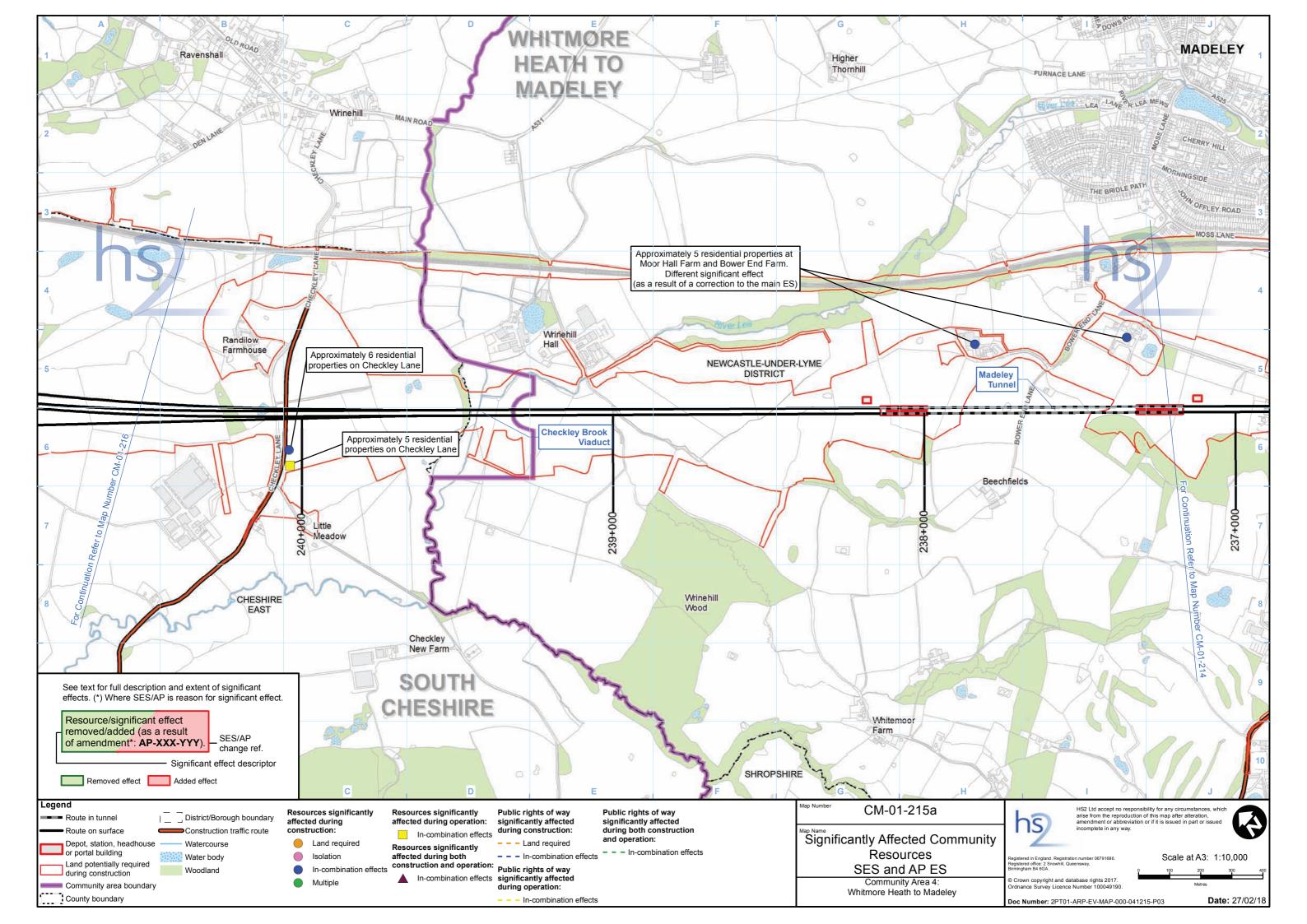


CA4 Whitmore Heath to Madeley
CM-01 - Significantly affected community resources



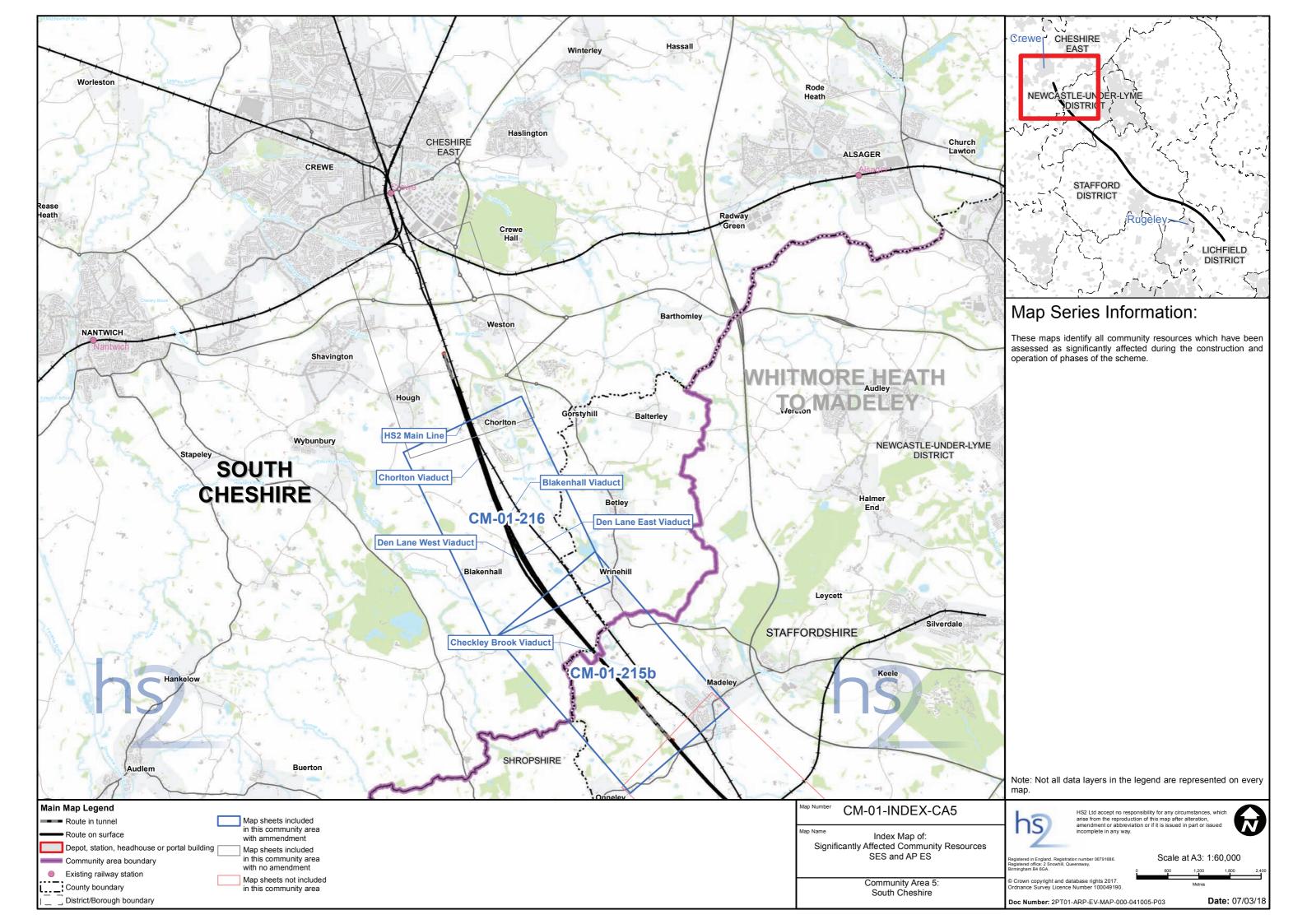


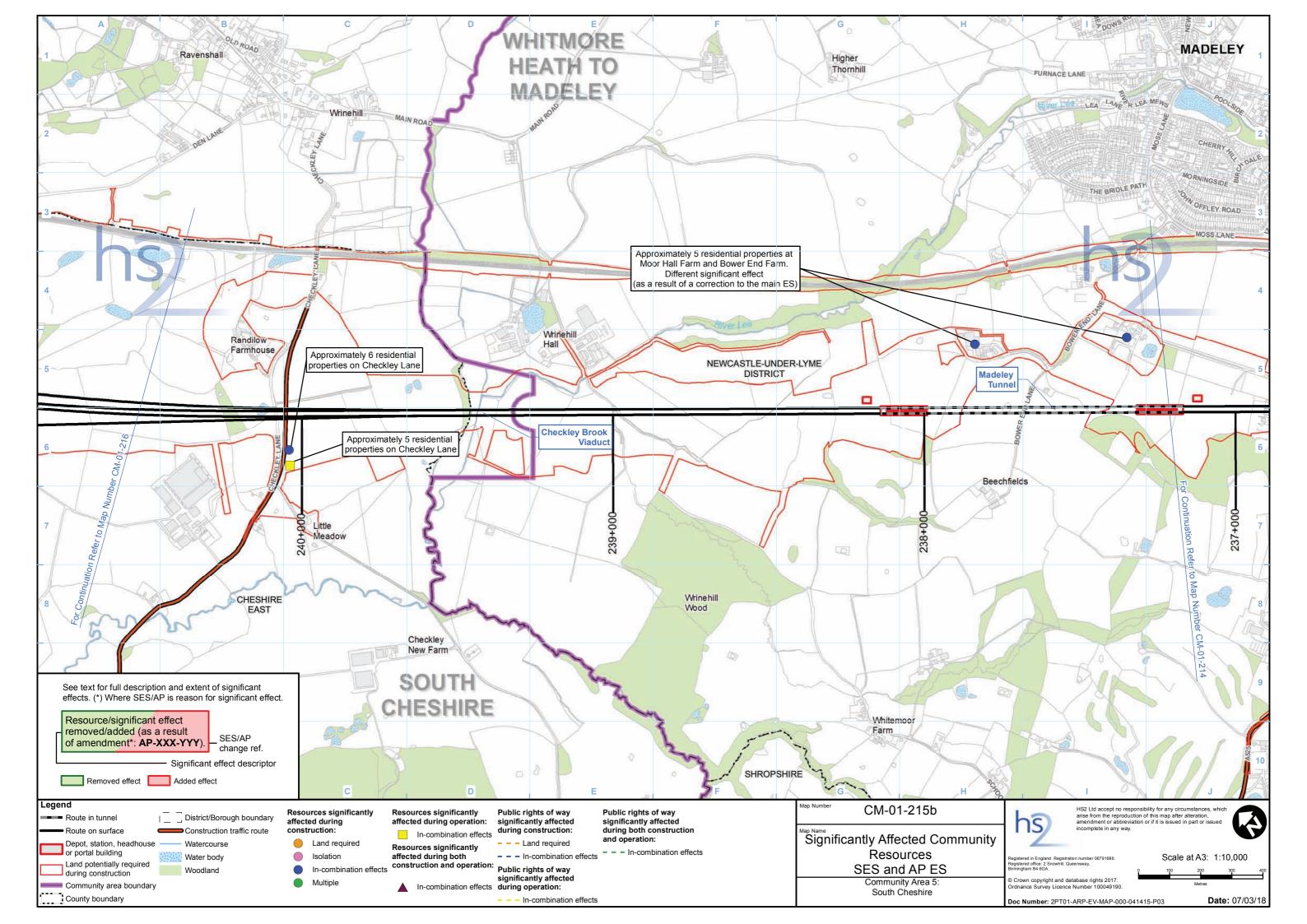


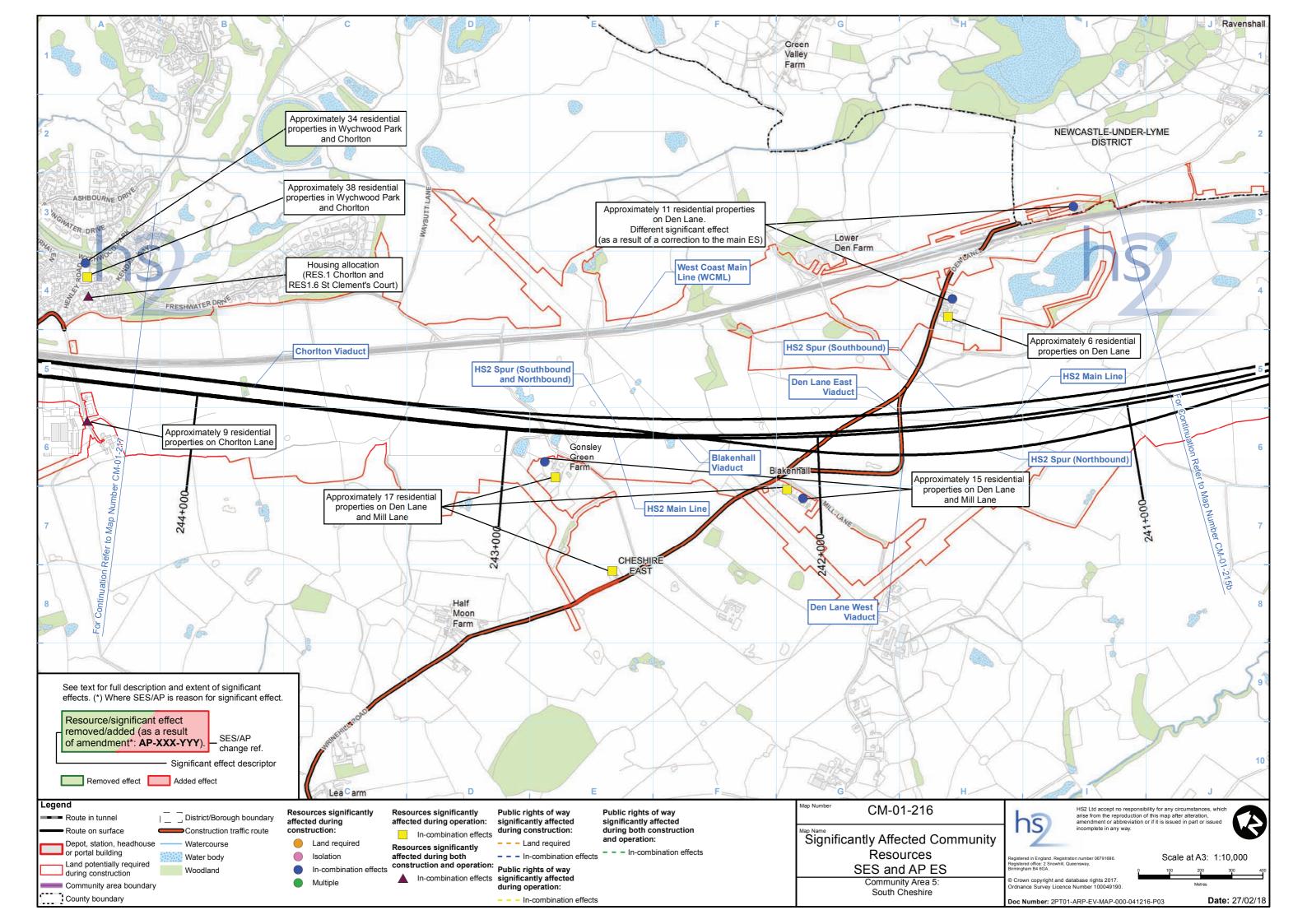


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CA5 South Cheshire CM-01 - Significantly affected community resources







Planning data/Committed development (CT-13)

Contents

Data dictionary and definitions

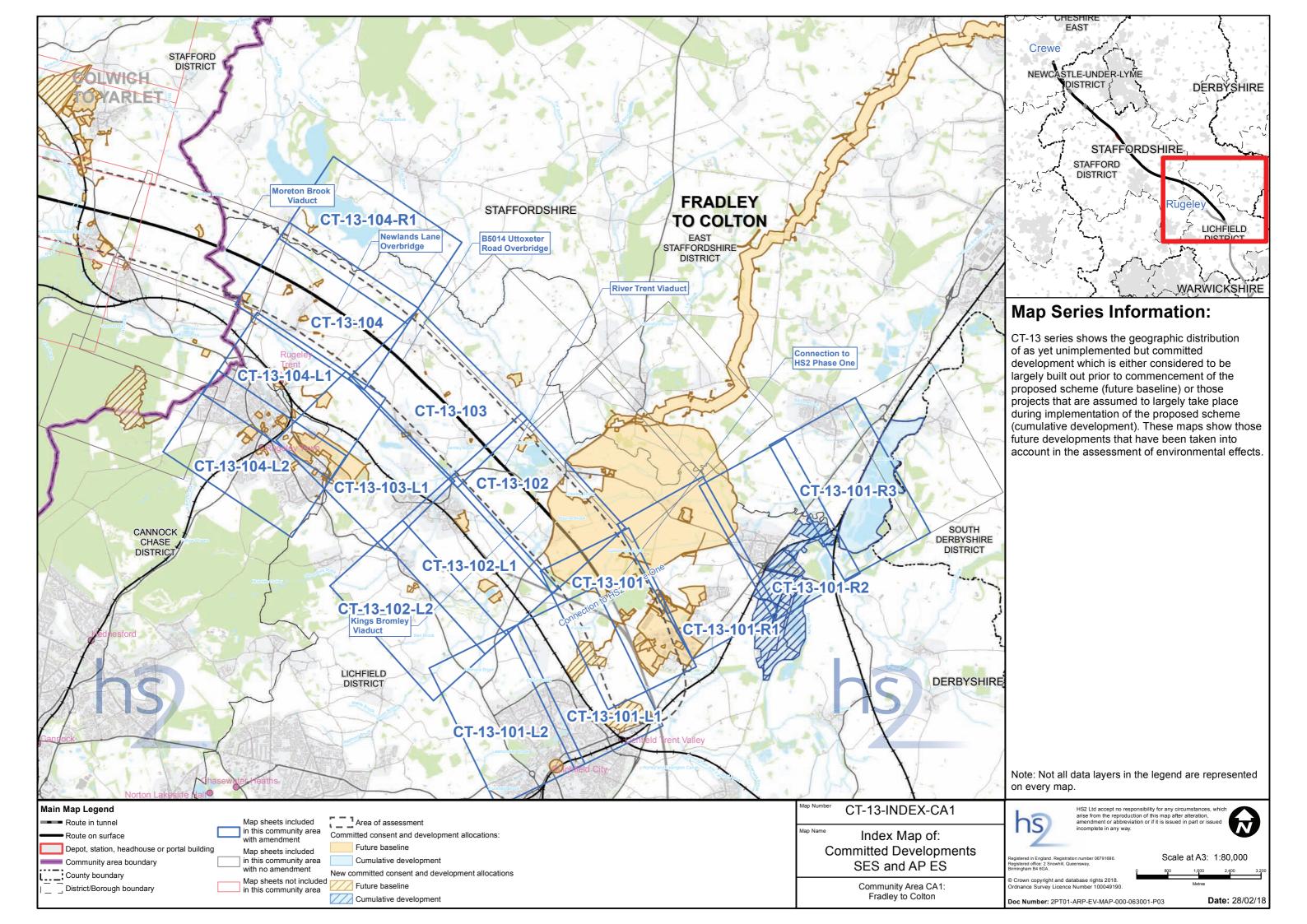
Map series name	CT-13 - Committed Developments
Map series description	CT-13 series shows the geographic distribution of as yet unimplemented but committed development which is either considered to be largely built out prior to commencement of the proposed scheme (future baseline) or those projects that are assumed to largely take place during implementation of the proposed scheme (cumulative development). These maps show those future developments that have been taken into account in the assessment of environmental
Community Area name	effects.
CA1 Fradley to Colton	✓
CA ₂ Colwich to Yarlet	✓
CA ₃ Stone and Sywnnerton	✓
CA ₄ Whitmore Heath to Madeley	✓
CA5 South Cheshire	\checkmark

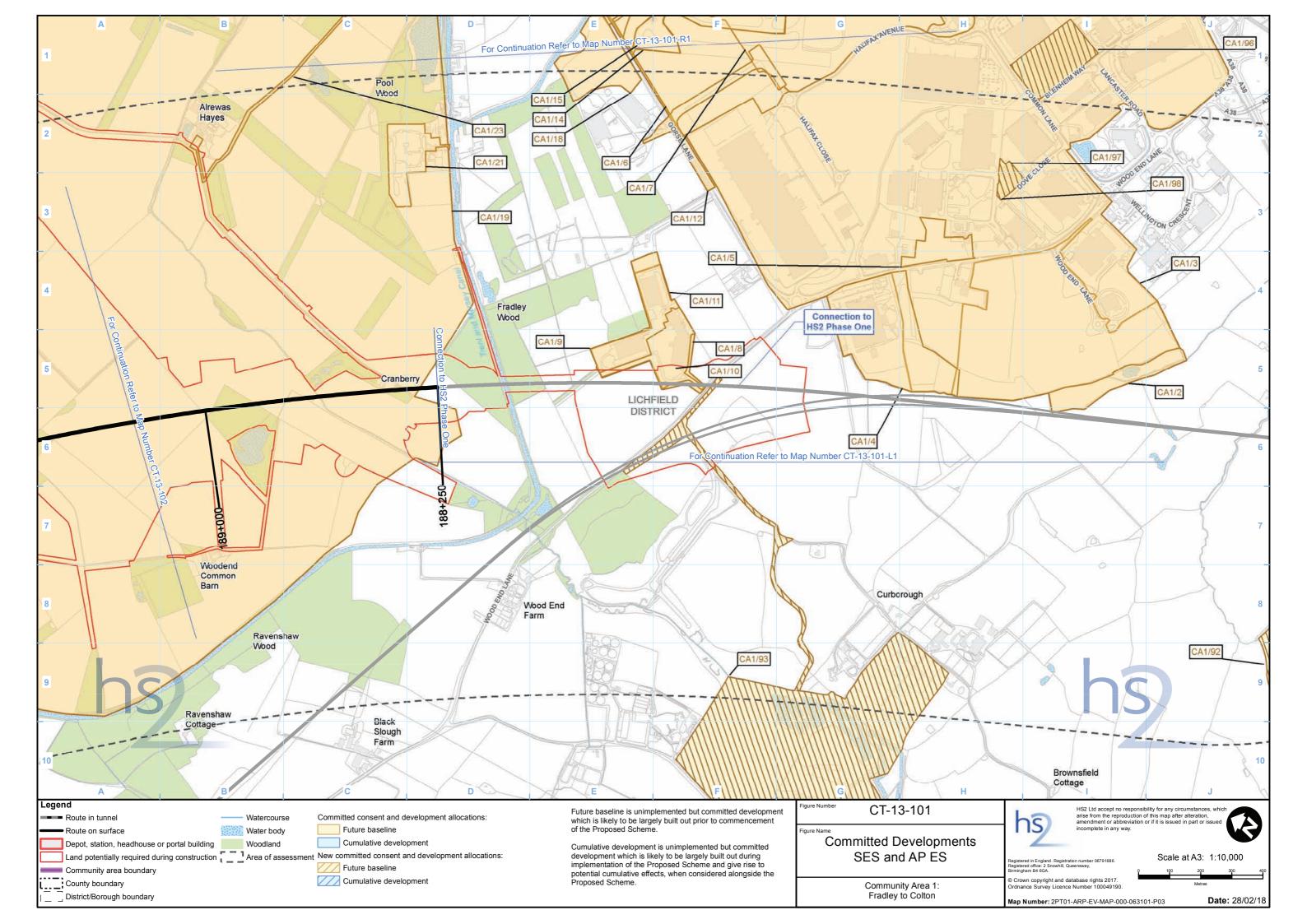
Data dictionary and definitions

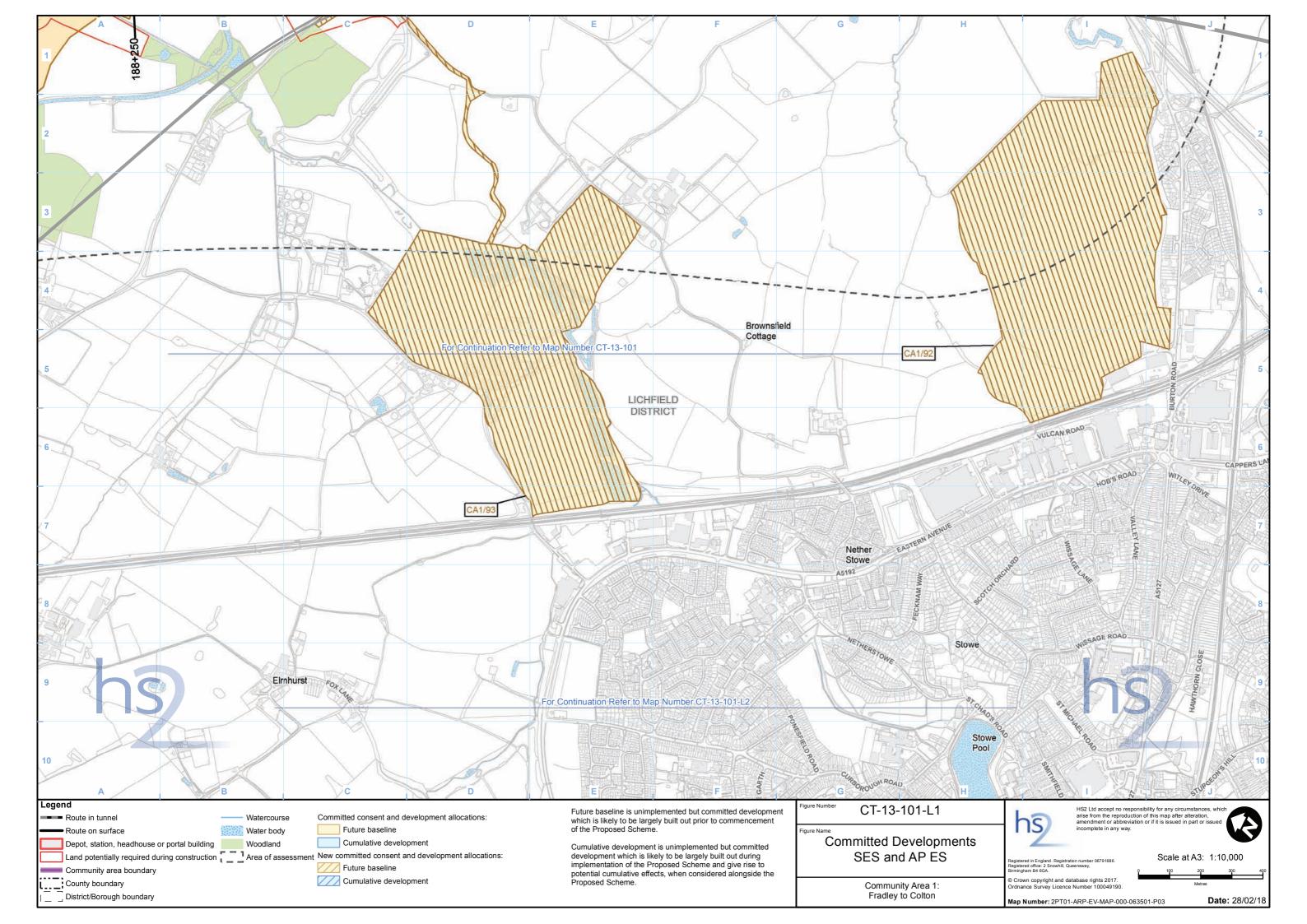
Data dictionary and definitions

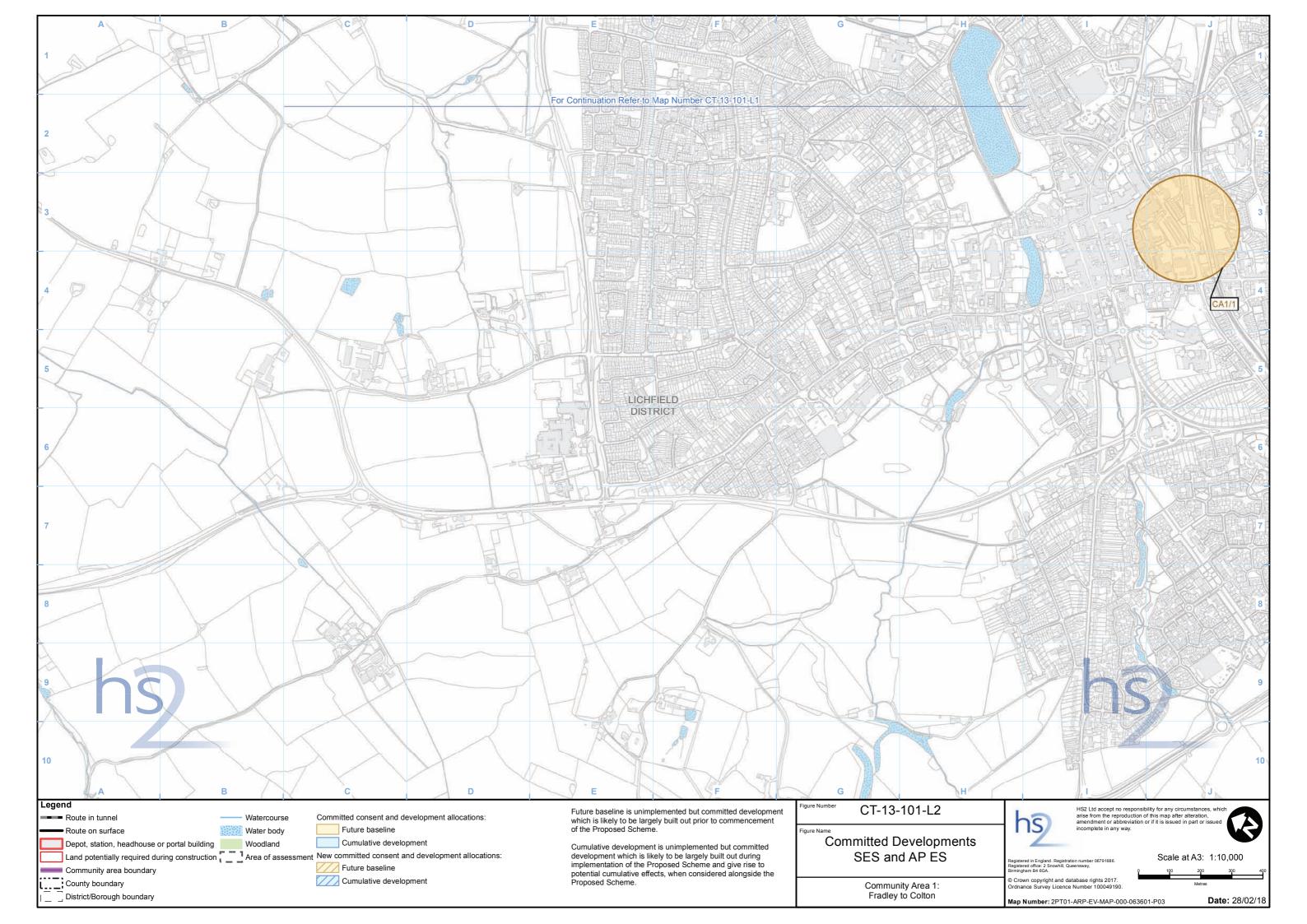
Legend features	Definition	Source	Copyright
Area of assessment	On or close to the Proposed Scheme i.e. a distance of between 100m and 2km depending on the stage of implementation and scale of the proposed development.	High Speed Two (HS2) Ltd	
Committed consent and development allocations	This informs the assessment of the future baseline. A development consent or allocation that has full or outline planning permission, or is allocated in an adopted development plan.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	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	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Woodland	Woodland areas derived from Ordnance Survey MasterMap data.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

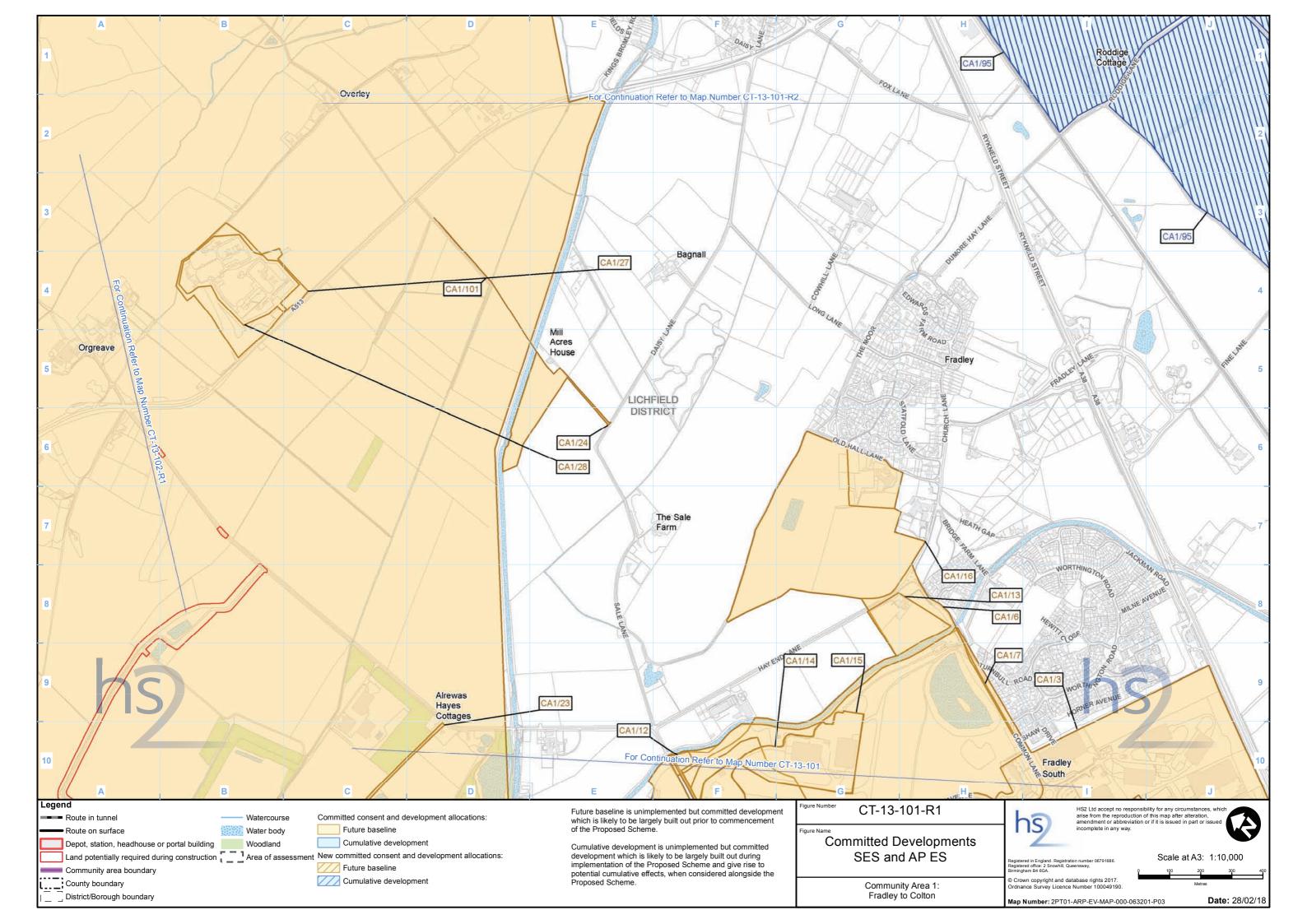
CA1 Fradley to Colton
CT-13 - Committed developments

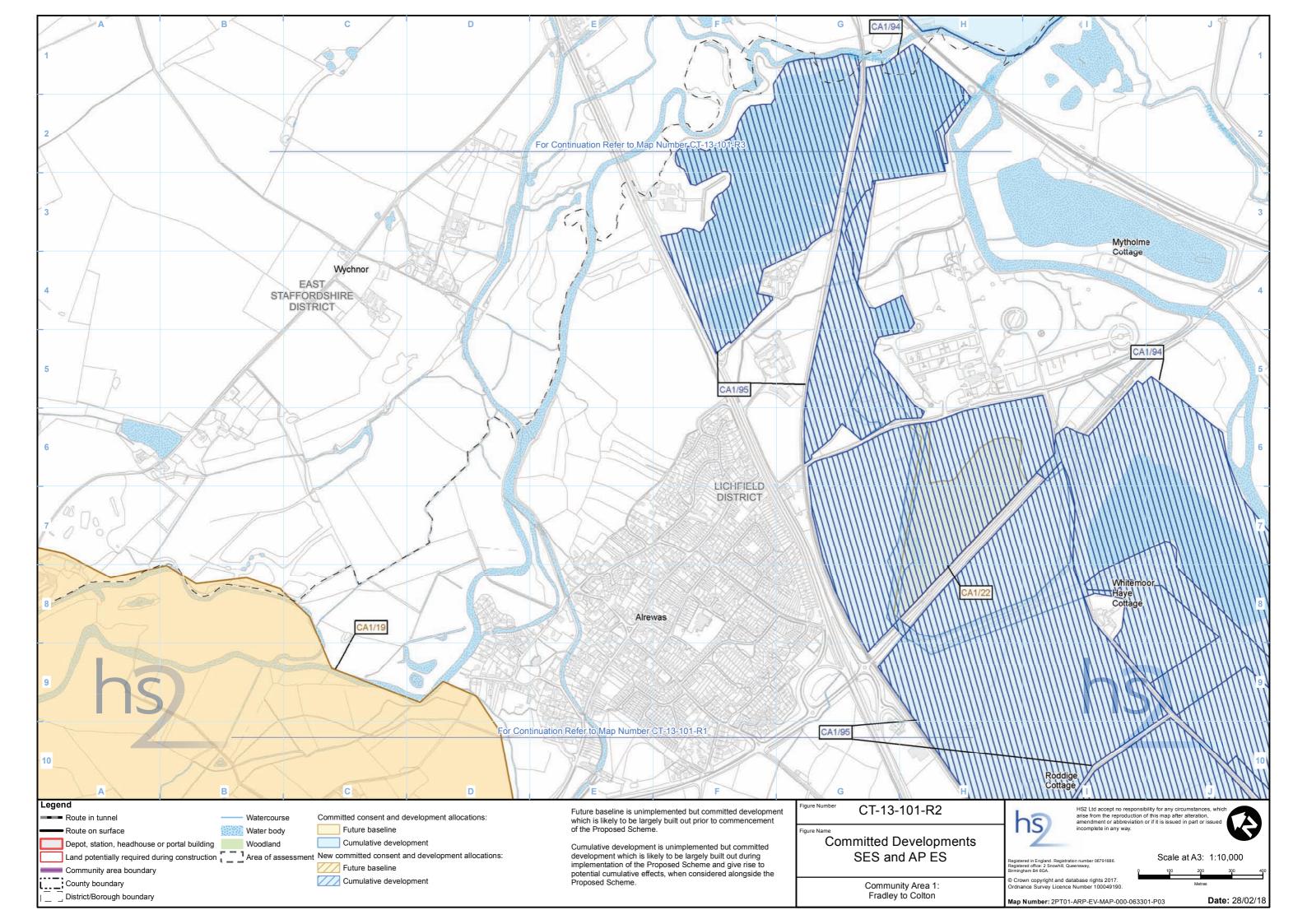


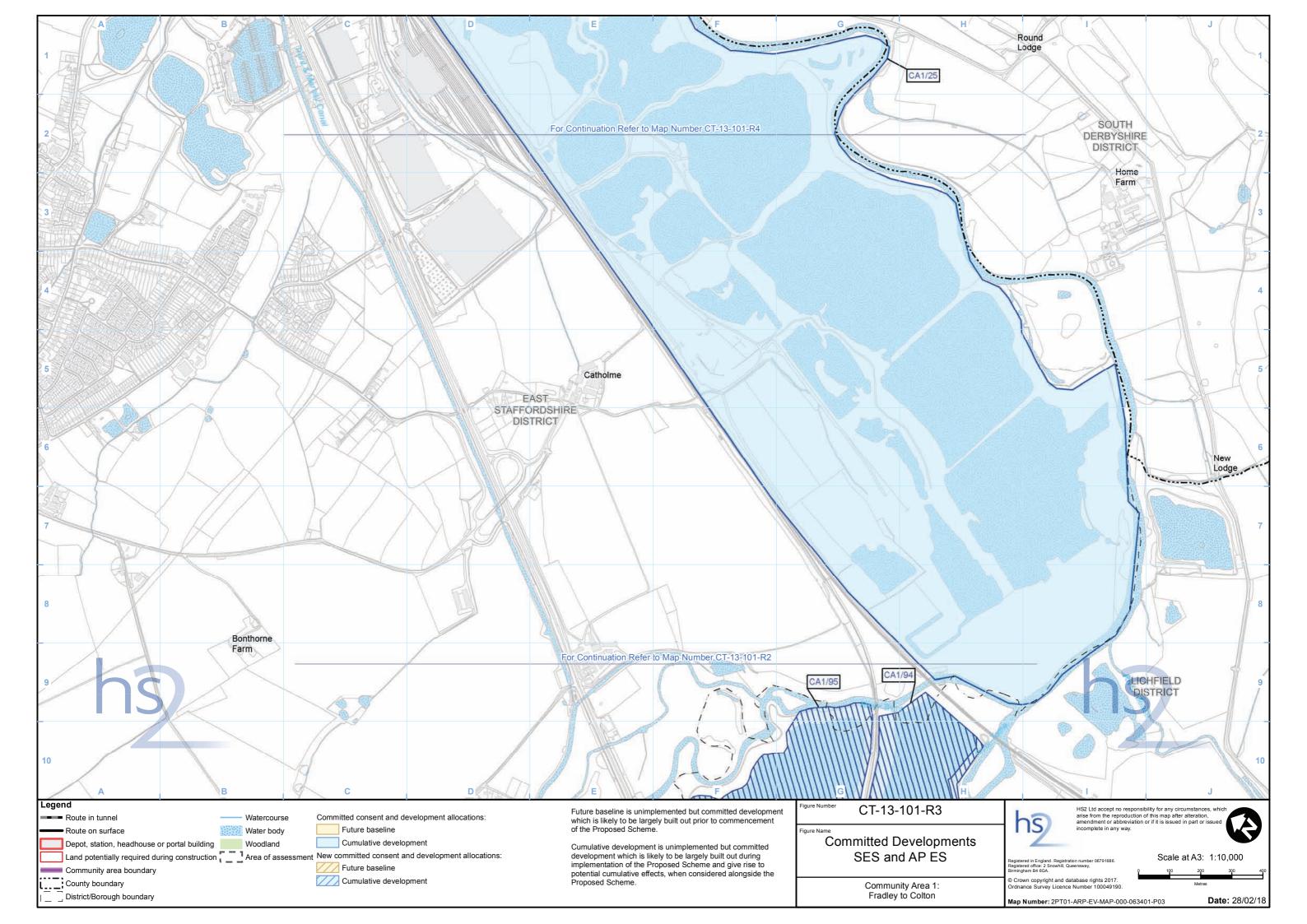


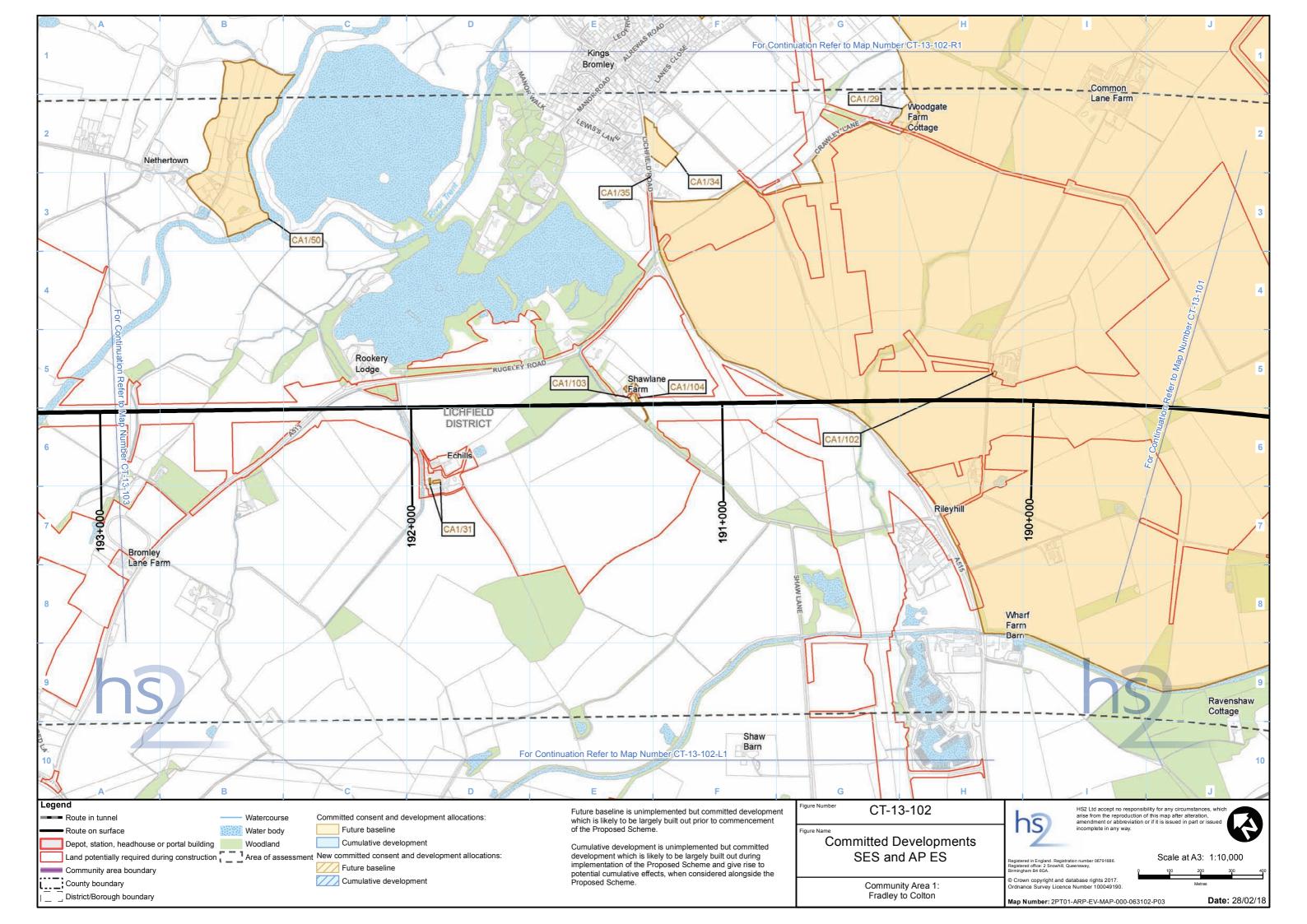


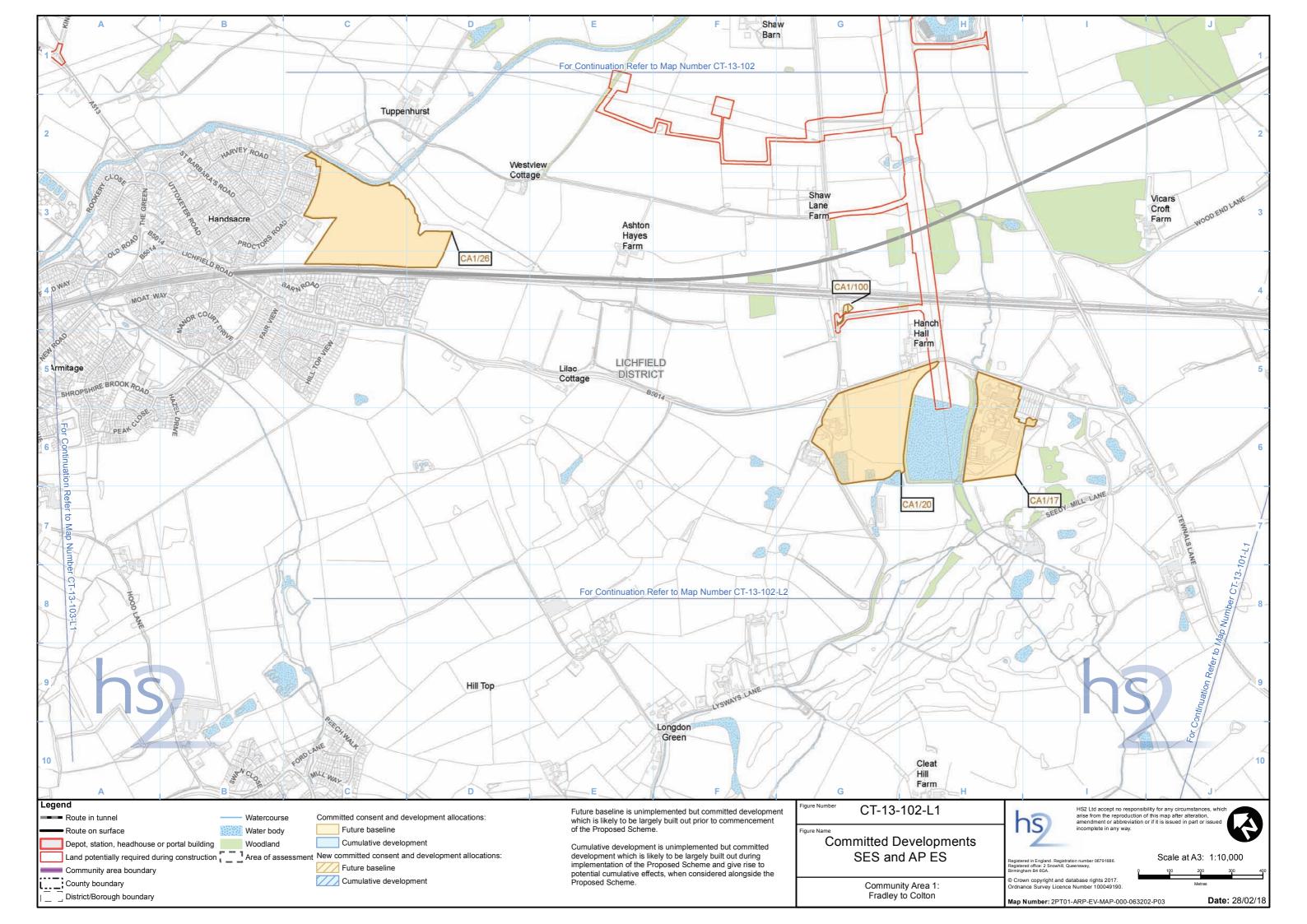


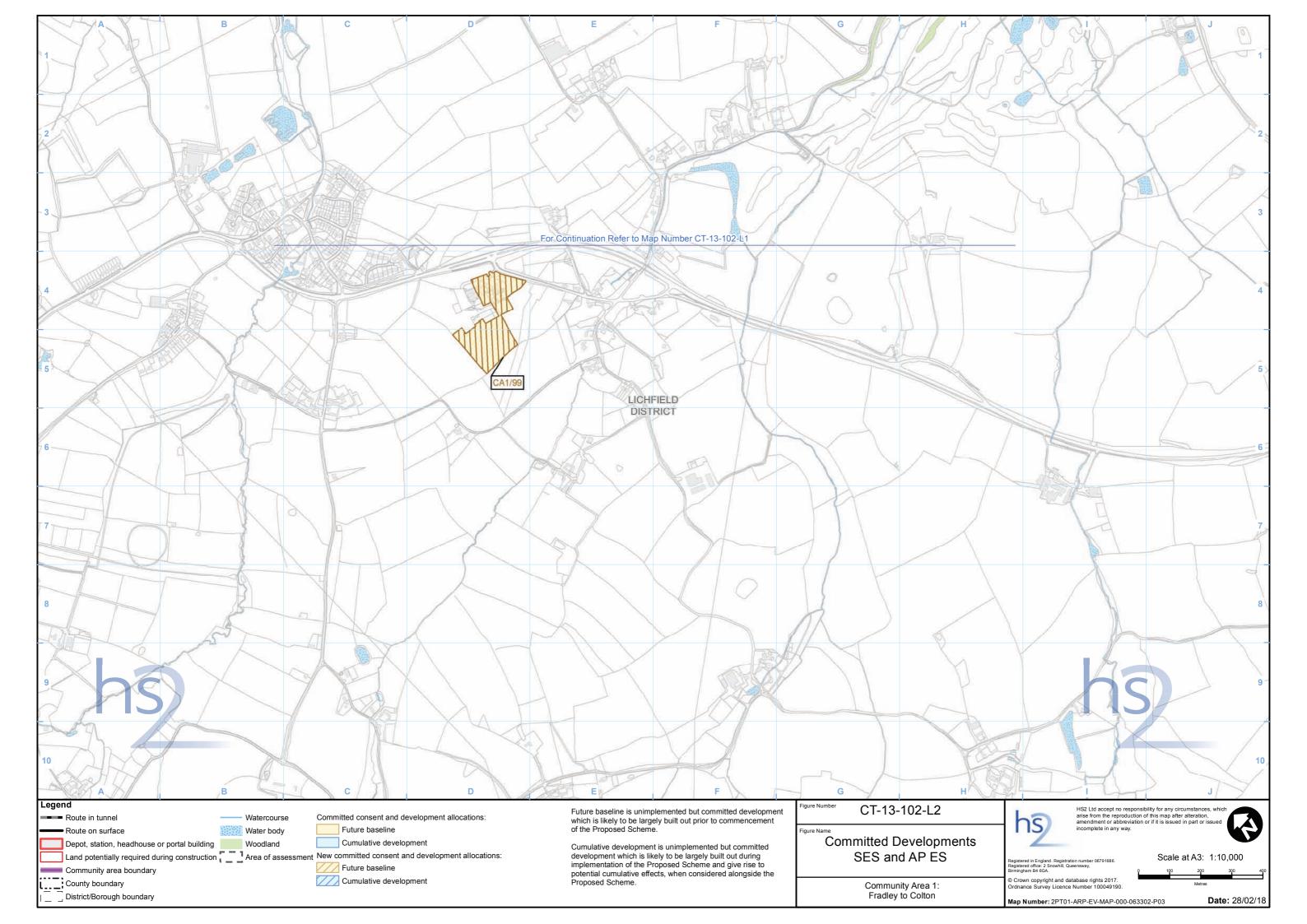


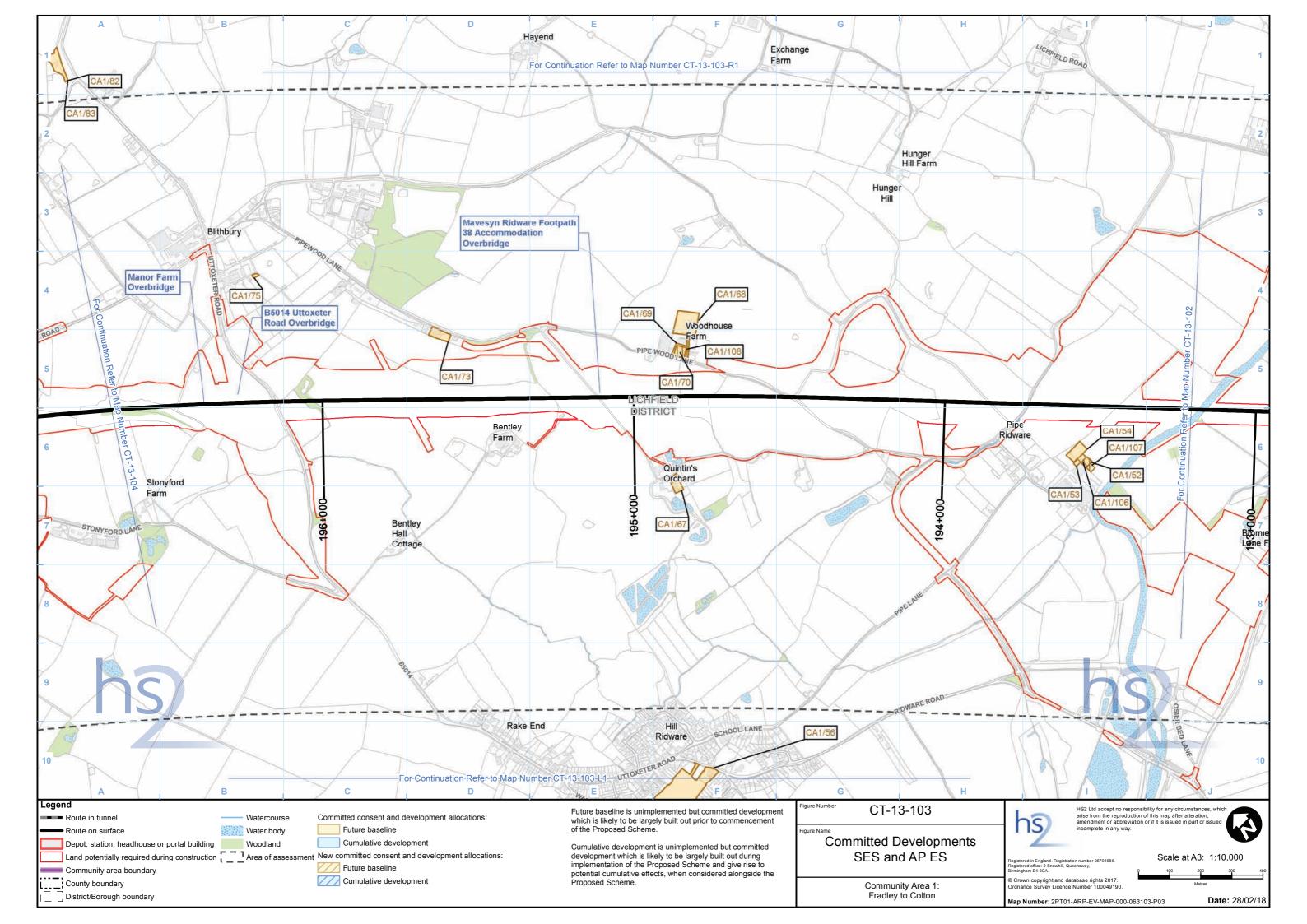


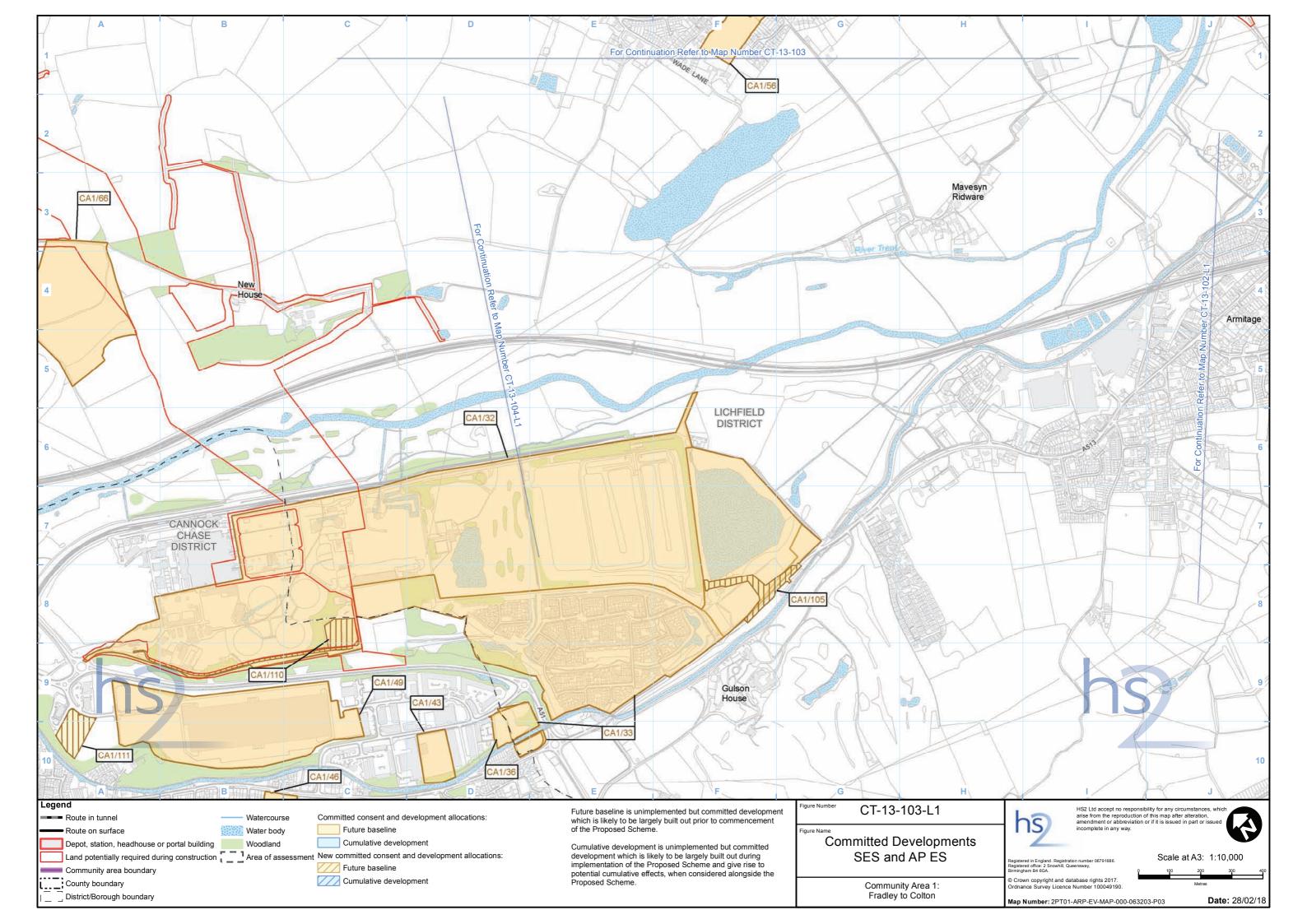


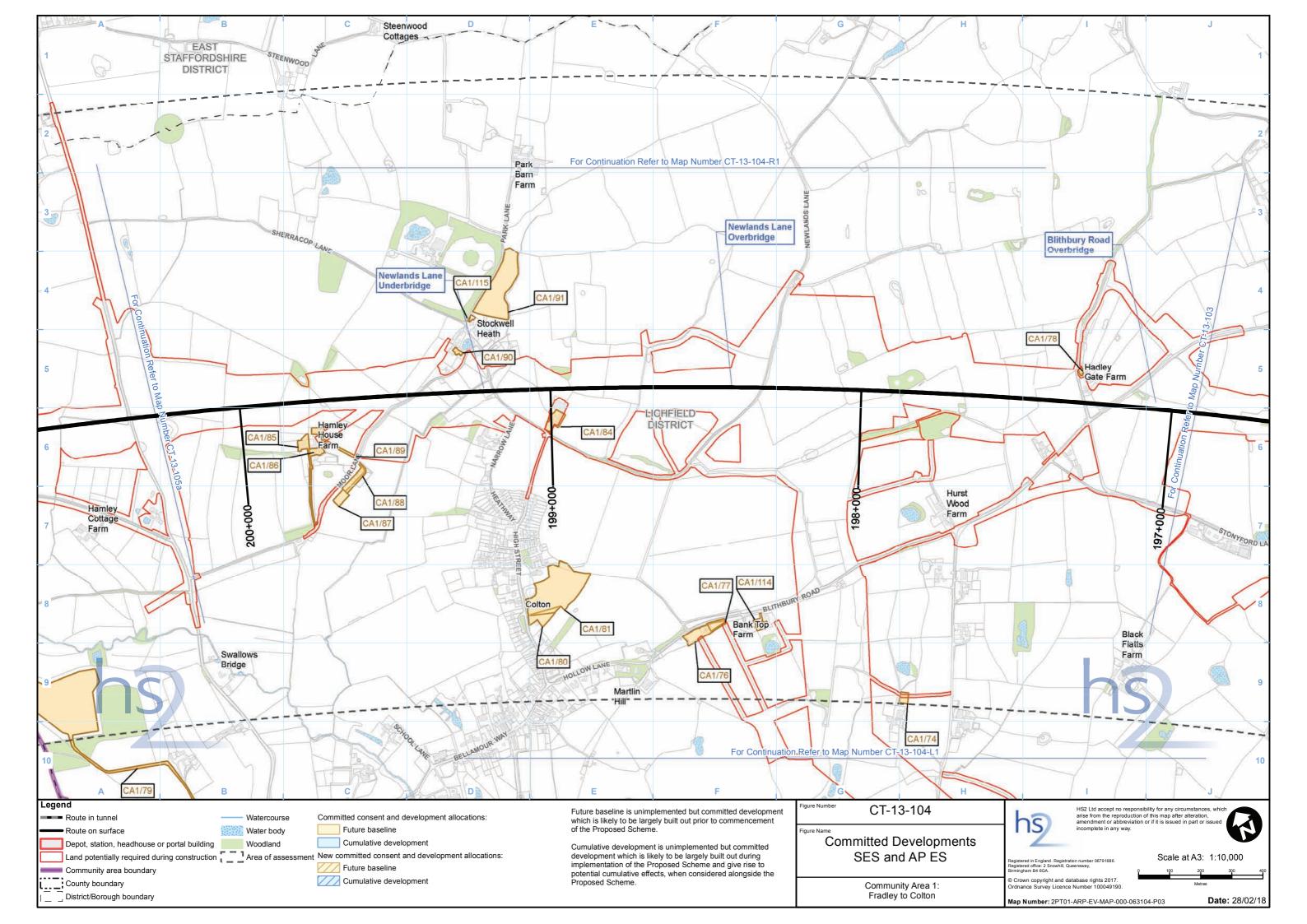


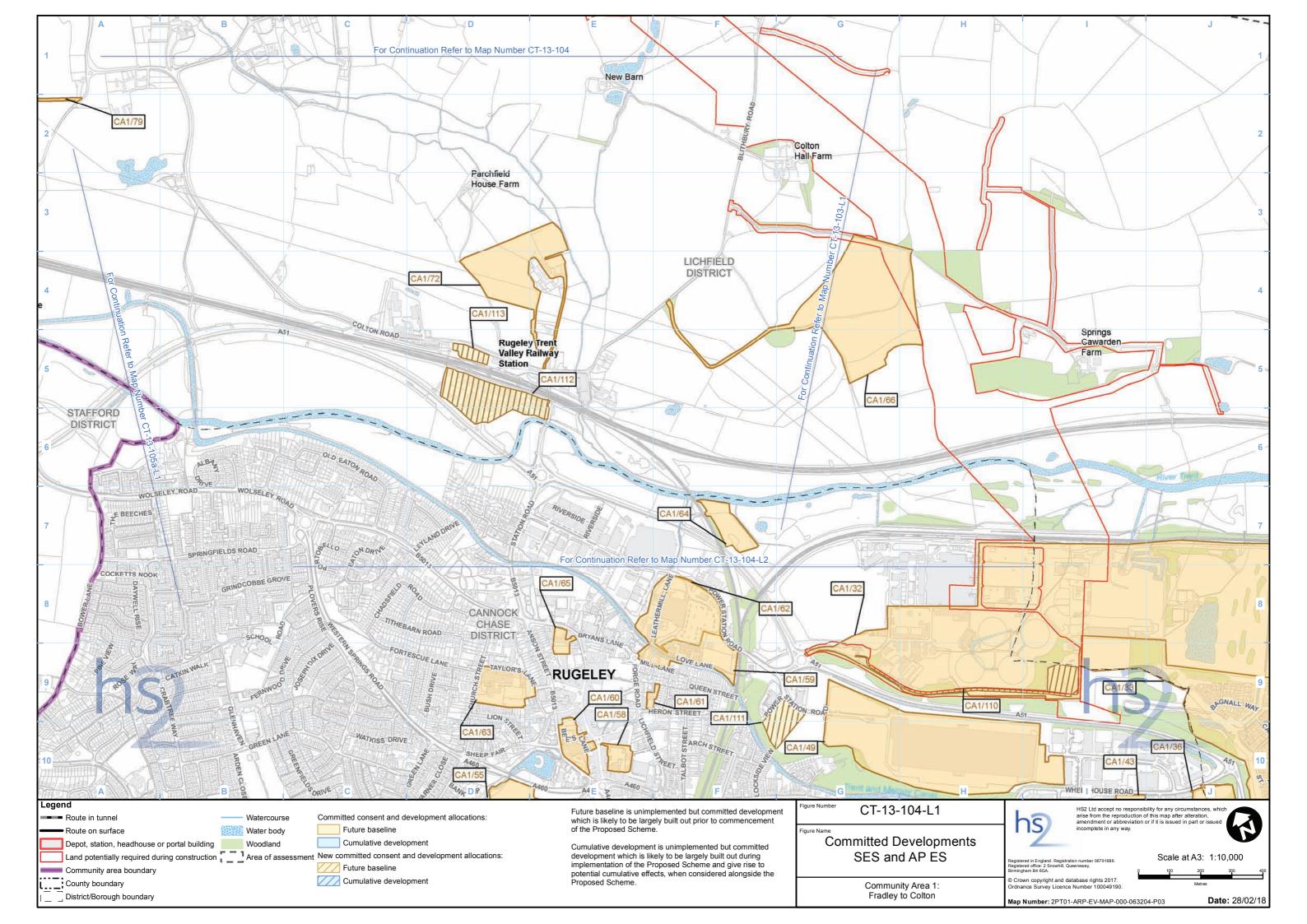


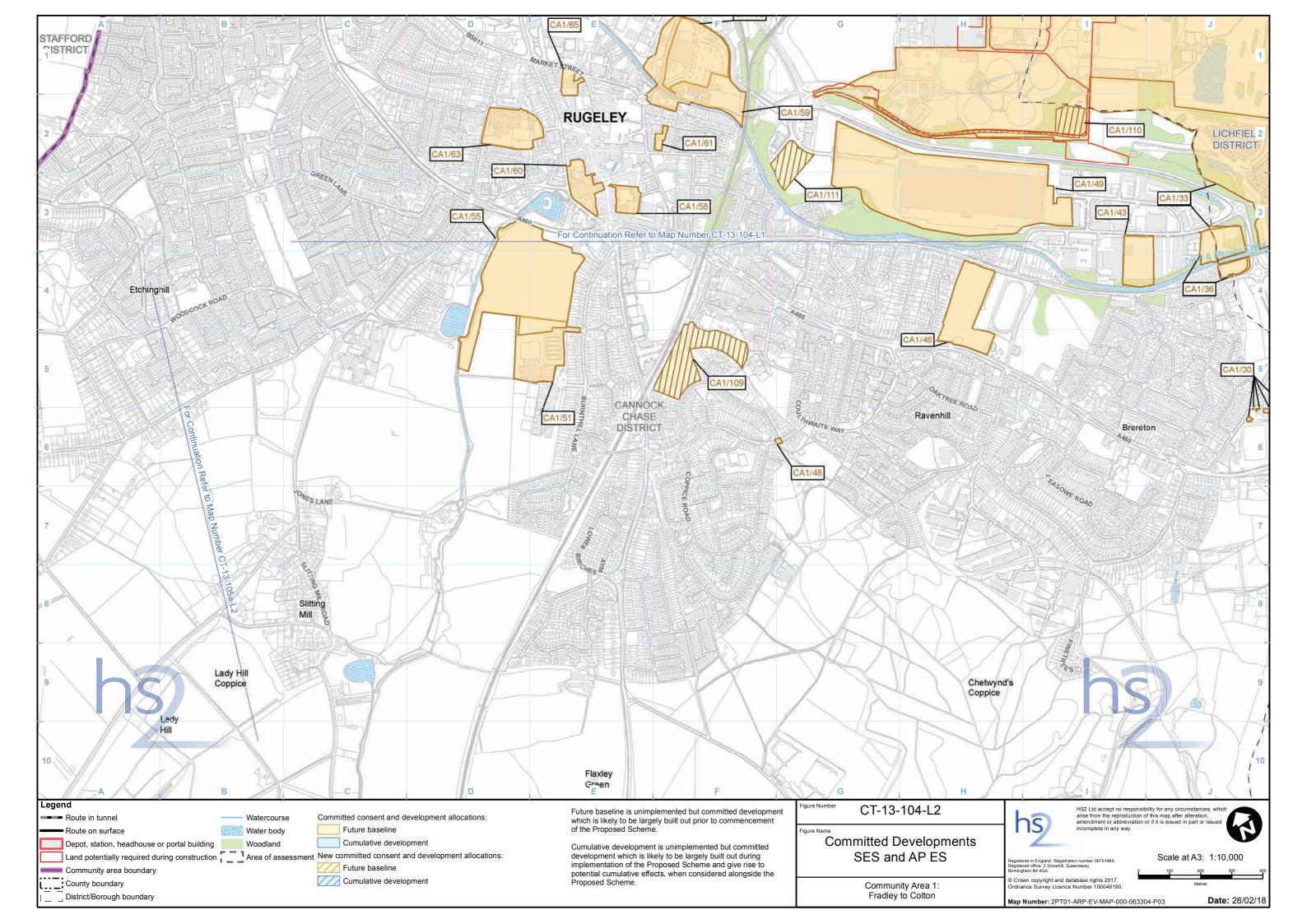


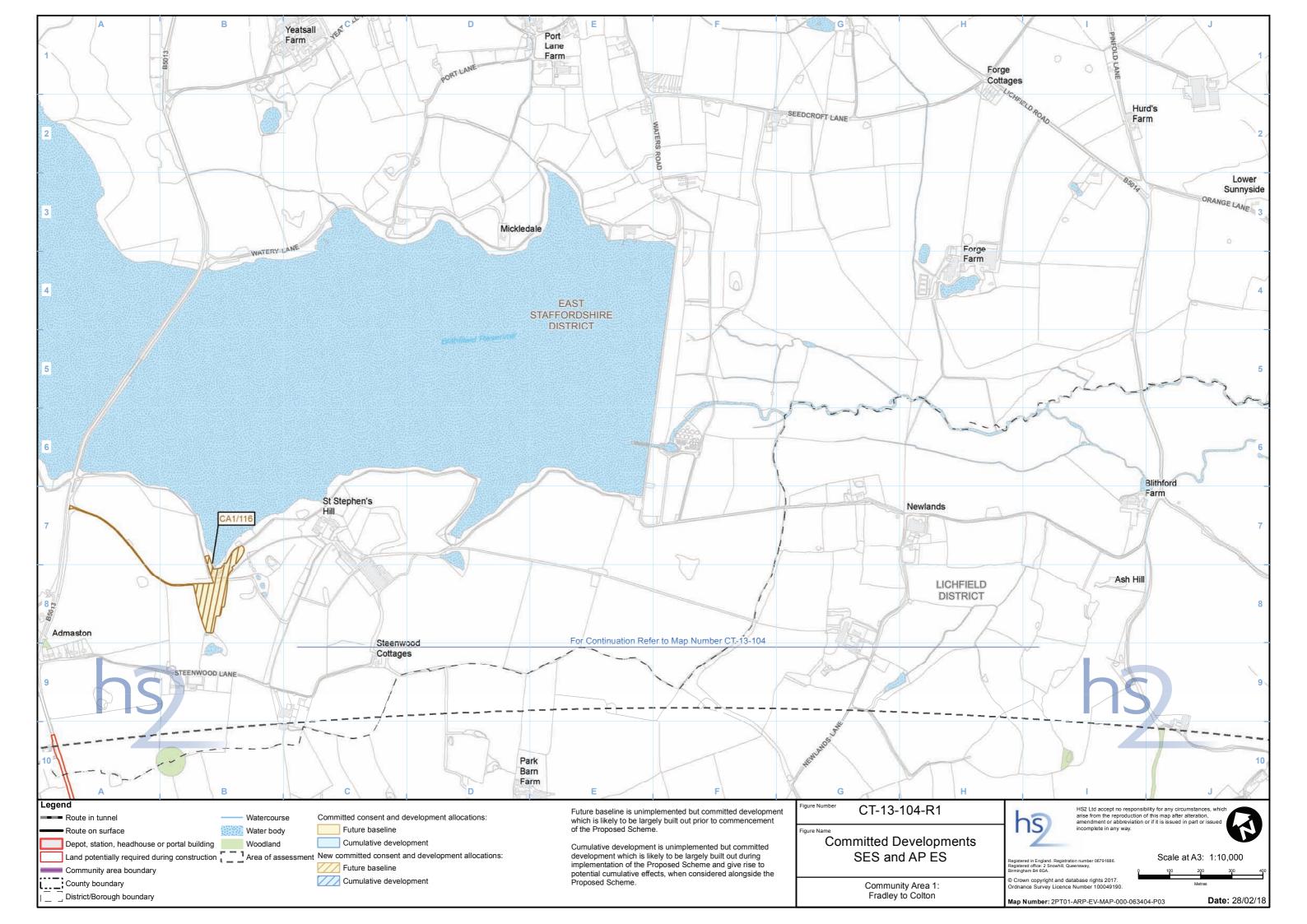






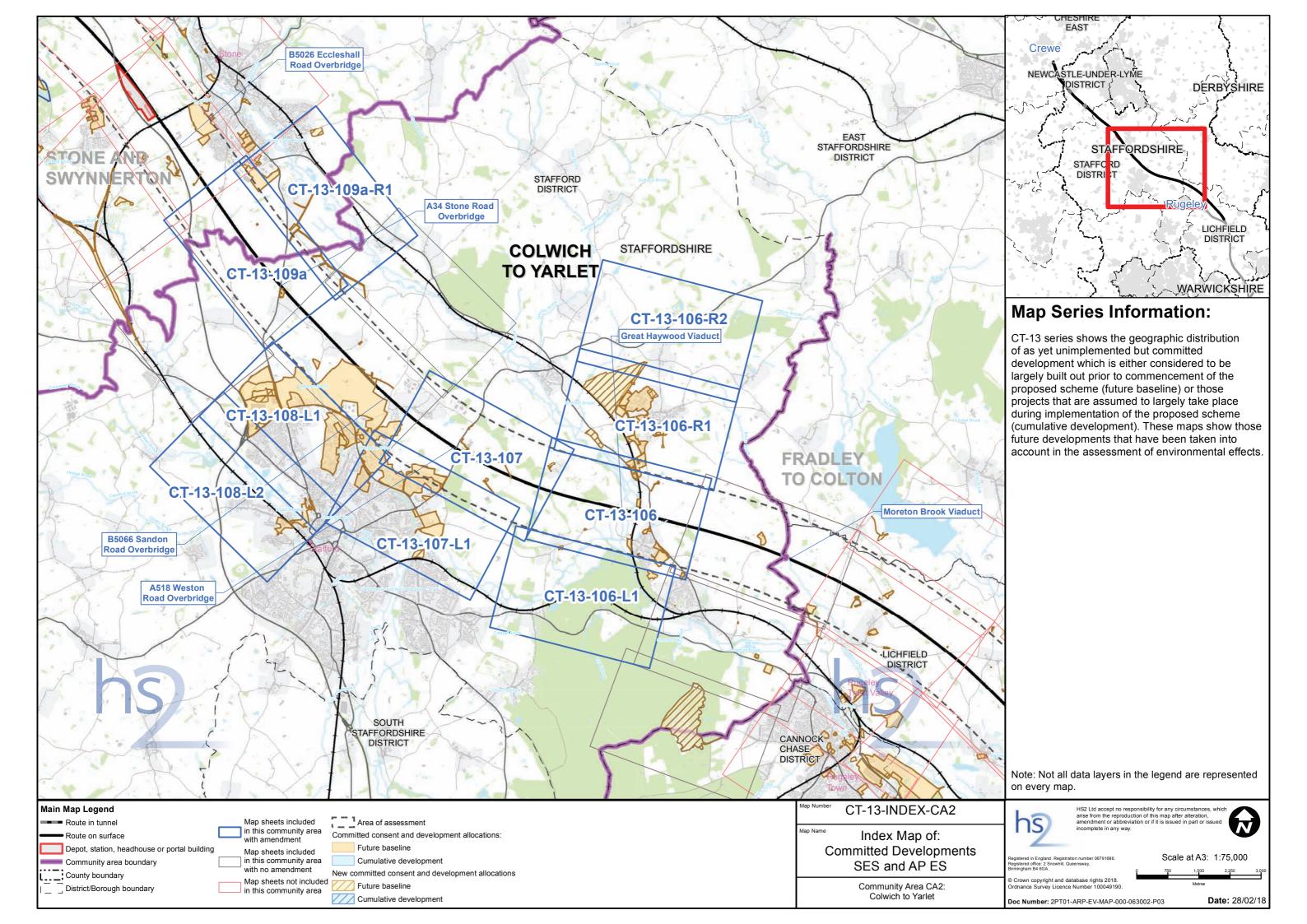


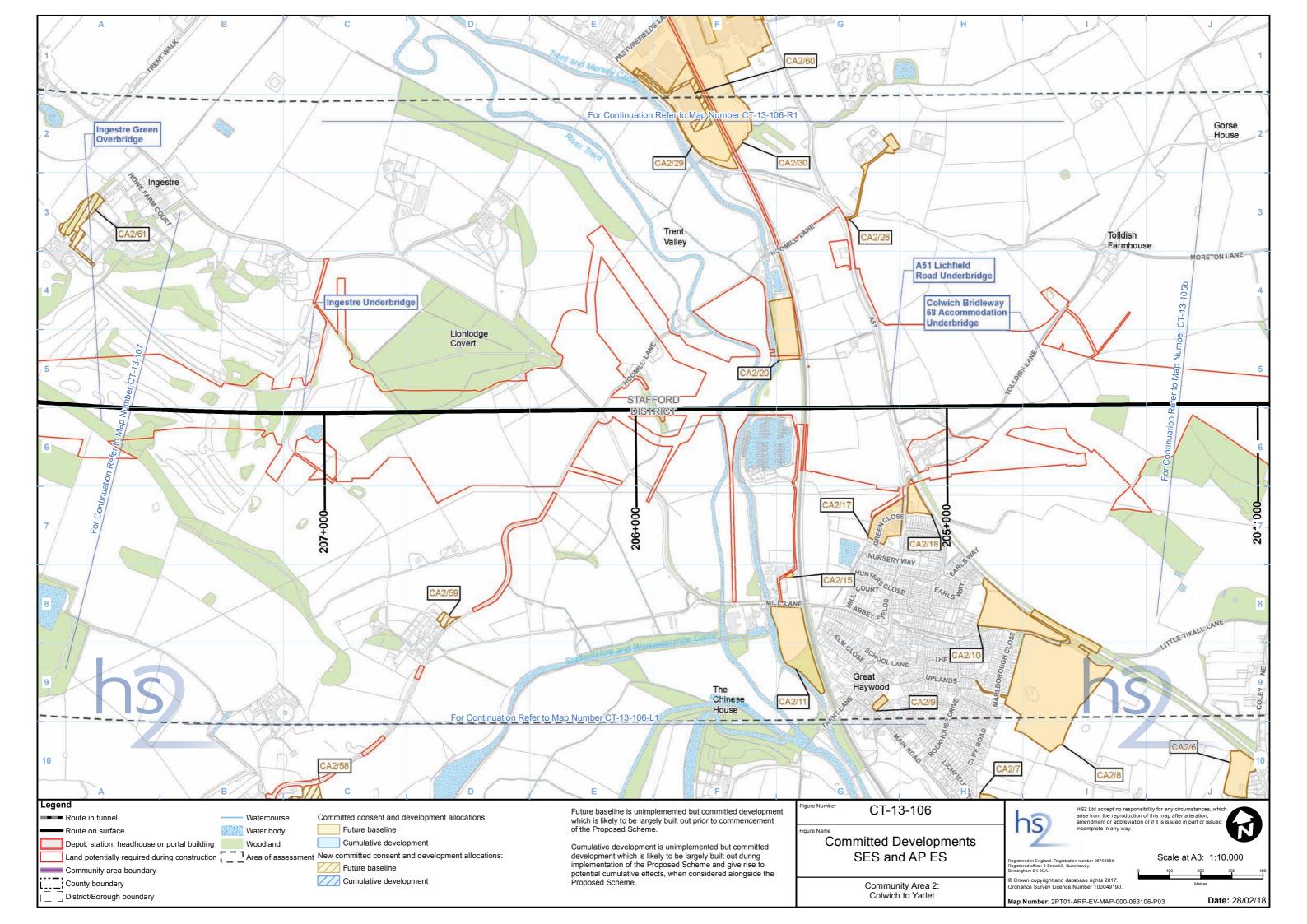


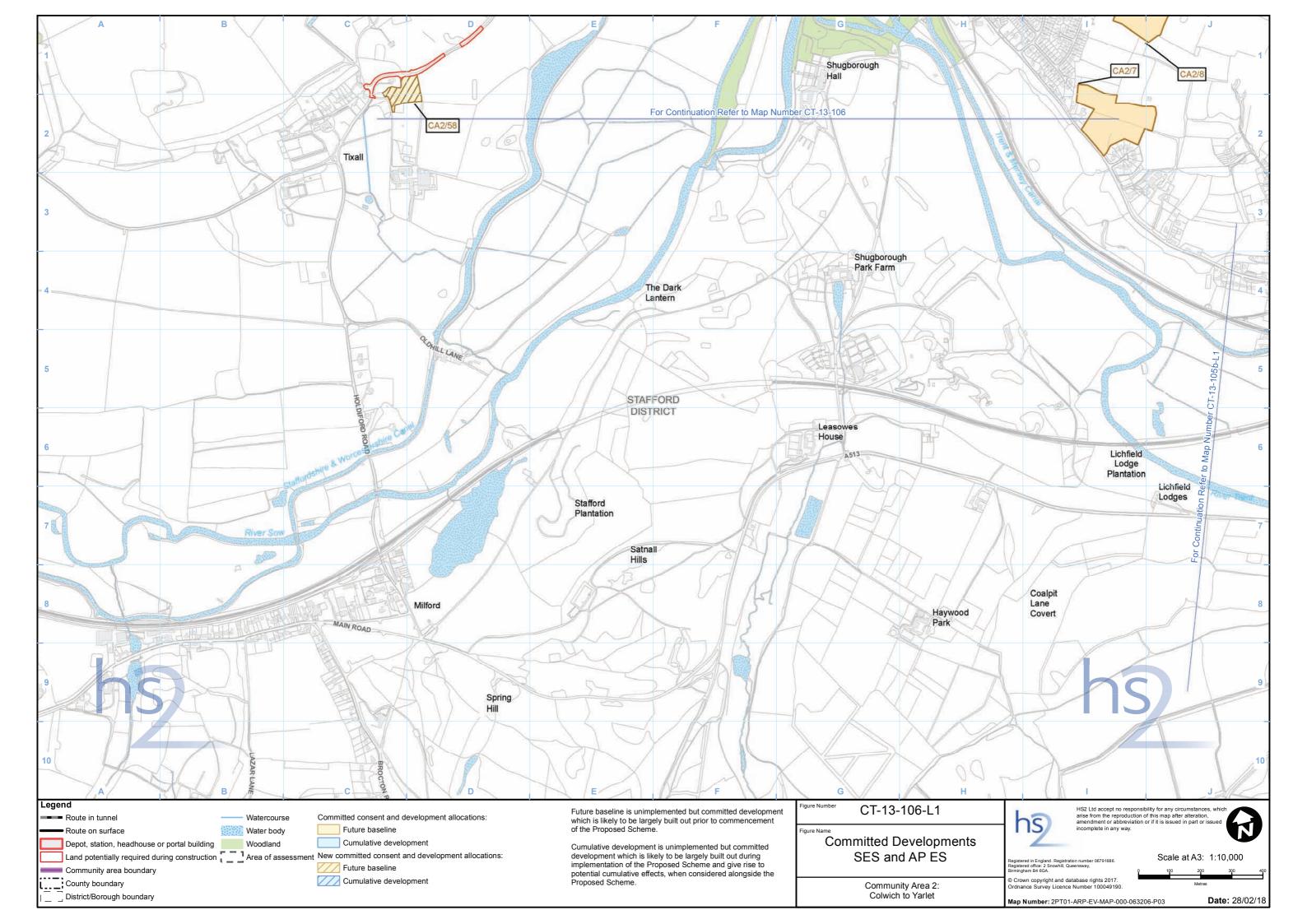


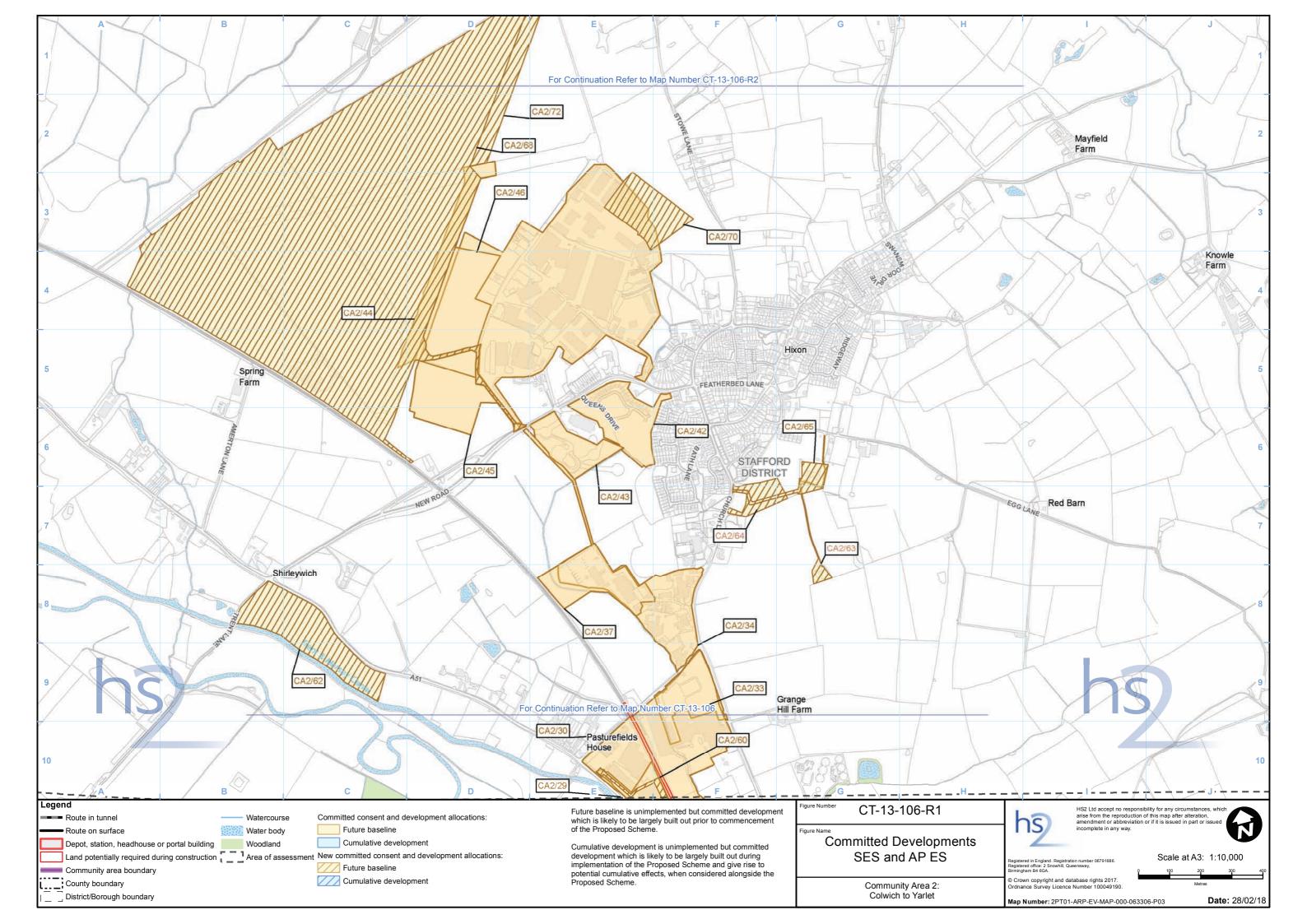
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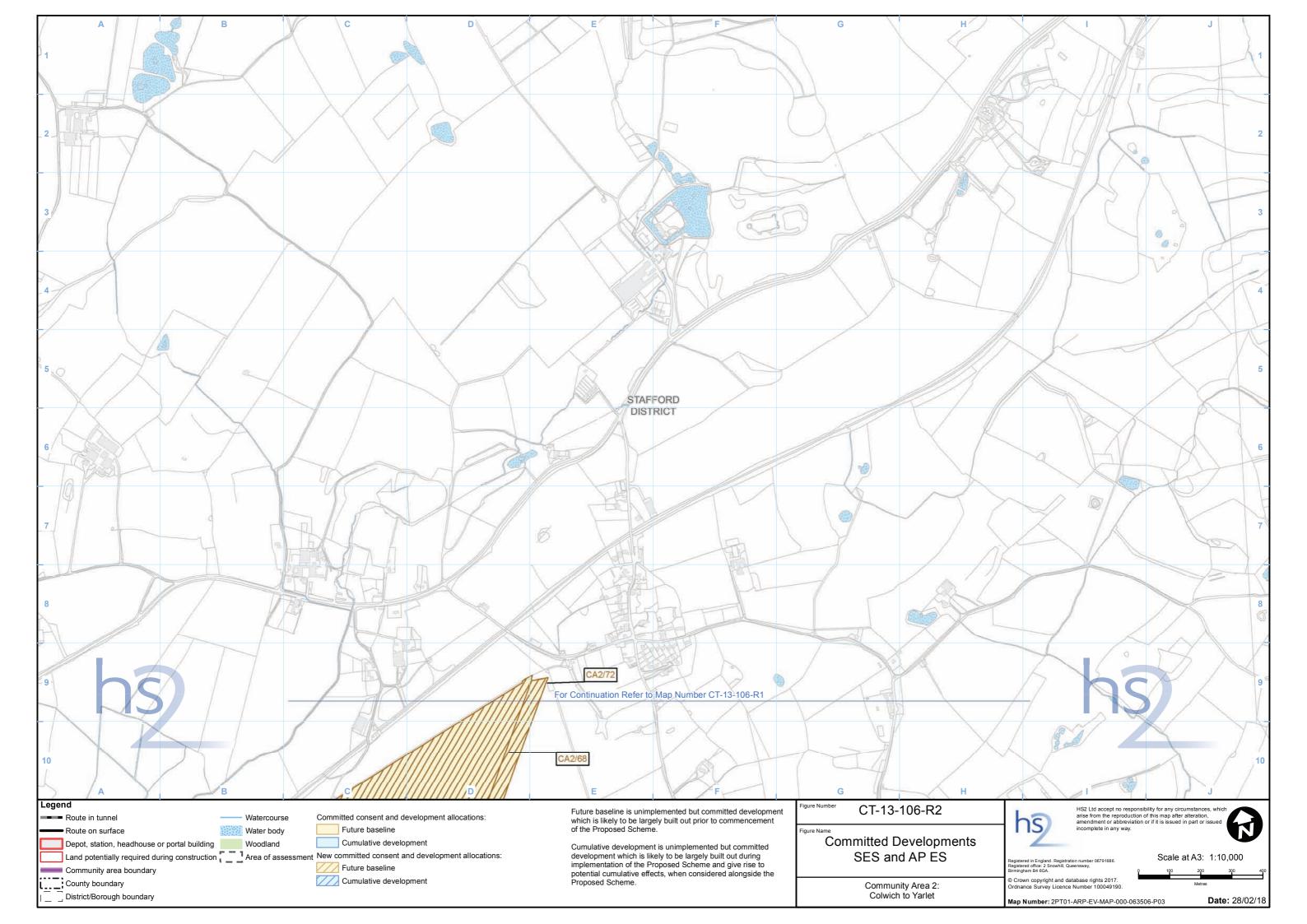
CA2 Colwich to Yarlet CT-13 - Committed developments

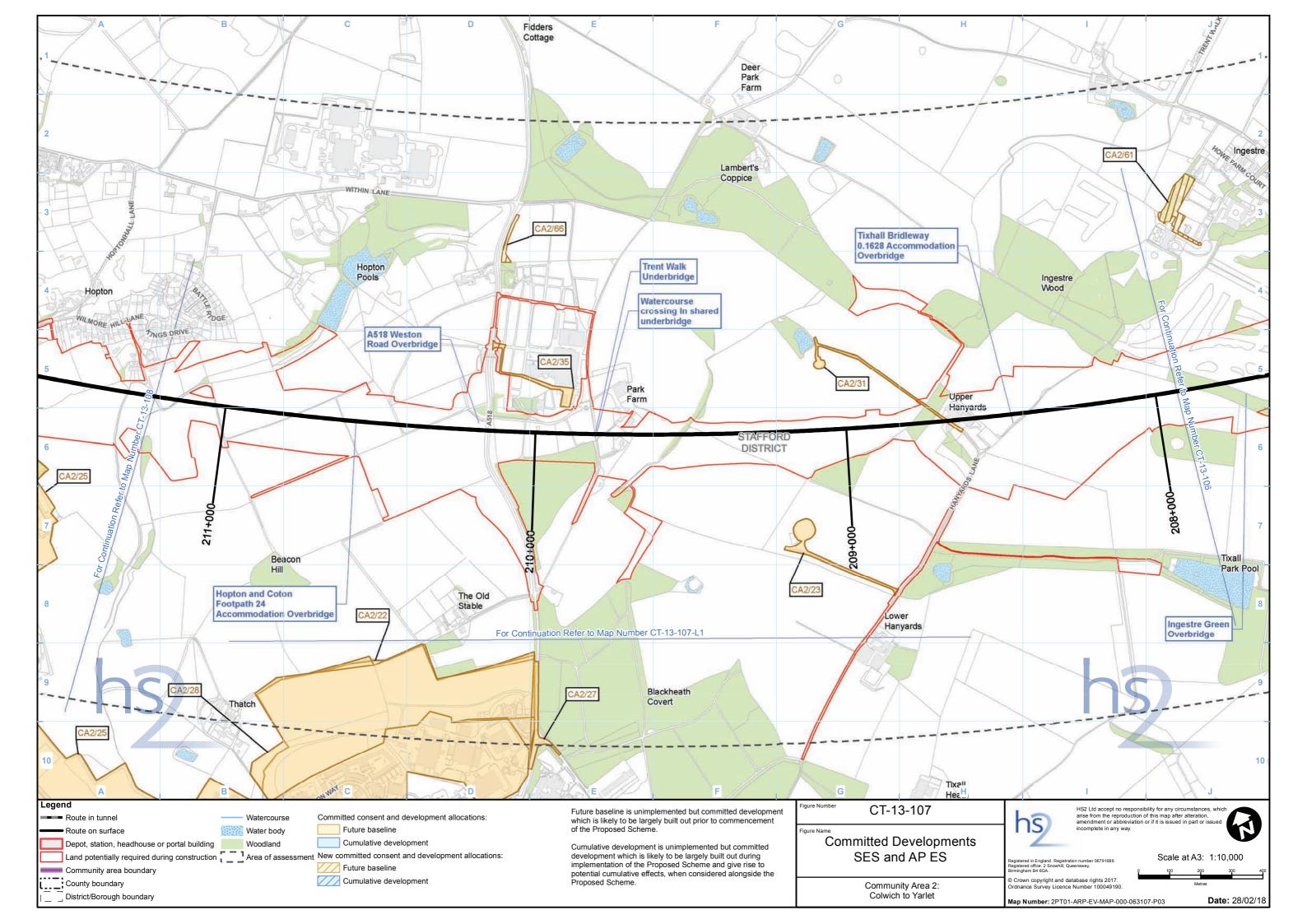


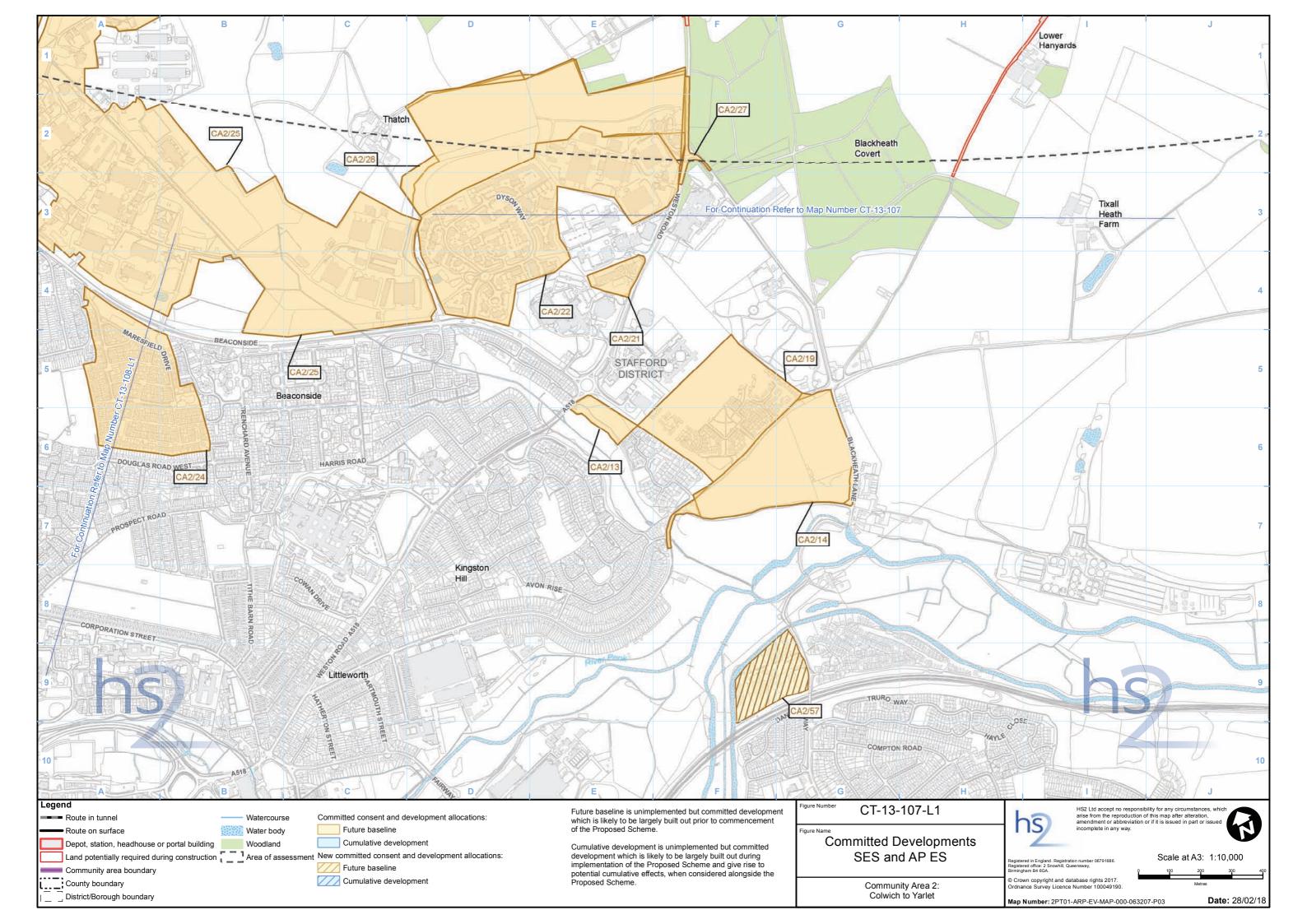


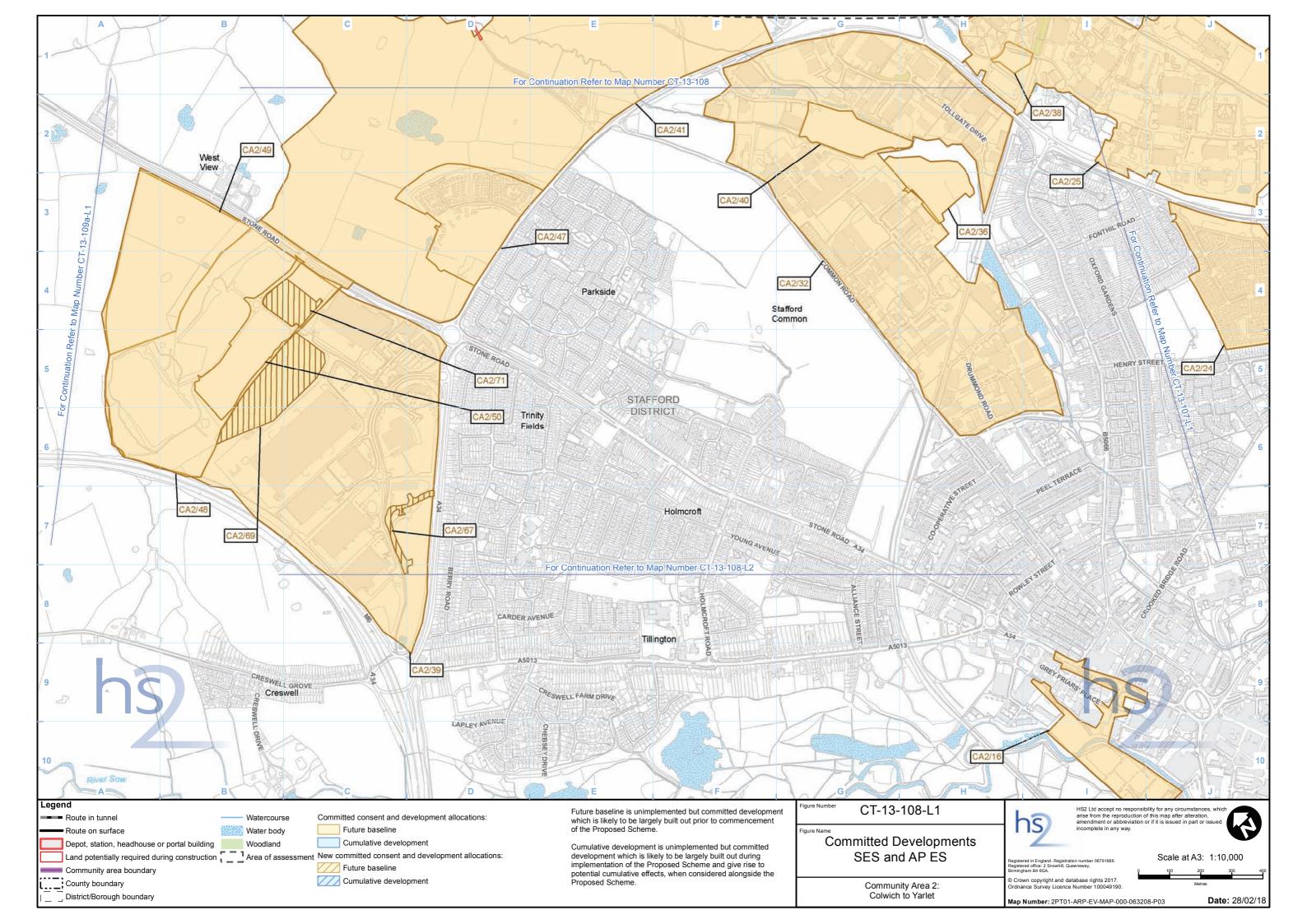


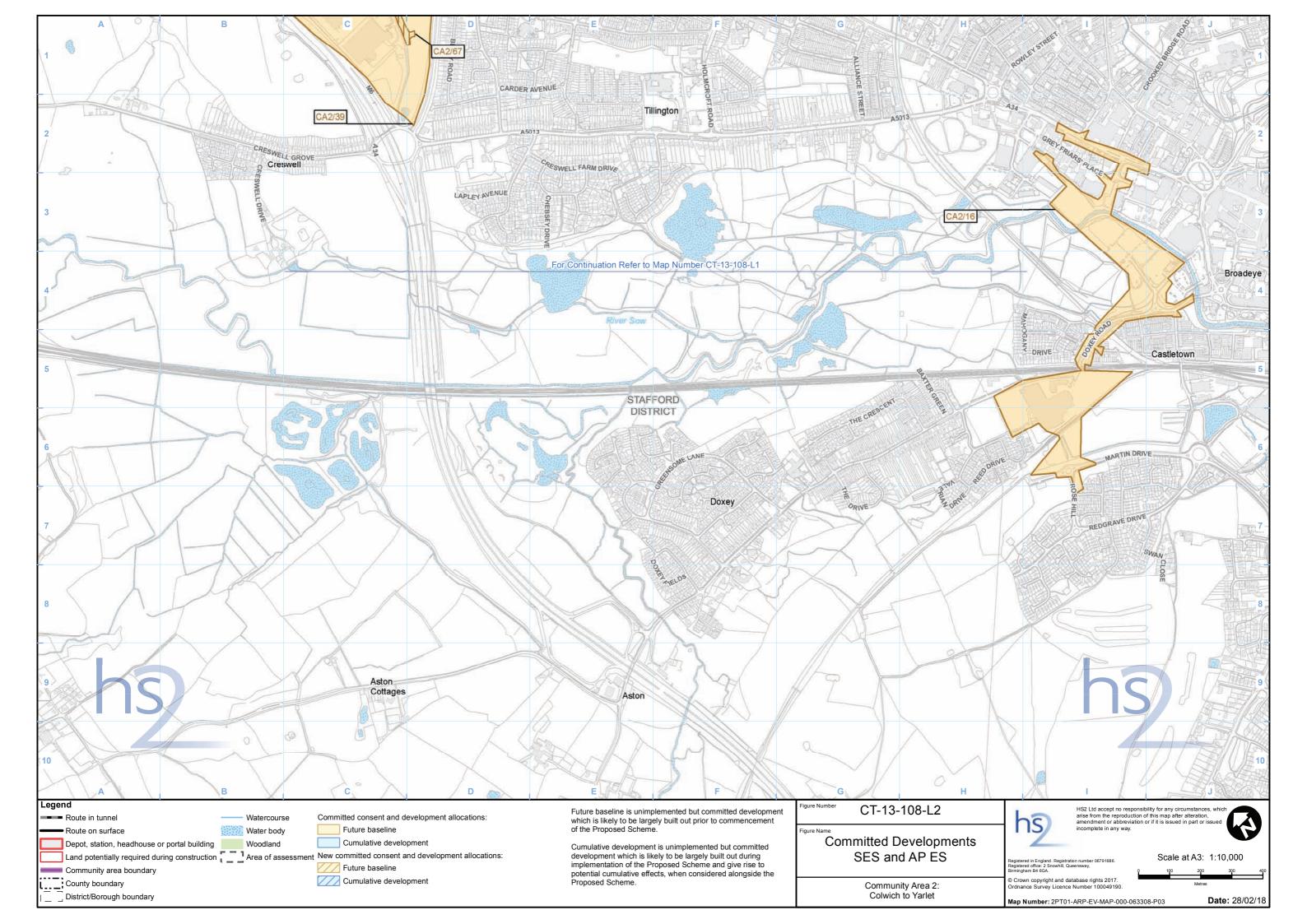


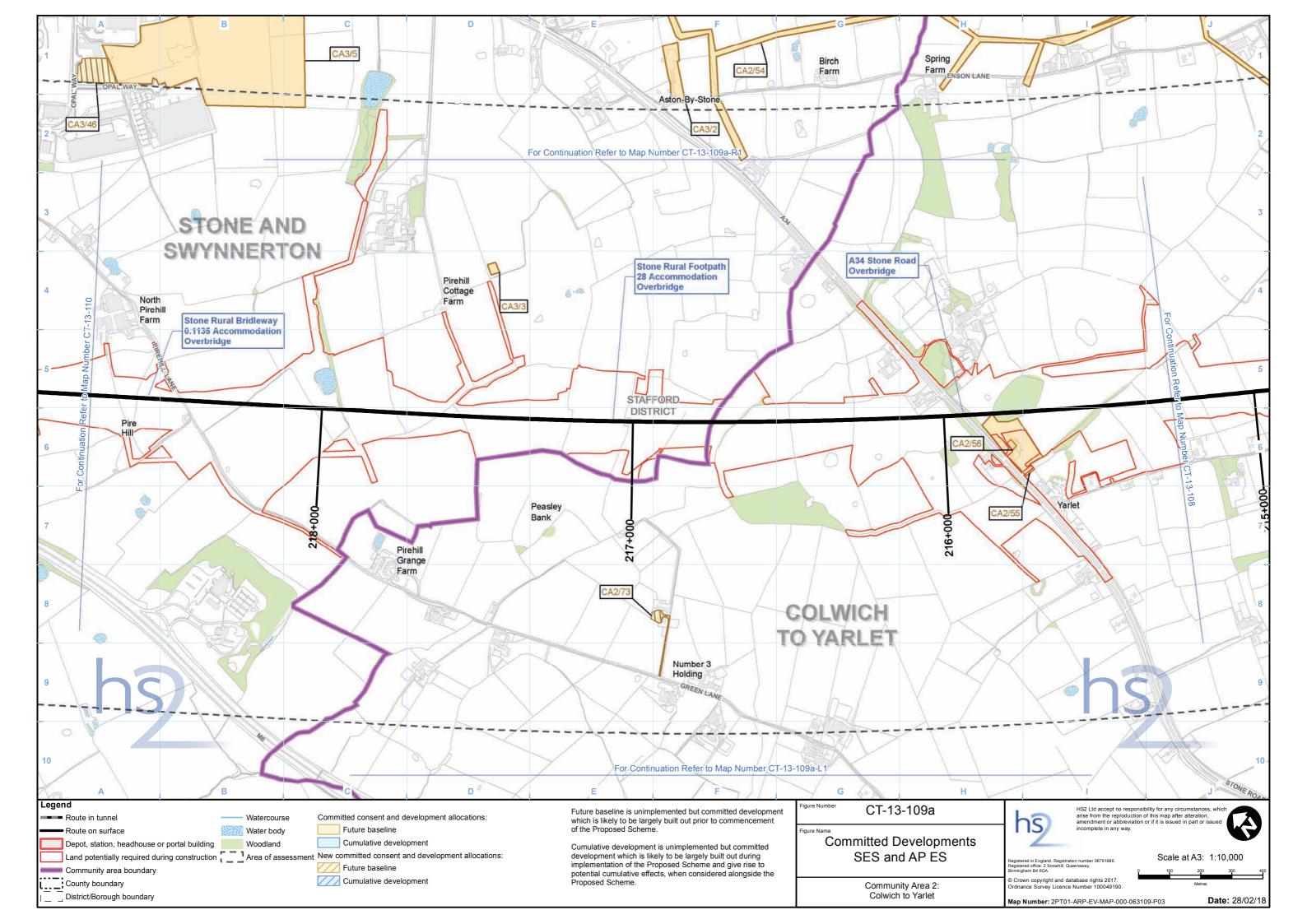


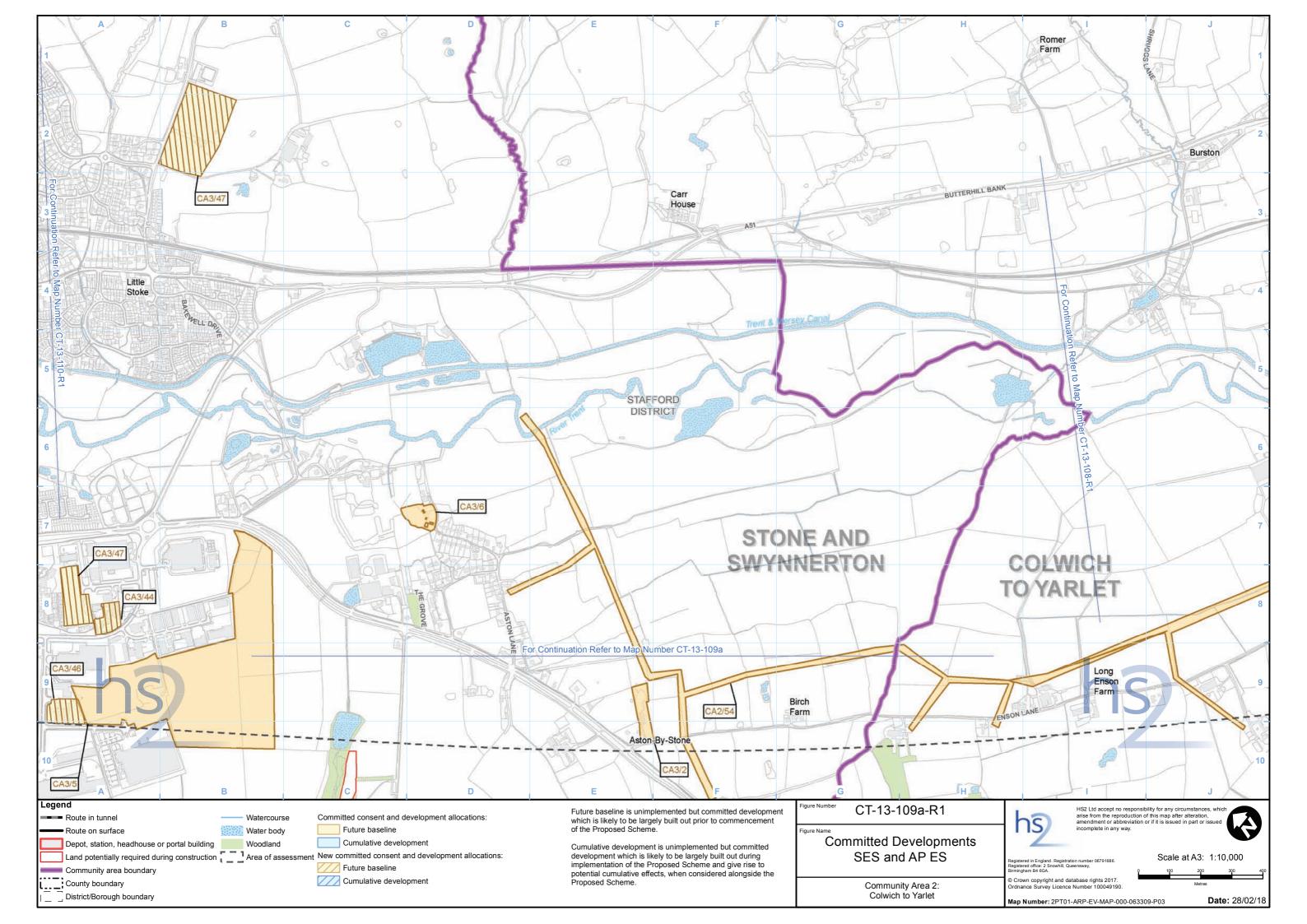




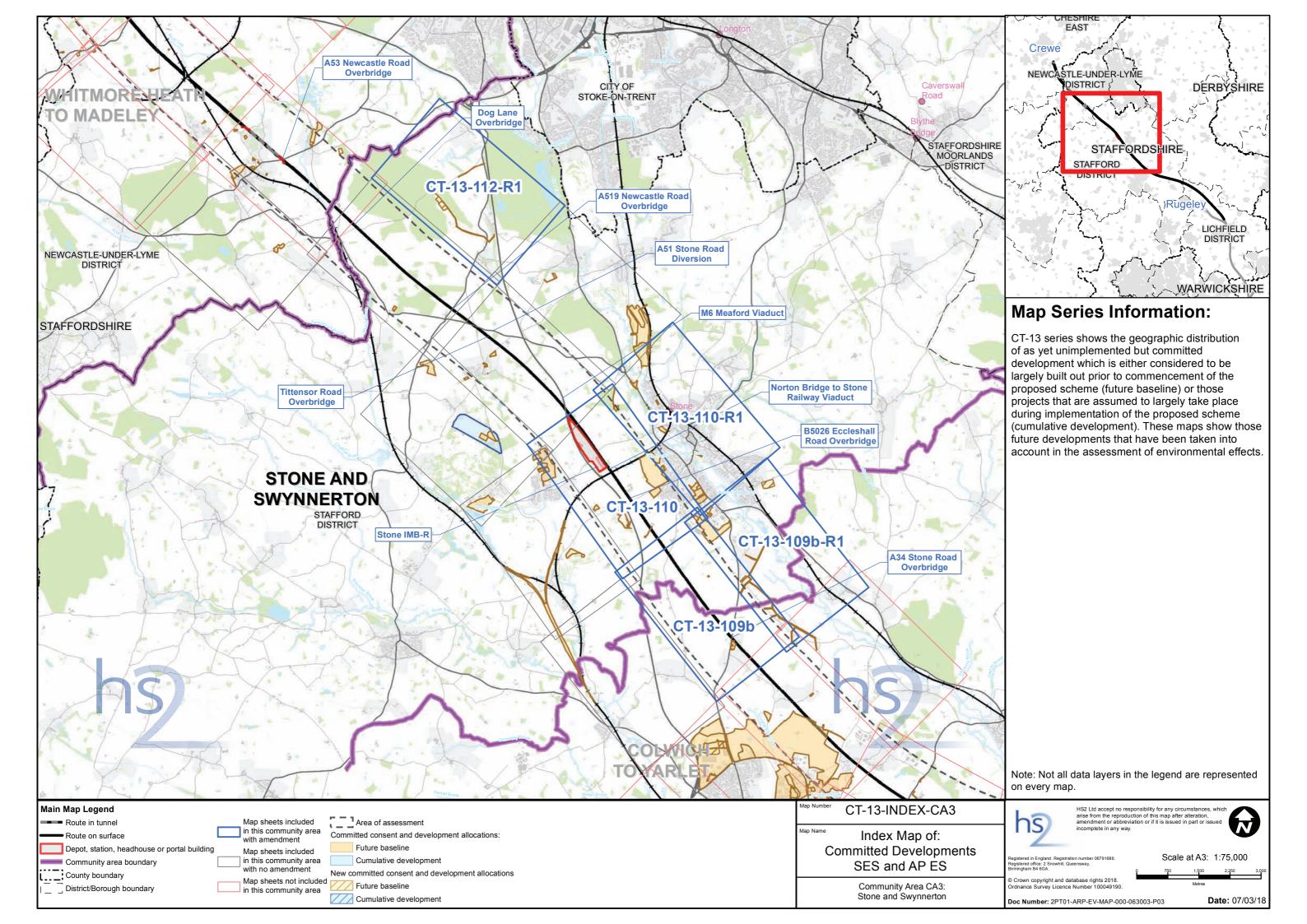


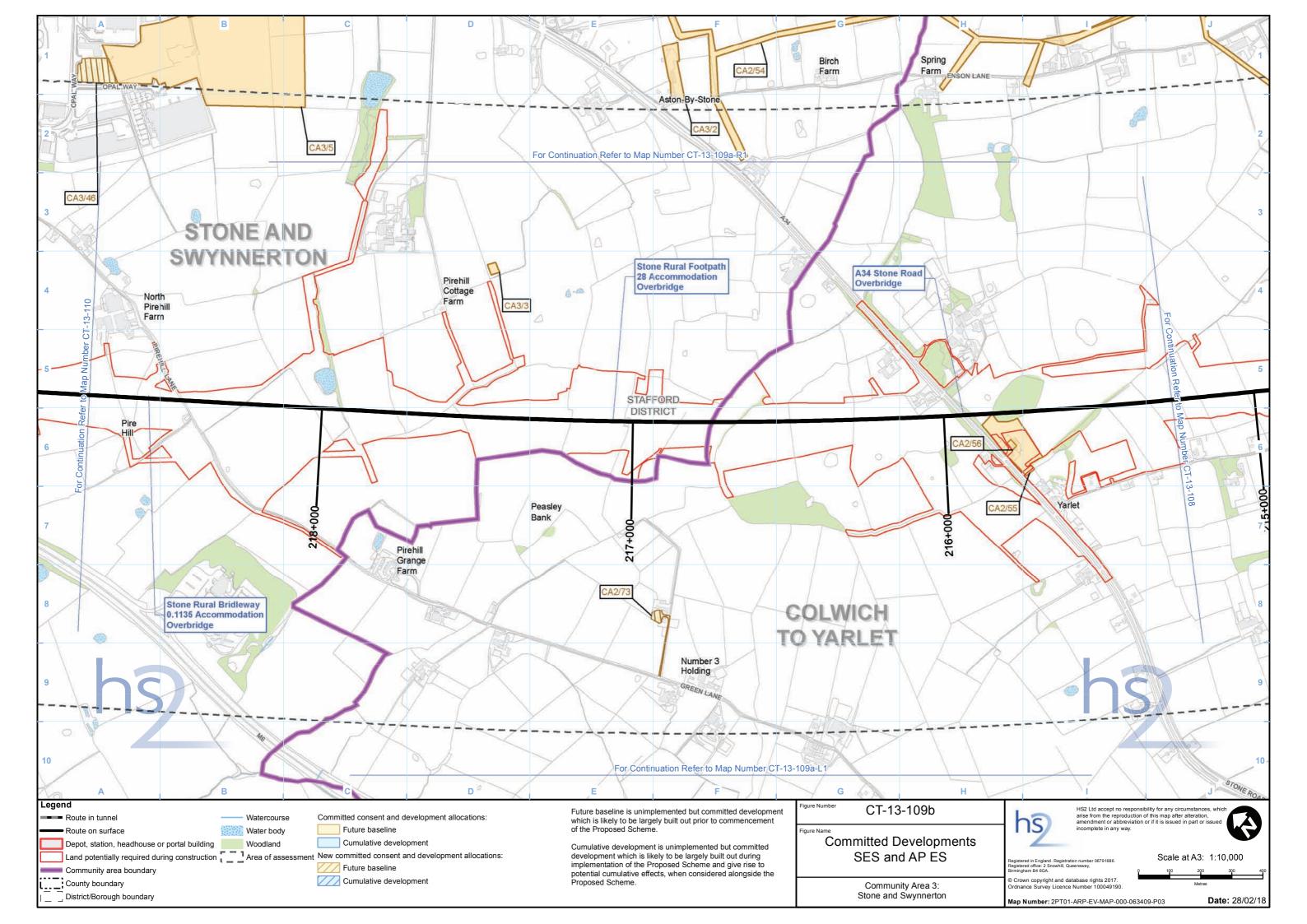


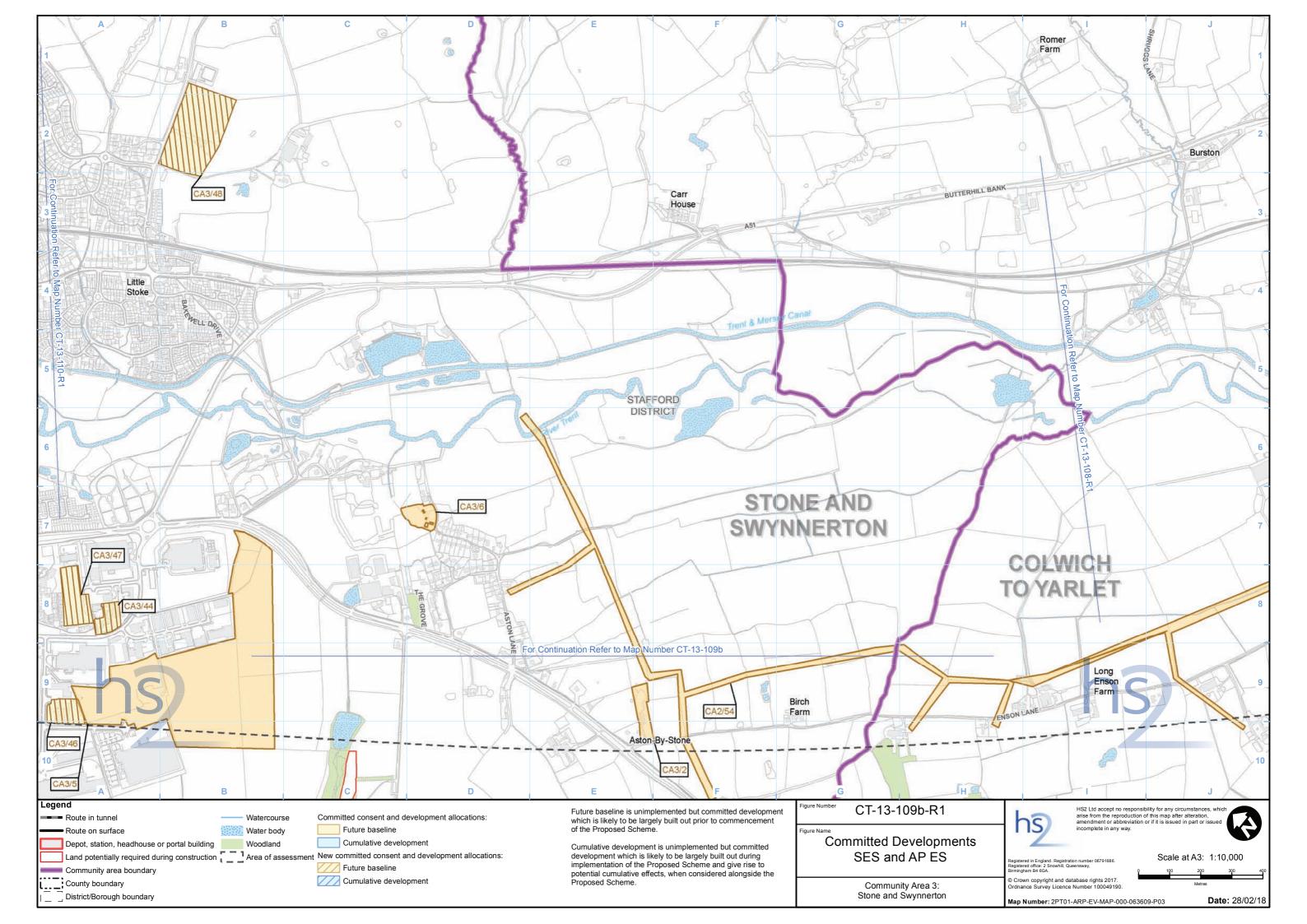


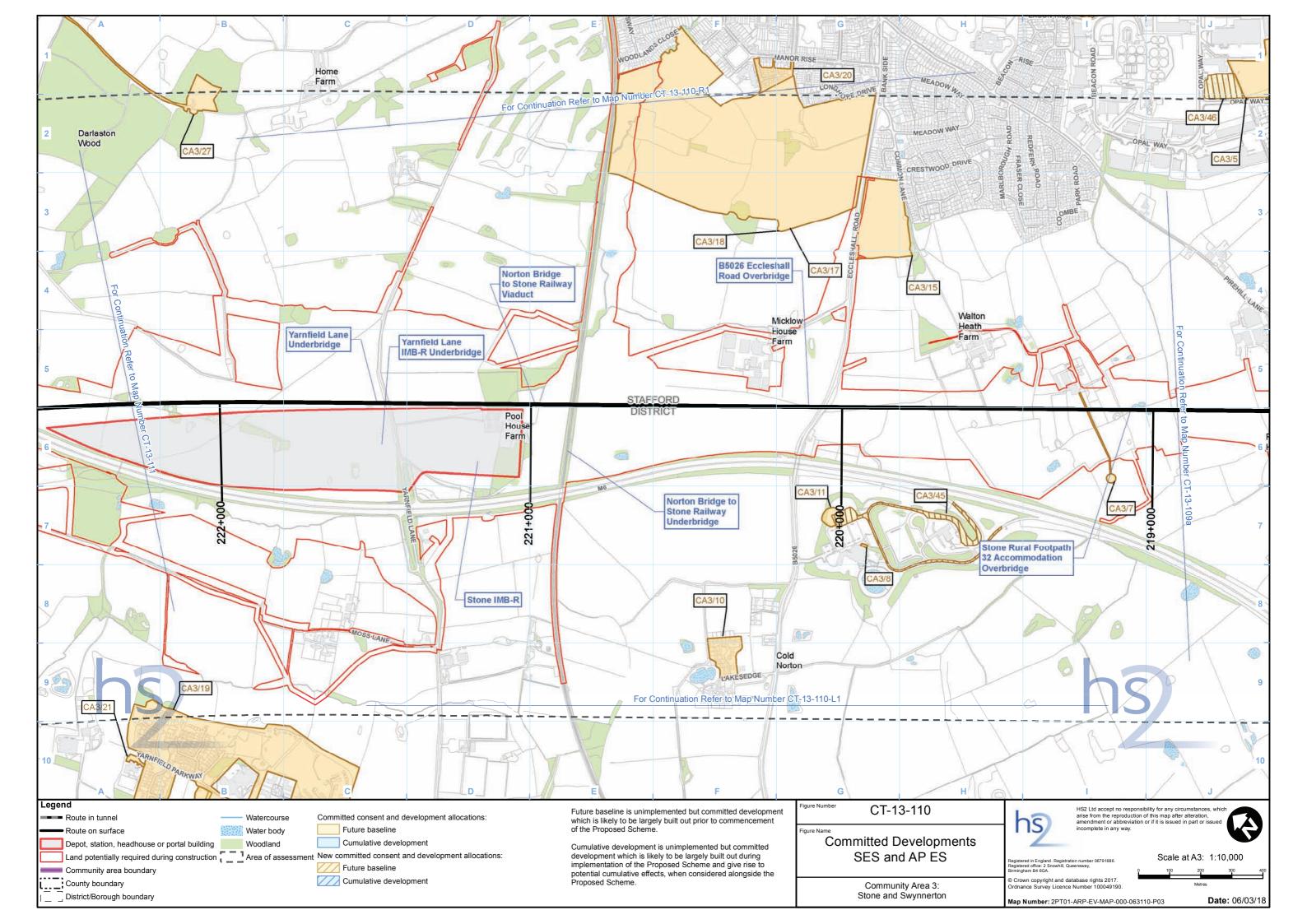


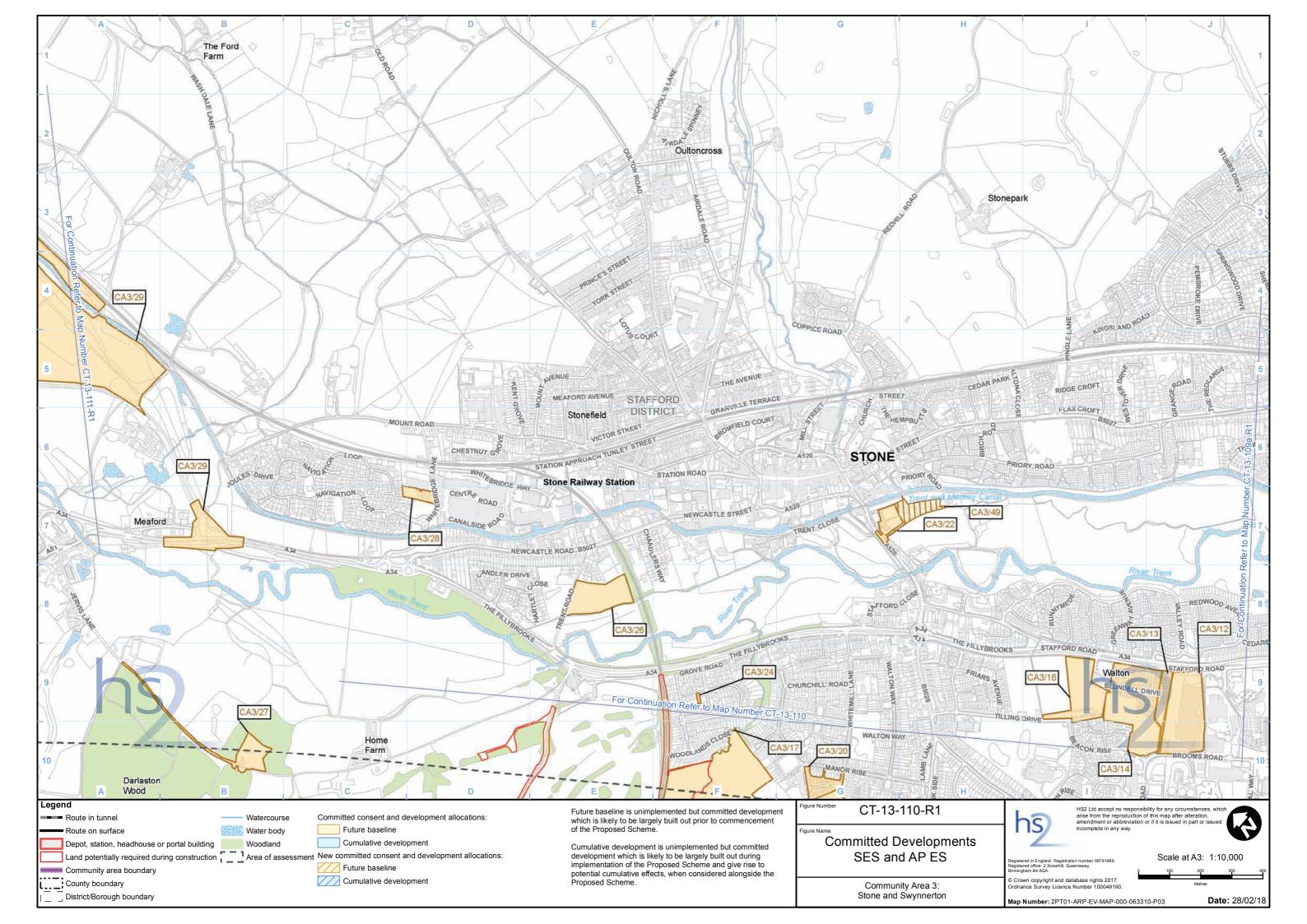
CA3 Stone and Sywnnerton
CT-13 - Committed developments

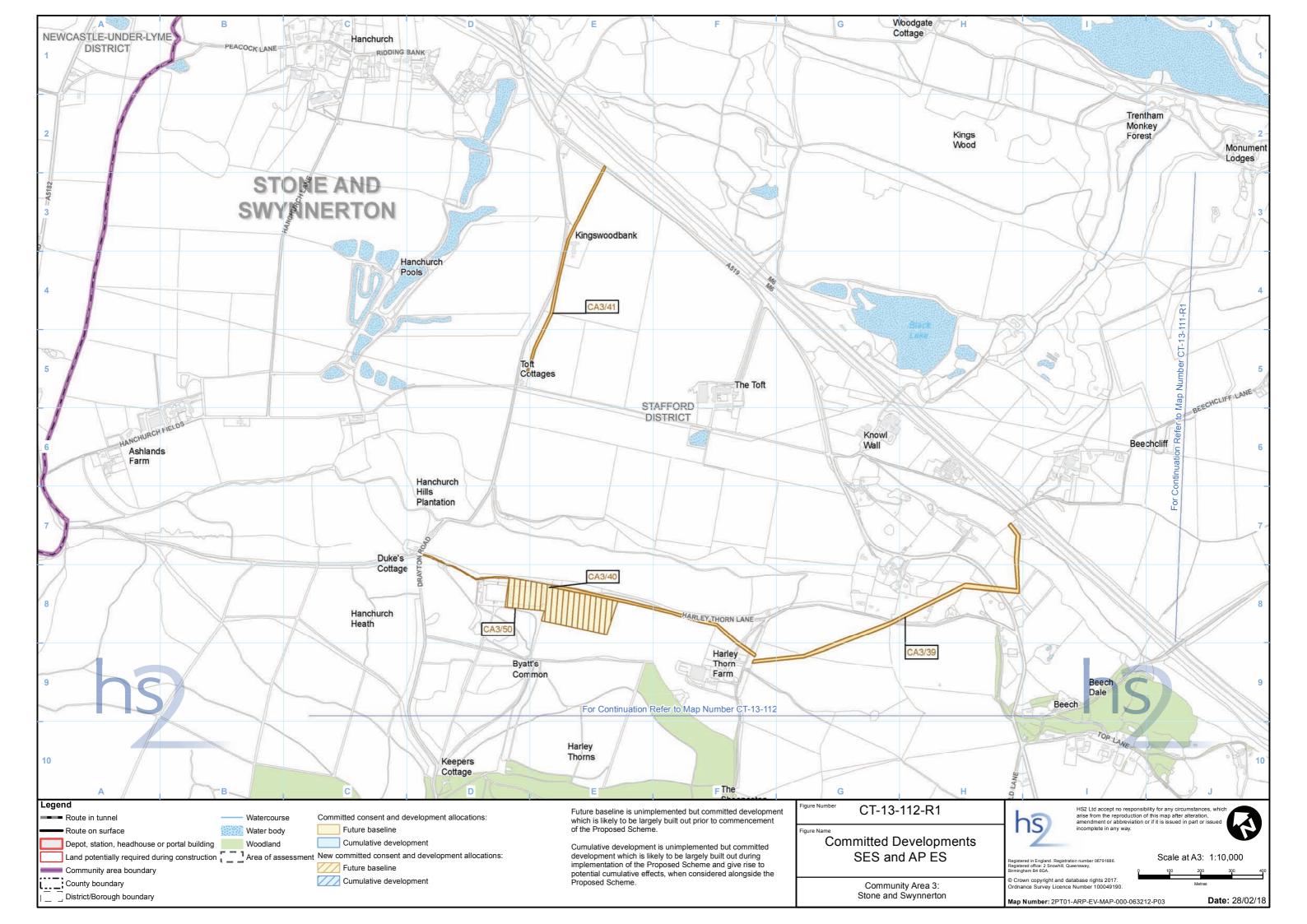






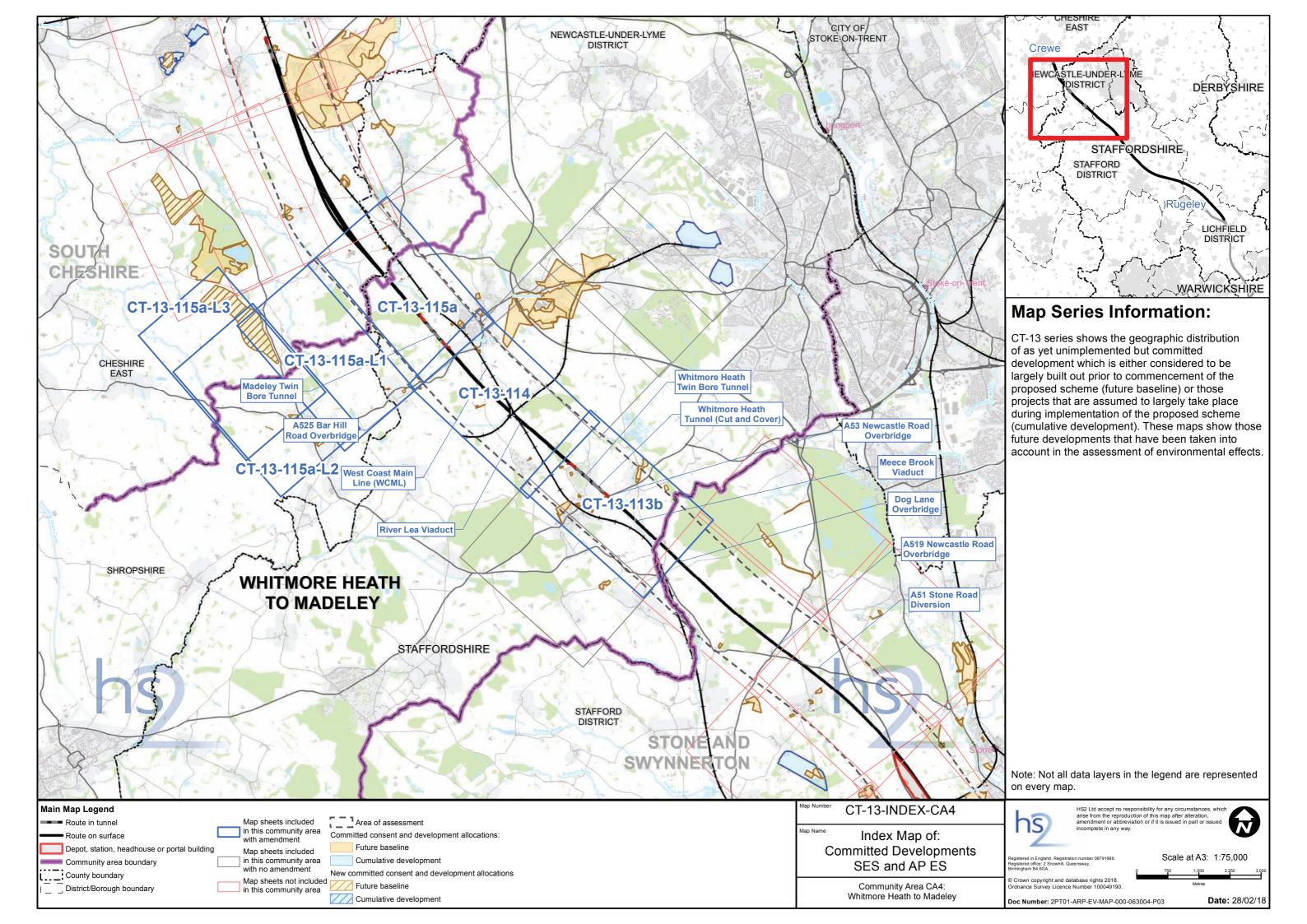


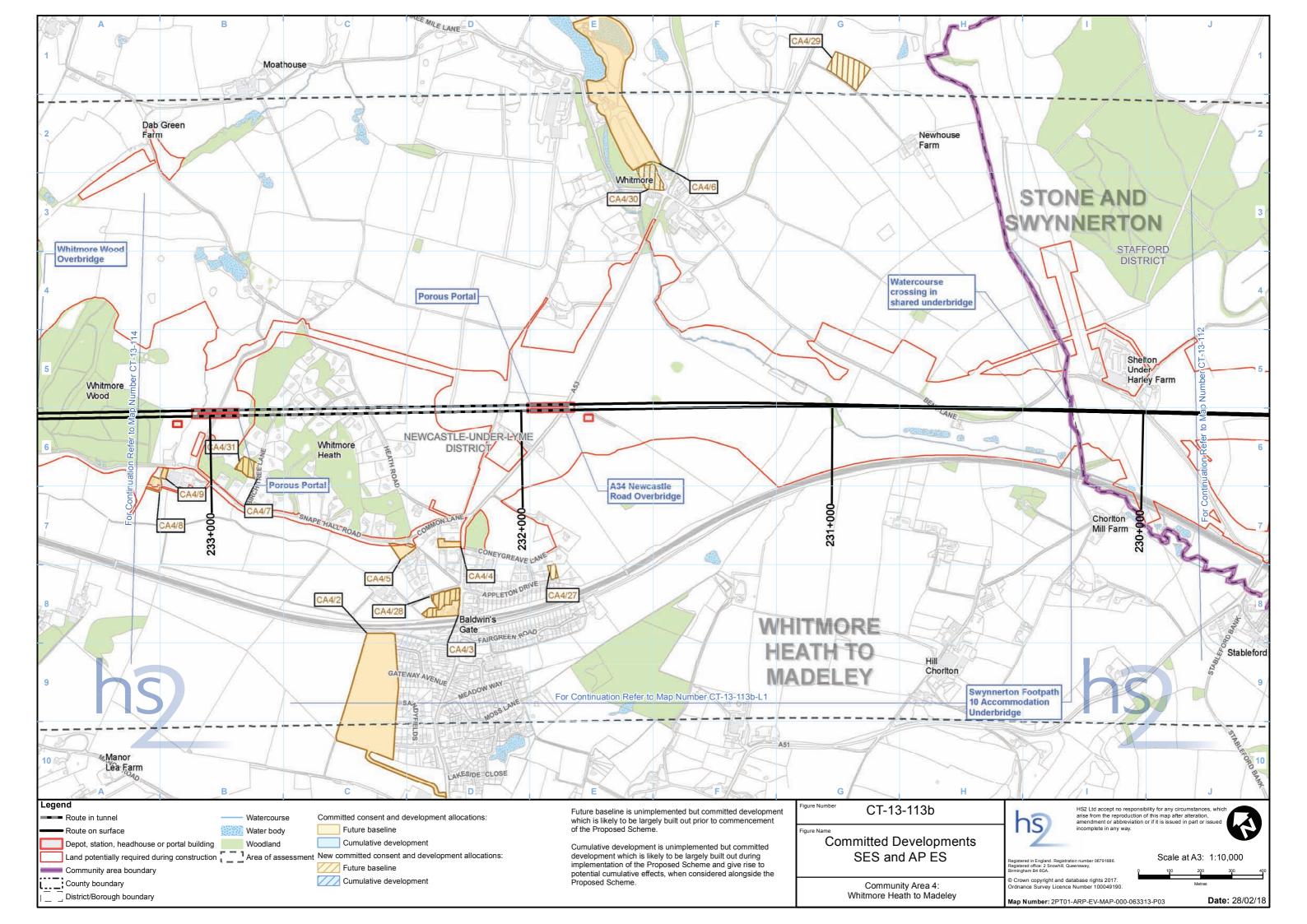


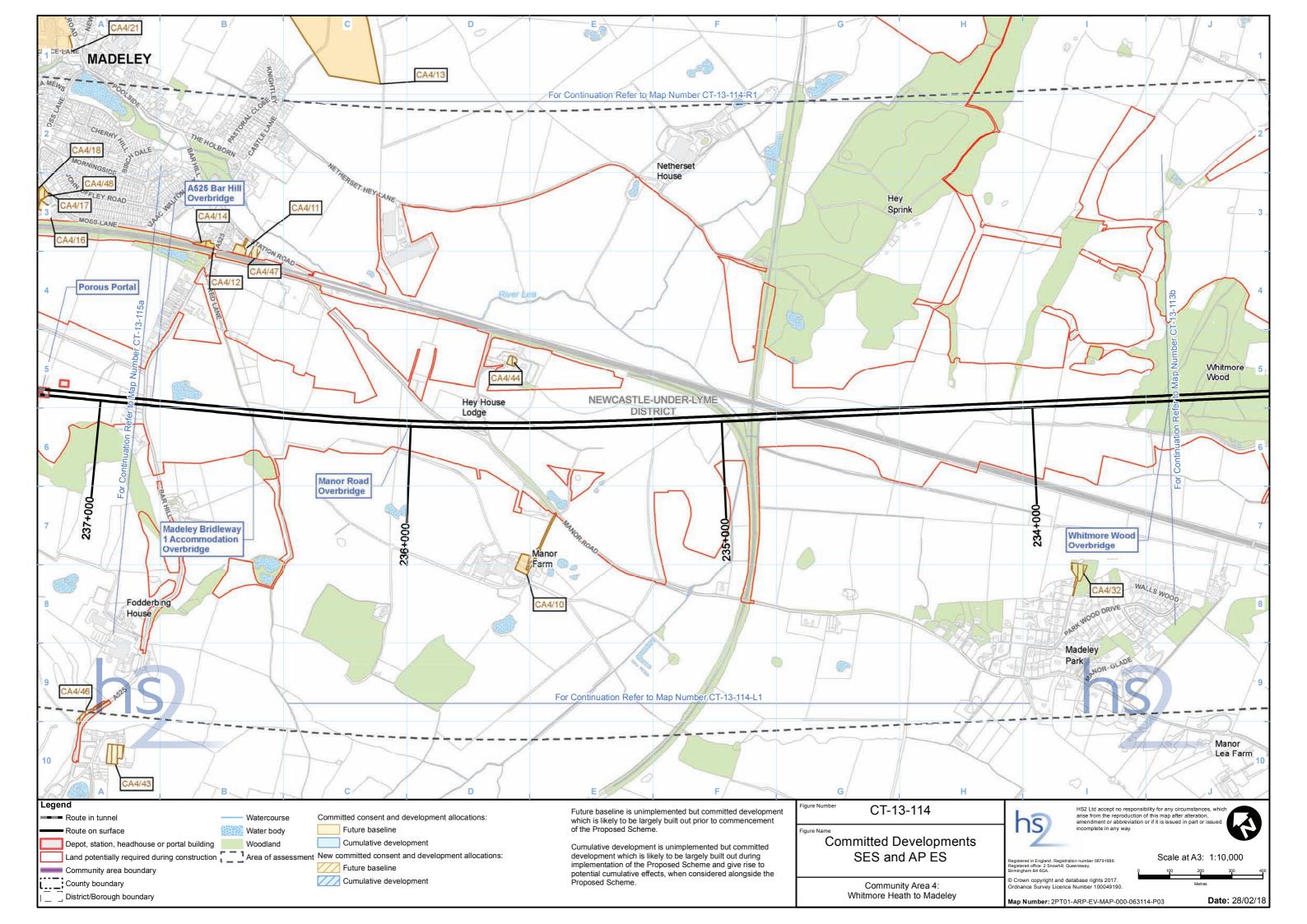


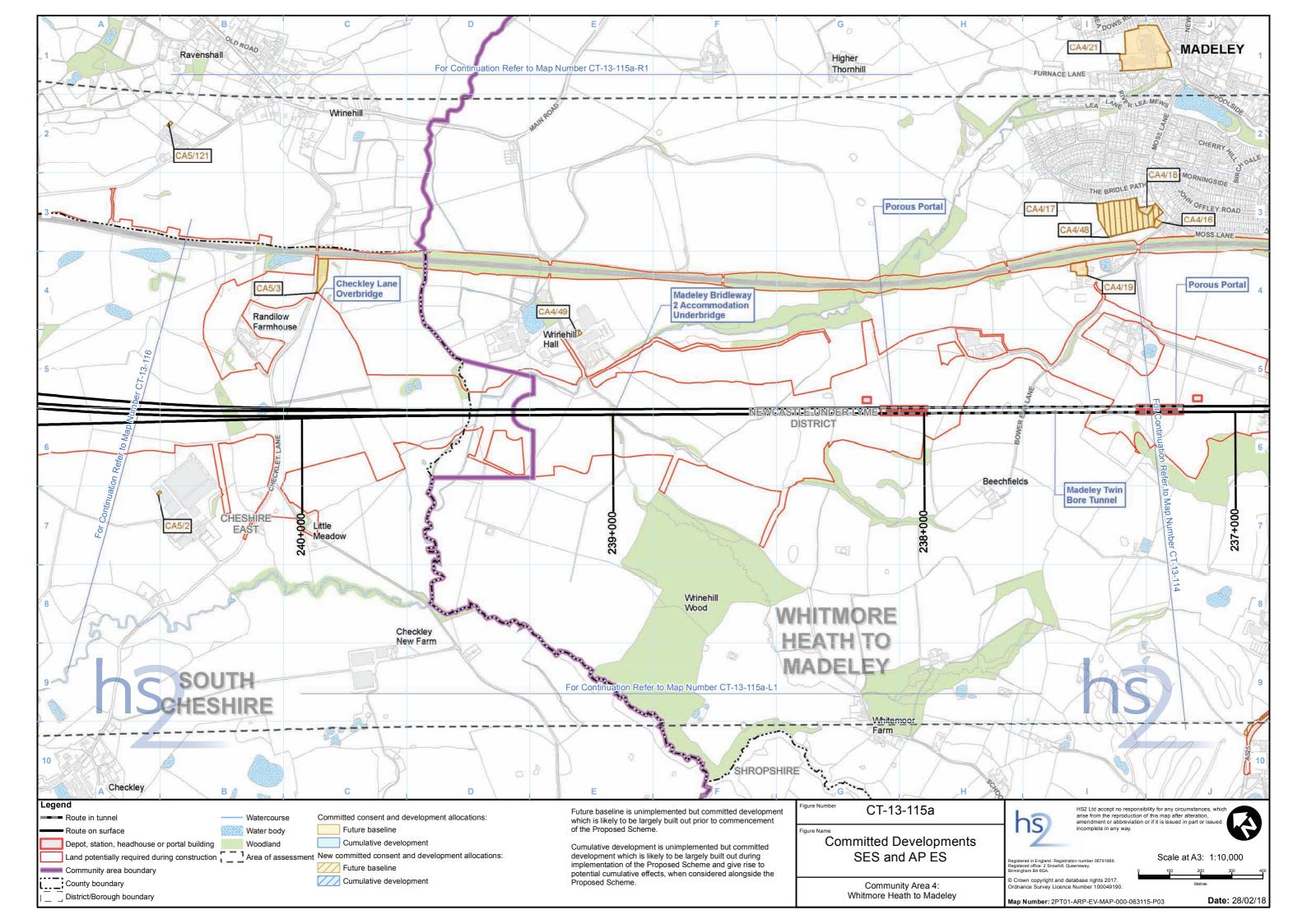
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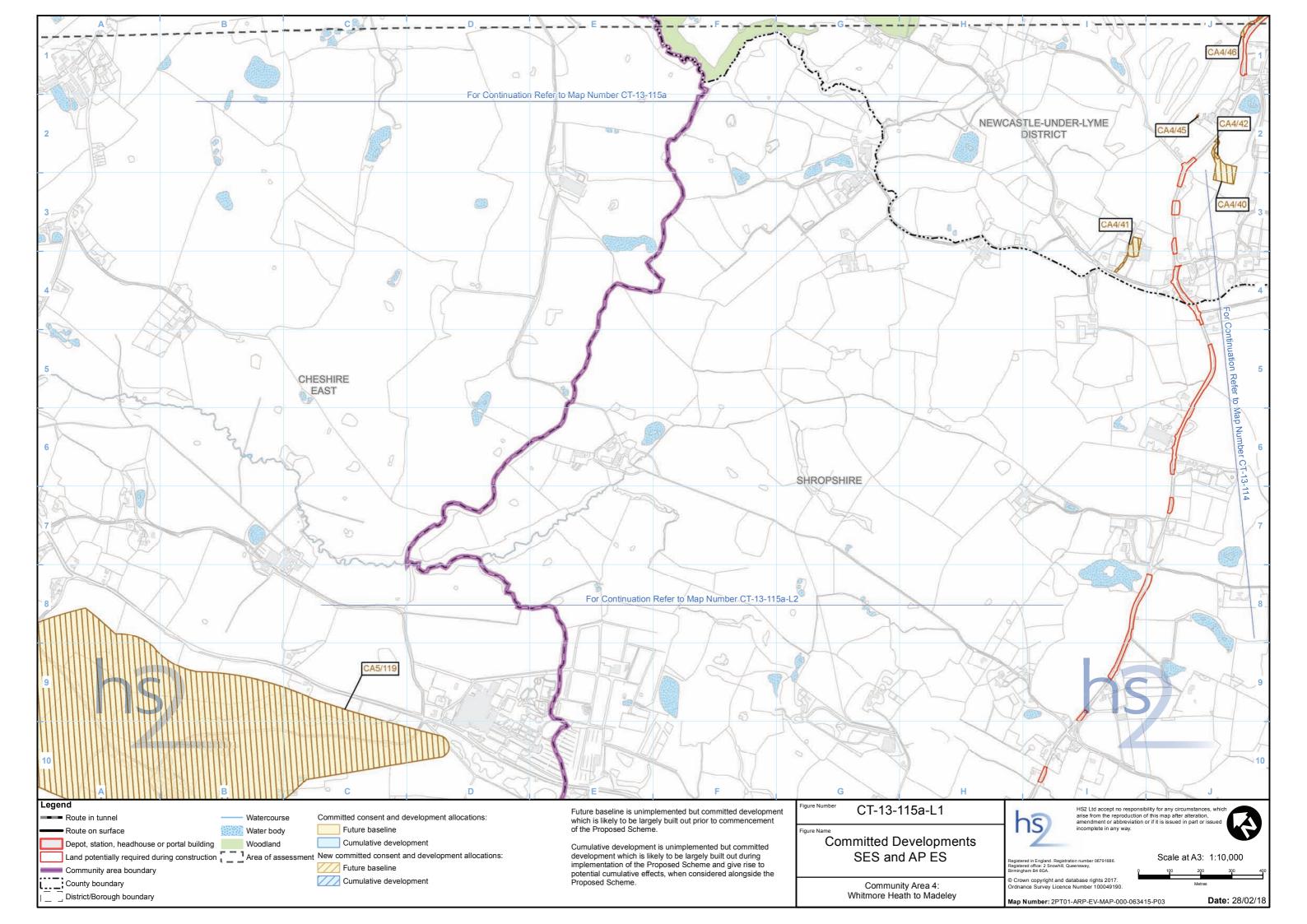
CA4 Whitmore Heath to Madeley CT-13 - Committed developments

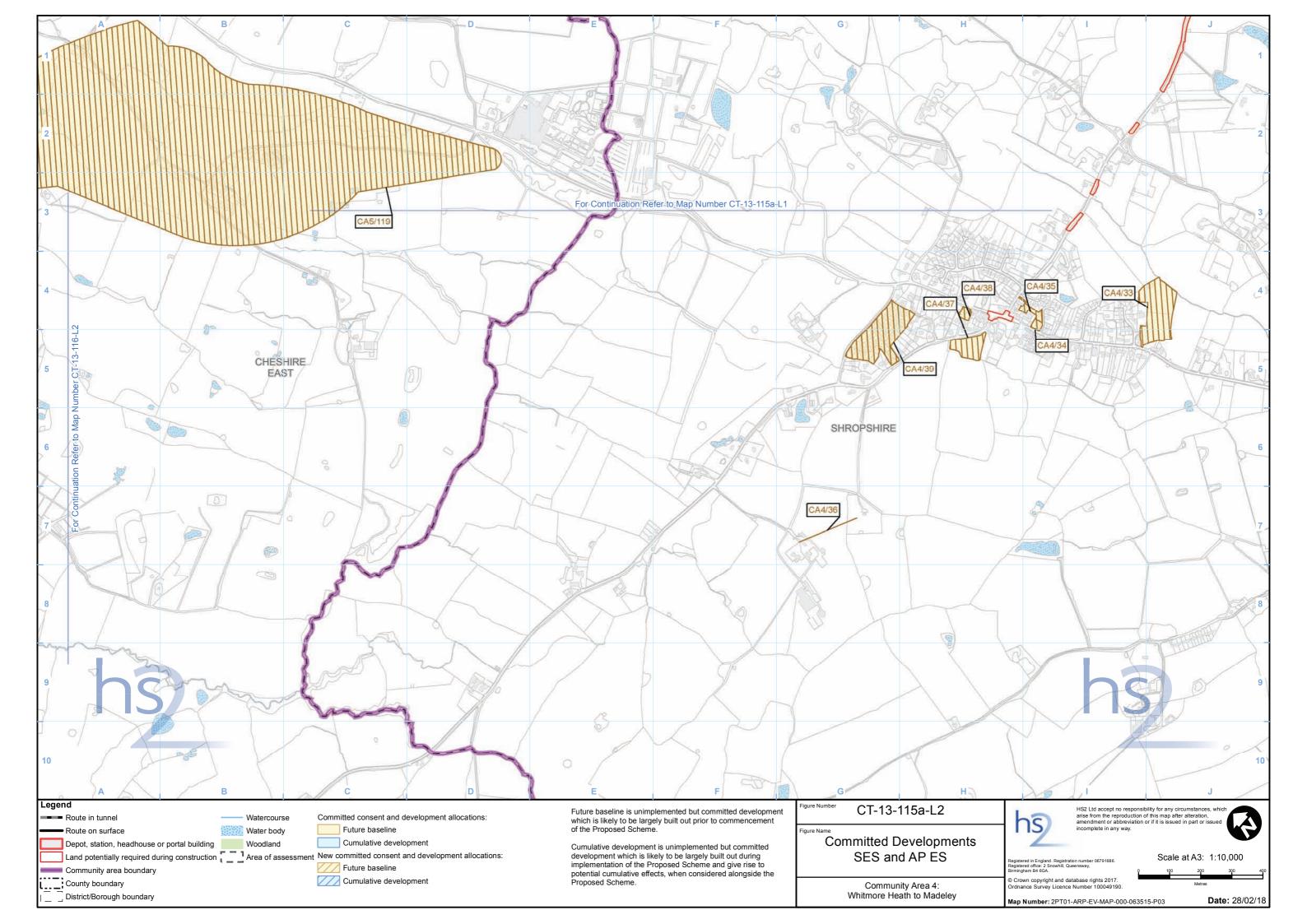


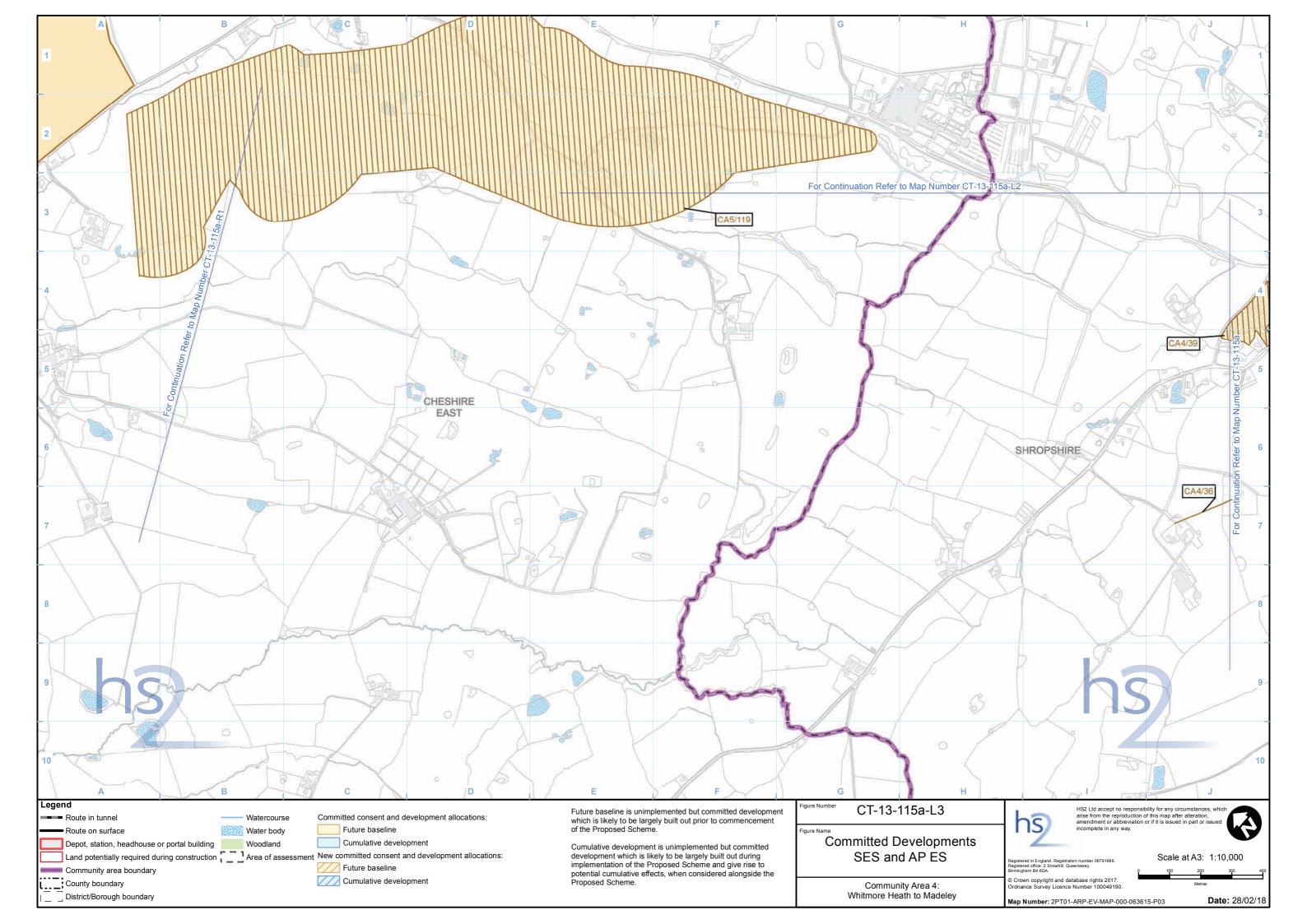




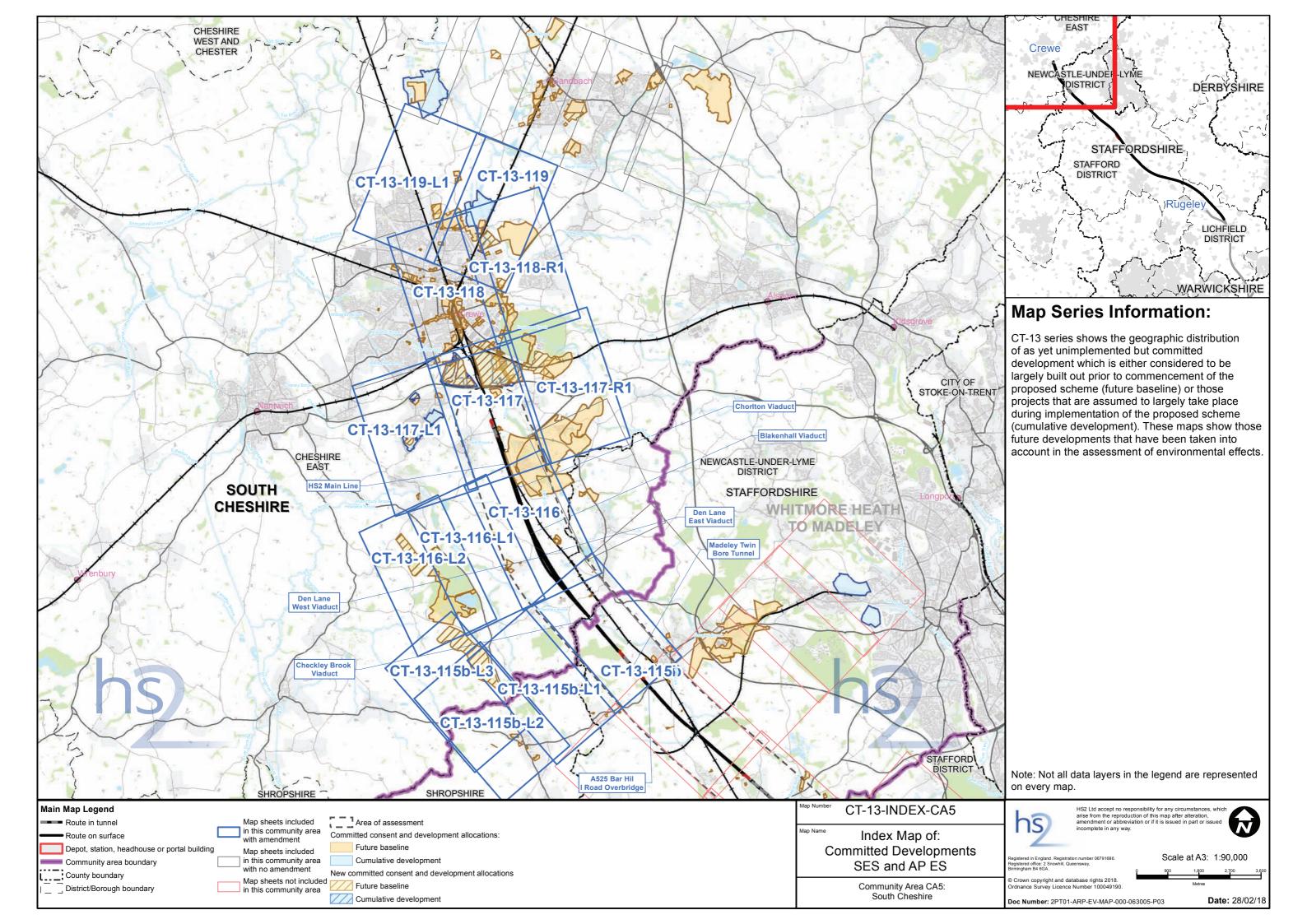


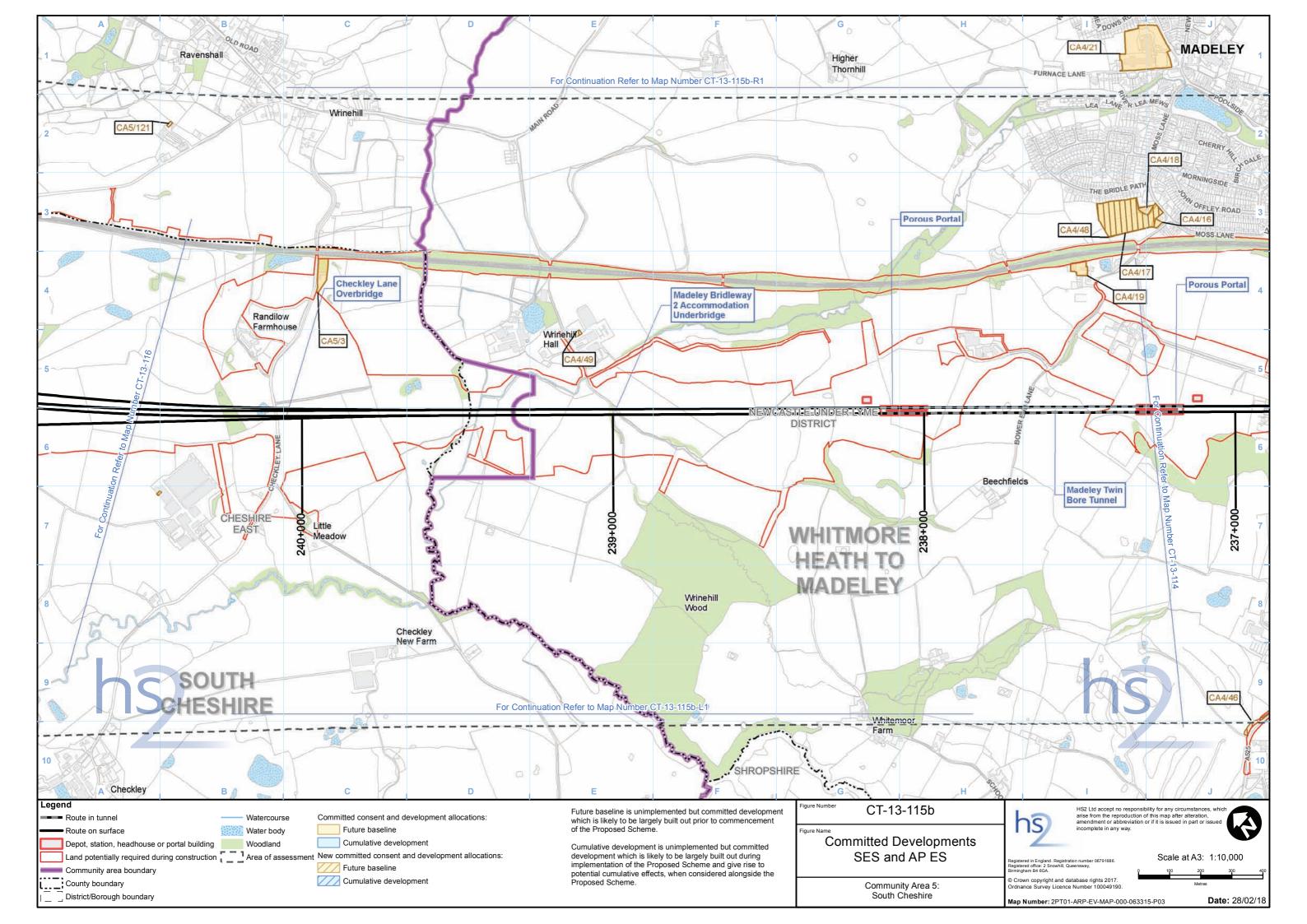


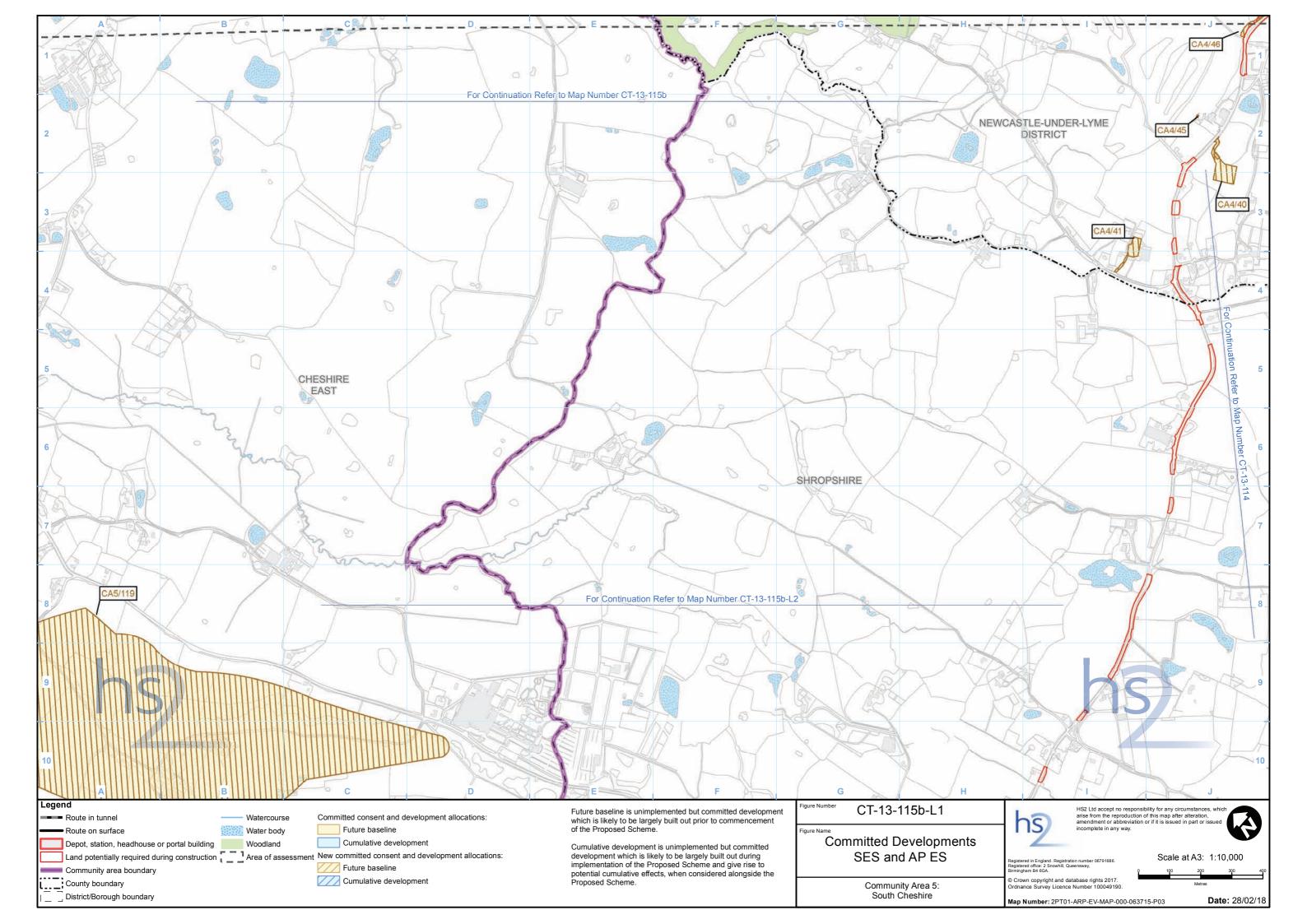


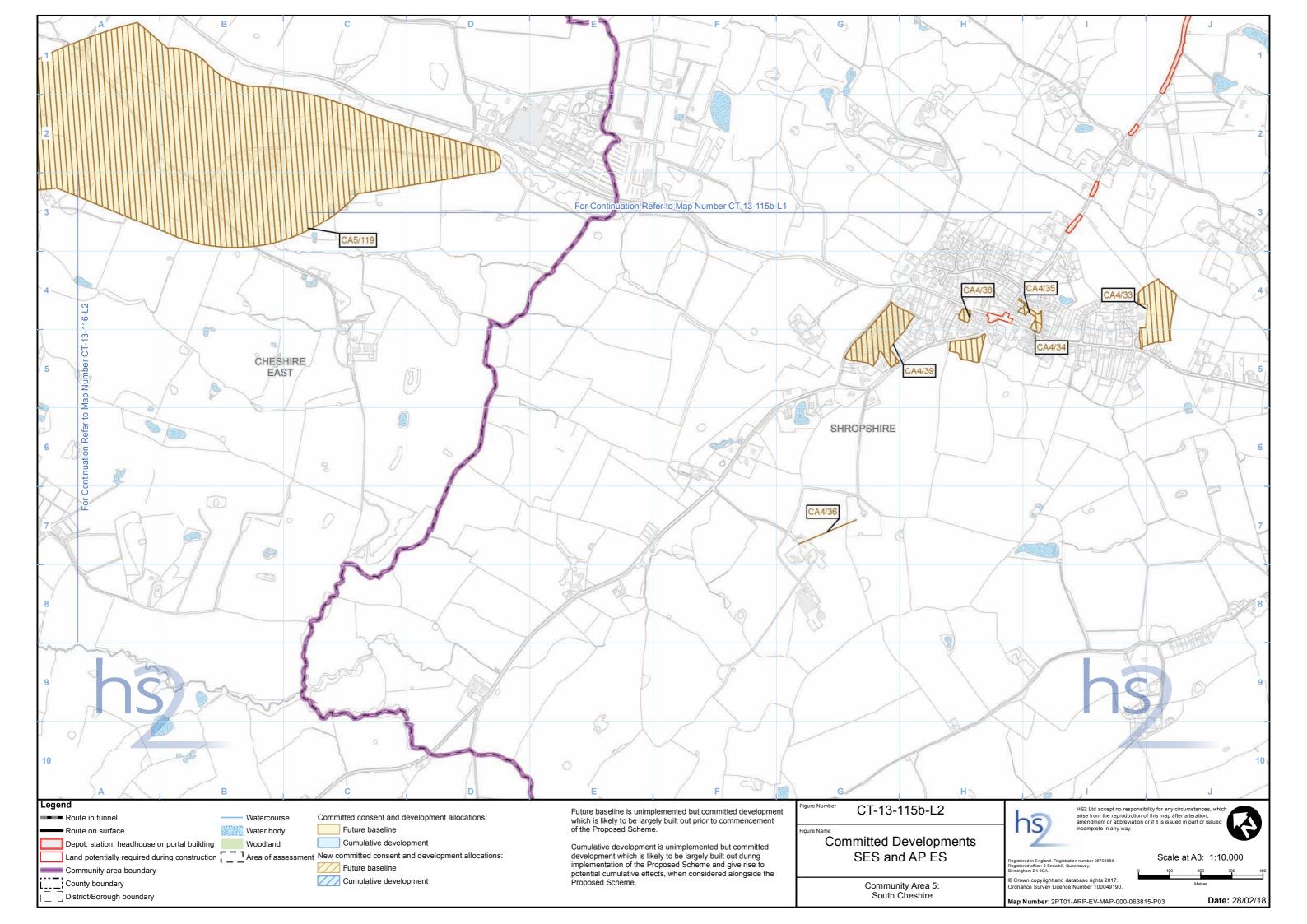


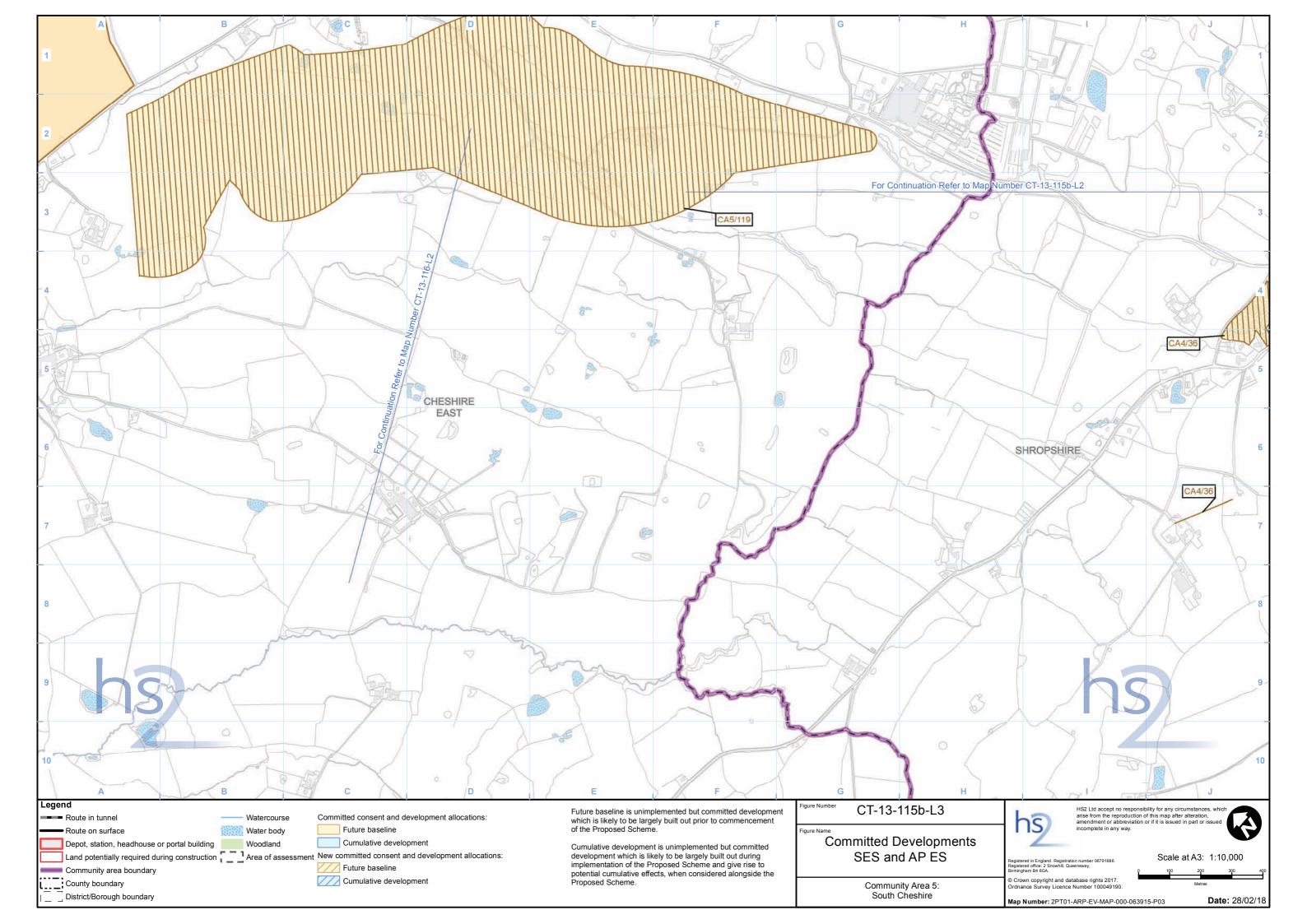
CA5 South Cheshire CT-13 - Committed developments

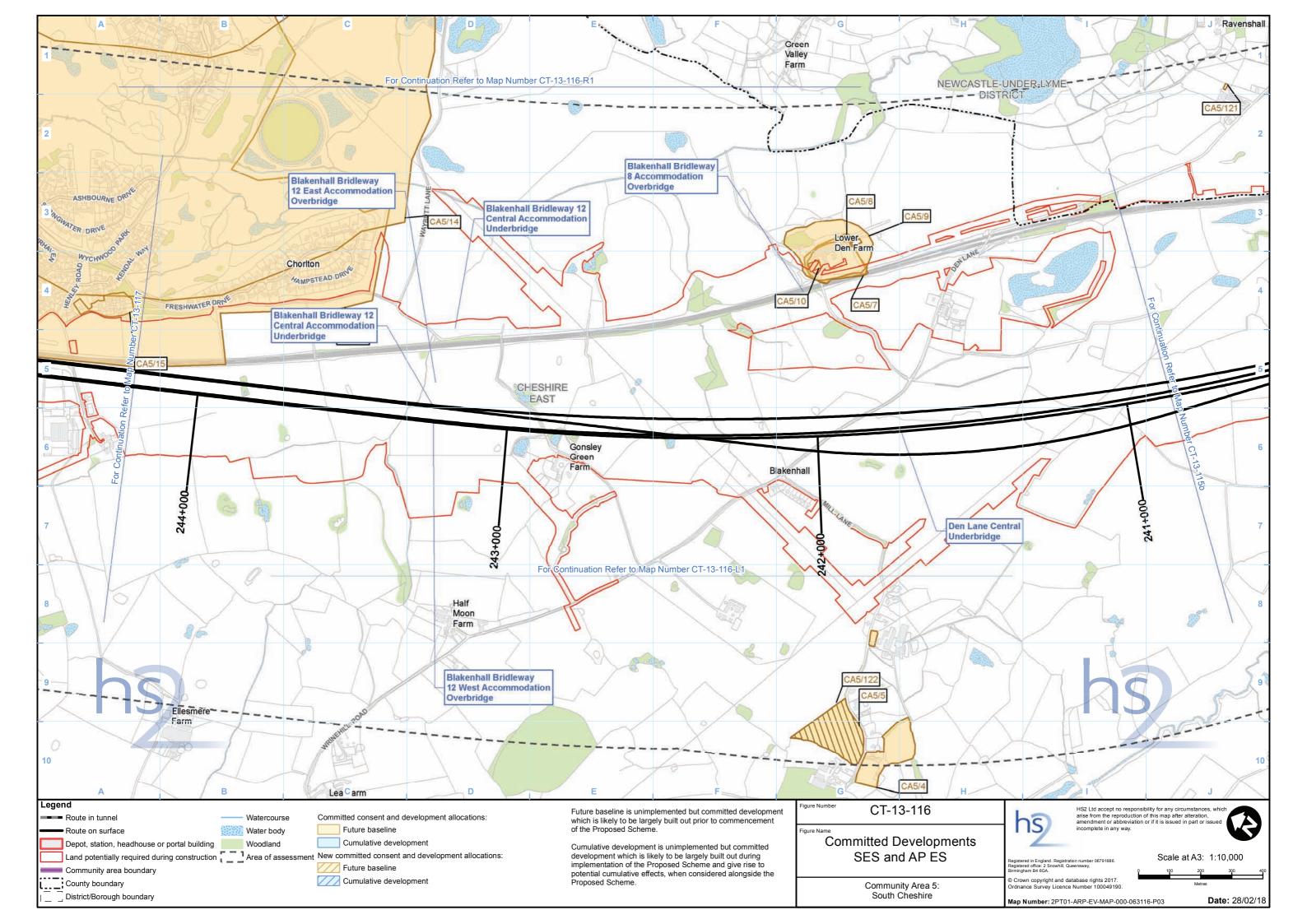


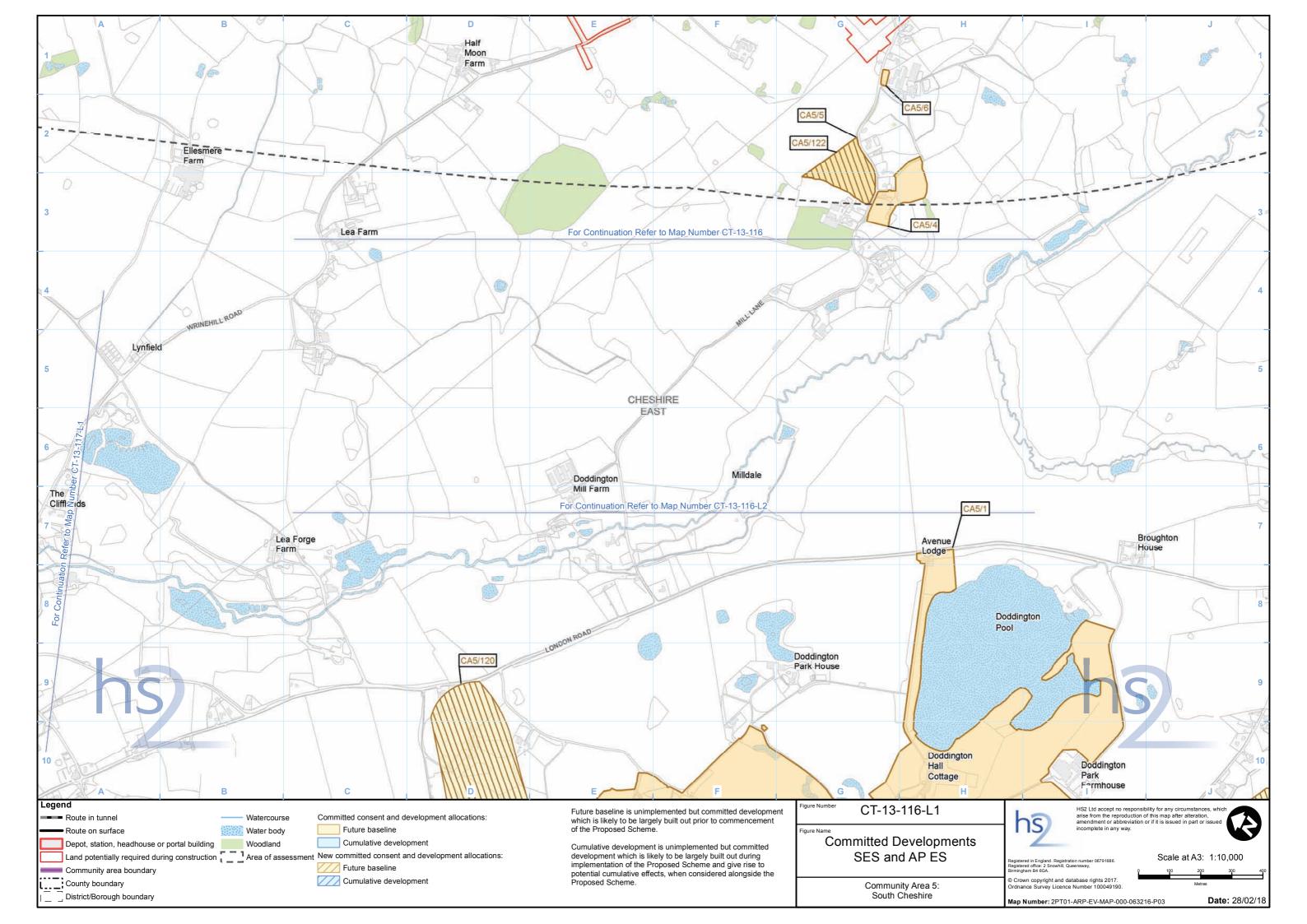


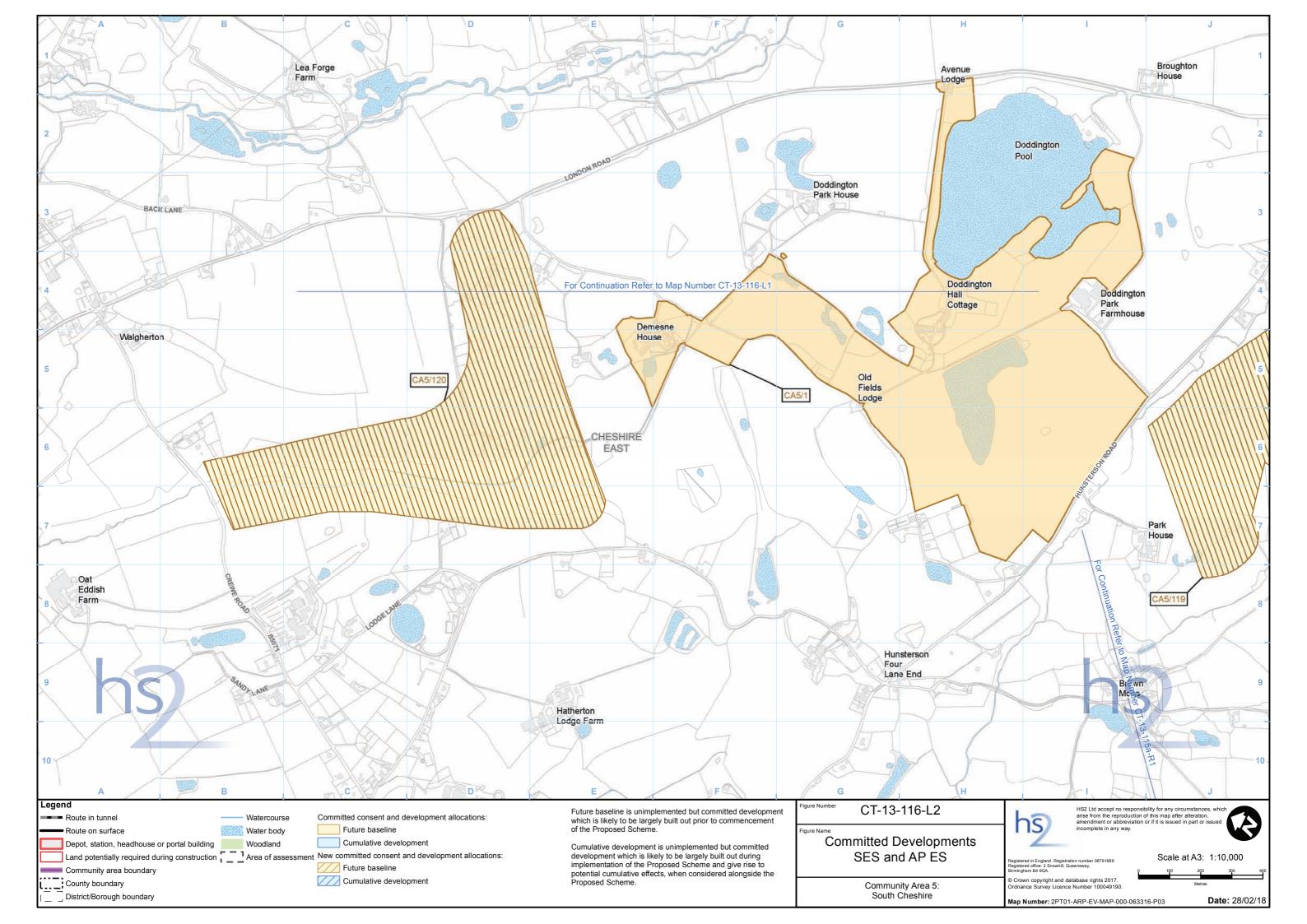


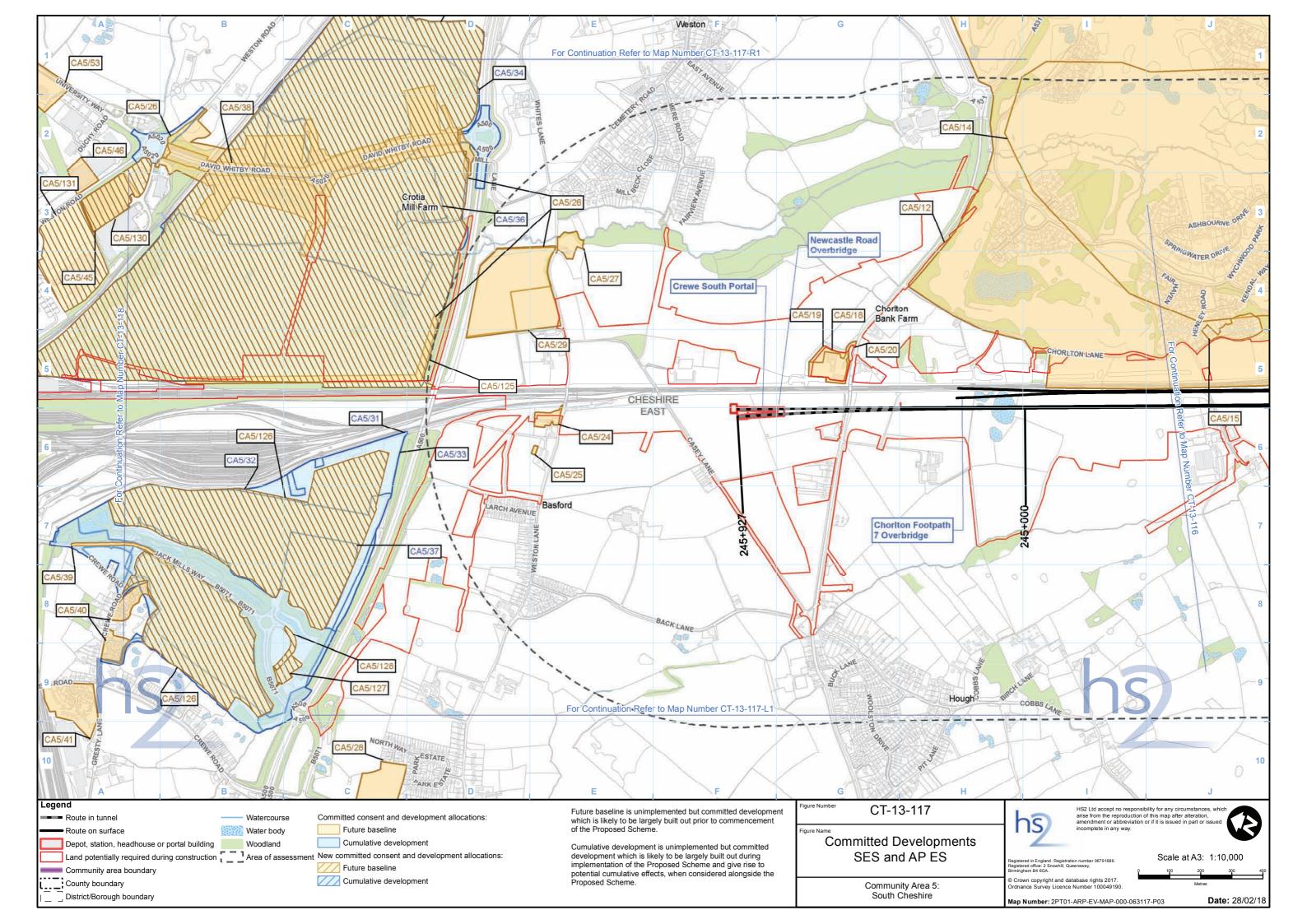


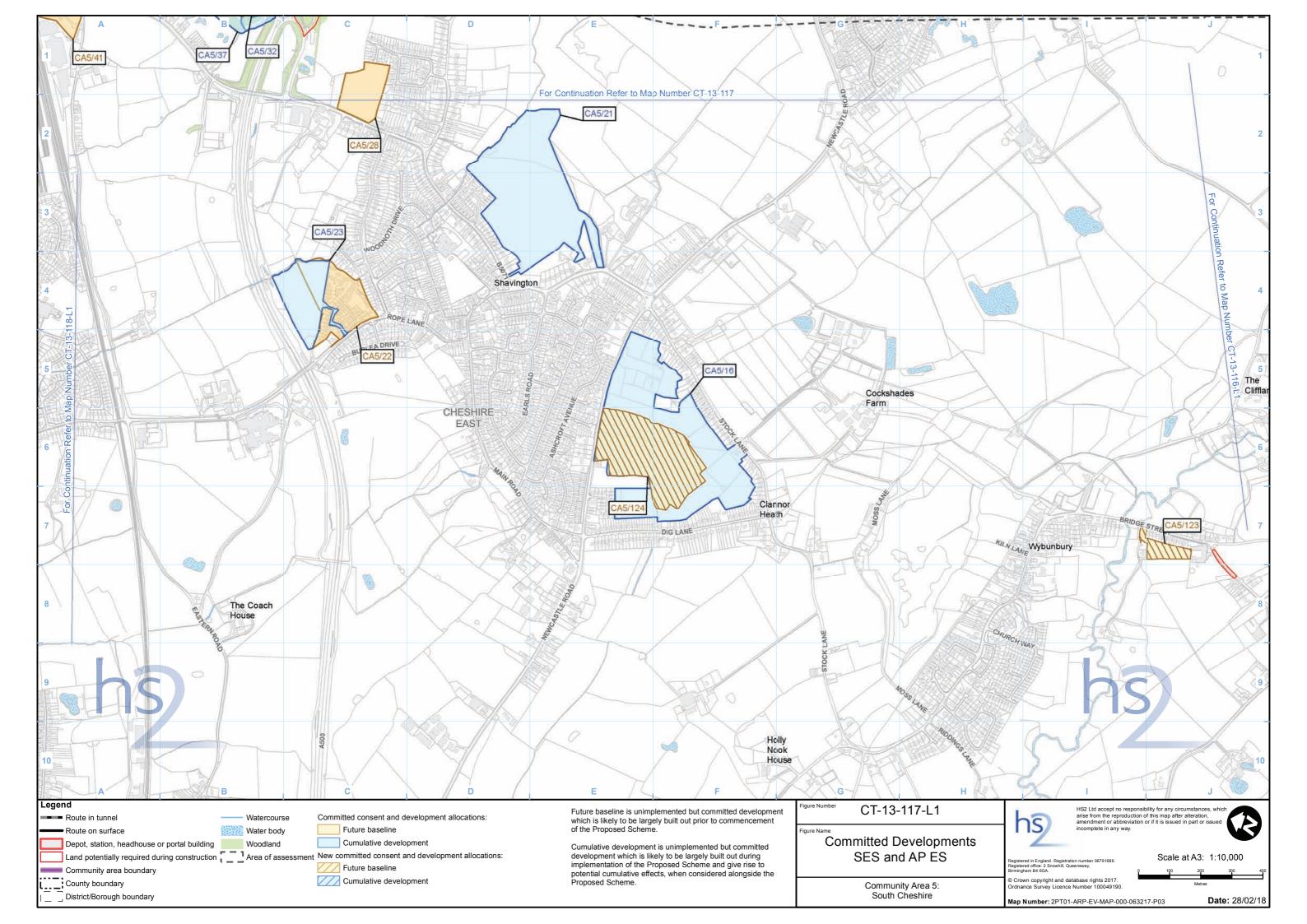


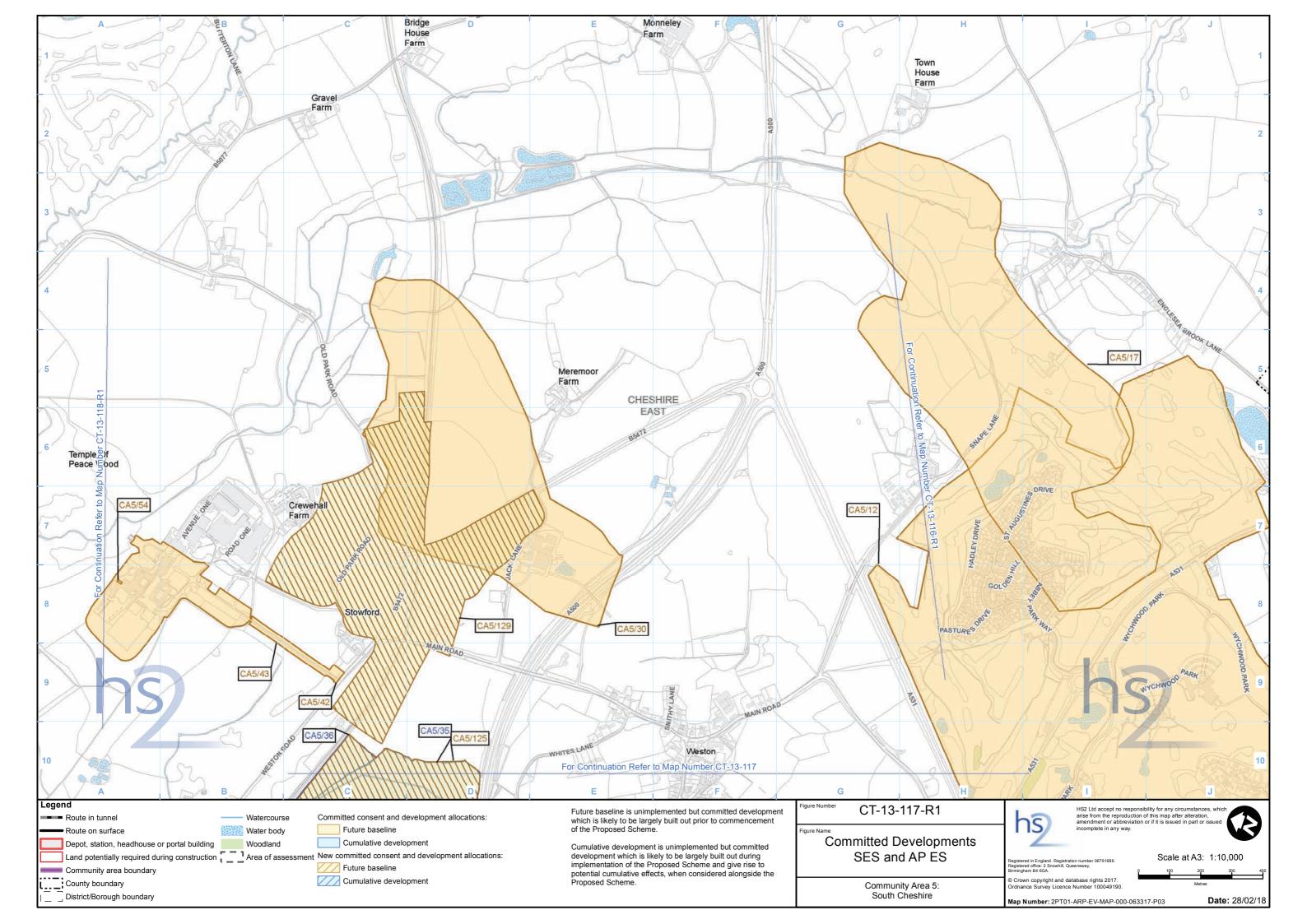


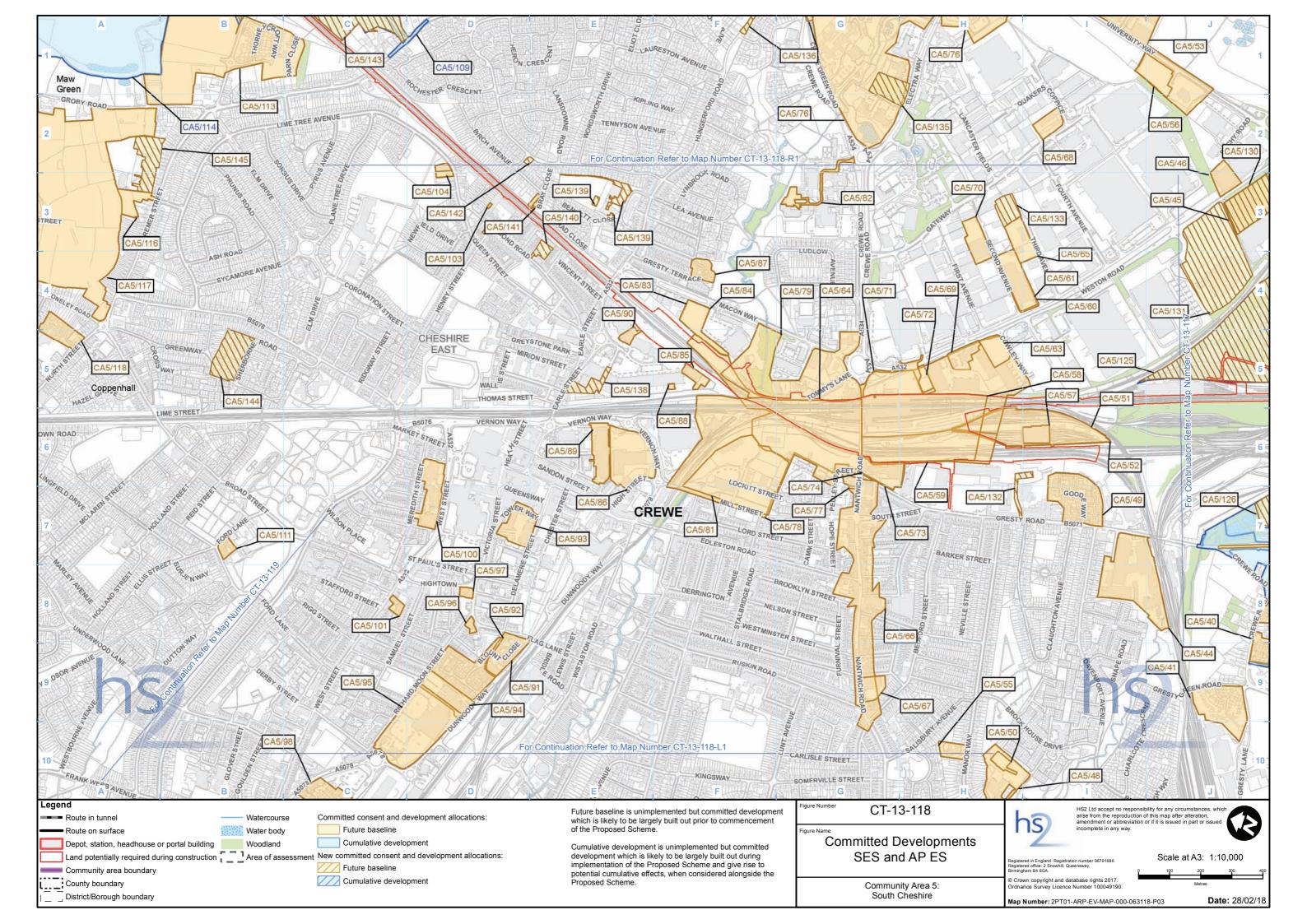


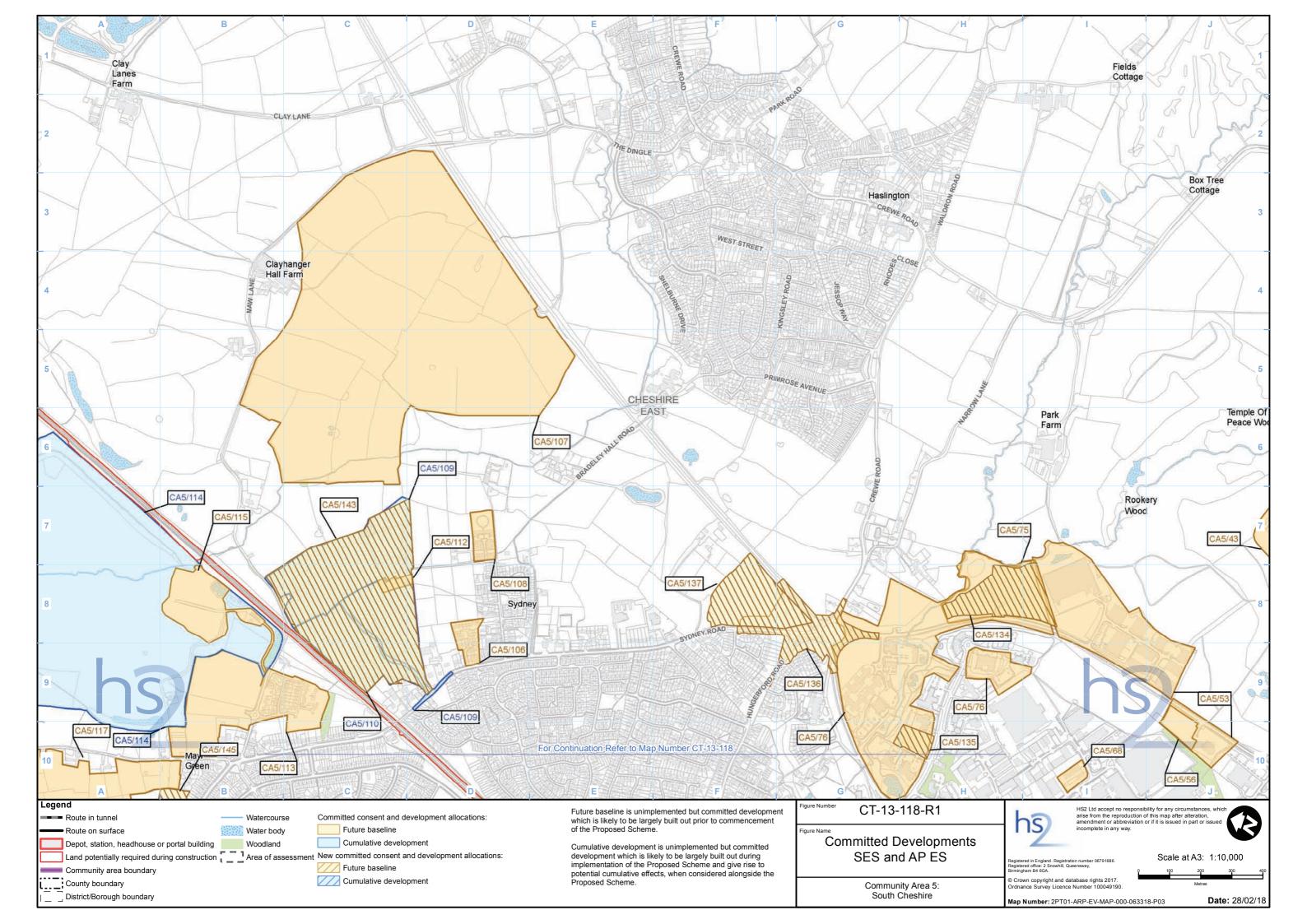


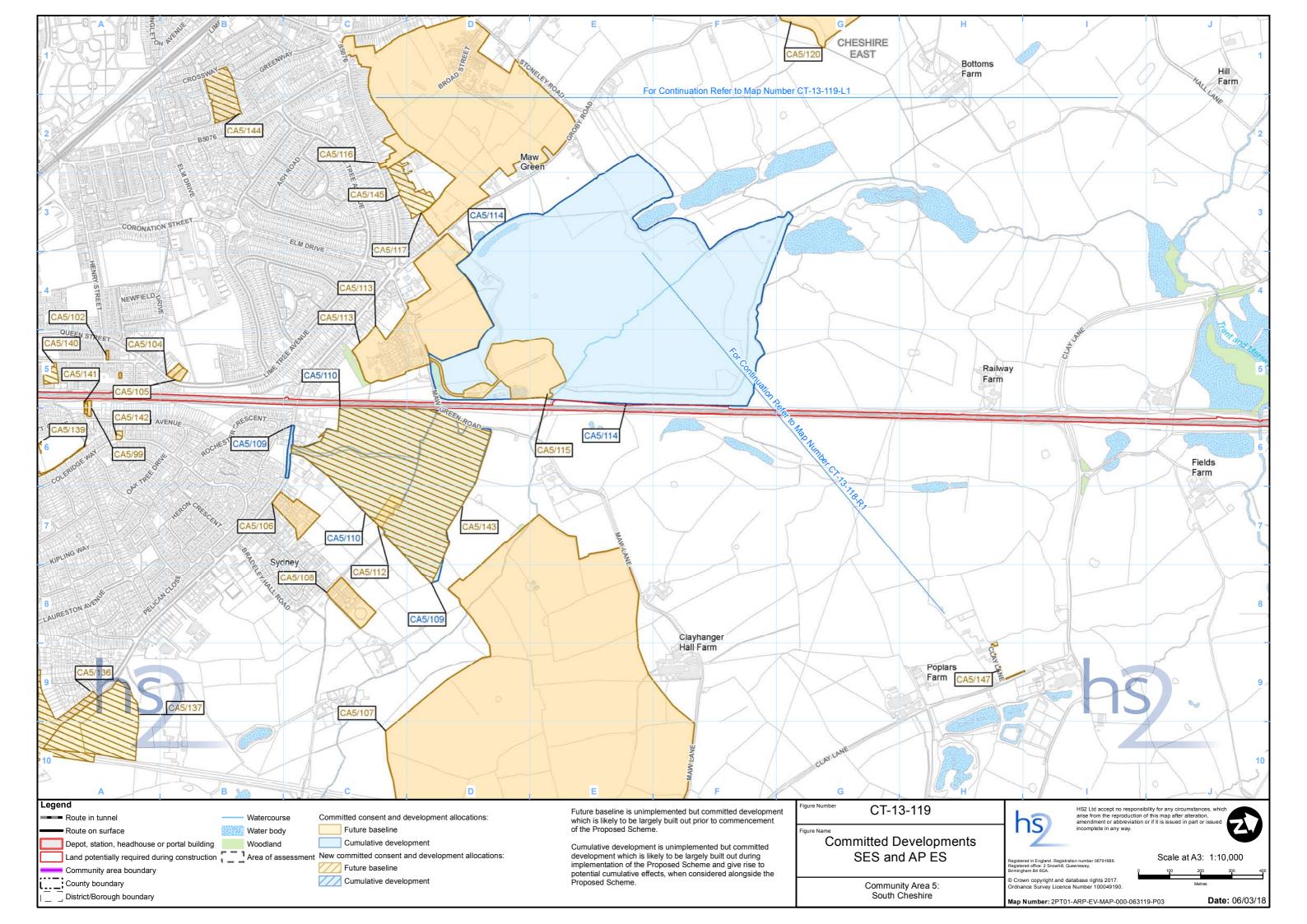


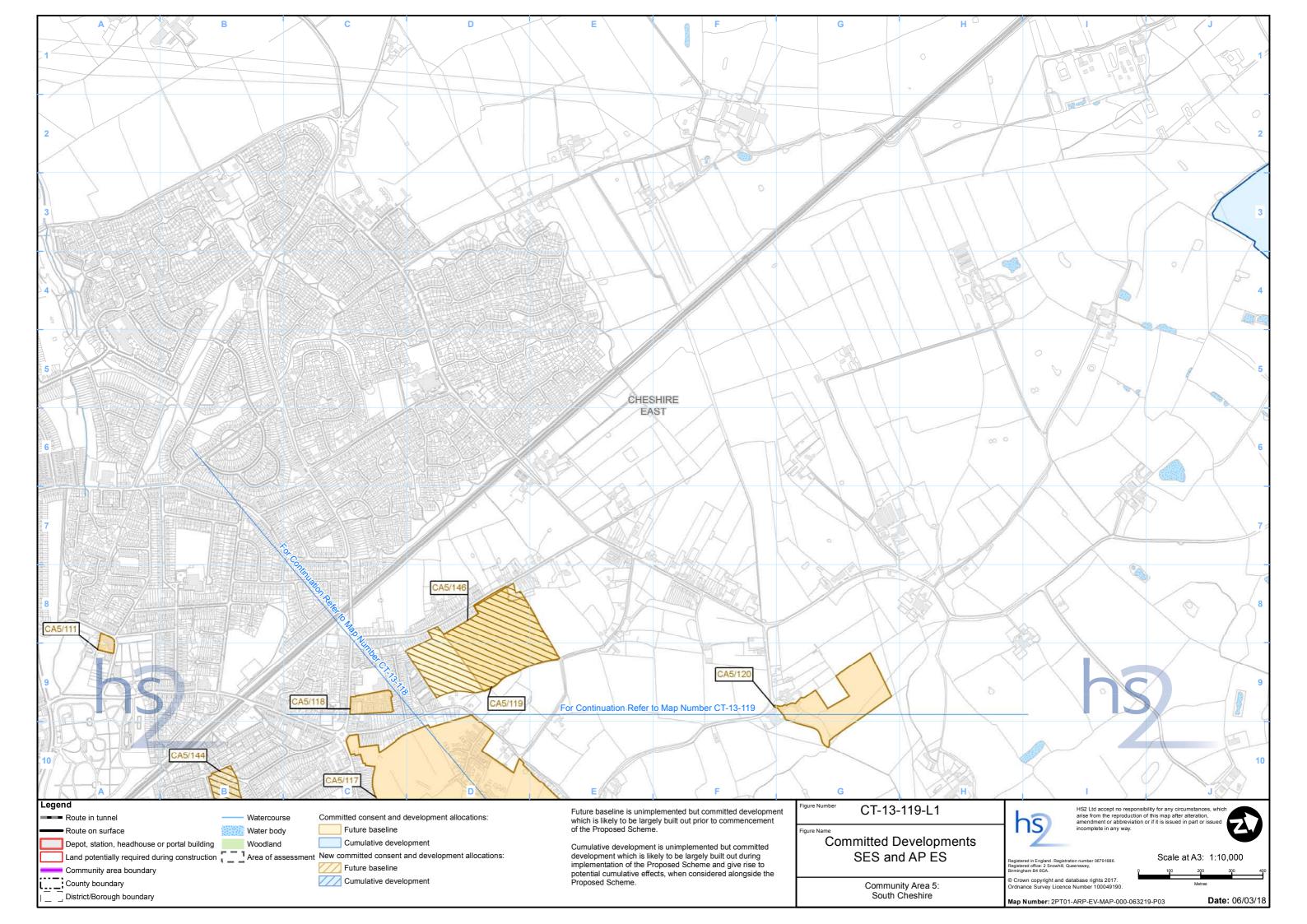












Landscape and visual (LV-07, LV-08)

Contents

Map series name	LV-07 - Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints	LV-08 - Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints
Map series description	Maps showing the construction phase zone of theoretical visibility (ZTV) and the viewpoint locations from which the visual assessment of the Proposed Scheme has been undertaken. (All significant and non-significant	Maps showing the operational phase year one and year fifteen zone of theoretical visibility (ZTV) and the viewpoint locations from which the visual assessment of the Proposed Scheme has been undertaken. (All significant and
Community Area name	photomontage locations are shown).	non-significant photomontage locations are shown).
CA1 Fradley to Colton	✓	✓
CA2 Colwich to Yarlet	×	×
CA ₃ Stone and Sywnnerton	×	×
CA ₄ Whitmore Heath to Madeley	×	×
CA ₅ South Cheshire	×	*

Legend features	Definition	Source	Copyright
5m contours	5m contour lines showing illustrating the surrounding topography.	GeoStore	©GeoPerspectives
Area of Outstanding Natural Beauty (AONB)	An Area of Outstanding Natural Beauty (AONB) is an area of high scenic quality which has statutory protection in order to conserve and enhance the natural beauty of its landscape. AONB landscapes range from rugged coastline to water meadows to gentle lowland and upland moors. Natural England has a statutory power to designate land as Areas of Outstanding Natural Beauty under the Countryside and Rights of Way Act 2000.	Natural England	© Natural England copyright 2017
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Construction compounds	Main construction compounds in which main contractors offices and welfare facilities will be located. Satellite construction compounds which serve local works for major construction elements within a main contract.	High Speed Two (HS2) Ltd	
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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	
Existing woodland and tree belts	A dataset showing large areas of trees that are likely to have an impact on whether the scheme is visible during construction and vegetation. It was used in the ZTV as part of the base models.	High Speed Two (HS2) Ltd	
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	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	

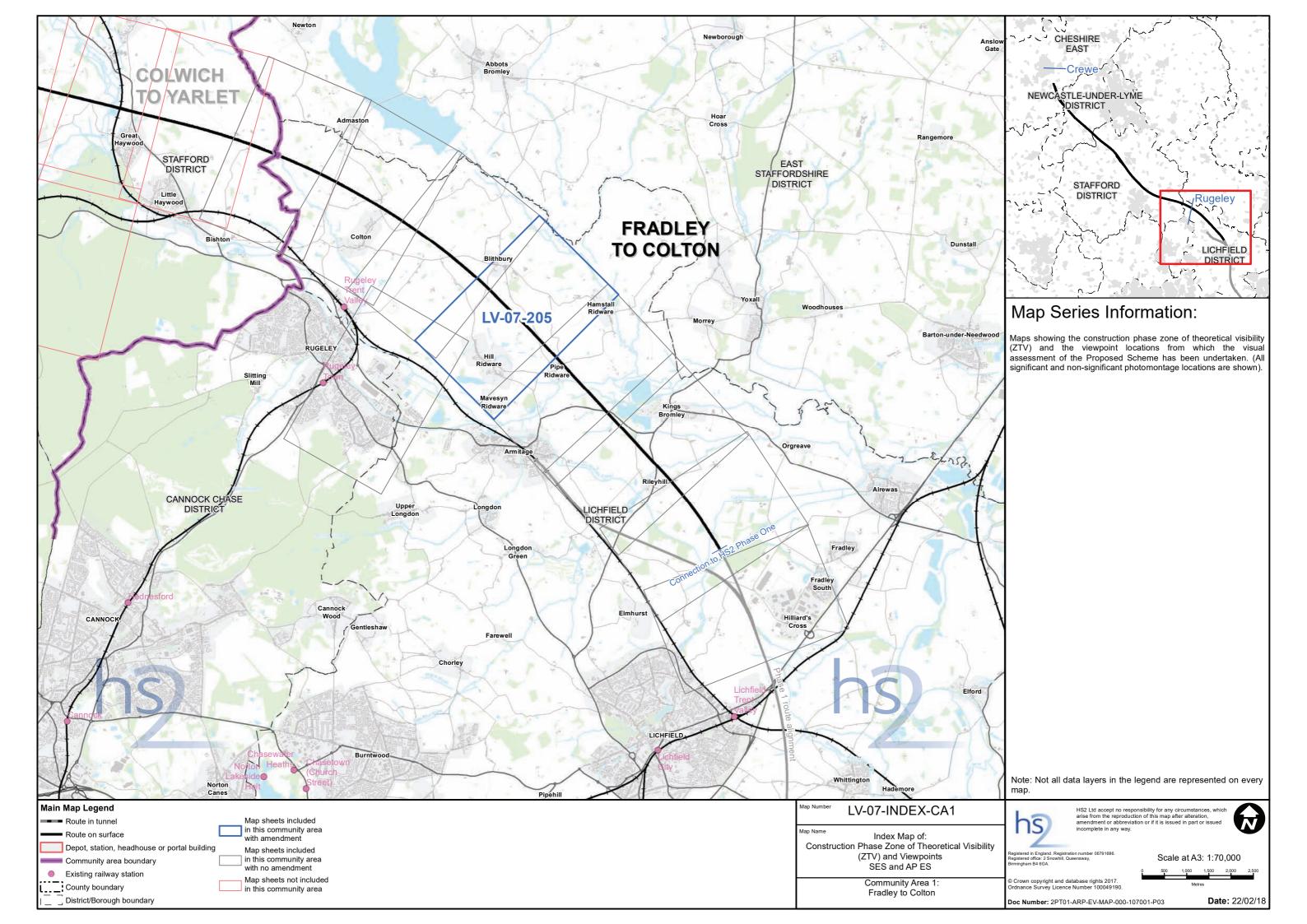
Legend features	Definition	Source	Copyright
Photomontage location	Shows the locations from which verifiable photomontages have been produced. The locations are based on a fully surveyed point.	High Speed Two (HS2) Ltd	
Proposed tree planting	A dataset showing proposed planting that may have an impact 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 Rights of Way (PRoW)	Public rights of way are highways which can be used for the following purposes: - Footpaths - pedestrian's 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.	Staffordshire County Council Cheshire East Council	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form. © Staffordshire County Council © Cheshire East Council
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	
Significantly affected viewpoint Non 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	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Zone of Theoretical Visibility (ZTV) construction	This is a computer generated model showing areas of land within which the activities undertaken during the construction of the scheme may be theoretically visible. ZTV has been used as a tool for identifying likely areas for survey and assessment based on initial scheme design.	High Speed Two (HS2) Ltd	
Zone of Theoretical Visibility (ZTV) operation year 1	This is a computer generated model showing areas of land within which the scheme may be theoretically visible on day 1 of operation.	High Speed Two (HS2) Ltd	
Zone of Theoretical Visibility (ZTV) operation year 15	This is a computer generated model showing areas of land within which the scheme may be theoretically visible after 15 years of operation by incorporating an assumed height of 7.5 metres for any mitigation planting.	High Speed Two (HS2) Ltd	

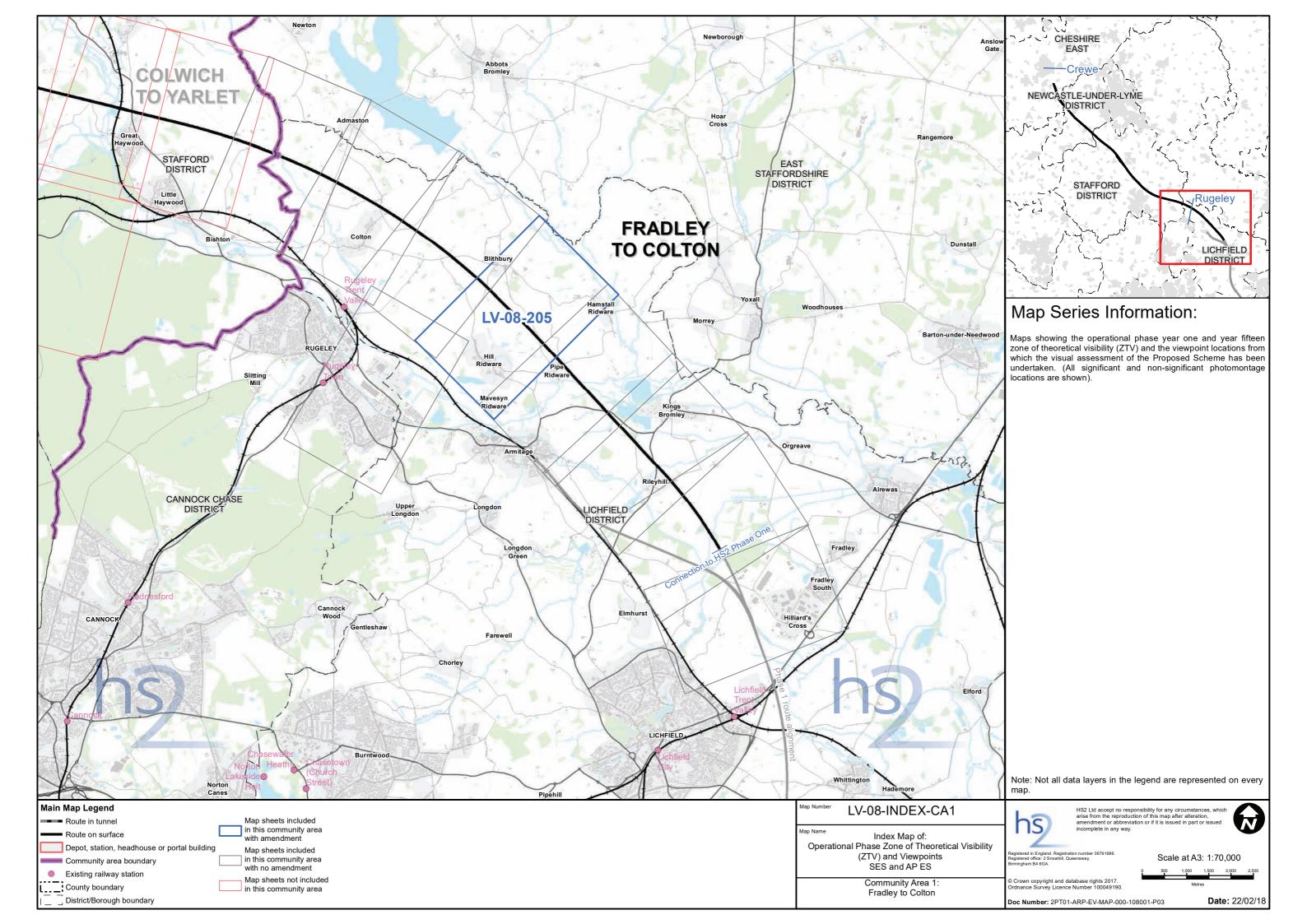
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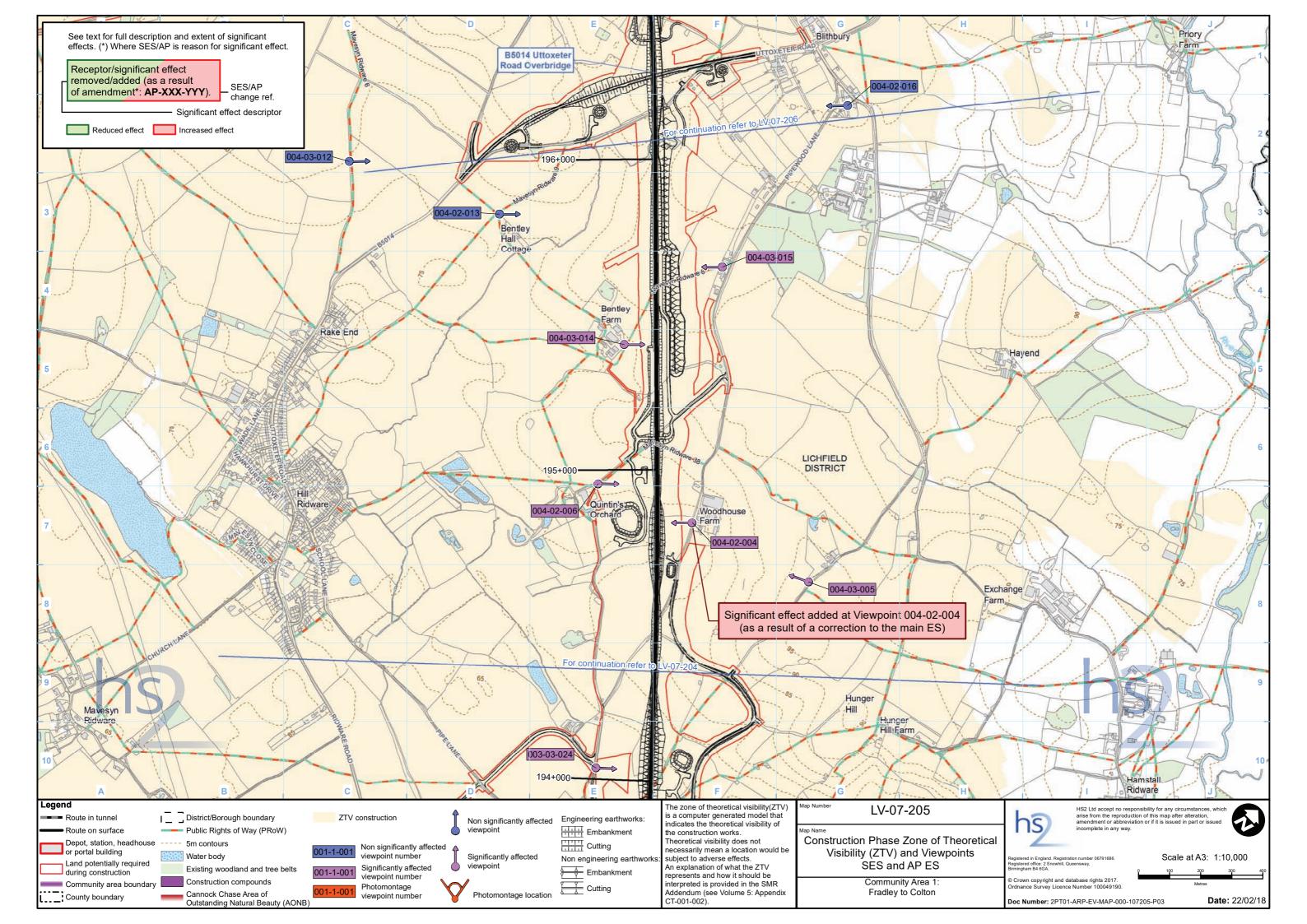
CA1 Fradley to Colton

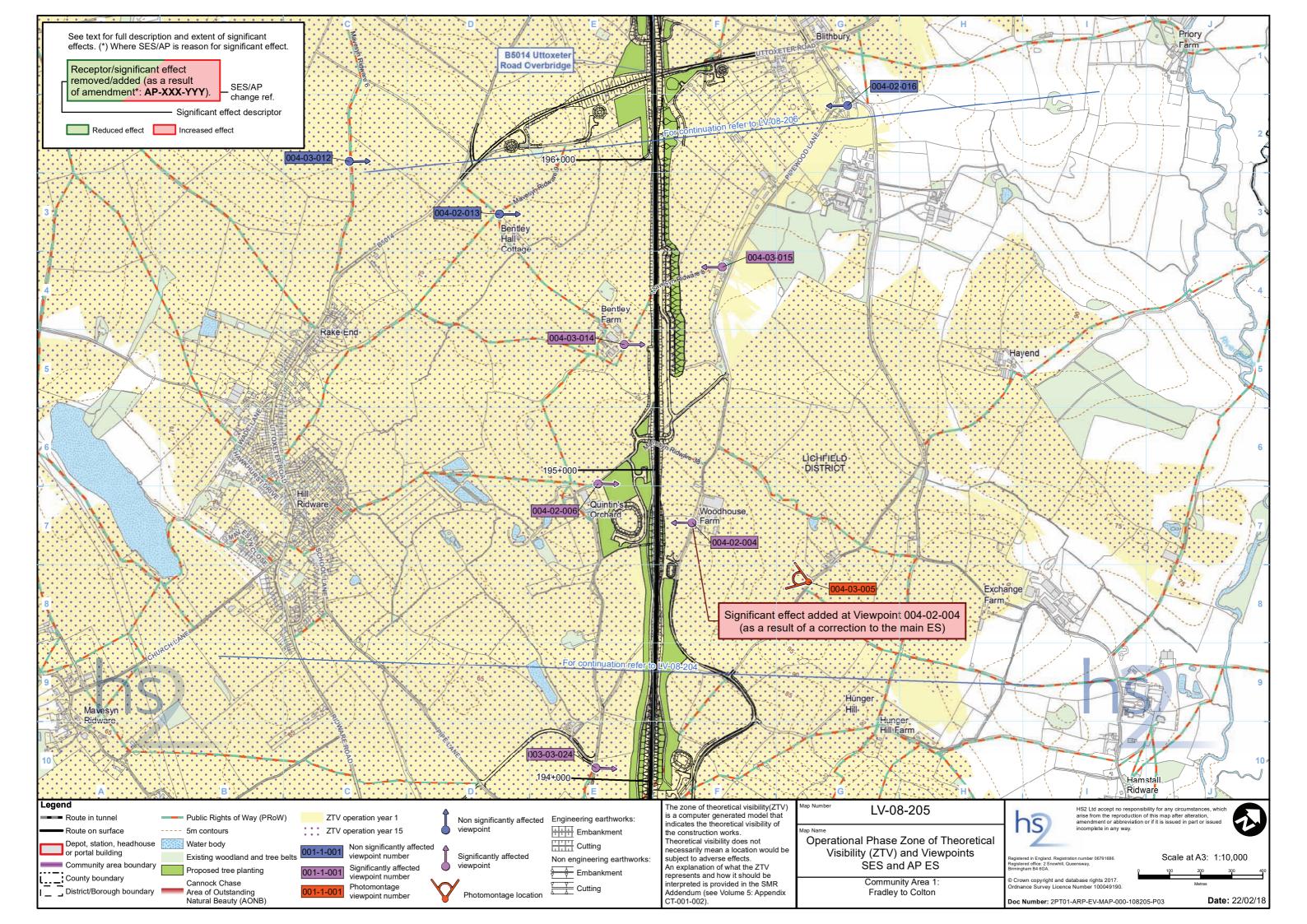
LV-07 - Construction phase Zone of Theoretical Visibility (ZTV) and viewpoints

LV-08 - Operational phase Zone of Theoretical Visibility (ZTV) and viewpoints









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Sound, noise and vibration (SV-01, SV-02)

Contents

Map series name	SV-01 - Operational Sound Contour Maps and Likely Significant Effects	SV-02 - Operational Noise and Vibration Impacts and Likely Significant Effects (with Assessment Locations)
Map series description	SV -01 presents the predicted operational sound from the new railway. The sound levels from the new railway (expressed as LpAeq,T) are presented in typical noise mapping colours in 5 dB steps. There is a panel at the top right of the figure; the left-hand section of this panel contains a key communicating the night-time and daytime sound levels represented by the various colours. The right-hand part of the same panel contains text explaining how the sound levels presented on the figure inform the assessment of direct noise impacts and likely significant effects. A corresponding and similar panel is found on SV-02, along with the key sound contours that were used within the	SV-02 presents the direct operational noise impacts and likely significant effects of the Proposed Scheme. The SV-02 figure series necessarily contains a large amount of information relating to the operational noise and vibration assessment. It is designed to communicate visually the assessment process from the prediction of impacts to the determination of likely residual significant effects. The corresponding text is included in Vol2 and Vol5.
Community Area name	environmental assessment.	
CA1 Fradley to Colton	✓	✓
CA2 Colwich to Yarlet	×	×
CA ₃ Stone and Sywnnerton	×	×
CA ₄ Whitmore Heath to Madeley	×	×
CA ₅ South Cheshire	×	×

Legend features	Definition	Source	Copyright
1km 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	
Airborne sound and vibration assessment location	Locations near surface sections of the route at which a quantitative assessment of airborne sound and ground-borne vibration impacts due to the operation of the Proposed Scheme has been carried out. These are labelled with an assessment location reference code to enable cross-reference to the operational sound and vibration reports contained in Volume 5: Appendix SV-004.	High Speed Two (HS2) Ltd	
Airborne sound assessment location	Locations at which a quantitative assessment of airborne sound impacts due to the operation of the Proposed Scheme has been carried out. These are labelled with an assessment location reference code to enable cross-reference to the operational sound and vibration reports contained in Volume 5: Appendix SV-004.	High Speed Two (HS2) Ltd	
Airborne sound, ground-borne sound and vibration assessment location	Locations at which a quantitative assessment of airborne sound, ground-borne sound and vibration impacts due to the operation of the Proposed Scheme has been carried out. These are labelled with an assessment location reference code to enable cross-reference to the operational sound & vibration reports contained in Volume 5: Appendix SV-004.	High Speed Two (HS2) Ltd	
Committed developments – SV Only	This informs the assessment of the future baseline. A development consent or allocation that has full or outline planning permission, or is allocated in an adopted development plan.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to

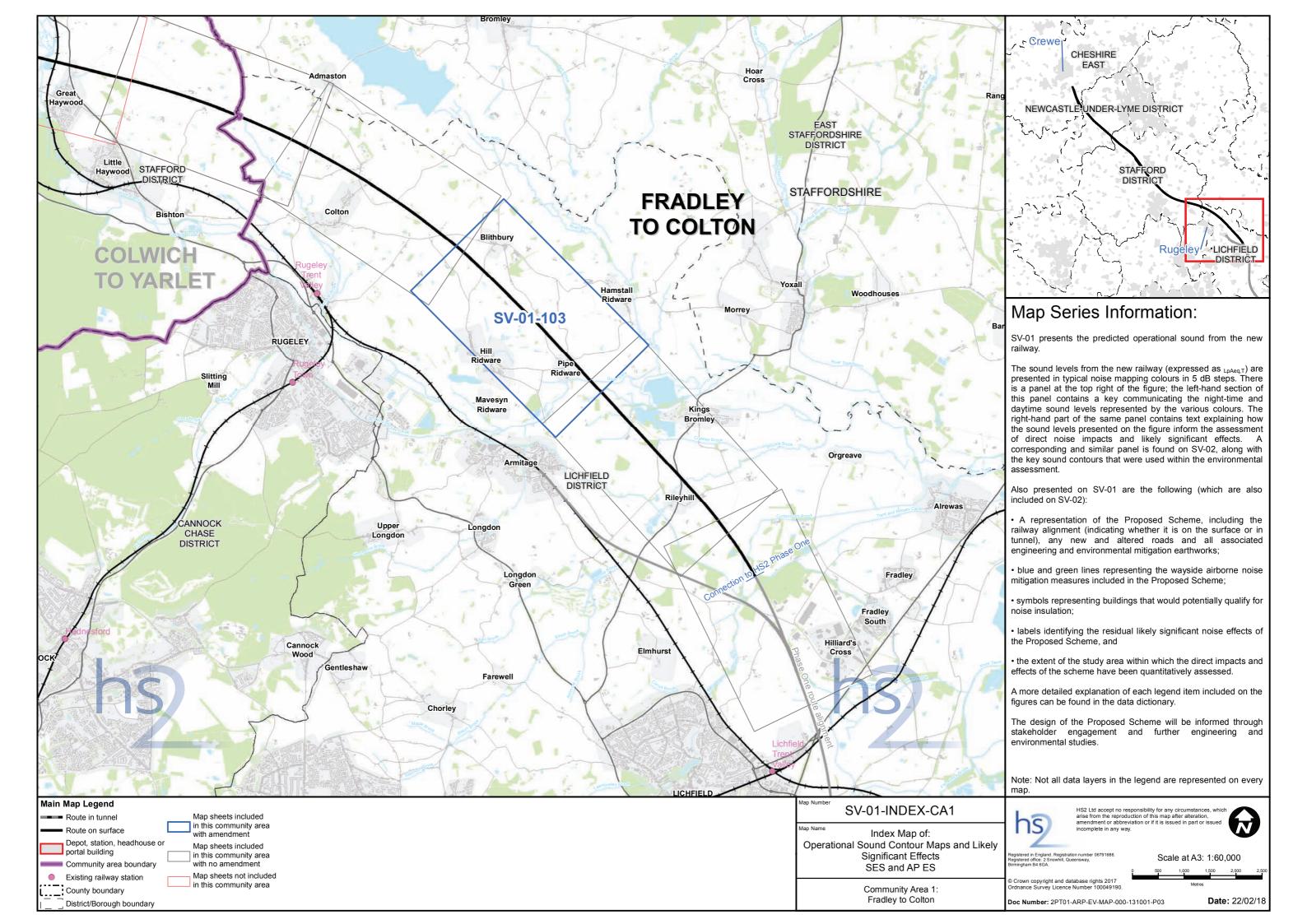
Legend features	Definition	Source	Copyright
			copy, sub-licence, distribute or sell any of this data to third parties in any form.
Engineering earthworks: Cutting	Cuttings created in the construction of the railway and associated works such as highways.	High Speed Two (HS2) Ltd	
Engineering earthworks: Embankment	Embankments created in the construction of the railway and associated works such as highways.	High Speed Two (HS2) Ltd	
Envisaged measures 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	High Speed Two (HS2) Ltd	
	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.		
Envisaged mitigation to avoid / reduce significant	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.	High Speed Two (HS2) Ltd	
noise effects	Engineering e.g. cuttings: 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.	riigii Specu rwo (1132) Eta	
Ground-borne noise or vibration impact	Buildings at which an operational ground-borne sound or vibration impact is predicted from the Proposed Scheme.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Ground-borne sound & vibration study area (highly sensitive non-residential)	This defines the area within which direct operational ground-borne sound and vibration impacts of the scheme at highly sensitive non-residential receptors have been quantitatively assessed. This area is defined as within 200m of the route.	High Speed Two (HS2) Ltd	
Ground-borne sound & vibration study area (residential and non-residential)	This defines the area within which direct operational ground-borne sound and vibration impacts of the scheme at residential and non-residential receptors have been quantitatively assessed. This area is defined as within 85m of the route.	High Speed Two (HS2) Ltd	
Ground-borne sound and/or vibration assessment location	Locations near tunnelled sections of the route at which a quantitative assessment of ground-borne sound and vibration impacts due to the operation of the Proposed Scheme has been carried out. These are labelled with an assessment location reference code to enable cross-reference to the operational sound & vibration reports contained in Volume 5: Appendix SV-004.	High Speed Two (HS2) Ltd	
L _{pAFmax} exceeds 6odB façade	Assessment locations where the predicted value of L_{pAFmax} is 60 dB or greater having applied a façade correction of +2.5 dB to the predicted free field value.	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	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this

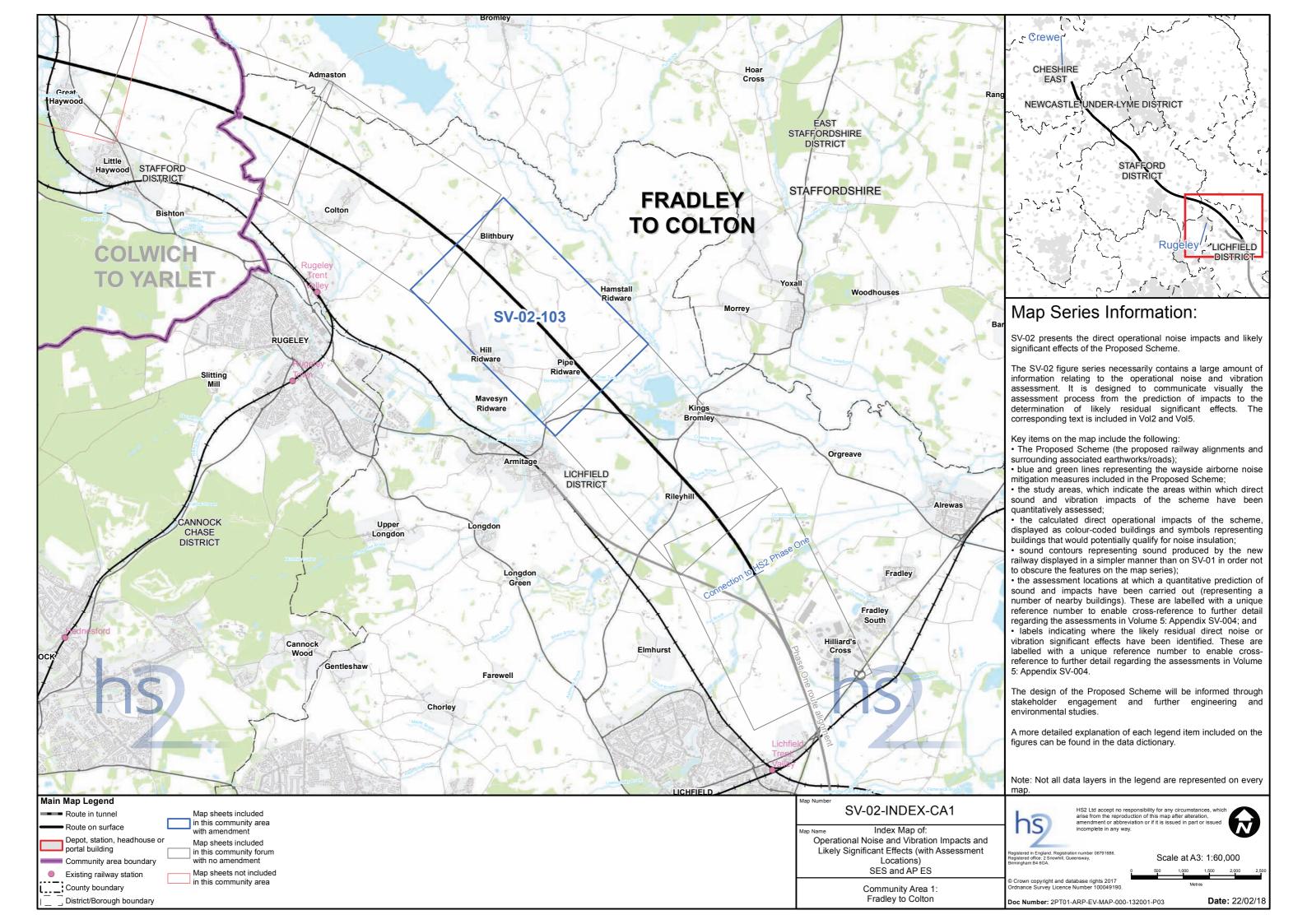
Legend features	Definition	Source	Copyright
	the sound levels predicted if the Proposed Scheme did not go ahead with those if it did (details of this process can be found in Volume 5: Appendix SV001-000). Panel B on SV-02/SV-05 contains a key showing the colours used with the corresponding impact categories. The impacts presented are the greatest (i.e. worst-case) of the impacts predicted for daytime and night-time.		data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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	
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	
Sound Contours (SV-01)	The sound levels from the Proposed Scheme (expressed as $L_{pAeq,T}$ and representing sound from the new railway only) are presented in 5 dB steps. The levels are shown in the panel in the topright hand corner of SV-01.	High Speed Two (HS2) Ltd	
Sound contours (SV-02/SV-05)	The sound levels from the Proposed Scheme (expressed as L _{pAeq,T} and representing sound from the new railway only) are presented at two sound levels: 40 dB L _{Aeq,T 23:00 to 07:00} and 55 dB L _{Aeq,T 23:00 to 07:00} and 55 dB L _{Aeq,T 23:00 to 07:00} . The corresponding daytime levels (L _{Aeq,T 07:00 to 23:00}) are shown in Panel A of SV-02/SV-05.	High Speed Two (HS2) Ltd	

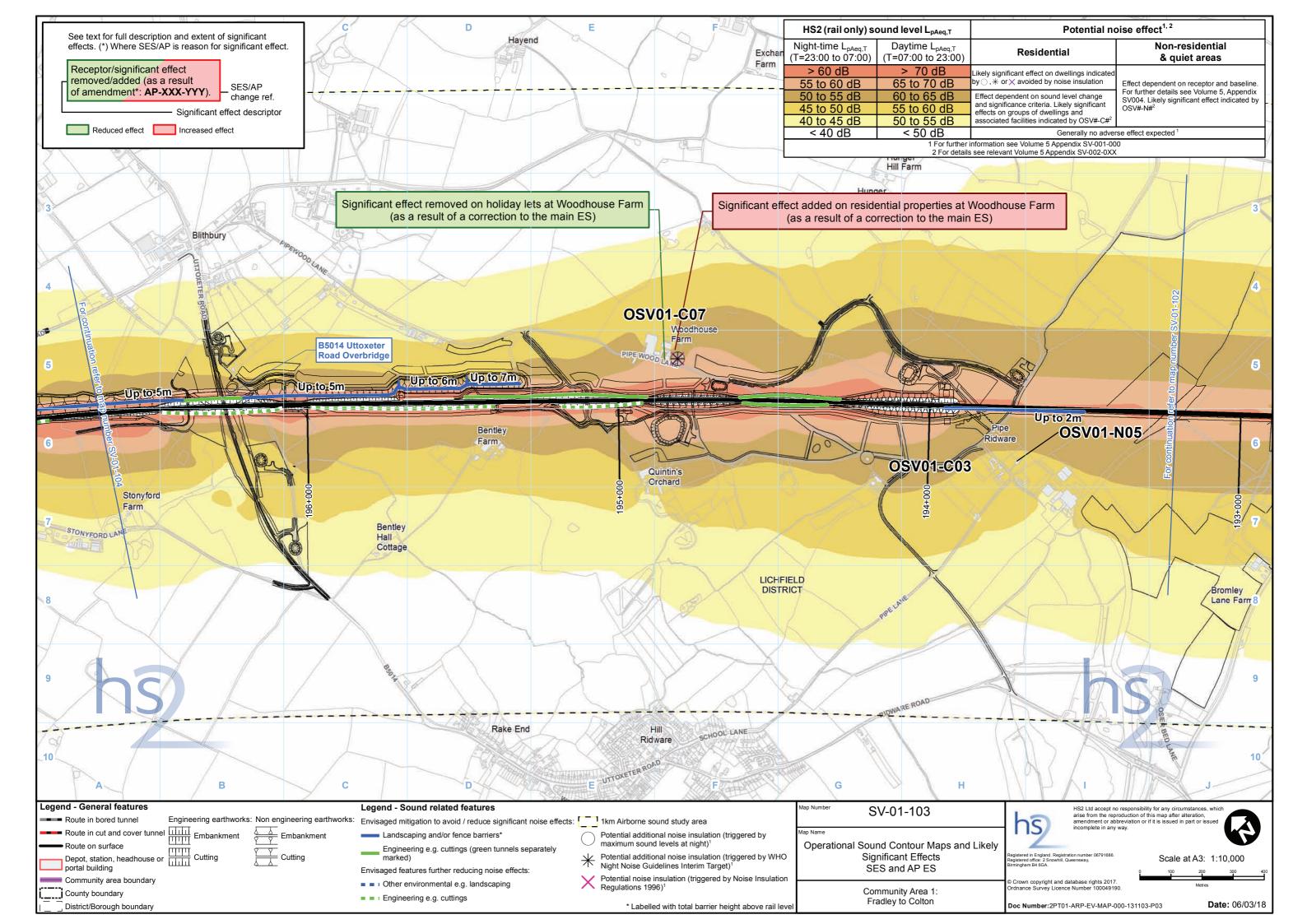
CA1 Fradley to Colton

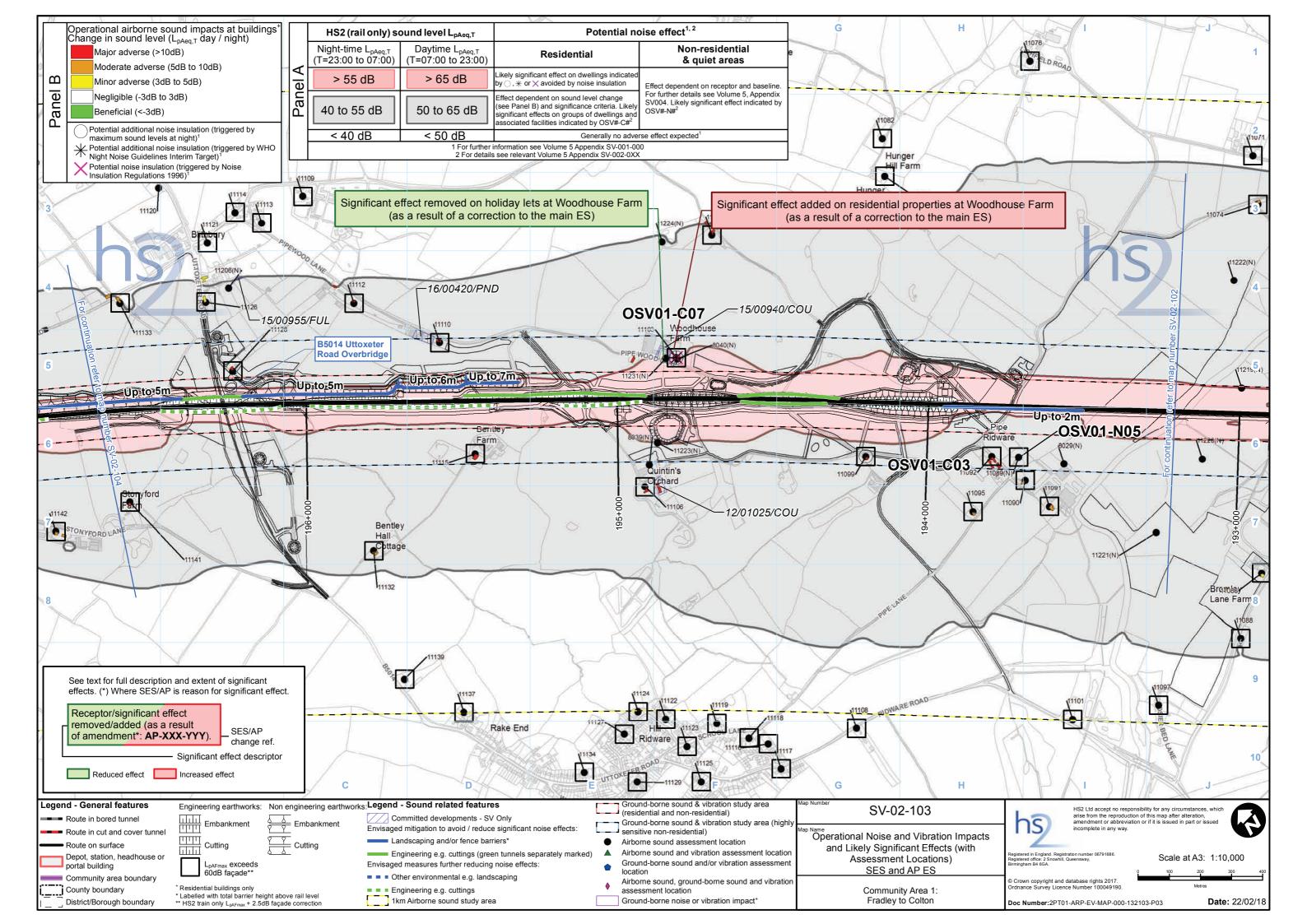
SV-01 - Operational sound contour maps and likely significant effects

SV-02 - Operational noise and vibration impacts and likely significant effects (with assessment locations)









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Traffic and transport (TR-03, TR-04)

Contents

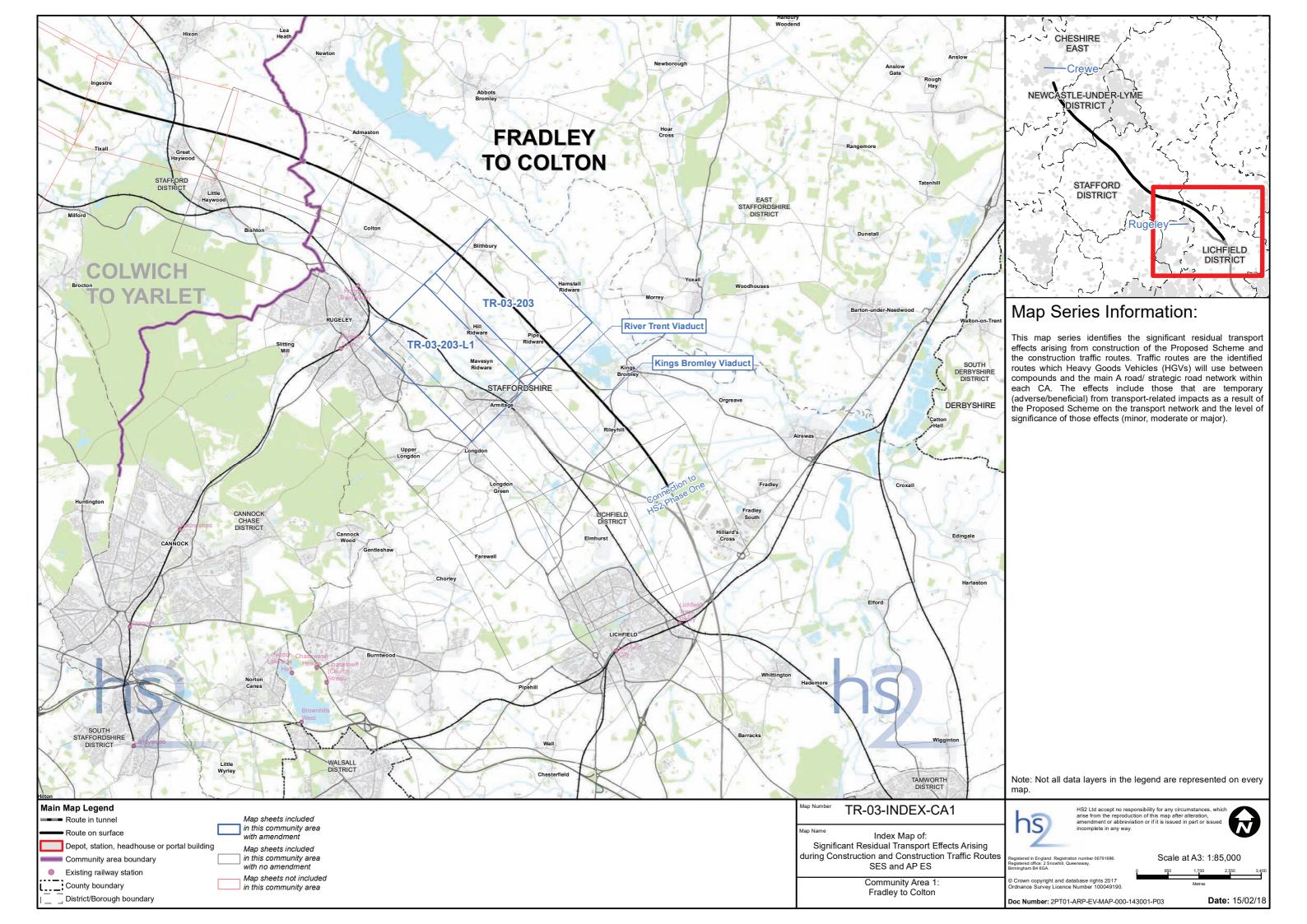
Map series name	TR-o3 - Significant Residual Transport Effects Arising during Construction and Construction Traffic Routes	TR-04 - Significant Residual Transport Effects Arising from Operation
Map series description	This map series identifies the significant residual transport effects arising from construction of the Proposed Scheme and the construction traffic routes. Traffic routes are the identified routes which Heavy Goods Vehicles (HGVs) will use between compounds and the main A road/ strategic road network within each CA. The effects include those that are temporary (adverse/beneficial) from transport-related impacts as a result of the Proposed Scheme on the transport network and the level of significance of those effects	Identifies the significant residual transport effects during the operation of HS2 for each CA. The effects include those that are permanent (adverse/beneficial) from transport-related impacts as a result of the Proposed Scheme (and mitigation) on the existing transport network and the level of significance of those effects(minor, moderate or major) for the two forecast years 2027 (Opening Year) and 2041 (Design Year).
Community Area name	(minor, moderate or major).	
CA1 Fradley to Colton	✓	×
CA2 Colwich to Yarlet	✓	×
CA ₃ Stone and Sywnnerton	×	✓
CA ₄ Whitmore Heath to Madeley	×	×
CA5 South Cheshire	×	×

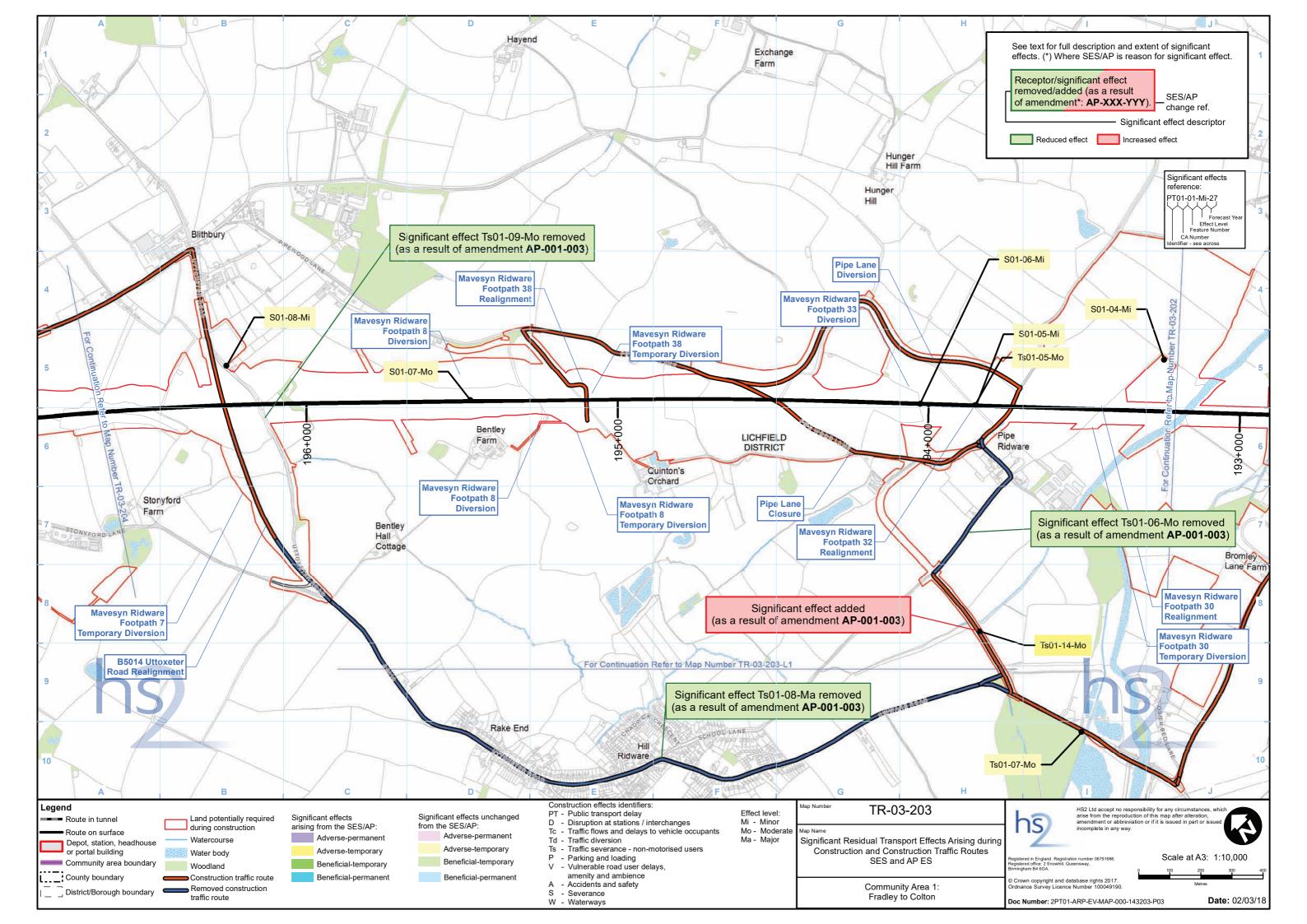
Legend features	Definition	Source	Copyright
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Construction Significant Effects: Adverse-permanent Adverse-temporary Beneficial-temporary Beneficial-permanent	Adverse – deterioration in existing conditions as a result of the Proposed Scheme Beneficial – improvement of existing conditions as a result of the Proposed Scheme Permanent – permanent change as a result of the Proposed Scheme Temporary – temporary change as a result of the Proposed Scheme (likely within construction phase of scheme).	High Speed Two (HS2) Ltd	
Construction traffic route	Public highways which may be used for HGV construction traffic.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	High Speed Two (HS2) Ltd	
Operational Significant Effects: Adverse-permanent Adverse-temporary Beneficial-temporary Beneficial-permanent	Adverse- deterioration in existing conditions as a result of the Proposed Scheme Beneficial – improvement of existing conditions as a result of the Proposed Scheme Permanent – permanent change as a result of the Proposed Scheme, effects can be for 2027, 2041 or both operational assessment years. Temporary – temporary change as a result of the Proposed Scheme.	High Speed Two (HS2) Ltd	

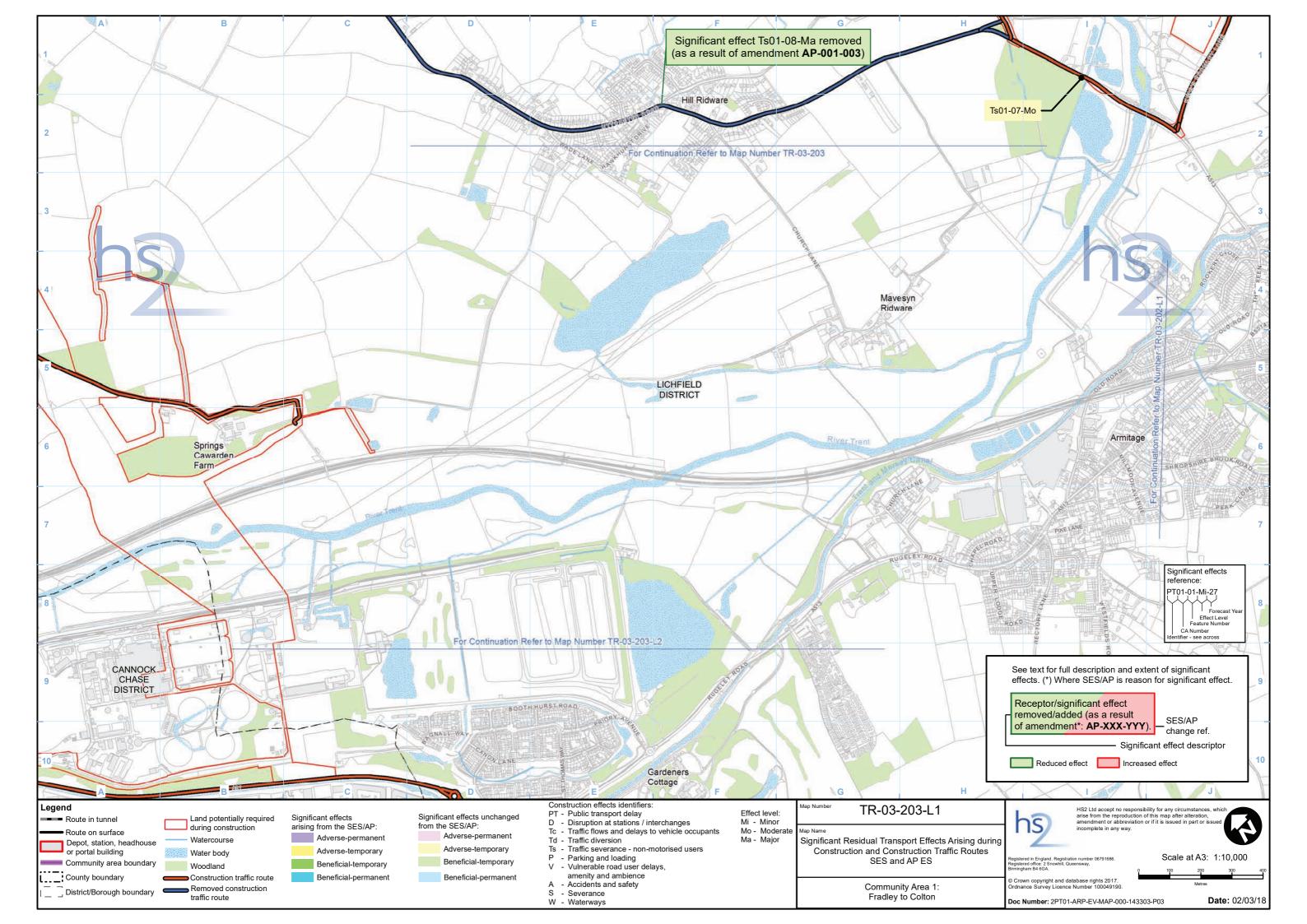
Legend features	Definition	Source	Copyright
Route in tunnel Route on surface	Represents the proposed route of HS2, split into route on surface and tunnelled sections.	High Speed Two (HS2) Ltd	
Significant effects reference	Identifier code for transport-related residual significant effects, including - SMR category of effect, CA the effect is located within, individual identification number, whether the significant effect is major, moderate or minor (Significance Criteria Technical Note) and which operational year the effect is predicted.	High Speed Two (HS2) Ltd	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Woodland	Woodland areas derived from Ordnance Survey MasterMap data.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

CA1 Fradley to Colton

TR-03 - Significant residual transport effects arising during construction and construction traffic routes

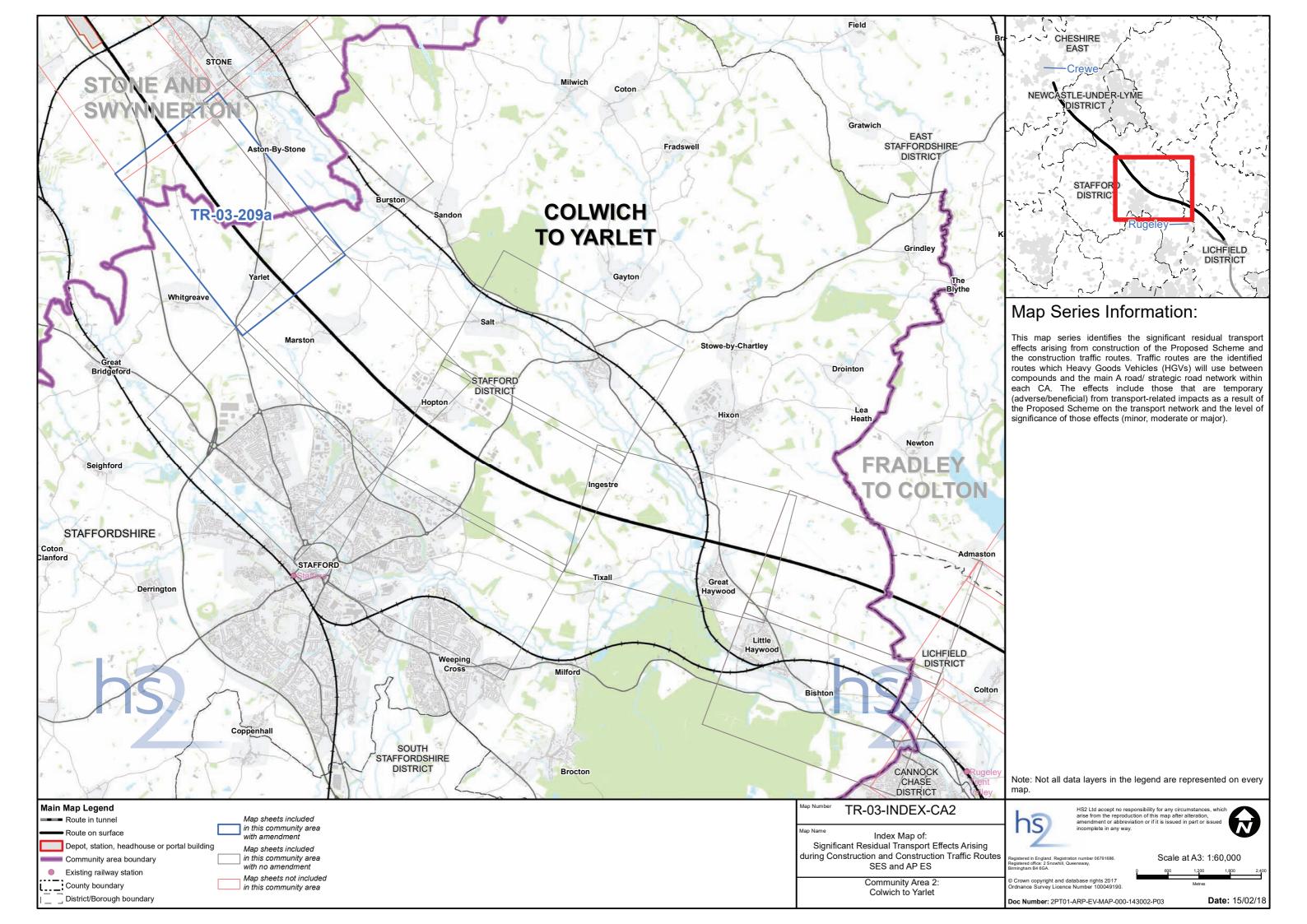


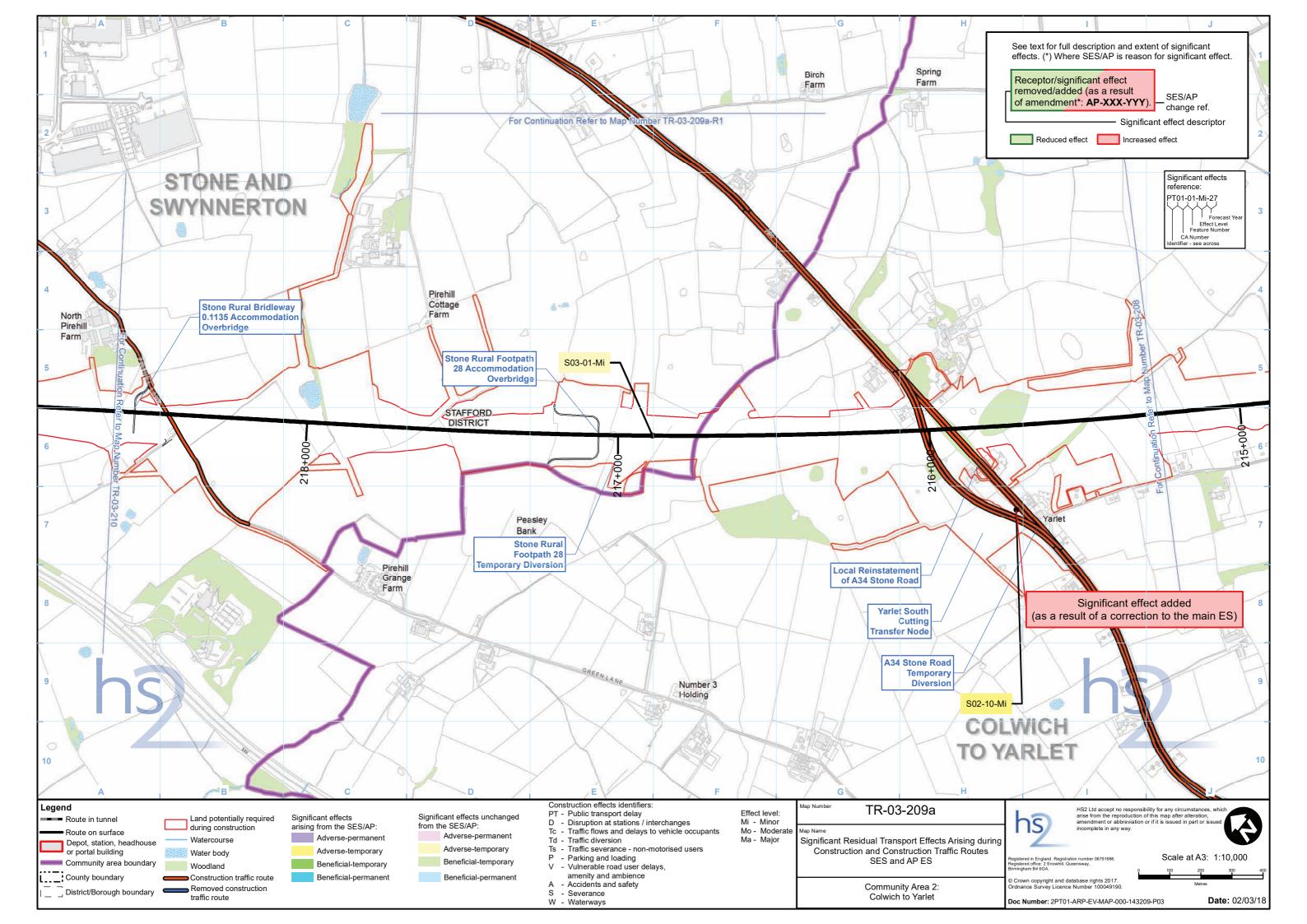




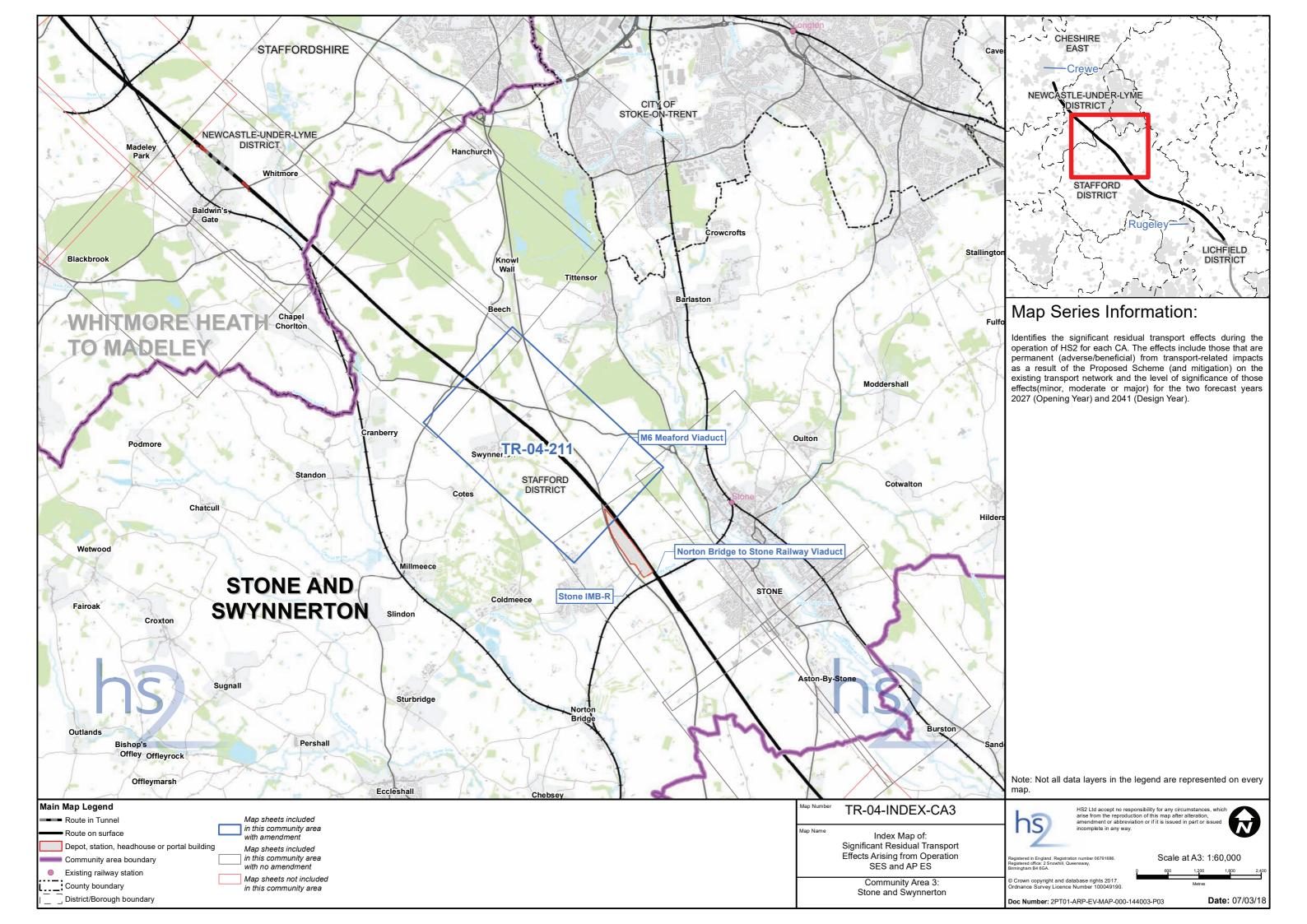
CA2 Colwich to Yarlet

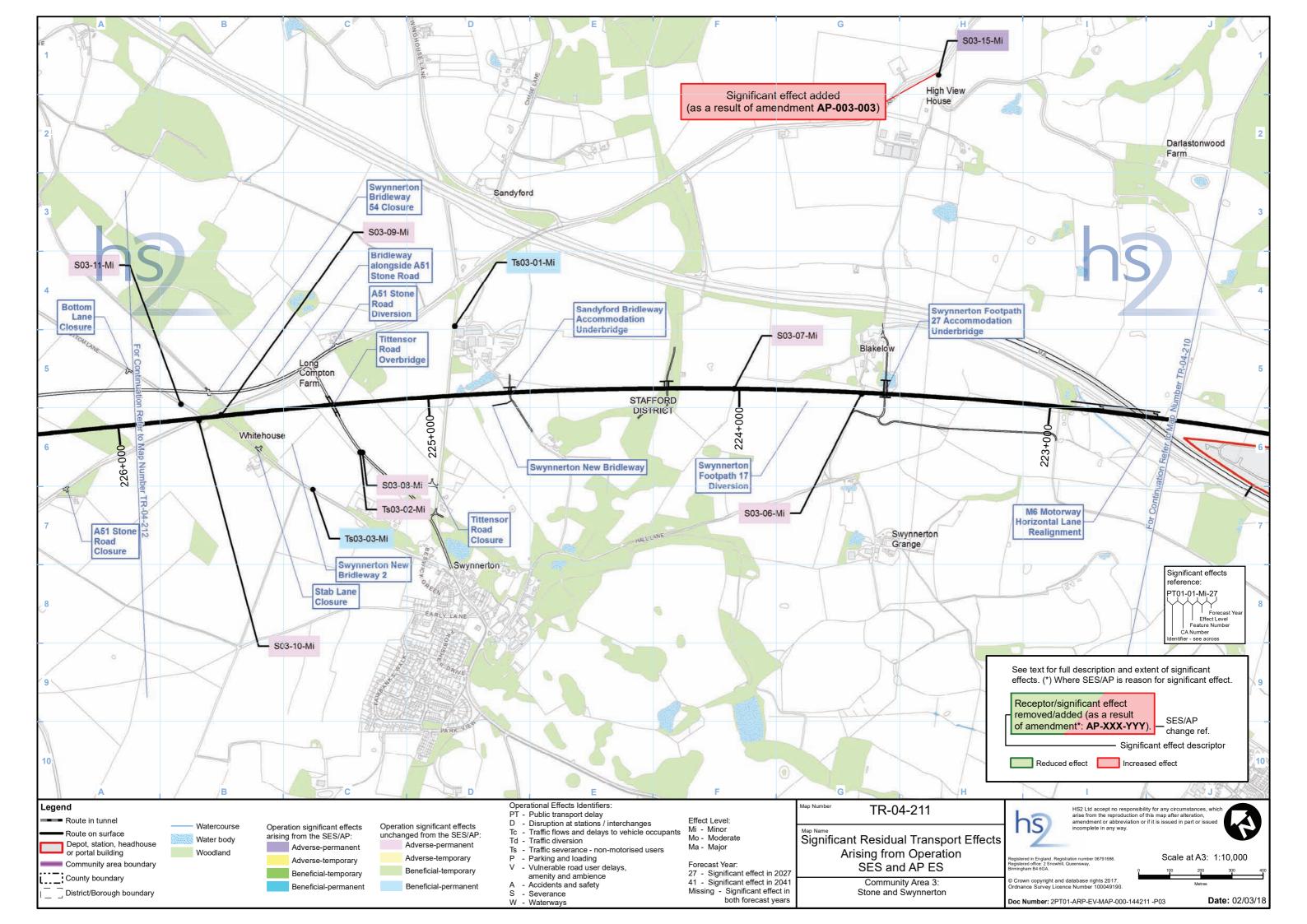
TR-03 - Significant residual transport effects arising during construction and construction traffic routes





CA3 Stone and Sywnnerton
TR-04 - Significant residual transport effects arising from operation





Water resources (WR-02, WR-05, WR-06)

Contents

Data dictionary and definitions

Map series name	WR-02 - Groundwater Baseline	WR-05 - Modelled Baseline and Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding	WR-o6 - Modelled Baseline and Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding
Map series description	These maps show geology and hydrogeological features such as aquifers and groundwater abstractions that are referred to in the Environmental Impact Assessment (EIA).	The map shows the output from hydraulic modelling of specific crossing locations and the effect the scheme has on flood extent at 1 in 100 years inclusive of climate	The map shows the output from hydraulic modelling of specific crossing locations and the effect the scheme has on flood extent at 1 in 20 year return period.
Community Area name		change (20%) return period.	
CA1 Fradley to Colton	✓	*	×
CA ₂ Colwich to Yarlet	×	×	×
CA ₃ Stone and Sywnnerton	×	✓	✓
CA ₄ Whitmore Heath to Madeley	×	×	×
CA ₅ South Cheshire	×	×	×

Data dictionary and definitions

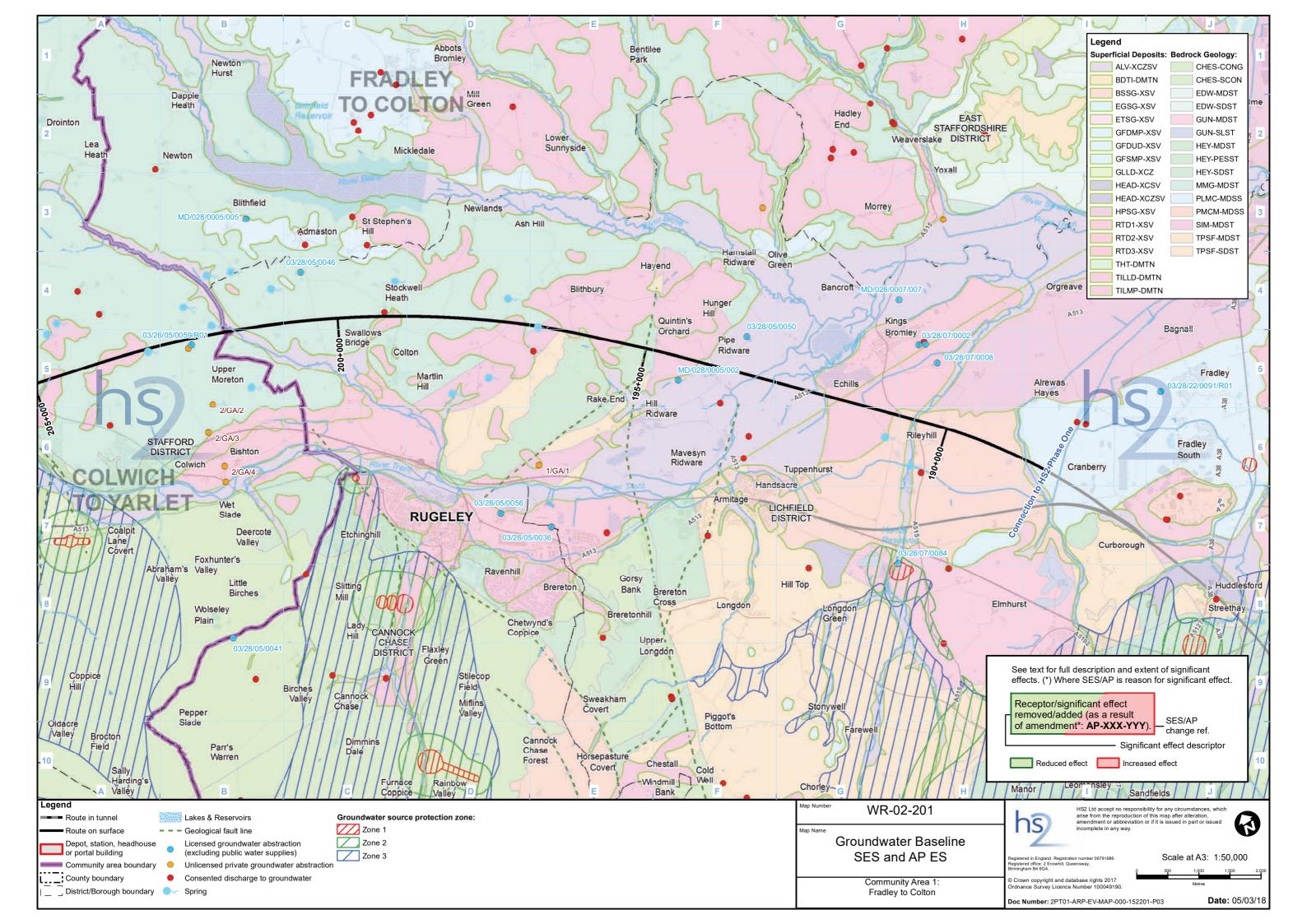
Data dictionary and definitions

Legend features	Definition	Source	Copyright
Bedrock Geology	Soils or rocks older than Quaternary deposits. The data that comprises the geological theme of 'Bedrock' as depicted on the 1:50000 published map DiGMapGB-50. The legend on the full geological legend page (WR-02 - Legend) comprises the LEX_RCS (a unique abbreviation to identify the rock), the rock name and its aquifer status.	British Geological Survey (BGS)	Reproduced with the permission of the British Geological Survey ©NERC. All rights Reserved
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Consented discharge to groundwater	A discharge to groundwater under permit regulations (the Environmental Permitting, England and Wales Regulations, 2010 (EPR)).	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
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 copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Geological fault line	The surface of a fault fracture along which the rocks have been displaced. The data that comprises the geological theme of 'Linear' as depicted on the 1:50000 published map DiGMapGB-50.	British Geological Survey (BGS)	Collins English Dictionary – Complete and Unabridged © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003 Reproduced with the permission of the British Geological Survey ©NERC. All rights Reserved
Groundwater source protection zone	Source Protection Zones (SPZs) have been defined for approximately two thousand groundwater sources such as wells, boreholes and springs used for public drinking water supply. These zones show the risk of contamination from any activities that might cause pollution in the area. The closer the activity, the greater the risk. The maps show three main zones; SPZ1 - inner, SPZ2 - outer and SPZ3 - total catchment.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Lakes & Reservoirs	A body of water such as a lake or pond forming a physiographical feature. Based on Ordnance Survey Vector Map District.	Ordnance Survey	Copyright © 2017 Oxford University Press. All rights reserved. © Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely

Legend features	Definition	Source	Copyright
			to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Land potentially required during construction	Boundary defining the maximum possible extent of construction works required to build HS2 as far as the current level of design allows. This only covers surface works and includes all tunnel 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.	High Speed Two (HS2) Ltd	
Licensed groundwater abstraction (excluding public water supplies)	A groundwater abstraction licence issued by the Environment Agency, which abstracts more than 20 cubic metres a day. Data supplied as spreadsheet. Digitised within 2km. Excludes the precise location of public water supplies in order to comply with Security and Environmental Measures Direction 1998.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Modelled Baseline Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 1% in any one year under baseline conditions. (Also known as a 1 in 100 annual probability).	High Speed Two (HS2) Ltd	
Modelled Baseline Flood Extent 1 in 20 (5%) Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 5% in any one year under baseline conditions. (Also known as a 1 in 20 annual probability).	High Speed Two (HS2) Ltd	
Modelled Post Development Flood Extent 1 in 100 (1%+CC) including Climate Change Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 1% in any one year under post-development conditions. (Also known as a 1 in 100 annual probability).	High Speed Two (HS2) Ltd	
Modelled Post Development Flood Extent 1 in 20 (5%) Annual Probability of River Flooding	The area covered by flooding of the river as a result of an event that is expected to occur with a probability of 5% in any one year under post-development conditions. (Also known as a 1 in 20 annual probability).	High Speed Two (HS2) Ltd	
Open water	A body of water such as a lake or pond forming a physiographical feature. Based on Ordnance Survey Vector Map District.	Ordnance Survey	Copyright © 2017 Oxford University Press. All rights reserved. © Crown copyright and database rights 2017 OS 100049190. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.
Registered Park and Garden	Parks and Gardens of special historic interest. Supplied by Historic England. Of the 1,590 Registered Parks and Gardens, over 91% were captured against the 1:10,000 Ordnance Survey Raster product. 135 records are potentially subject to movement under Positional Accuracy Improvement (PAI) improvements.	Historic England	© Historic England 2017. Contains Ordnance Survey data © Crown copyright and database right 2017 The Historic England GIS Data contained in this material was obtained on 25 January 2017. The most publicly available up to date Historic England GIS Data can be obtained from HistoricEngland.org.uk.
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	
Spring	A surface expression of a groundwater body.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Superficial Deposits	A geological deposit that was laid down during the Quaternary period. Such deposits were largely formed by river and glacial processes but may also include wind—blown deposits known as loess. The data that comprises the geological theme of 'Superficial' as depicted on the 1:50000	British Geological Survey (BGS)	Reproduced with the permission of the British Geological Survey ©NERC. All rights Reserved

Legend features	Definition	Source	Copyright
	published map DiGMapGB-50. The legend on the full geological legend page (WR-02-LEGEND) comprises the LEX_RCS (a unique abbreviation to identify the rock), the rock name and its aquifer status.		
Unlicensed private groundwater abstraction	A private water supply from either a groundwater or a surface water source, which abstracts less than 20 cubic metres a day. Local authorities currently hold a register of private water supplies. The local authorities are required in accordance with The Private Water Supplies Regulations 2009, to ensure that unlicensed abstractions meet certain quality standards. Data supplied as spreadsheet. Digitised within 2km.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.
Watercourse	Any channel through which water flows, can be natural or manmade. They are split into two categories (main rivers or ordinary watercourses) in England and Wales for regulation purposes.	Environment Agency	© Environment Agency copyright and/or database right 2017. All rights reserved.

CA1 Fradley to Colton WR-02 - Groundwater baseline



CA3 Stone and Swynnerton

WR-05 - Modelled baseline and post development flood extent 1 in 100 (1%+CC) including climate change annual probability of river flooding

WR-06 - Modelled baseline and post development flood extent 1 in 20 (5%) annual probability of river flooding

