In Parliament – Session 2022 - 2023

# **High Speed Rail** (Crewe - Manchester)

Supplementary Environmental Statement 1 and **Additional Provision 1 Environmental Statement** 

**Volume 5: Map Book** 

Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)





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**Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement** 

## Volume 5: Map Book

Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)



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

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Mapping explanatory notes

Data dictionary and definitions

Map series name	Map series description
LV-00 – Route Wide Landscape Character Areas and National Character Areas	Map showing the Landscape Character Areas (LCAs) in context with t
LV-02 – Landscape Character Areas	Maps showing the LCAs that have been considered for assessment a construction and operation.
LV-07 – Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints	Maps showing the construction phase zone of theoretical visibility ar assessment of the Proposed Scheme has been undertaken.
LV-08 – Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints	Maps showing the operational phase year one and year fifteen zone which the visual assessment of the Proposed Scheme has been under
LV-17 – Route wide Landscape Context	Map showing the route wide landscape proposals in context with the

th the National Character Areas (NCAs).

t and illustrating significant residual effects during

and the viewpoint locations from which the visual

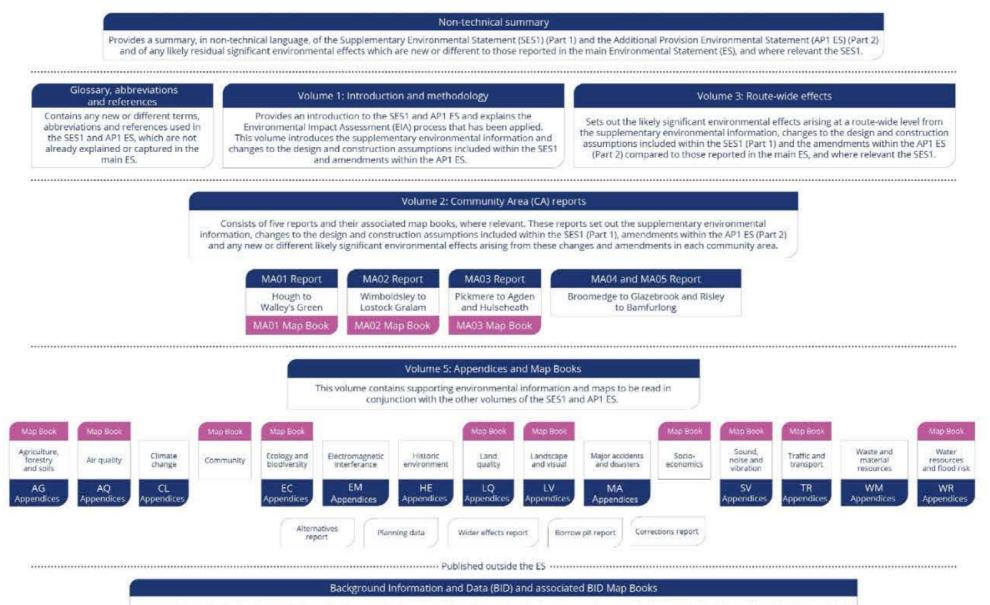
ne of theoretical visibility and the viewpoint locations from indertaken.

the wider landscape.

#### Mapping explanatory notes

### Structure of the Supplementary Environmental Statement 1 and the Additional Provision 1 Environmental Statement

This map book is part of the suite of documents that make up the Supplementary Environmental Statement 1 (SES1) and the Additional Provision 1 Environmental Statement (AP1 ES) for the High Speed Rail (Crewe -Manchester) scheme. The SES1 and the AP1 ES are separate documents; however, they are bound together and presented in a number of volumes shown in Figure 1.



Baseline data and other background information is set out in the relevant BID documents. This is a compendium of technical reports that sit outside of the SES1 and AP1 ES and hybrid Bill, but are aligned to and referred to by the SES1 and AP1 ES. They are published at the same time as the SES1 and AP1 ES and accompanying map books.

### **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 SES1 and AP1 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 SES1 and AP1 ES have a chainage value shown next to the alignment. Chainage is presented on the maps in black font, in the form of XXX+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 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 (In Parliament - Session 2021 - 2022) on the left-hand page and the SES1 and the AP1 ES map on the right. For the CT-05 and CT-06 map series, the SES1 and the AP1 ES is shown with different coloured hatching, annotated with labels, which highlights the areas of change. The coloured text box provides a brief description of the design change and amendment, and gives the SES1 and the AP1 ES reference number. In some instances where the effect covers a large area, a box without hatching but with a label, is shown. Only maps which have been amended as a result of the SES1 and the AP1 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 hatching.

Each Volume 5 map is annotated to describe the change to a receptor or significant effect, and to give the SES1 and the AP1 ES reference number. For more detailed information about the SES1 and the AP1 ES annotation, refer to the map series legend. Only maps which have been amended as a result of the SES1 and the AP1 ES are included within the map book.

#### **Map orientation**

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

The exception to this, are map series LV-00, LV-02, 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 Manchester to the top.

Further details on the approach to mapping is set out in Section 6 of Volume 1 of the SES1 and AP1 ES.

#### Map books

In total, there are 14 map books included in the SES1 and AP1 ES Volume 2 and Volume 5. A list of the map book titles and map series is provided below for reference.

Map book title (map series)	Name	
Volume 2: Map book – MA01: Hough to Walley's Green (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04, SV-05)	Volume 5: Map book – Land quality (LQ-01)	
Volume 2: Map book – MA02: Wimboldsley to Lostock Gralam (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04, SV-05)	Volume 5: Map book – Landscape and visual (LV-00, LV-02, LV-07, LV-08, LV-17)	
Volume 2: Map book – MA03: Pickmere to Agden and Hulseheath (CT-05, CT-06, CT-10, LV-01, LV-03, LV-04, SV-05)	Volume 5: Map book – Planning Data/Committed Development (CT-13)	
Volume 5: Map book – Agriculture (AG-01, AG-04)	Volume 5: Map book – Socio-economics (SE-01)	
Volume 5: Map book – Air quality (AQ-01)	Volume 5: Map book – Sound, noise and vibration (SV-02, SV-03, SV-08, SV-09)	
Volume 5: Map book – Community (CM-01)	Volume 5: Map book – Traffic and transport (TR-03, TR-04, TR-08)	
Volume 5: Map book – Ecology and biodiversity (EC-01)	Volume 5: Map book – Water resources and flood risk (WR-02)	

# High Speed Rail (Crewe – Manchester)

## Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement

Data dictionary and definitions



## Data dictionary and definitions

Legend features	Definition	Source
5m contours	A contour line showing points of equal elevation (height) above a reference level, such as mean sea level and therefore gives indication of the topography, showing valleys and hills, and the steepness of slopes. Spaced at intervals of 5m.	High Speed Two (HS2) Ltd
Community area boundary	The Environmental Statement has been split into sections called Community Areas.	High Speed Two (HS2) Ltd
Construction compounds	A strategic construction hub for core project management (engineering, planning and construction delivery), commercial and administrative staff associated with the construction of the Proposed Scheme. These compounds will include an area for equipment and materials storage, as well as providing main welfare facilities for construction staff, with some compounds also providing overnight sleeping accommodation for construction staff.	High Speed Two (HS2) Ltd
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey
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
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
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

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	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
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Legend features	Definition	Source	Copyright
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	
andscape Character Area	This dataset represents the landscape character areas that have been assessed route wide as defined by the Landscape Architects. Landscape character areas (LCAs) are single unique areas which are the discrete geographical areas of a particular landscape type.	High Speed Two (HS2) Ltd	
arge urban area	Urban areas derived from Ordnance Survey Meridian data.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2016.
Non engineering earthworks: Cutting	Cuttings created in the construction of landscape features and mitigation measures.	High Speed Two (HS2) Ltd	
Embankments created in the construction of landscape features and		High Speed Two (HS2) Ltd	
Other planting and hedgerows	Soft landscape design that can include any seeded areas for the purpose of creating grassland except for the engineering earthworks. 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	
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 - 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.	Cheshire East council Cheshire West council	© Cheshire East council. © Cheshire West council.
oute in tunnel tunnelled sections.		High Speed Two (HS2) Ltd	
Represents the proposed route of HS2 split into route on surface and		High Speed Two (HS2) Ltd	
Significantly affected photomontage	This dataset shows the locations of photomontages from which the schemes visual impact has been assessed as significant during either construction or operation.	High Speed Two (HS2) Ltd	

	Source	Copyright
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	High Speed Two (HS2) Ltd	
	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2016.
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Legend features	Definition	Source	Copyright
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	
Significantly affected viewpoint or bhotomontage number 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	
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	
Water body	Any mass of water having definite hydrological, physical, chemical and biological characteristics.	Ordnance Survey	© Crown copyright. Reproduced by permission of Ordnance Survey Licence Number 100049190. Year of Publication 2021.
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	
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	
This is a computer generated model showing areas of land within which TV operation year 15 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	

# **High Speed Rail** (Crewe - Manchester)

## **Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement**

MA01: Hough to Walley's Green

LV-00 – Route-wide Landscape Character Areas and National Character Areas

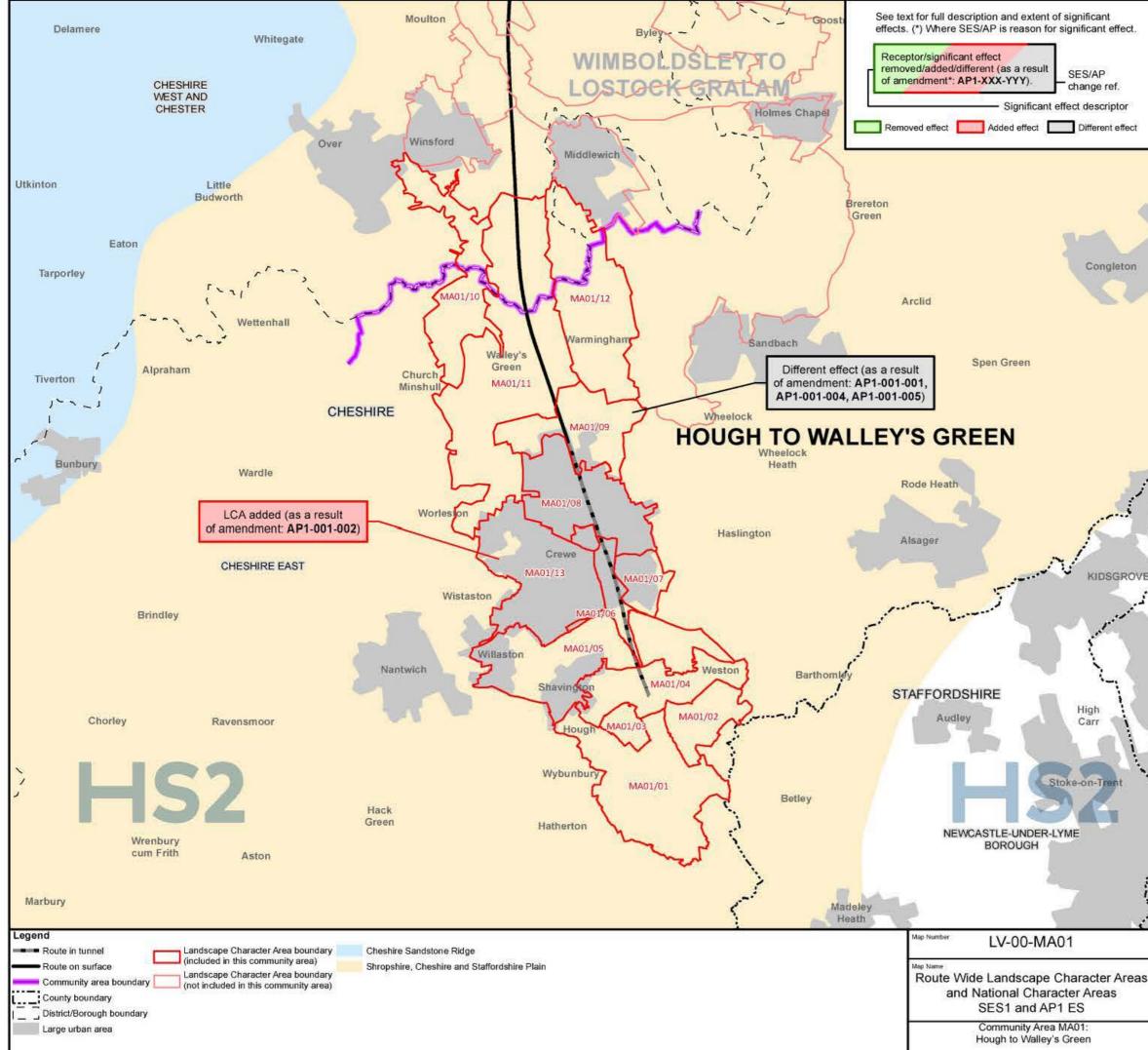
LV-02 – Landscape Character Areas

LV-07 – Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints

LV-08 – Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints

LV-17 – Route-wide Landscape Context





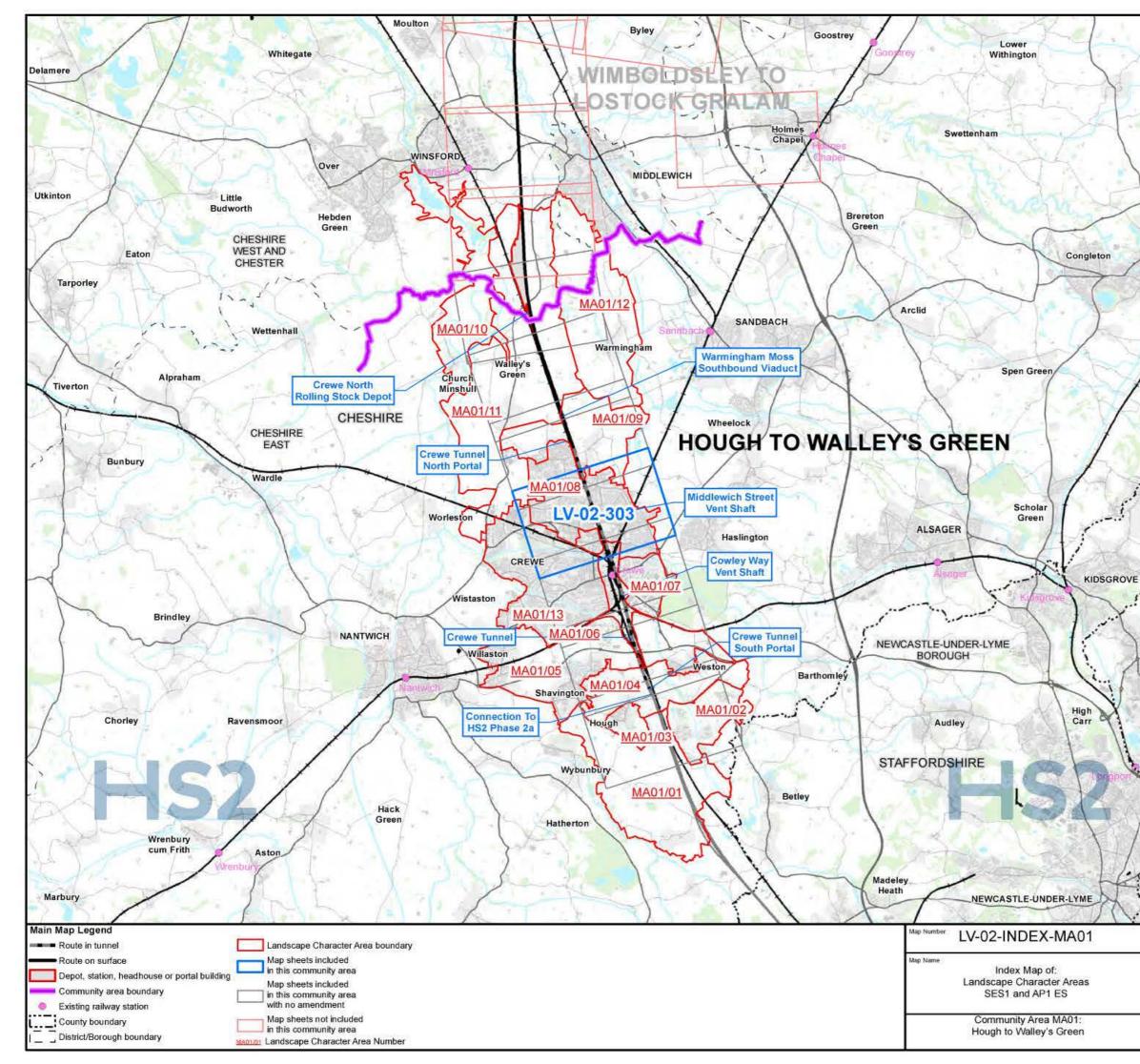
	Landscape Character Areas
st.	MA01/01 - Blakenhall Lower Farms and Woods
	MA01/02 - Wychwood Park
	MA01/03 - Hough Common
	MA01/04 - Shavington/Crewe Outer Fringe Lower Farms and Woods MA01/05 - Crewe Urban Fringe
	MA01/06 - Crewe Station Area and Sidings
63	MA01/07 - Crewe East Commercial and Industrial
ct	MA01/08 - Crewe North
	MA01/09 - Crewe Fringe Mosslands
	MA01/10 - Upper Weaver Valley
	MA01/11 - Wimboldsley Plain MA01/12 - River Wheelock Farmland
	MA01/13 - Crewe West
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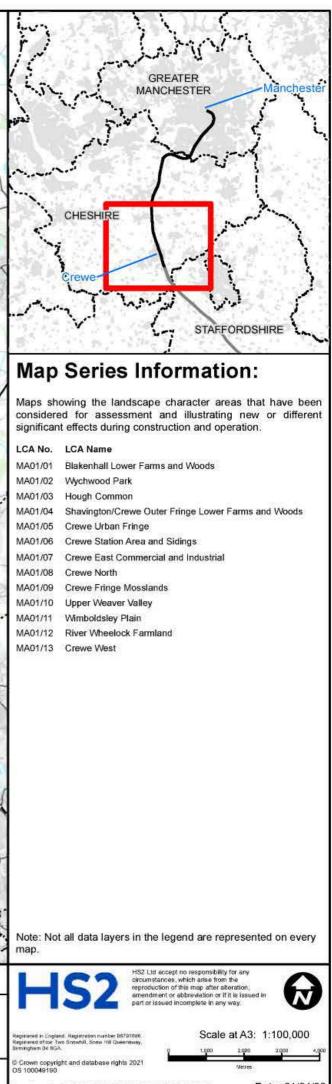
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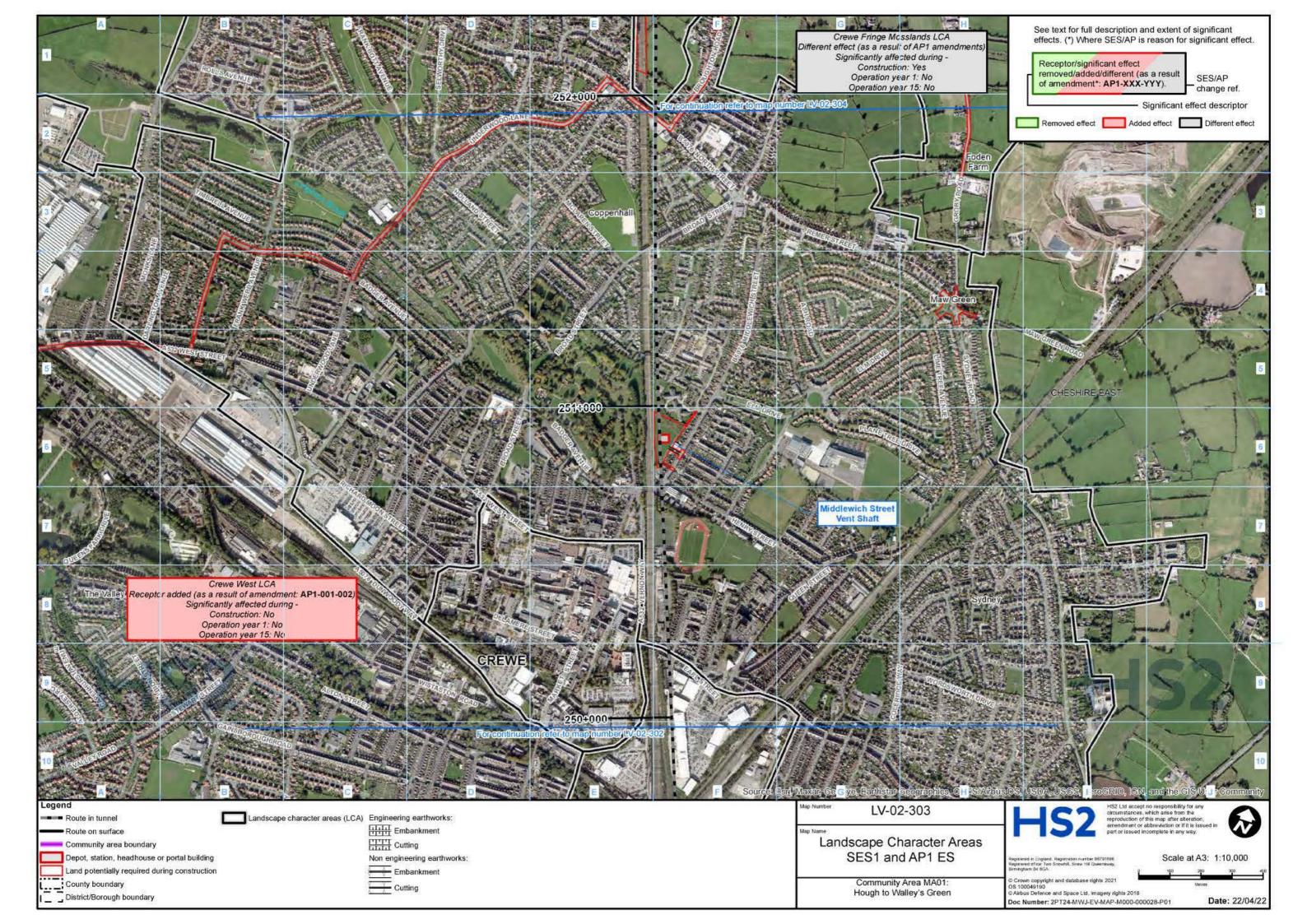
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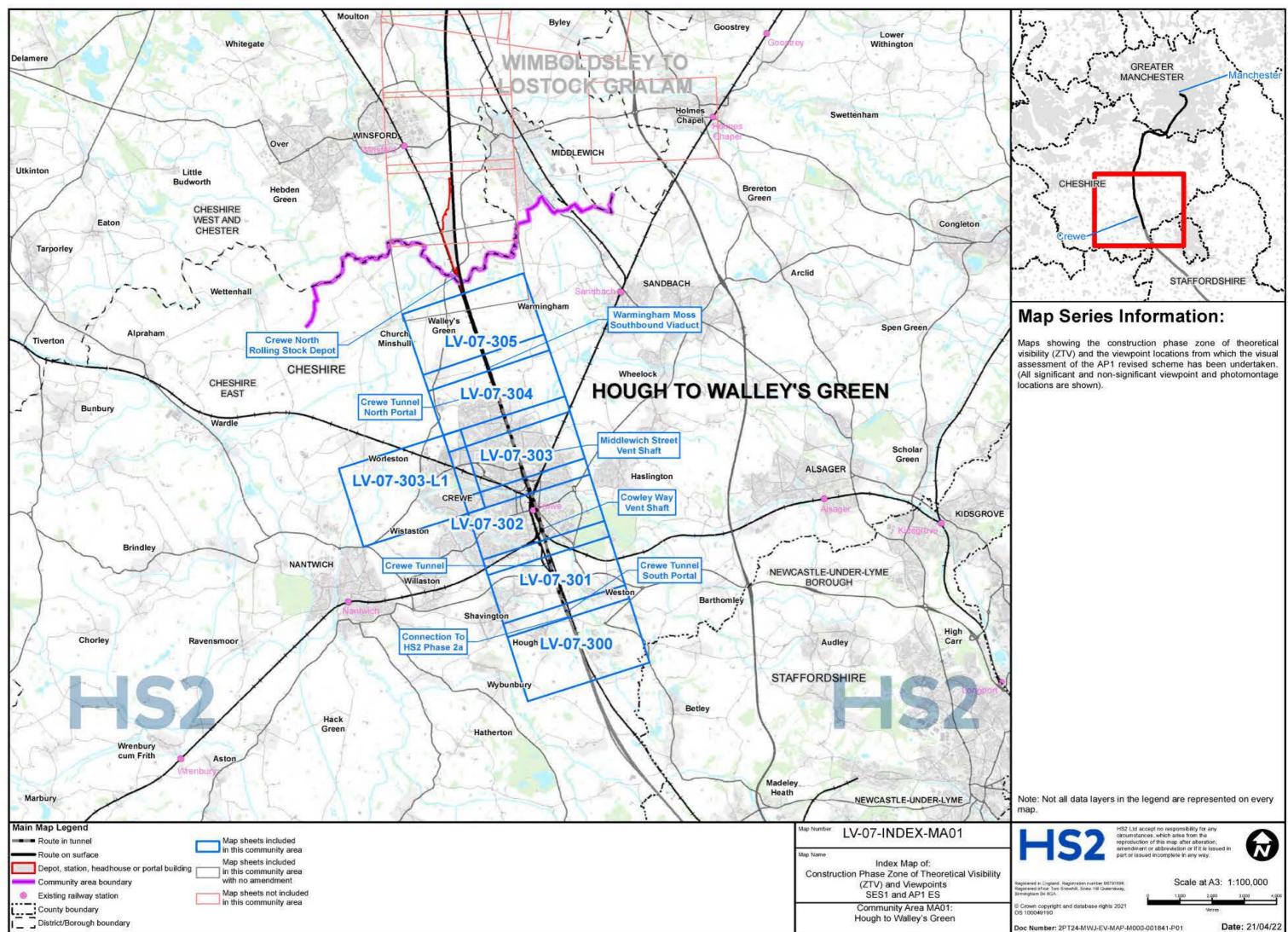


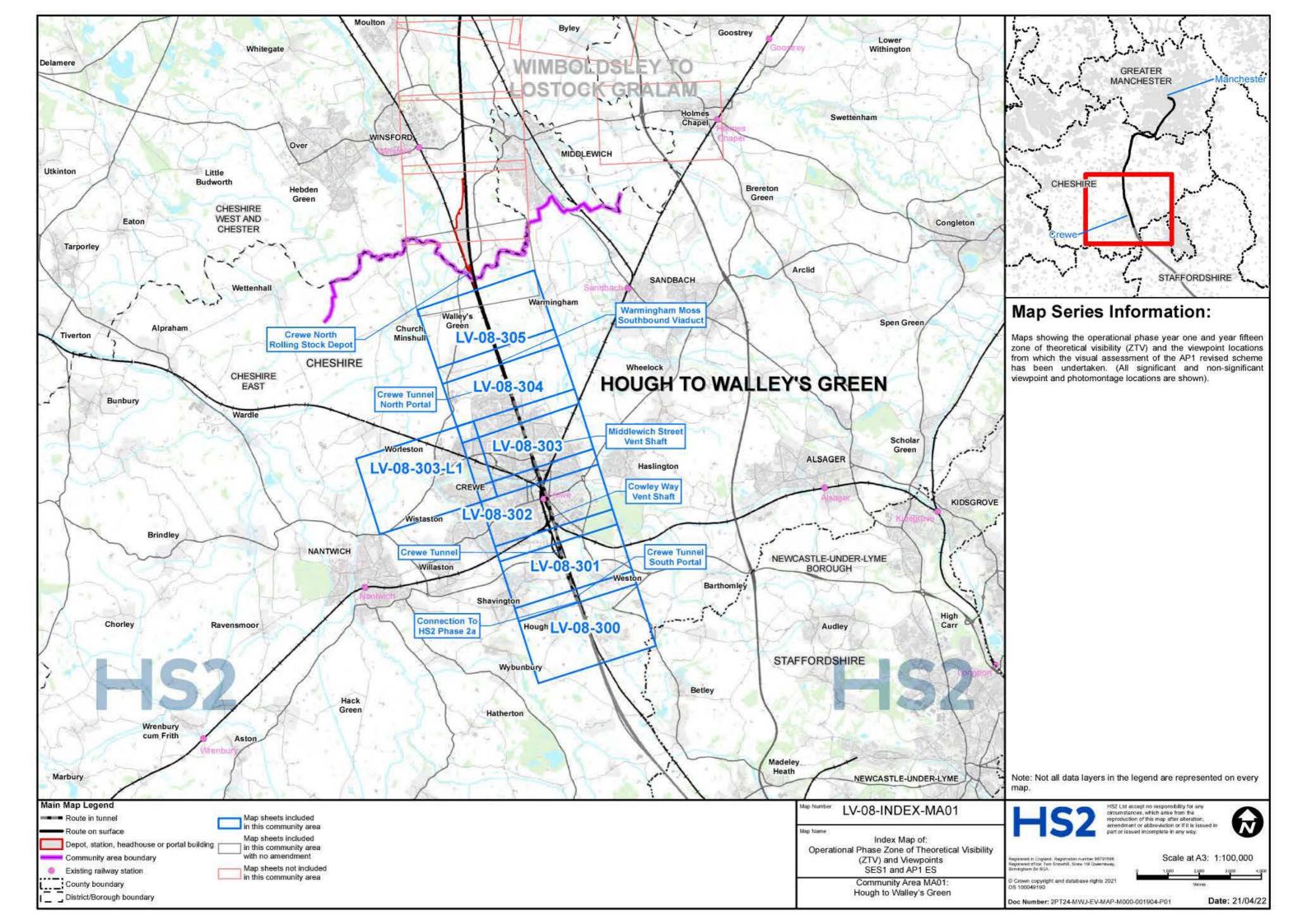


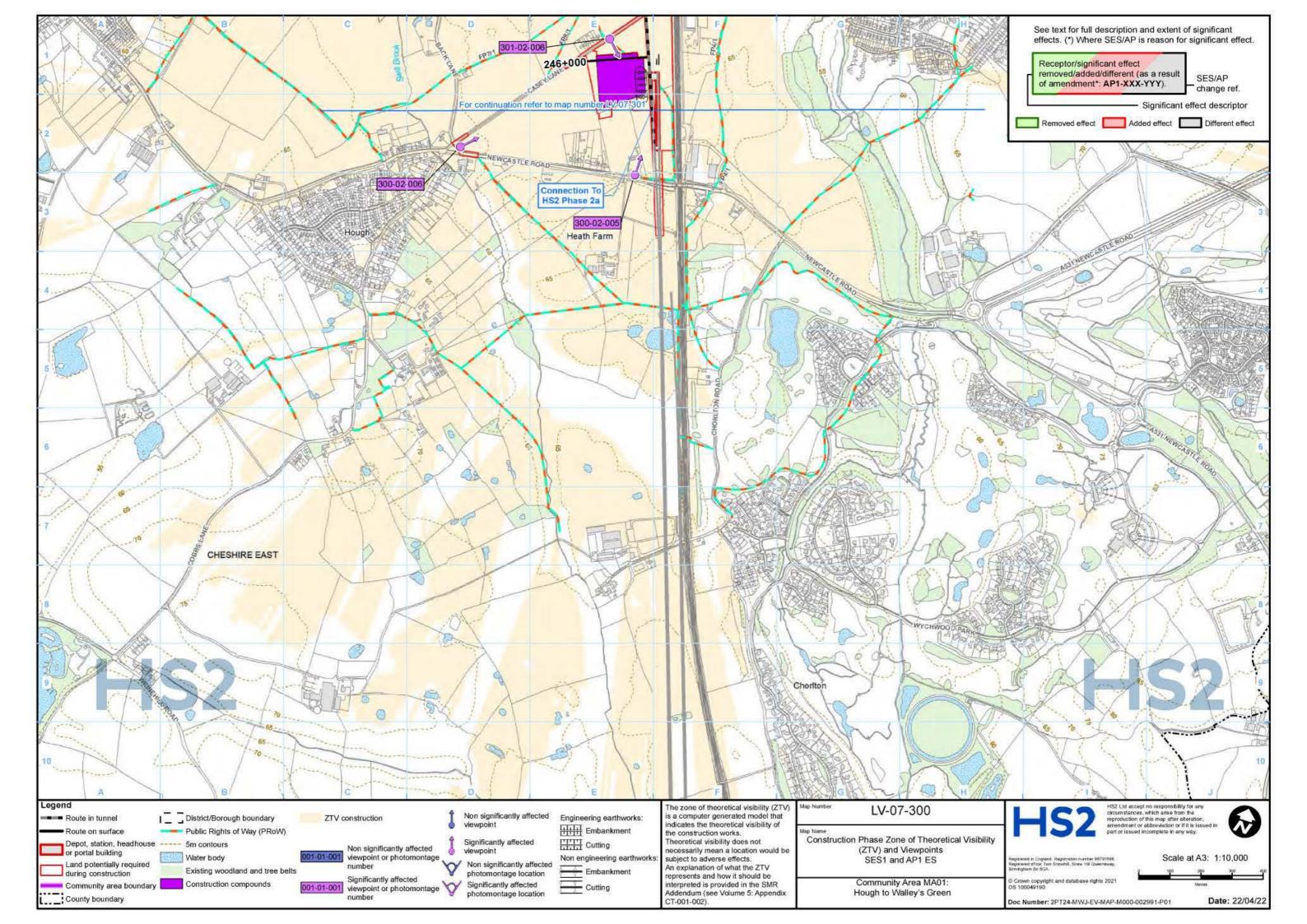
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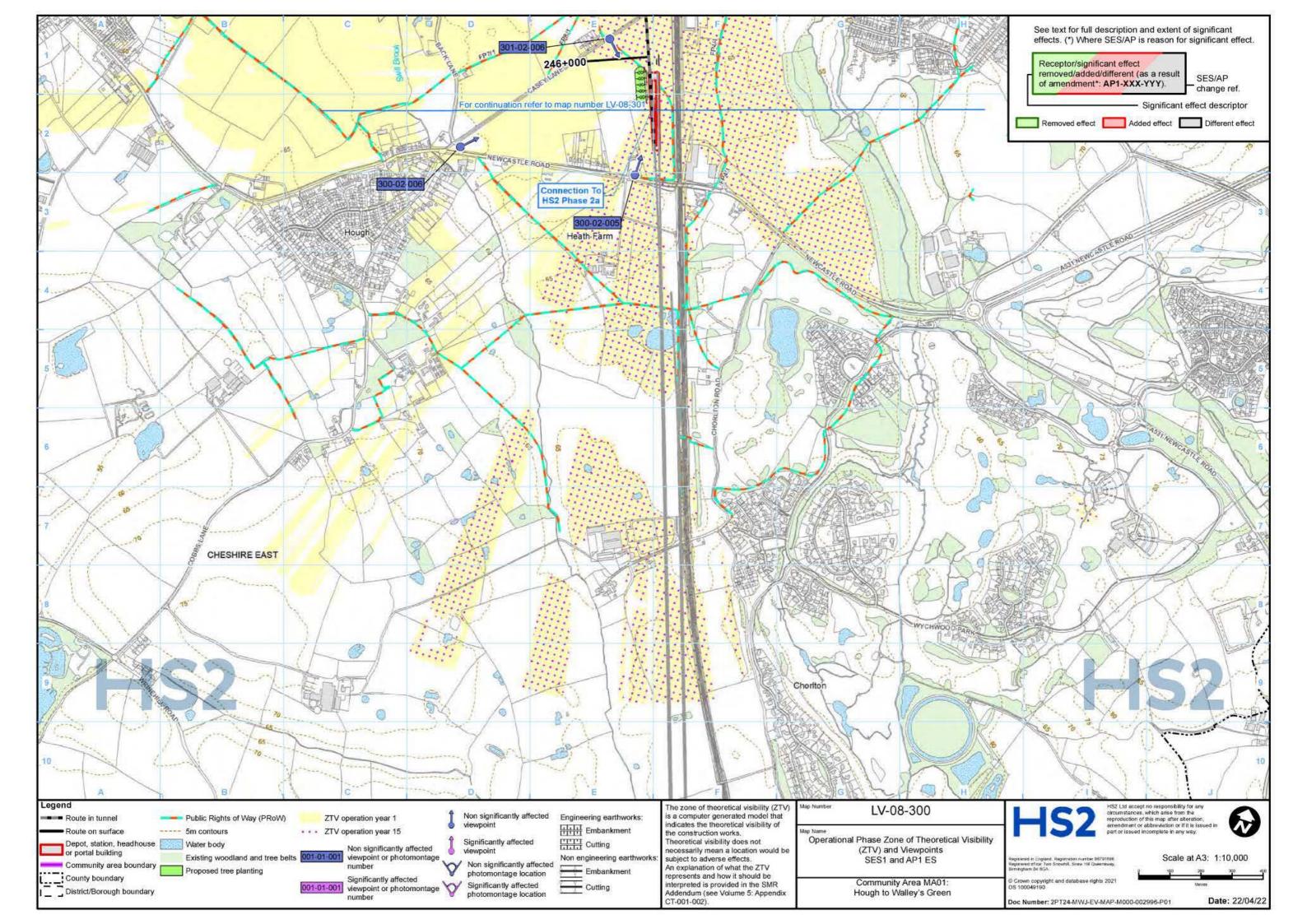
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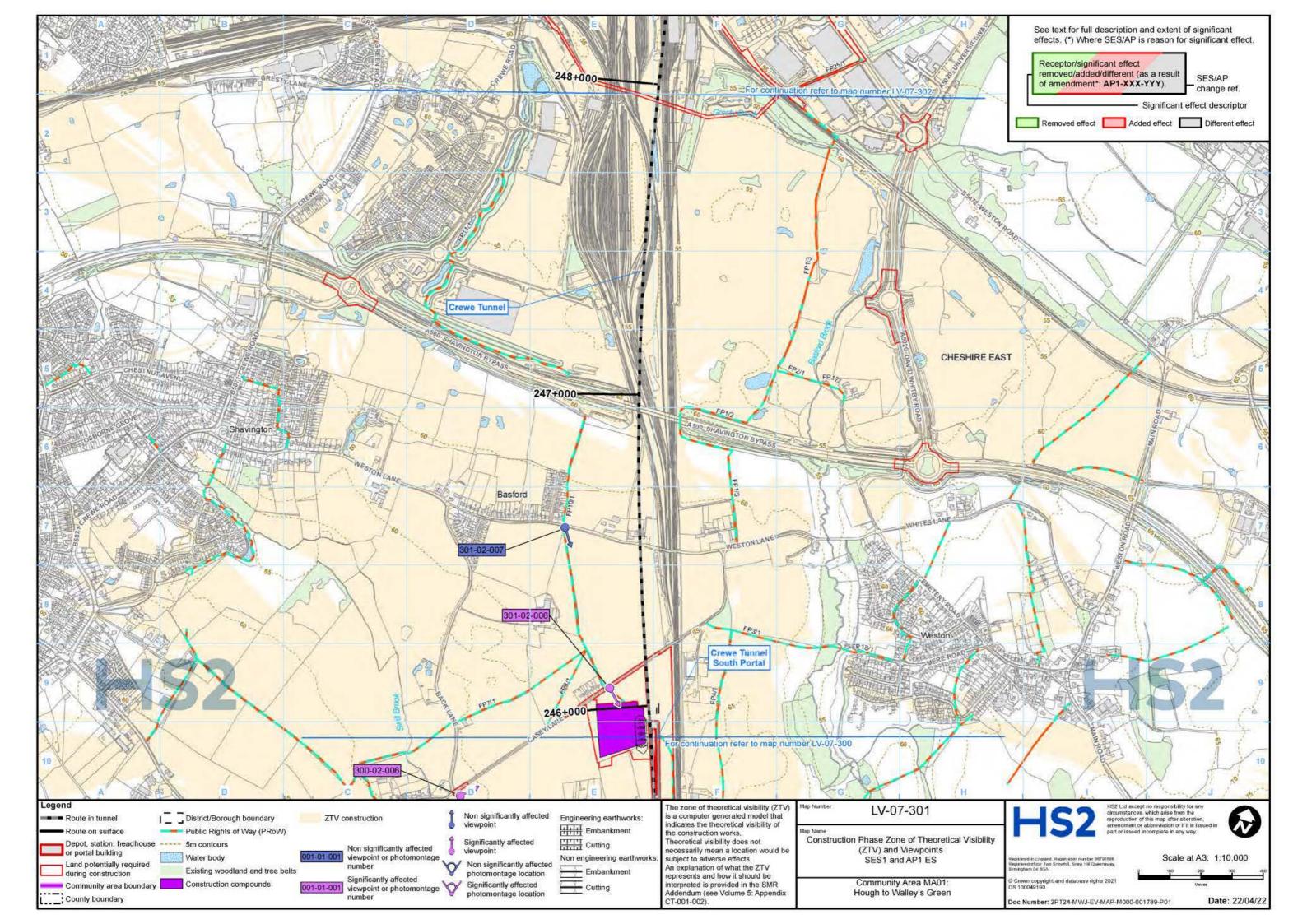


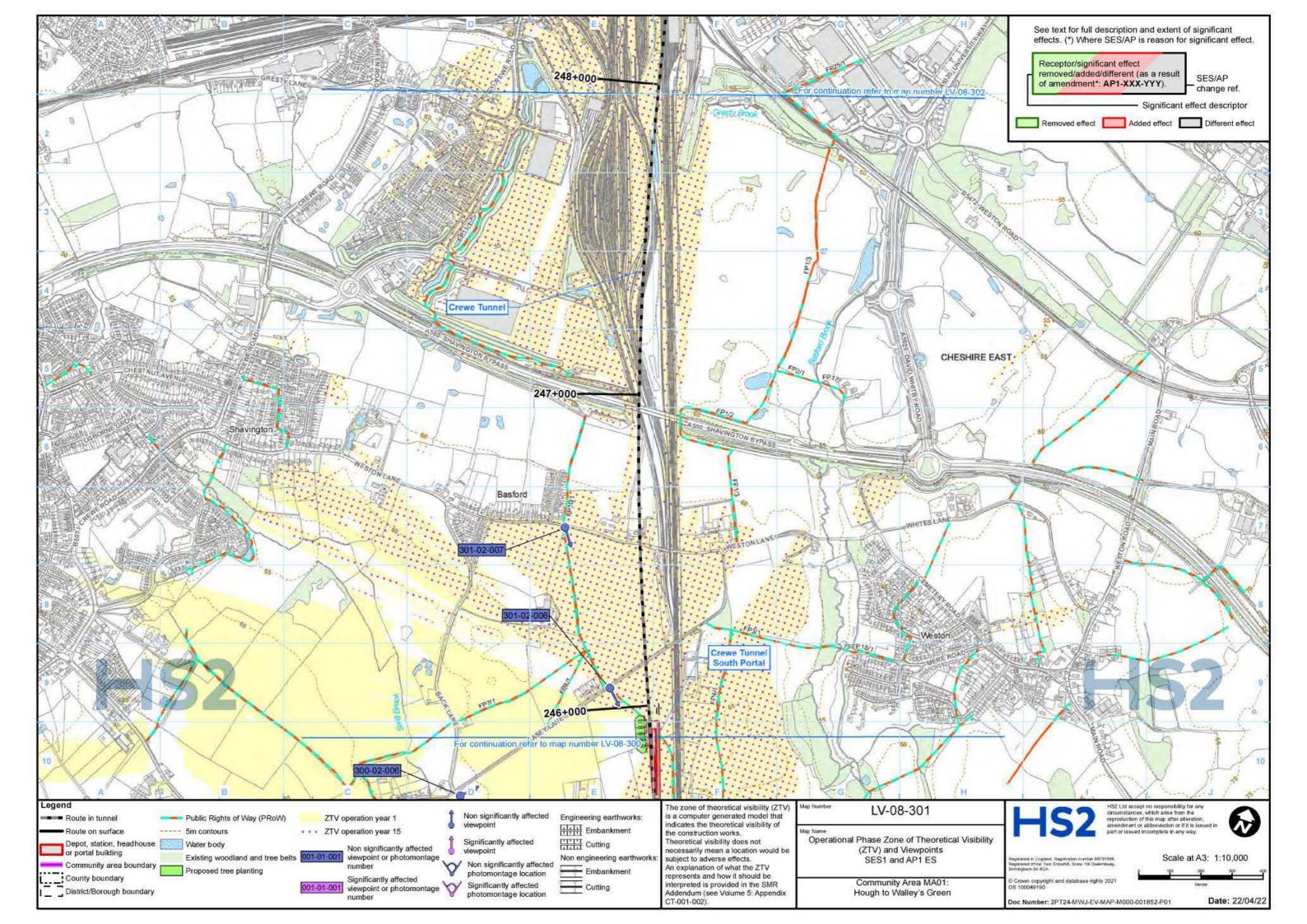


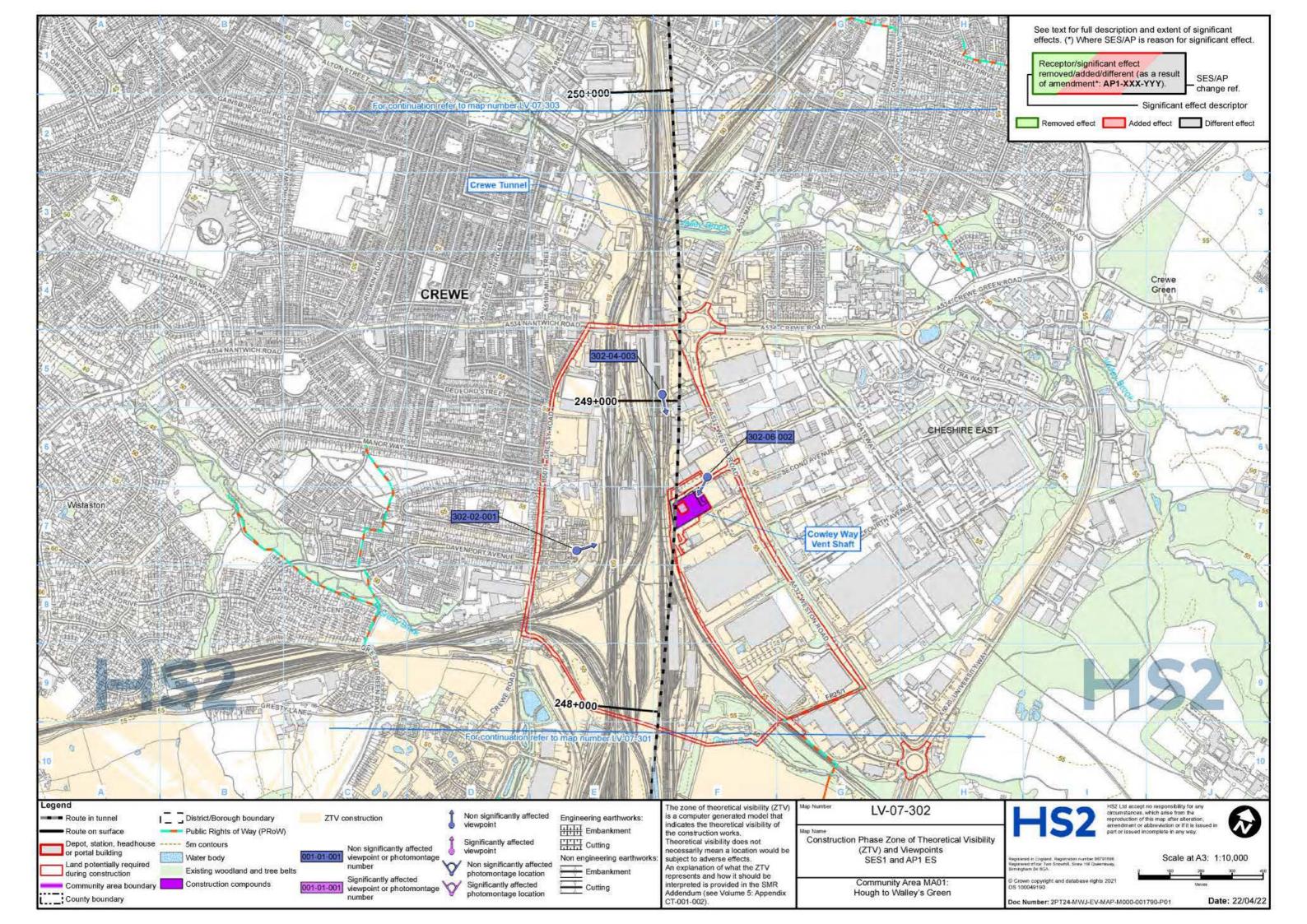


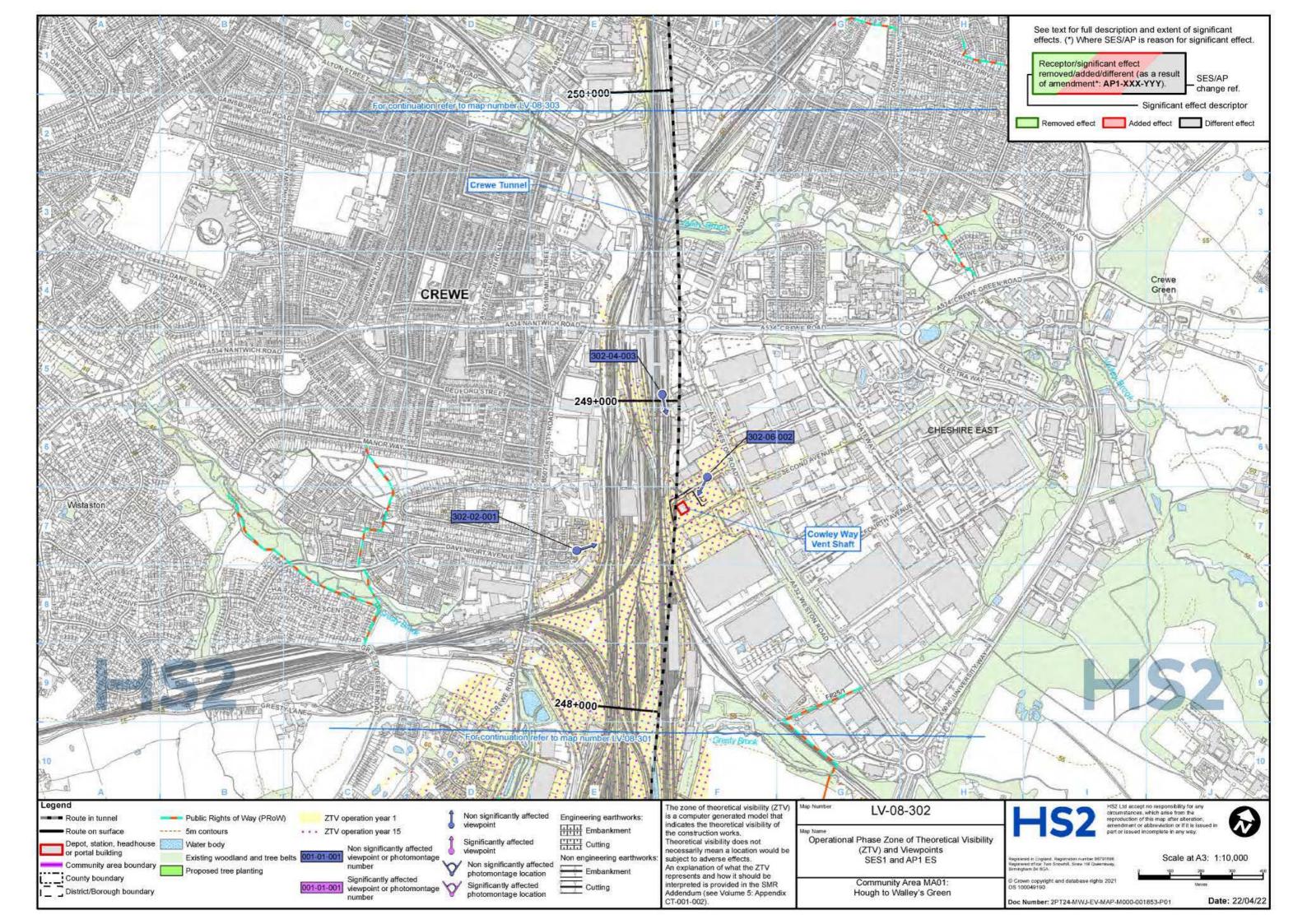


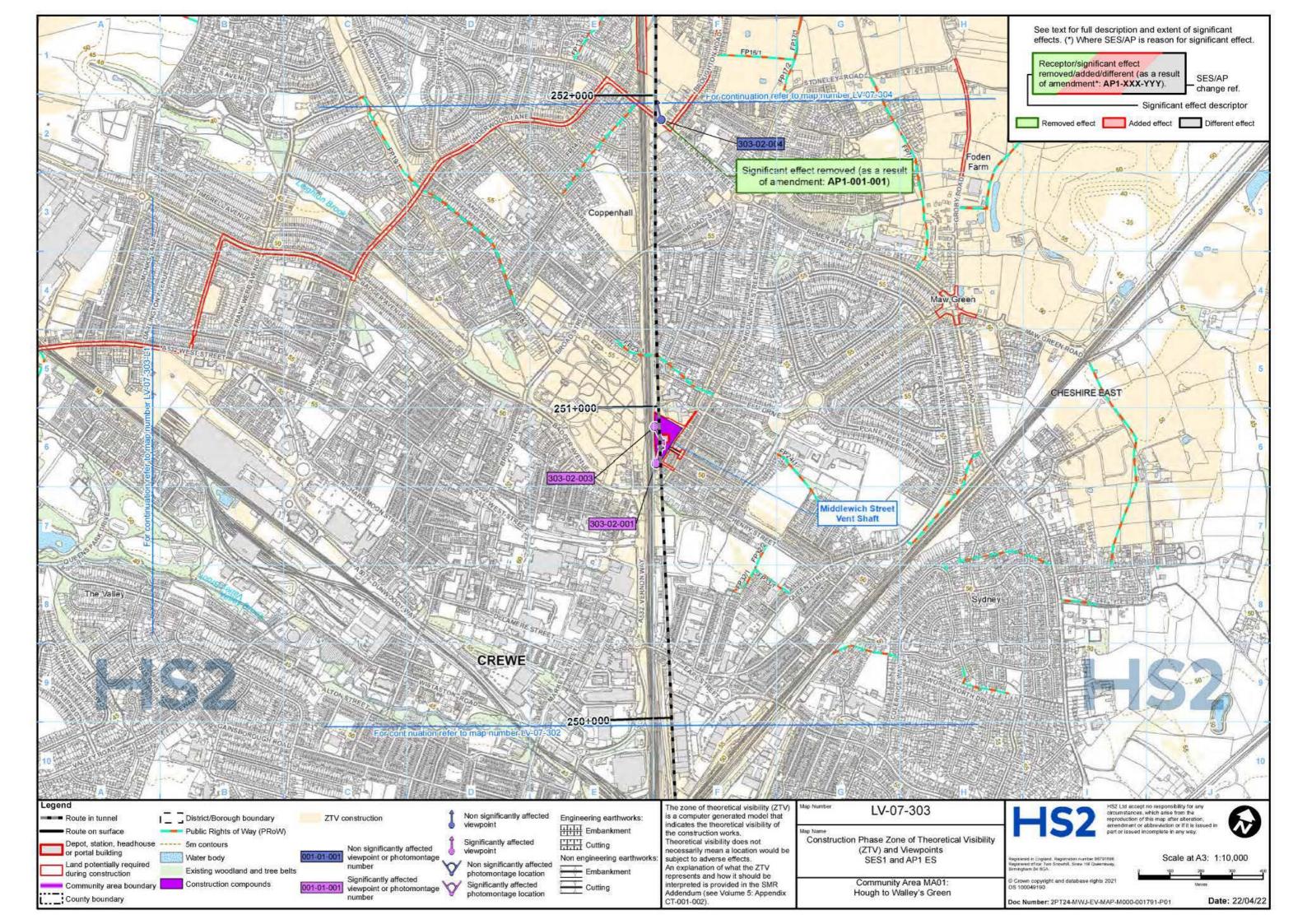


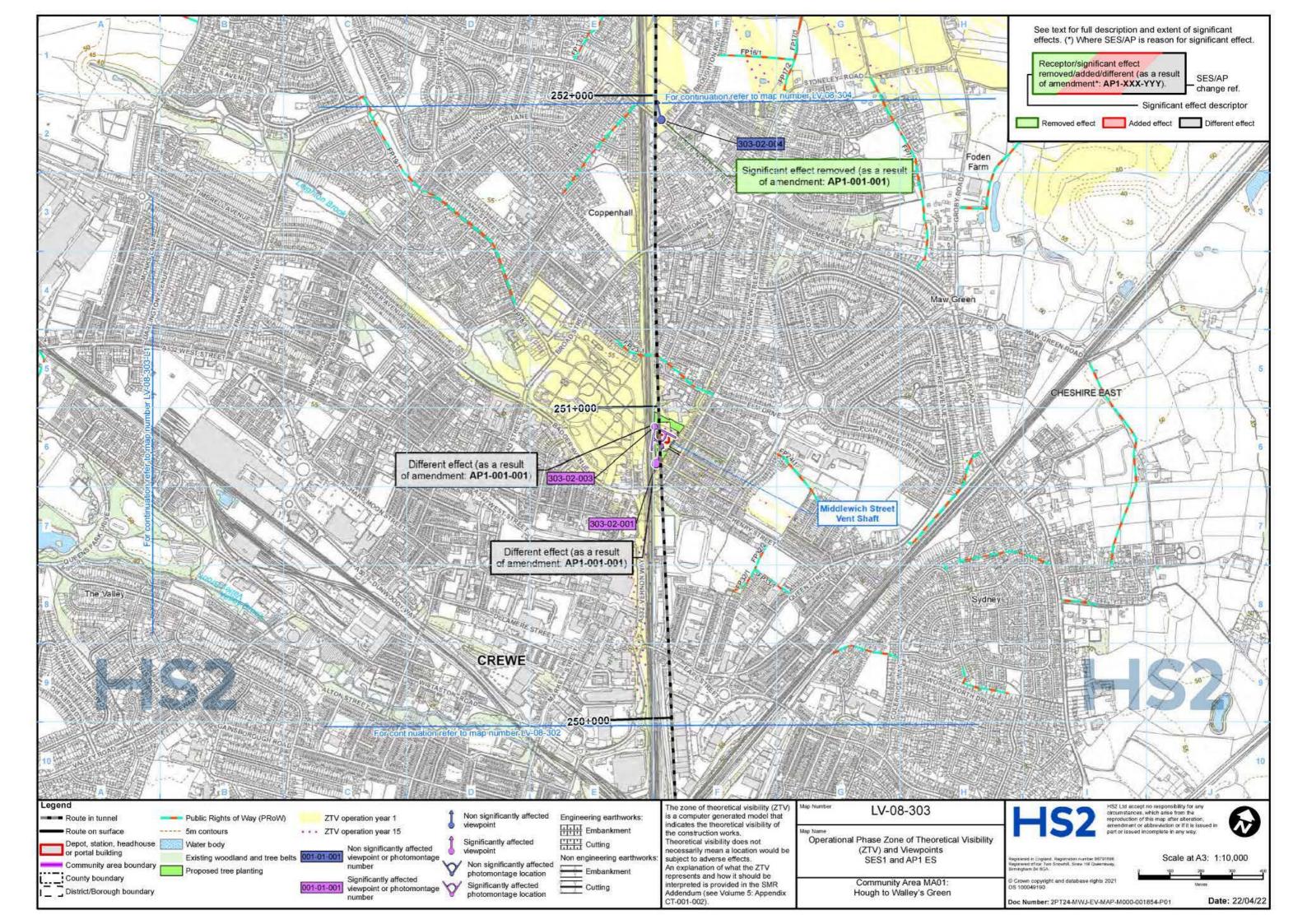


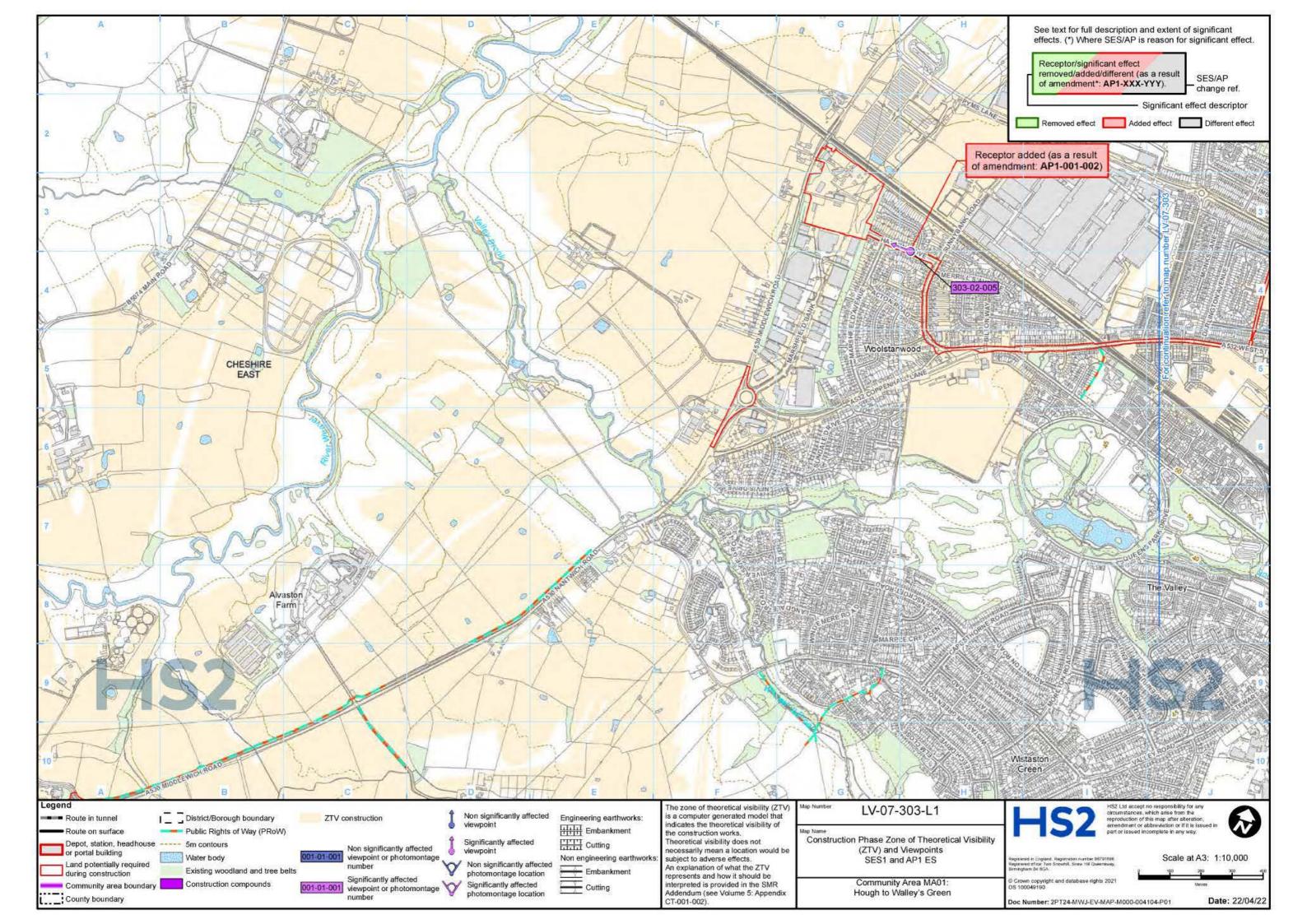


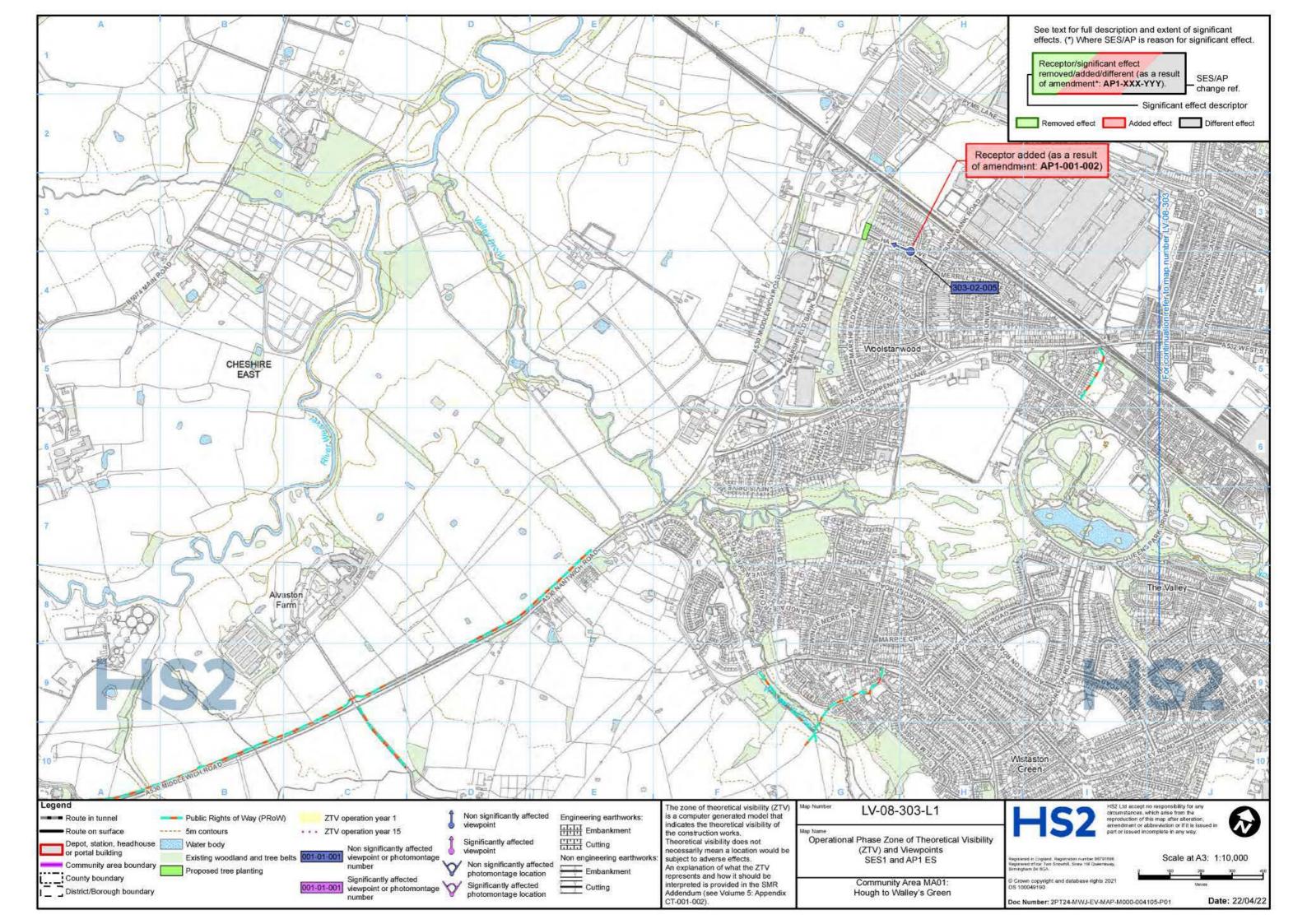


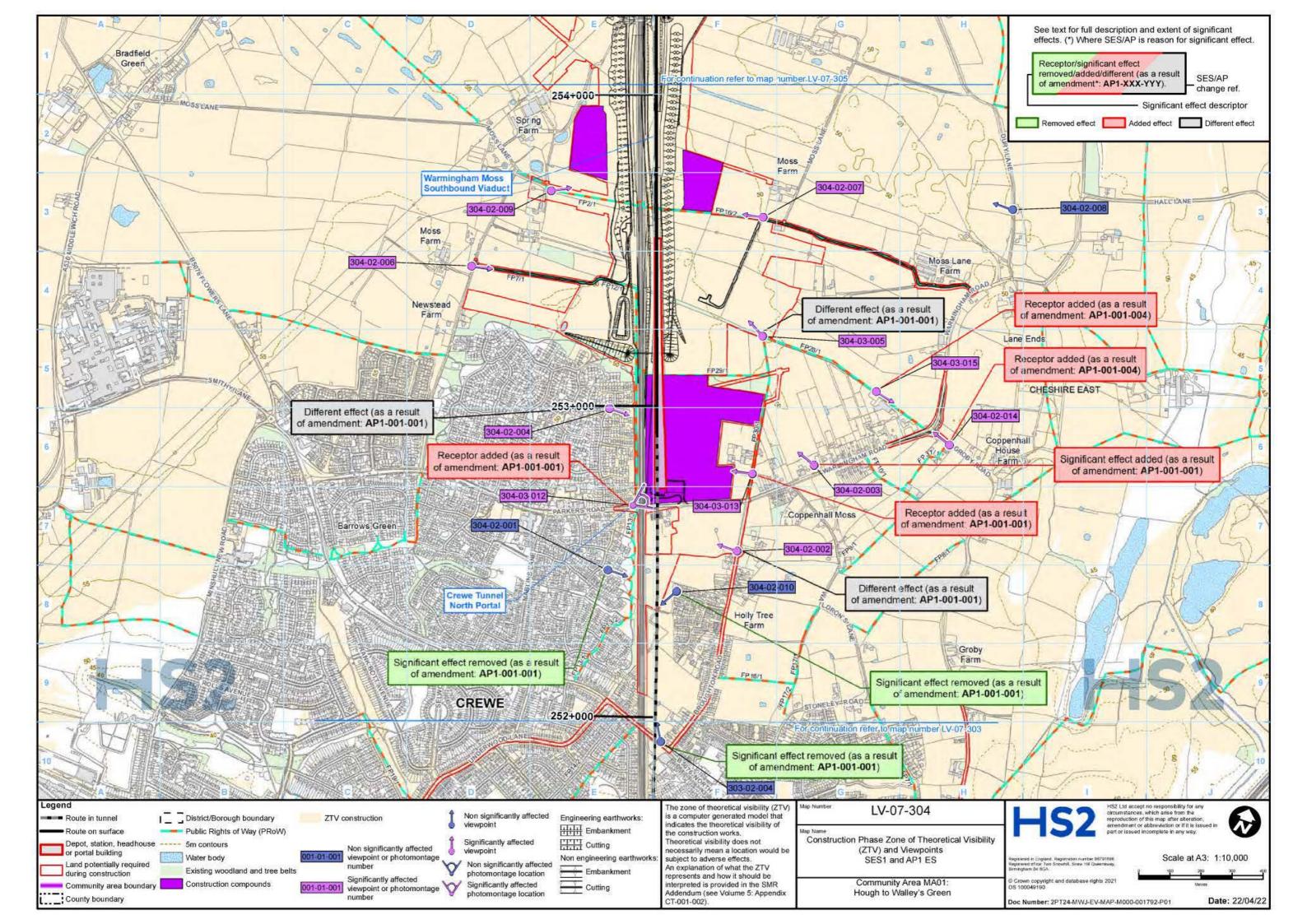


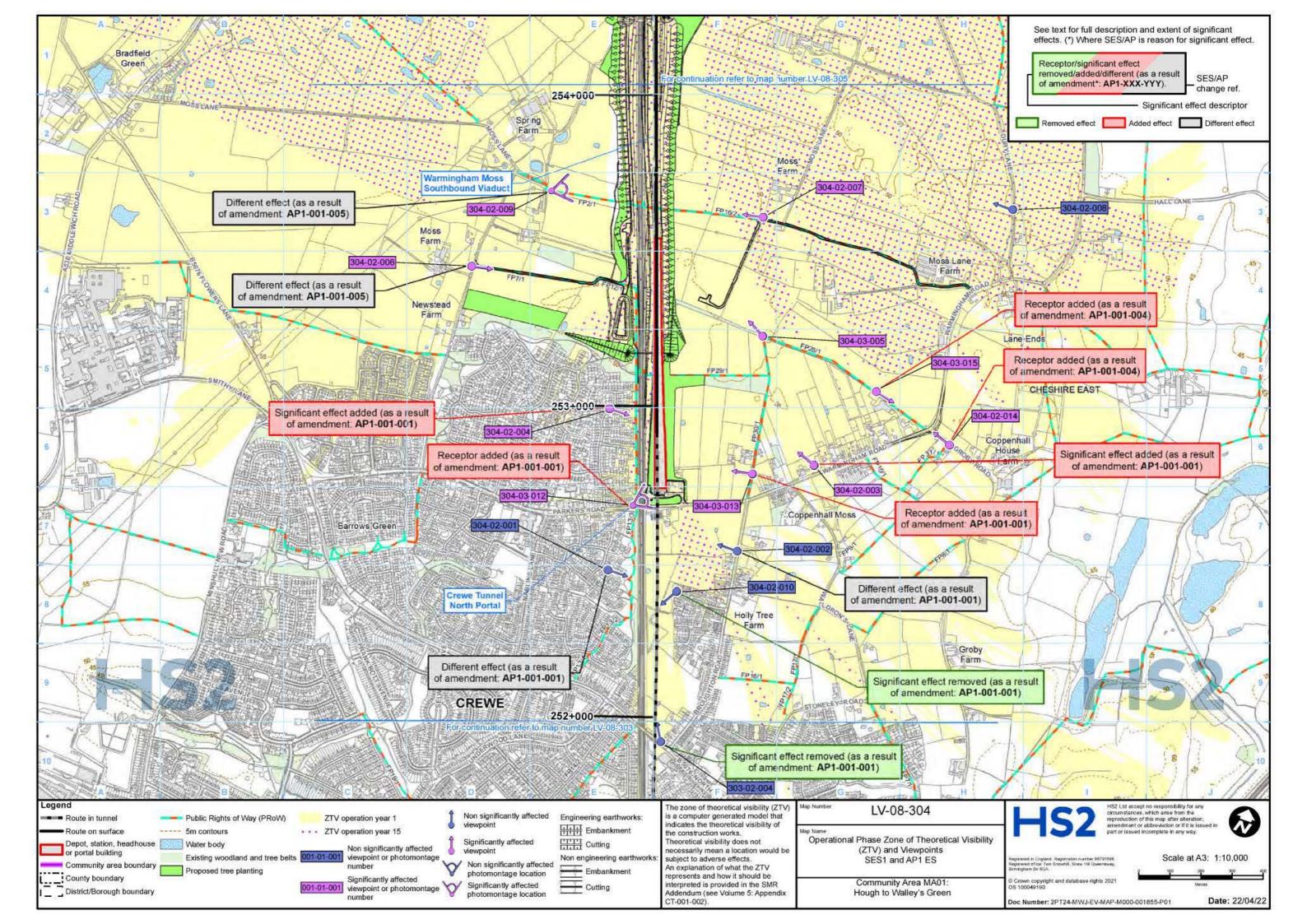


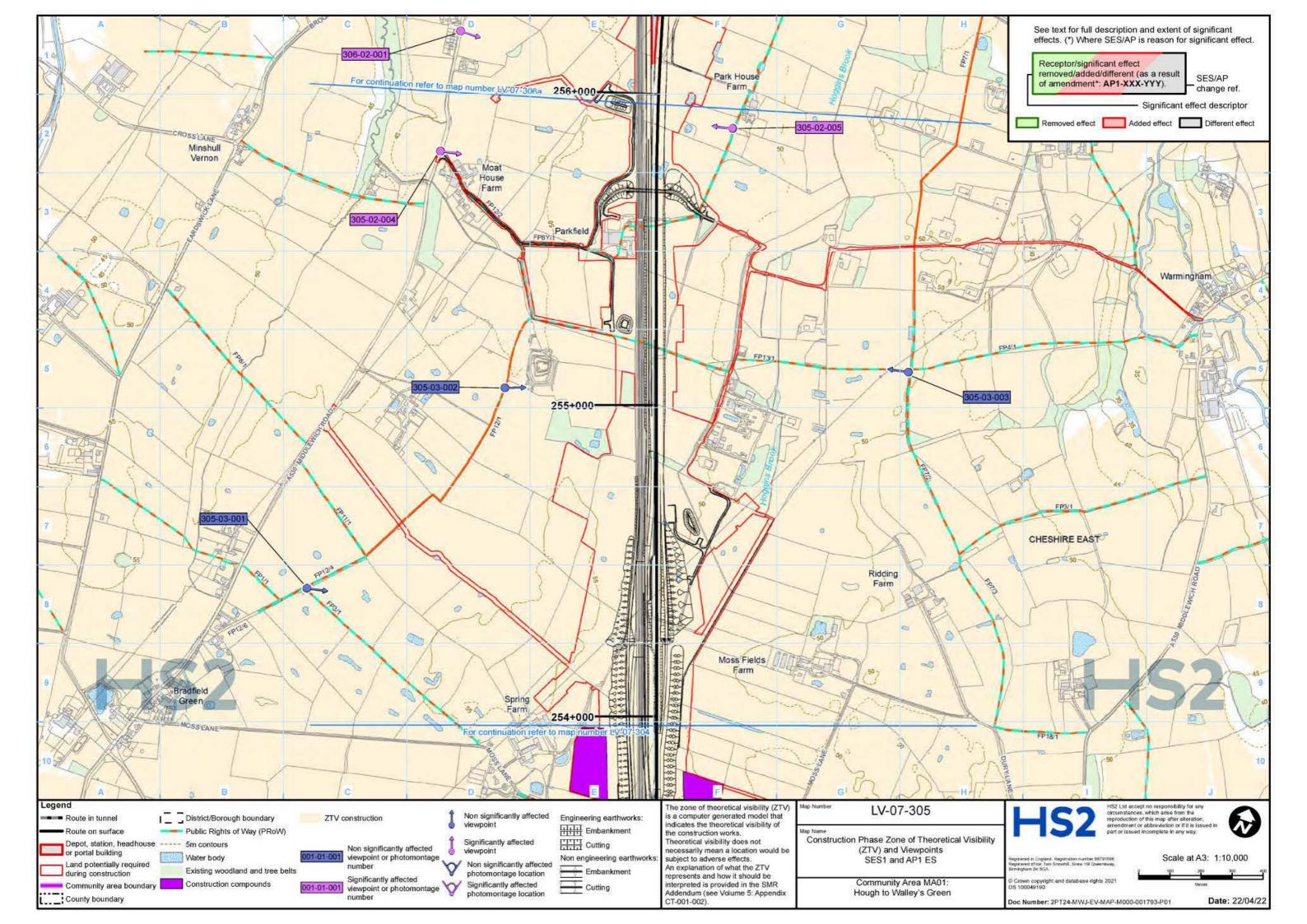


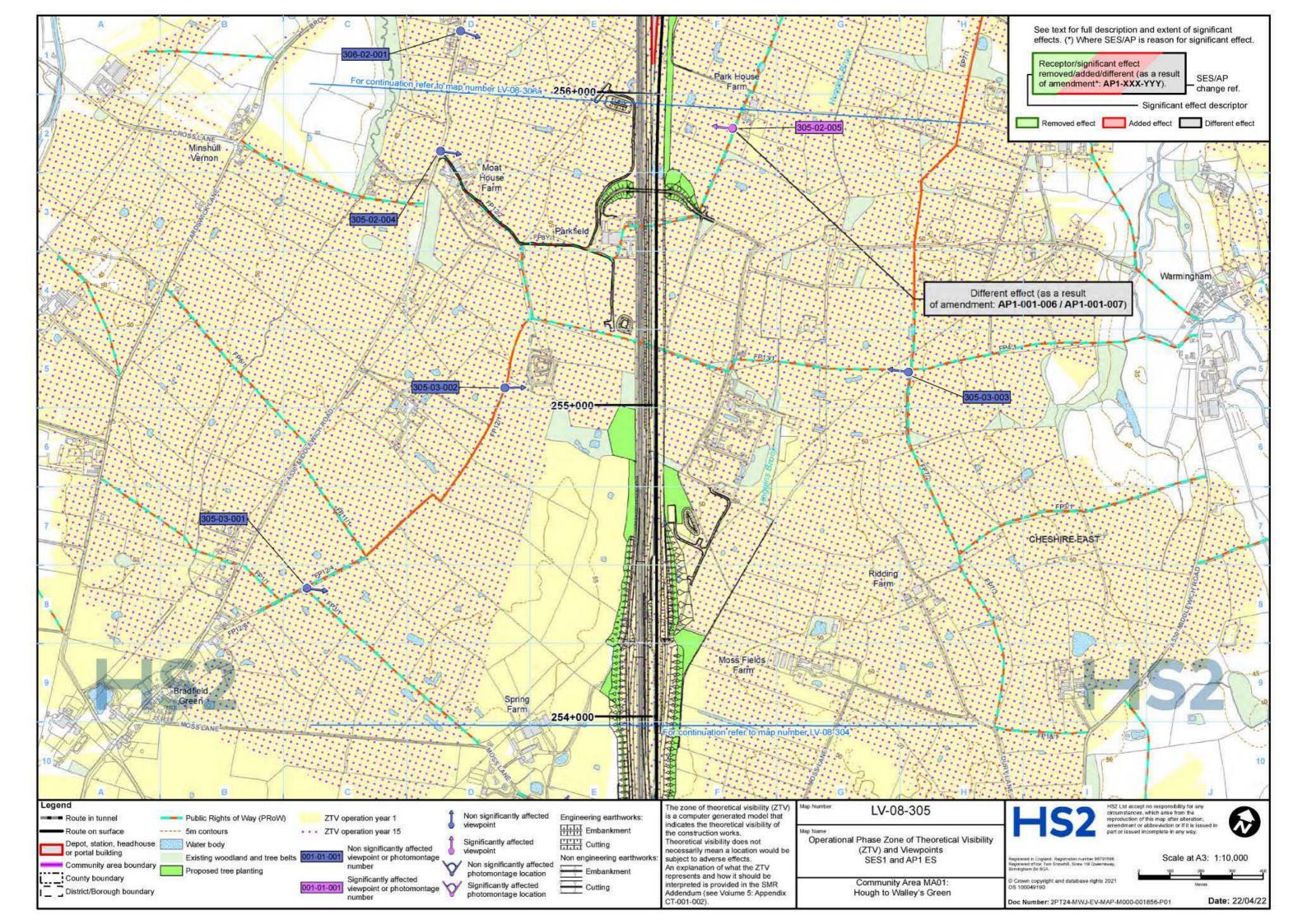


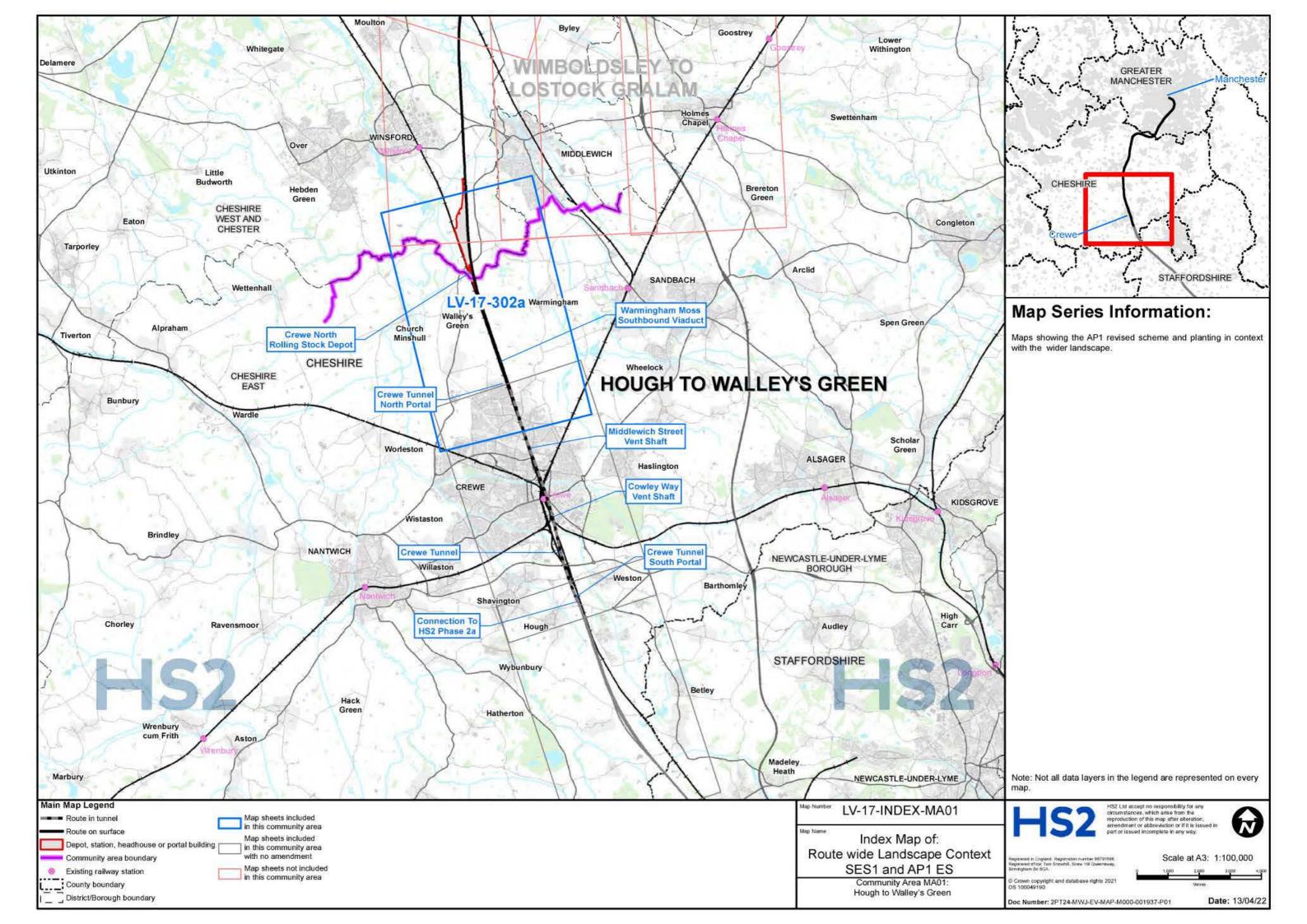


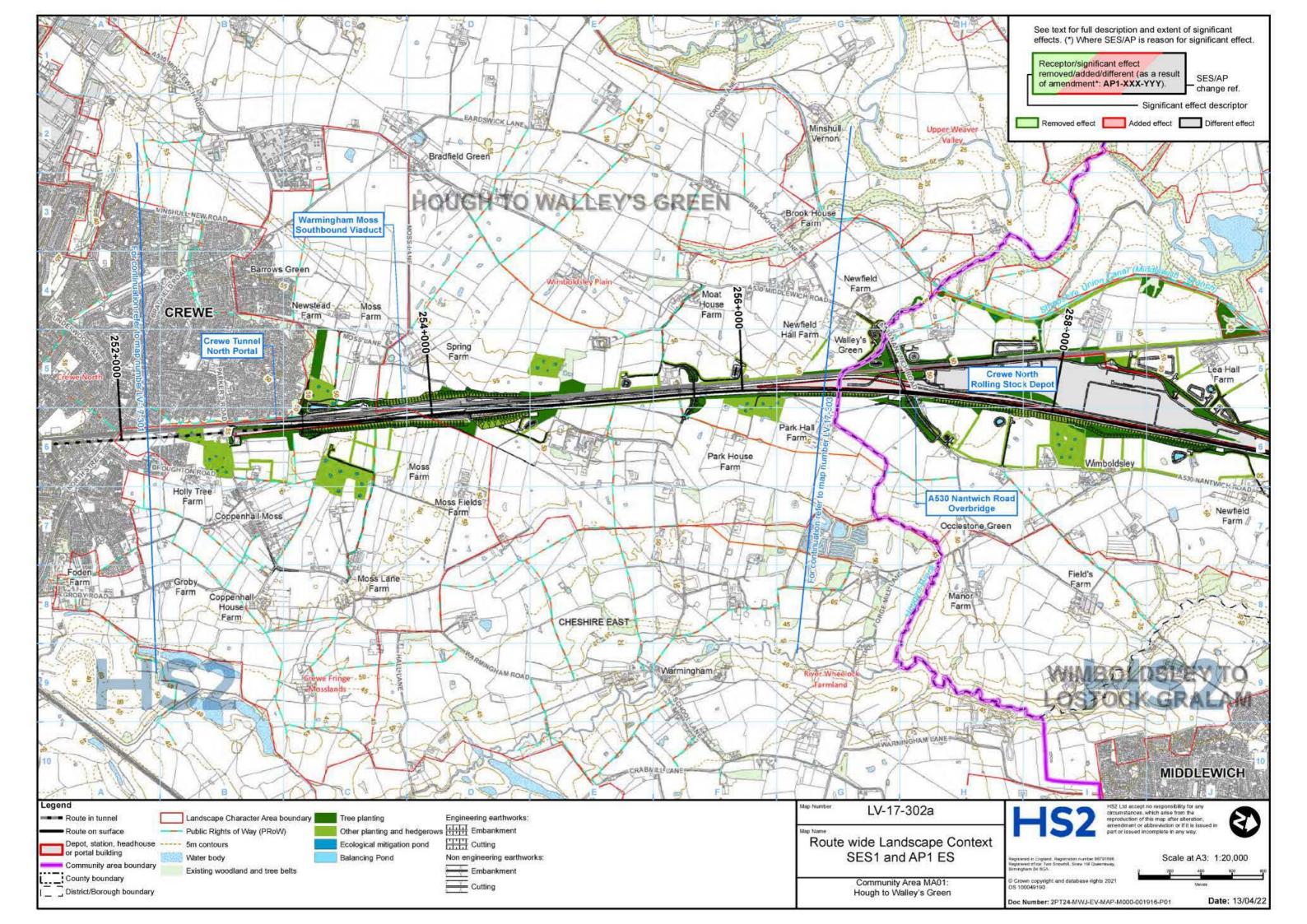












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# **High Speed Rail** (Crewe - Manchester)

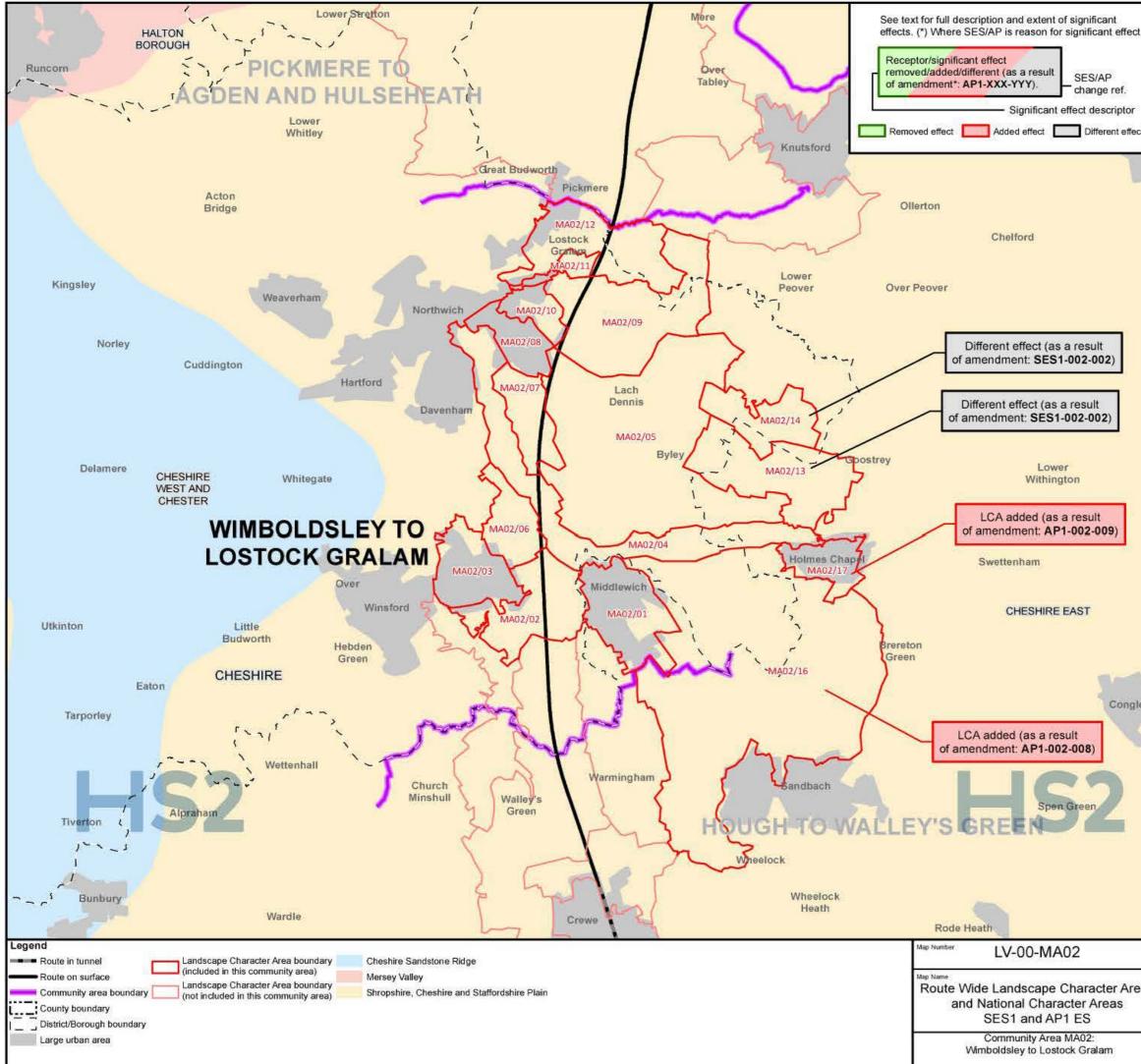
## **Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement**

MA02: Wimboldsley to Lostock Gralam

LV-00 – Route-wide Landscape Character Areas and National Character Areas

- LV-02 Landscape Character Areas
- LV-07 Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints
- LV-08 Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints
- LV-17 Route-wide Landscape Context



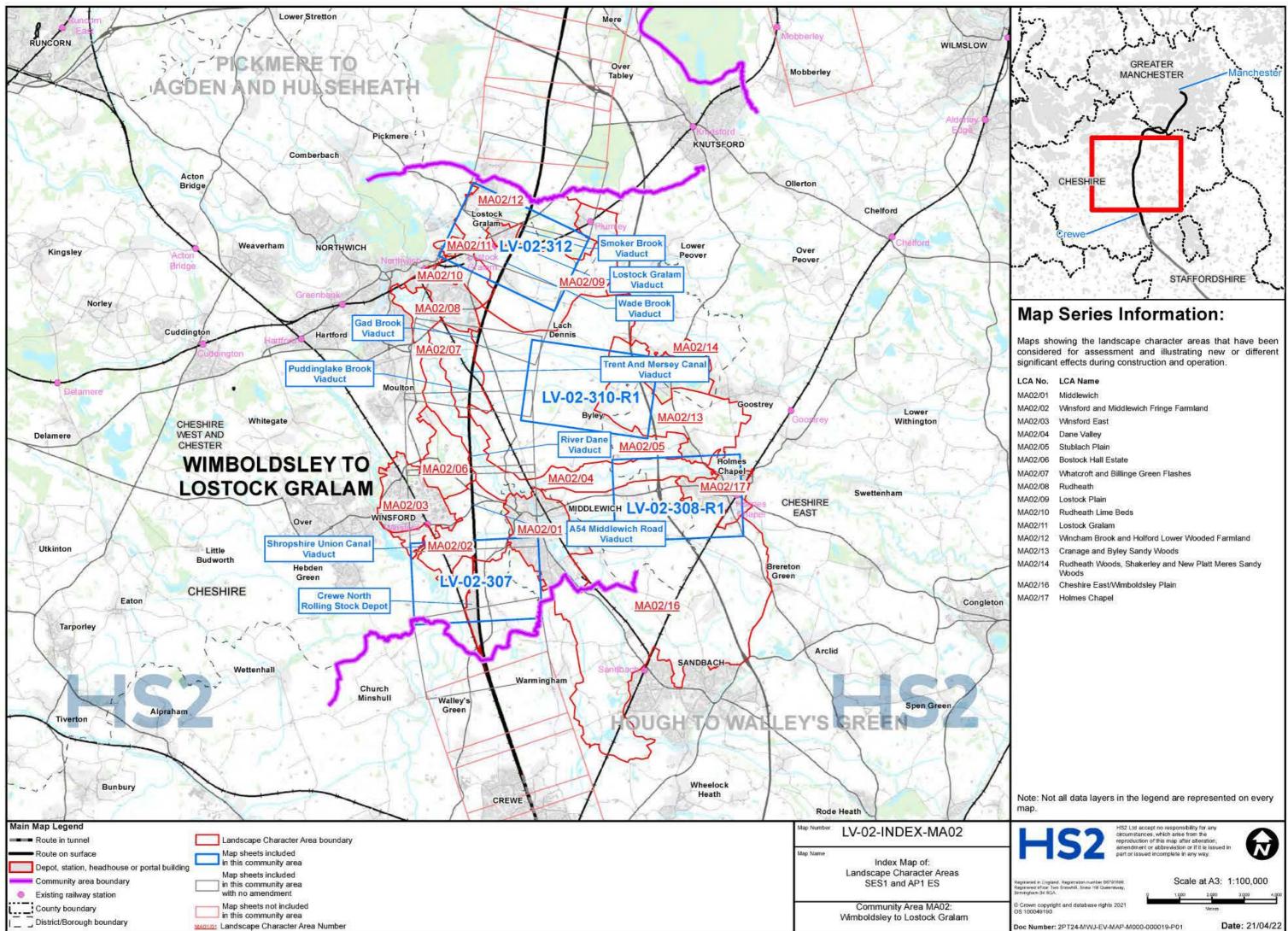


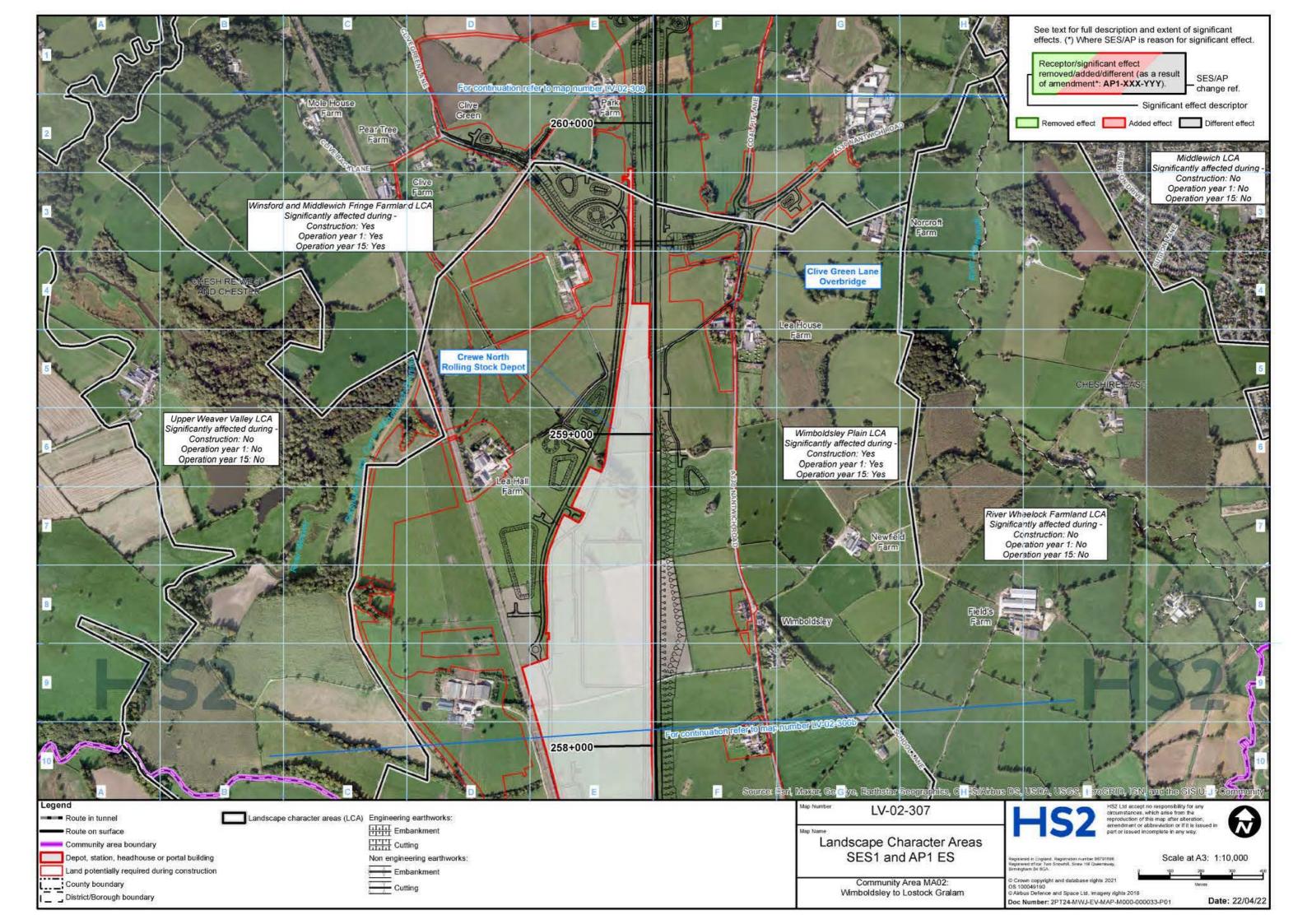
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	Landscape Character Areas
	MA02/01 - Middlewich
	MA02/02 - Winsford and Middlewich Fringe Farmland MA02/03 - Winsford East
	MA02/04 - Dane Valley
	MA02/05 - Stublach Plain
	MA02/06 - Bostock Hall Estate
	MA02/07 - Whatcroft and Billinge Green Flashes
	MA02/08 - Rudheath
	MA02/09 - Lostock Plain
	MA02/10 - Rudheath Lime Beds
	MA02/11 - Lostock Gralam
	MA02/12 - Wincham Brook and Holford Lower Wooded Farmland
	MA02/13 - Cranage and Byley Sandy Woods
	MA02/14 - Rudheath Woods, Shakerley and New Platt Meres Sandy Woods
	MA02/16 - Cheshire East/Wimboldsley Plain
	MA02/17 - Holmes Chapel
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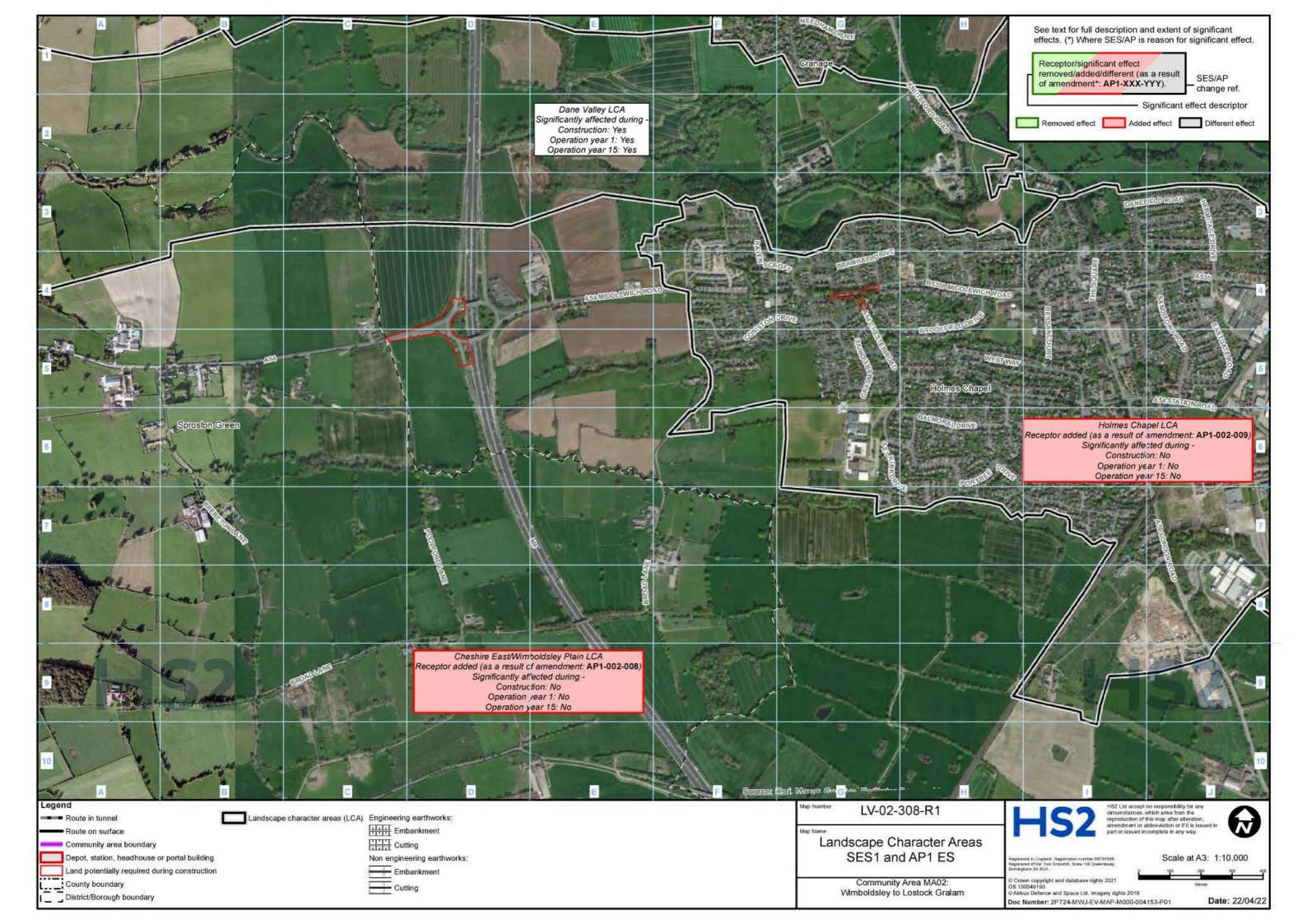
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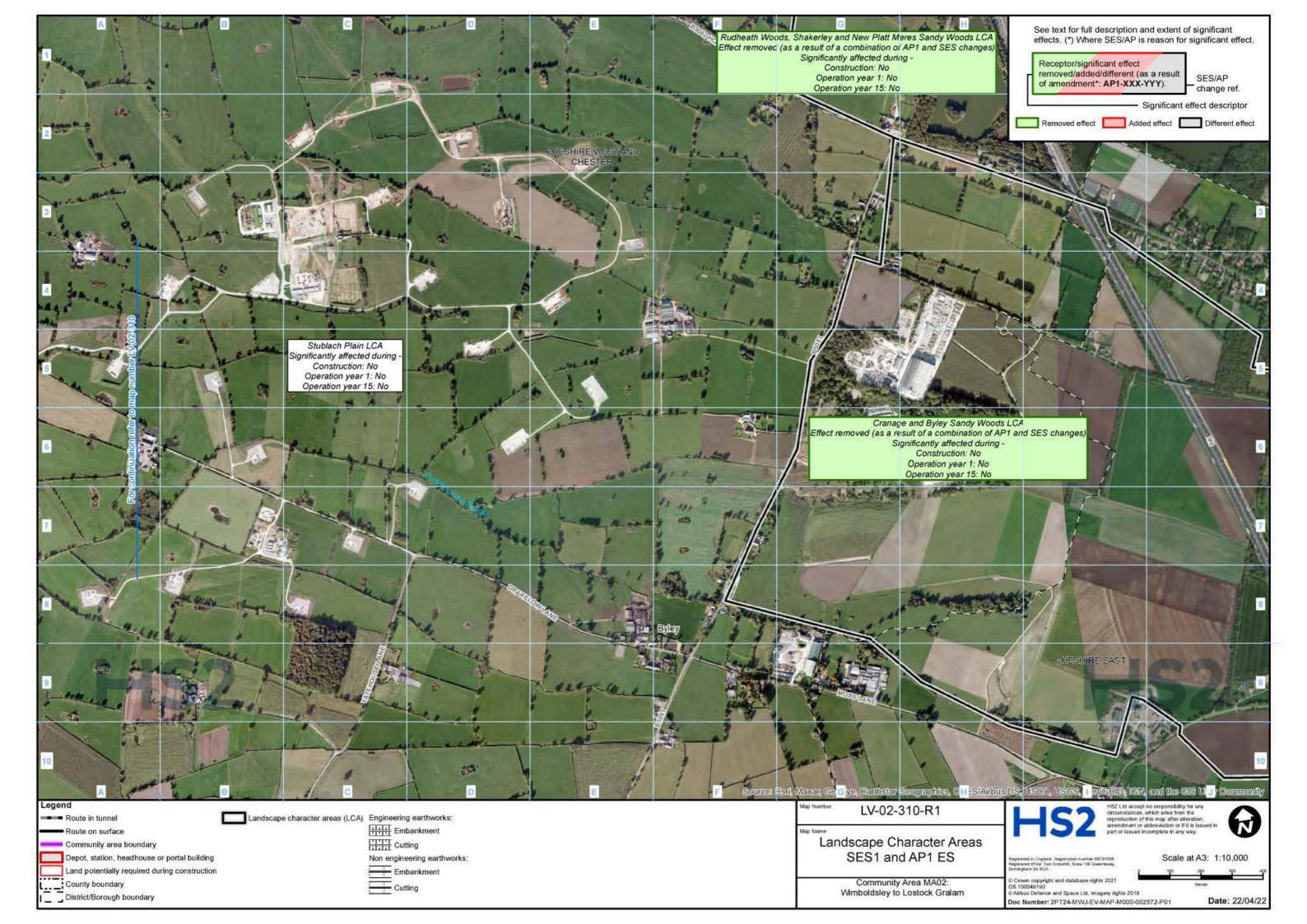
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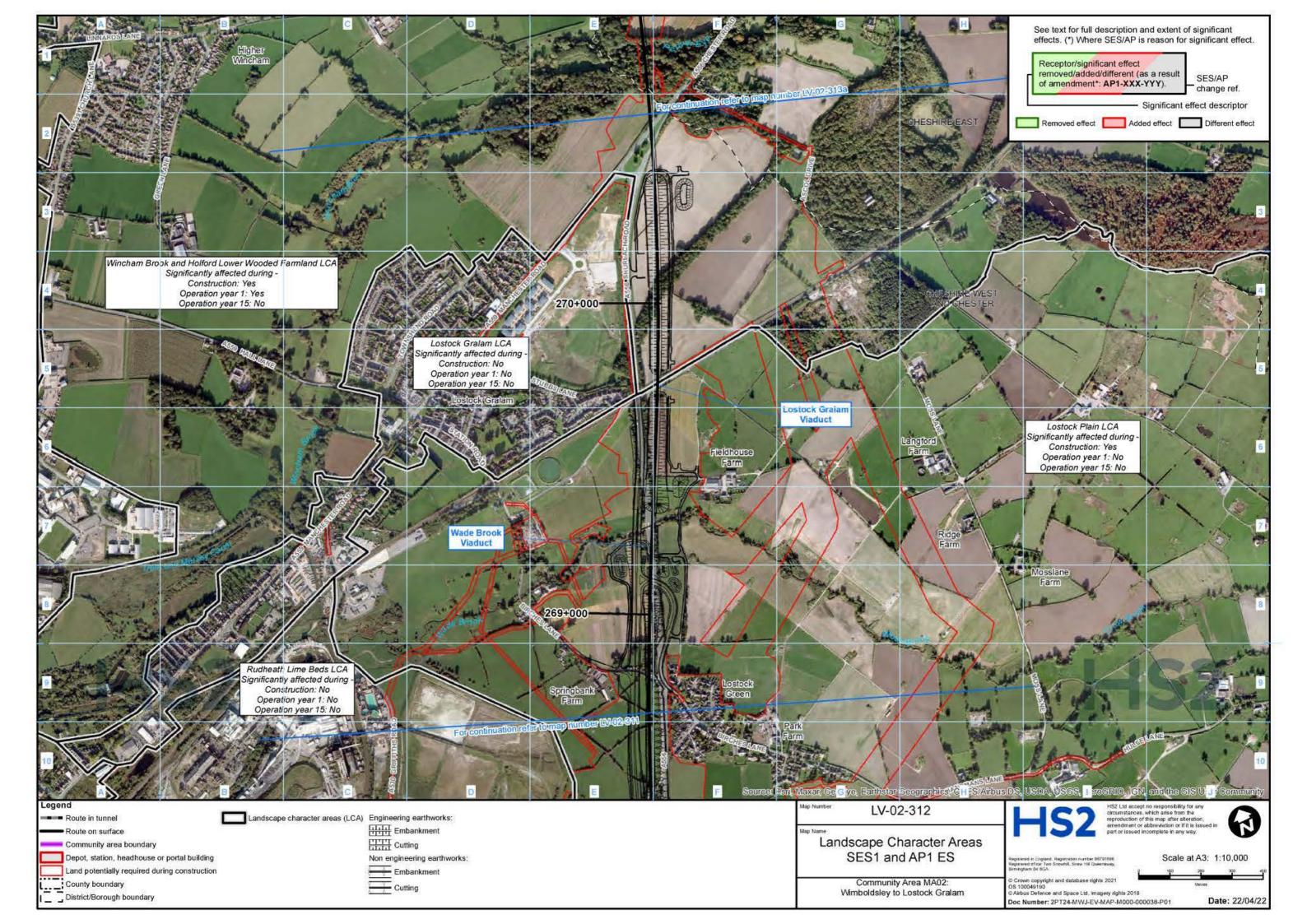
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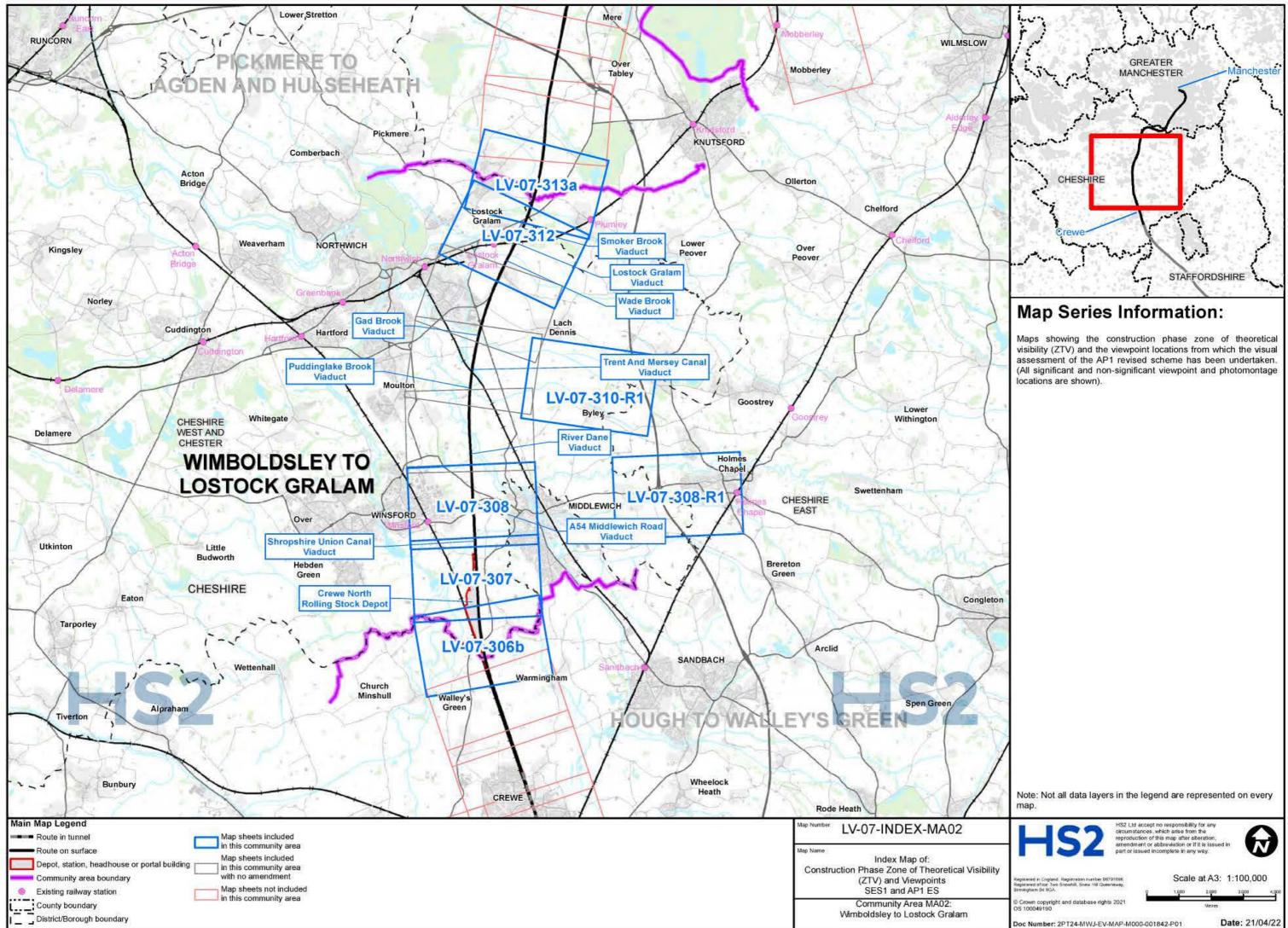


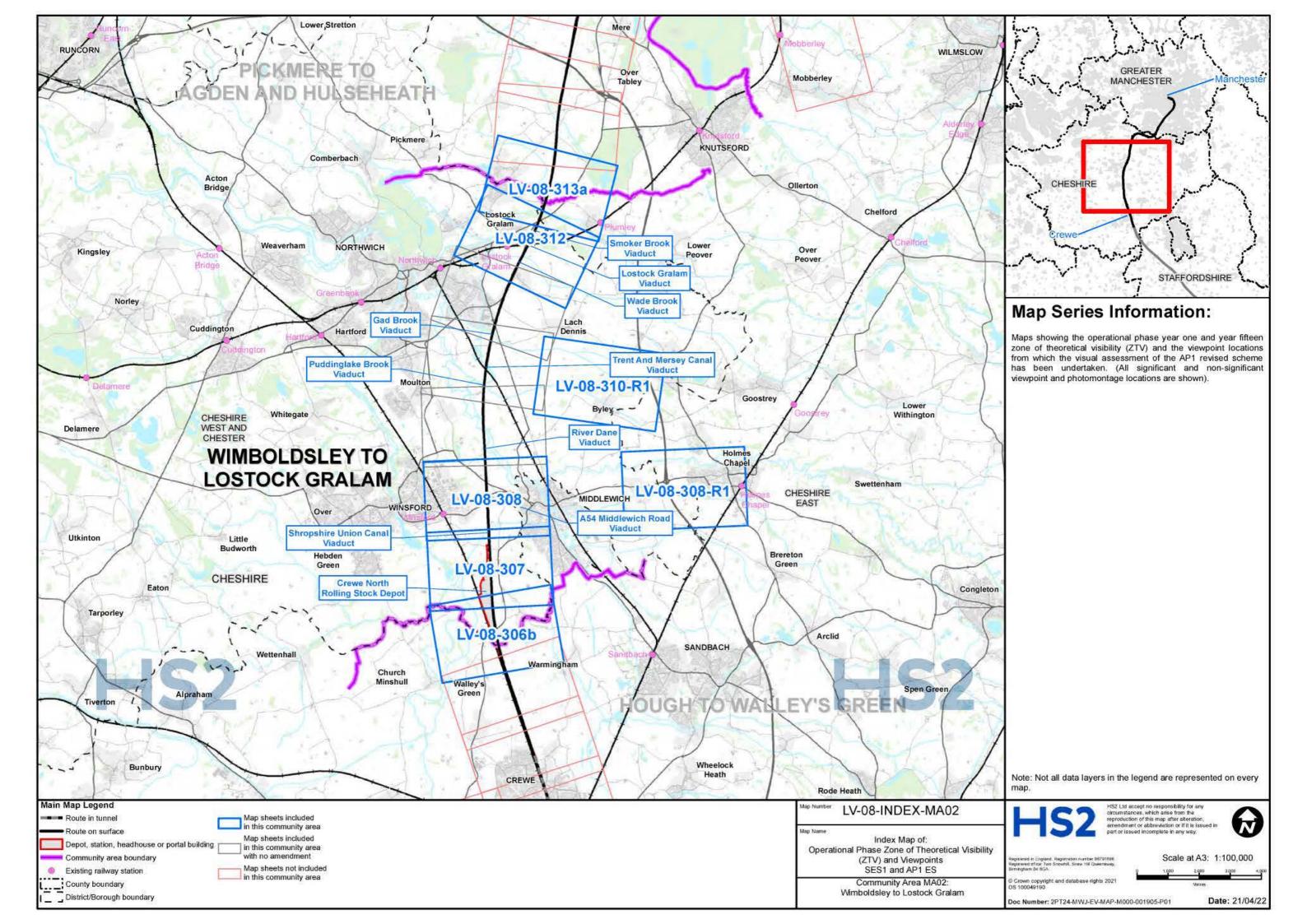


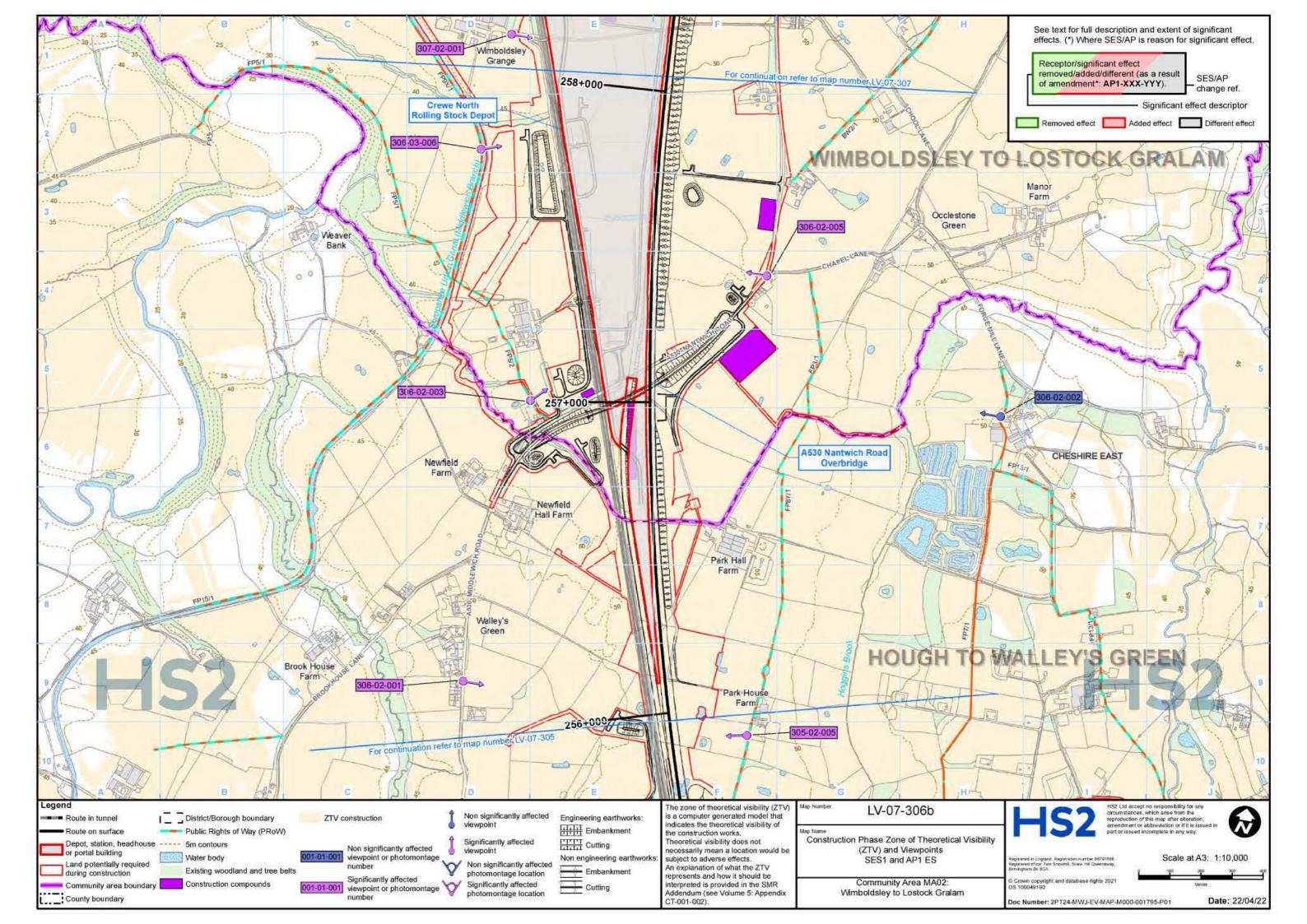


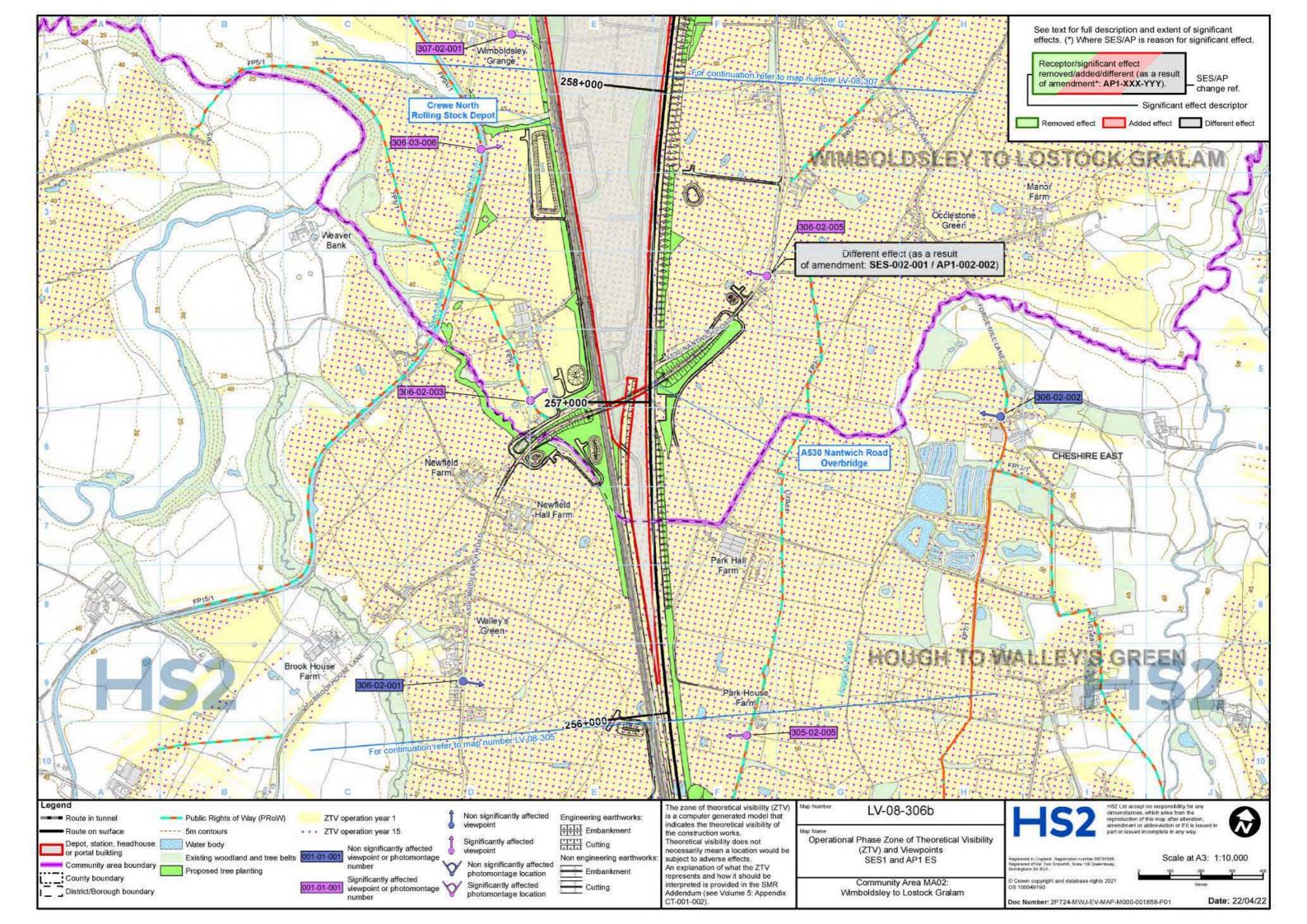


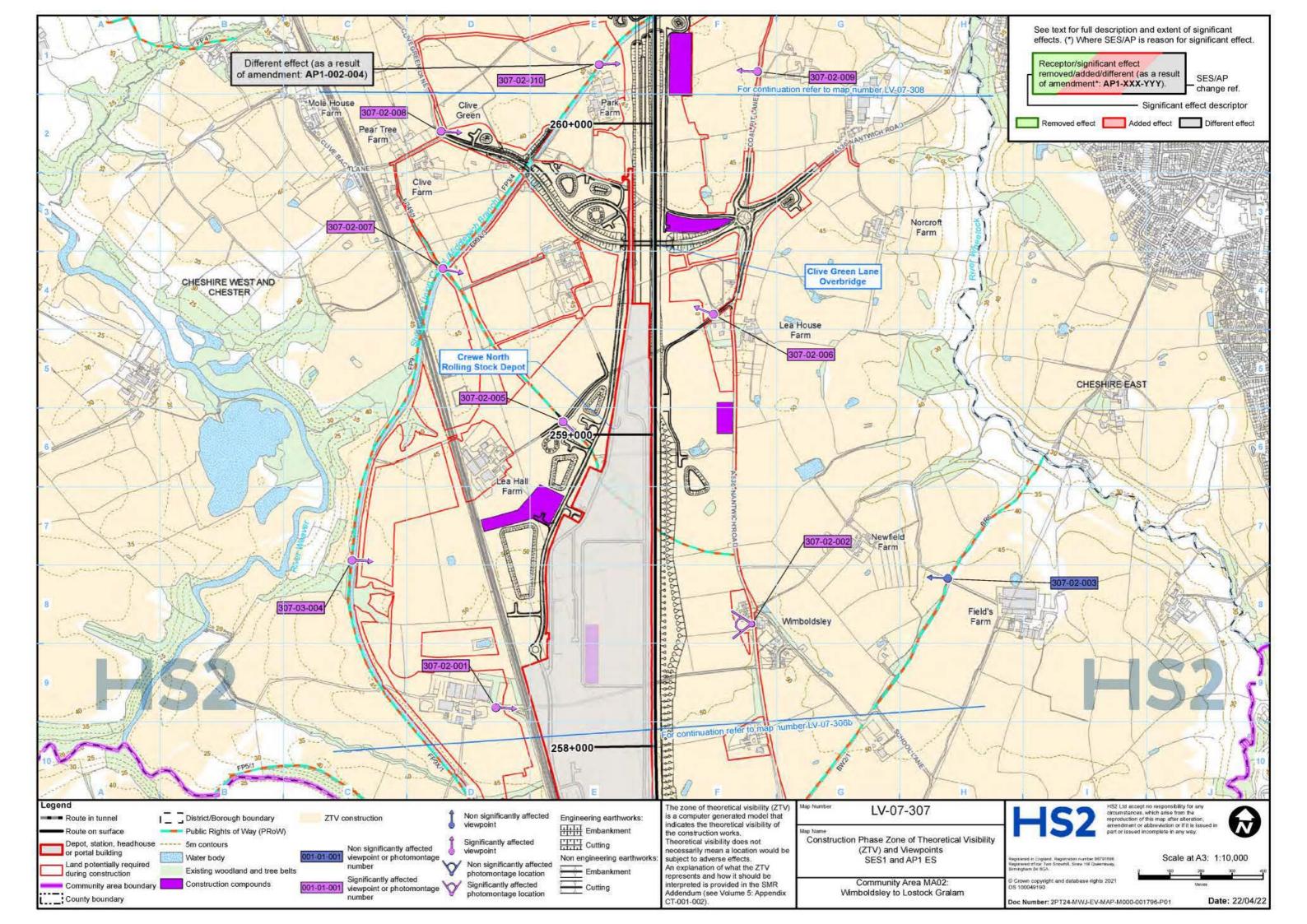
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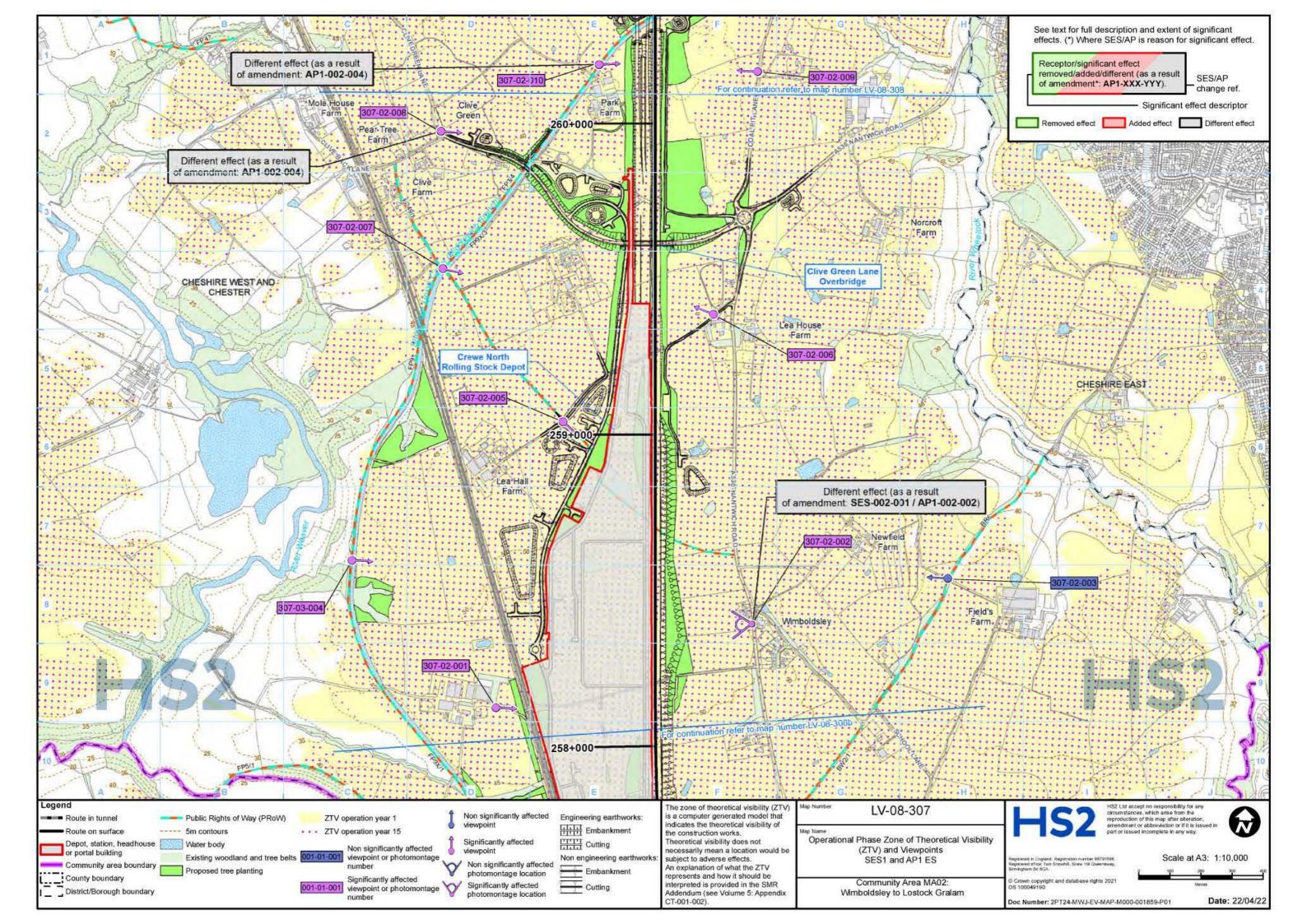


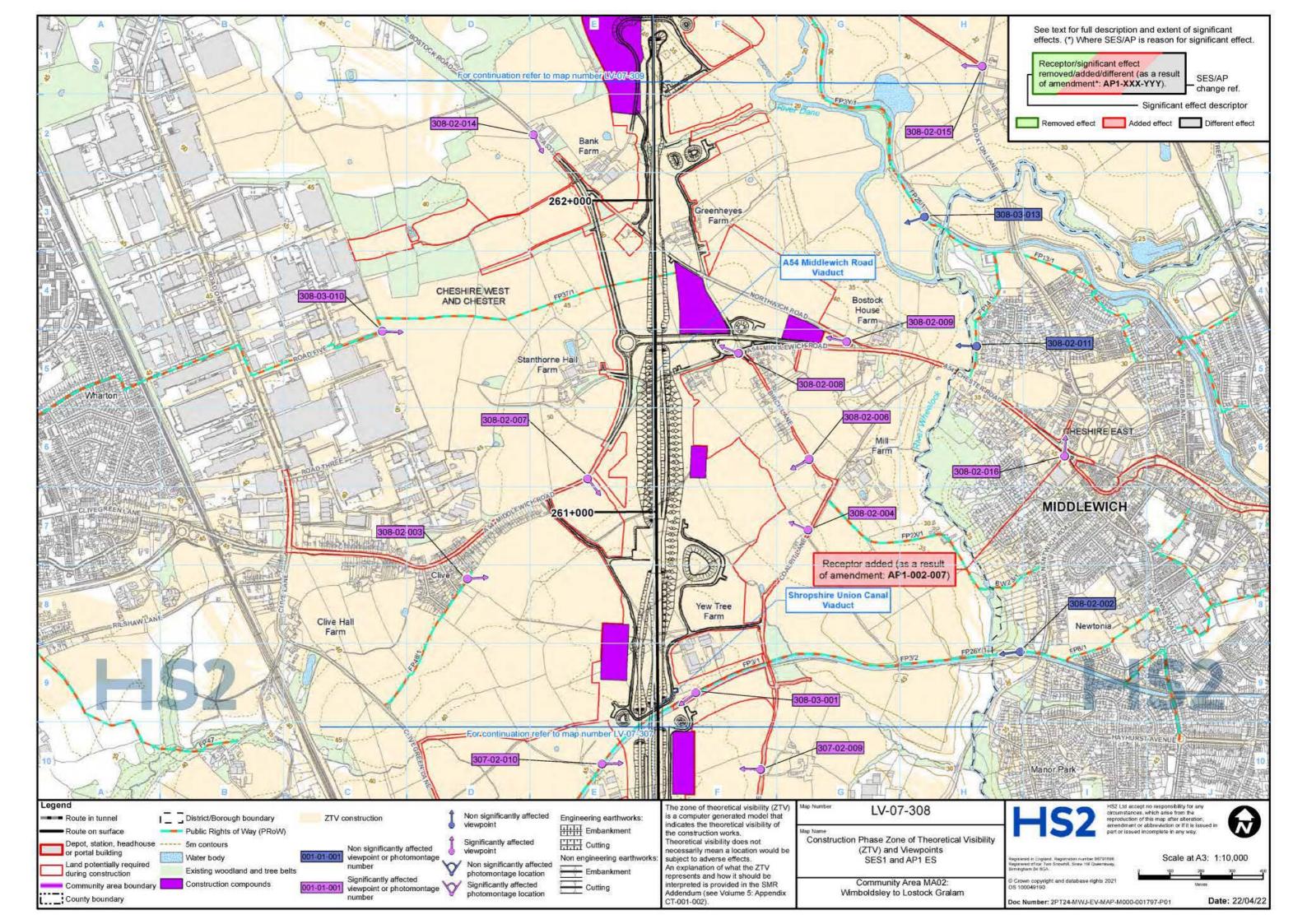


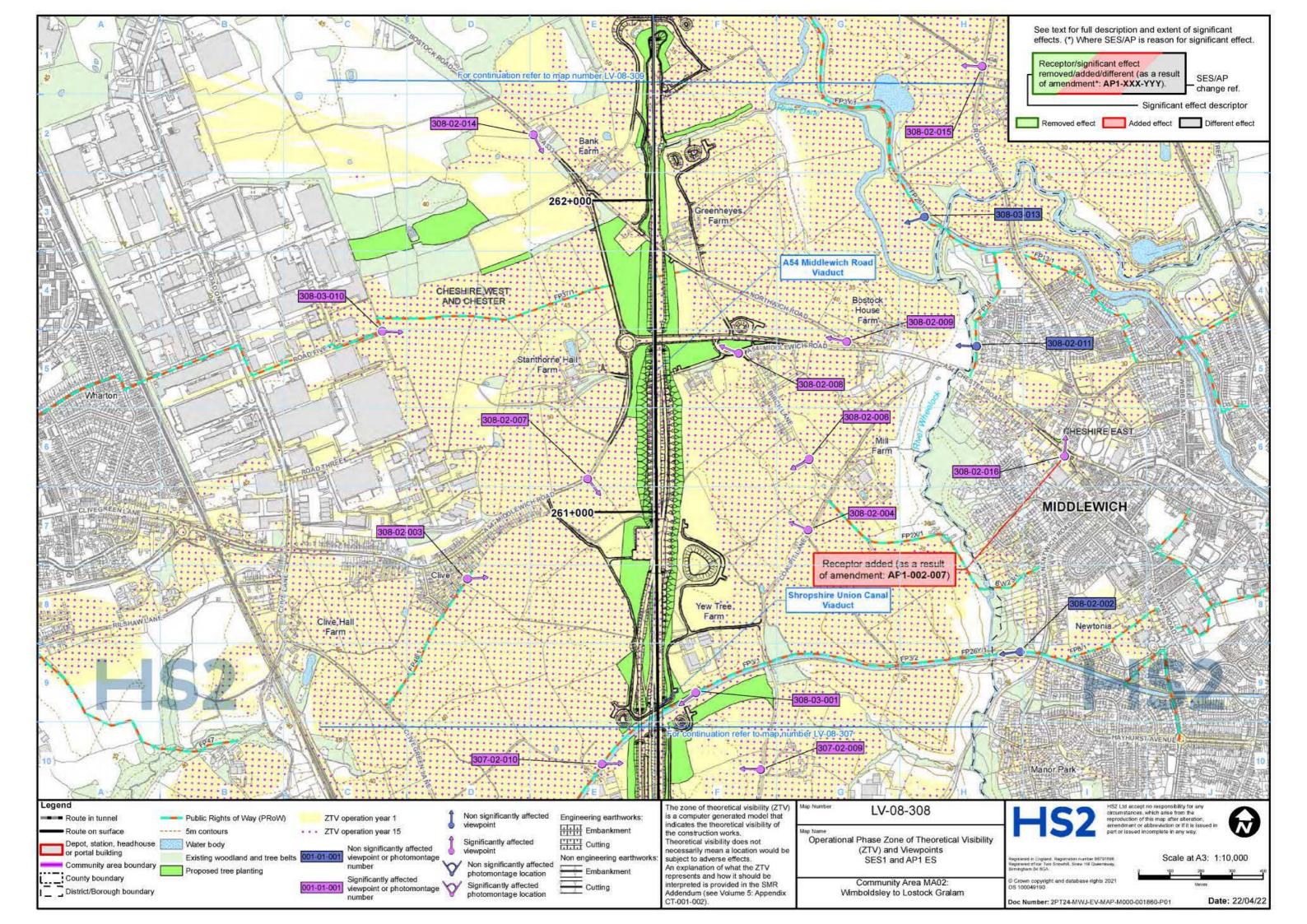


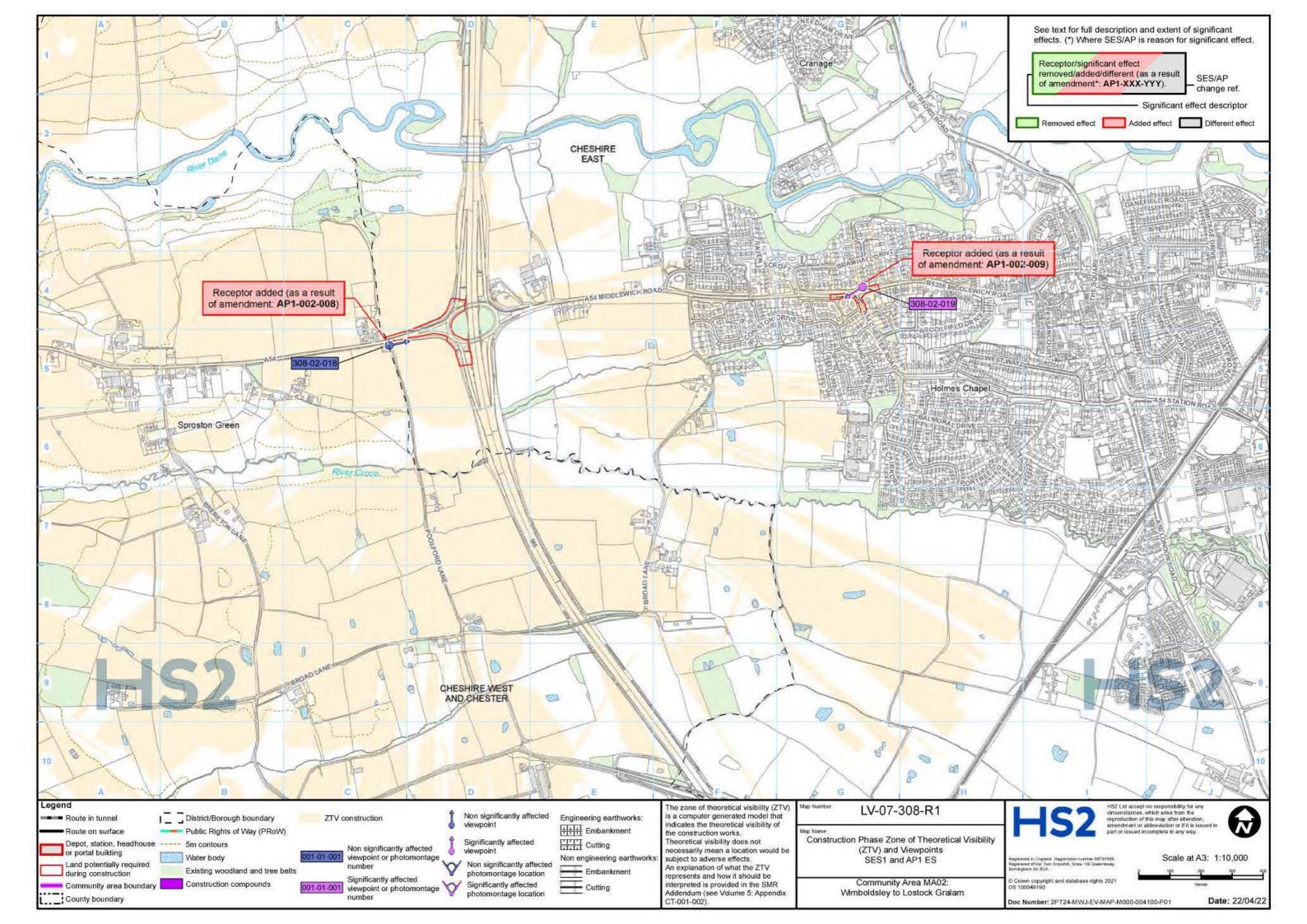


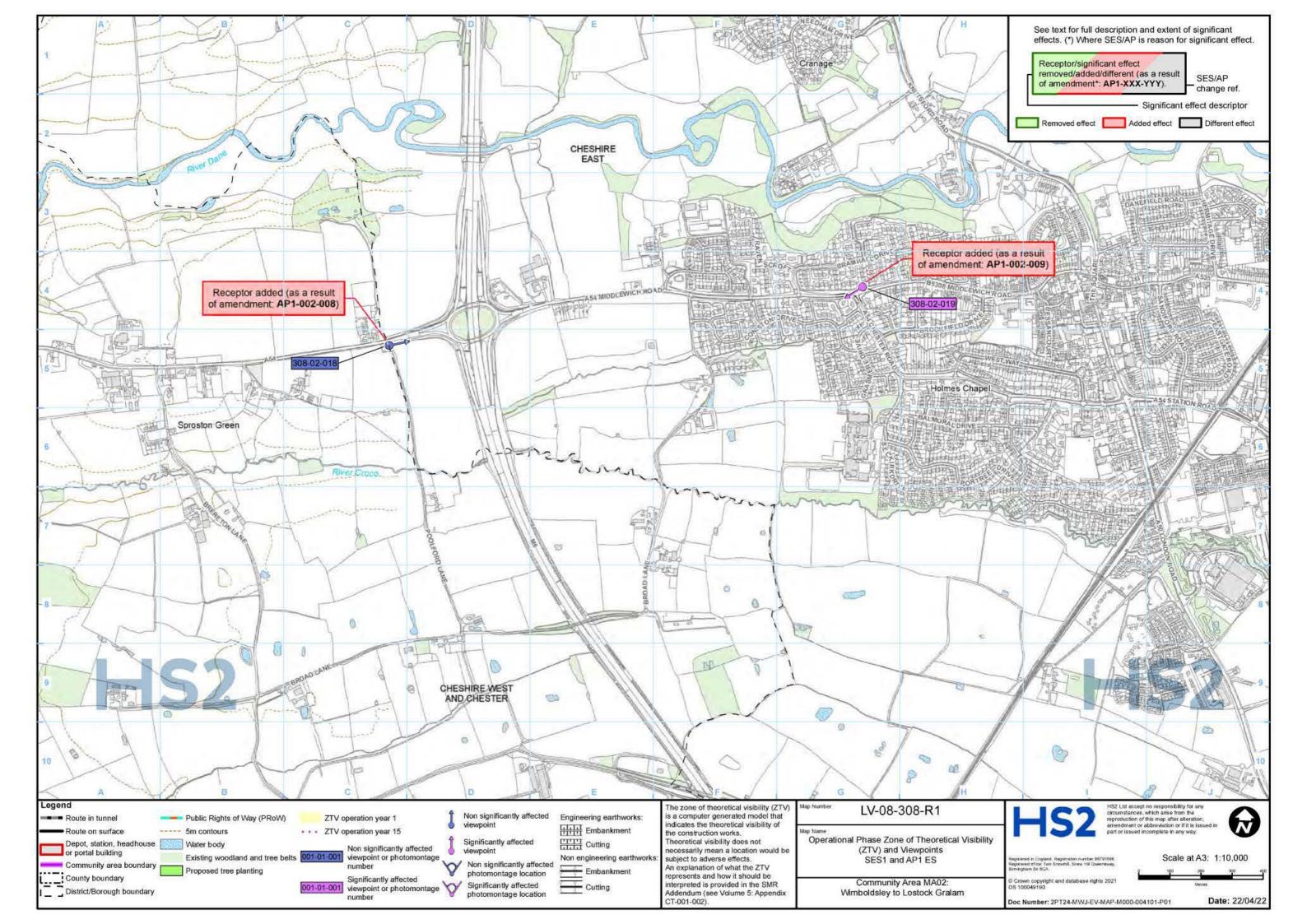


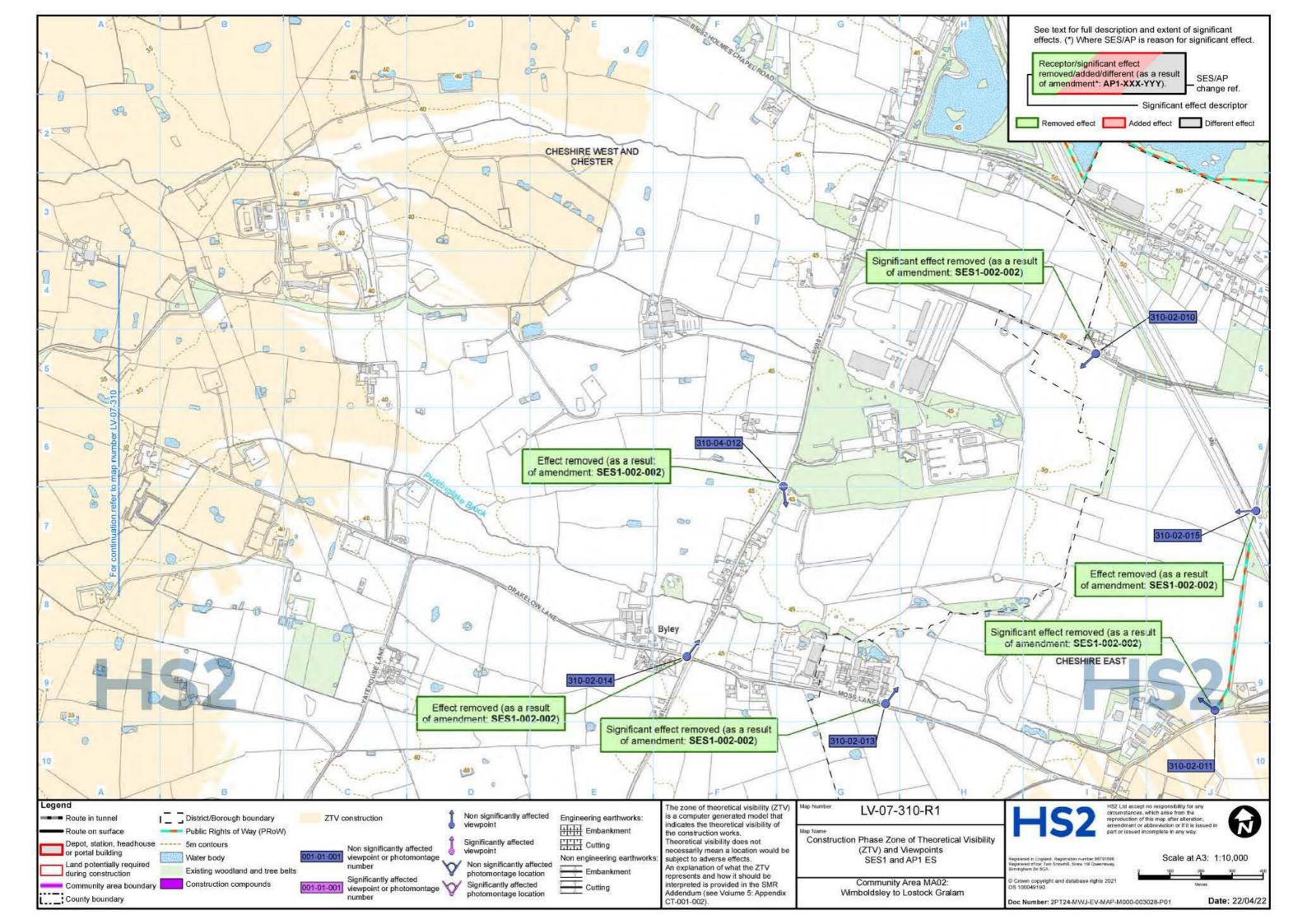


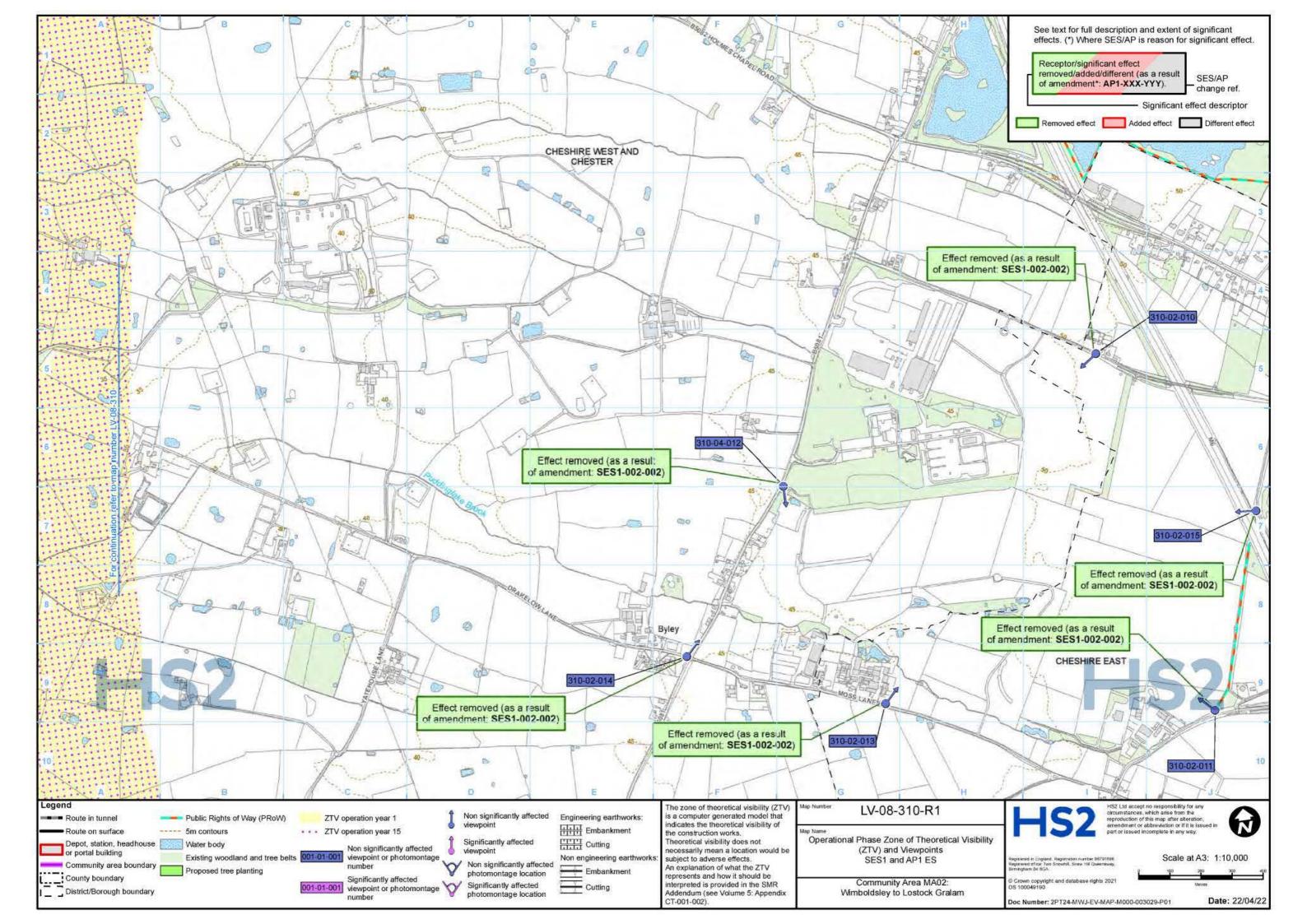


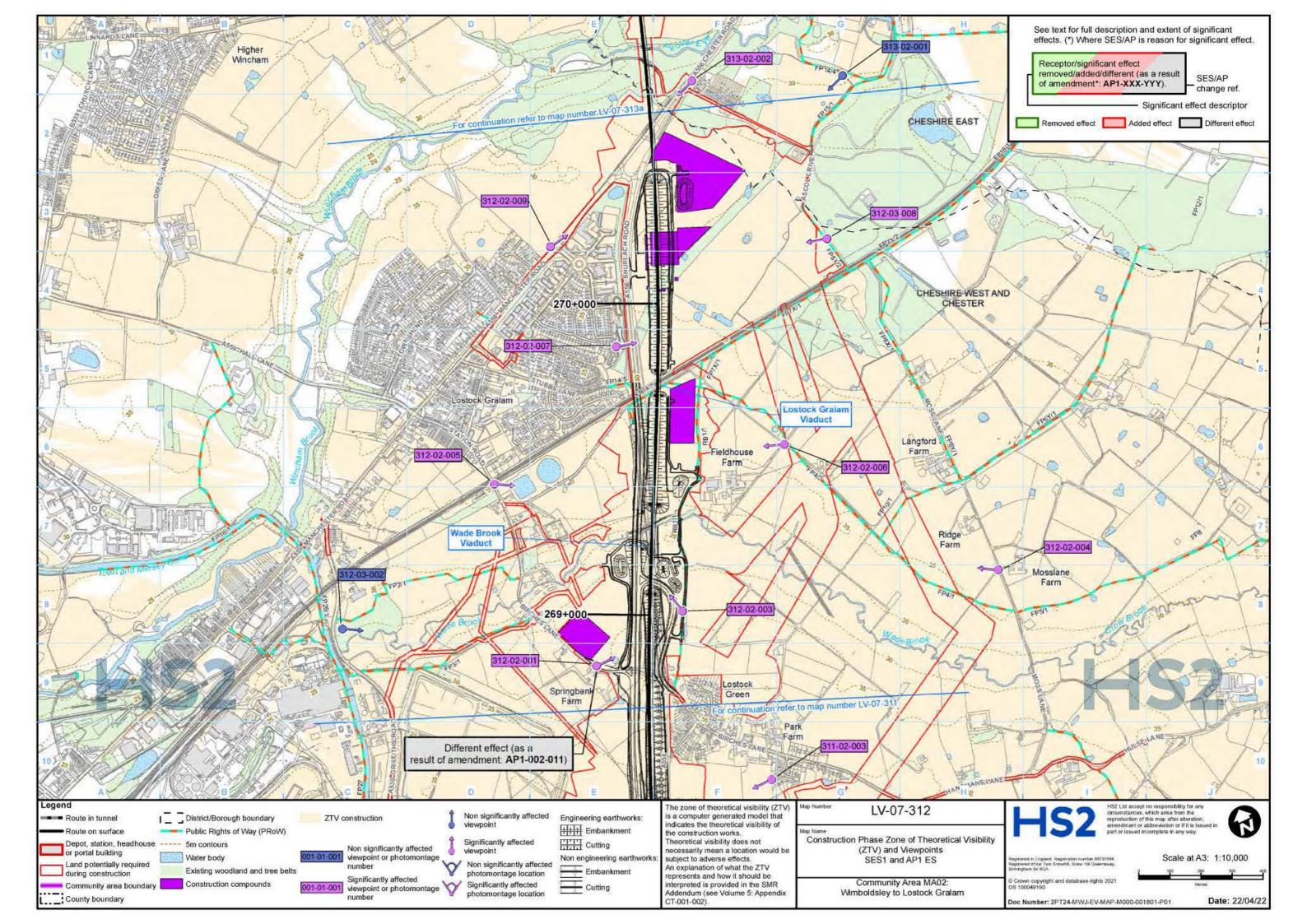


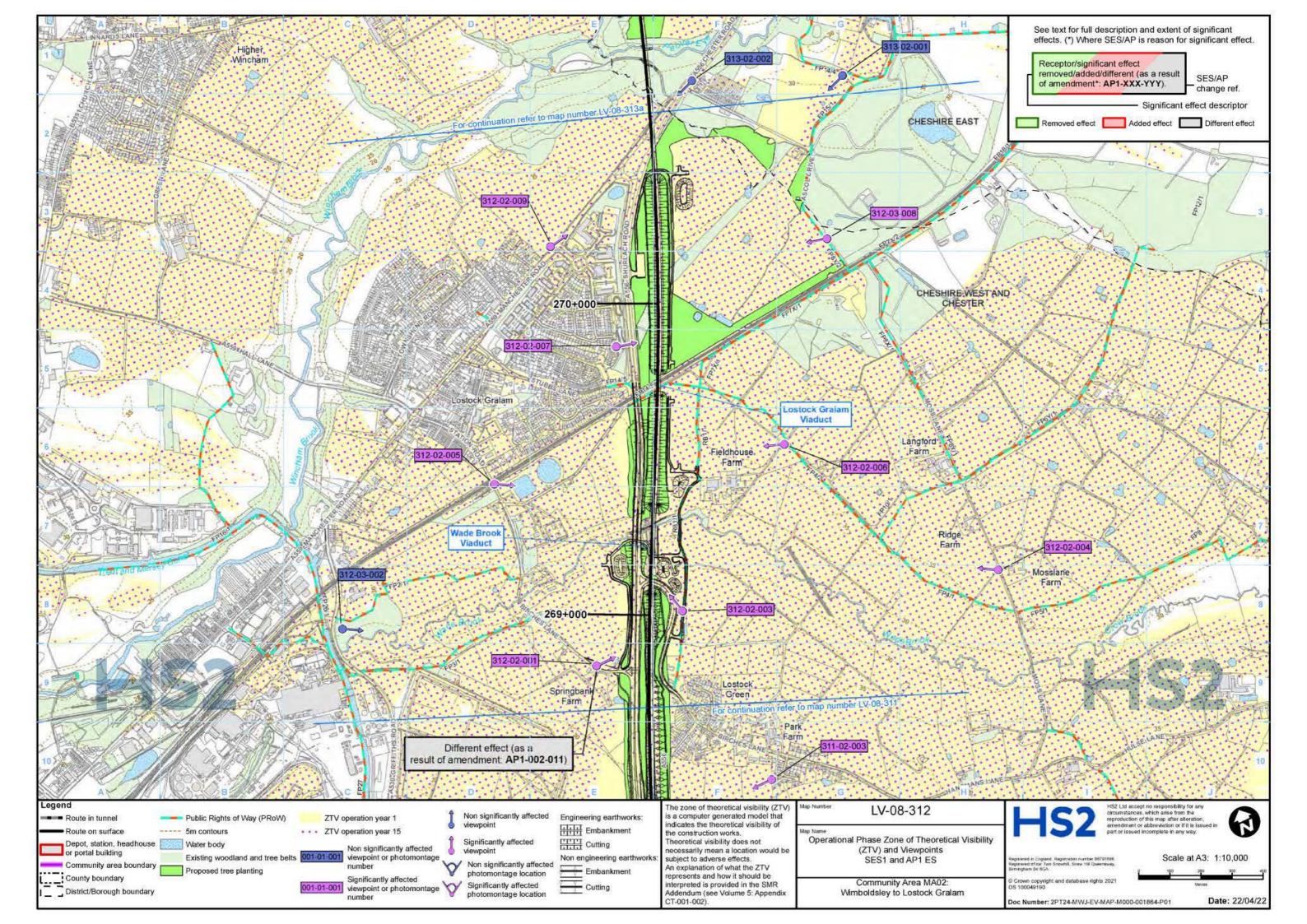


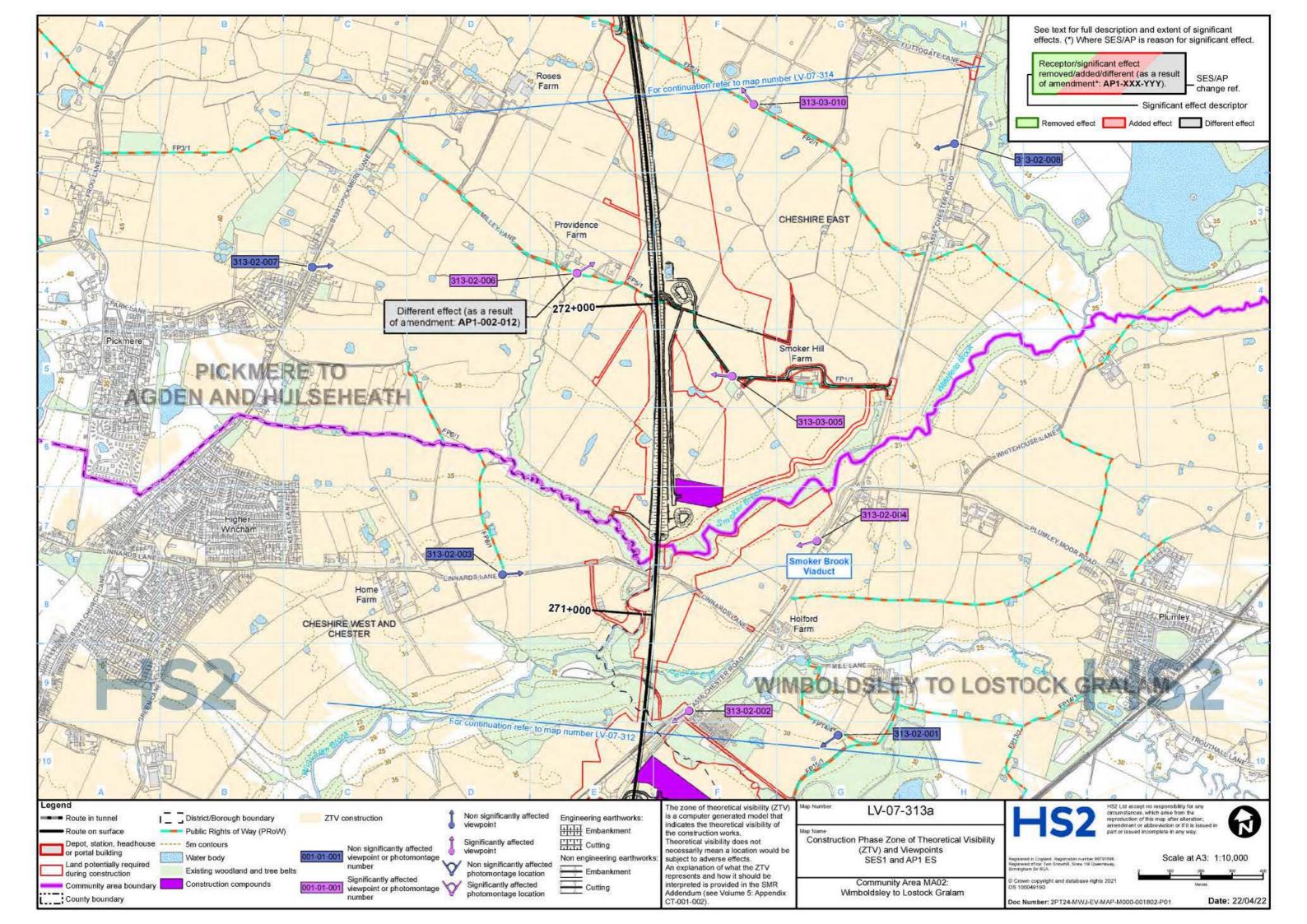


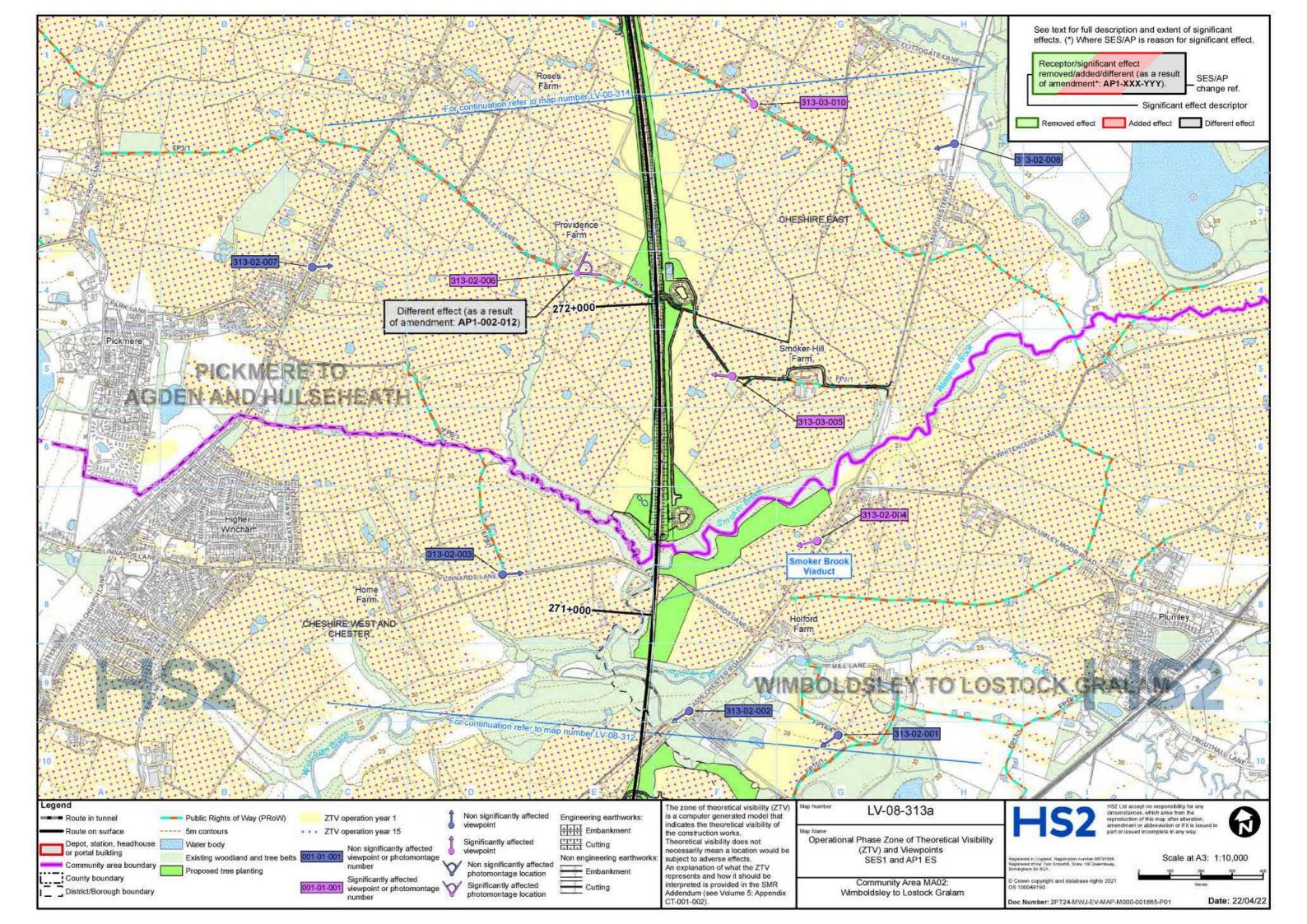


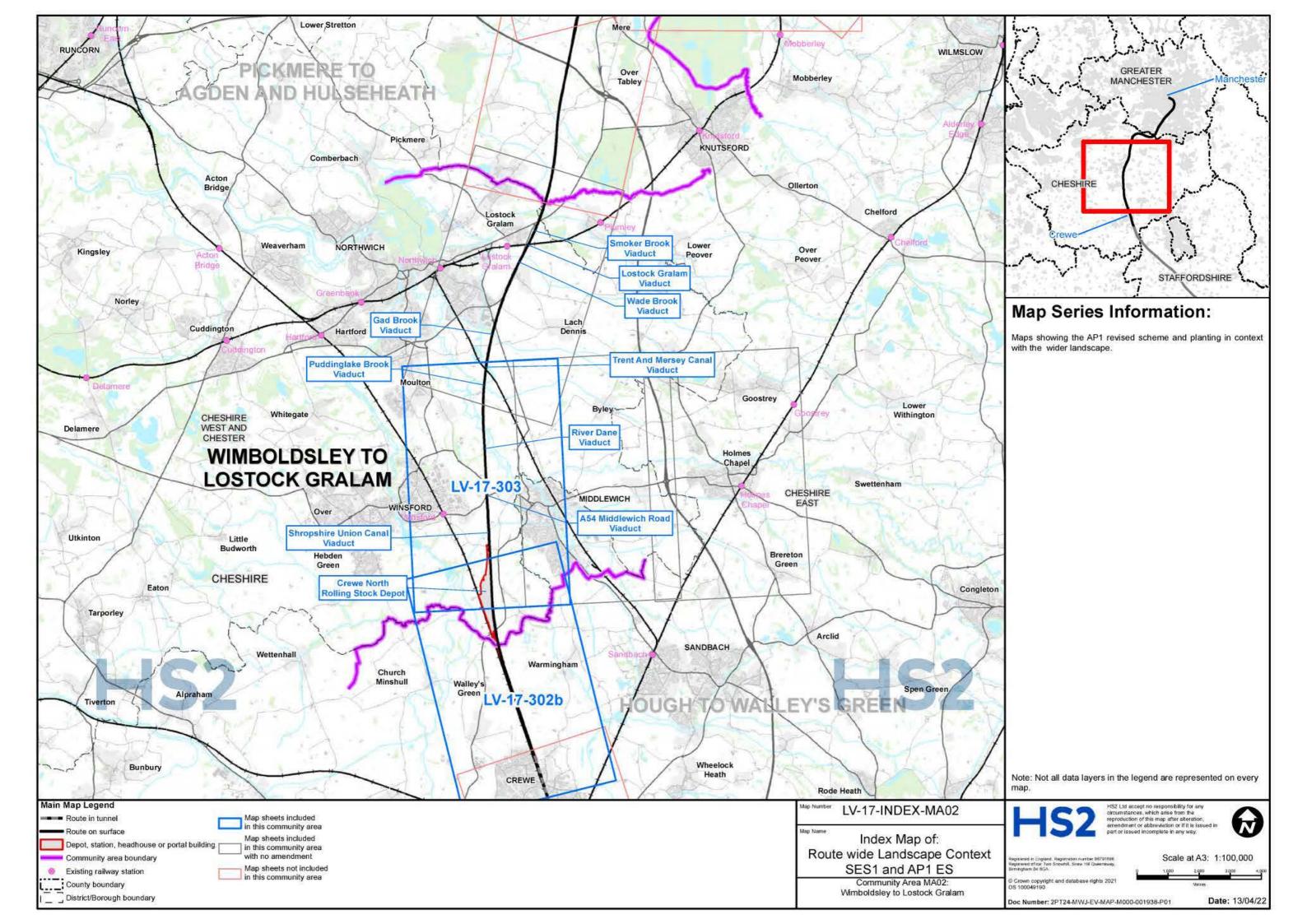


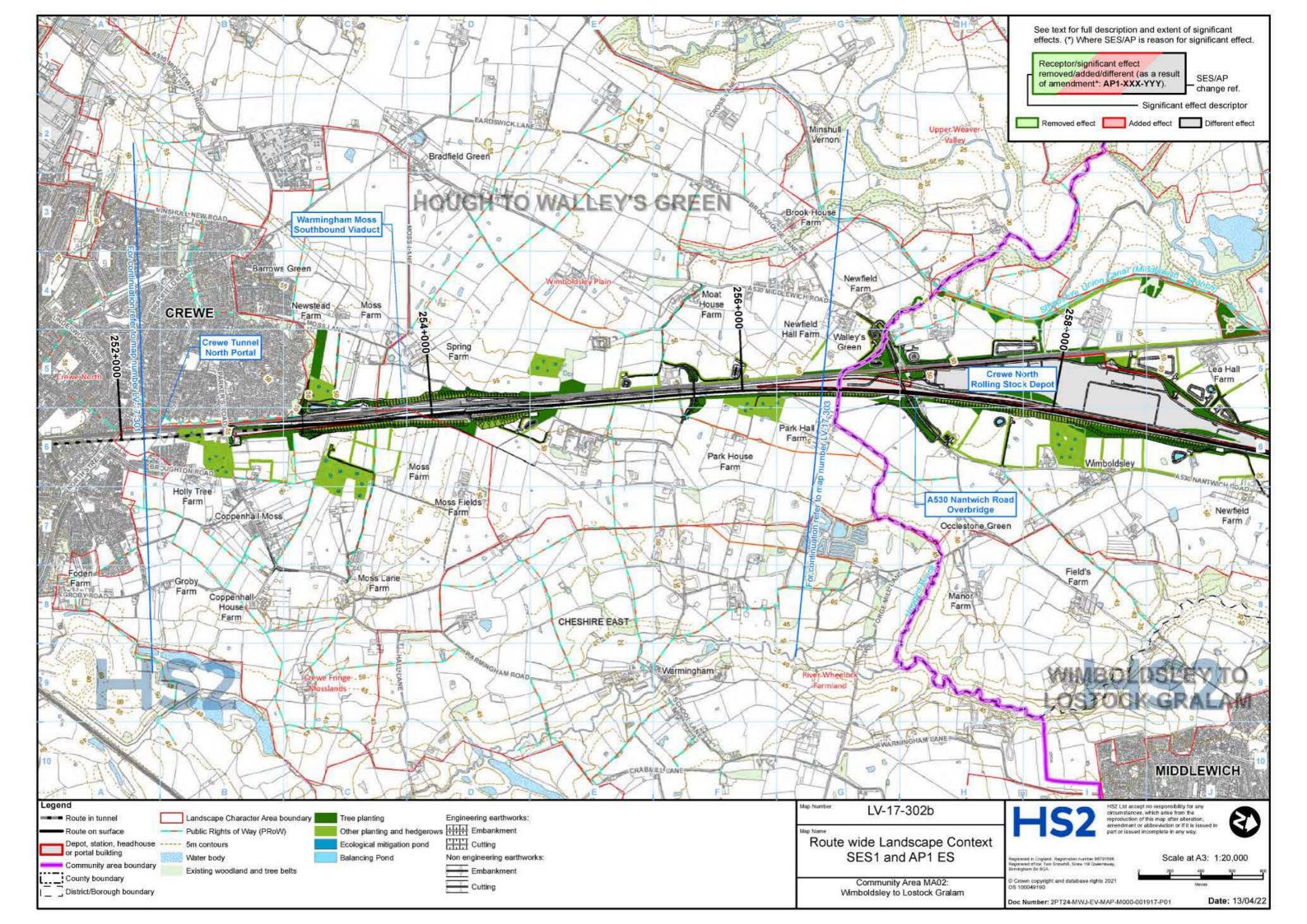


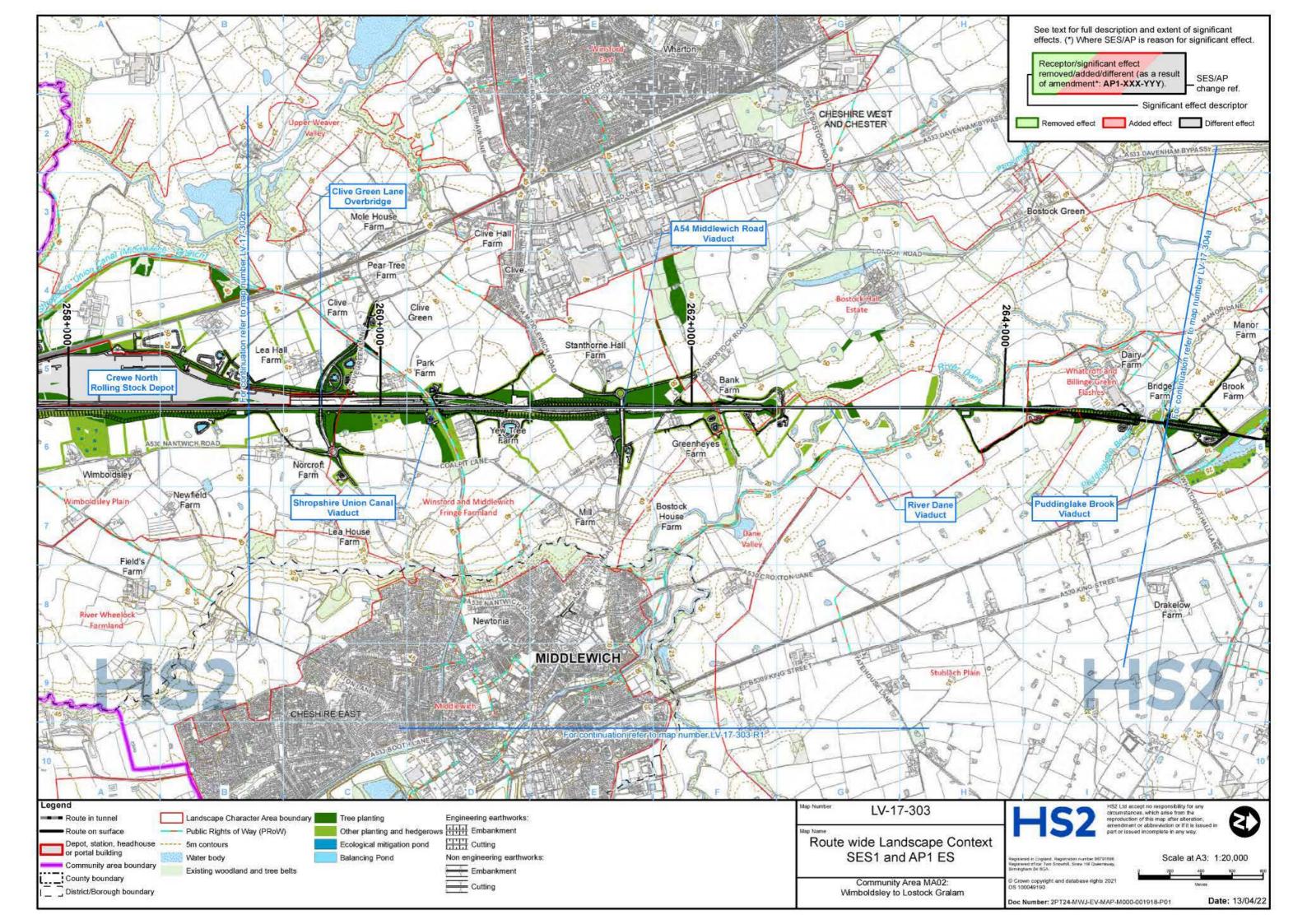












# **High Speed Rail** (Crewe - Manchester)

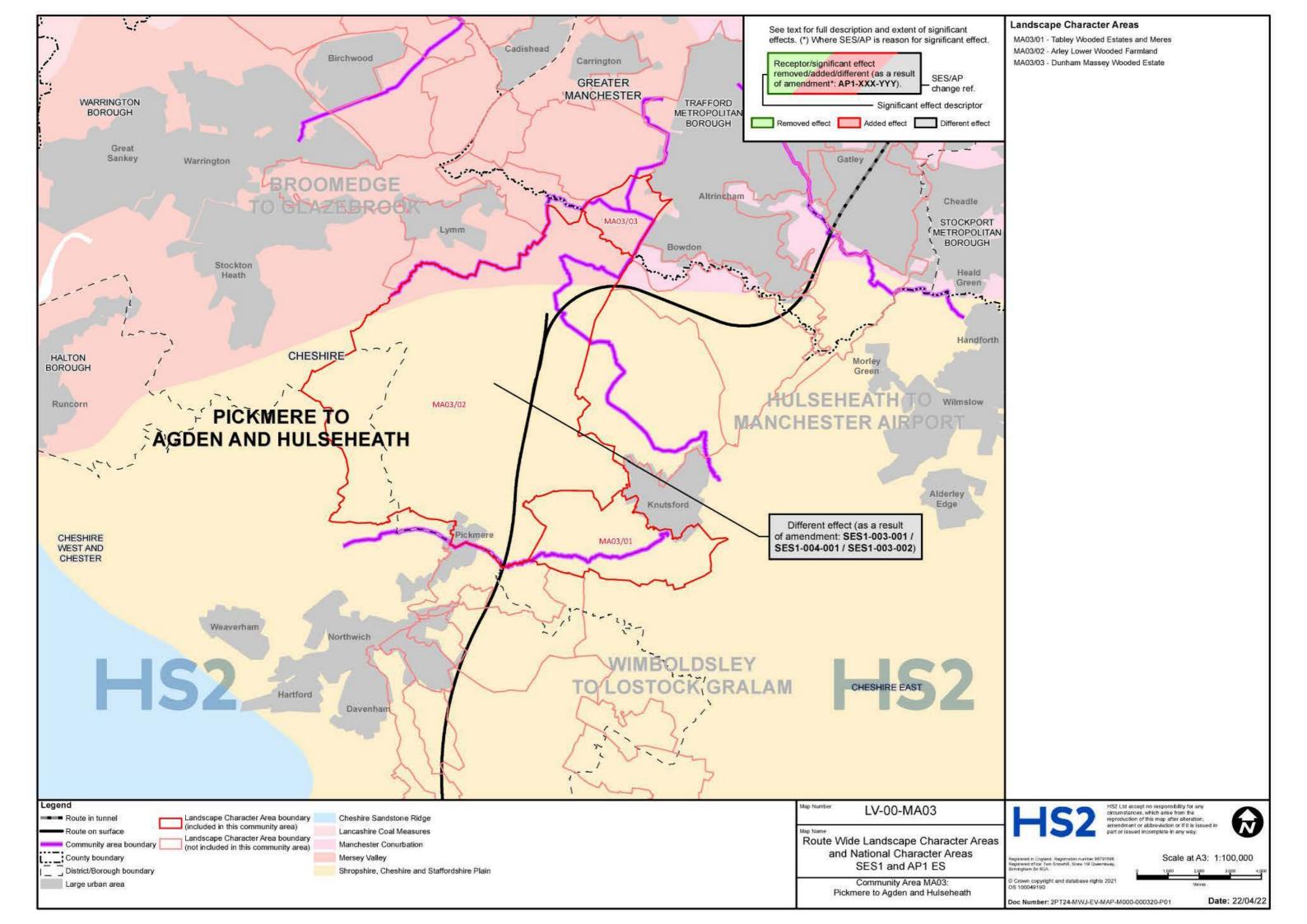
## **Supplementary Environmental Statement 1 and Additional Provision 1 Environmental Statement**

MA03: Pickmere to Agden and Hulseheath

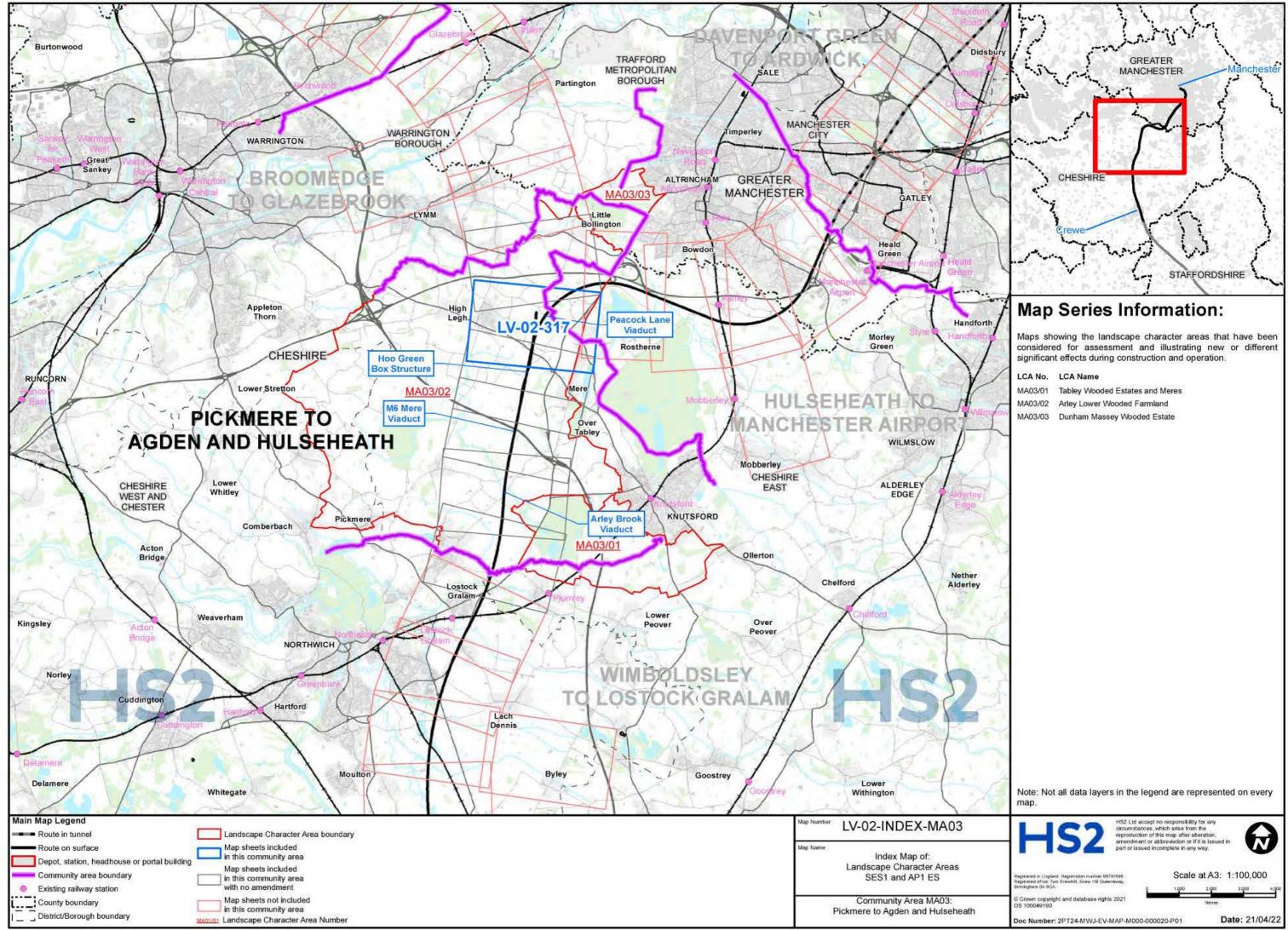
LV-00 – Route-wide Landscape Character Areas and National Character Areas

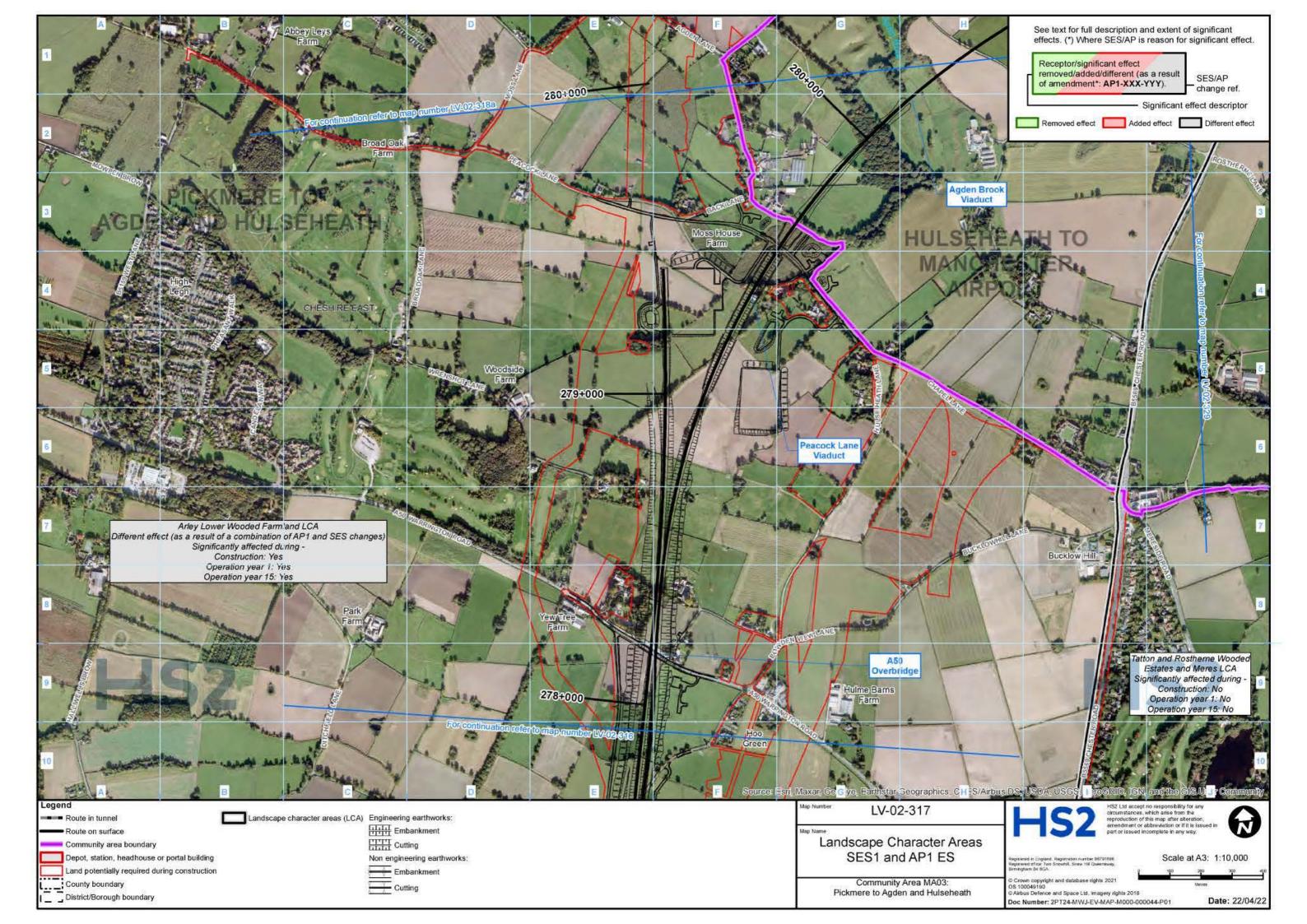
- LV-02 Landscape Character Areas
- LV-07 Construction Phase Zone of Theoretical Visibility (ZTV) and Viewpoints
- LV-08 Operational Phase Zone of Theoretical Visibility (ZTV) and Viewpoints
- LV-17 Route-wide Landscape Context

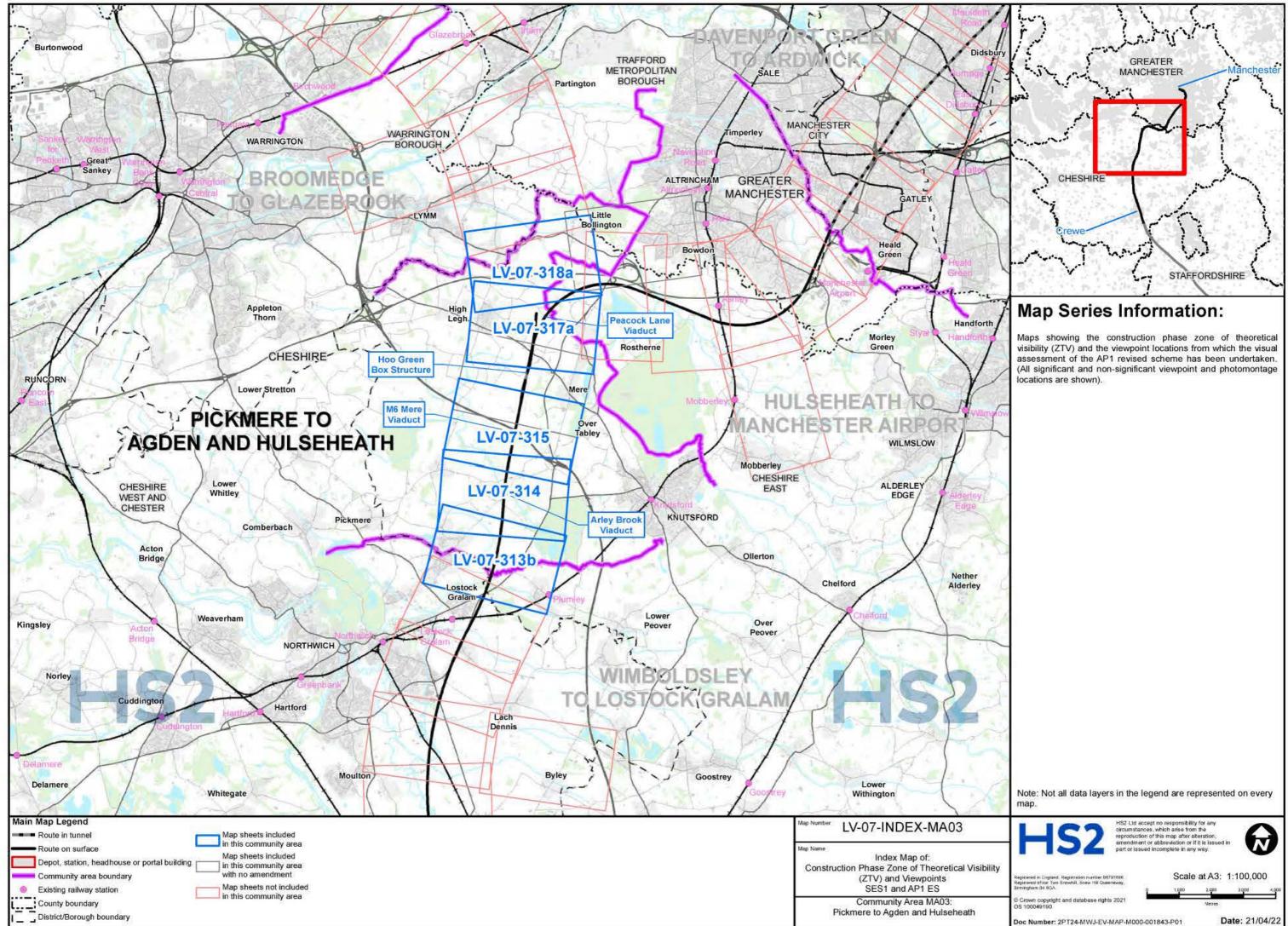


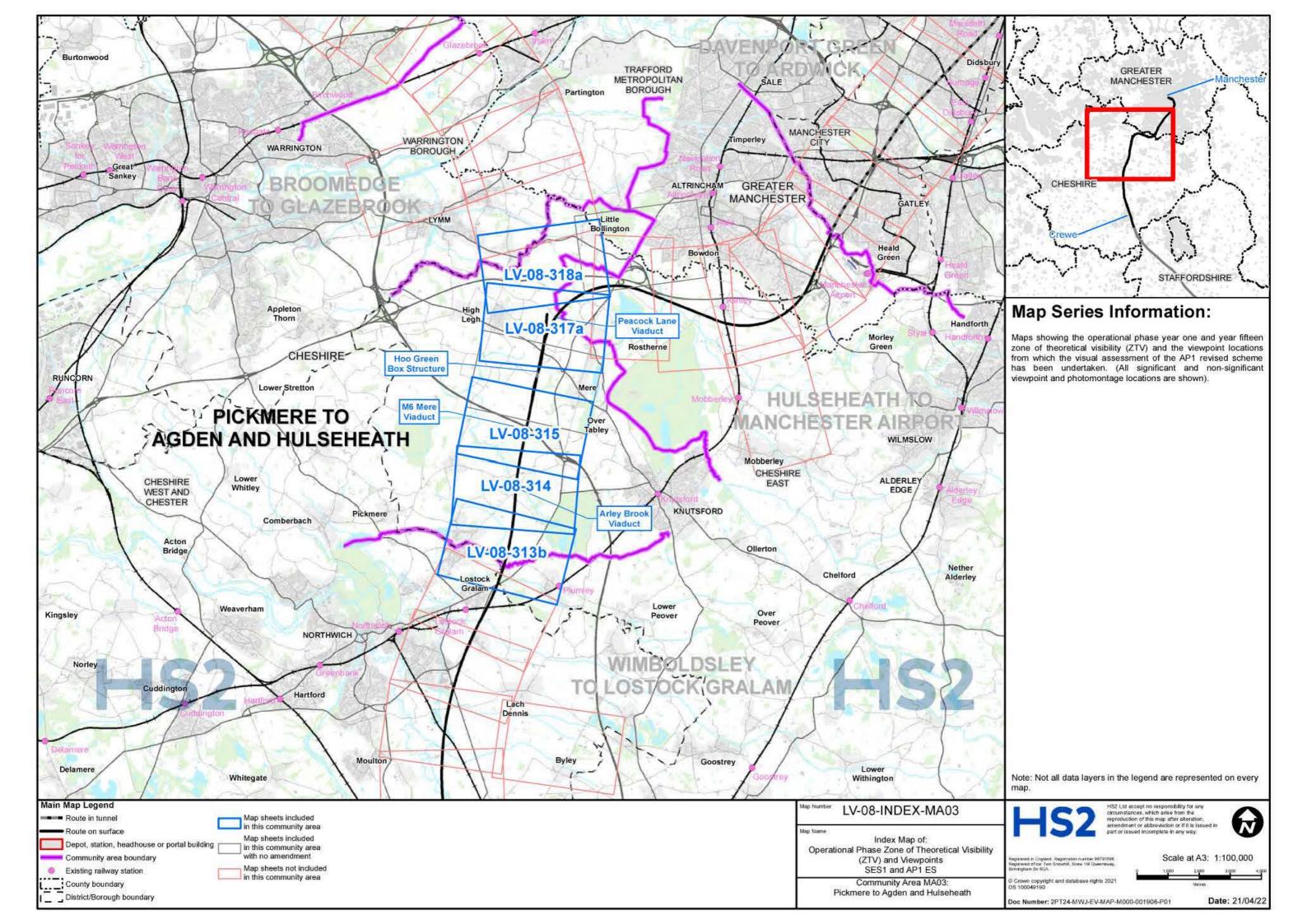


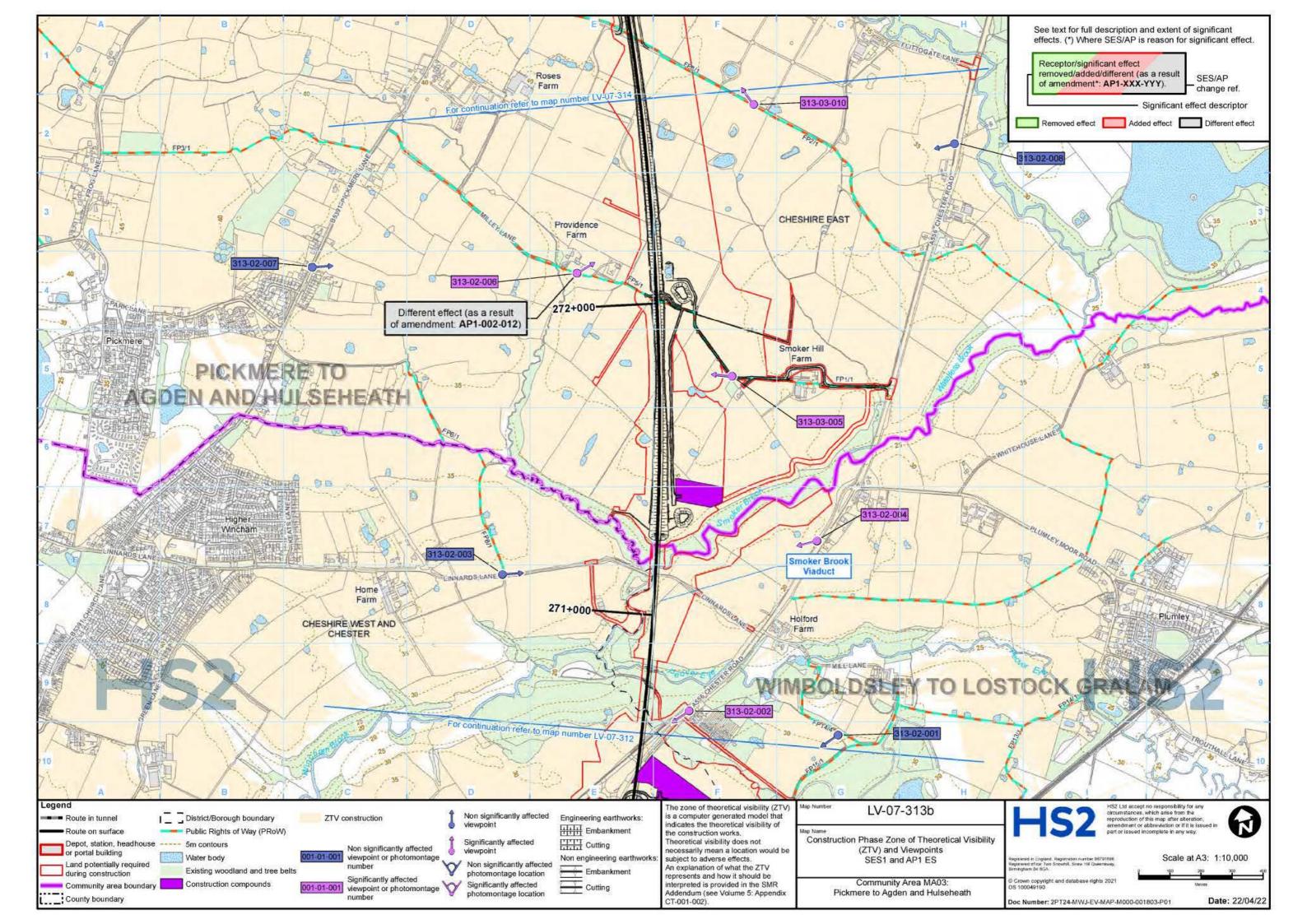
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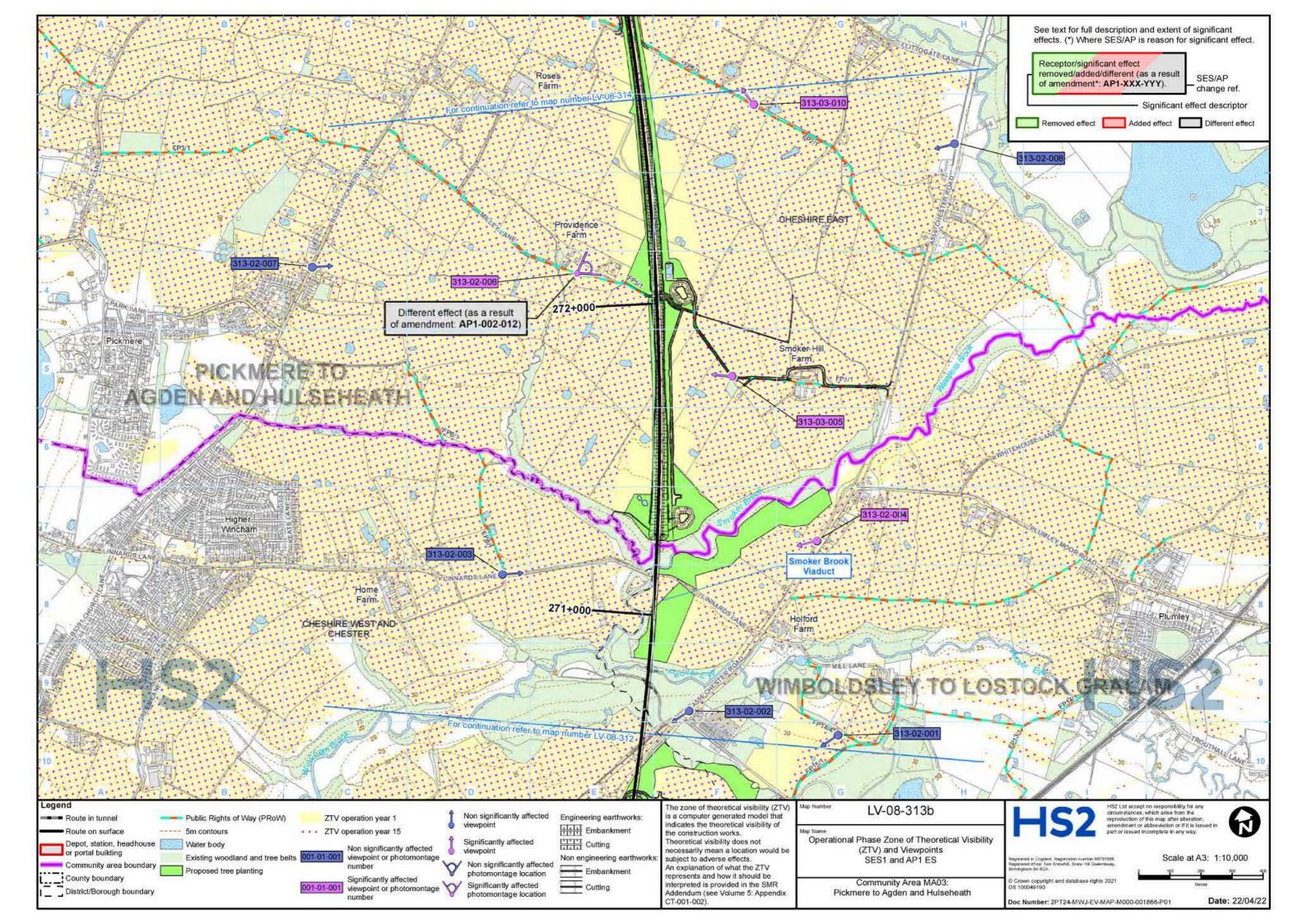


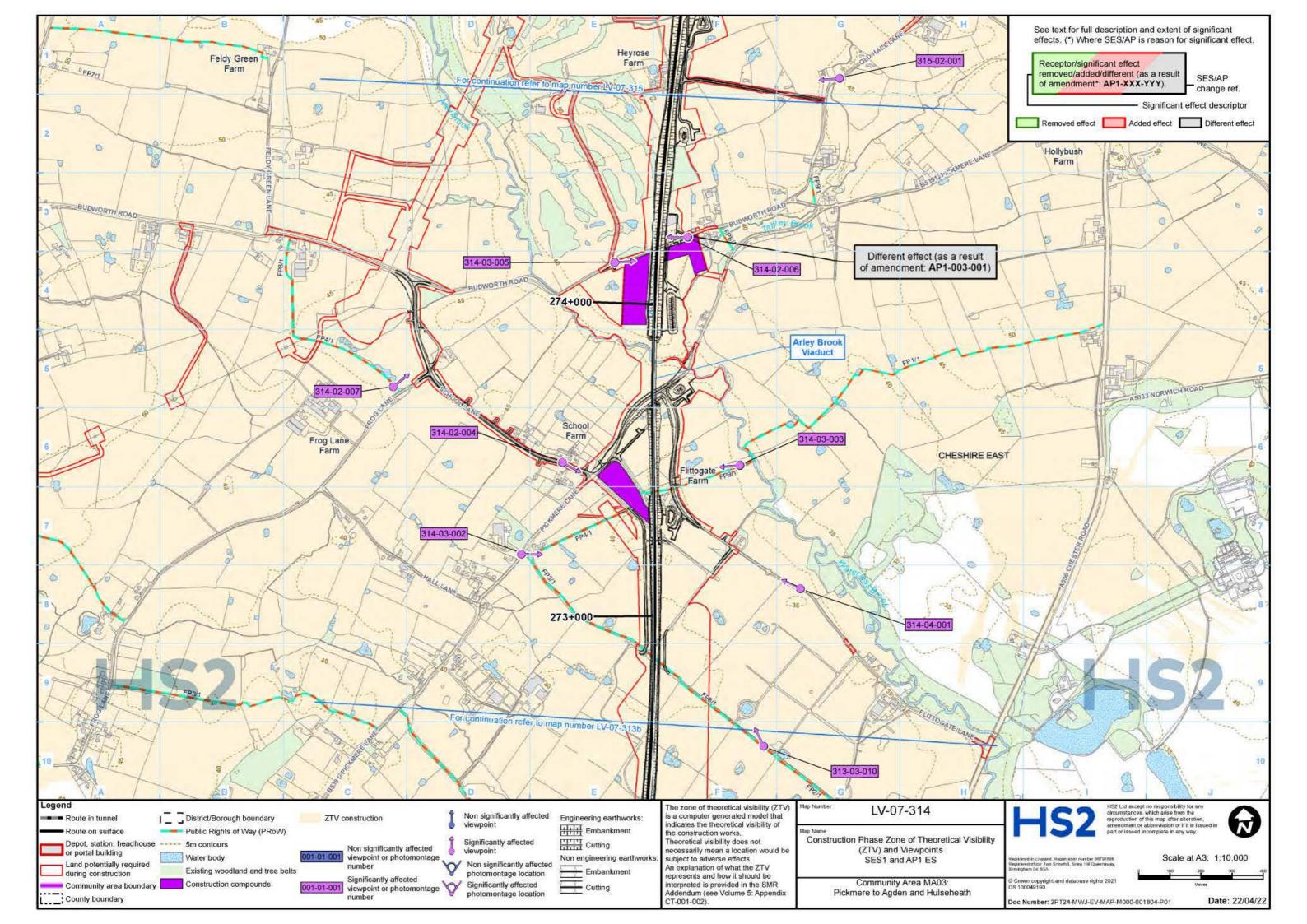


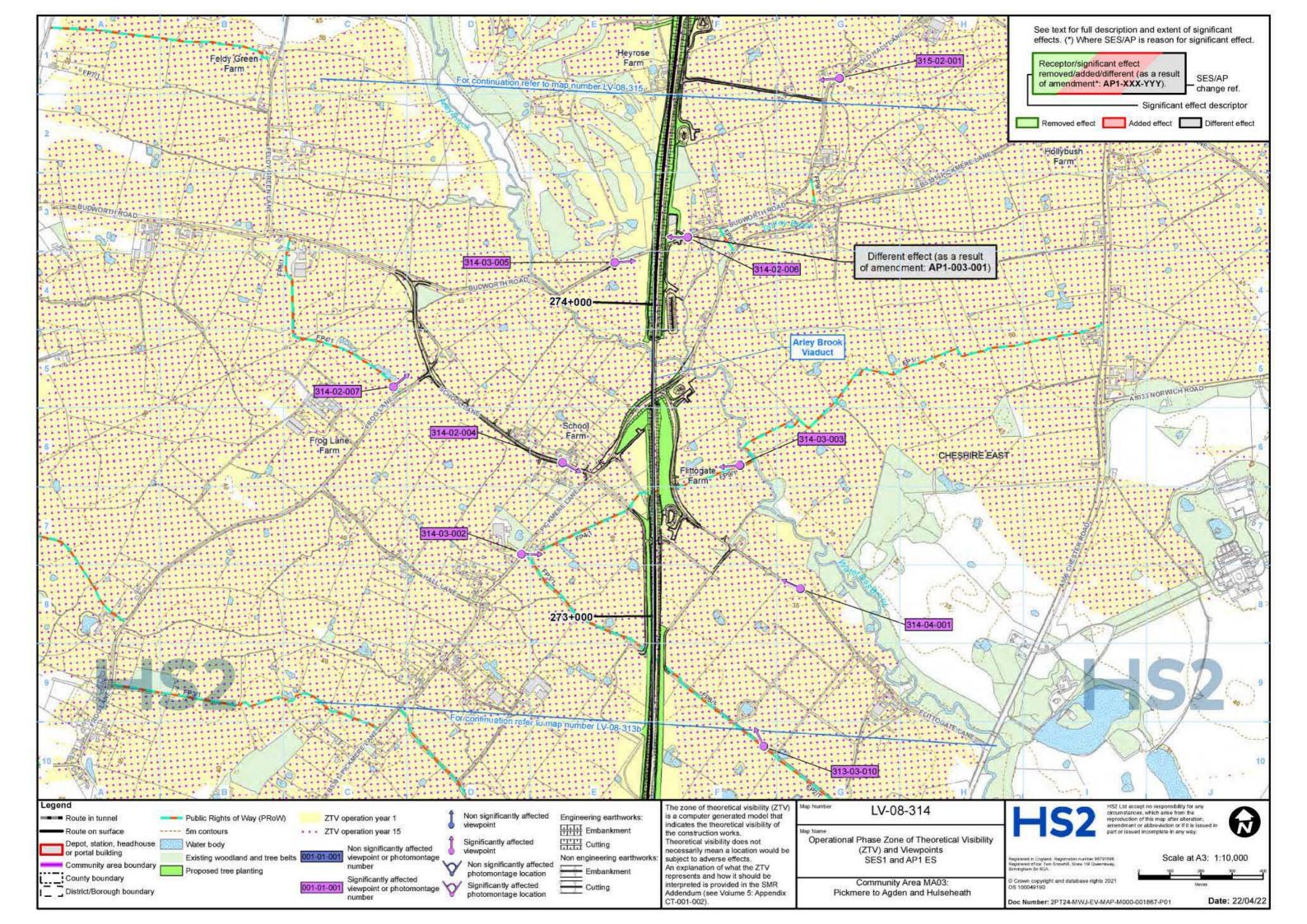


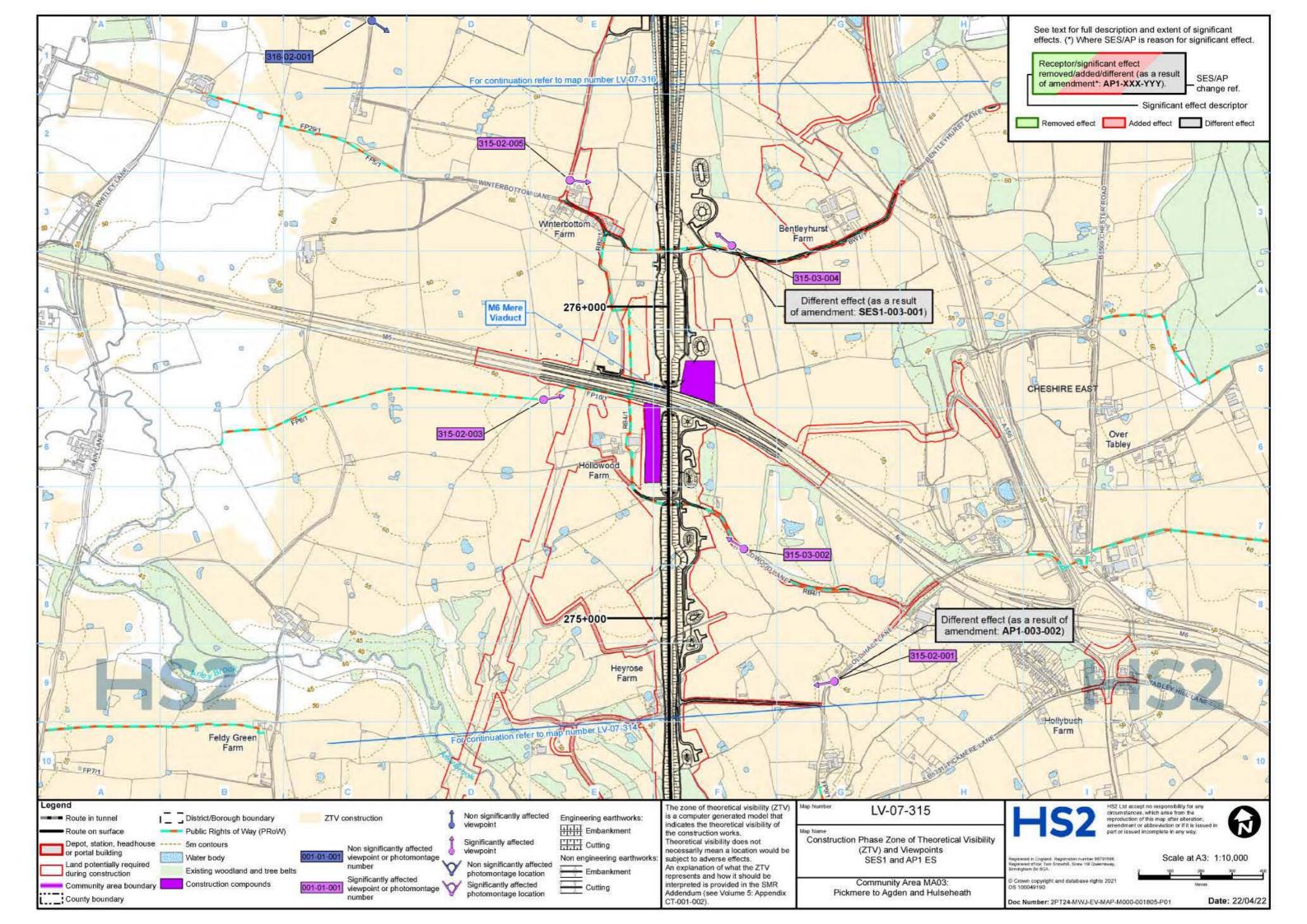


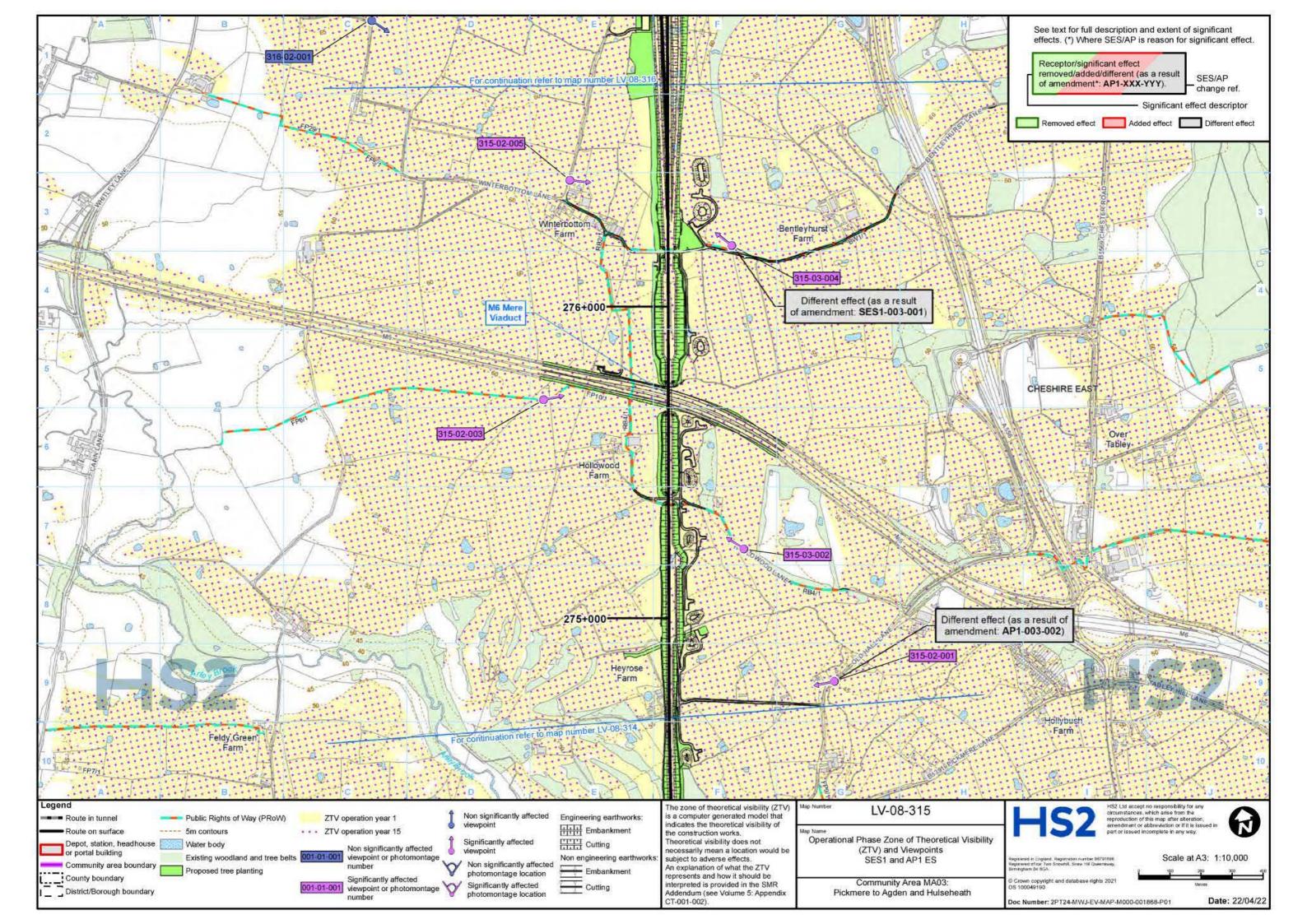


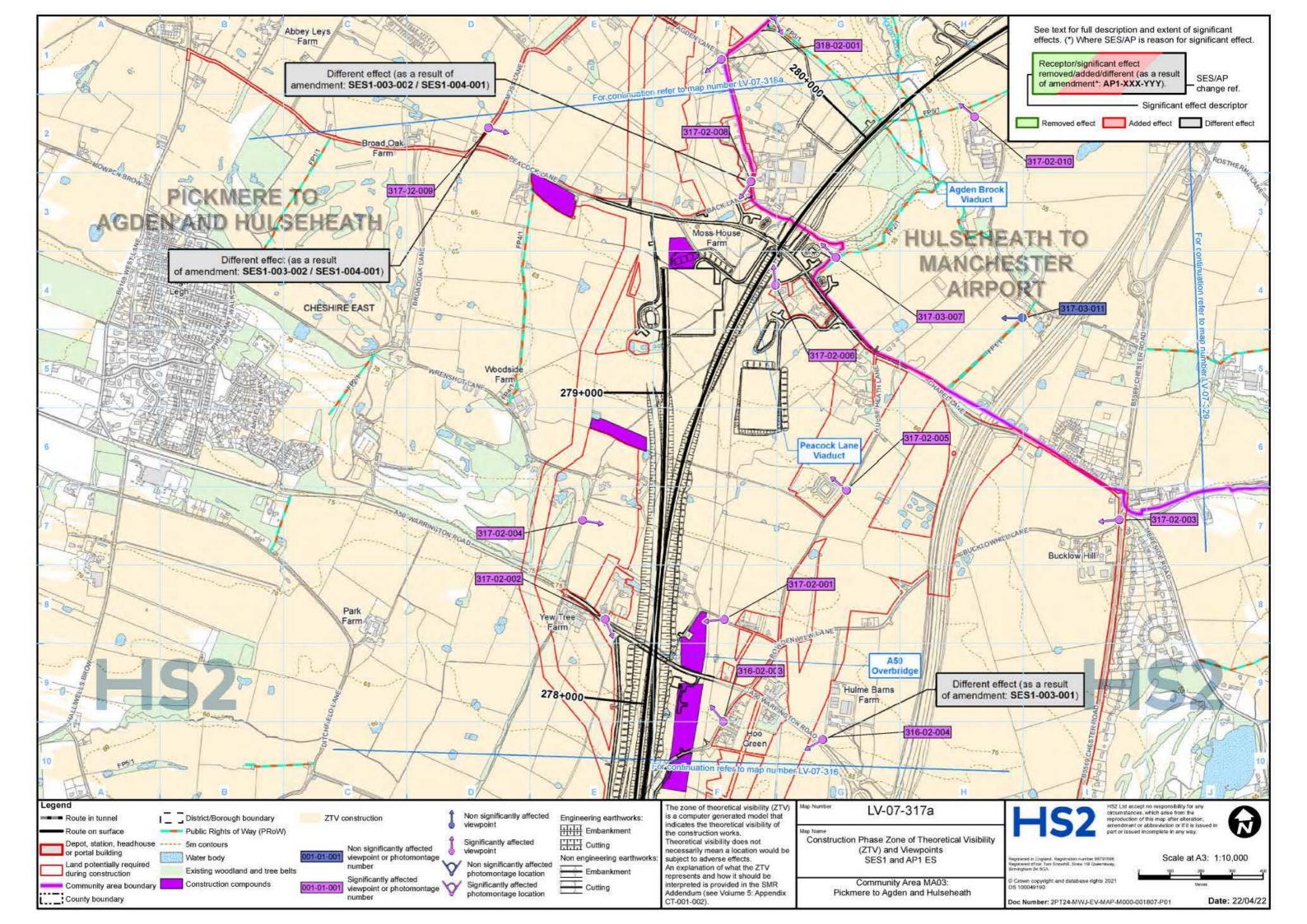


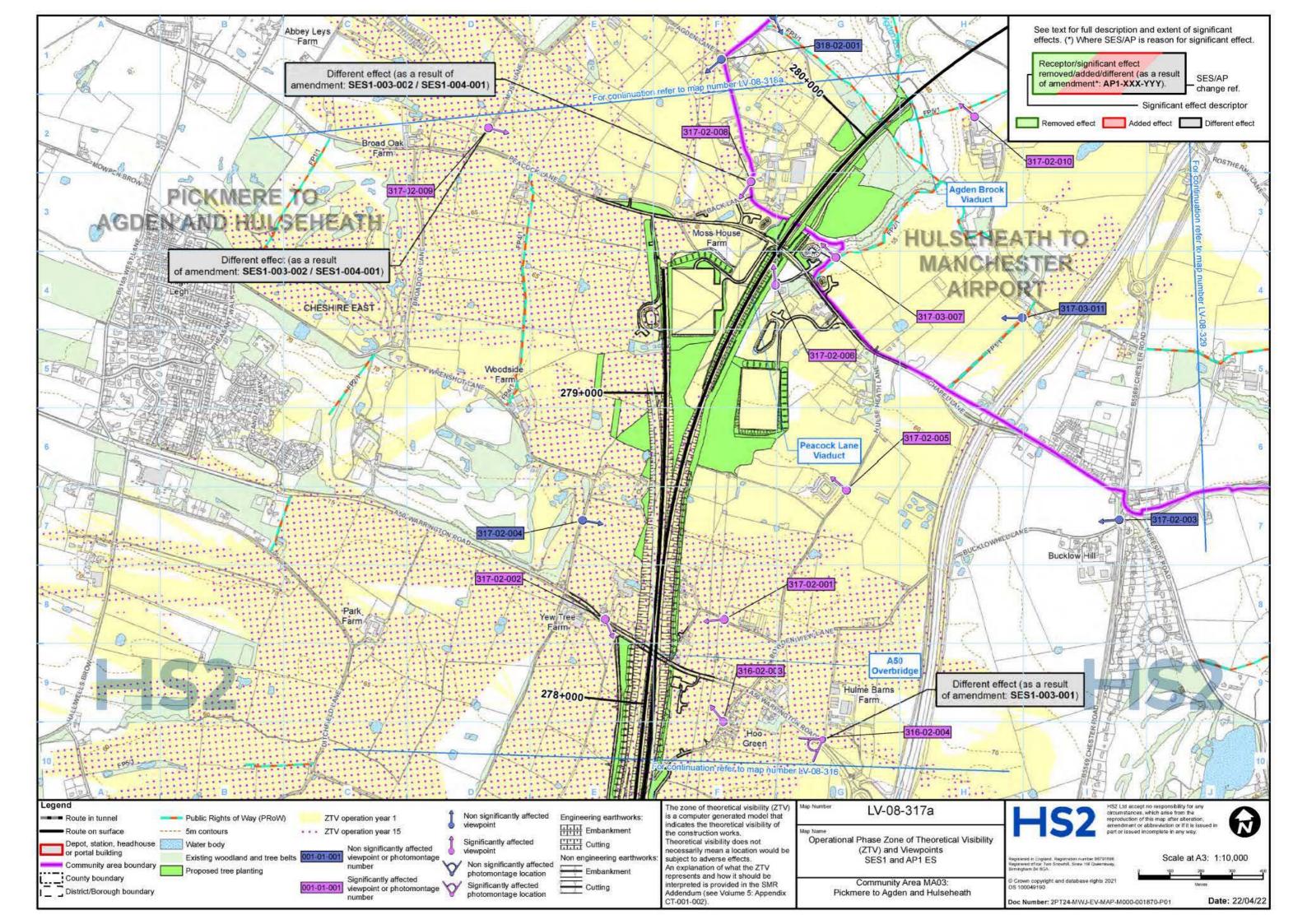


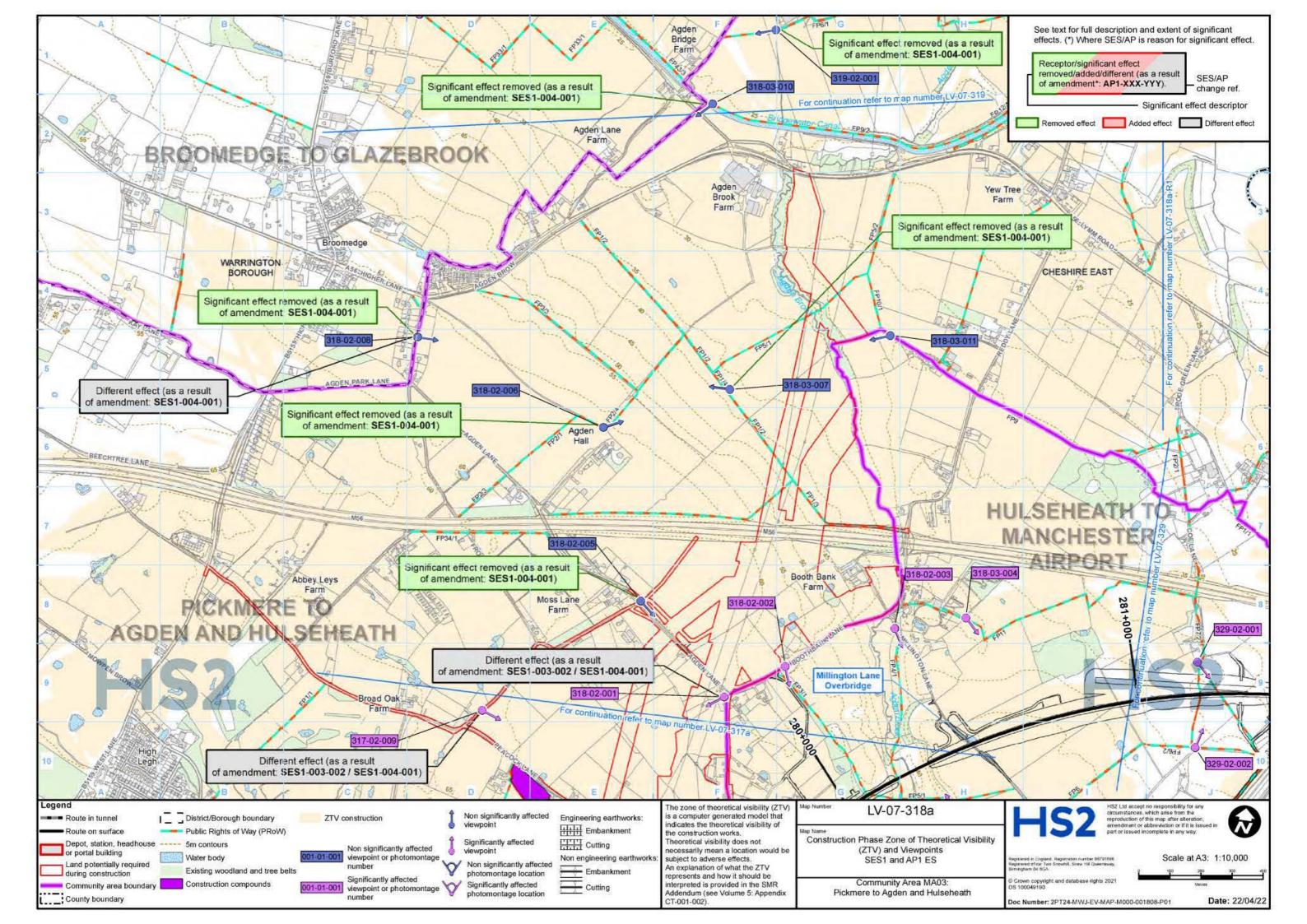


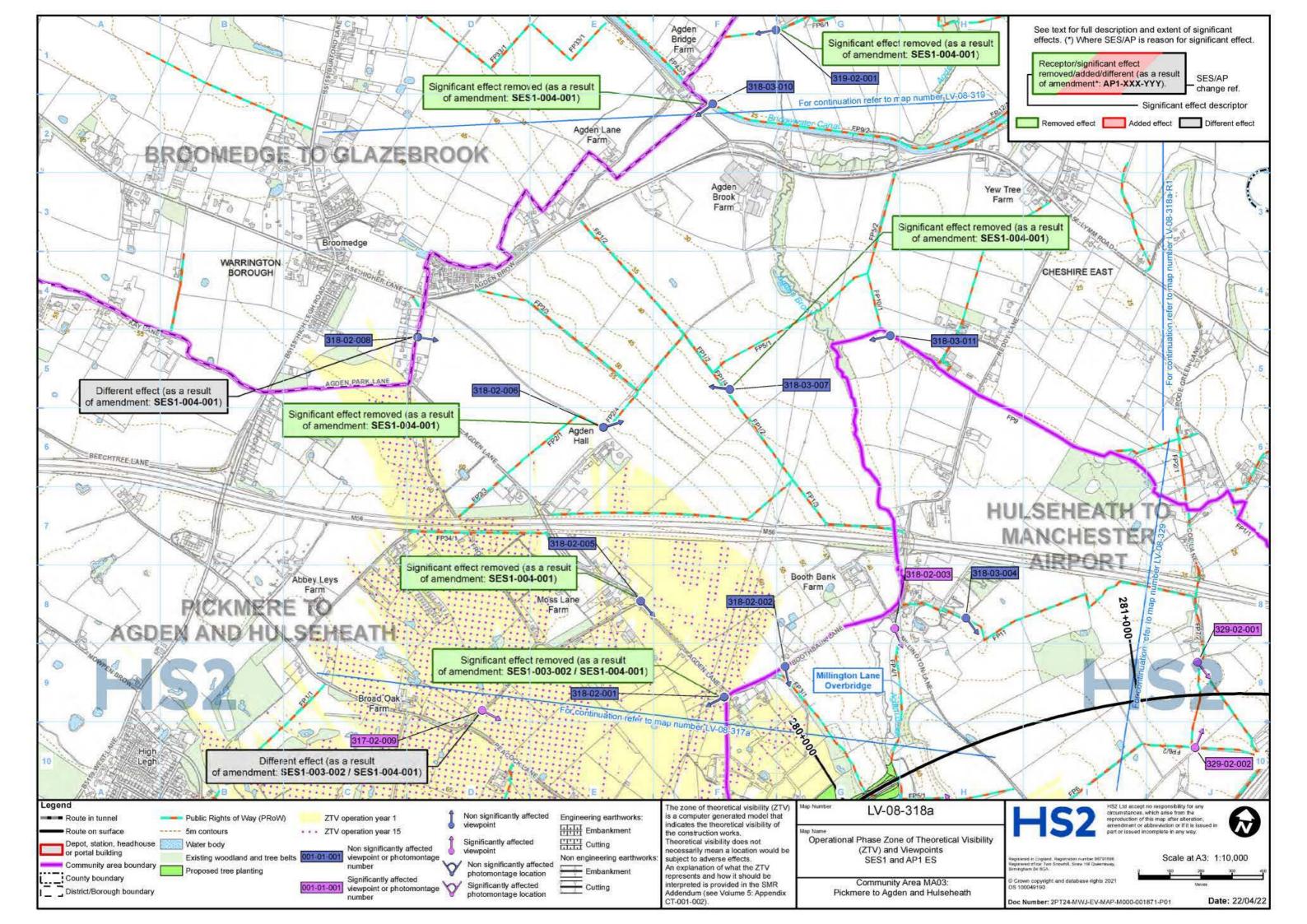


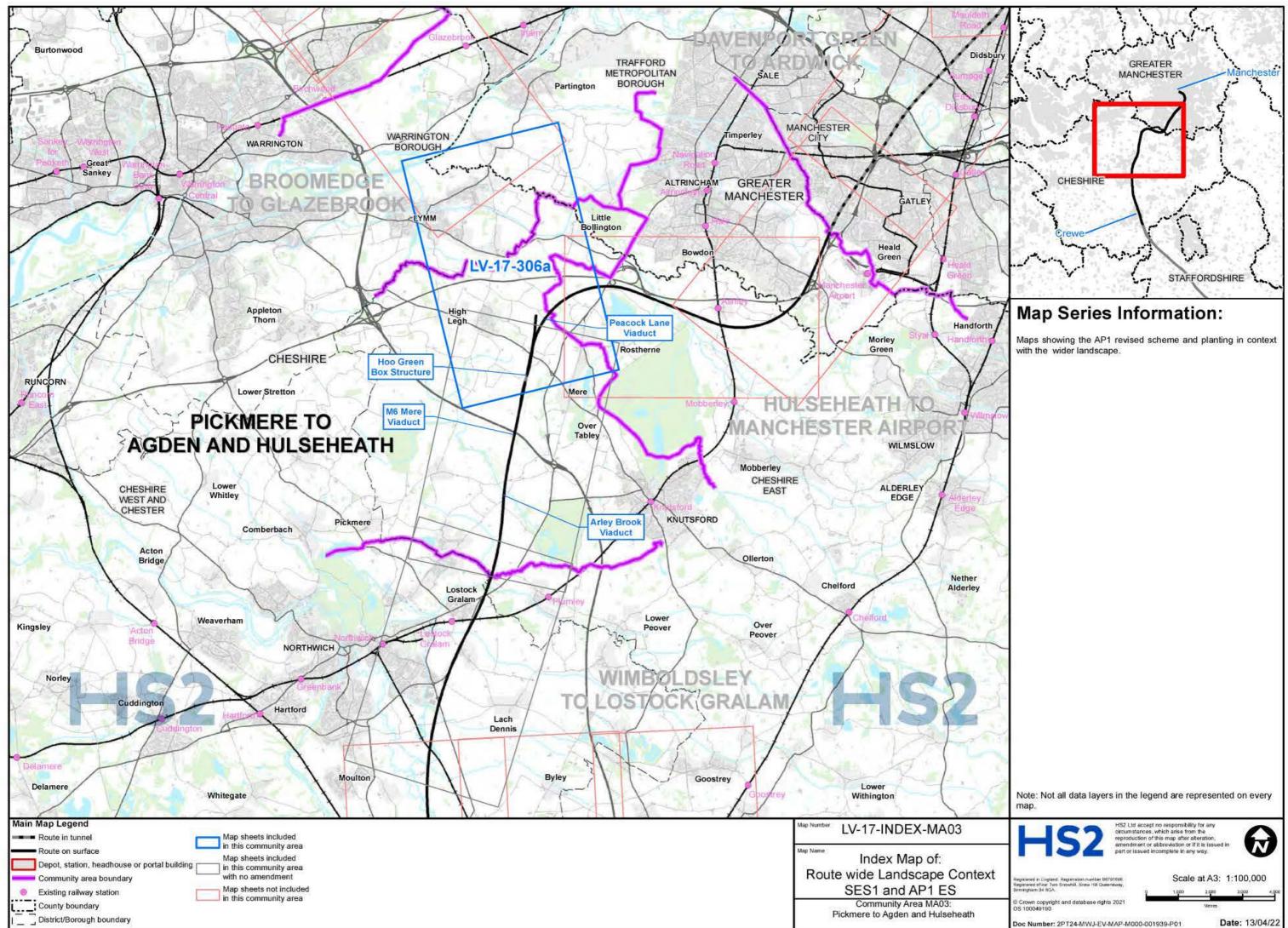


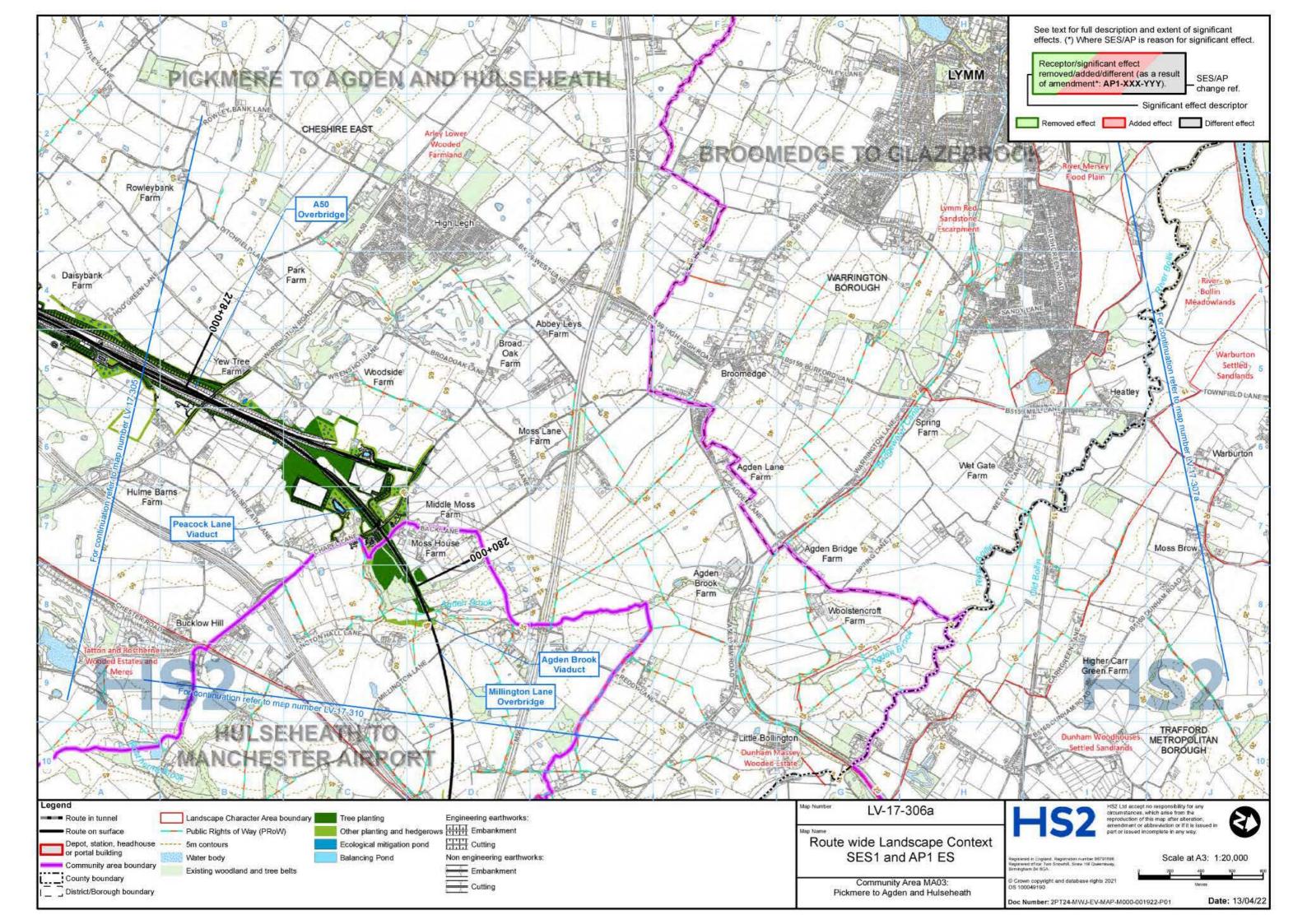












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