Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

Volume 5 Technical appendices map book Air quality

July 2015

SES and AP2 ES 3.5.10

SES and AP2 ES – VOLUME 5



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Volume 5 | Technical appendices map book Air quality

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

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## Contents

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Map series name	AQ-01 - Air Quality Monitoring Locations and Receptors	AQ-02 - Air Quality Receptor Sites for Construction Dust Assessment	
Map series description	These maps show the location of local air quality monitoring locations, management areas and receptors used in the construction/operational traffic assessments in relation to the proposed scheme.	These maps show the location of receptor sites in relation to construction and demolition works to assist the assessment of dust effects.	
Community Forum Area name			
CFA o4 – Kilburn (Brent) to Old Oak Common	$\checkmark$	×	
CFA 05 – Northolt Corridor	×	×	
CFA o6 – South Ruislip to Ickenham	$\checkmark$	×	
CFA 07 – Colne Valley	×	×	
CFA o8 – The Chalfonts and Amersham	×	×	
CFA og – Central Chilterns	×	×	
CFA 10 – Dunsmore, Wendover and Halton	×	×	
CFA 11 – Stoke Mandeville and Aylesbury	×	×	
CFA 12 — Waddesdon and Quainton	×	×	
CFA 13 – Calvert, Steeple Claydon, Twyford and Chetwode	×	×	
CFA 14 – Newton Purcell to Brackley	×	×	
CFA 15 – Greatworth to Lower Boddington	×	×	
CFA 16 – Ladbroke and Southam	×	×	
CFA 17 — Offchurch and Cubbington	×	×	
CFA 18 – Stoneleigh, Kenilworth and Burton Green	×	×	
CFA 19 – Coleshill Junction	×	×	
CFA 20 – Curdworth to Middleton	×	×	
CFA 21 – Drayton Bassett, Hints and Weeford	×	×	
CFA 22 — Whittington to Handsacre	$\checkmark$	$\checkmark$	
CFA 23 – Balsall Common and Hampton-in-Arden	×	×	
CFA 24 — Birmingham Interchange and Chelmsley Wood	×	×	
CFA 25 – Castle Bromwich and Bromford	×	×	
CFA 26 – Washwood Heath to Curzon Street	×	×	
Off-route – Heathrow Express (HEx) Depot Relocation	$\checkmark$	$\checkmark$	
Off-route – Modifications to WCML between Lichfield and Colwich	×	×	

### Mapping explanatory notes

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

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

- Non-technical summary (NTS). This provides a summary in non-technical language of the SES (Part 1) and AP2 ES (Part 2) and of any likely significant environmental effects, both beneficial and adverse, which are new or different to those reported in the High Speed 2 (HS2) Phase One Environmental Statement (ES) submitted to Parliament in November 2013 in support of the hybrid Bill ('the Bill') for Phase One of HS2 (hereafter referred to as 'the main ES') and, where relevant, the AP ES submitted in September 2014 (hereafter referred to as 'the AP1 ES').
- Volume 1: Introduction to the SES and the AP2 ES. This introduces the supplementary environmental information and design changes included within the SES and amendments which have resulted in the need to amend the Bill within the AP<sub>2</sub> ES. It also explains any changes to the scope, methodology, assumptions and limitations required for the environmental impact assessment.
- Volume 2: Community Forum Area (CFA) reports and Map Books. These describe the supplementary environmental information and design changes included within the SES (Part 1), amendments within the AP2 ES (Part 2) and report any new or different likely significant environmental effects arising from these changes in each CFA compared to those reported in the main ES and, where relevant, the AP1 ES. The main local alternatives that have been considered are described, where relevant.
- Volume 3: Route-wide effects. This reports new or different likely significant route-wide effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP<sub>2</sub> ES (Part 2) compared to those reported in the main ES and, where relevant, the AP<sub>1</sub> ES.
- Volume 4: Off-route effects. This reports new or different likely significant off-route effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP<sub>2</sub> ES (Part 2) compared to those reported in the main ES and, where relevant, the AP<sub>1</sub> ES.
- Volume 5: Appendices and Map Books. This contains supporting environmental information and associated maps in support of the CFA sections of Volume 2.
- Glossary of terms and list of abbreviations. This contains any new or different terms and abbreviations used throughout the SES and AP2 ES compared to those included in the main ES and AP1 ES. •

### **Copyright statements**

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

#### **Ordnance Survey data**

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

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

### Chainage

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

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

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

### Map sheet layout

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

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

Each Volume 5 map is annotated to describe the change to a receptor or significant effect, and to give the SES and AP2 ES reference number. For more detailed information about the SES and AP2 ES annotation, refer to the map series legend. Only maps which have been amended as a result of the SES and AP2 ES are included within the map book.

#### Map orientation

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

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

### Map books

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

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

Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

Volume 5 | Data dictionary and definitions

SES and AP2 ES – VOLUME 5



### Data dictionary and definitions

Legend features	Definition	Source	Copyrigh	
Air quality modelled receptors	Air quality modelled receptors.	High Speed Two (HS2) Ltd		
Airport	Ordnance Survey airports from the OS Strategi dataset.	Ordnance Survey	© Crown Ordnance Publicatio	
Community forum boundary	The Environmental Statement has been split into 26 sections called Community Forum Areas.	High Speed Two (HS2) Ltd	© Crown Ordnance Publicatio	
Construction traffic route	Public highways which may be used for HGV construction traffic.	High Speed Two (HS2) Ltd	© Crown Ordnance Publicatio	
County boundary	Since December 1997 each Local Authority in the UK has been carrying out a review and assessment of air quality in their area. This involves measuring air pollution and trying to predict how it will change in the next few years. The aim of the review is to make sure that the national air quality objectives will be achieved throughout the UK by the relevant deadlines. These objectives		© Crown Ordnance Publicatio	
DEFRA air quality management areas March 2013 (AQMA)			© Crown Ordnance Publicatio	
Demolitions	Residential buildings and structures, identified for demolition that were considered in the construction dust assessment as having a potential impact on air quality receptors.	High Speed Two (HS2) Ltd	© Crown Ordnance Publicatio	
Depot, station, headhouse or portal building Depot, station, headhouse or portal building		High Speed Two (HS2) Ltd		
District/Borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown Ordnance Publicatio	
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 rail line	Existing railway stations derived from Ordnance Survey Vector map data.	Ordnance Survey	© Crown Ordnance Publicatio	
Existing railway station	way station Existing railway stations derived from Ordnance Survey Vector map data.		© Crown Ordnance Publicatio	

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Legend features	Definition	Source	Copyrigh
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	
Local highway diversions temporary	Temporary local highway diversion due to construction of the scheme.	High Speed Two (HS2) Ltd	
Monitoring location type: Automatic Passive	A full explanation of a Passive (Diffusion tube) and Automatic (Continuous) monitoring location type is provided in the Glossary & Abbreviations document.	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	
Receptor assessment sites	Air quality receptor sites for construction dust assessment.	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	
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	
Water body	Based on Ordnance Survey Vector Map District.	Ordnance Survey	© Crown Ordnance Publicatic
Watercourse	The Detailed River Network (DRN) is the only large-scale, accurate and fully attributed digital river centreline covering England and Wales.	Environment Agency	© Enviror 2015. All r
Woodland	Woodland areas derived from Ordnance Survey mastermap data.	Ordnance Survey	© Crown Ordnance Publicatio

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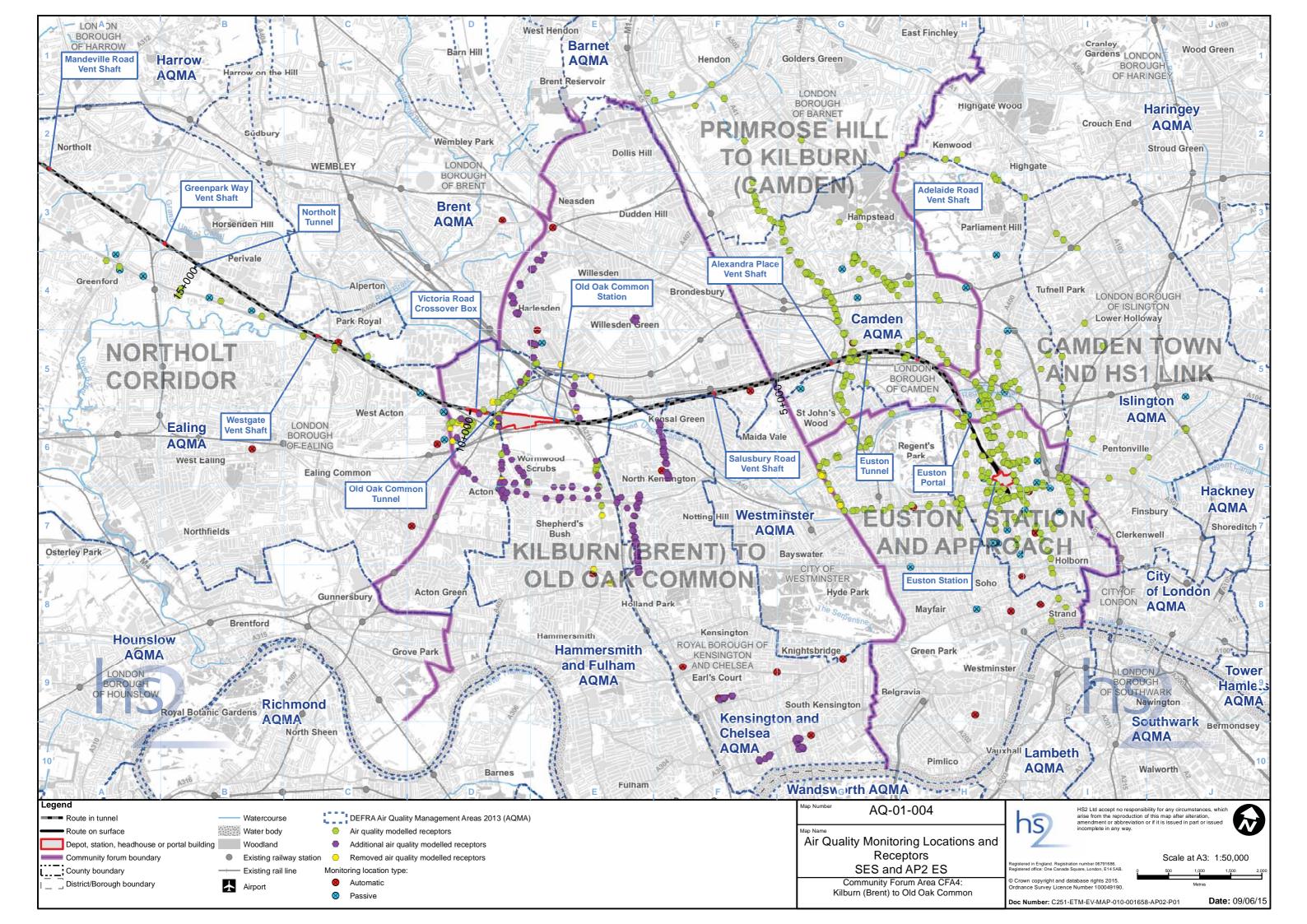
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Volume 5 | CFA4 | Kilburn (Brent) to Old Oak Common AQ-01 – Air Quality Monitoring Locations and Receptors

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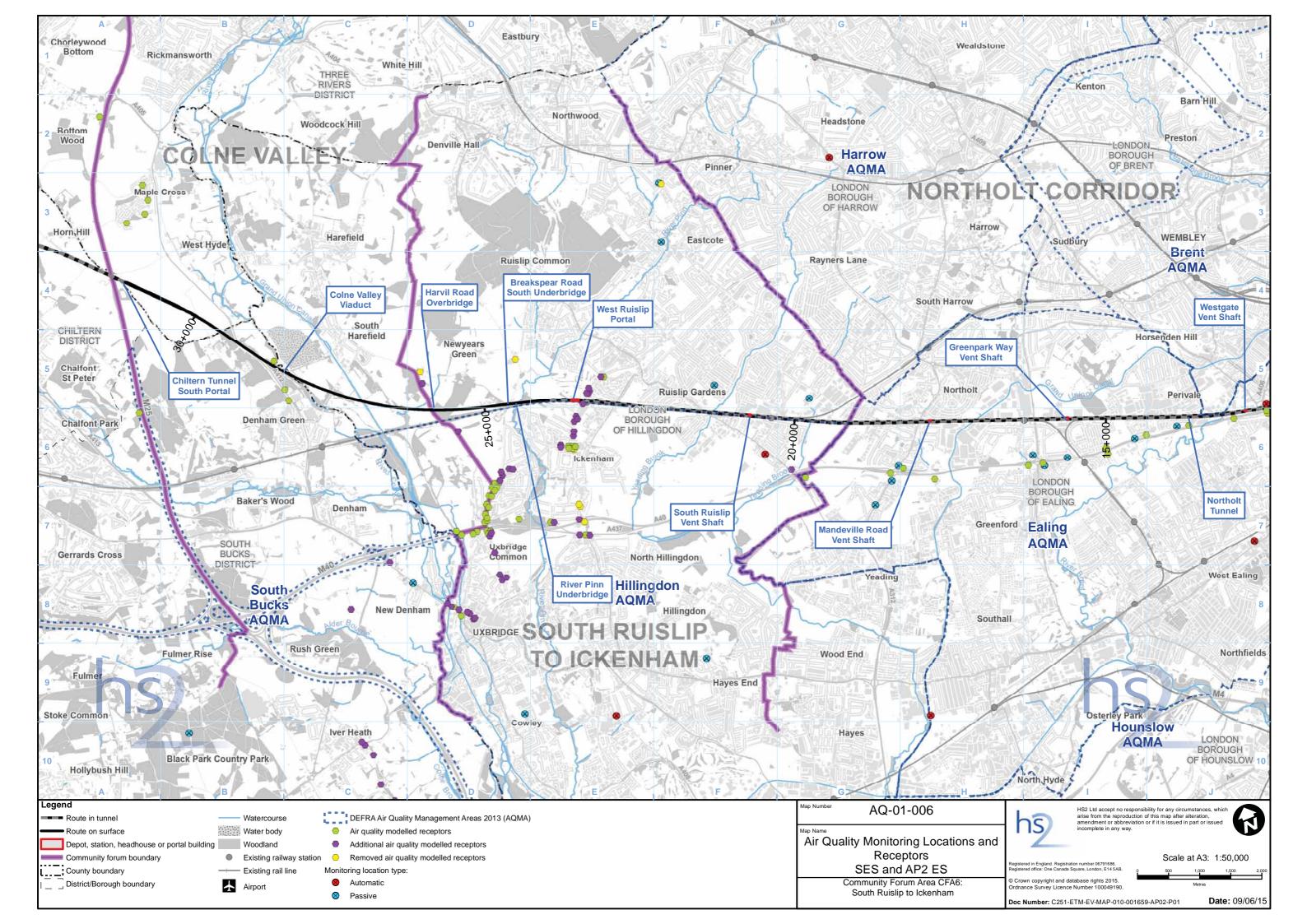


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Volume 5 | CFA6 | South Ruislip to Ickenham AQ-01 – Air Quality Monitoring Locations and Receptors

SES and AP2 ES – VOLUME 5



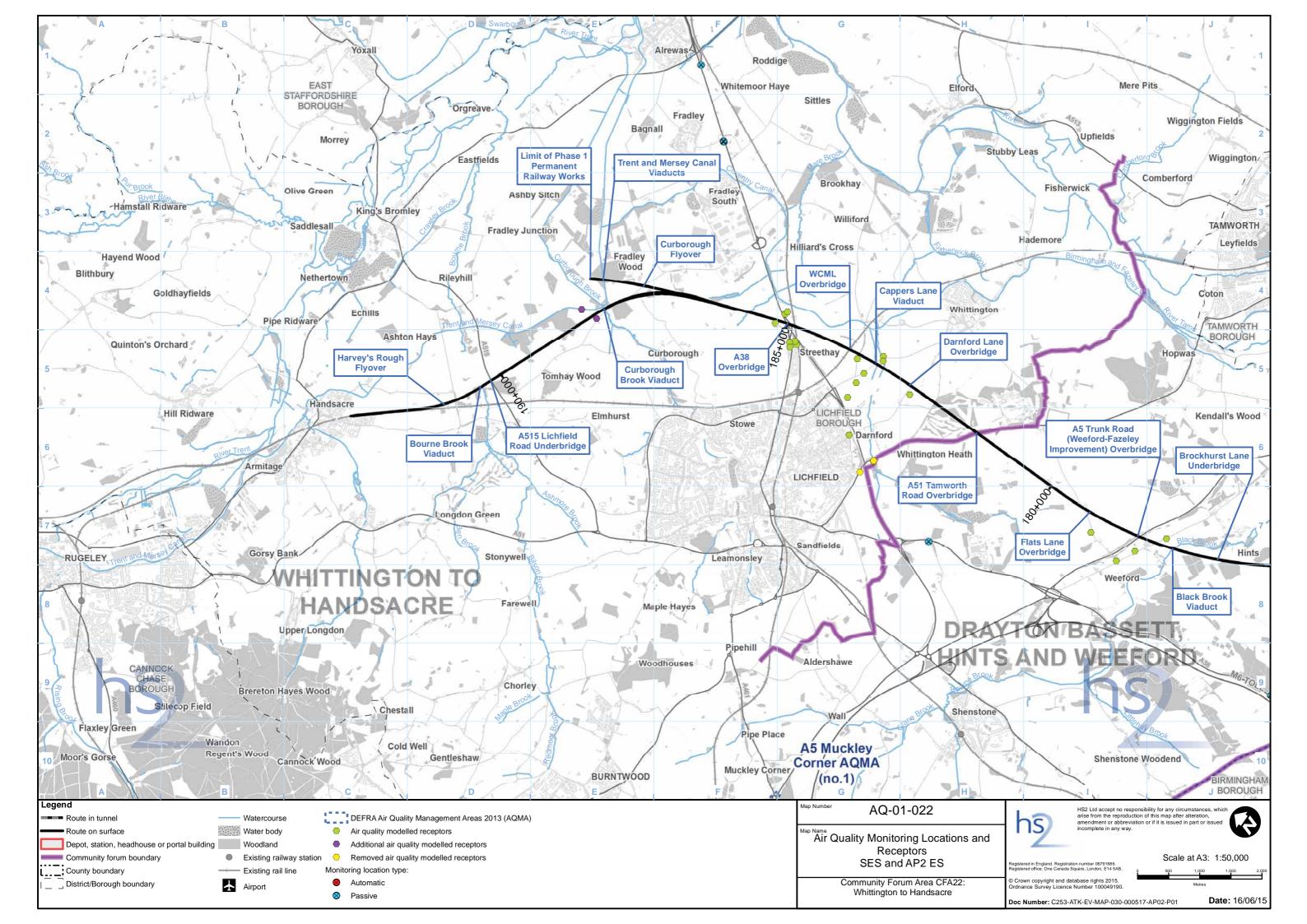


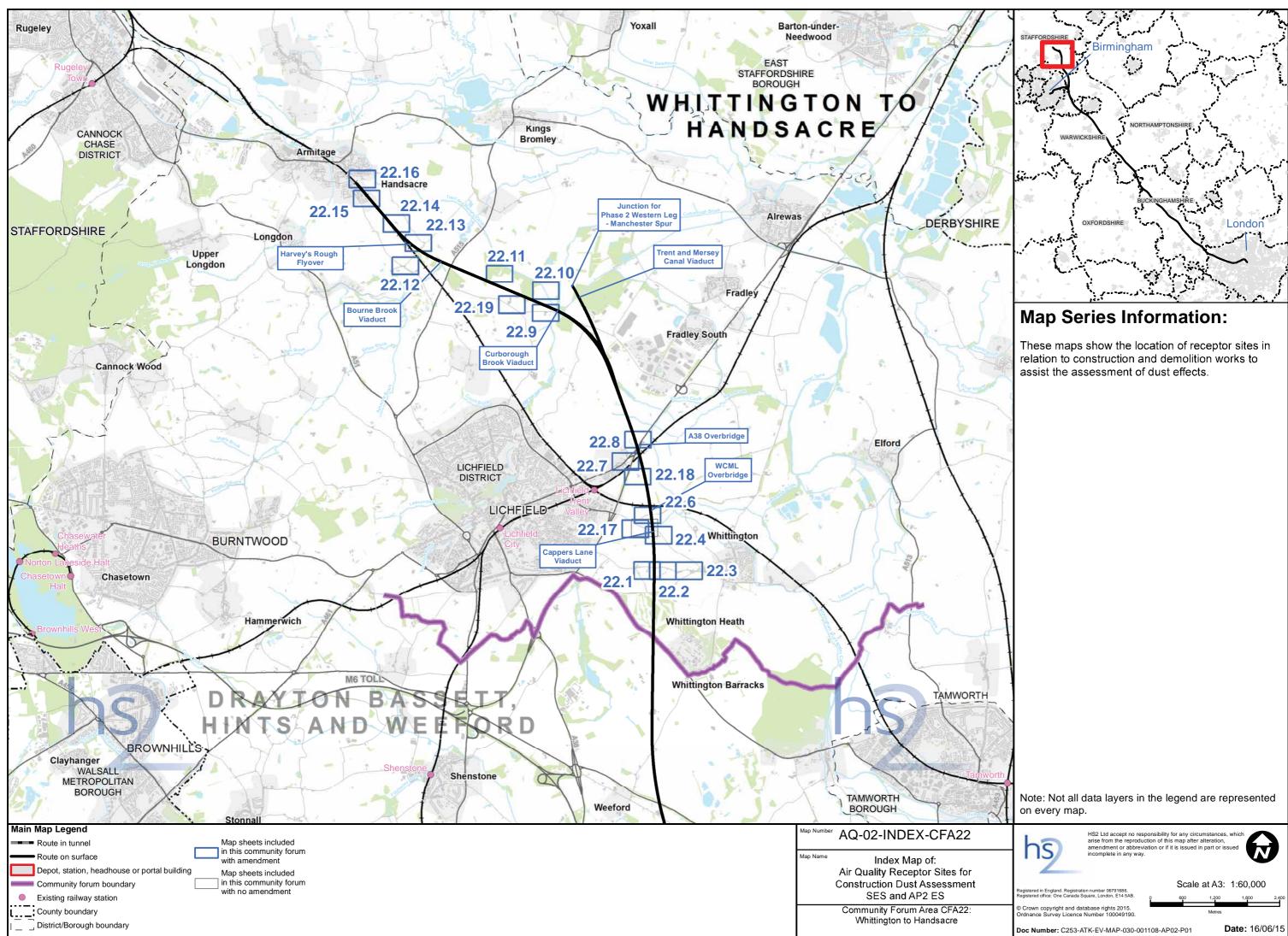
Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

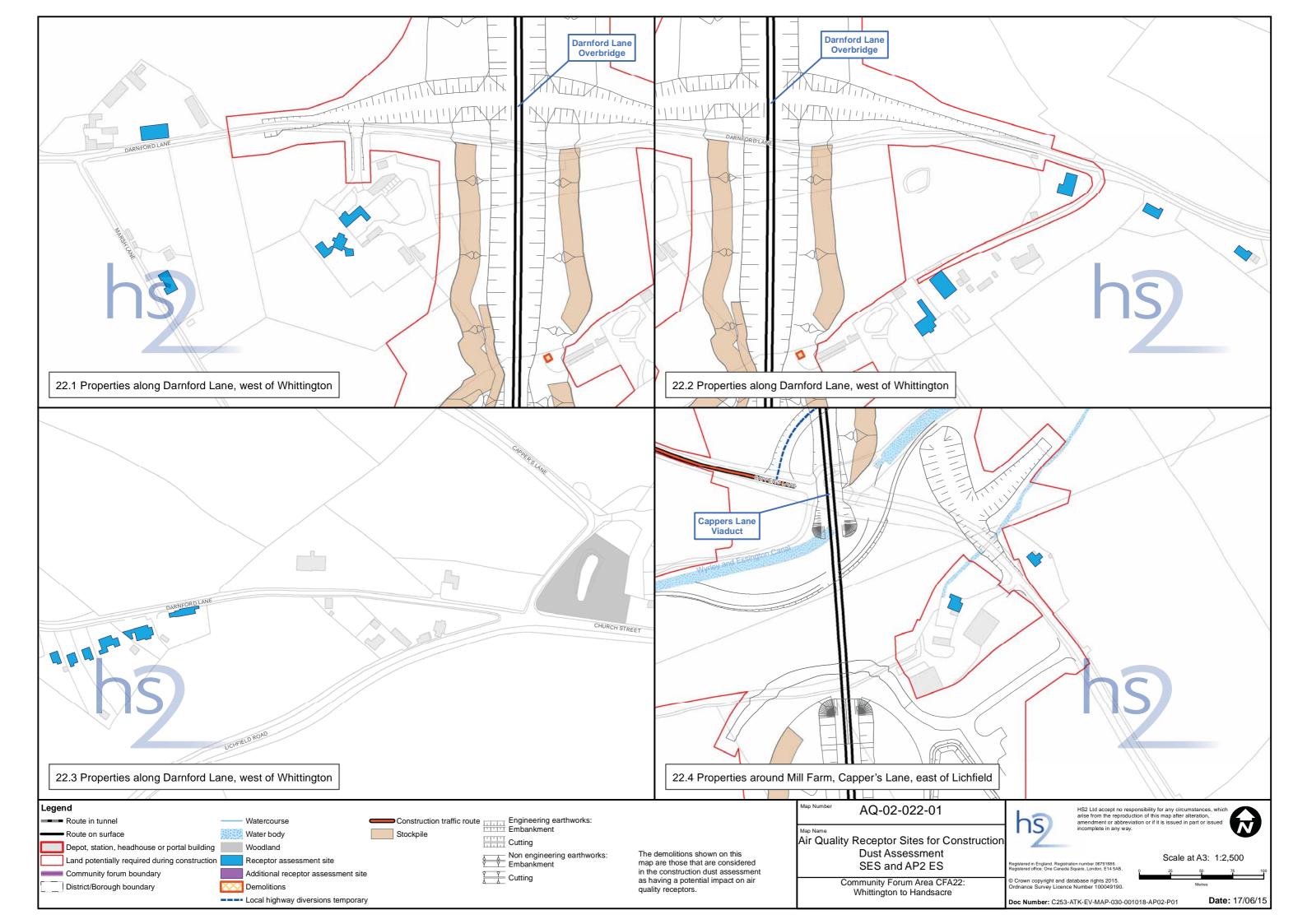
Volume 5 | CFA22 | Whittington to Handsacre AQ-01 – Air Quality Monitoring Locations and Receptors AQ-02 – Air Quality Receptor Sites for Construction Dust Assessment

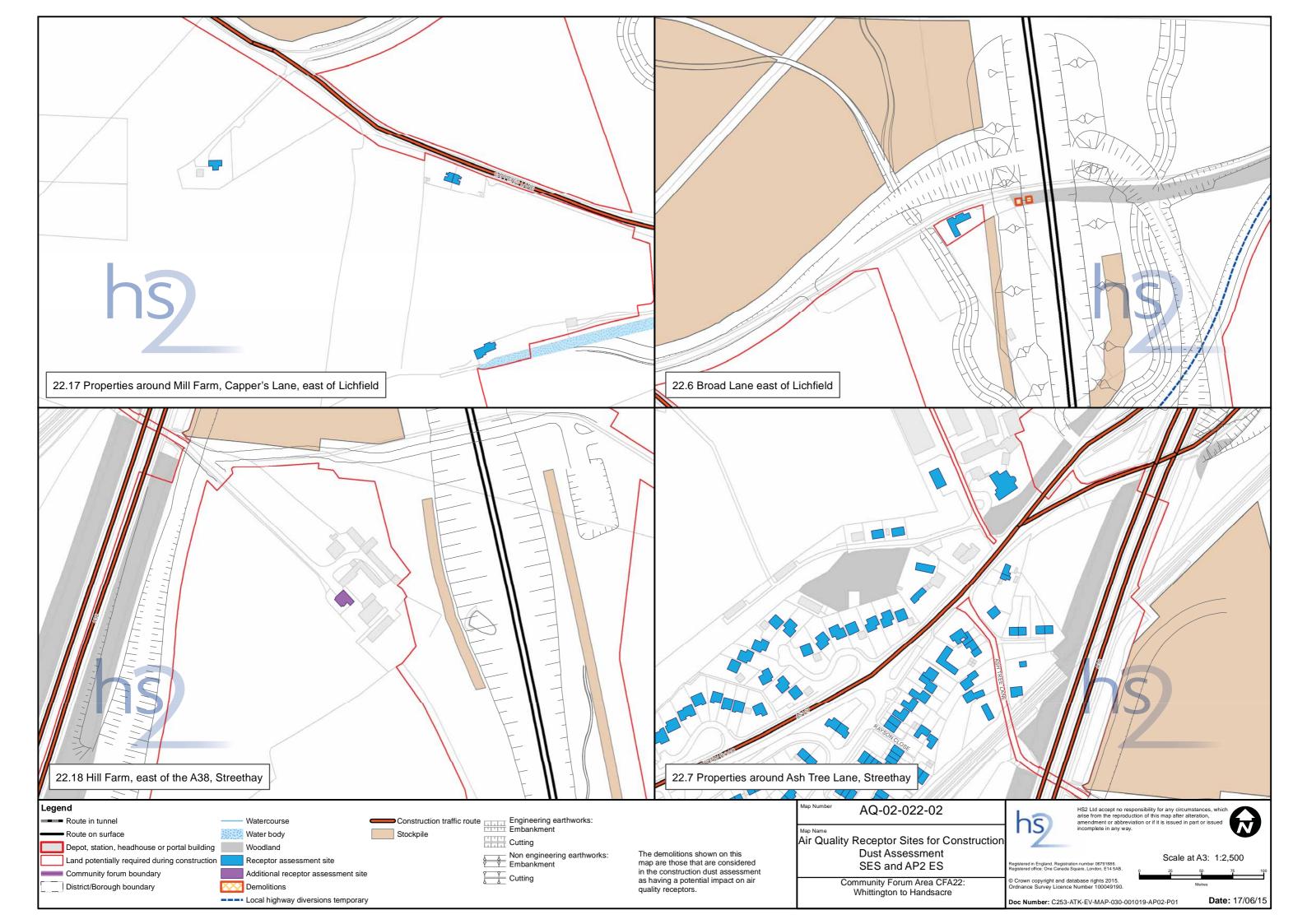
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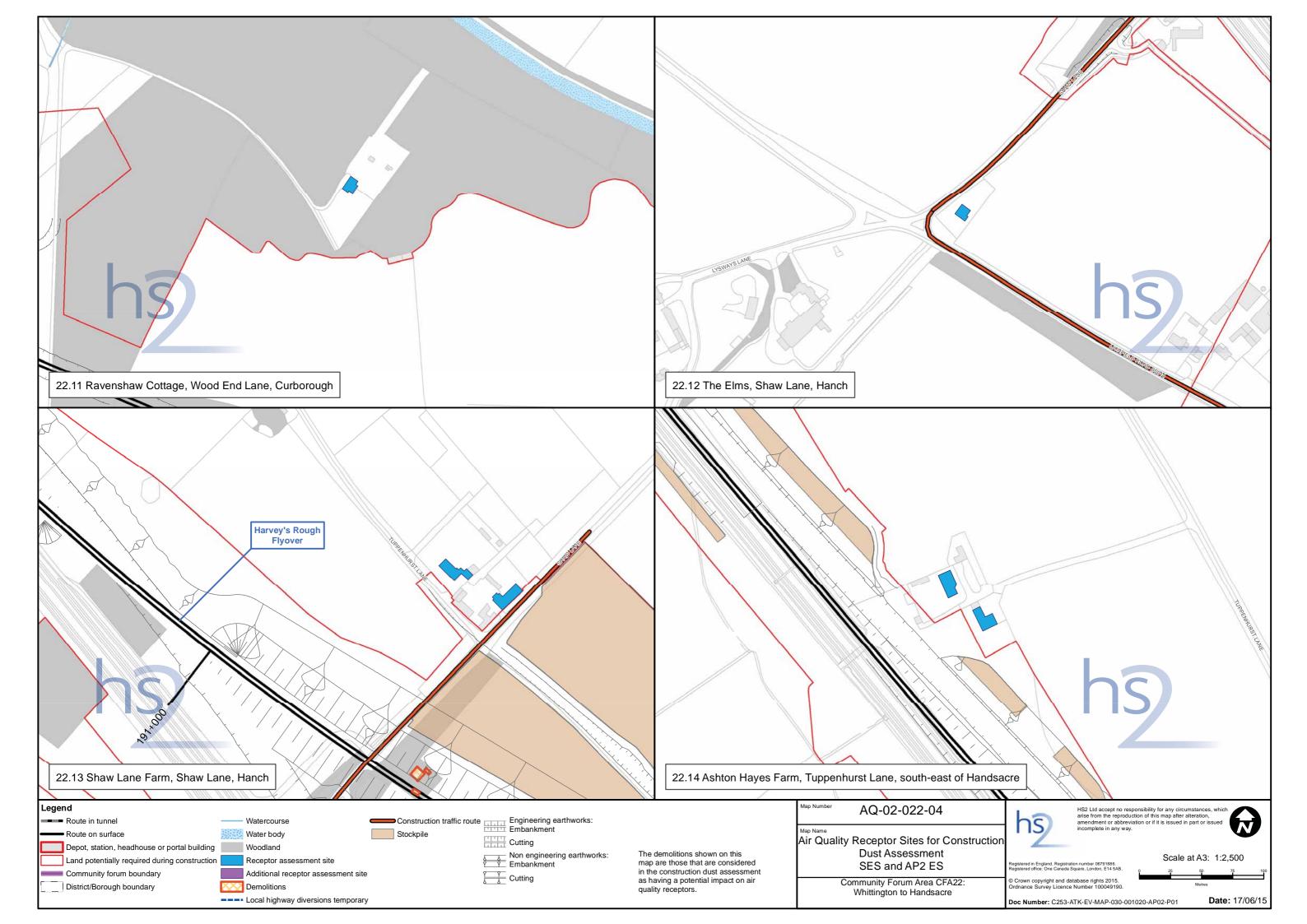


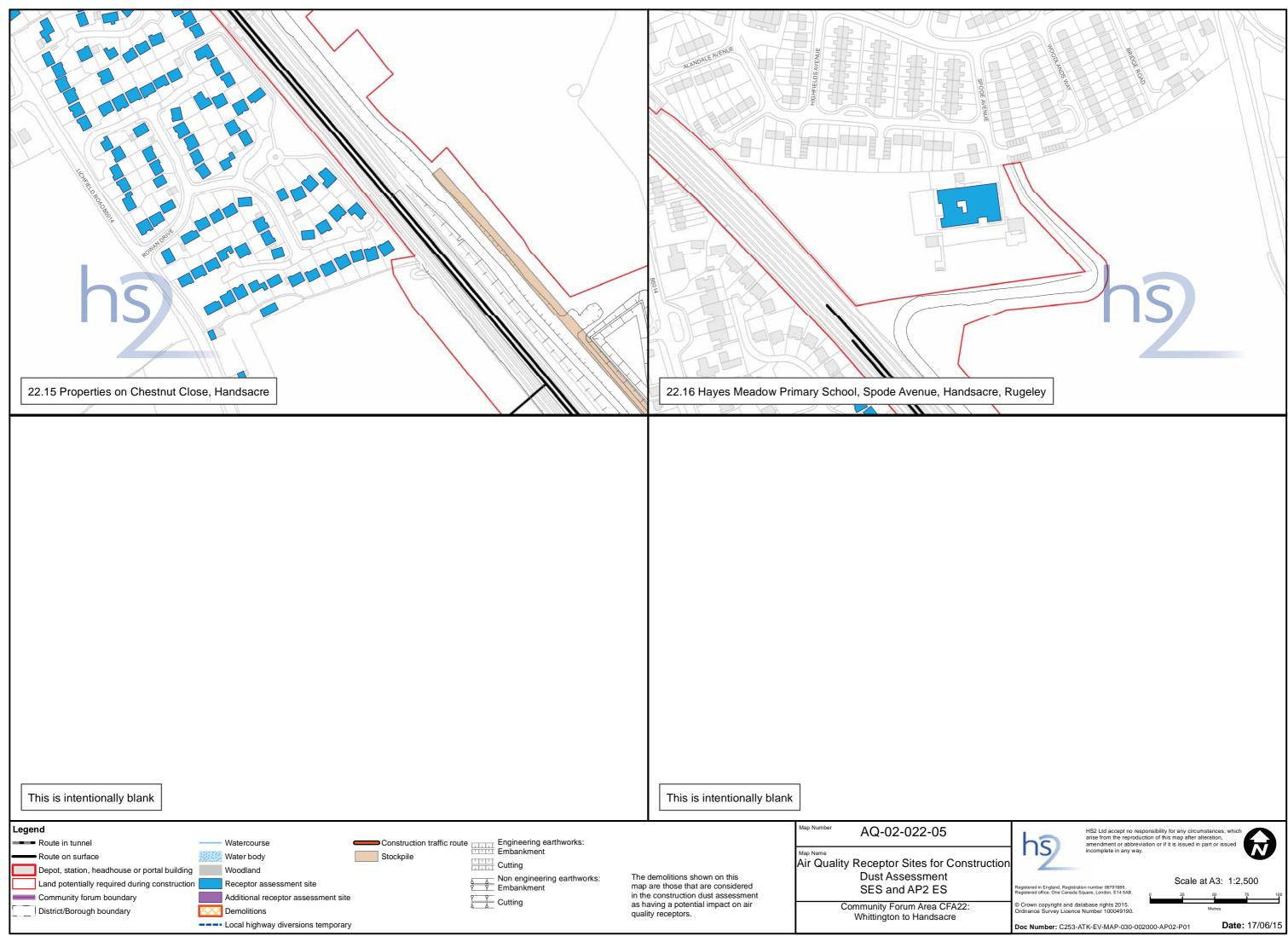




hS A38 Overbridge		
22.8 Properties around The Manor and Streethay Farm, Burton Road, north-east of Streethay	22.9 Properties around W	ood End Farm, Wood End Lane, Curbo
ns		
22.10 Wood End Lock Cottage, Wood End Lane, Curborough	22.19 Black Slough Farm	and Woods Farm, Wood End Lane, Cu
Legend		Map Number AQ-02-022-03
Route in tunnel		MQ-02-022-03
Route on surface Water body Stockpile   Depot, station, headhouse or portal building Woodland Cutting   Land potentially required during construction Receptor assessment site Non engineering earthworks: The or in the interview of the point of the	demolitions shown on this are those that are considered e construction dust assessment	Air Quality Receptor Sites for Construct Dust Assessment SES and AP2 ES
Cutting as ha	aving a potential impact on air ty receptors.	Community Forum Area CFA22: Whittington to Handsacre







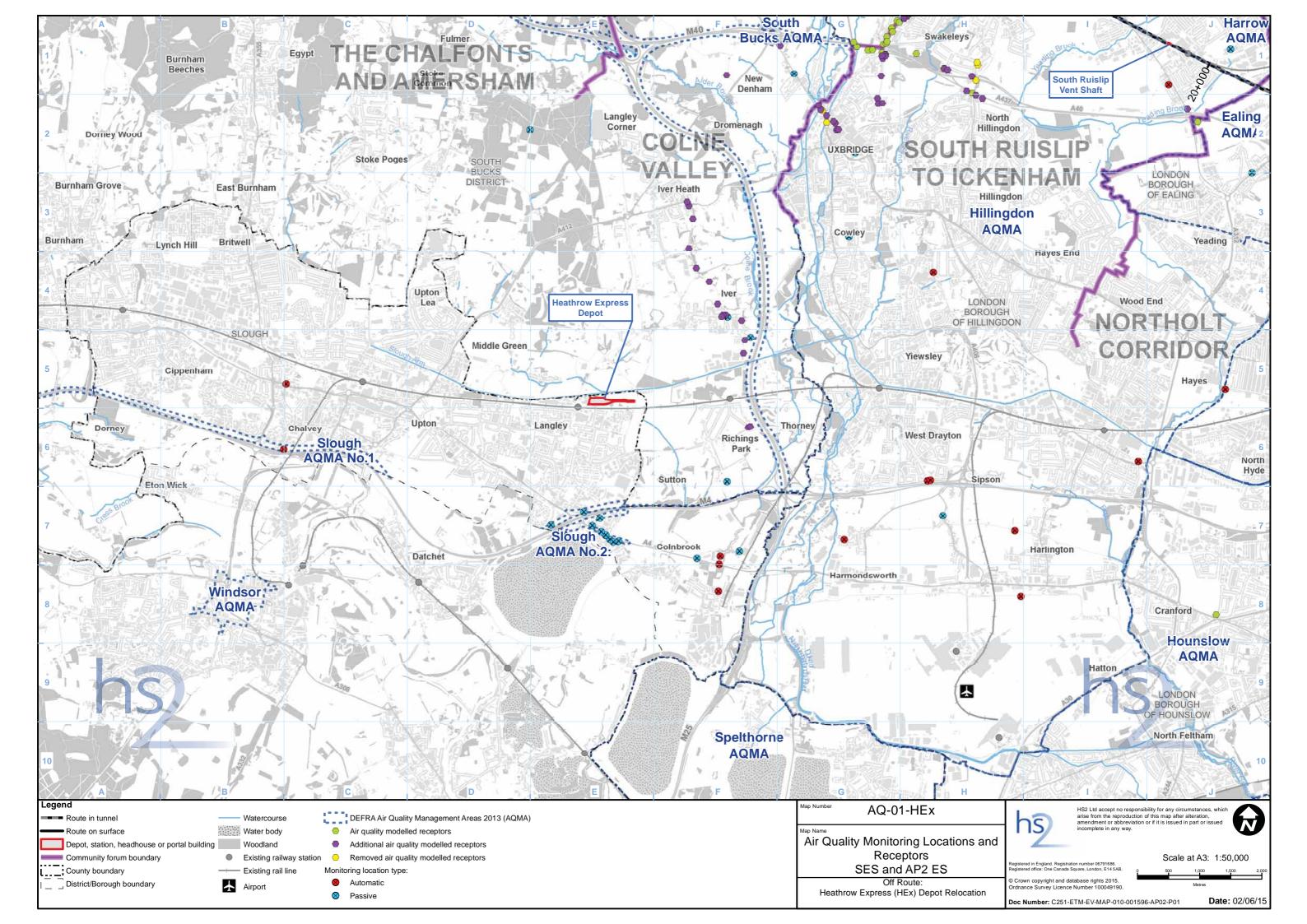
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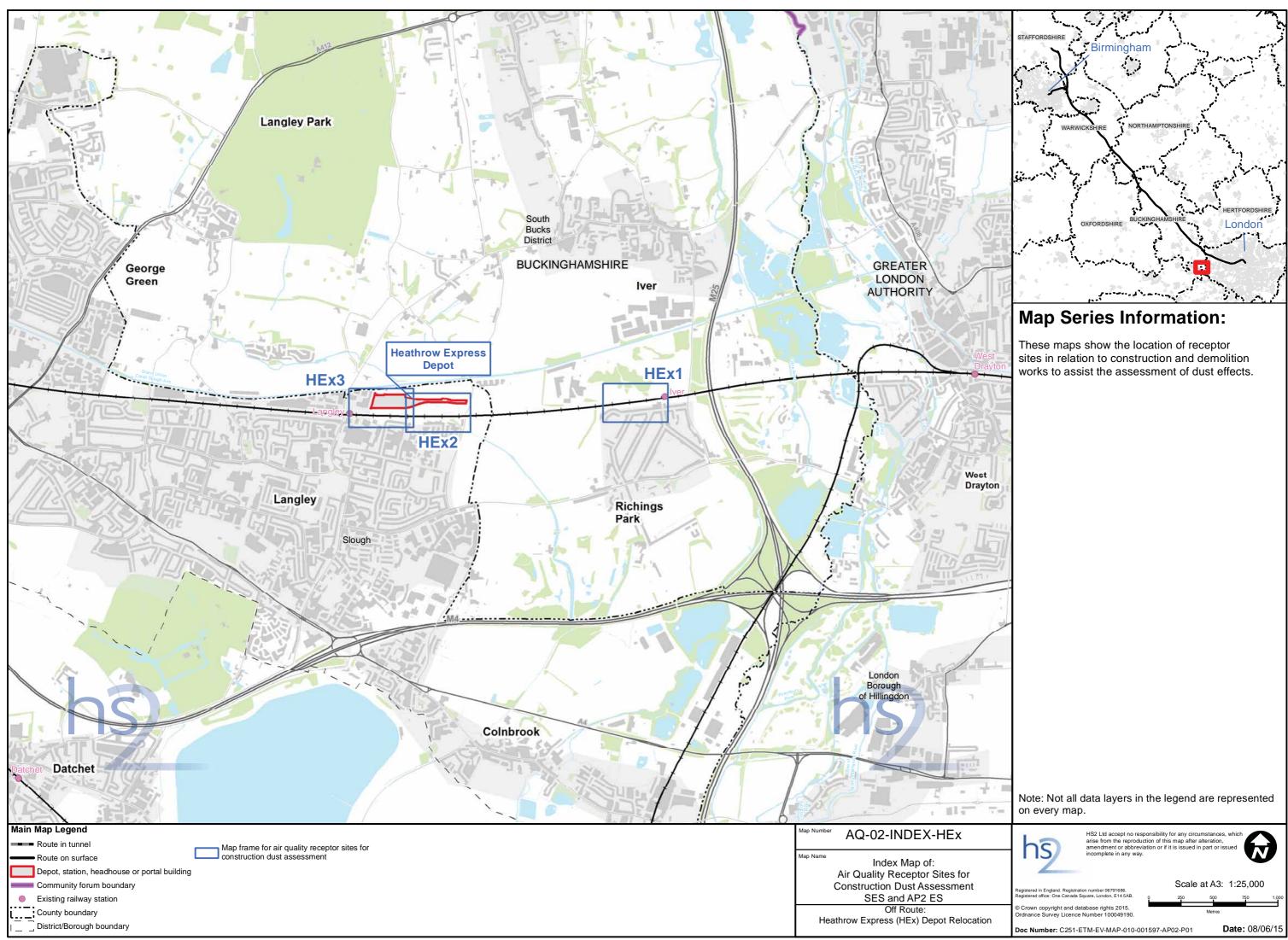
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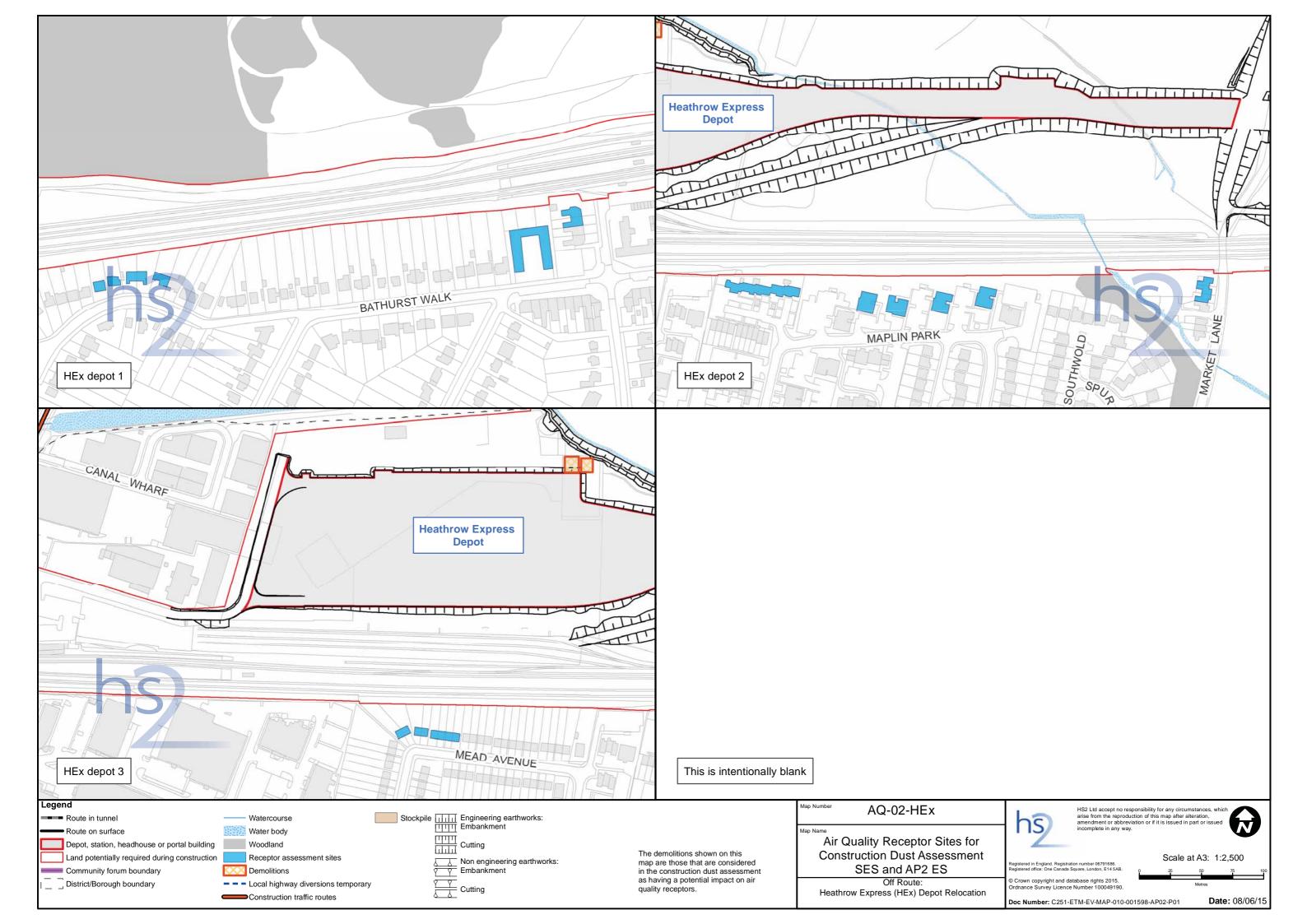
Volume 5 | Off Route | Proposed Site for Relocation of Heathrow Express (HEx) Depot AQ-01 – Air Quality Monitoring Locations and Receptors AQ-02 – Air Quality Receptor Sites for Construction Dust Assessment

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