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

Volume 2: Map book

CA3: Stone and Swynnerton

March 2018



## High Speed Rail (West Midlands - Crewe) Supplementary Environmental Statement and Additional Provision Environmental Statement Volume 2: Map book CA3: Stone and Swynnerton





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.

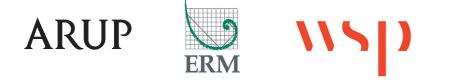
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A report prepared for High Speed Two (HS2) Limited:



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Printed in Great Britain on paper containing at least 75% recycled fibre.

### Contents

Mapping explanatory notes

Data dictionary and definitions

Map series name	Map series description
	These plans show the land potentially required during construction
CT and Construction Disease	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 plans is reflective of 2017 Ordnand
CT-o6 – Proposed Scheme	These maps show permanent features, infrastructure, restored land
	ecological mitigation associated with the Proposed Scheme.
	The base mapping shown on the plans is reflective of 2017 Ordnand

on, the construction features, access the Proposed Scheme. The plans also show the Rights of Way. ance Survey (OS) data. and, and areas for landscaping, screening and

nce Survey (OS) data.

### 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 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 1:20,000, 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 differing 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	

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High Speed Rail (West Midlands - Crewe) Supplementary Environmental Statement and Additional Provision Environmental Statement **Data dictionary and definitions** 



## Data dictionary and definitions

Legend features	Definition	Source	Copyright
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	
Borrow Pit	Area excavated to provide material for construction purposes.	High Speed Two (HS2) Ltd	
Chainage	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 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.	High Speed Two (HS2) Ltd	
	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.		
Community area boundary	The Environmental Statement has been split into 5 sections called Community Areas.	High Speed Two (HS2) Ltd	© Crown copyrig You are permitte respond to, or int with the data. Yo distribute or sell a
Construction traffic route	Public highways which may be used for HGV construction traffic.	High Speed Two (HS2) Ltd	
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown copyrig You are permitte respond to, or int with the data. Yo distribute or sell a
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 copyrig You are permitte respond to, or int with the data. Yo distribute or sell a
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	
Existing buildings	Extent of buildings derived from Ordnance Survey MasterMap	Ordnance Survey	© Crown copyrig

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Existing contours	Lines depicting land heights to show topography.	Ordnance Survey	respond to, or int
			with the data. Yo
Existing inland water	See Water body.	See Water body.	distribute or sell a See Water body.
Existing Public Right of Way (PRoW)	See Public Rights of Way.	See Public Rights of Way.	See Public Rights
Existing watercourse	See Watercourse.	See Watercourse.	See Watercourse
Existing woodland	See Woodland.	See Woodland.	See Woodland.
Extent of land potentially required during construction	Areas of land outside the main works identified for the planting of		
for mitigation planting	woodland, grassland mitigation.	High Speed Two (HS2) Ltd	
	Any other area grassed not included in landscaped earthworks or		
Grassed areas	ecological habitat.	High Speed Two (HS2) 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.		
	Ecological mitigation to provide new hedgerow planting,		
The design of the Processing Street	connectivity enhancements to existing areas and areas for		
Hedgerow habitat creation	ecological management. This level does not include screening	High Speed Two (HS2) Ltd	
	planting for visual mitigation purposes.		
HS2 access road	Access road to HS2 infrastructure such as electricity substations,	High Speed Two (HS2) Ltd	
HS2 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		
	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	
. ,	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. Screening planting, using woodland, for visual mitigation and		
Landscape mitigation planting (scrub / woodland)	landscape integration purposes.	High Speed Two (HS2) Ltd	
	Main Construction Compounds in which main contractors offices		
Main construction compound	and welfare facilities will be located.	High Speed Two (HS2) Ltd	
	Represents all new major utility installations (included in the	<u> </u>	
	hybrid Bill) and also modifications to existing utilities required to		
Main utility works	construct the scheme. Includes water, electricity,	High Speed Two (HS2) Ltd	
	telecommunications and gas.		
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	Copyright
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	
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 usedto indicate general areas for designed soft and hard landscaping.Replacement community facility:Area of land for the provision of a permanent replacementcommunity facility, such as a playground, community centre oractivity centre.	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 - 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.	Staffordshire County Council	© Crown copyrig You are permitte respond to, or int with the data. Yo distribute or sell a © Staffordshire C
	beimere map data sopplied by sorveying doctories.	Cheshire East Council	© Cheshire East (
Rail alignment	Longitudinal geometry of the tracks consisting of a series of straights and curves.	High Speed Two (HS2) 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	
Railway systems compound	Represents railway systems compounds which facilitate installation, testing and commissioning of the railway systems, including track, overhead line equipment, communications and signalling equipment and traction power supply.	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	
Satellite construction compound	Represents satellite construction compounds which serve local works for major construction elements within a main contract.	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	
Storage / prefabrication / laydown areas	Storage, prefabrication or laydown areas.	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	High Speed Two (HS2) Ltd	

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Legend features	Definition	Source	Copyright
	Scheme and "off-site" means external land (or landfill site) which is not specifically required for the purposes of the Proposed Scheme.		
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 excavated materials to be used for reinstatement purposes, and also stockpile areas for managing movement of excavated materials during construction.	High Speed Two (HS2) Ltd	
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	
Temporary workers accommodation	Temporary accommodation for workers during the construction period.	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	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyrig You are permitter respond to, or int with the data. Yo distribute or sell a
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 A All rights reserved
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	Woodland areas derived from Ordnance Survey MasterMap data.	Ordnance Survey	© Crown copyrig You are permitter respond to, or int with the data. Yo distribute or sell a
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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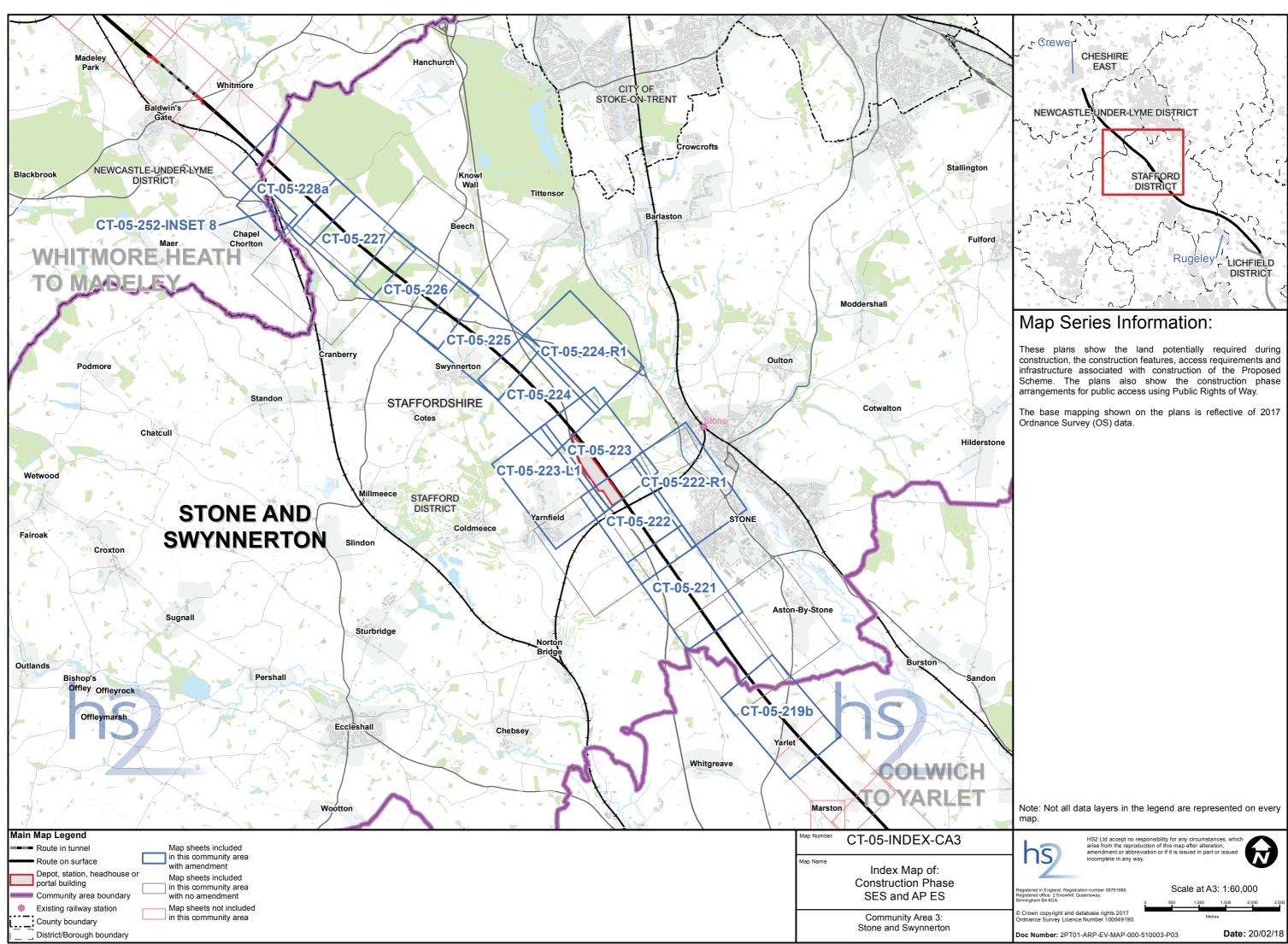
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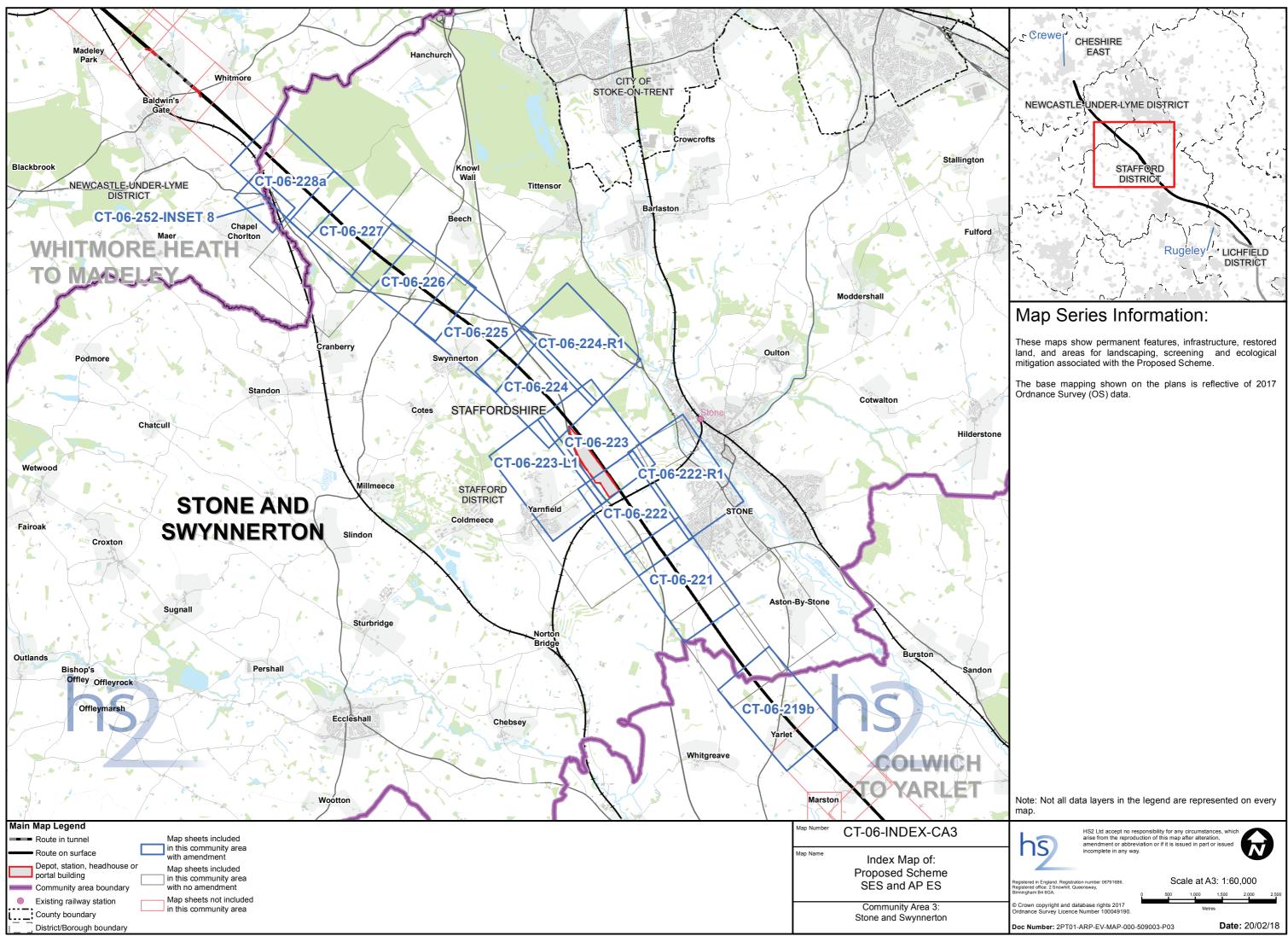
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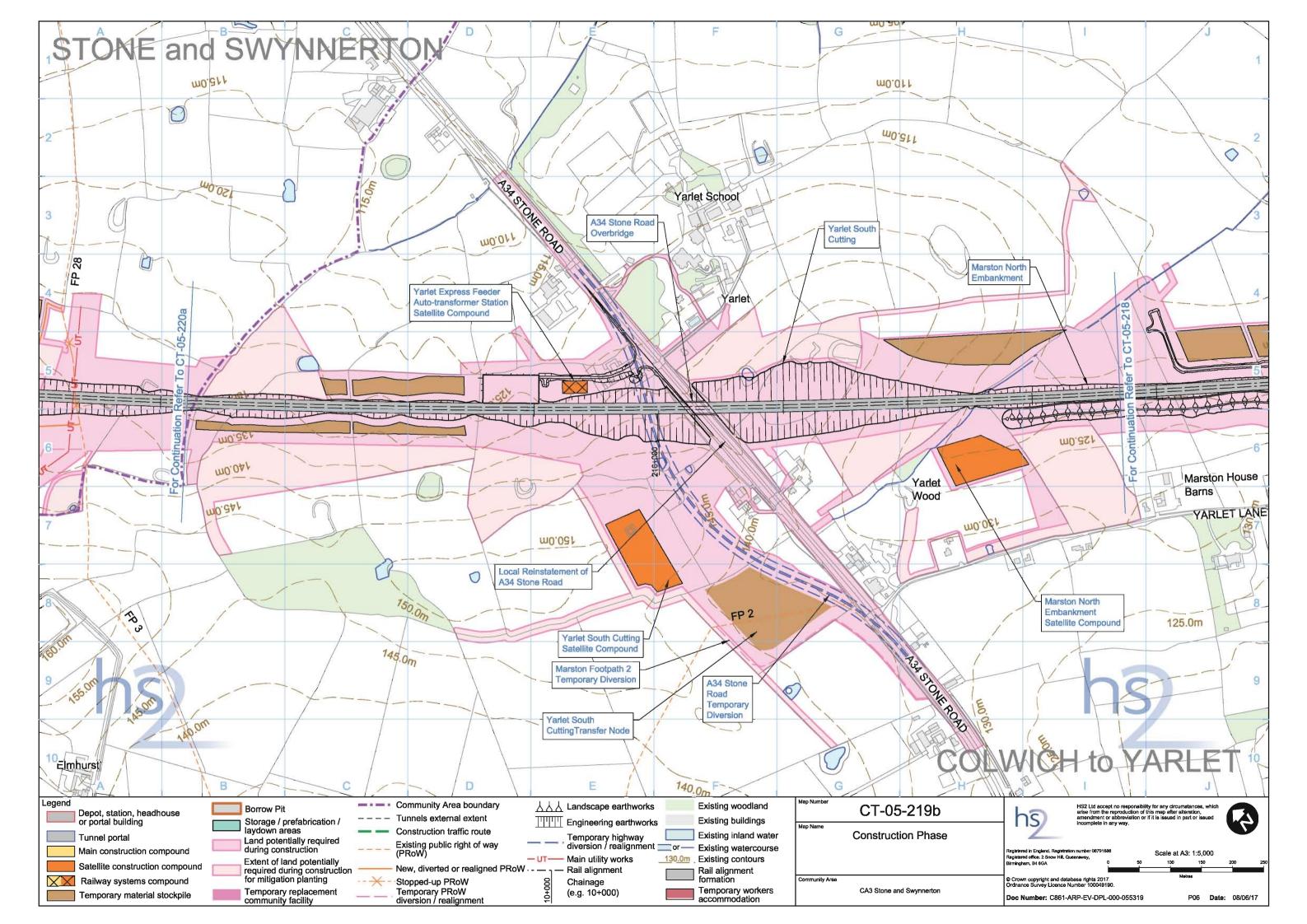
High Speed Rail (West Midlands - Crewe) Supplementary Environmental Statement and Additional Provision Environmental Statement CT-05 – Construction phase

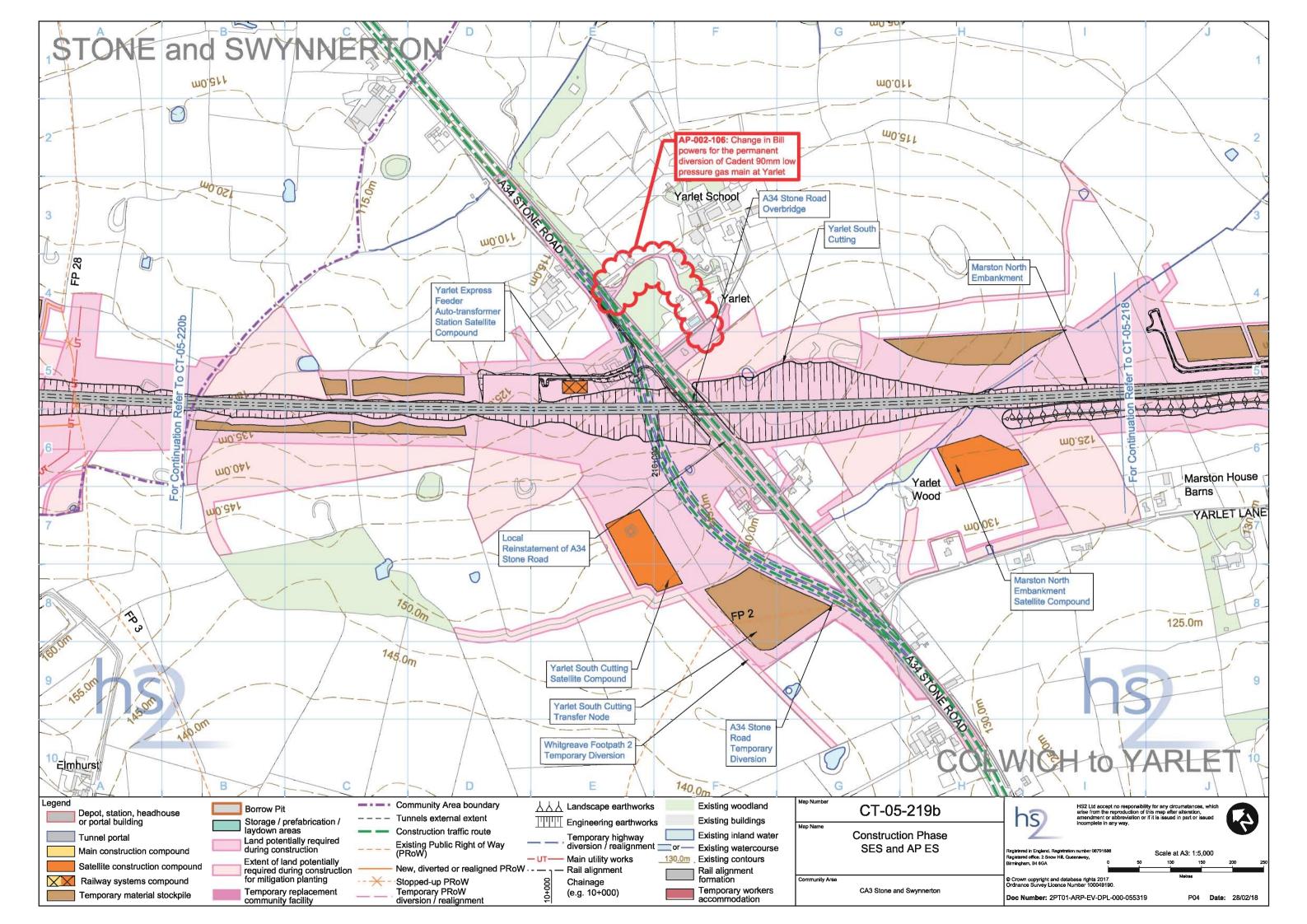
CT-06 – Proposed scheme

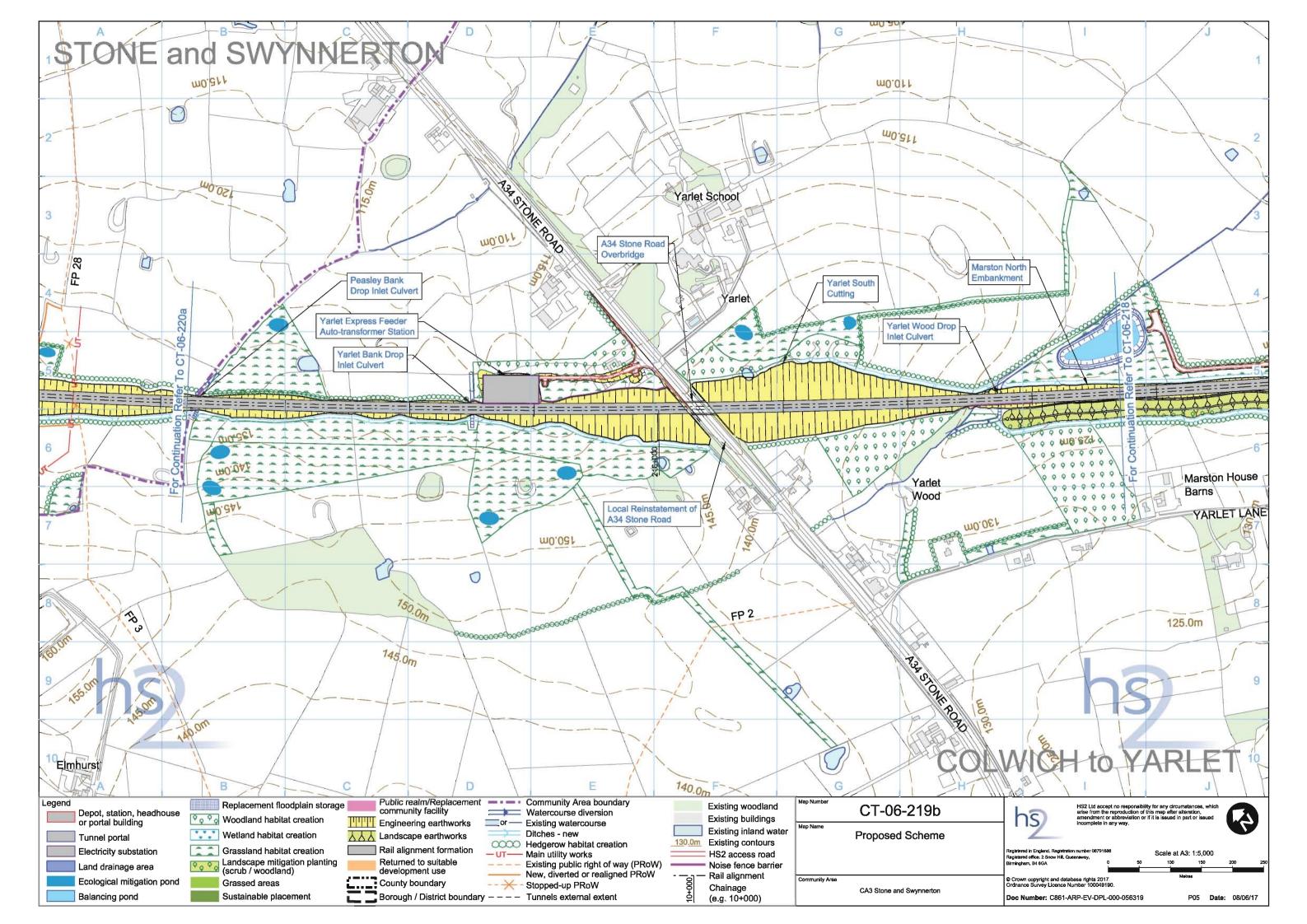


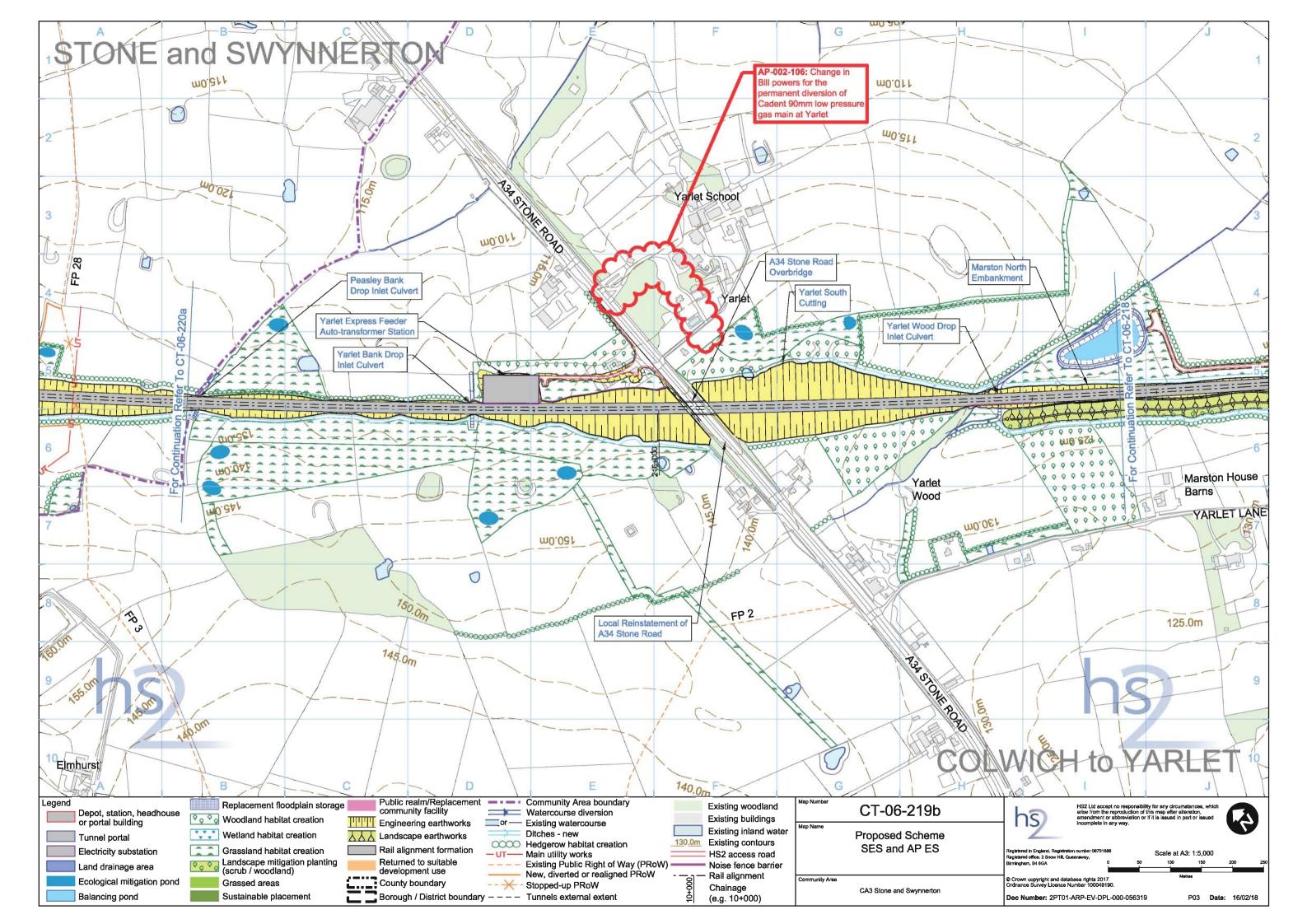


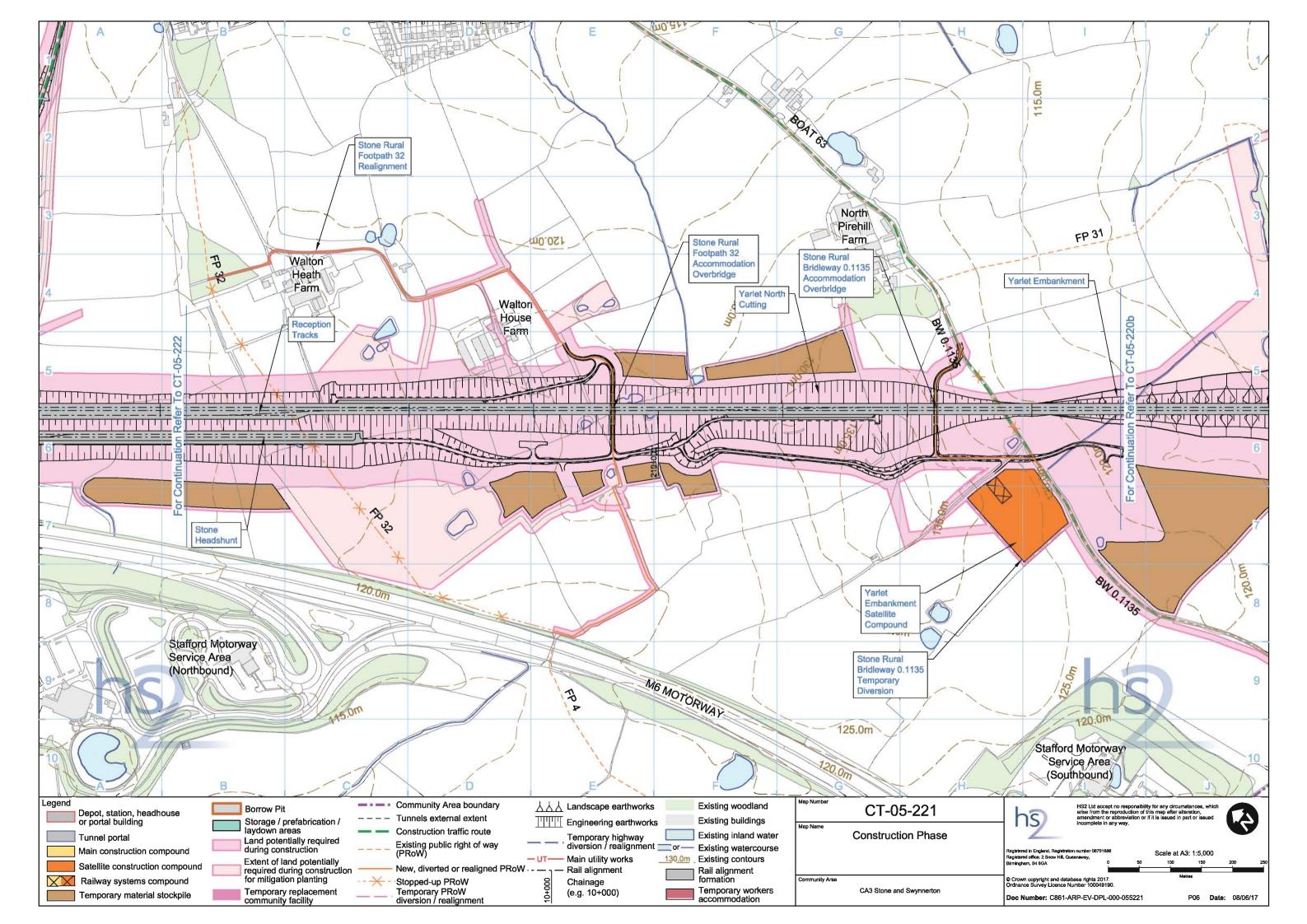


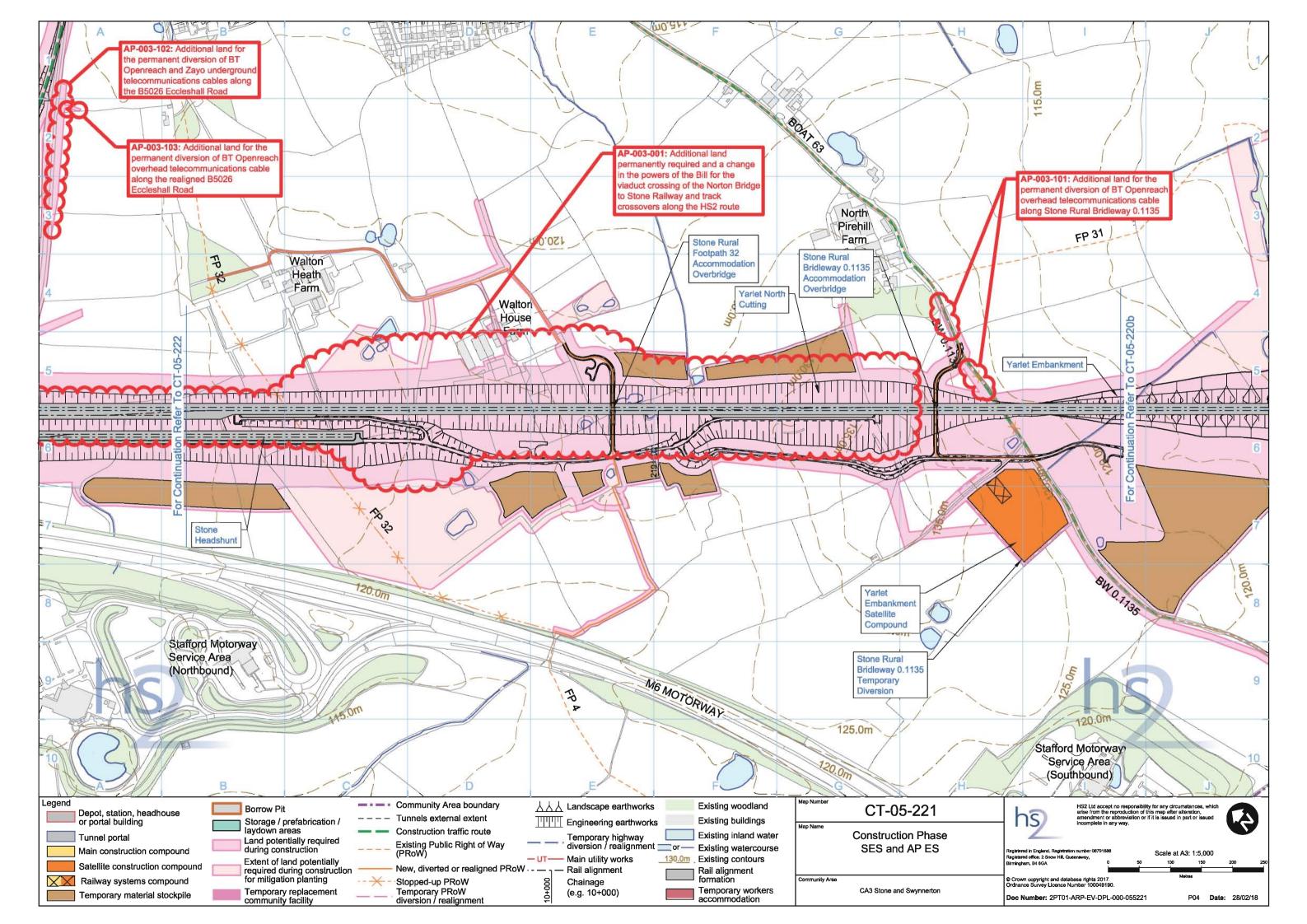


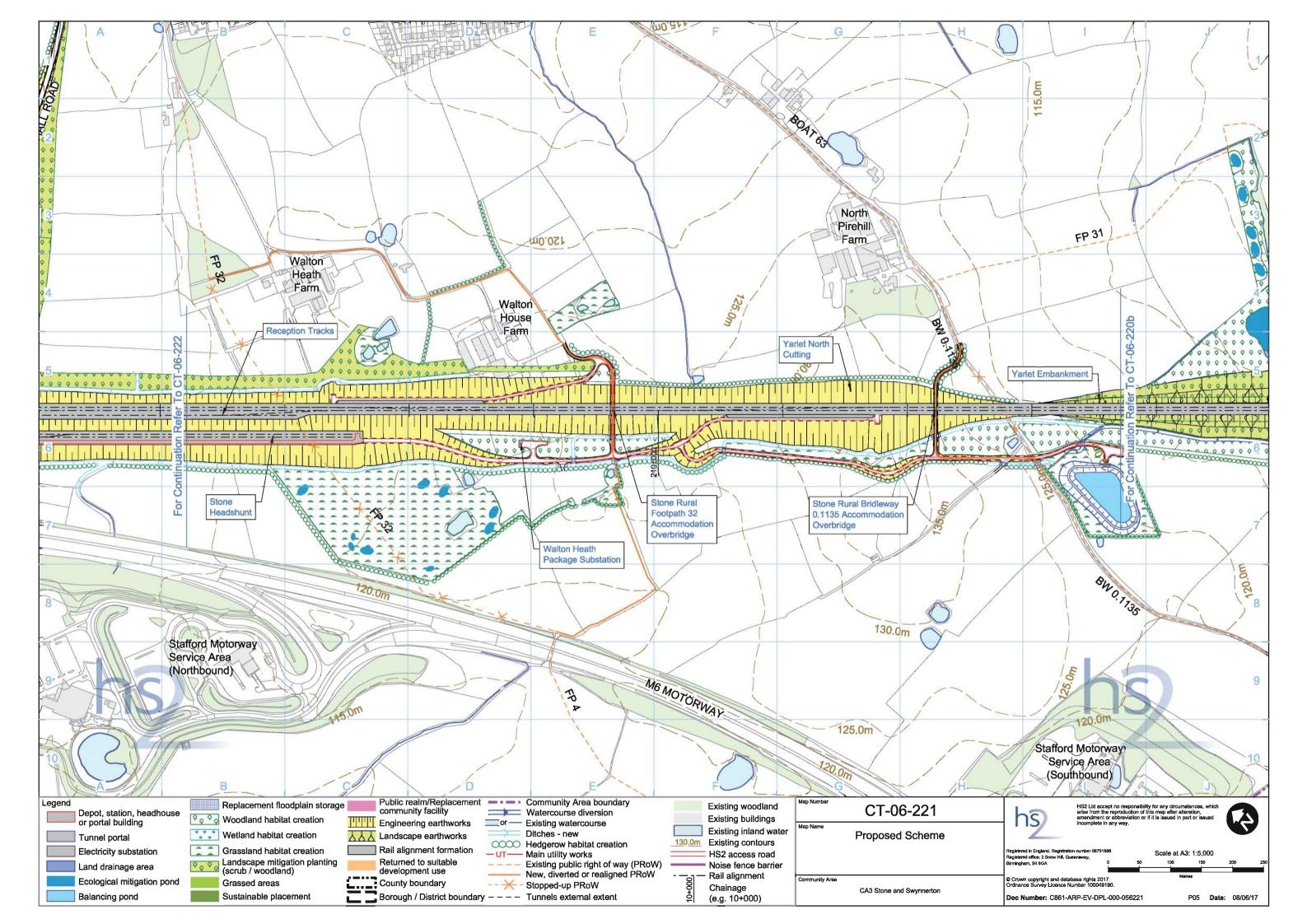


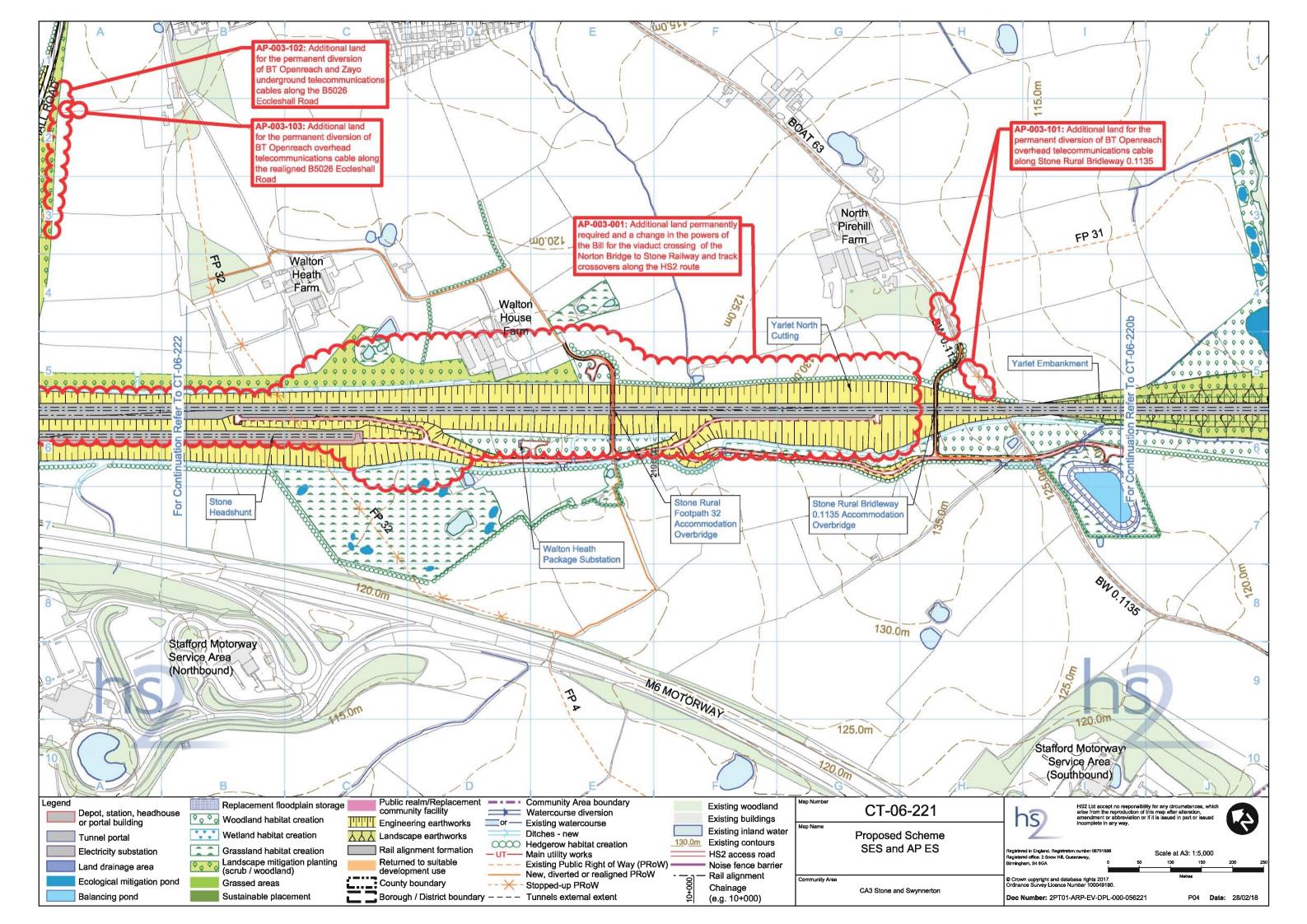


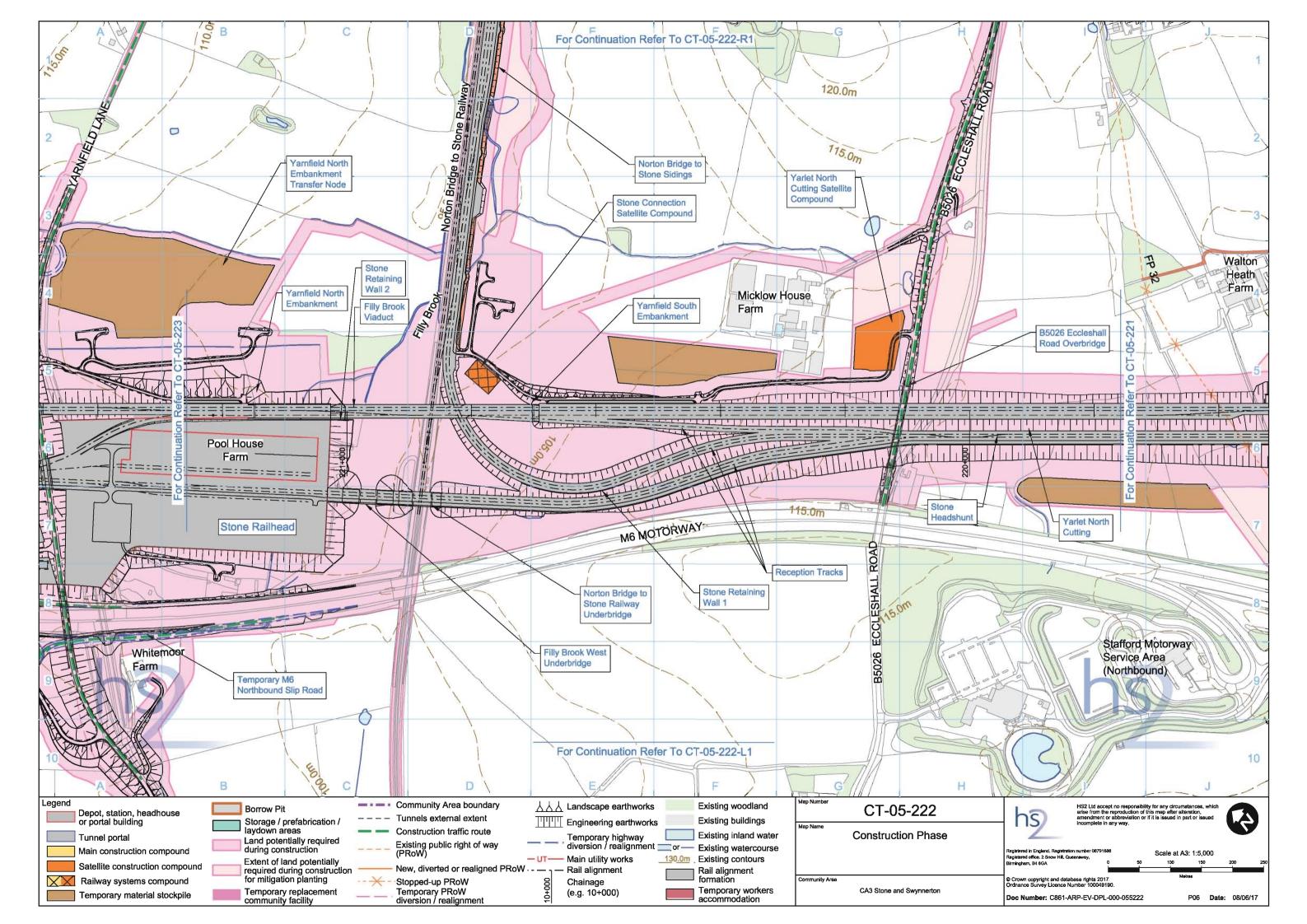


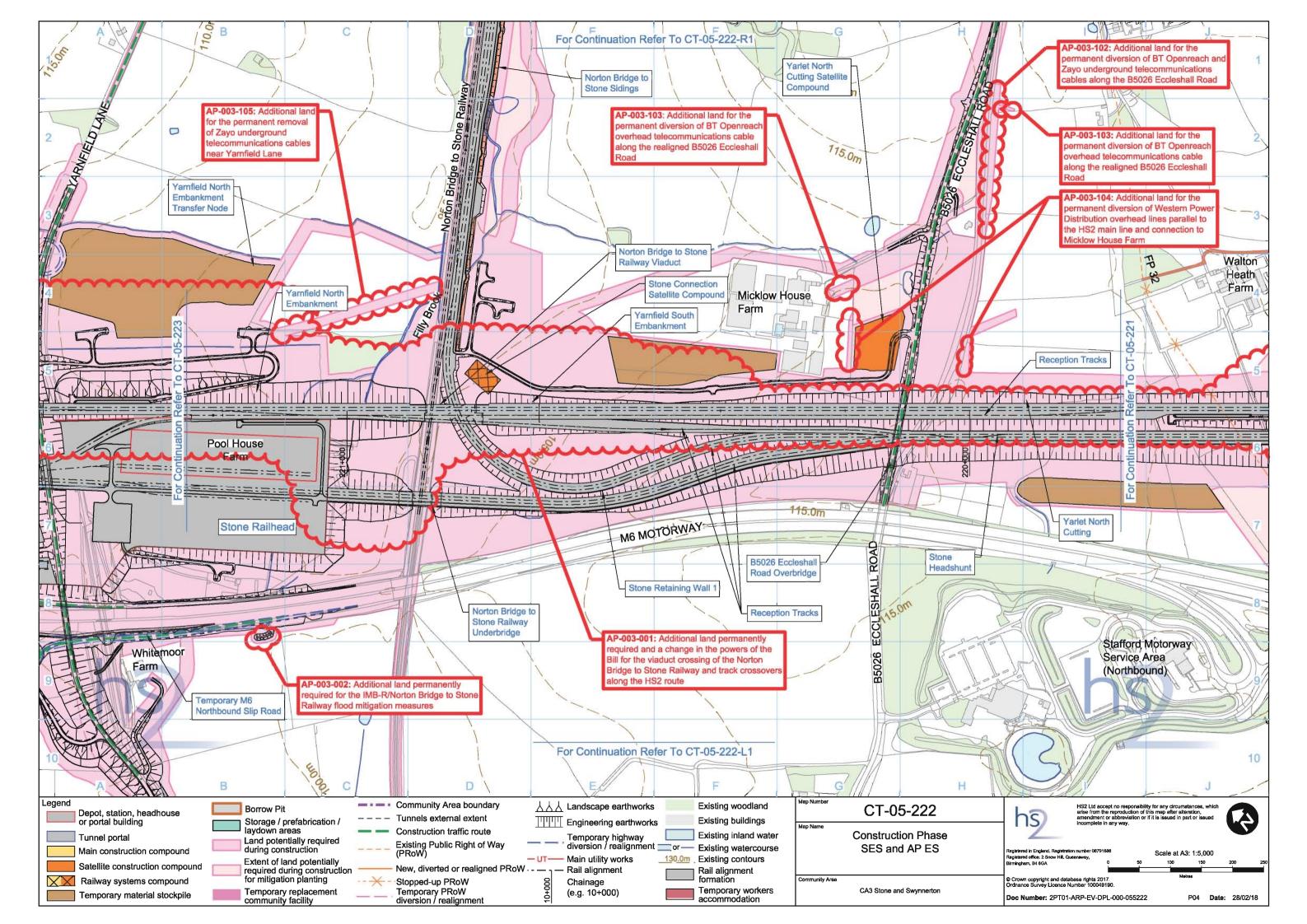


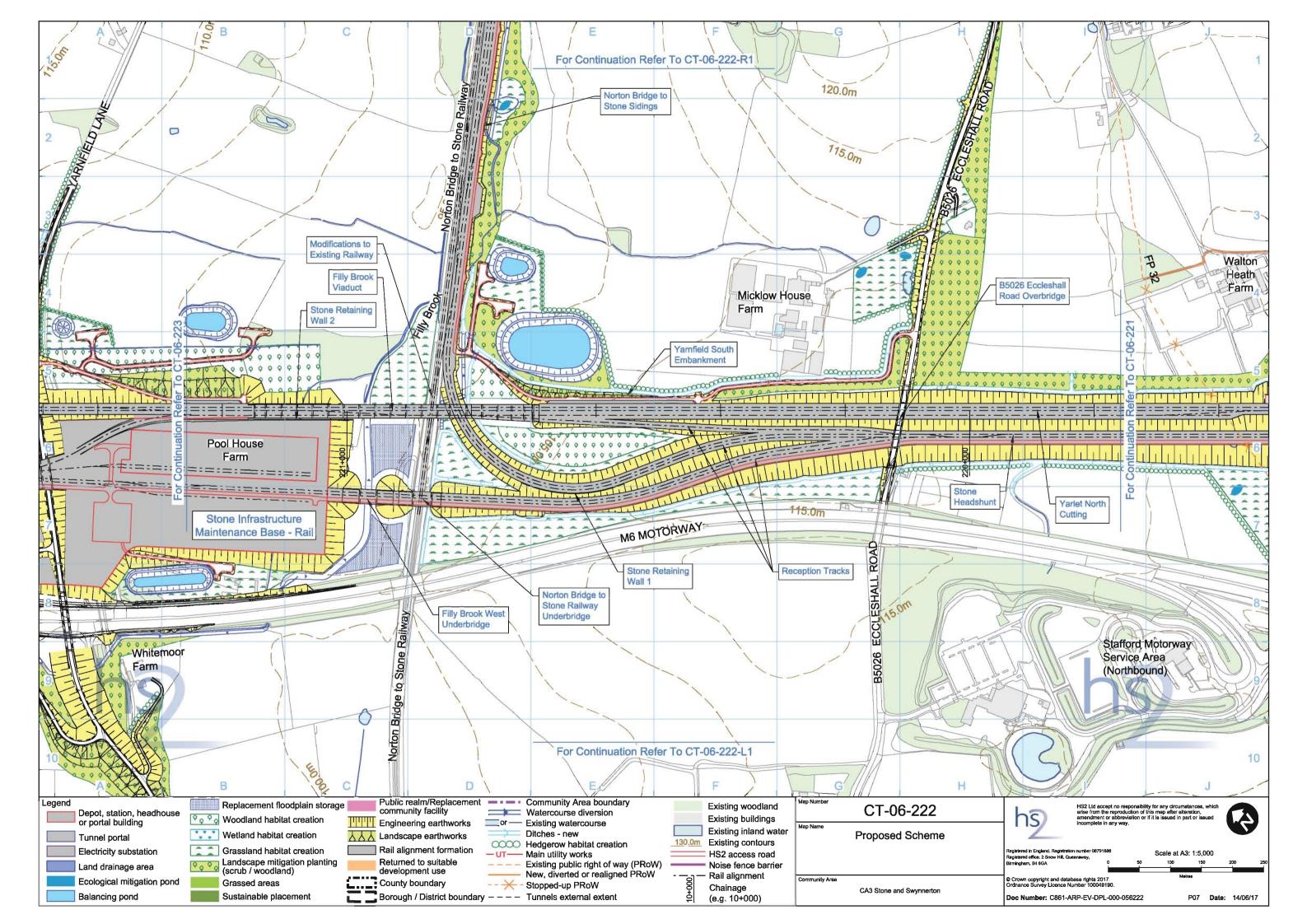


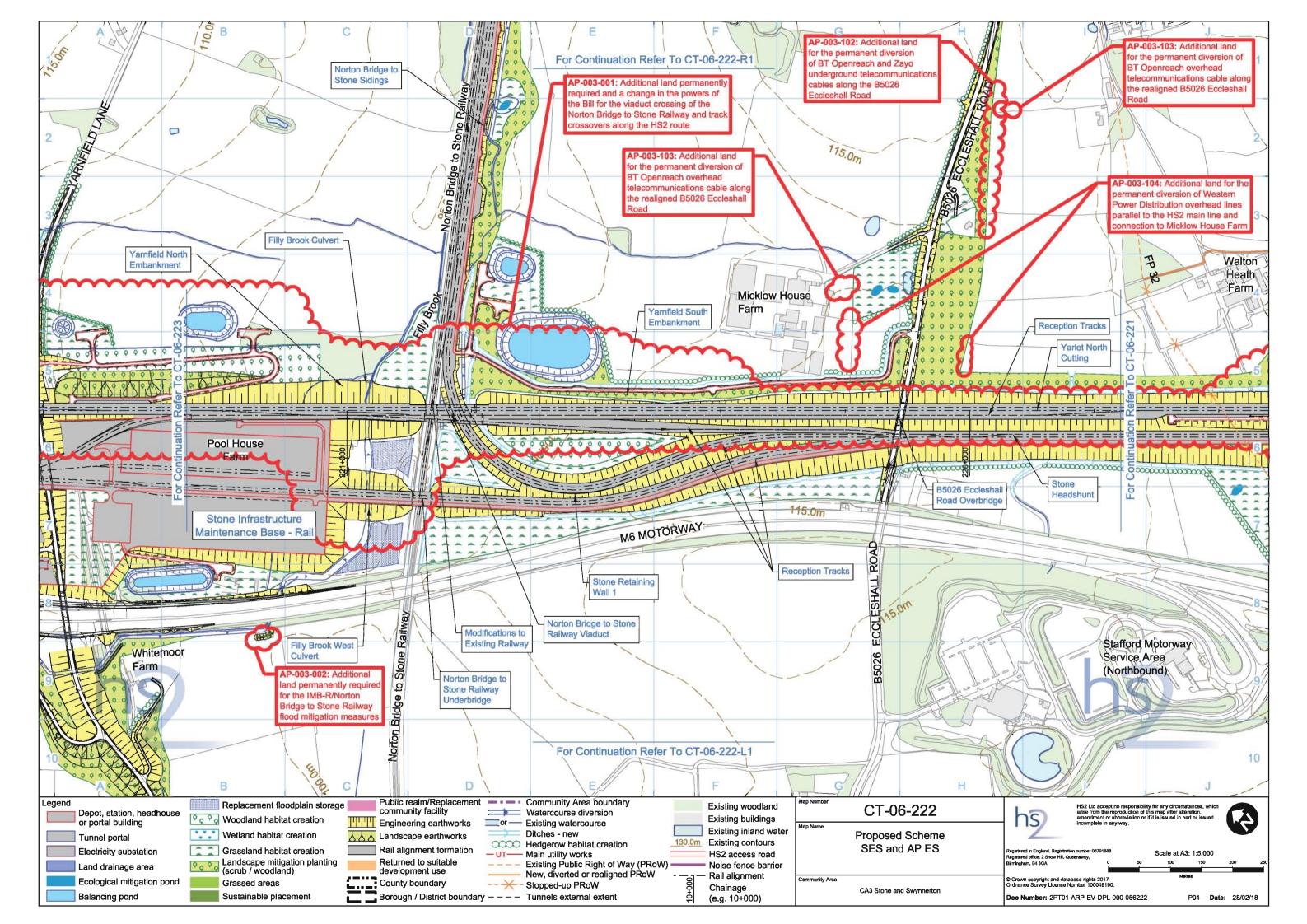


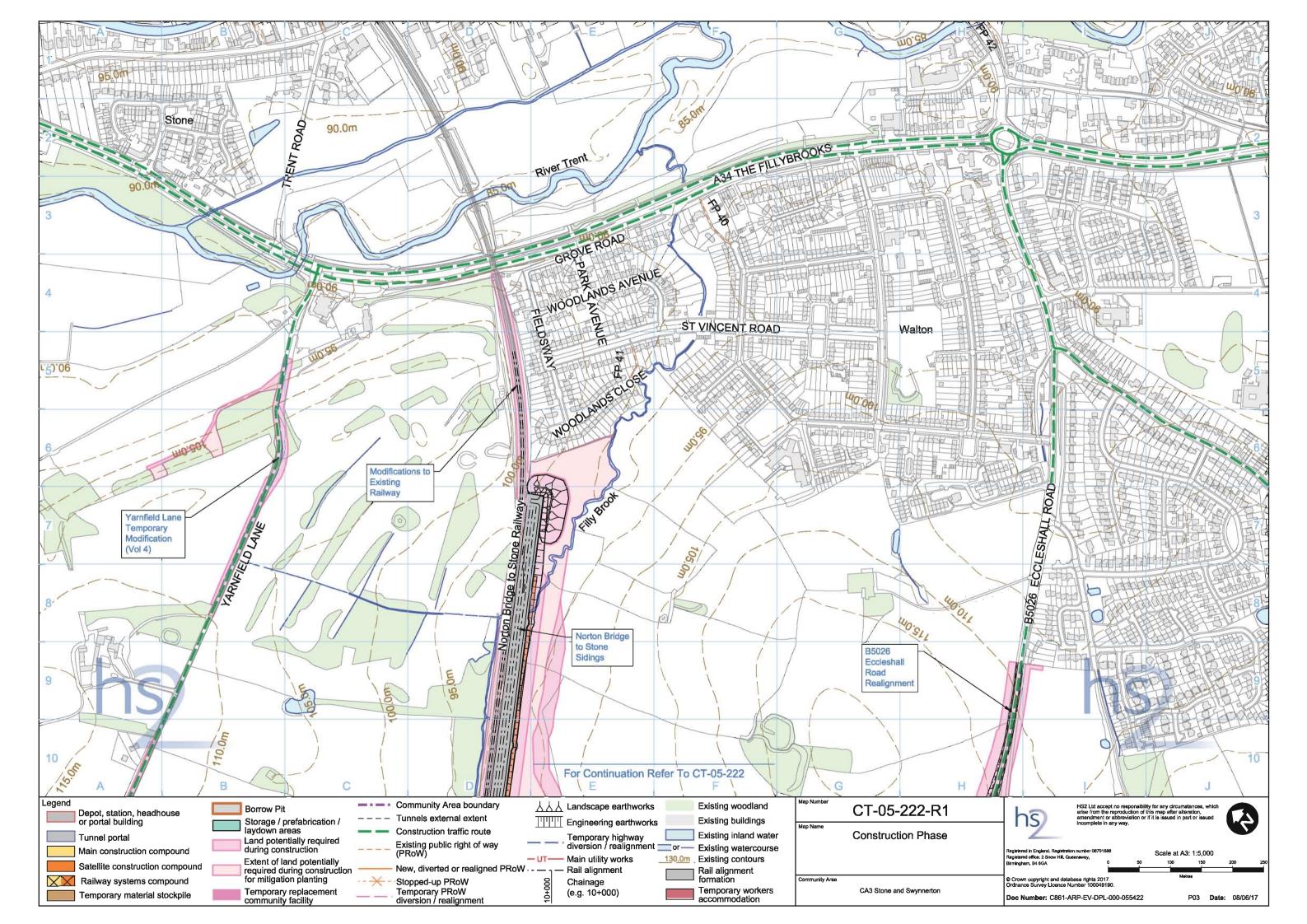


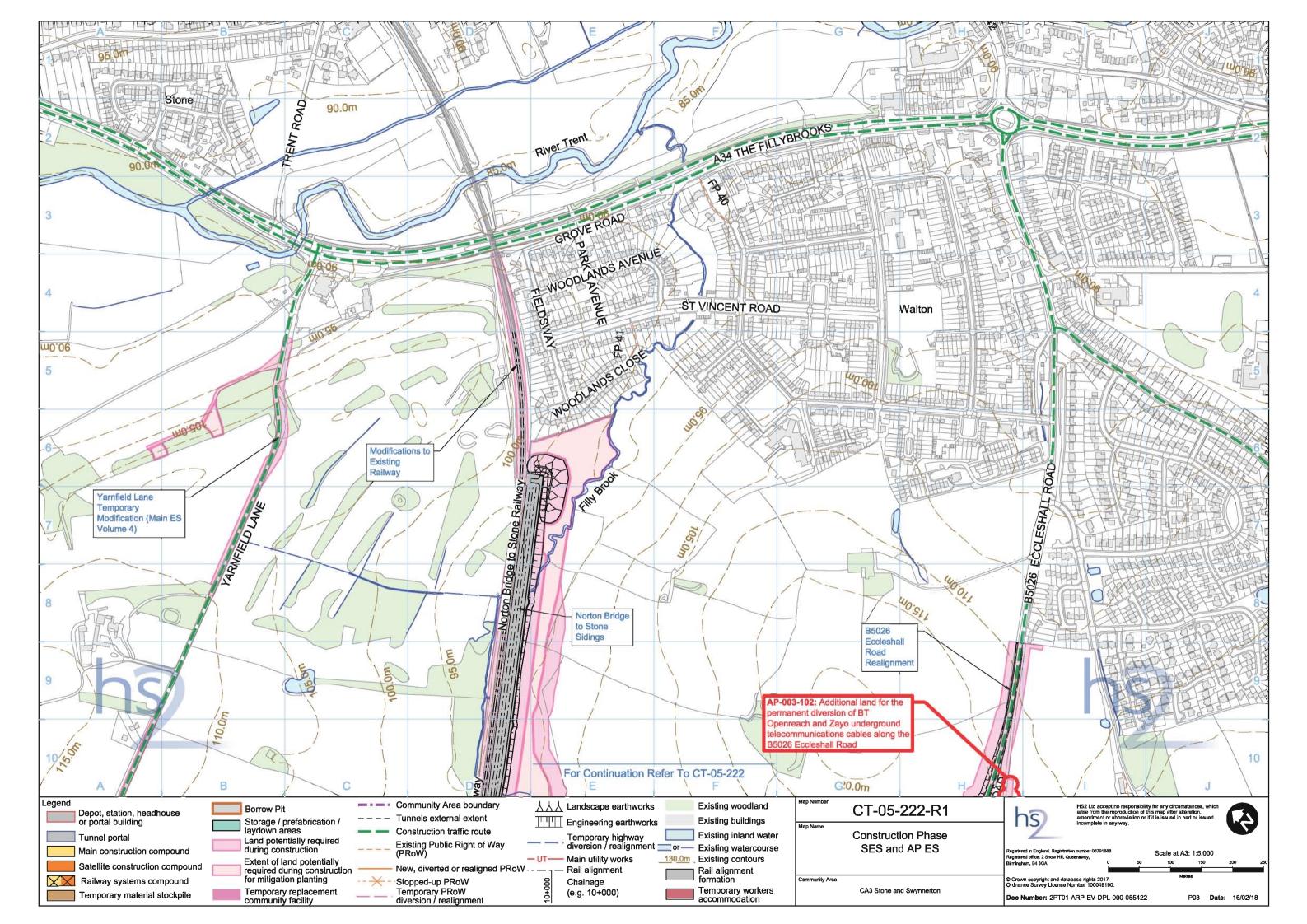


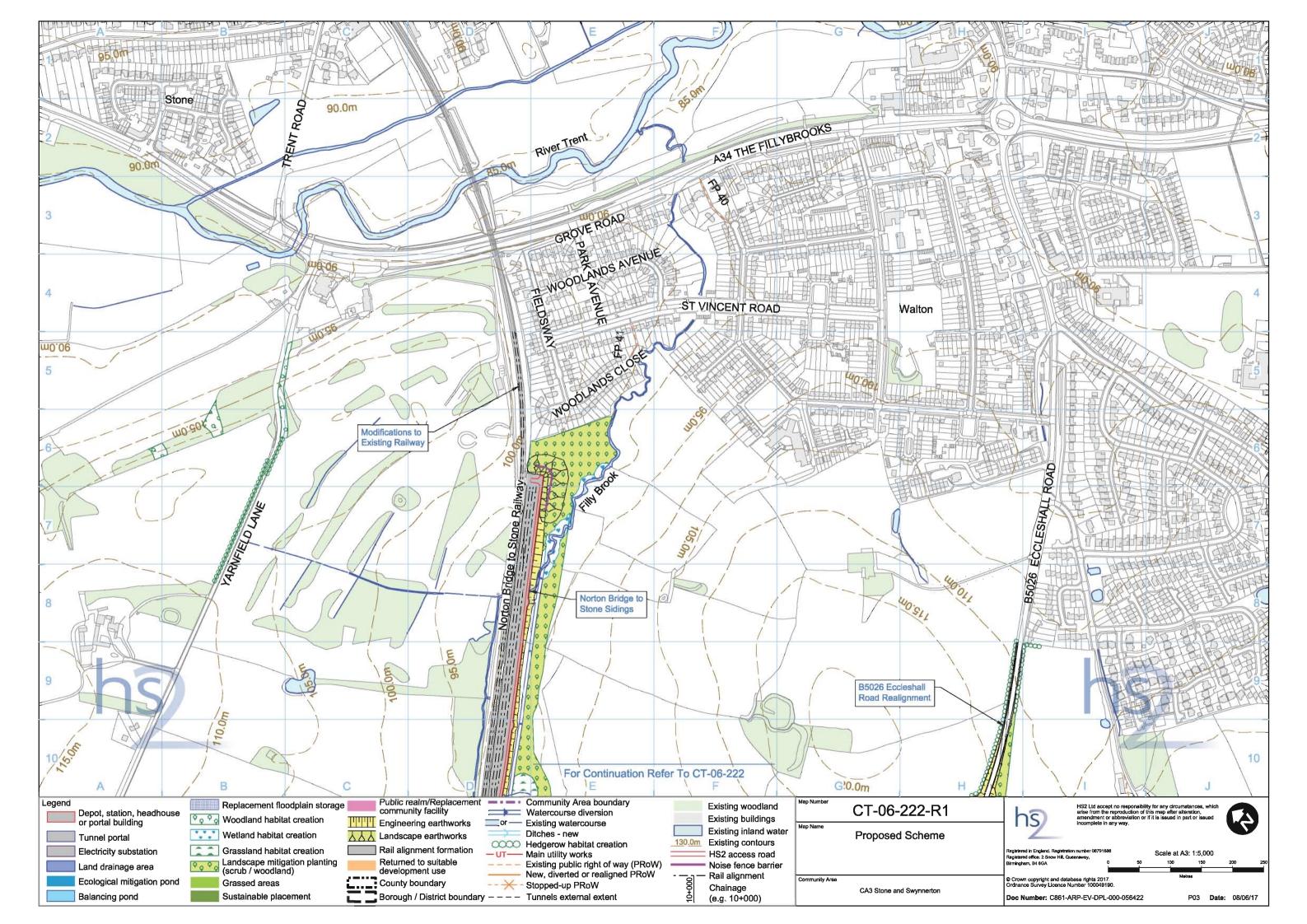


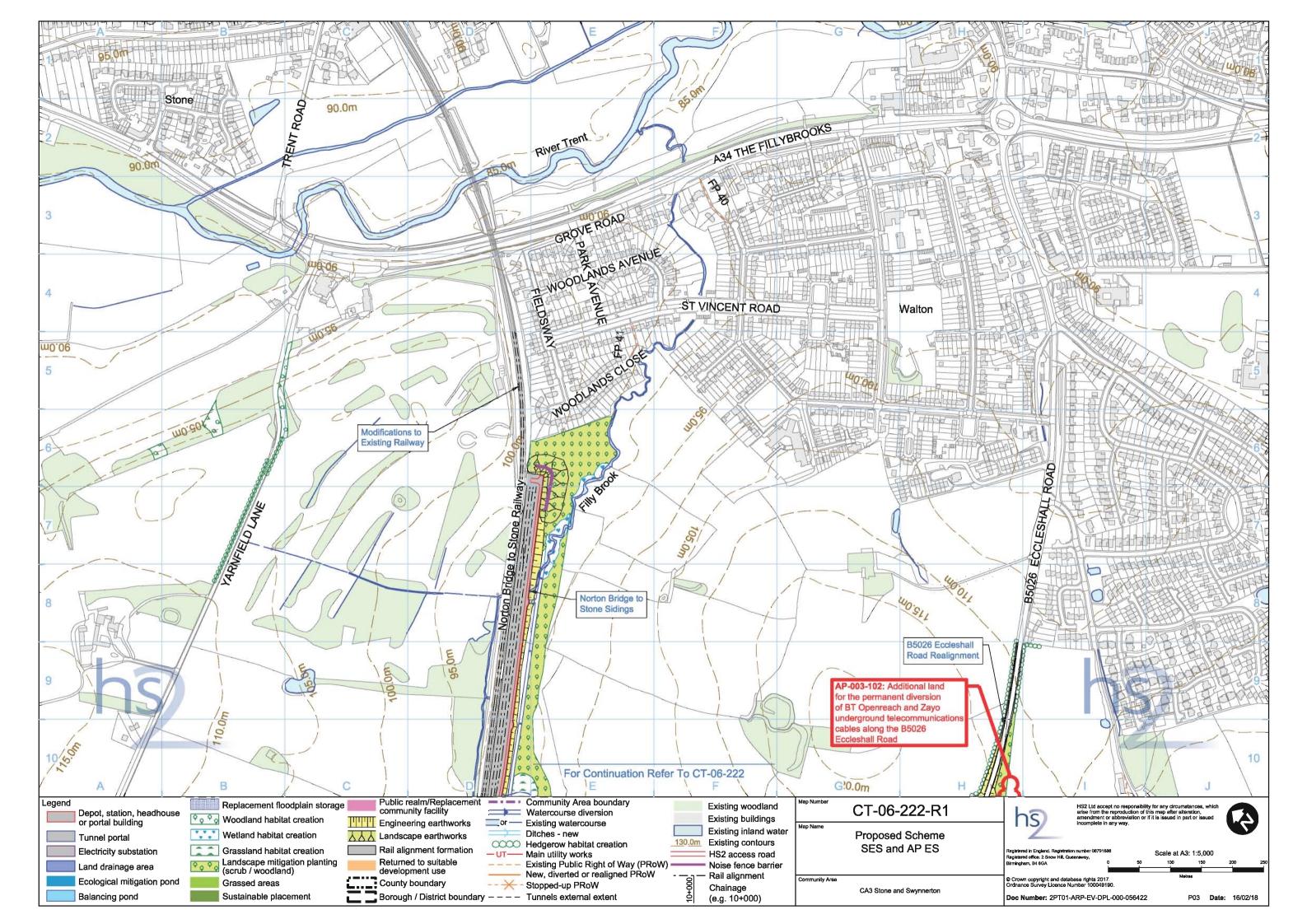


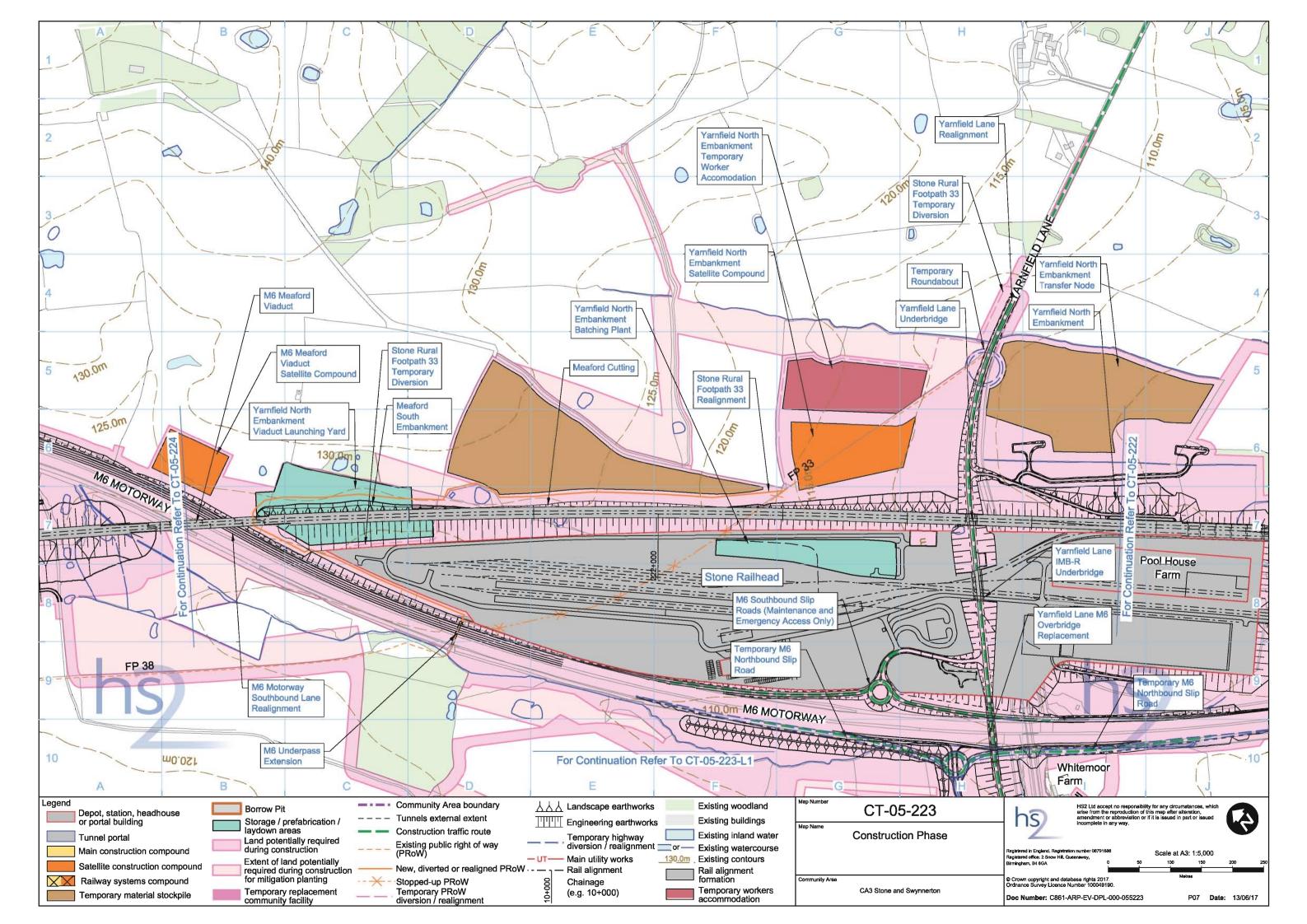


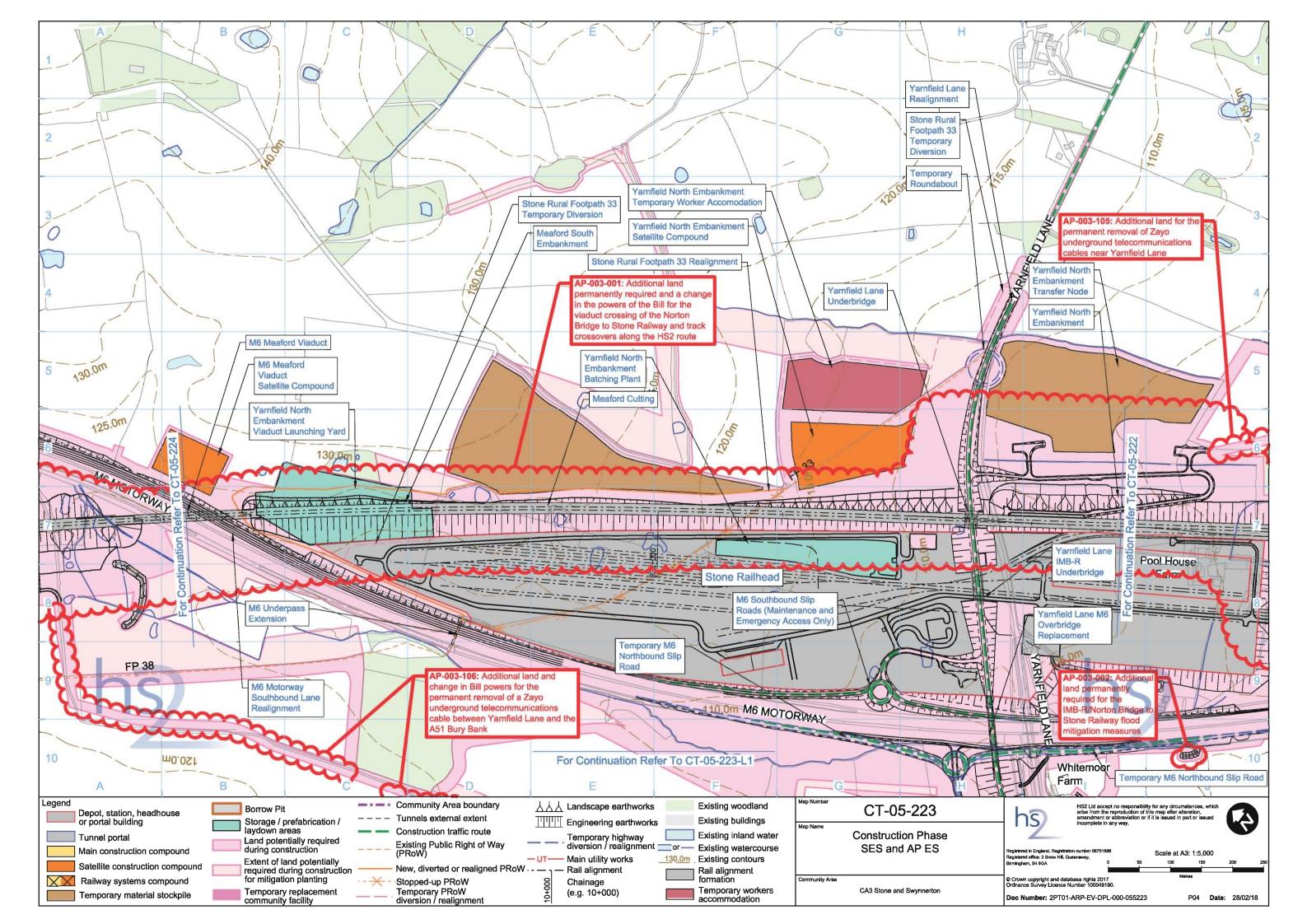


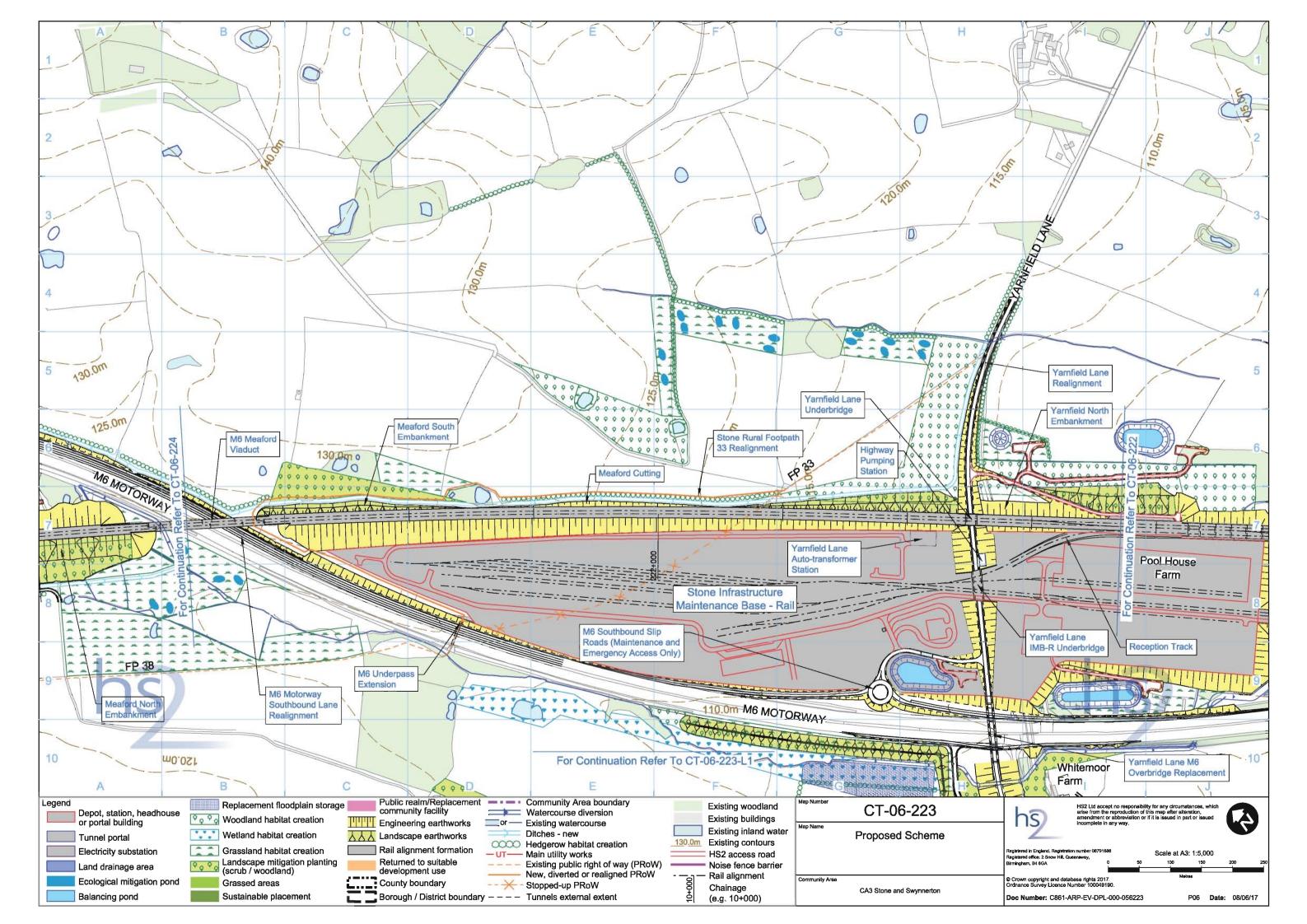


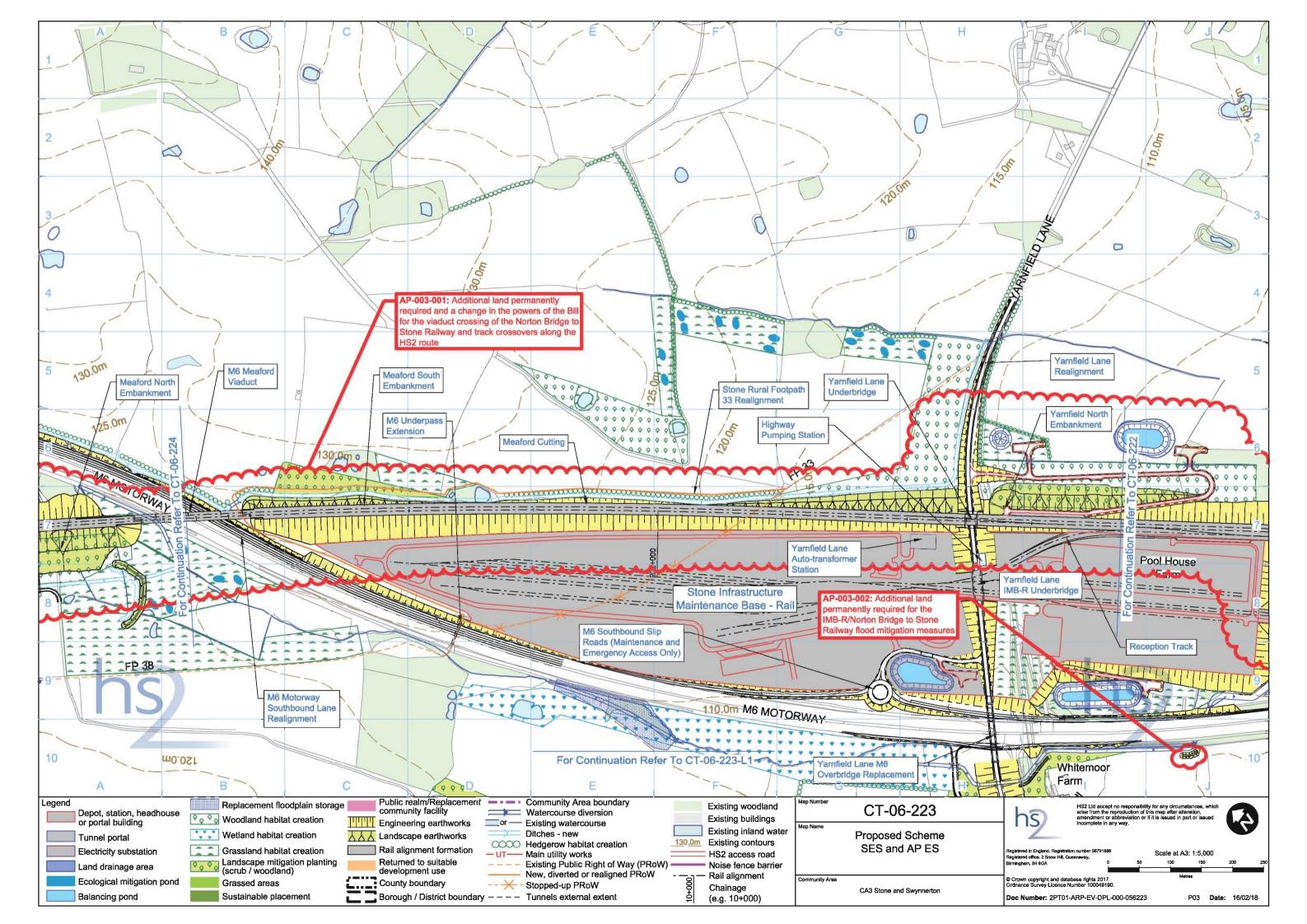


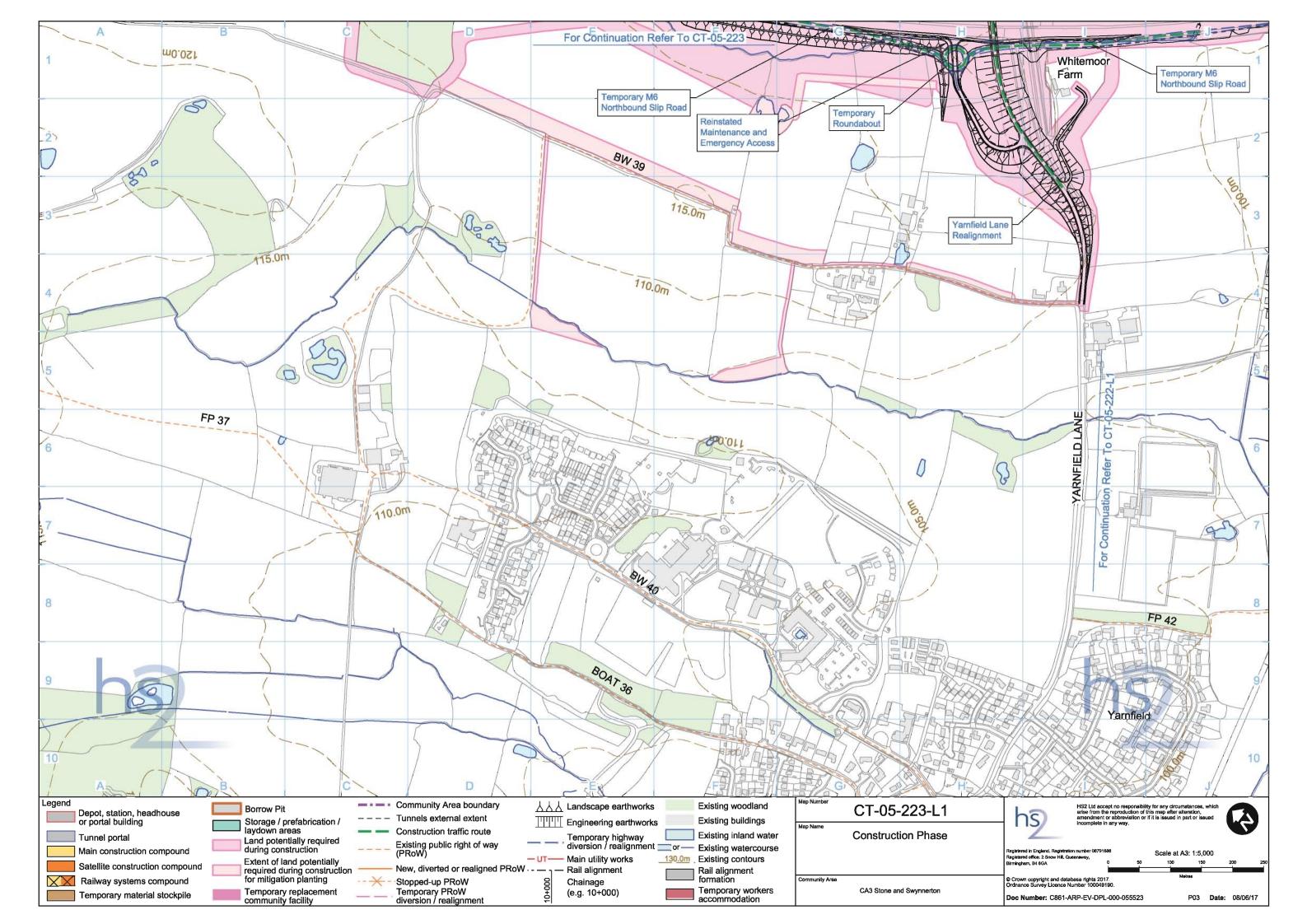


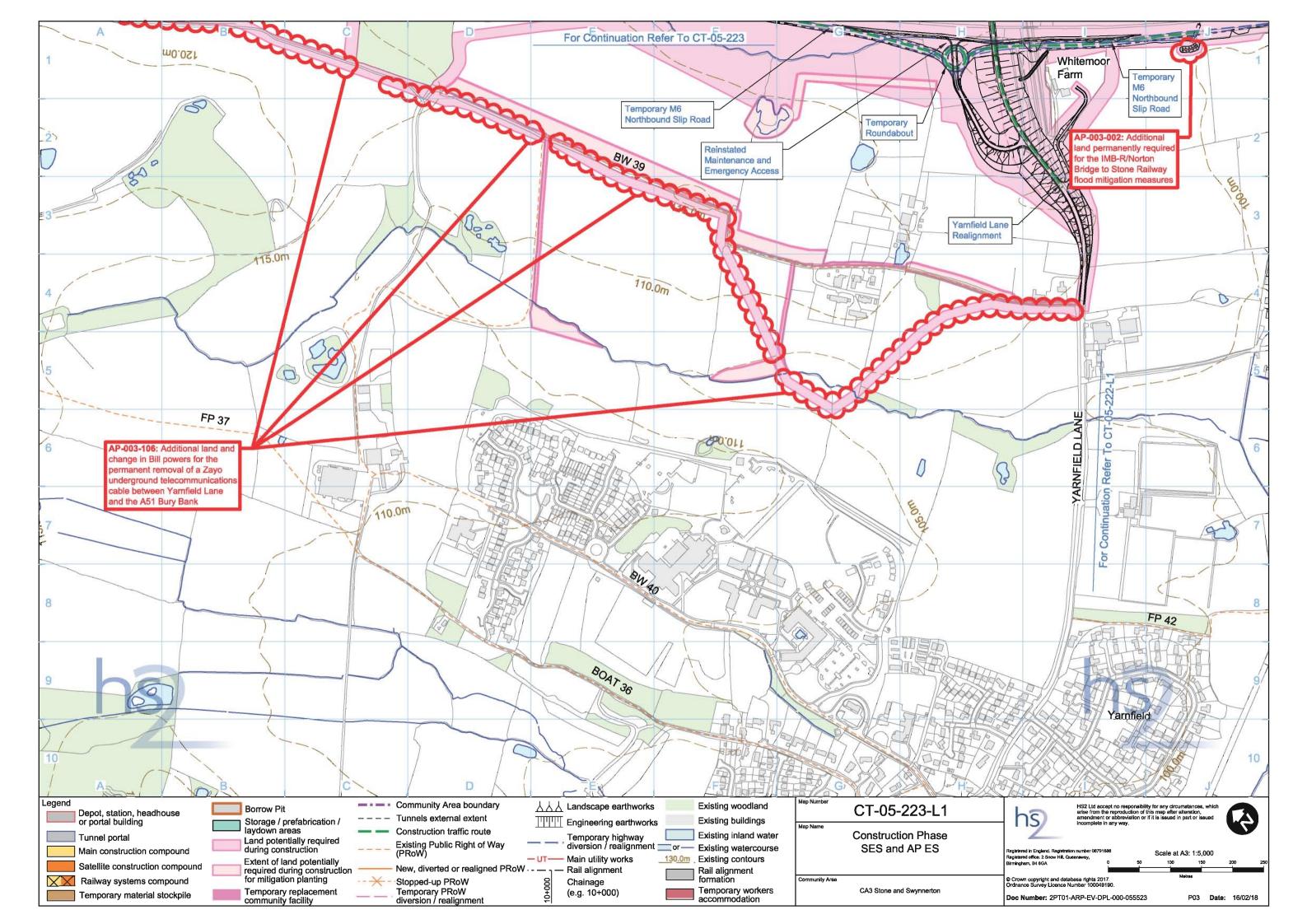


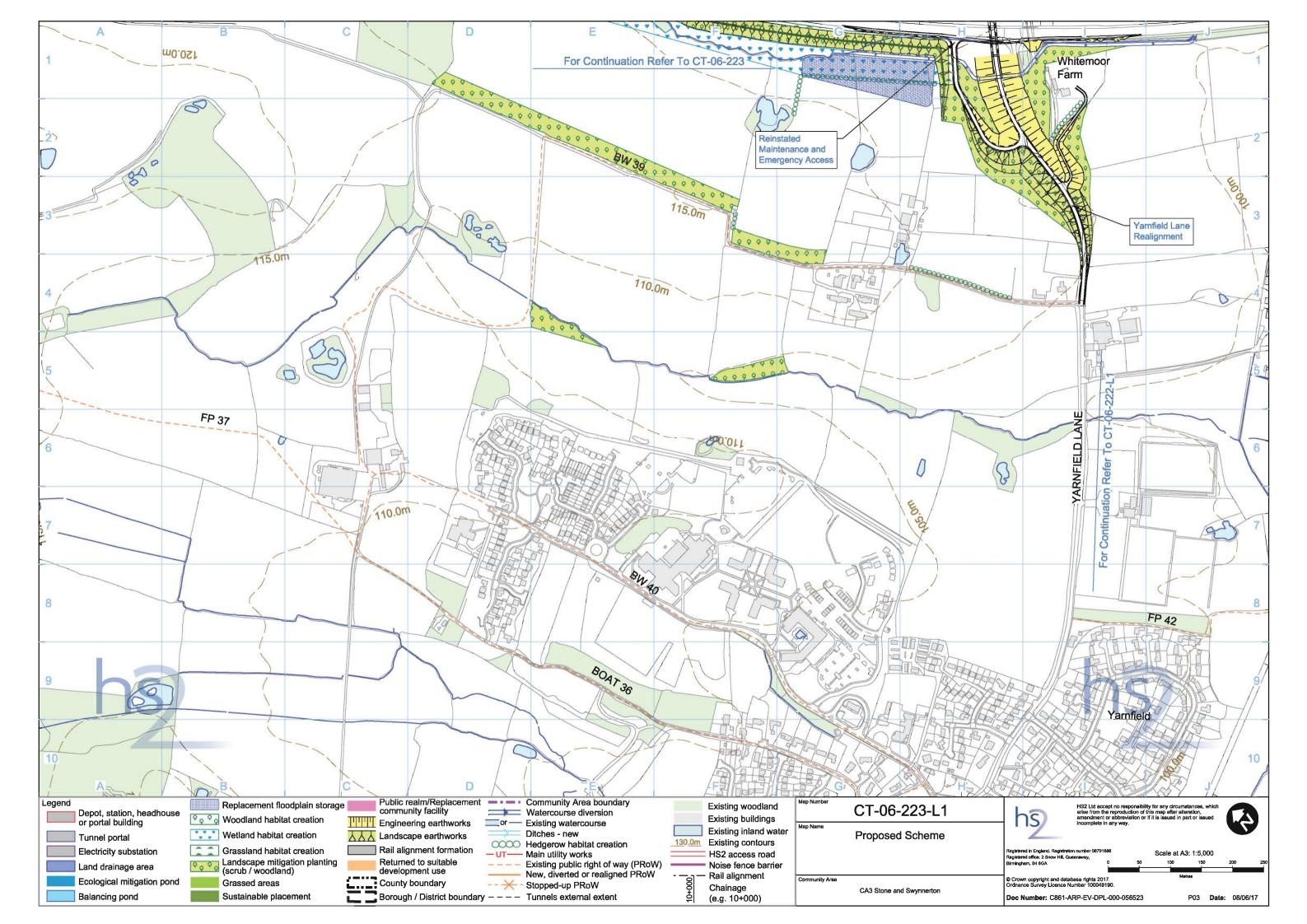


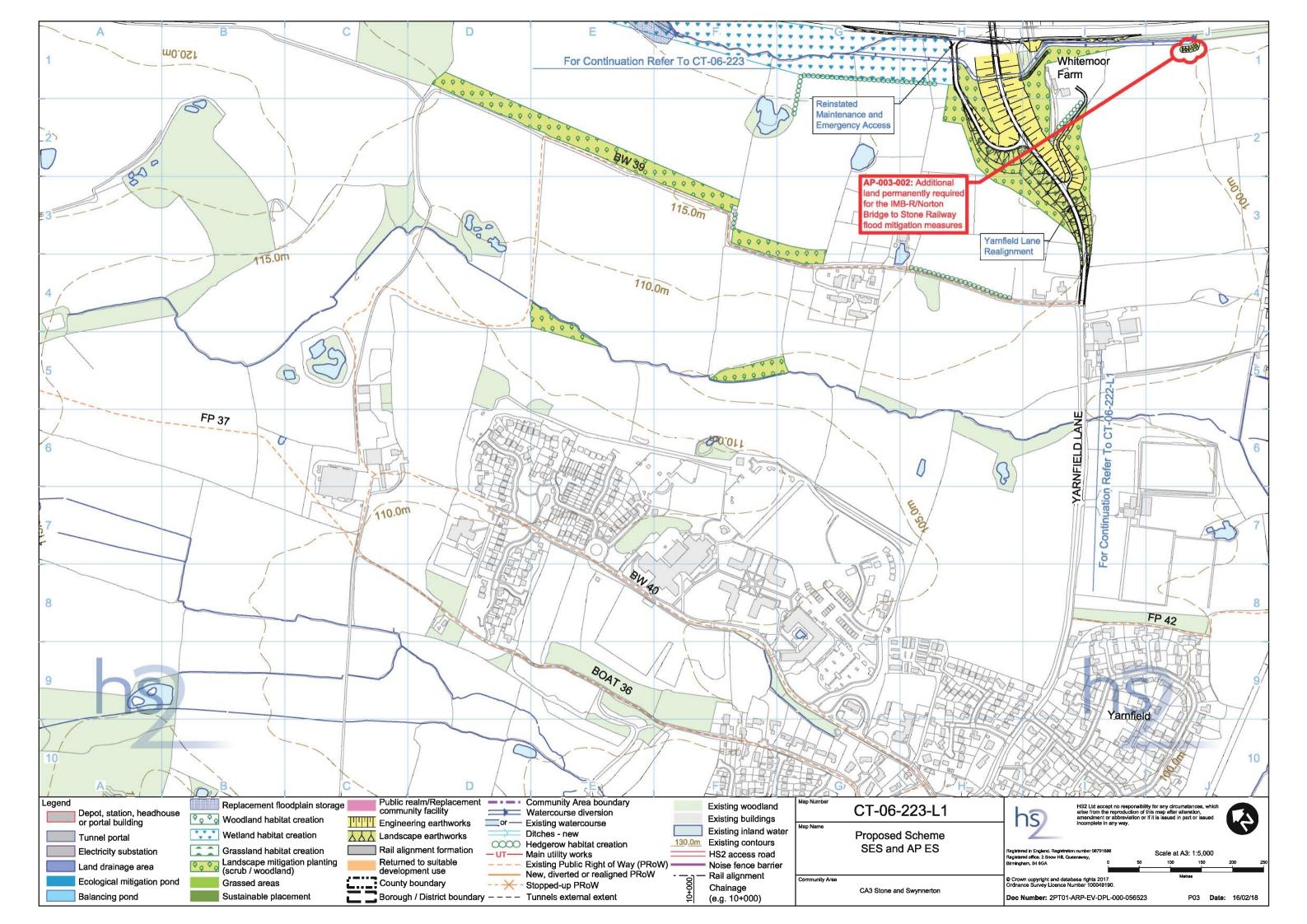


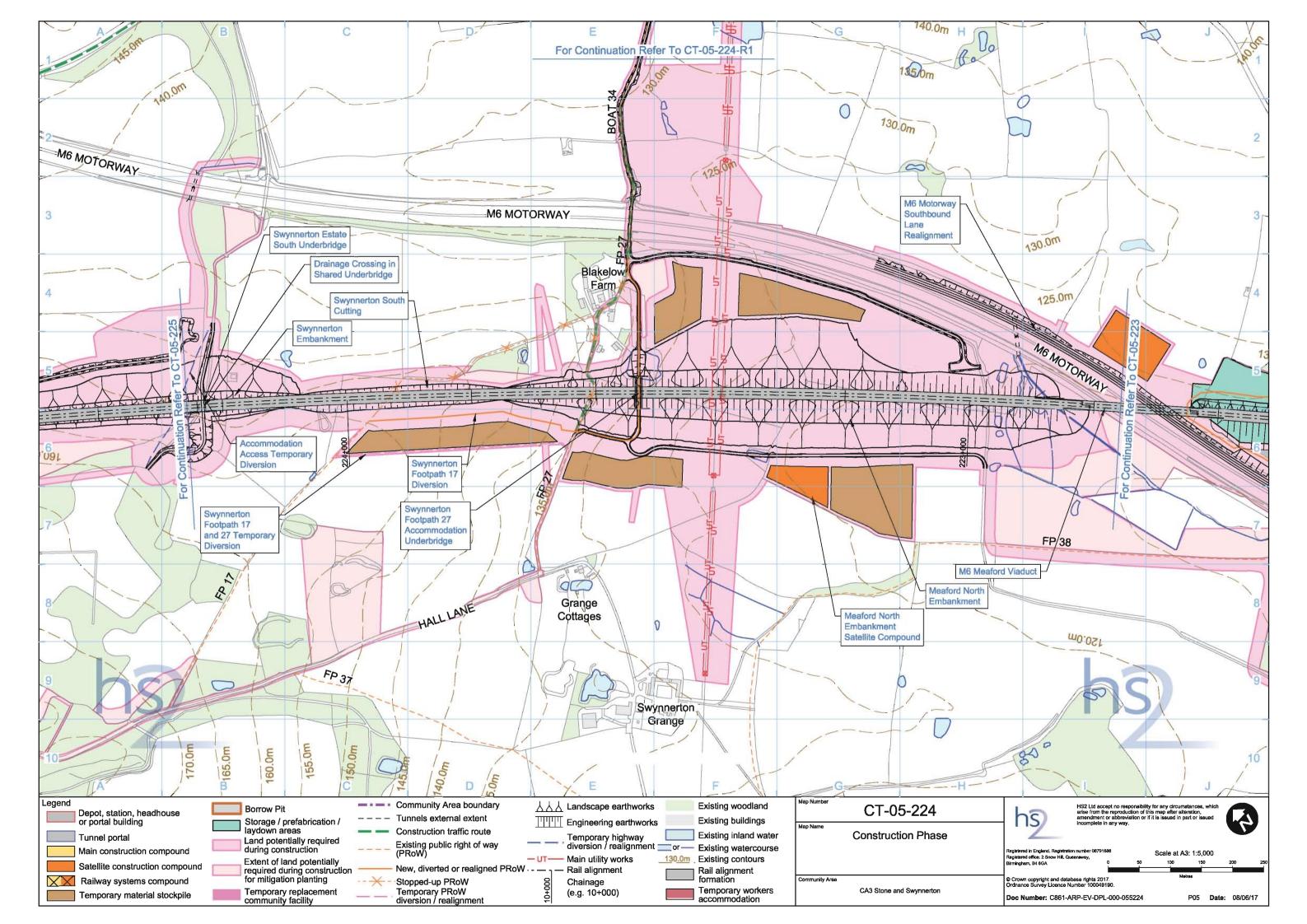


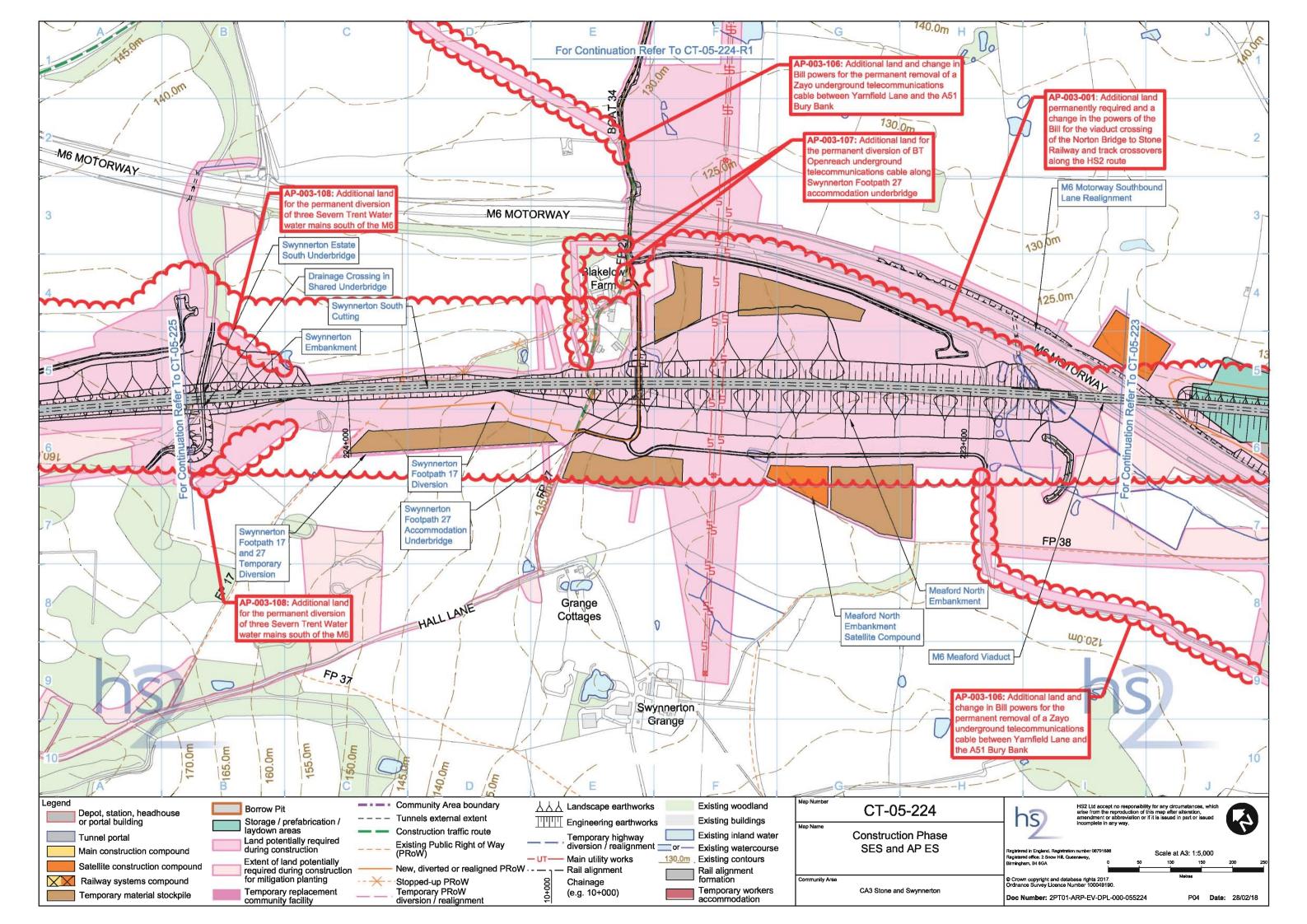


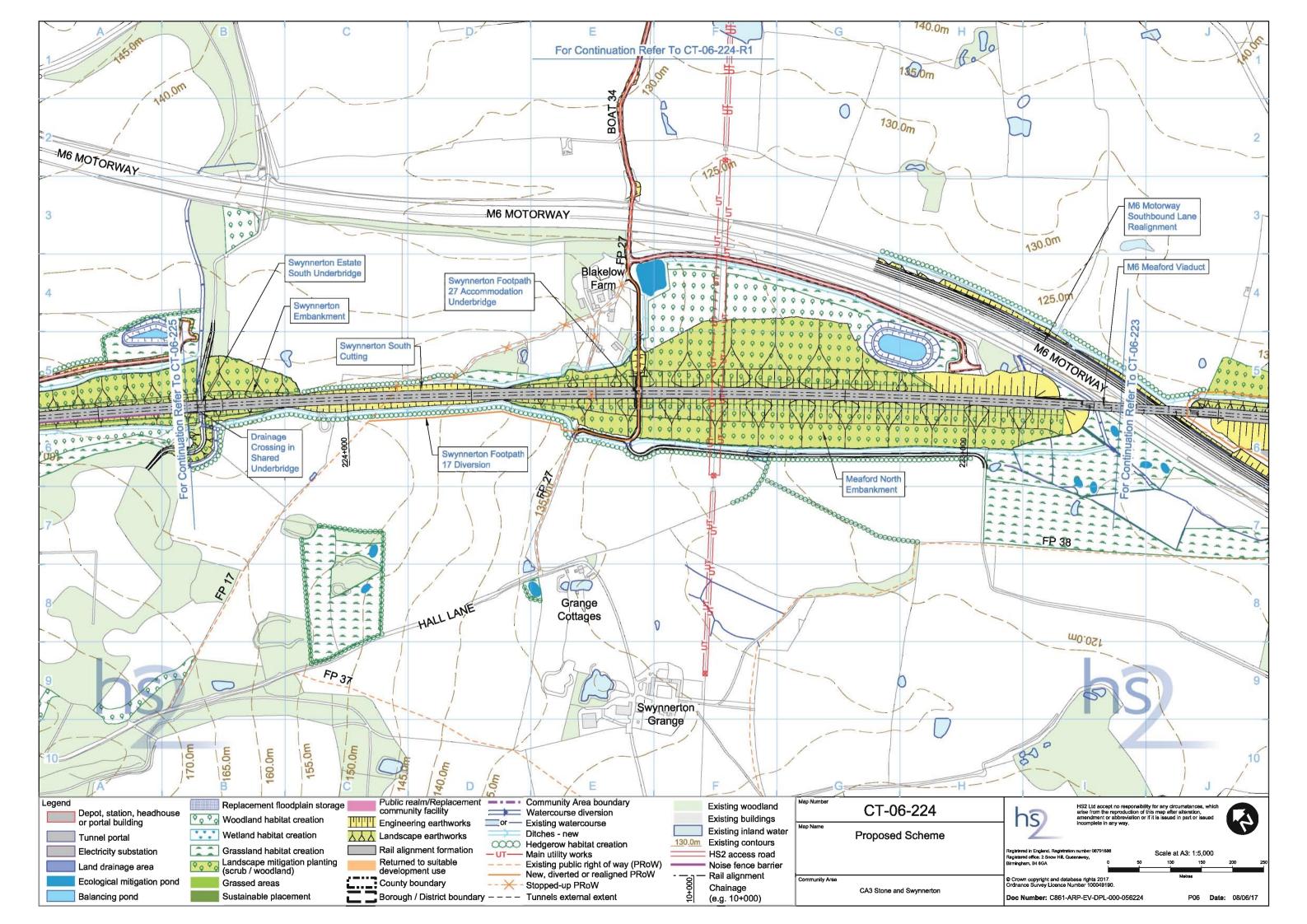


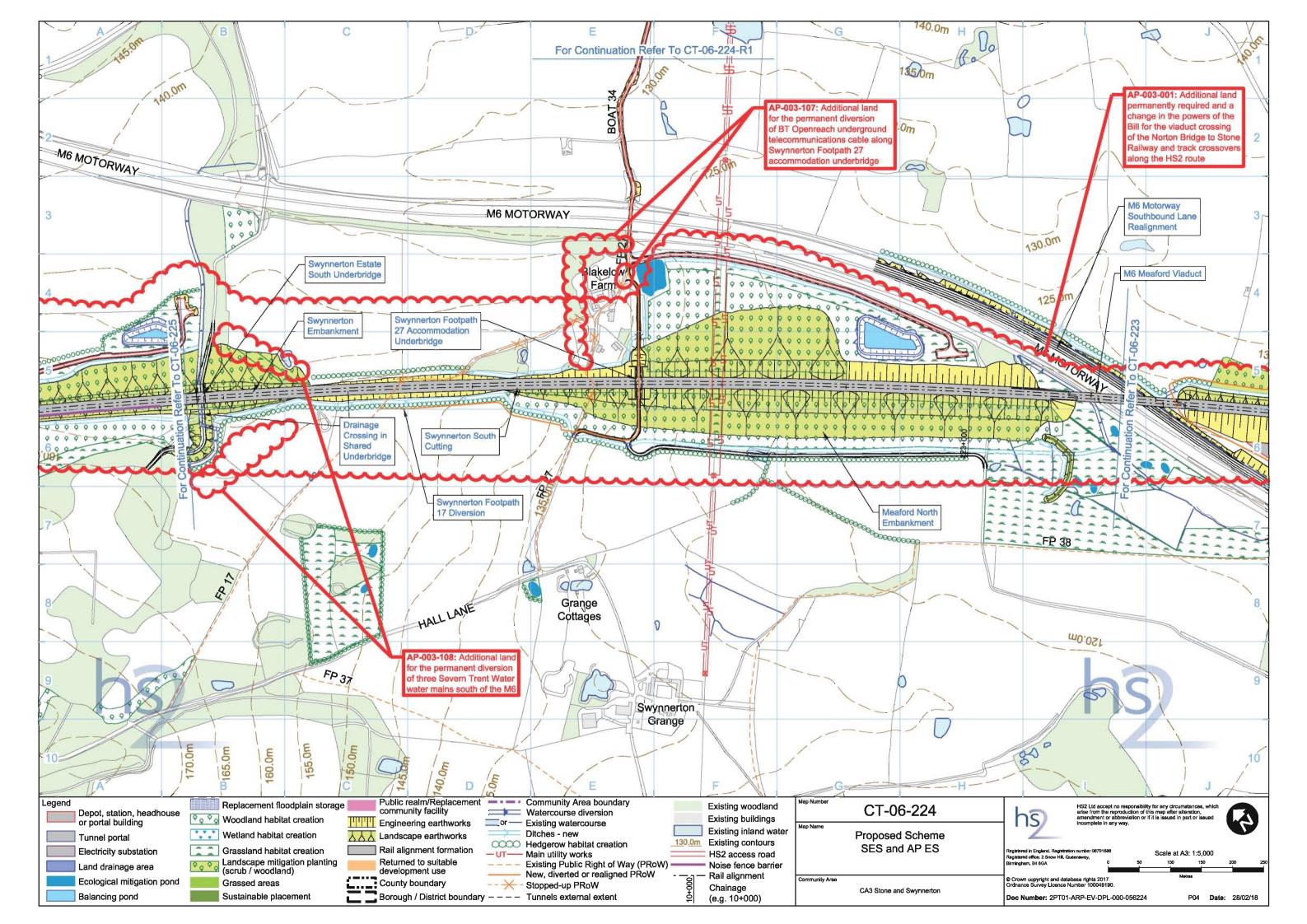


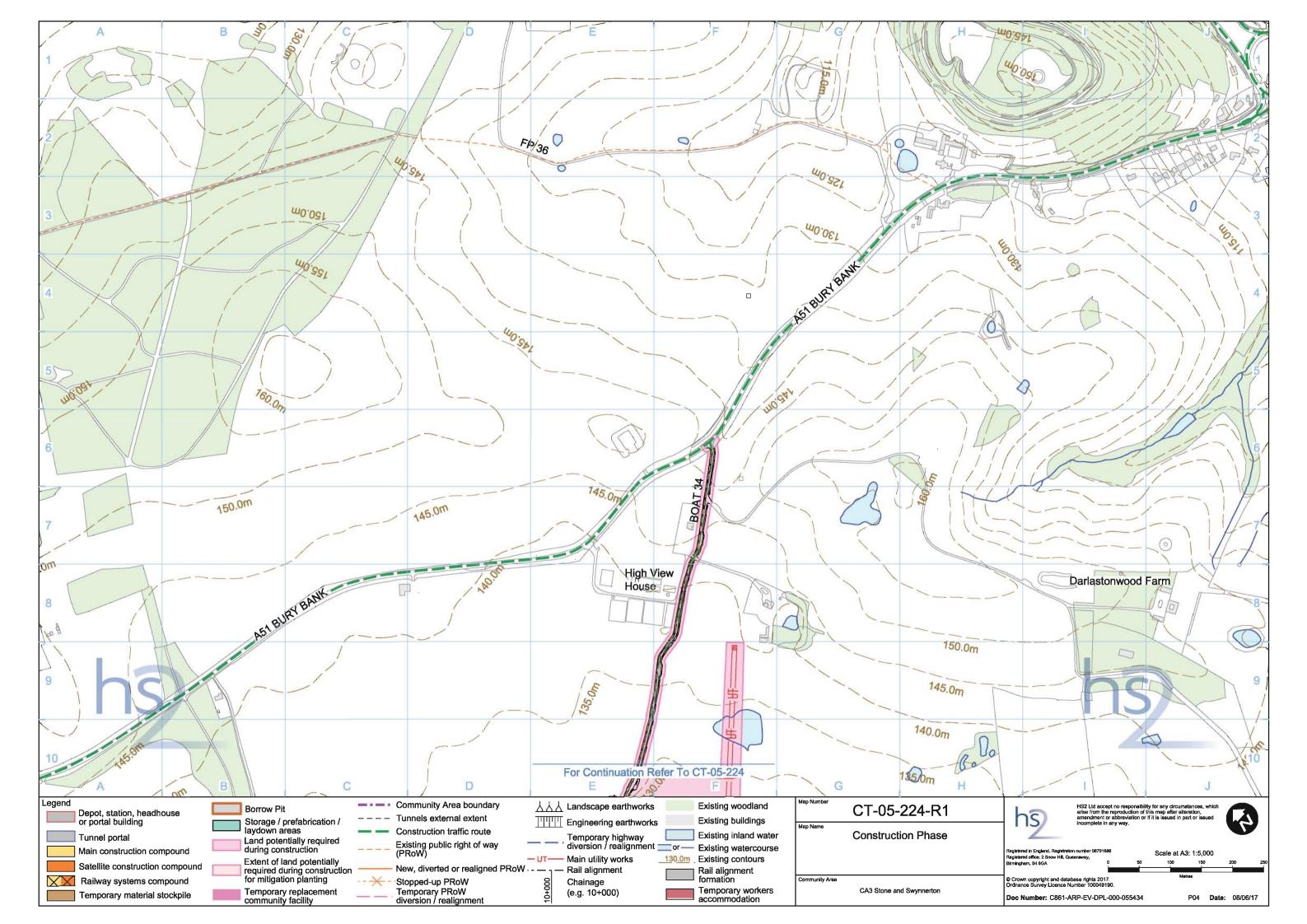


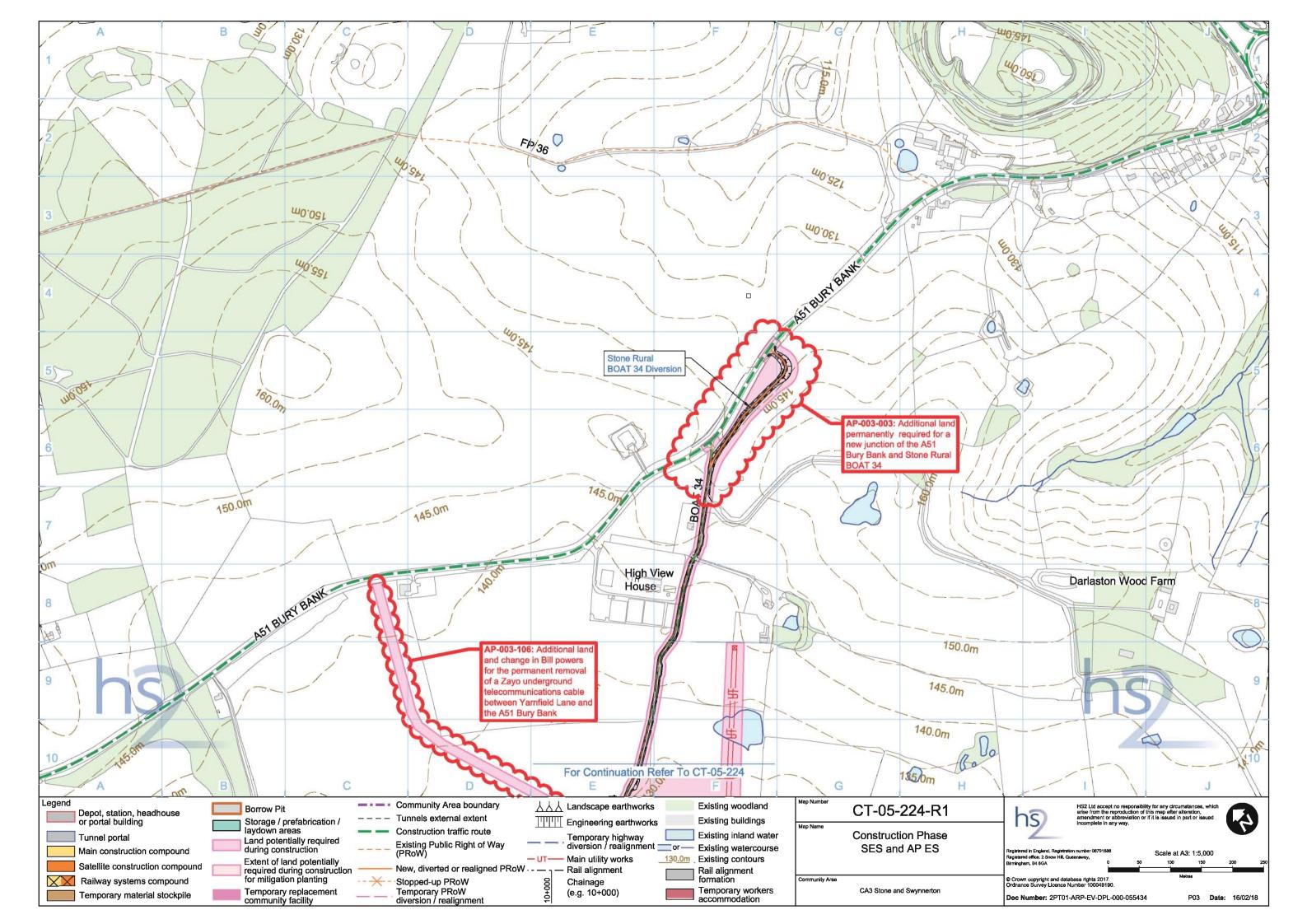


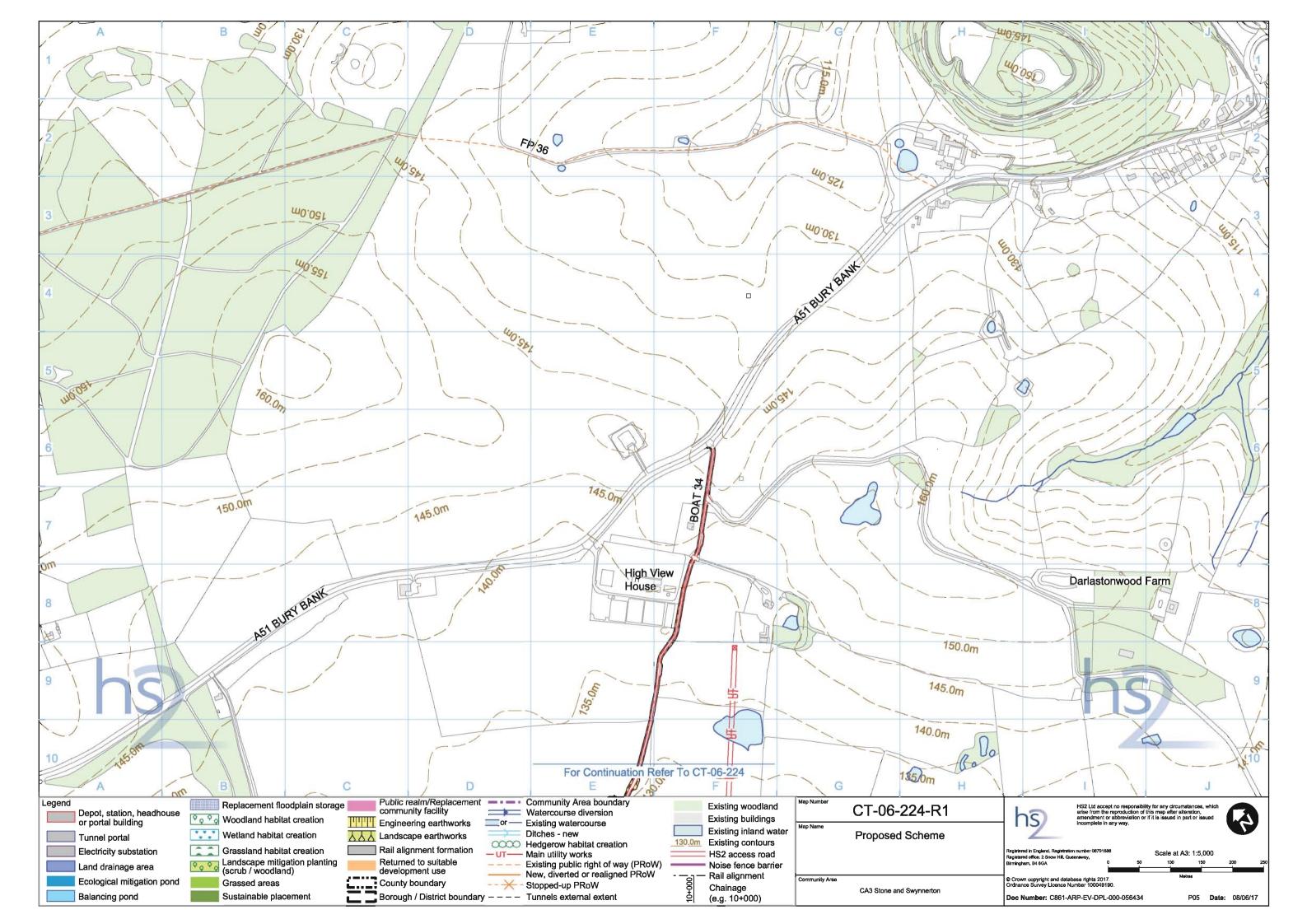


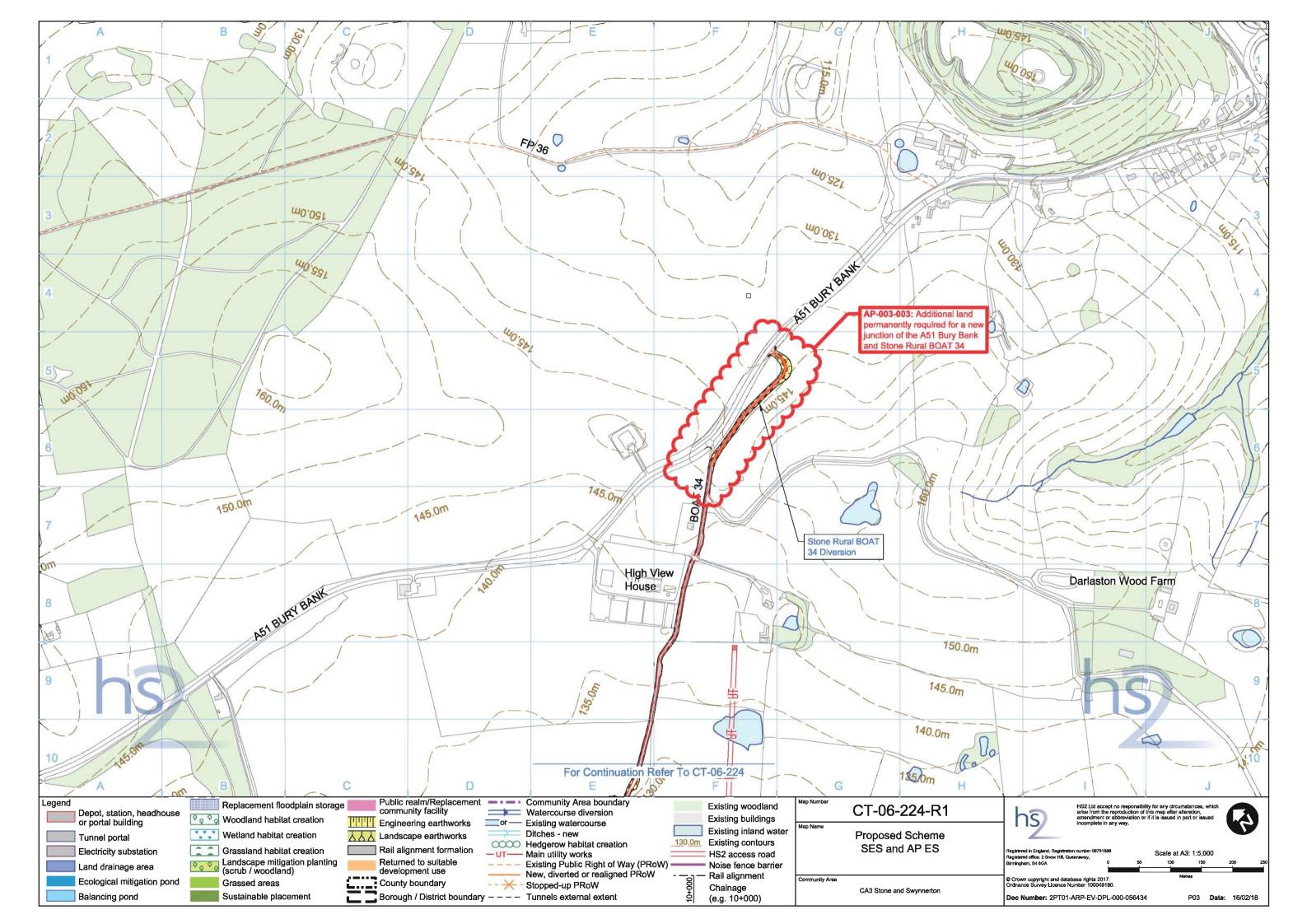


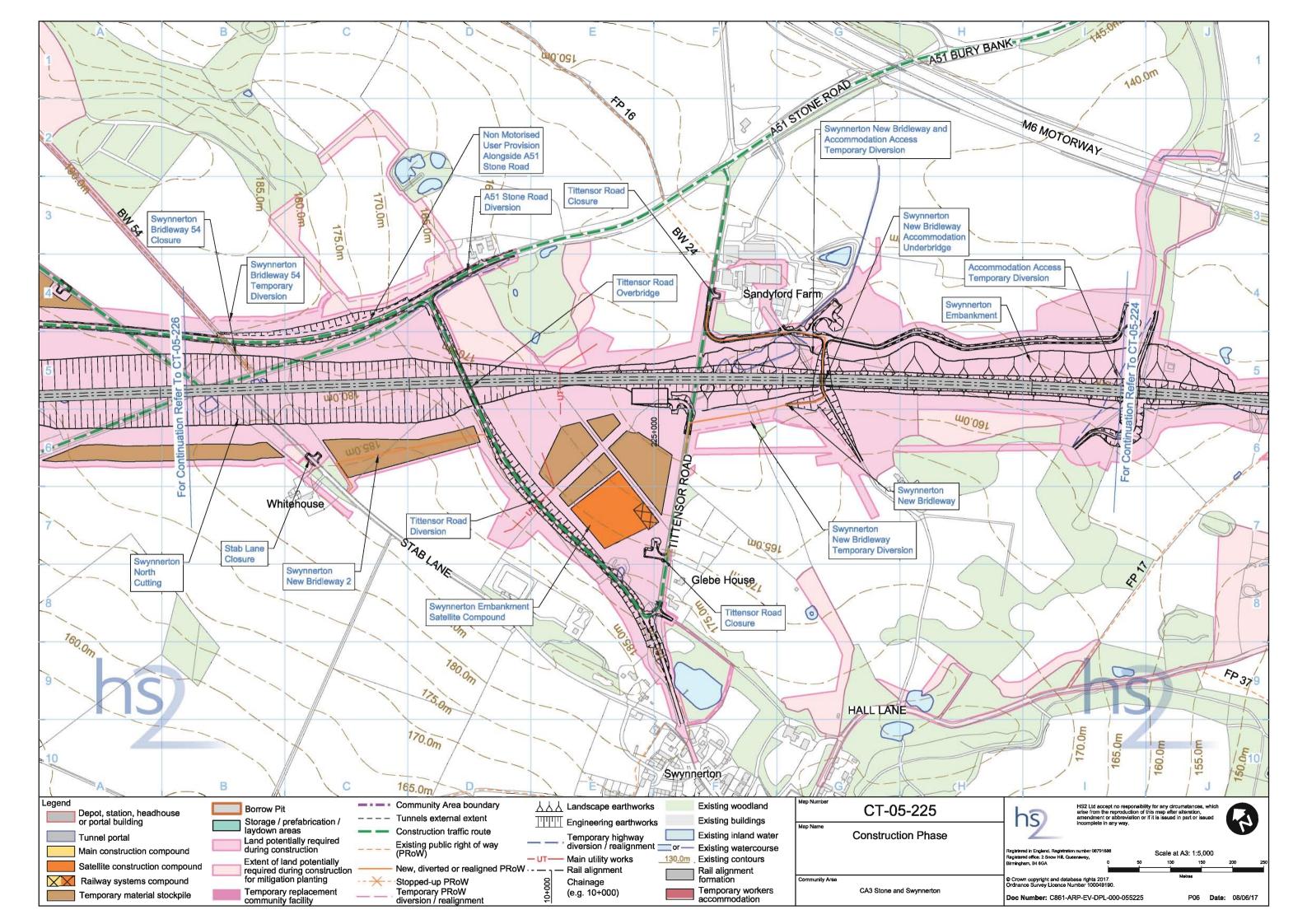


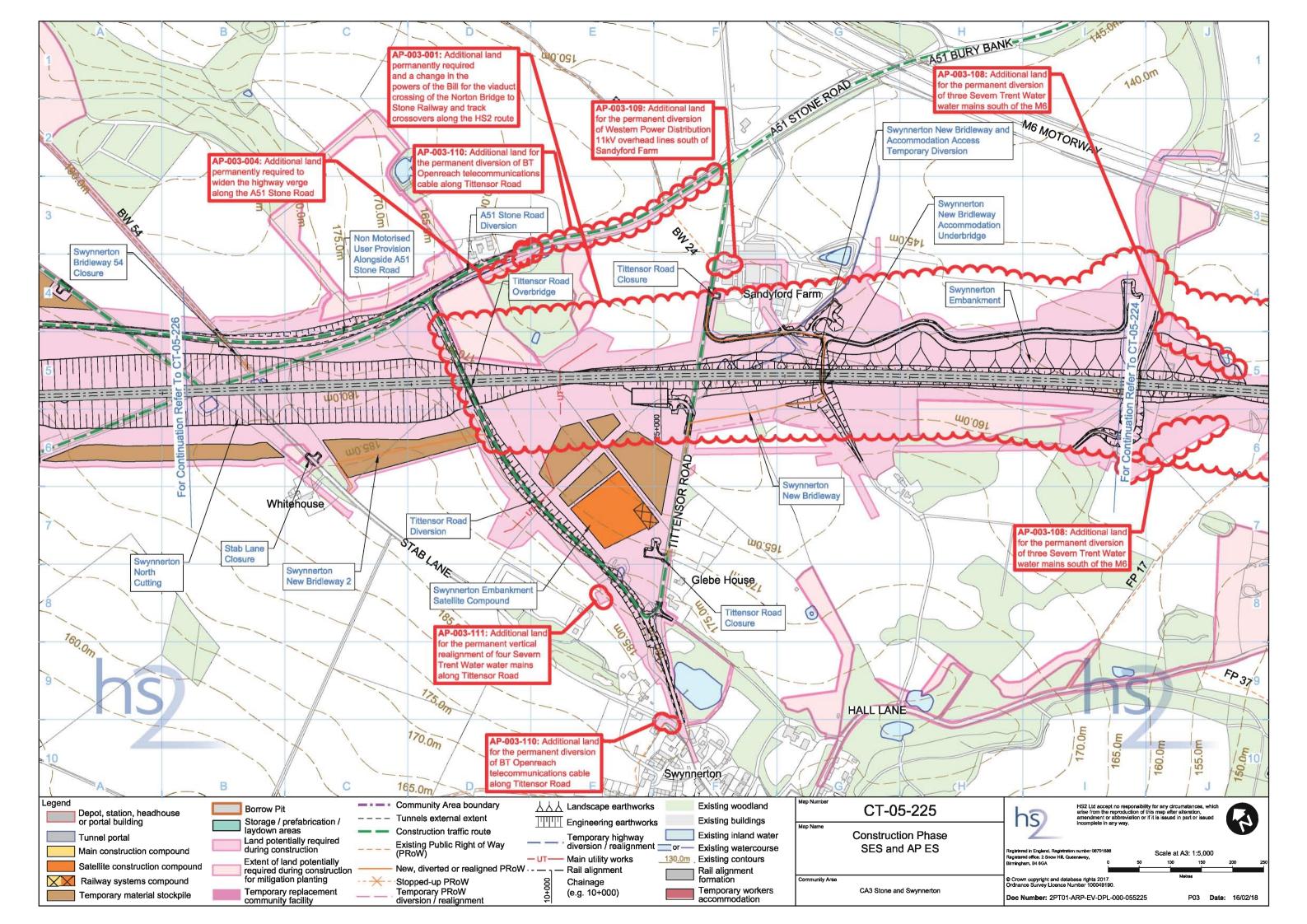


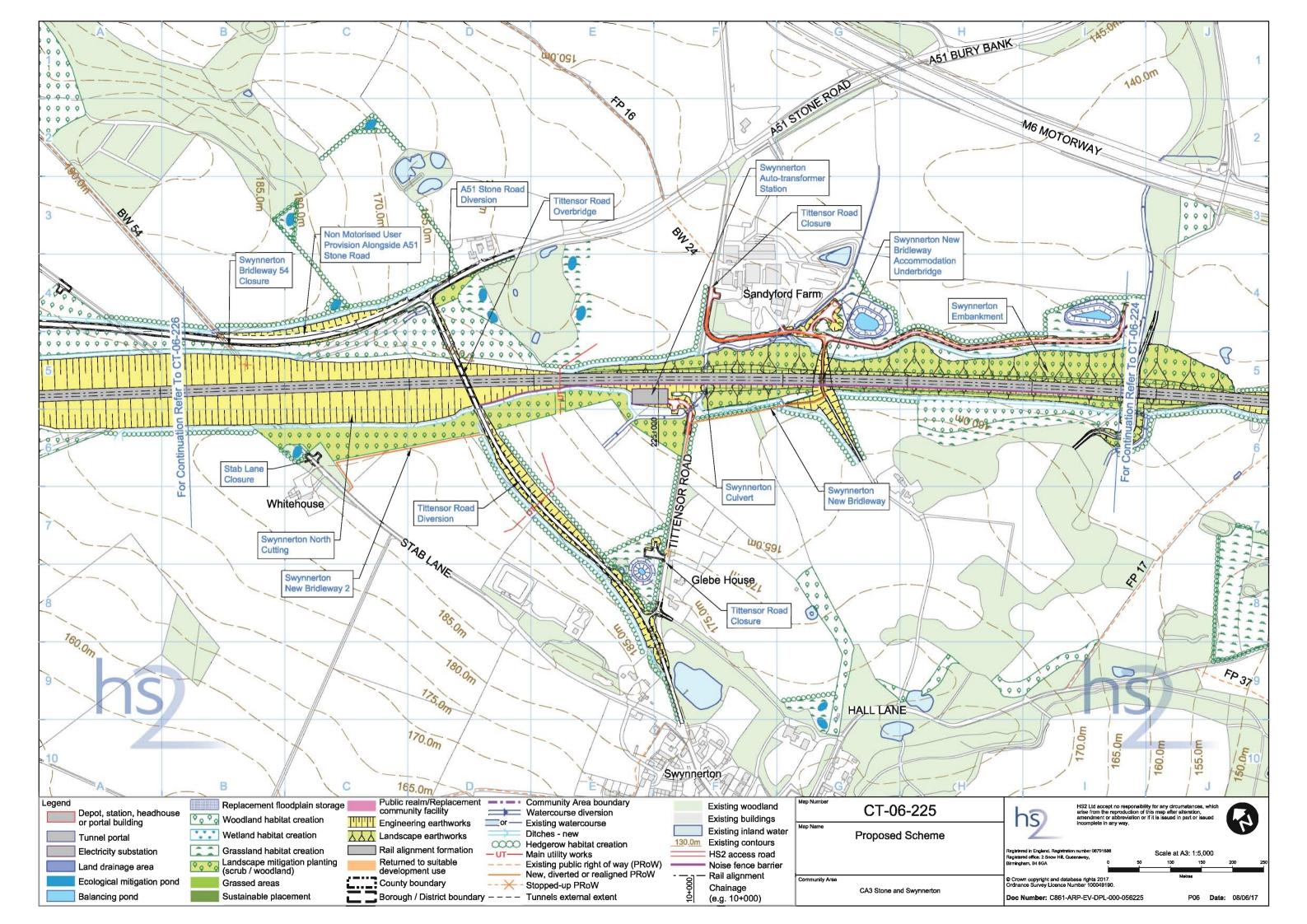


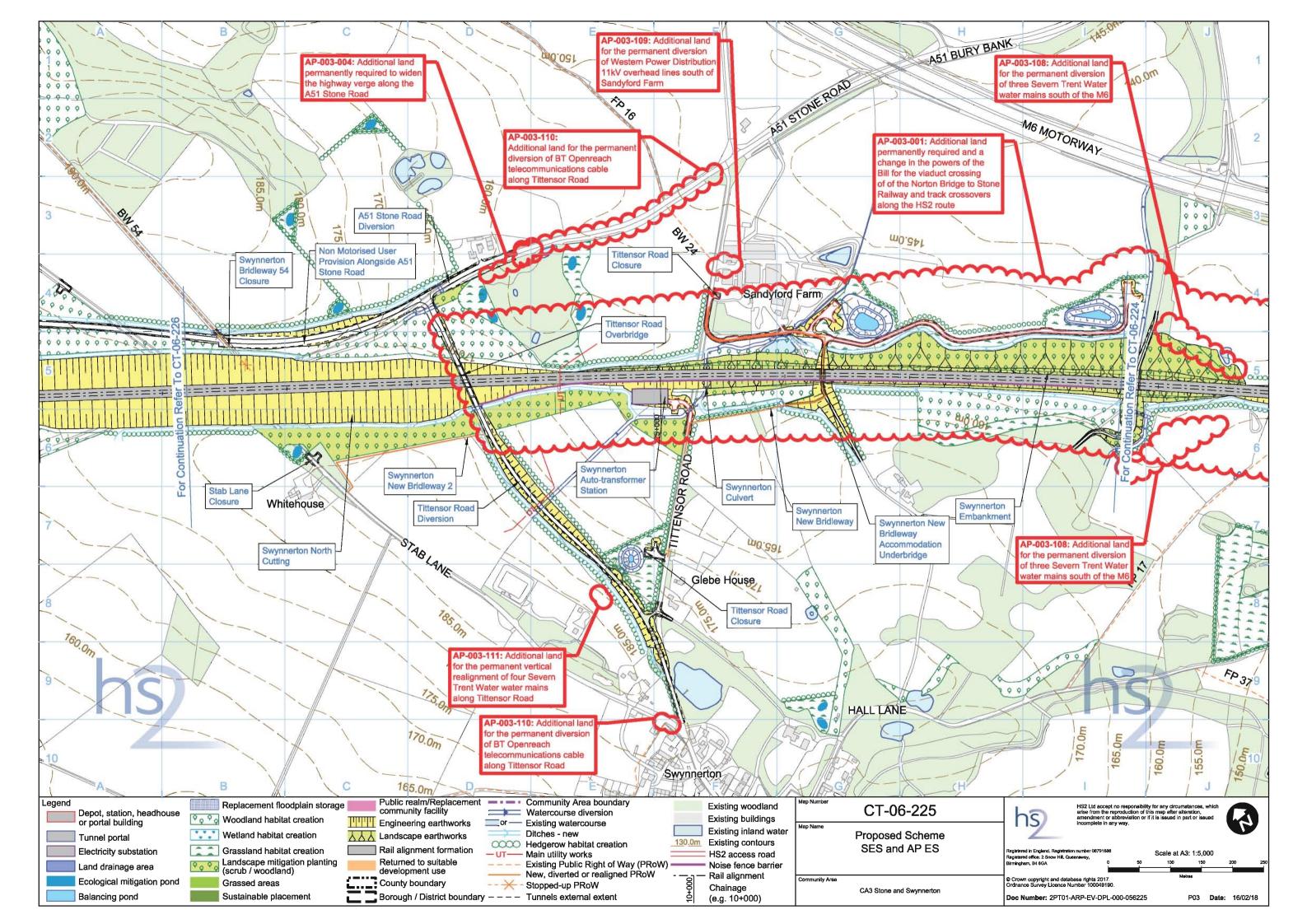


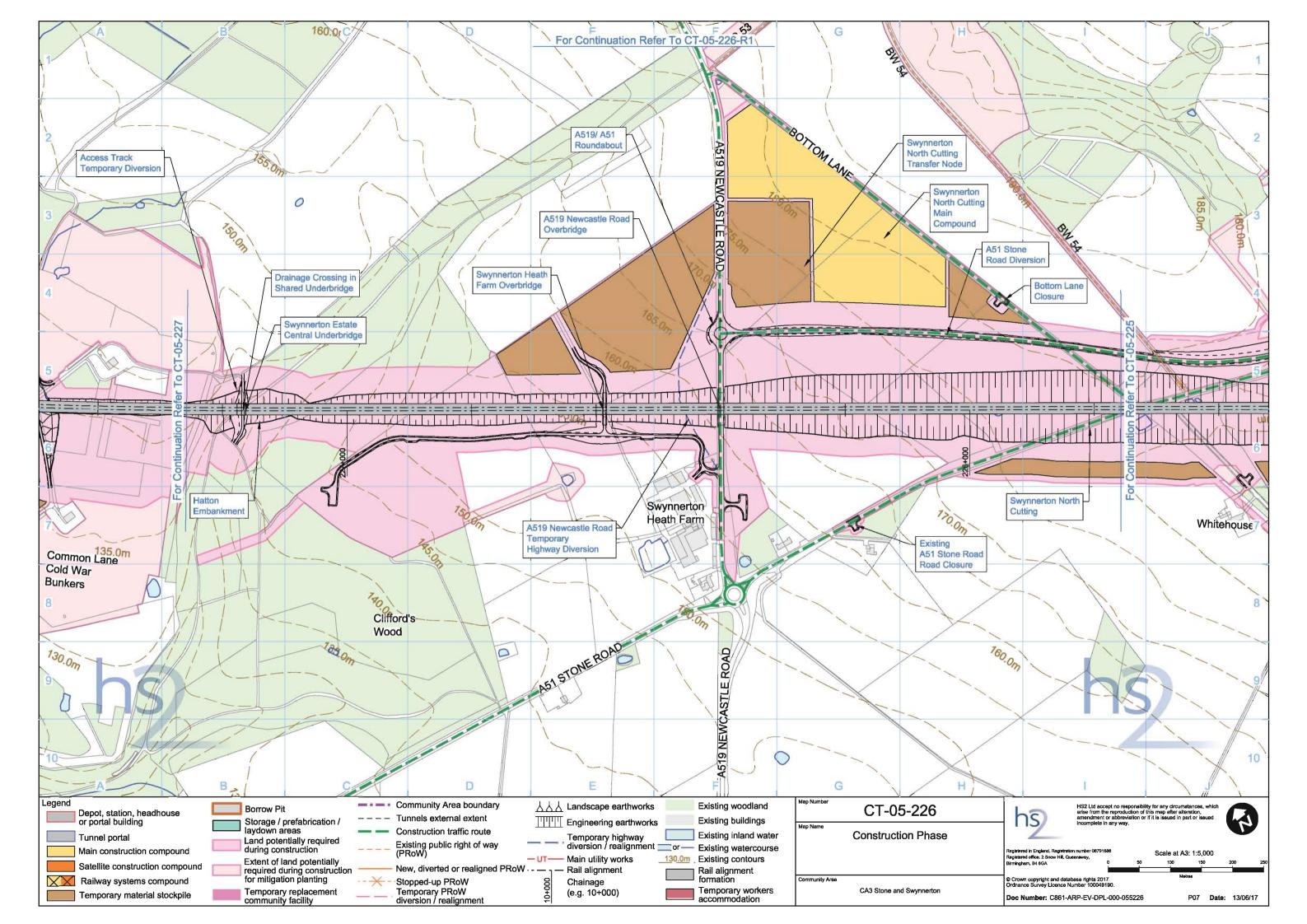


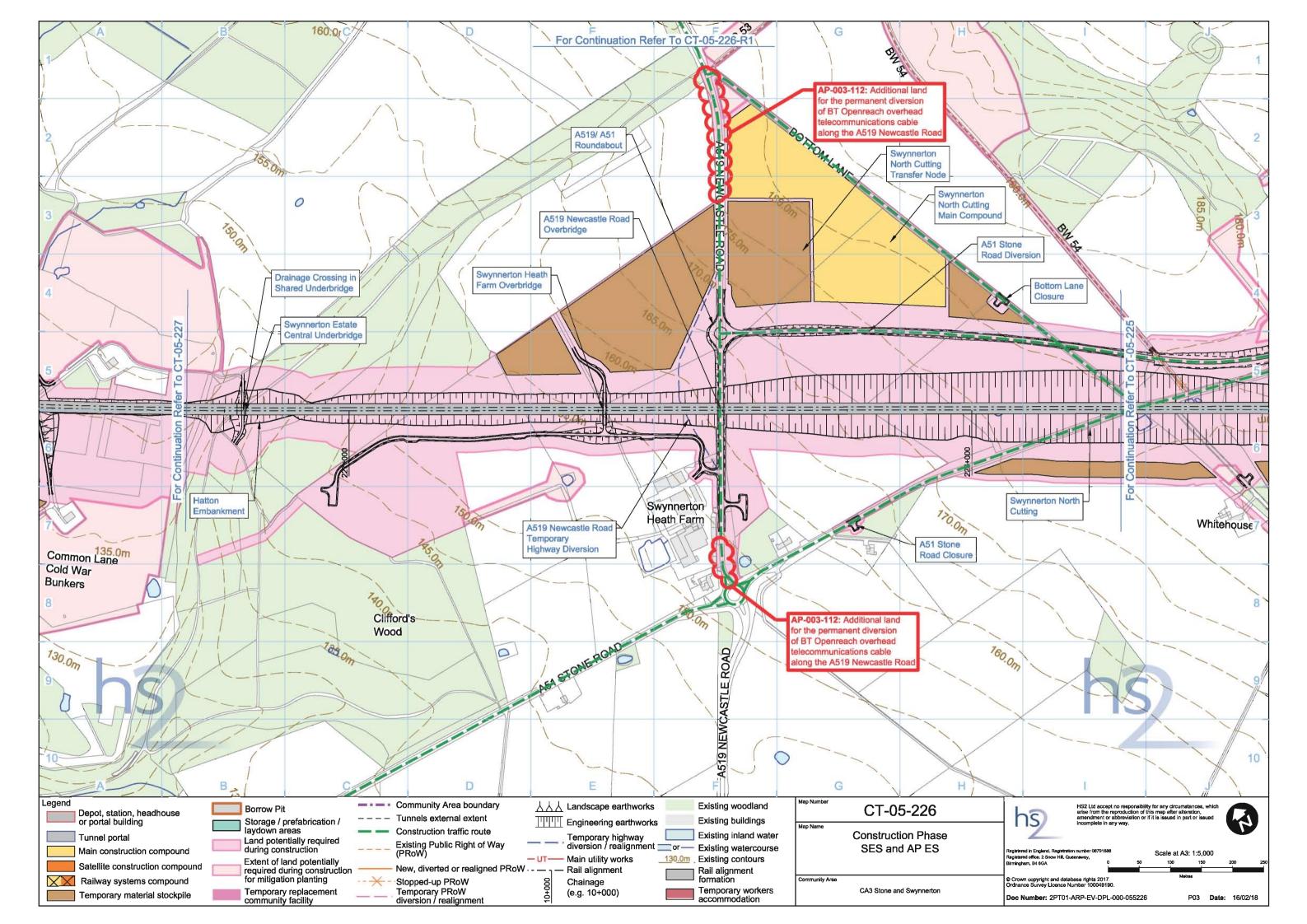


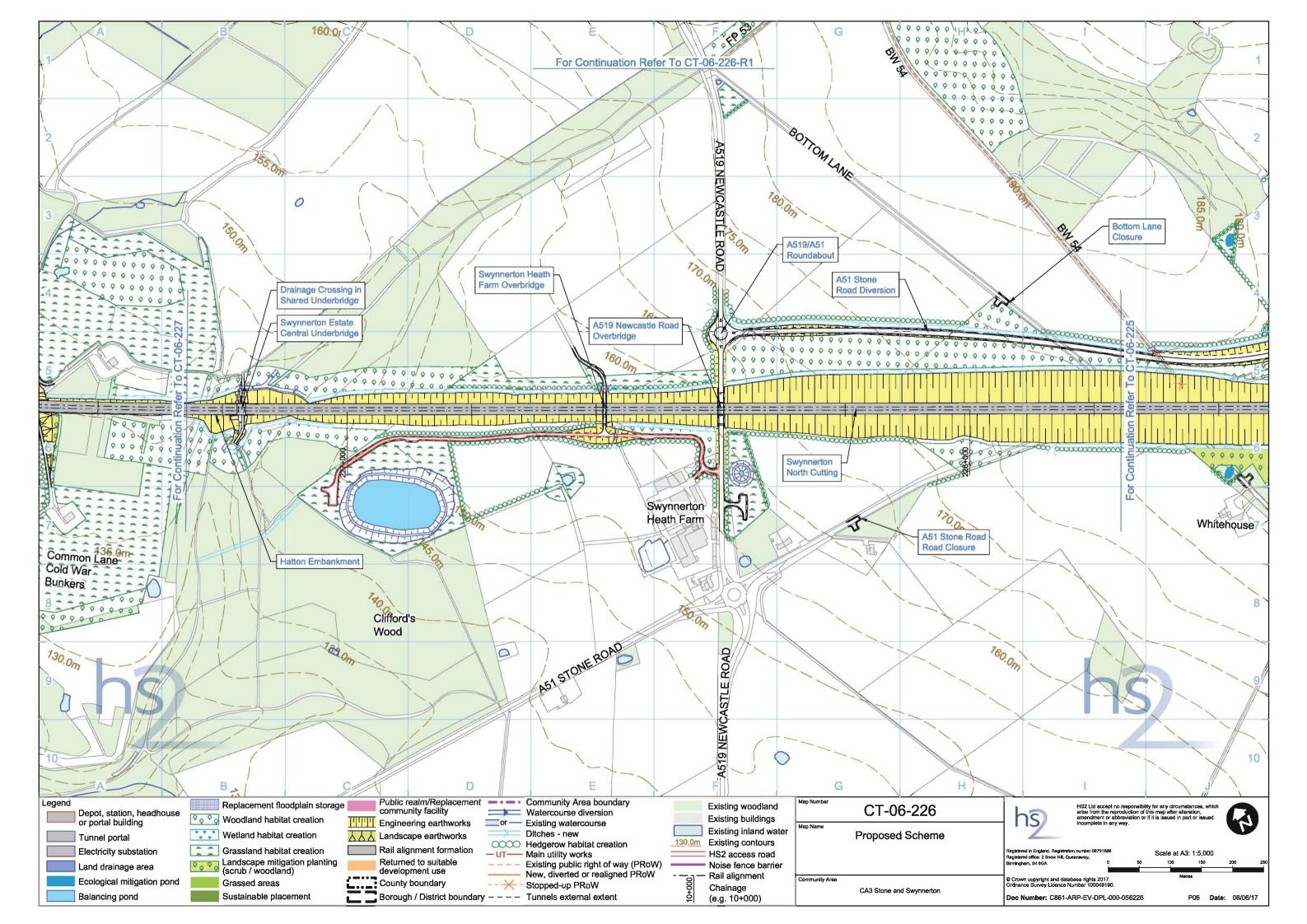


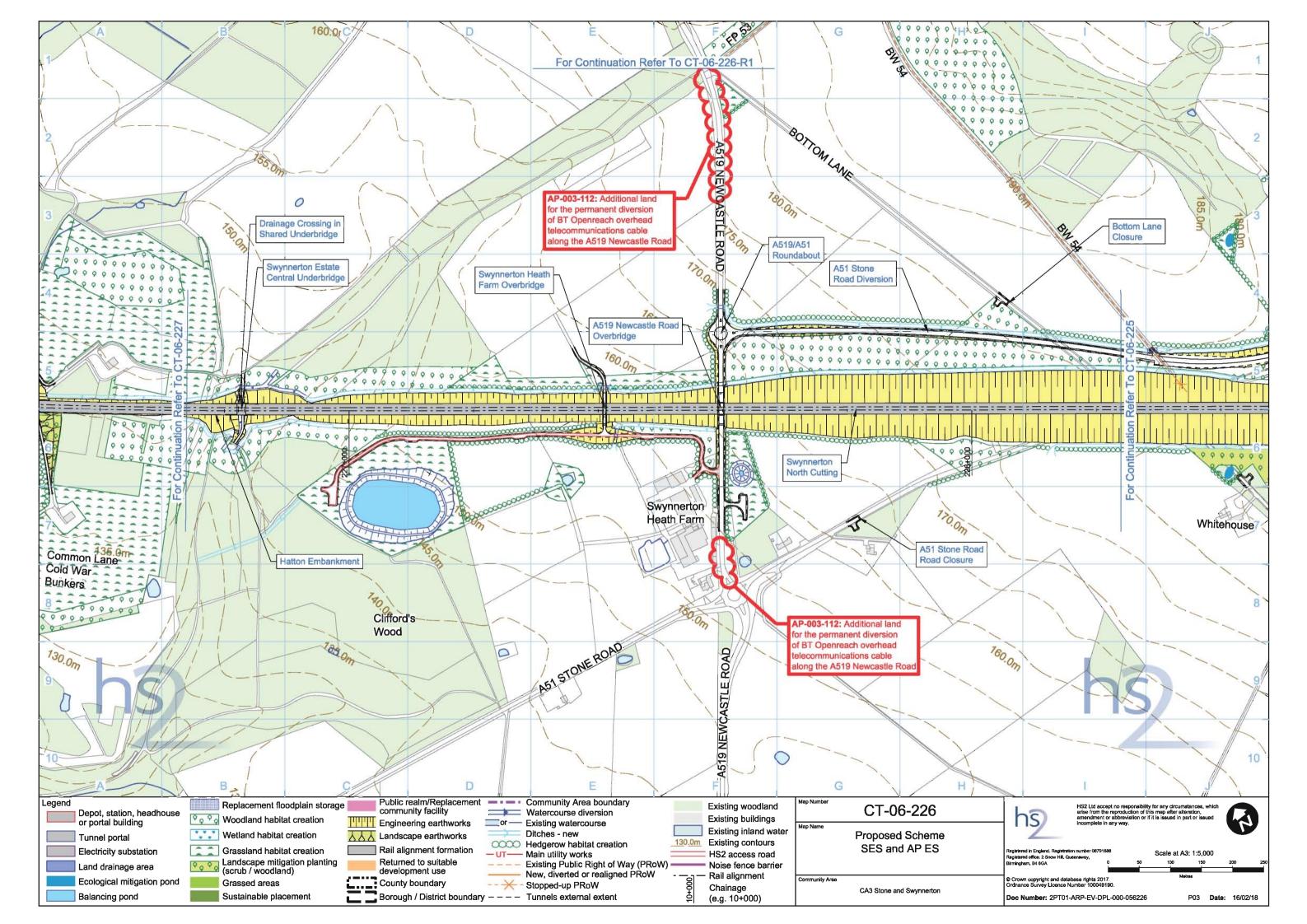


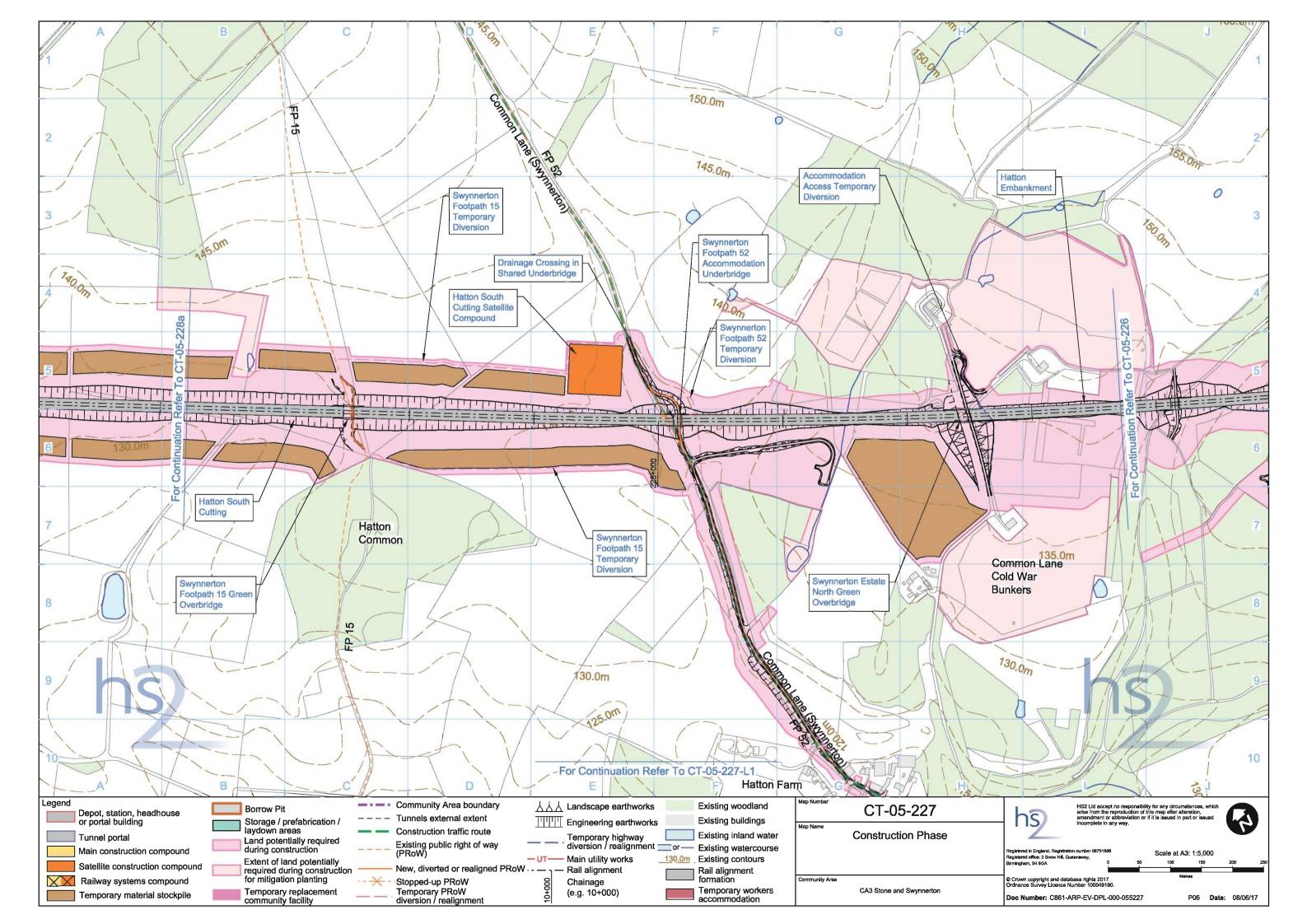


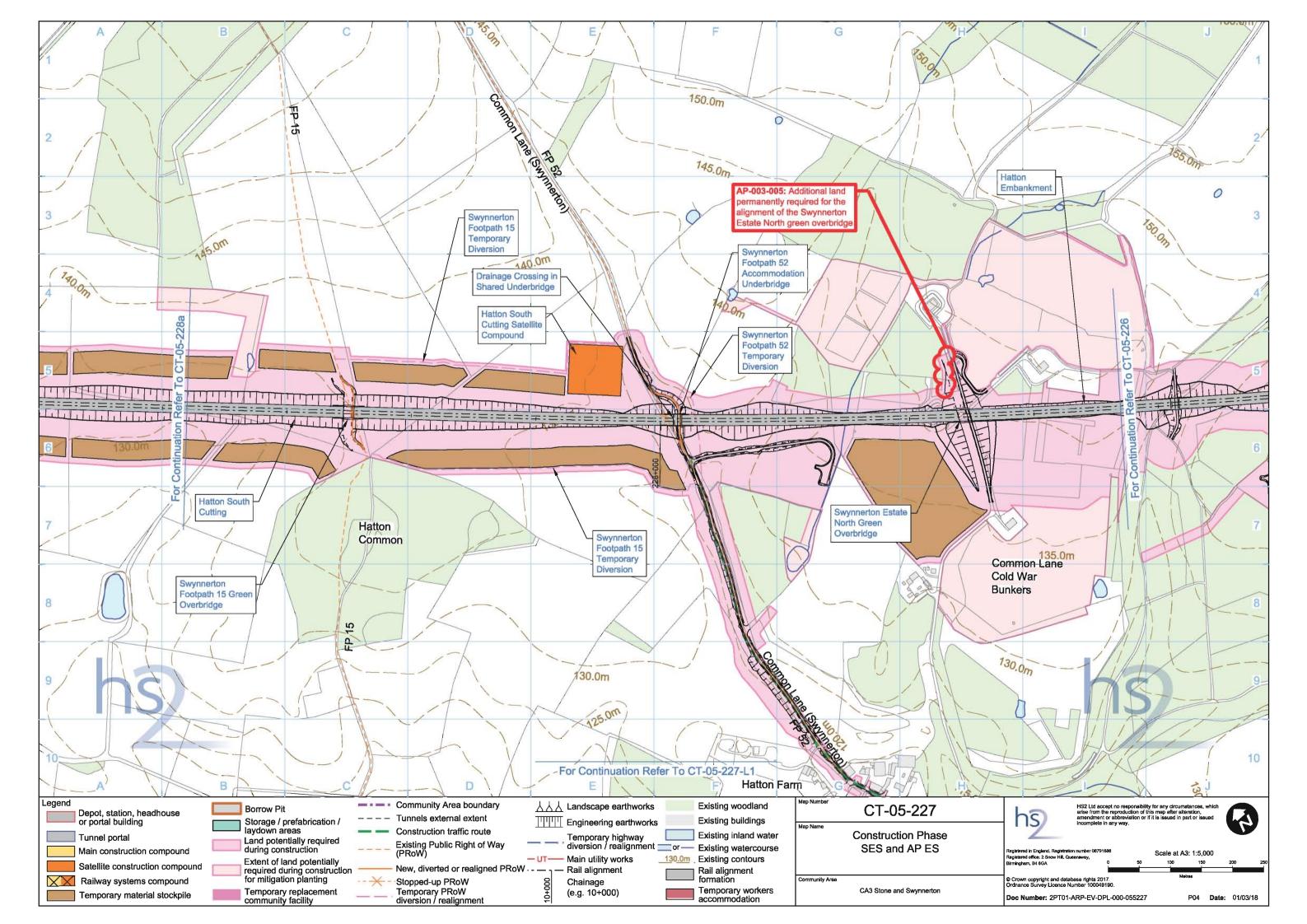


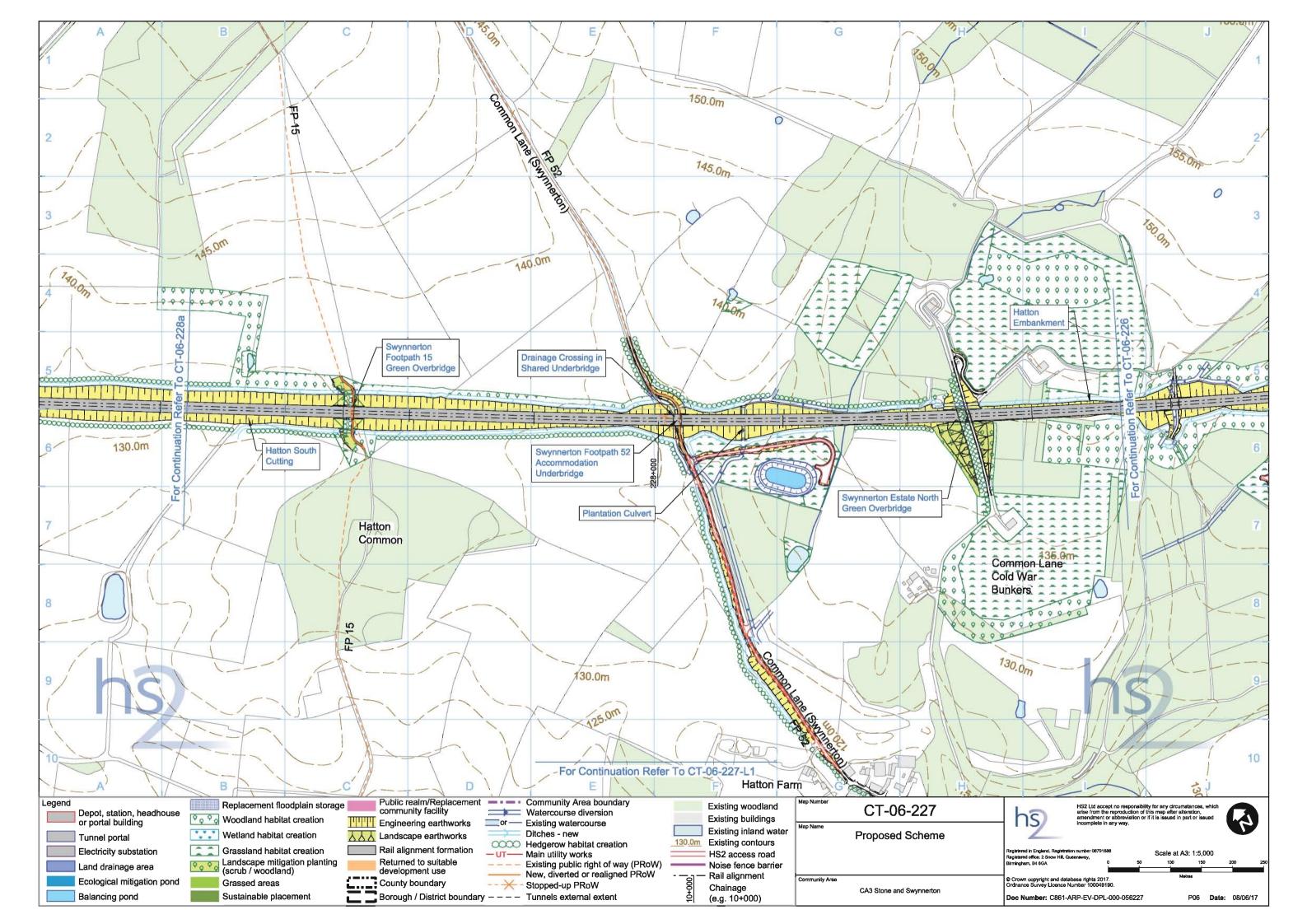


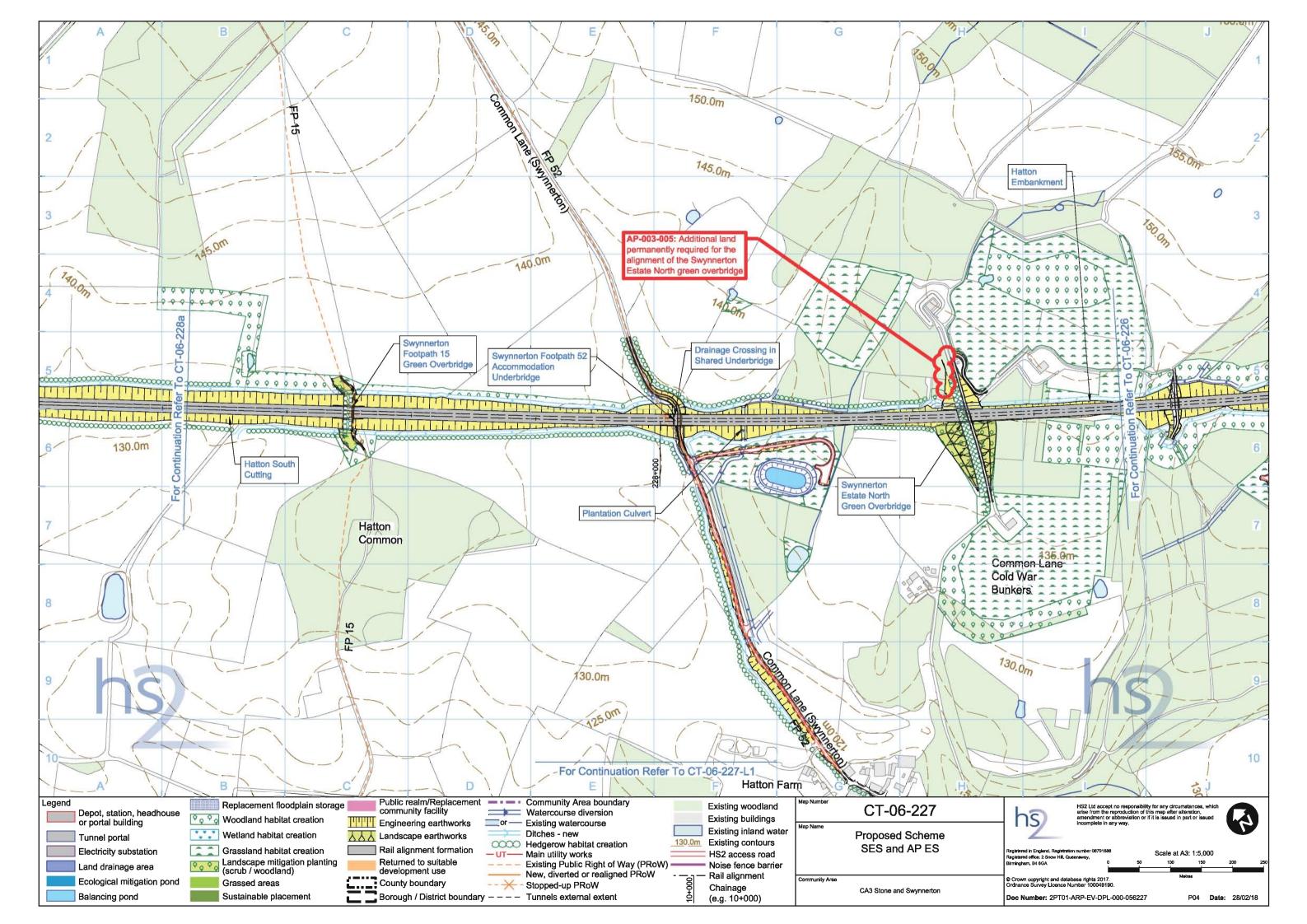


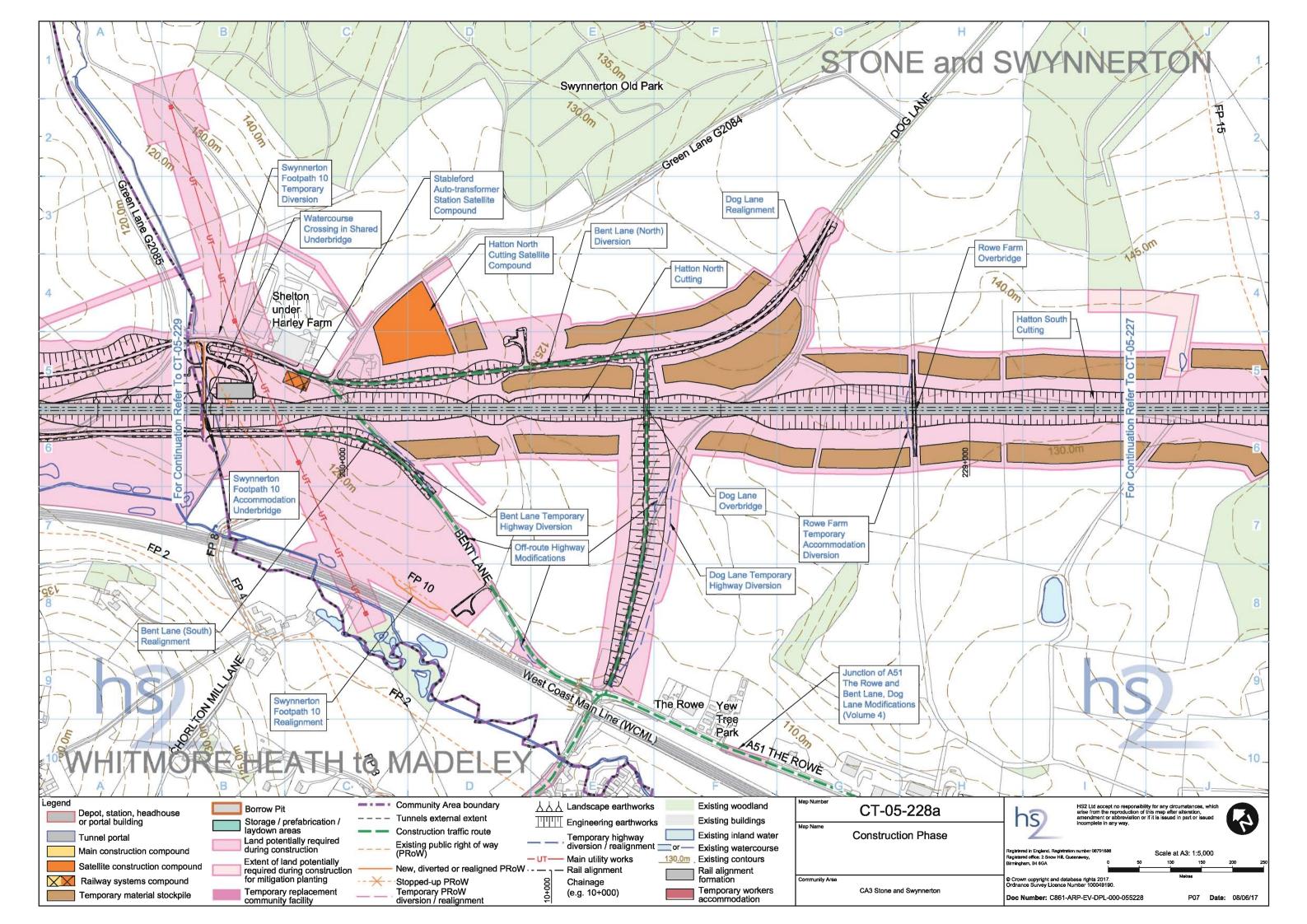


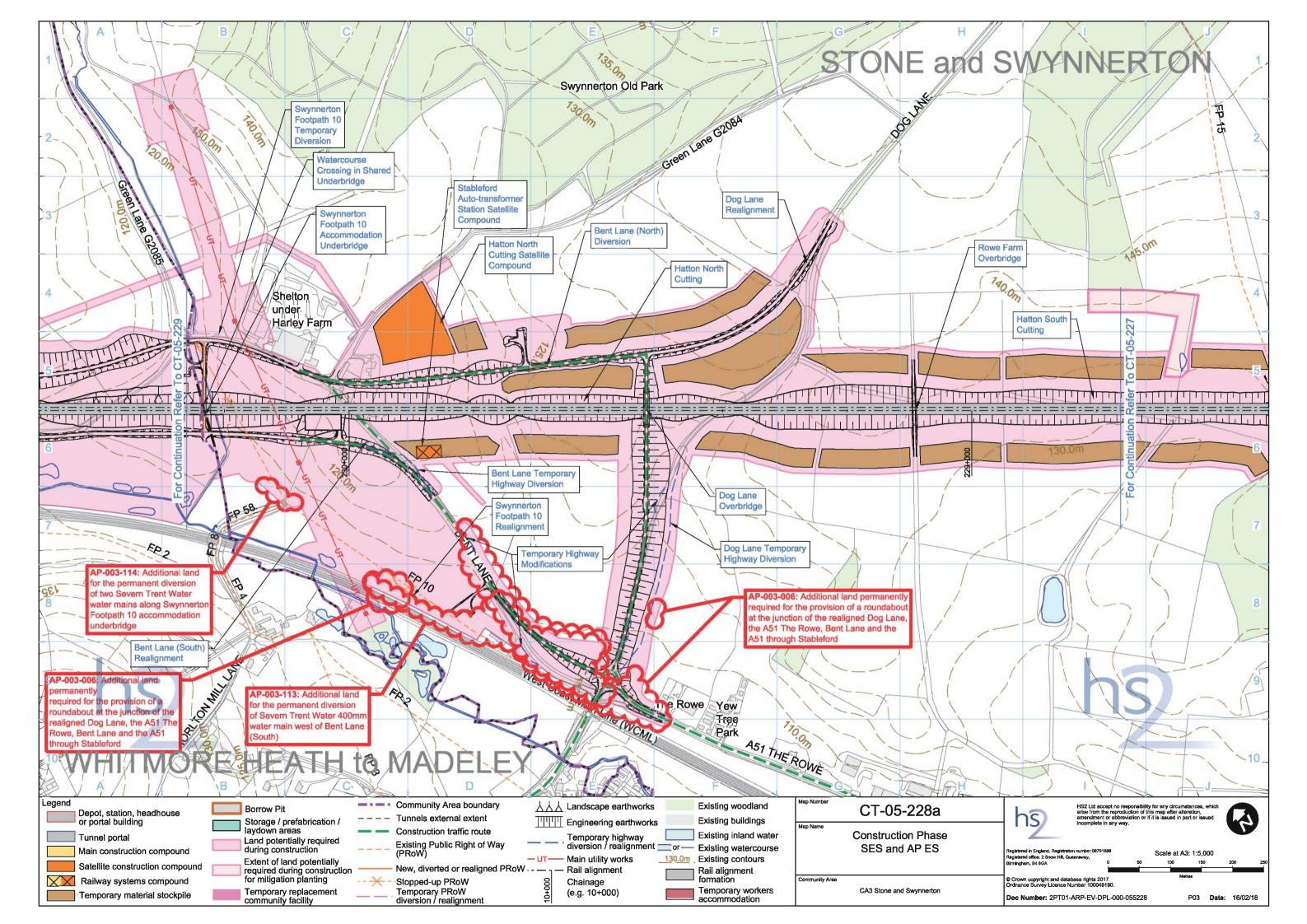


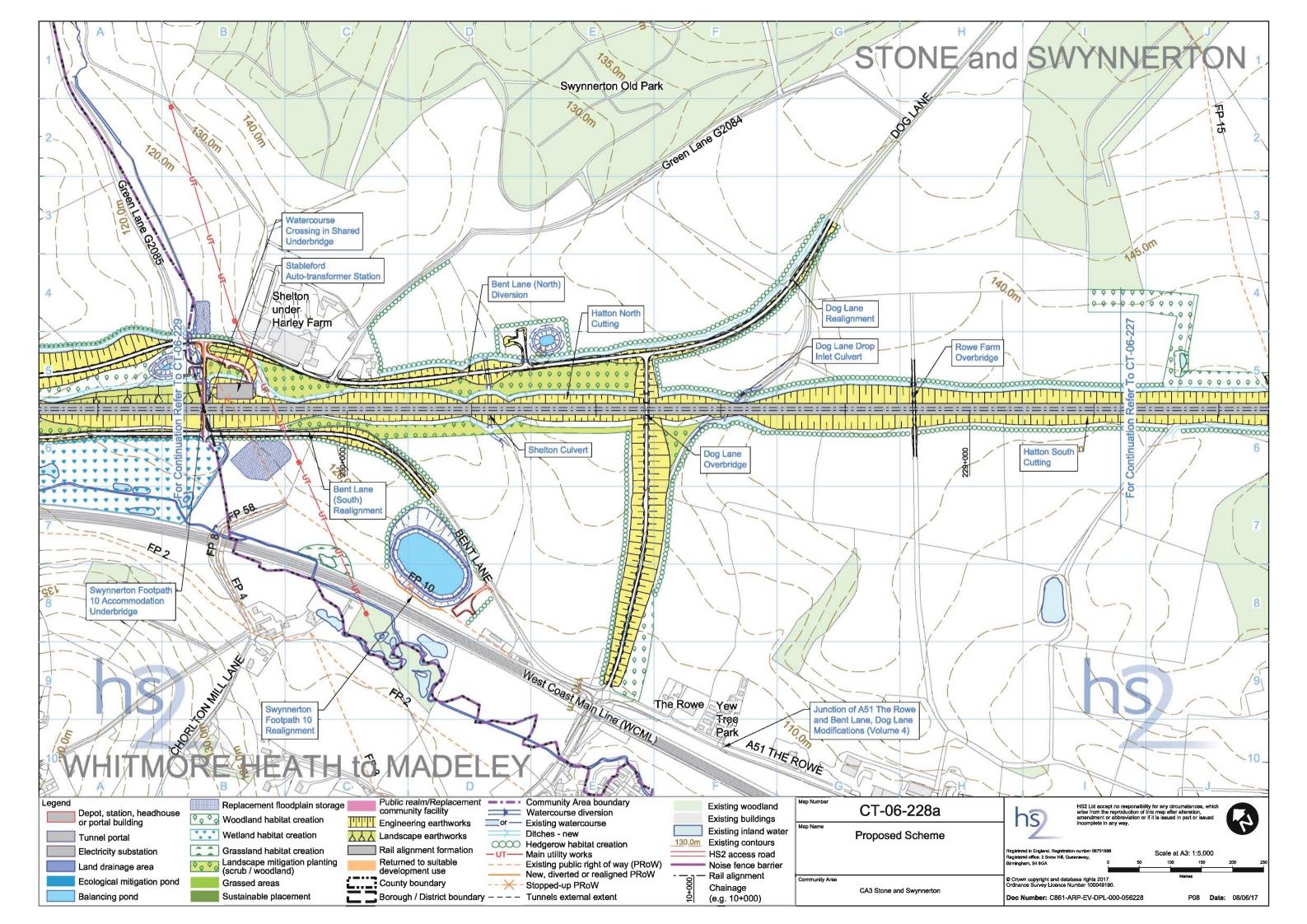


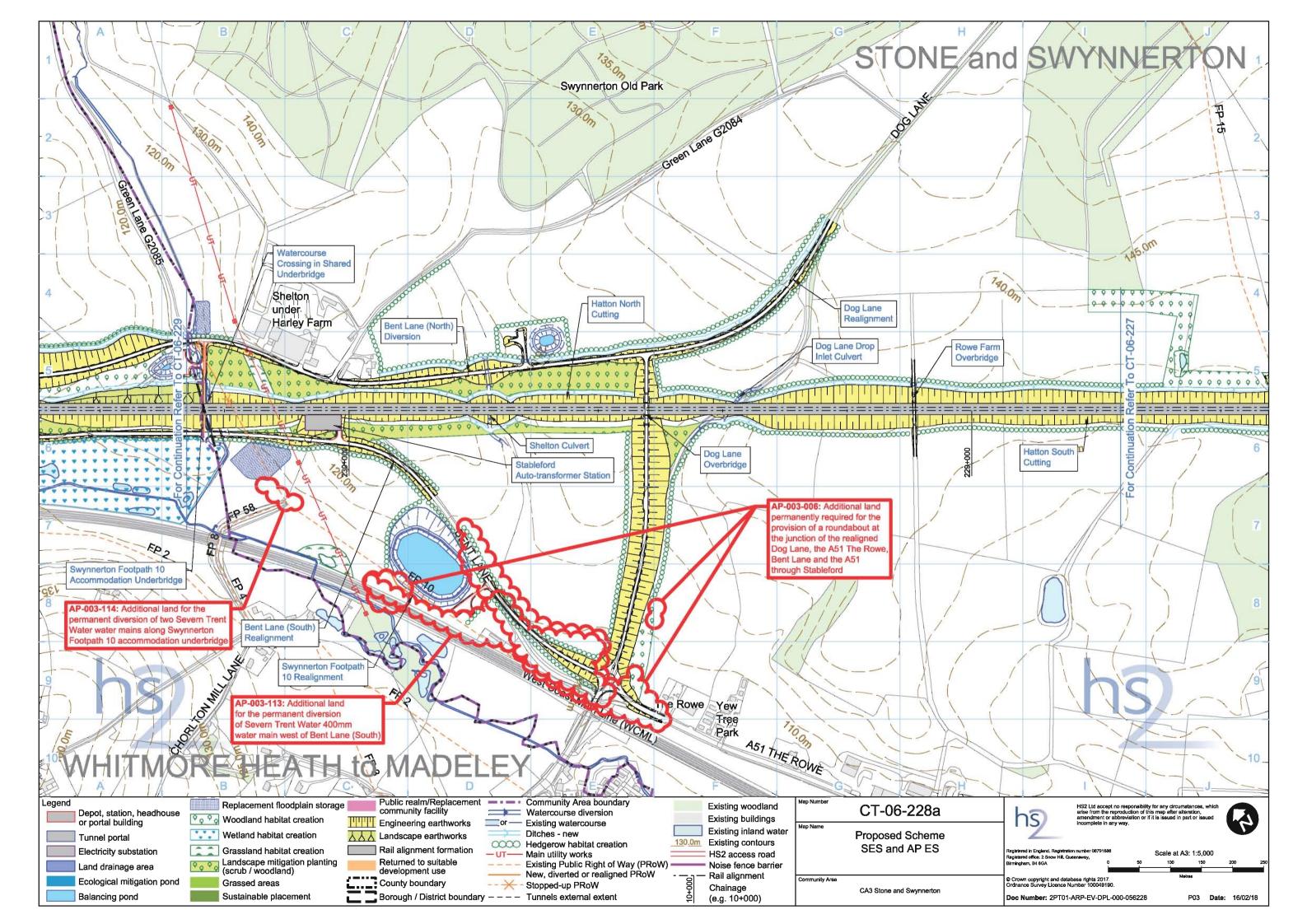


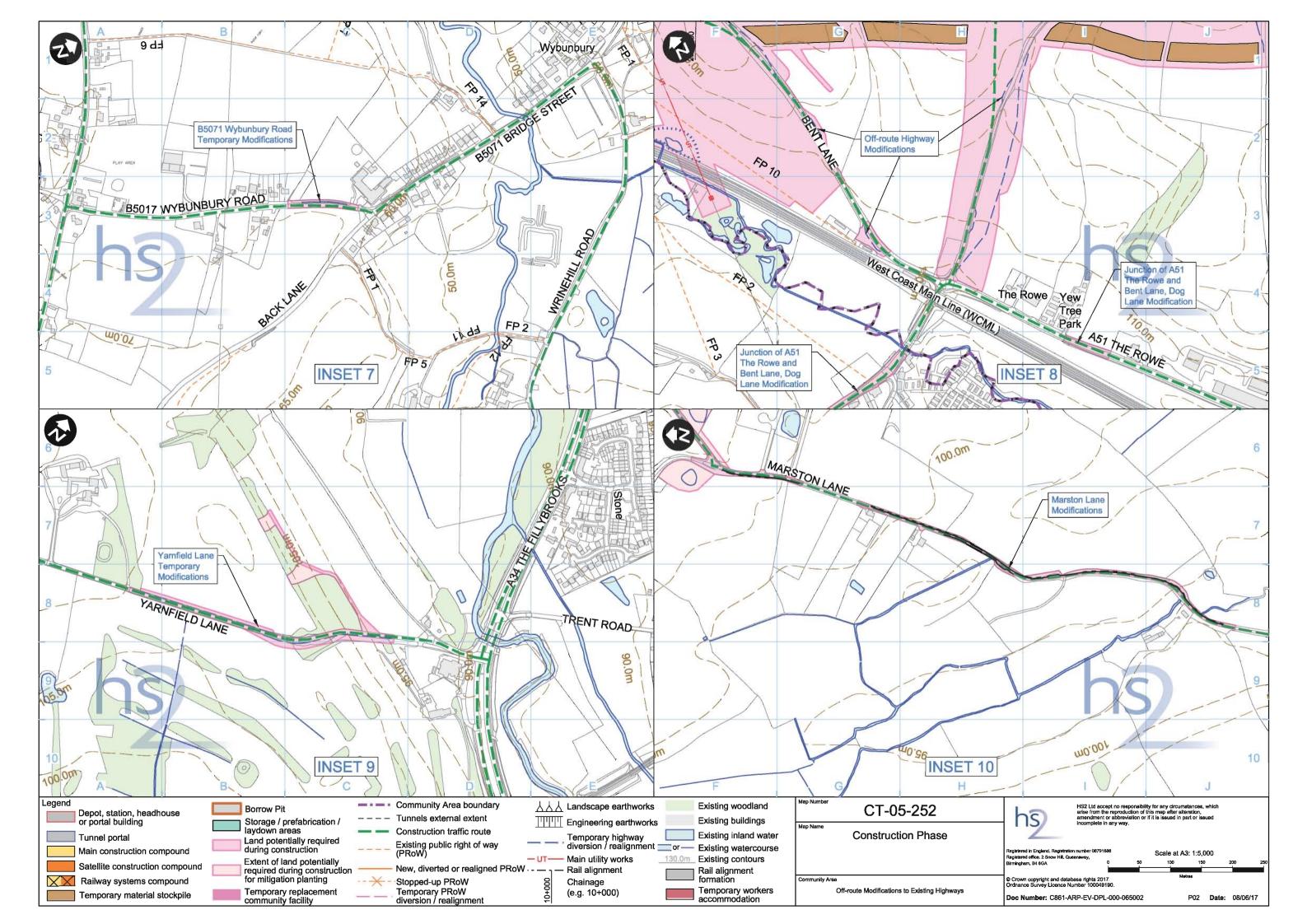


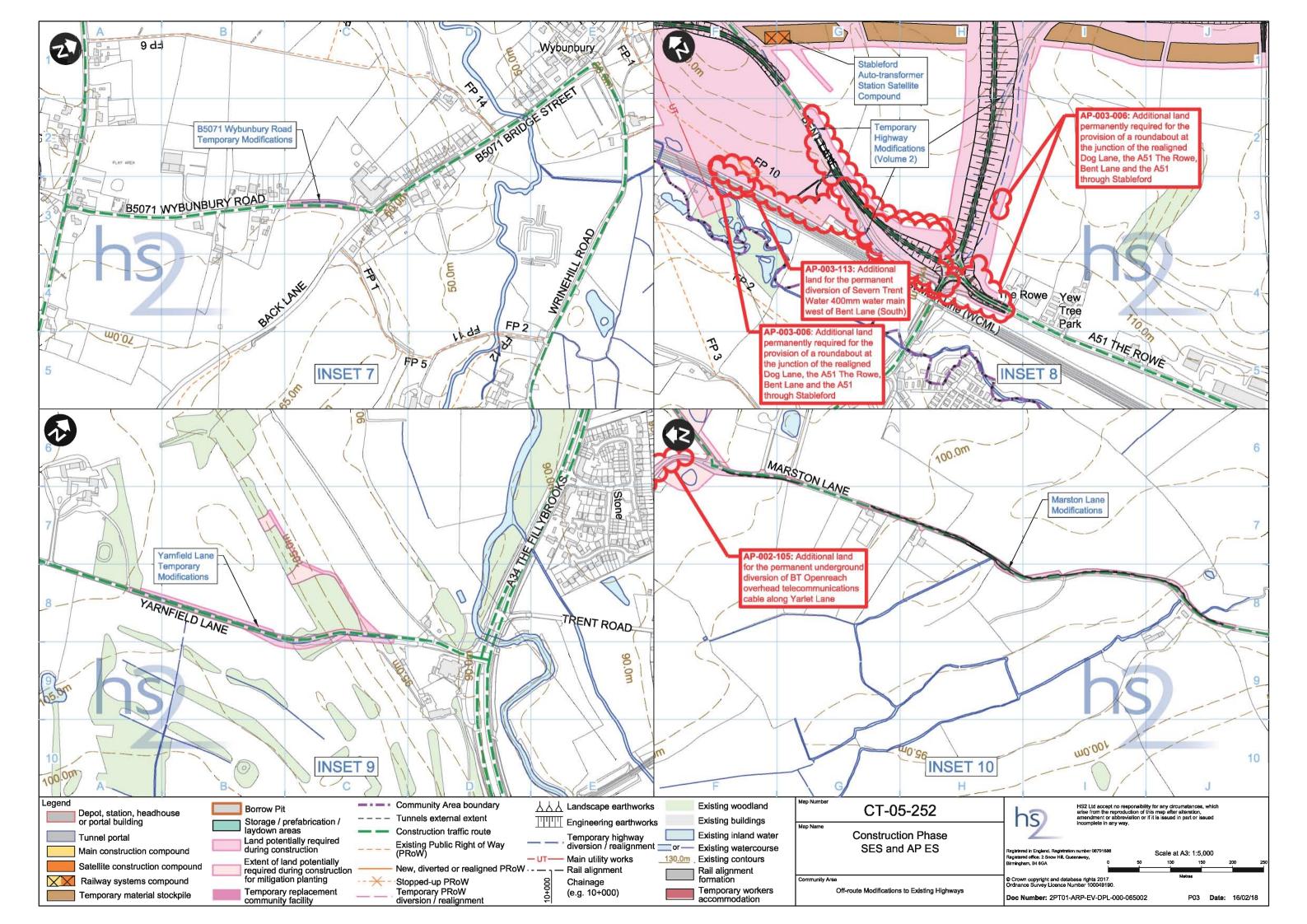


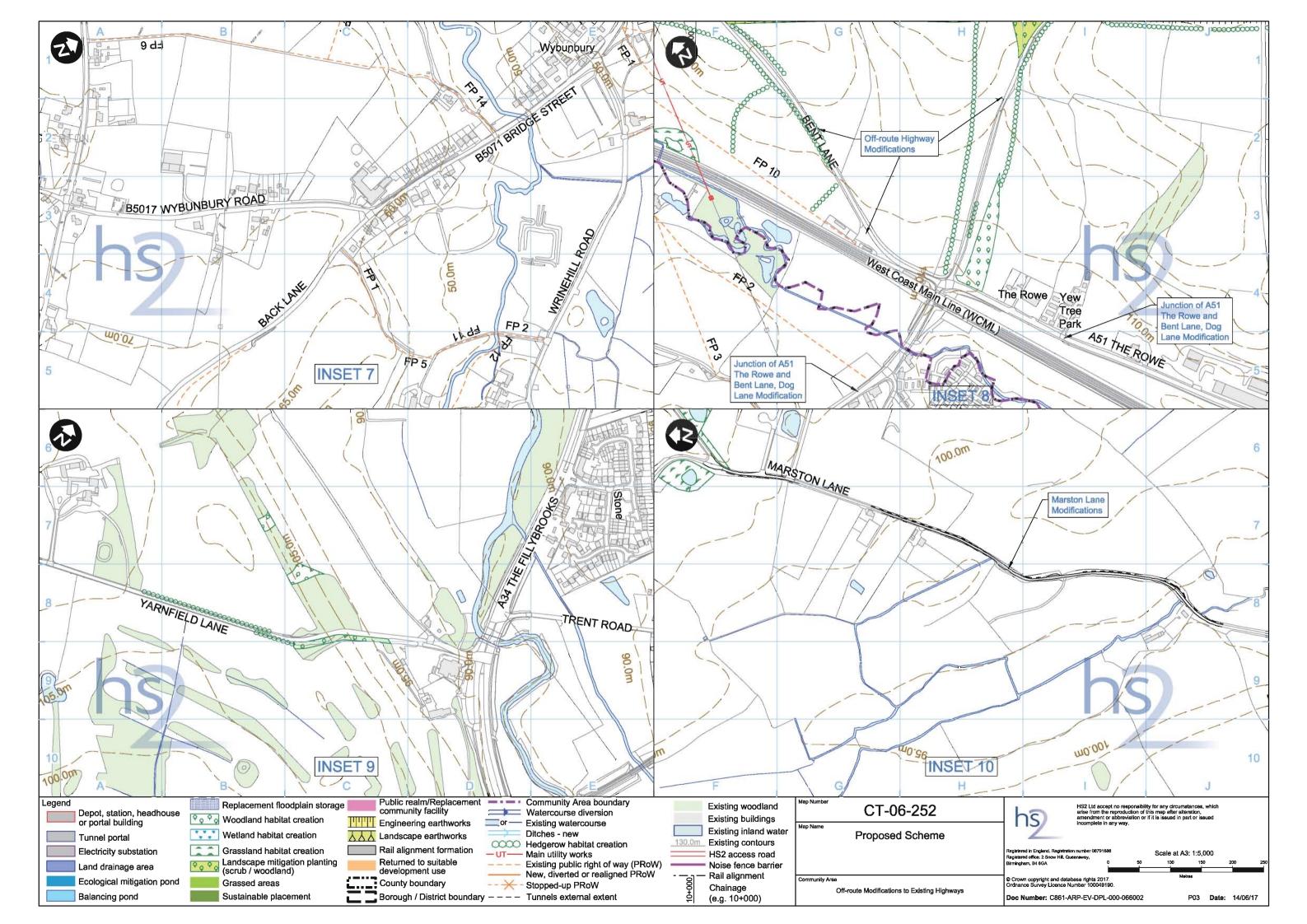


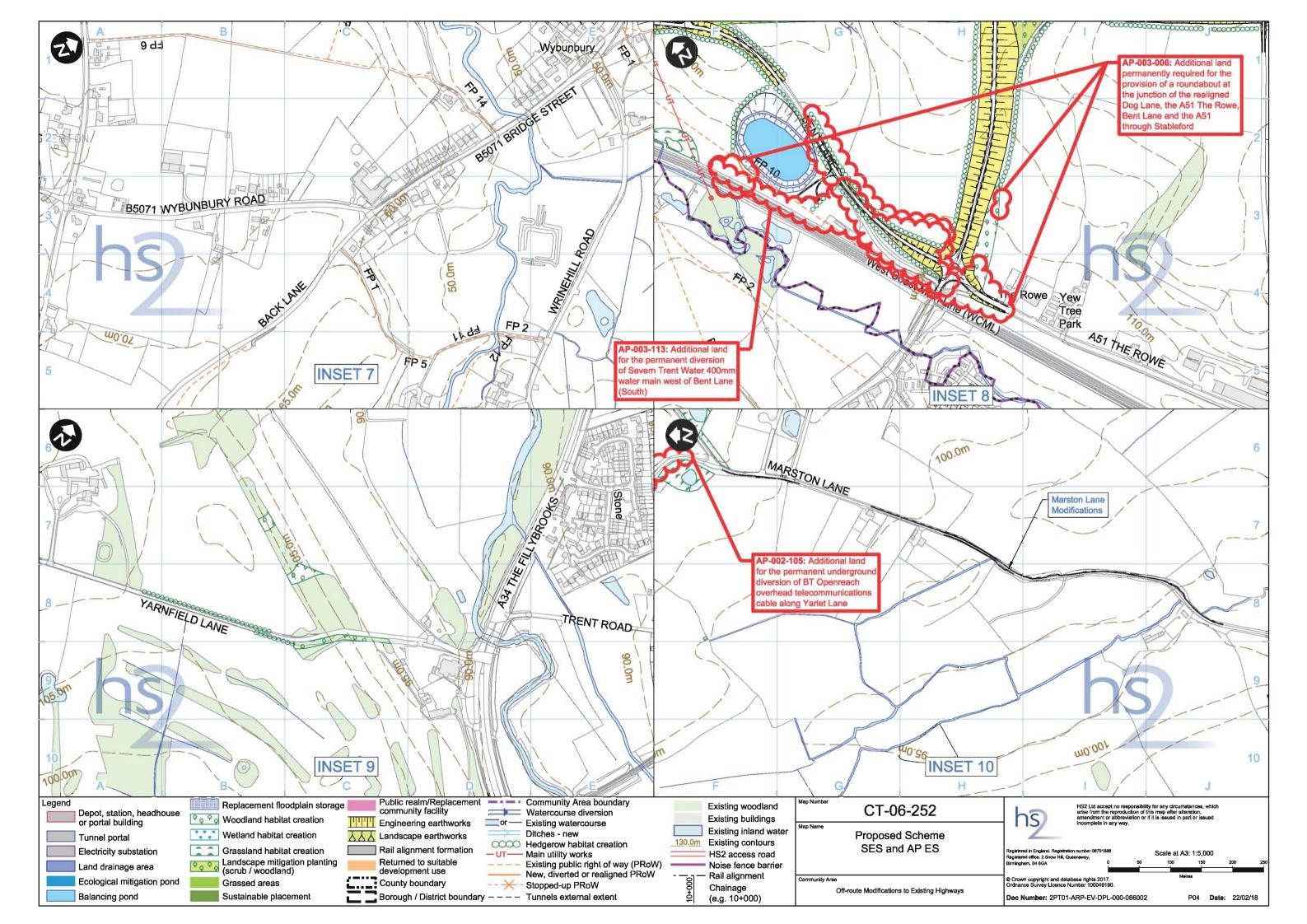












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