**High Speed Rail: Phase 2b Preferred Route** 

# Sustainability Statement including Post Consultation Update

**Volume 2: Maps** 

A report by Temple-RSK for HS2 Ltd







### **Contents**

#### **Data Dictionary and Definitions**

#### Western Leg – Manchester:

- 1 Environmental features index map
- 8 Map windows each with 2 environmental features maps (sets 1 and 2)
- 3 Individual Station and Depot environmental features maps
- 1 Noise appraisal index map

Residential Airborne Noise Appraisal without and including additional mitigation maps (sets 1 and 2)

#### Eastern Leg – Leeds:

- 1 Environmental features index map
- 20 Map windows each with 2 environmental features maps (sets 1 and 2)
- 4 Individual Station and Depot environmental features maps
- 1 Noise appraisal index map

Residential Airborne Noise Appraisal without and including additional mitigation maps (sets 1 and 2)





## **Data Dictionary and Definitions**



#### **Data Dictionary and Definitions for Environmental Features**

Legend Features	Definition	Source	Copyright
Agricultural Land Classification	The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland. The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b.  The best and most versatile land is defined as Grades 1, 2 and 3a. This is the land which is most flexible, productive and efficient in response to inputs.  Grades 1 and 2 are only displayed as is consistent with the methodology. The maps show Agricultural Land Grade 1 and Grade 2.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf">http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf</a>
Ancient Woodland	Ancient Woodland Inventory. Ancient Woodland is land that has had continuous woodland cover since at least 1600AD.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf
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 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS tcm6-30743.pdf
Areas where dwellings are potentially eligible for noise insulation	Indicates where dwellings could potentially qualify for noise insulation under The Noise Insulation (Railway) Regulations (NIRR 1996) due to noise from operation of the High Speed Two (HS2) Phase Two scheme.	High Speed Two (HS2) Ltd	
Areas where dwellings potentially experience a noticeable noise increase	Indicates where dwellings could potentially be exposed to a noticeable (though not necessarily significant) increase in 'average' daytime railway noise levels due to noise from operation of the High Speed Two (HS2) Phase Two scheme. A noticeable noise increase is defined as a total rail noise level of greater than or equal to 50 dB L <sub>Aeq,18hr</sub> with an increase in rail noise of at least 3 dB L <sub>Aeq,18hr</sub> .	High Speed Two (HS2) Ltd	
Areas where dwellings potentially experience high noise levels	Indicates where dwellings could potentially be exposed to high noise levels associated with operation of the High Speed Two (HS2) Phase Two scheme. High noise level exposure is defined as a free field noise level greater than or equal to 73 dB L <sub>Aeq,18hr</sub> .	High Speed Two (HS2) Ltd	



Legend Features	Definition	Source	Copyright
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 publicly 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.	High Speed Two (HS2) Ltd	
Country Park	Natural England recognises Country Parks as significant places that contribute to England's accessible natural greenspace. Country Parks were established as a result of the 1968 Countryside Act and there are currently more than 400 sites that call themselves Country Parks in England. They are visited by over 70 million visitors a year.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS">http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS</a> tcm6-30743.pdf
County boundary	County boundaries from Ordnance Survey boundary mapping.	Ordnance Survey	© Crown Copyright and database rights 2016 Ordnance Survey Licence Number 100049190.
District/Borough boundary	Ordnance Survey local authority boundary mapping.	Ordnance Survey	© Crown Copyright and database rights 2016 Ordnance Survey Licence Number 100049190.
Flood Zone 2	National Flood Zone 2 (FZ2). Land assessed, ignoring the presence of flood defences, as having between a 1% and 0.1% annual probability of river flooding.	Environment Agency	Contains Environment Agency information © Environment Agency and database right.
Flood Zone 3	National Flood Zone 3 (FZ3). Land assessed, ignoring the presence of flood defences, as having a 1% or greater annual probability of river flooding.	Environment Agency	Contains Environment Agency information © Environment Agency and database right.
Green Belt	The Government's fundamental aim of green belt policy is to prevent urban sprawl by keeping land permanently open. The National Planning Policy Framework states that the construction of new buildings should be regarded as "inappropriate" for the green belt, although there are some exceptions, which are listed.  It is for local authorities to define and maintain green belt land in their local areas. The Government expects local planning authorities with green belts to establish green belt boundaries in their Local Plans. Green belt boundaries can be altered as part of the Local Plan review process	Department for Communities and Local Government	© Crown Copyright 2016
Groundwater Source Protection Zone (Zones 1 and 2)	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 two main zones; SPZ1 – inner and SPZ2 – outer.	Environment Agency	Contains Environment Agency information © Environment Agency and database right.



Legend Features	Definition	Source	Copyright
Landfill site (Active)	An active landfill site is one which is currently accepting waste for disposal. This may be inert, hazardous or non-hazardous waste. To operate under the current legislative regime, planning permission must be provided by the local authority and a permit obtained from the Environment Agency.	Environment Agency	Contains Environment Agency information © Environment Agency and database right.
Landfill site (Disused)	A disused landfill site is one which is not accepting waste for disposal. Recently closed landfill sites may have on-going monitoring and environmental protection measures. Disused landfills however may pre-date environmental legislation, have little record of disposed material and delineation of their extent.	Environment Agency	Contains Environment Agency information © Environment Agency and database right.
Listed Building (Grades I, II* and 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.	English Heritage	© English Heritage 2016. Contains Ordnance Survey data © Crown copyright and database right 2016  The English Heritage GIS Data contained in this material was obtained IN 2014. The most publicly available up to date English Heritage GIS Data can be obtained from <a href="http://www.english-heritage.org.uk">http://www.english-heritage.org.uk</a> .
Local Nature Reserve (LNR)	A Local Nature Reserve (LNR) is a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities. Data supplied has the status of "Declared". The boundaries are interpreted from material gathered from the local authorities and does not currently cover all LNRs. This national dataset is "indicative" not "definitive". Definitive information can only be provided by individual local authorities and you should refer directly to their information for all purposes that require the most up to date and complete dataset.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS_tcm6-30743.pdf">http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS_tcm6-30743.pdf</a>
Major Development Site	Major proposals for all types of development, including residential development of 100 or more dwellings or a site area of one or more hectare; other developments with floorspace of 5,000 m² or more, or a site area of one hectare or more; major infrastructure schemes, including highways schemes; and major minerals and waste management sites (including both new and extended sites). Major Development Sites have been captured and digitised from desktop based studies using publicly 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.	High Speed Two (HS2) Ltd	



Legend Features	Definition	Source	Copyright
National Nature Reserve (NNR)	A National Nature Reserve (NNR) is the land declared under the National Parks and Access to the Countryside Act 1949 or Wildlife and Countryside Act (1981) as amended.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf">http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf</a>
National Park	England's National Parks are extensive tracts of countryside designated by Natural England (or its predecessor bodies) under the provisions of The National Parks and Access to the Countryside Act, 1949, and have two statutory purposes:  1) To conserve and enhance their natural beauty, wildlife and cultural heritage.  2) To promote opportunities for the public understanding and enjoyment of these special qualities.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS">http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS</a> tcm6-30743.pdf
National Trails	National Trails are long distance routes for walking, cycling and horse riding through the finest landscapes in England and Wales.  They have all been created by linking existing local footpaths, bridleways and minor roads and by developing new ones where there were gaps.	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS_tcm6-30743.pdf">http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS_tcm6-30743.pdf</a>
Ramsar Site	There are 15 National Trails in England and Wales.  A Ramsar Site is the land listed as a Wetland of International Importance under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (the Ramsar Convention) 1973. Data supplied has the status of "Listed".	Natural England	© Natural England copyright 2016 Contains Ordnance Survey data © Crown copyright and database right 2016. All rights reserved. Ordnance Survey Licence number 100022021. http://www.naturalengland.org.uk/lmages/open-government-licence-NE-OS_tcm6-30743.pdf
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	English Heritage	© English Heritage 2016. Contains Ordnance Survey data © Crown copyright and database right 2016  The English Heritage GIS Data contained in this material was obtained in 2014. The most publicly available up to date English Heritage GIS Data can be obtained from <a href="http://www.english-heritage.org.uk">http://www.english-heritage.org.uk</a> .
Registered Park and Garden	Parks and Gardens of special historic interest. Supplied by English Heritage. 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.	English Heritage	© English Heritage 2016. Contains Ordnance Survey data © Crown copyright and database right 2016  The English Heritage GIS Data contained in this material was obtained in 2014. The most publicly available up to date English Heritage GIS Data can be obtained from <a href="http://www.english-heritage.org.uk">http://www.english-heritage.org.uk</a> .
Route alignment	Represents the proposed route, symbolised based on formation type.	High Speed Two (HS2) Ltd	



Legend Features	Definition	Source	Copyright
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.	English Heritage	© English Heritage 2016. Contains Ordnance Survey data © Crown copyright and database right 2016  The English Heritage GIS Data contained in this material was obtained in 2014. The most publicly available up to date English Heritage GIS Data can be obtained from <a href="http://www.english-heritage.org.uk">http://www.english-heritage.org.uk</a> .
Site of Special Scientific Interest (SSSI)	A Site of Special Scientific Interest (SSSI) is the land notified as an SSSI under the Wildlife and Countryside Act (1981), as amended.	Natural England	© Natural England copyright 2014 Contains Ordnance Survey data © Crown copyright and database right 2014. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf">http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf</a>
Special Area of Conservation (SAC)	A Special Area of Conservation (SAC) is the land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.	Natural England	© Natural England copyright 2014 Contains Ordnance Survey data © Crown copyright and database right 2014. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf">http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS_tcm6-30743.pdf</a>
Special Protection Area (SPA)	A Special Protection Area (SPA) is the land classified under Directive 79/409 for the Conservation of Wild Birds.	Natural England	© Natural England copyright 2014 Contains Ordnance Survey data © Crown copyright and database right 2014. All rights reserved. Ordnance Survey Licence number 100022021. <a href="http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS">http://www.naturalengland.org.uk/Images/open-government-licence-NE-OS</a> tcm6-30743.pdf
World Heritage Site	A site on a list of properties maintained by the World Heritage Committee of UNESCO and called the World Heritage List "forming part of the cultural heritage and natural heritagewhich it considers as having outstanding universal value in terms of such criteria as it shall have established". There are 17 World Heritage Sites of which 15 are captured against the 1:10,000 Raster product. The remaining two sites are potentially subject to change under Positional Accuracy Improvement (PAI) improvements.	English Heritage	© English Heritage 2014. Contains Ordnance Survey data © Crown copyright and database right 2014  The English Heritage GIS Data contained in this material was obtained in 2014. The most publicly available up to date English Heritage GIS Data can be obtained from <a href="http://www.english-heritage.org.uk">http://www.english-heritage.org.uk</a> .



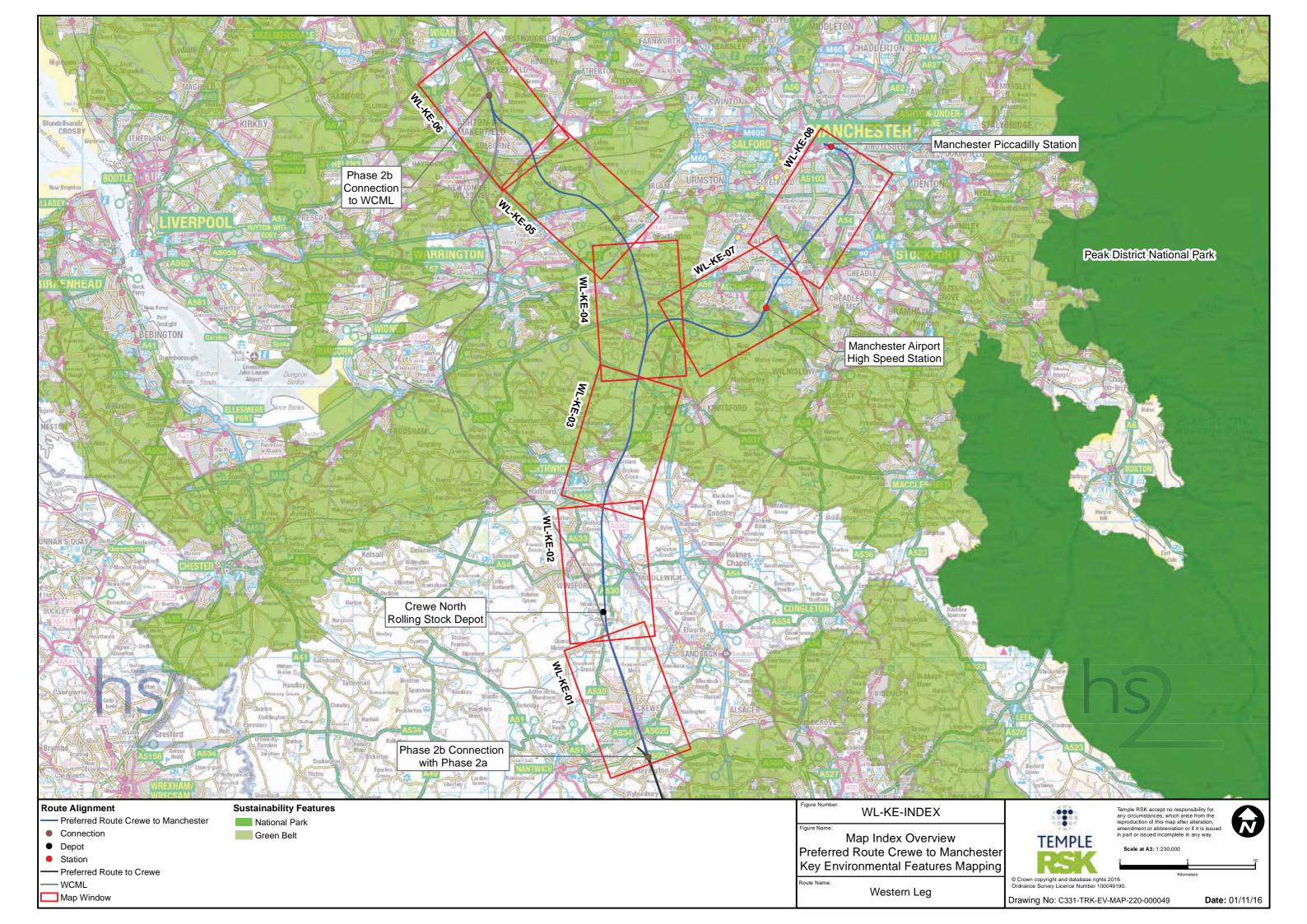
## Western Leg – Manchester

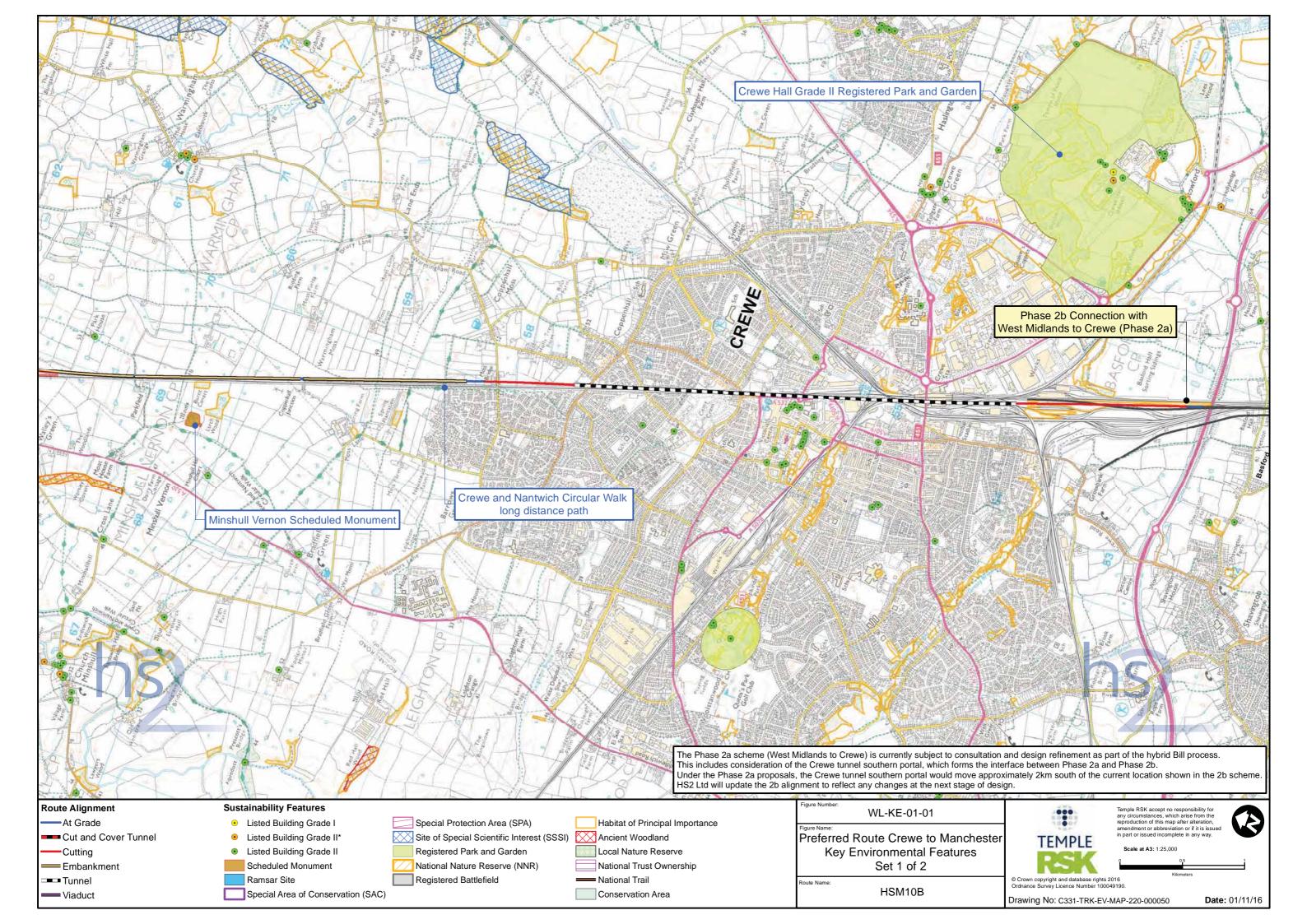


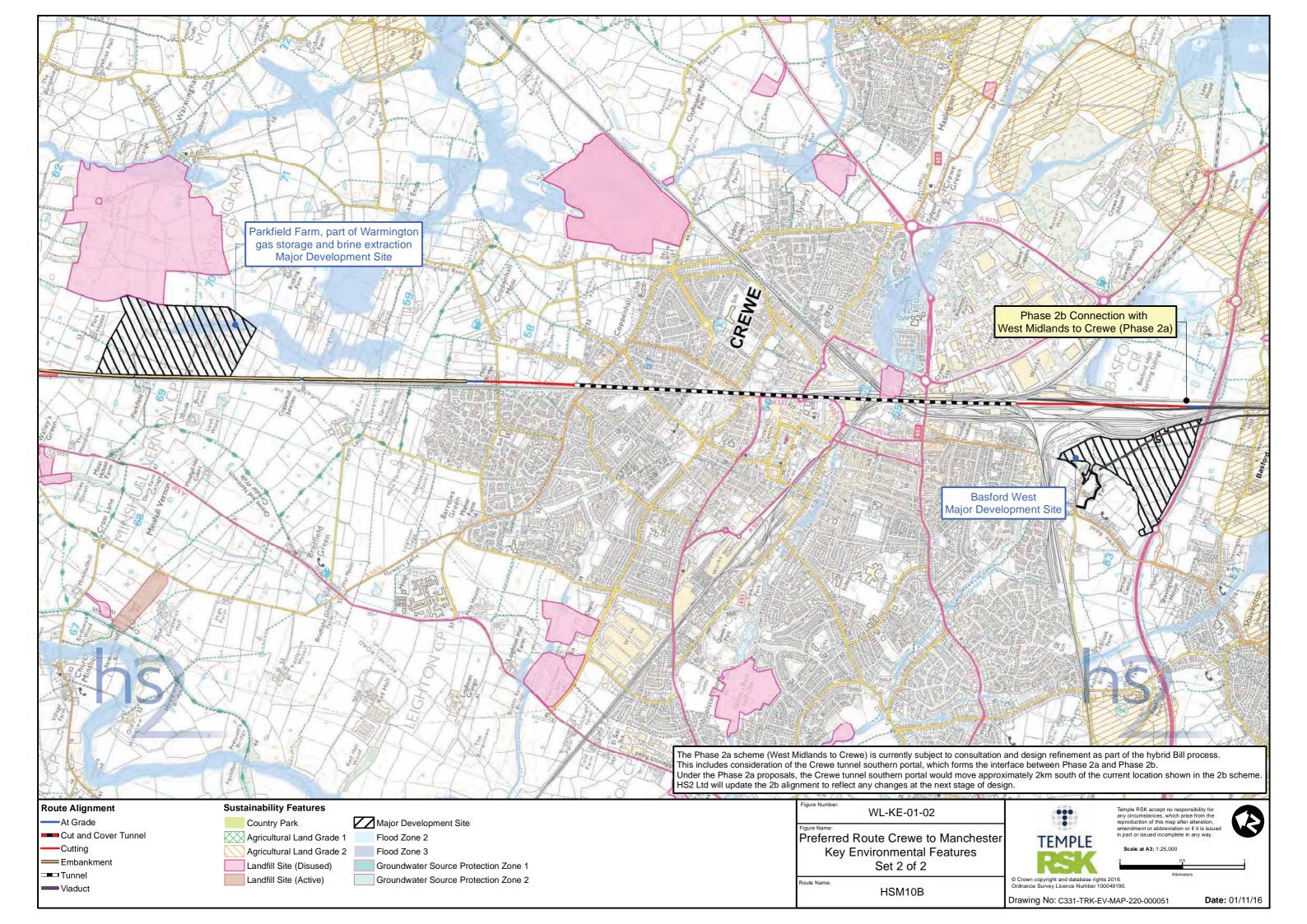


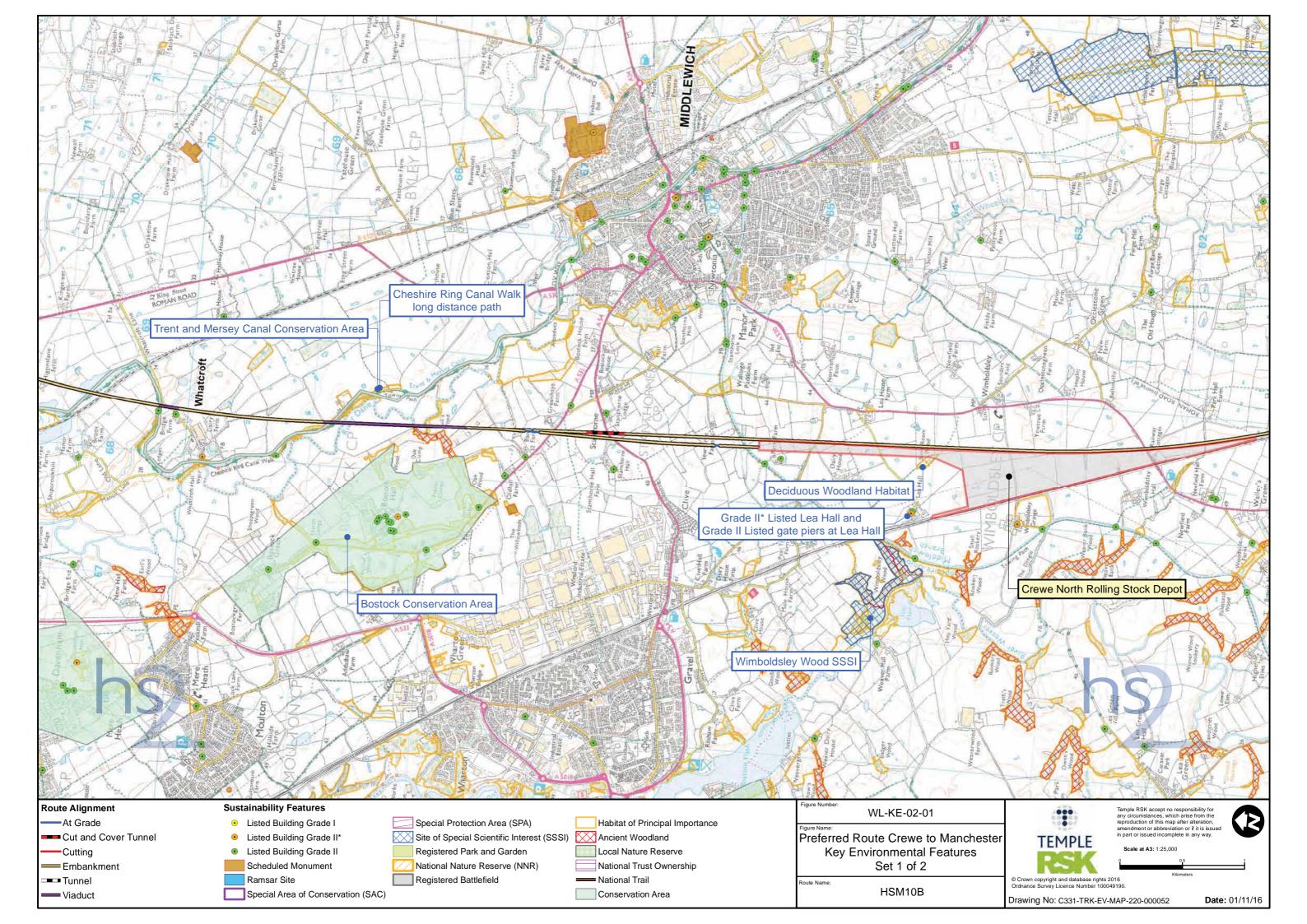
## Western Leg – Manchester Environmental Features Mapping Sets 1 and 2

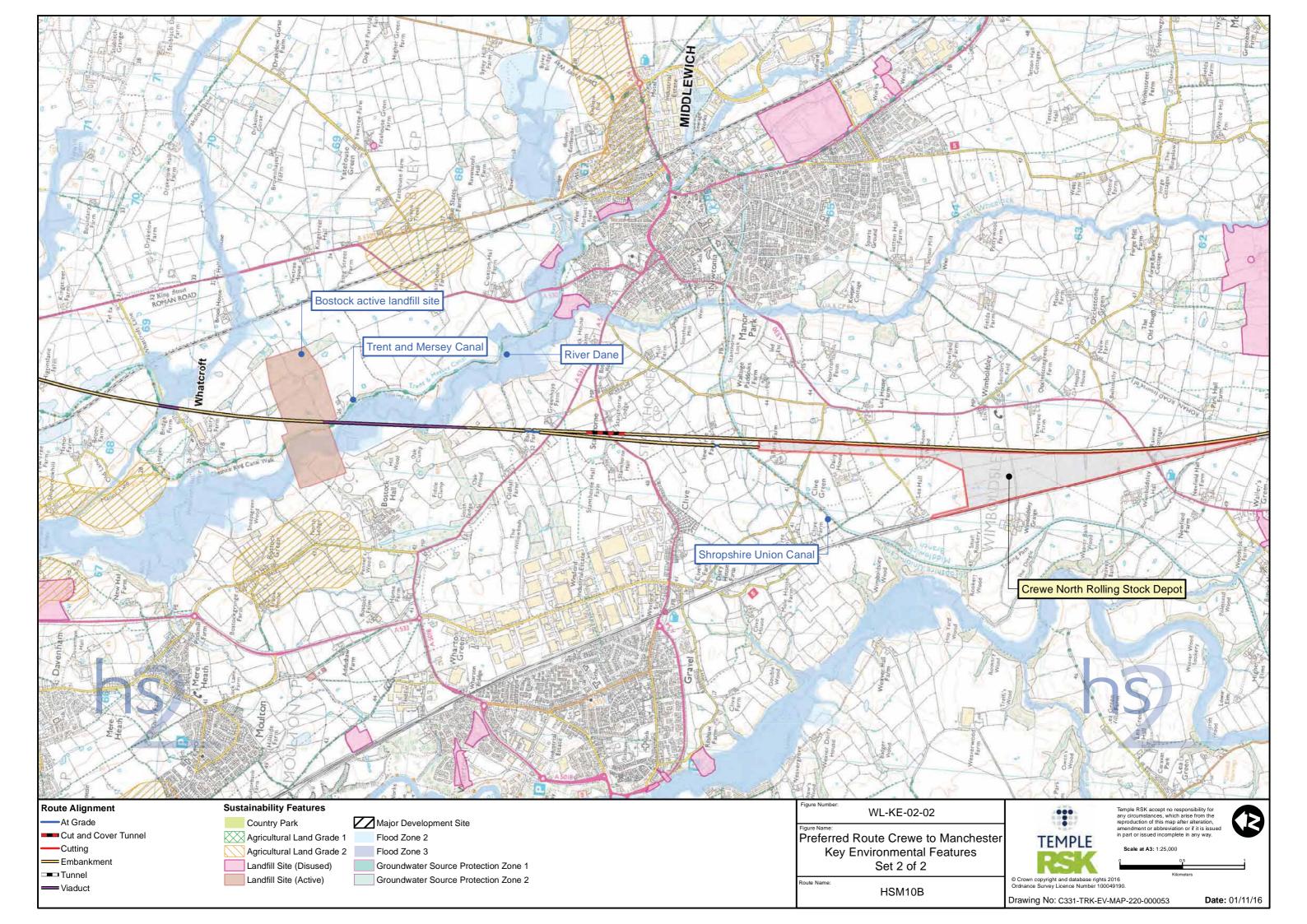


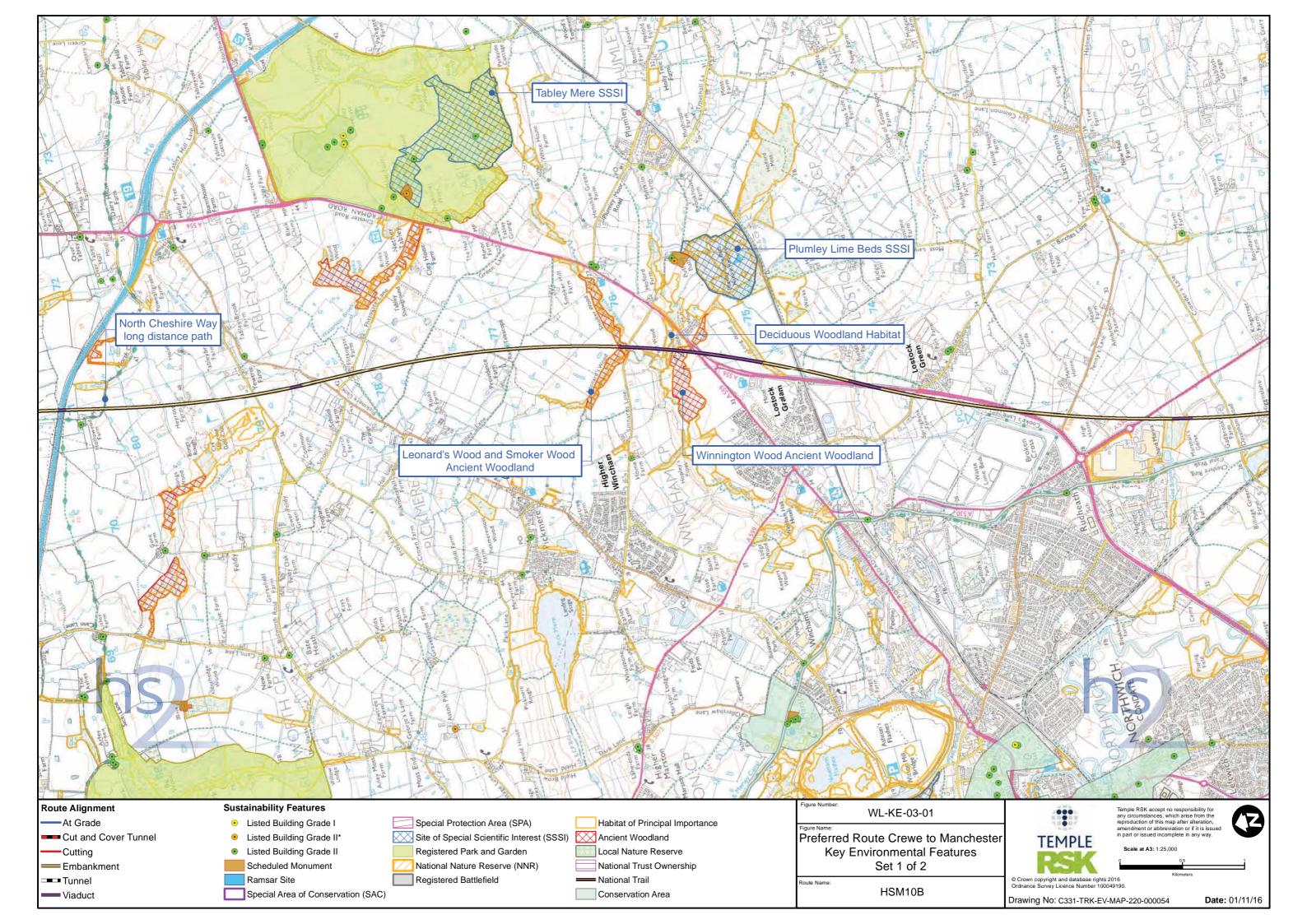


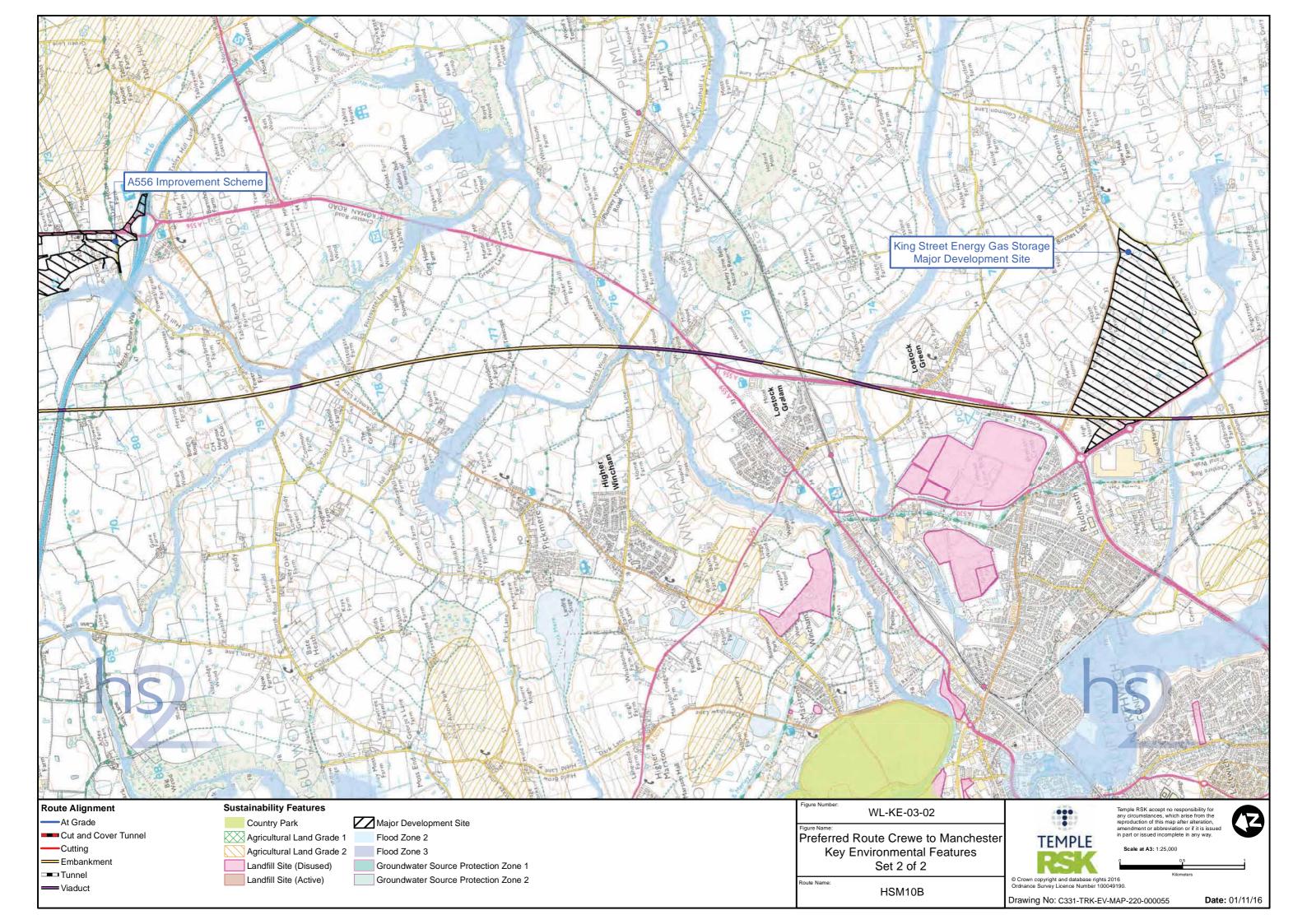


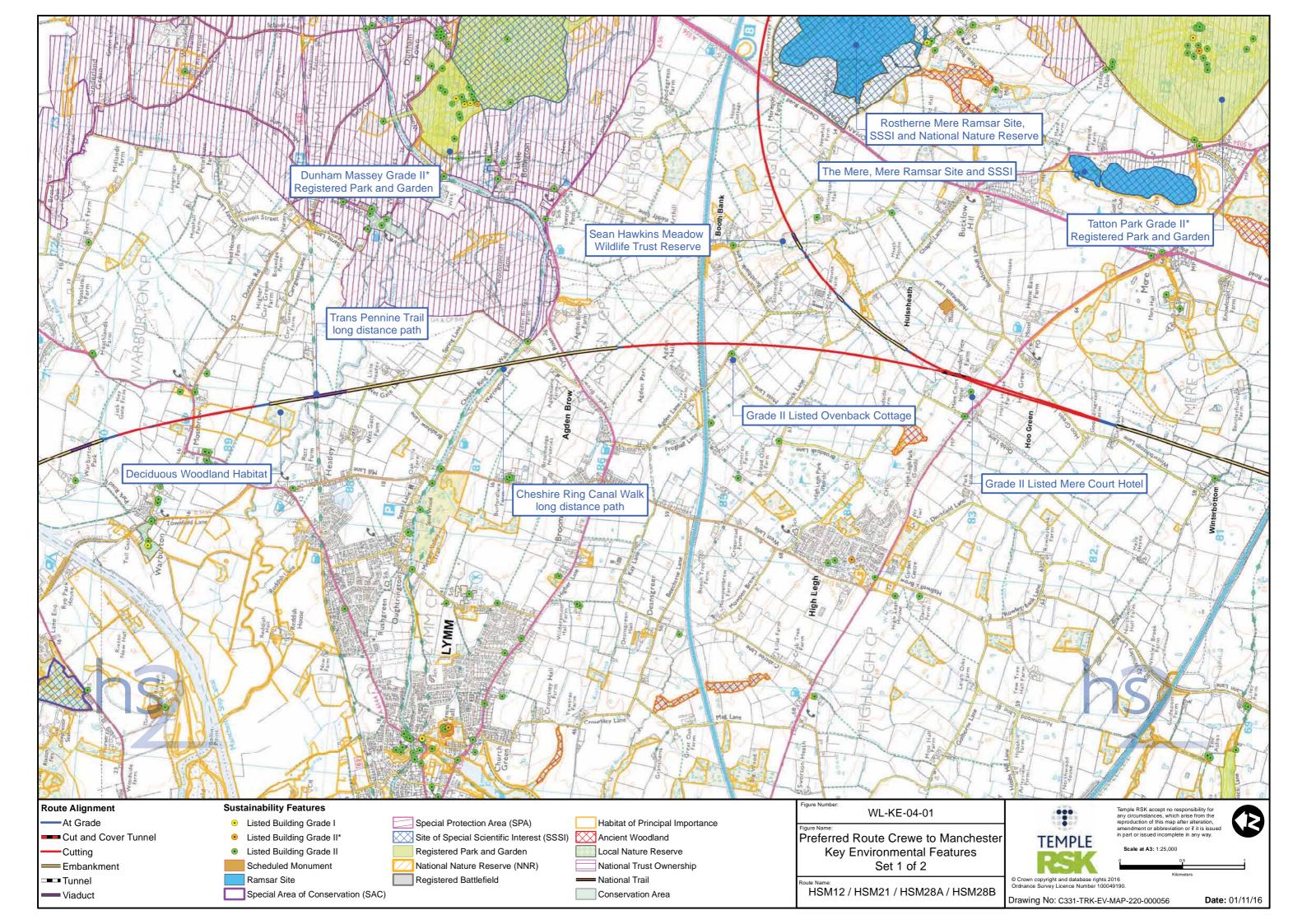


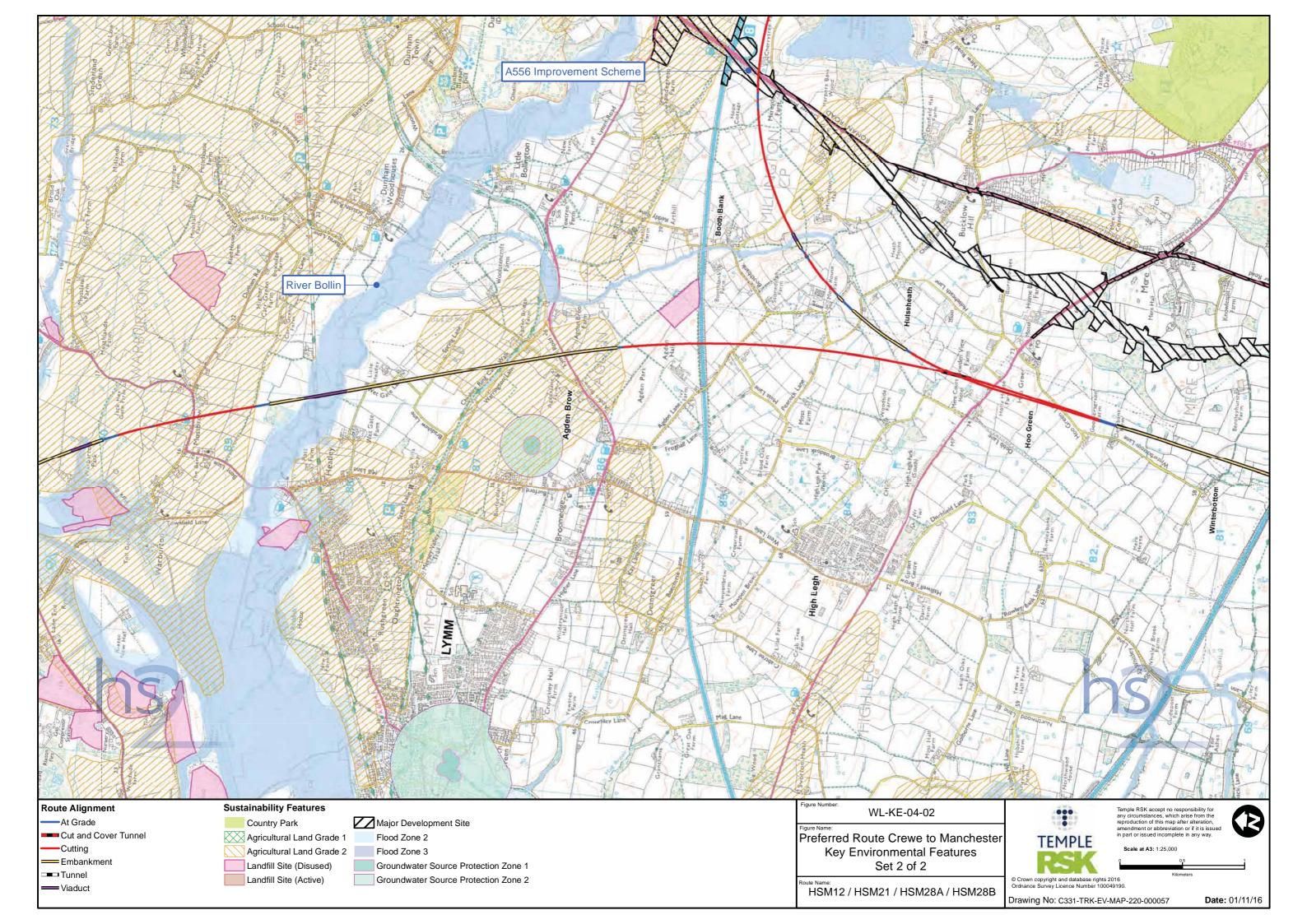


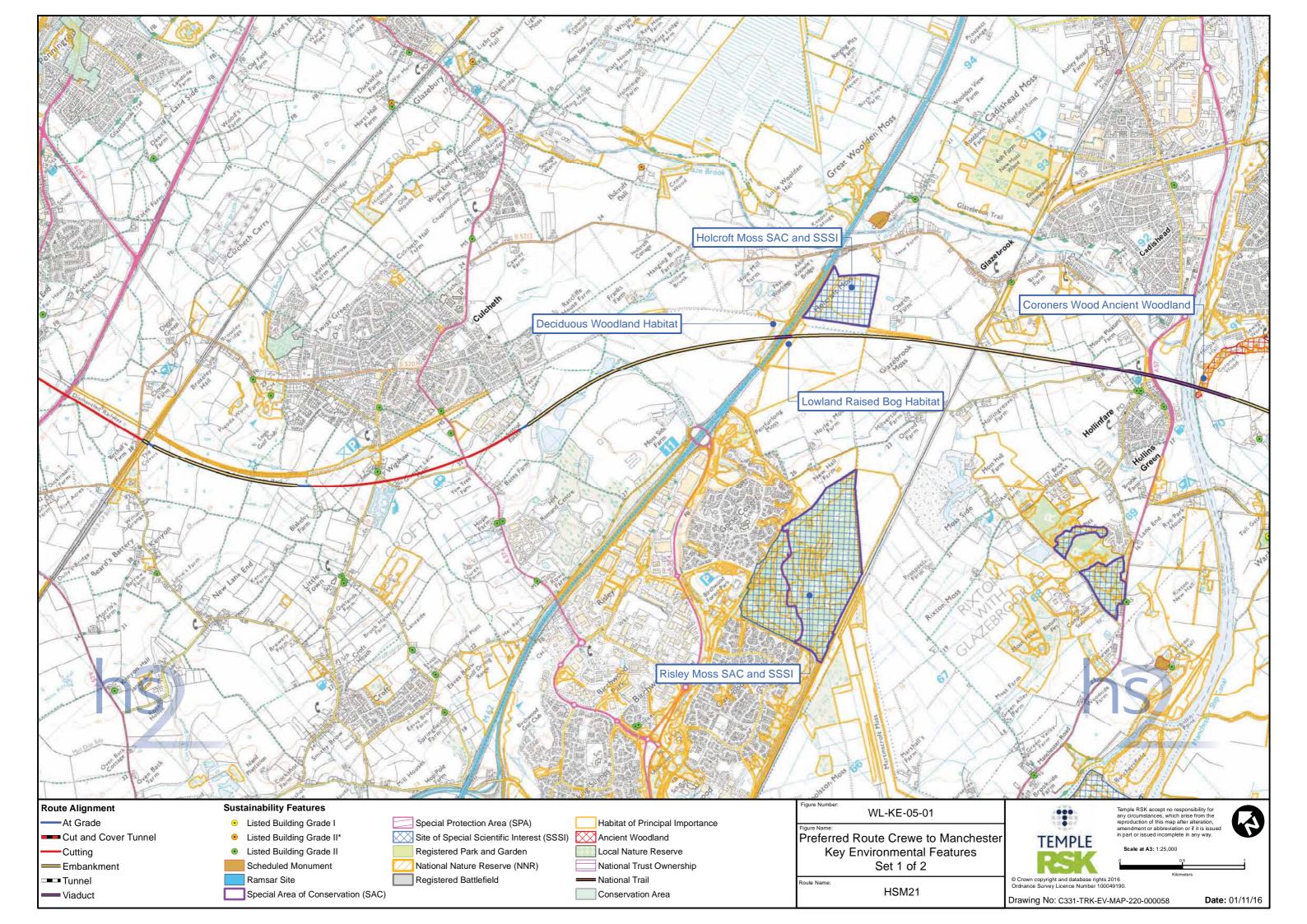


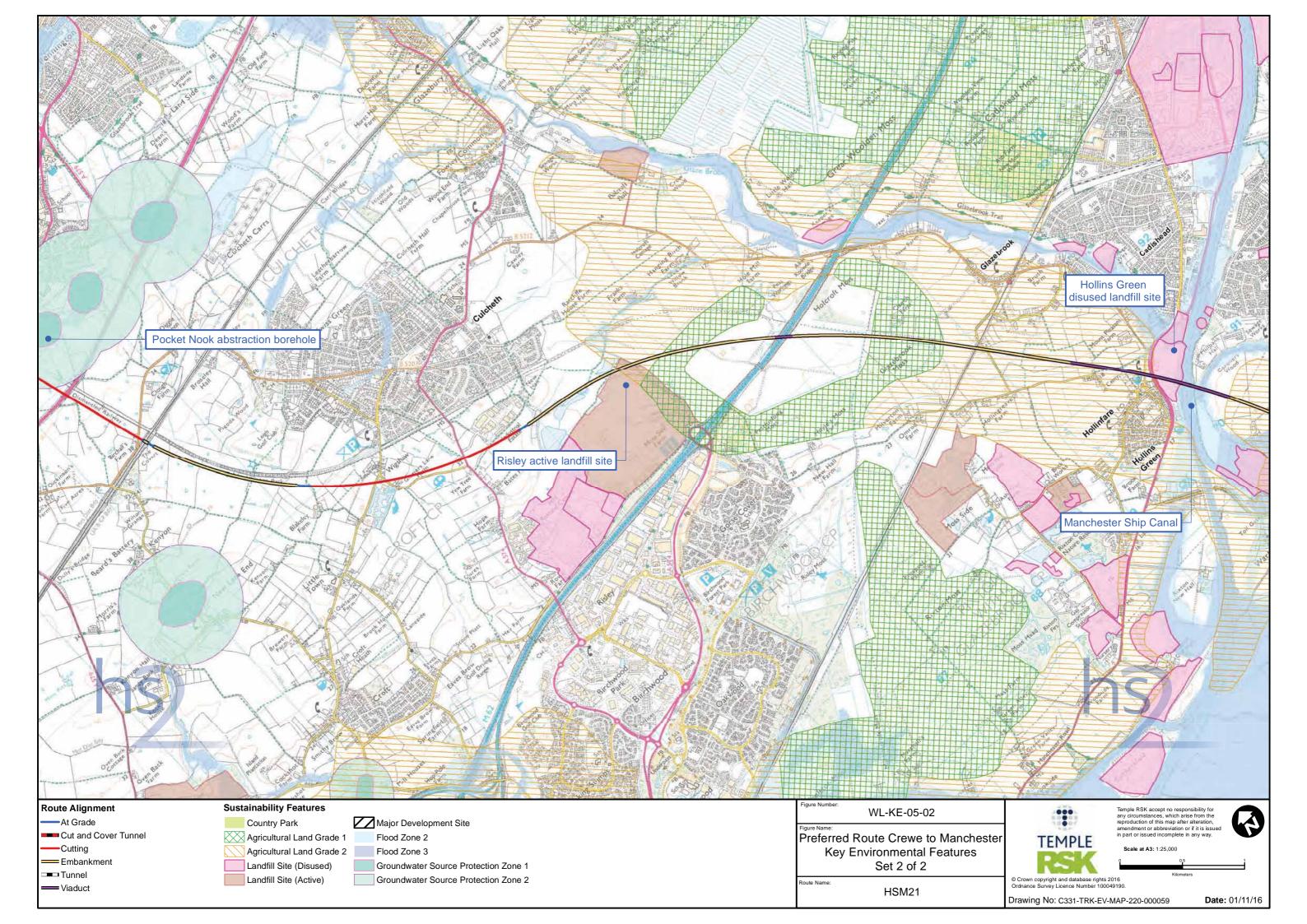


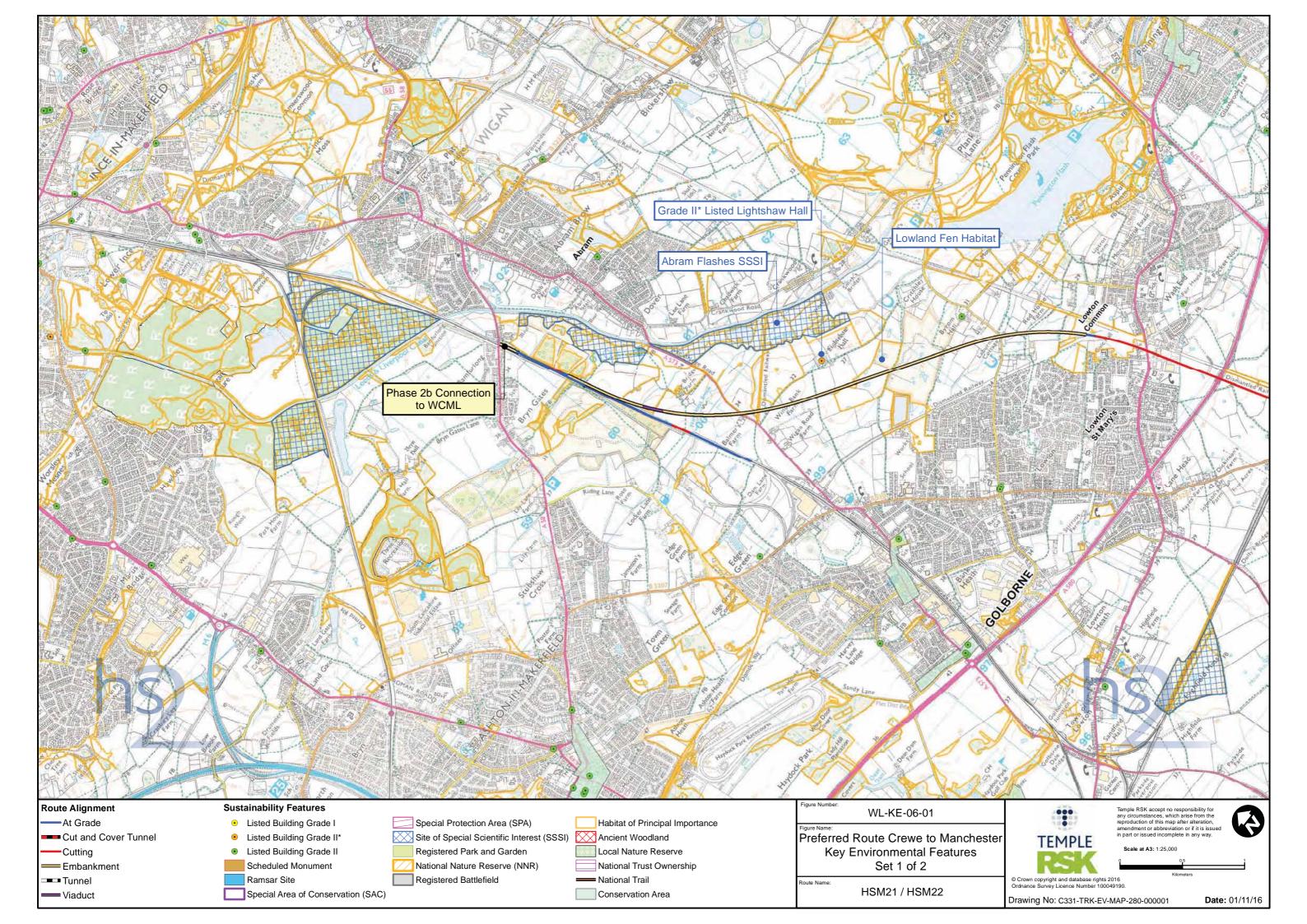


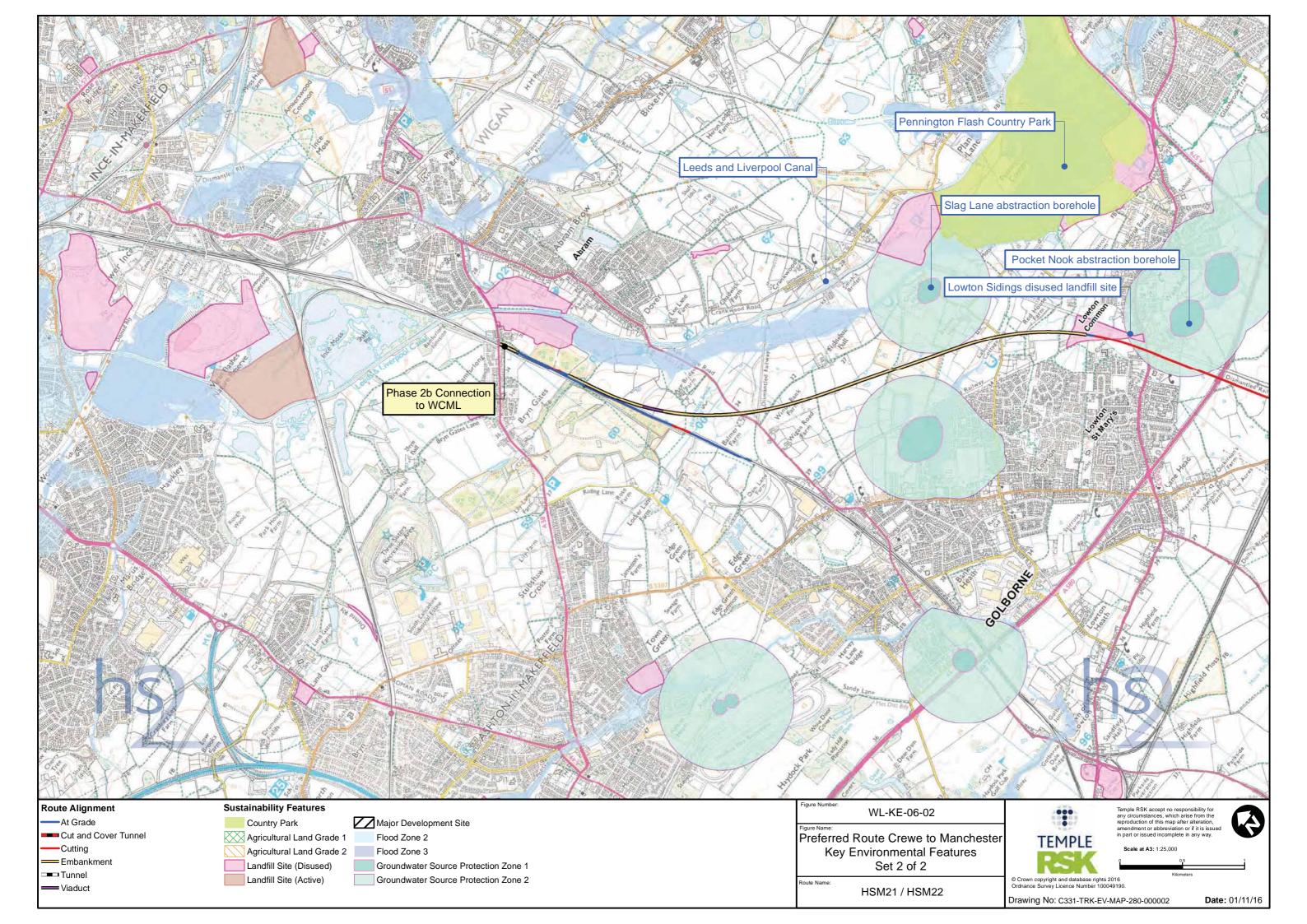


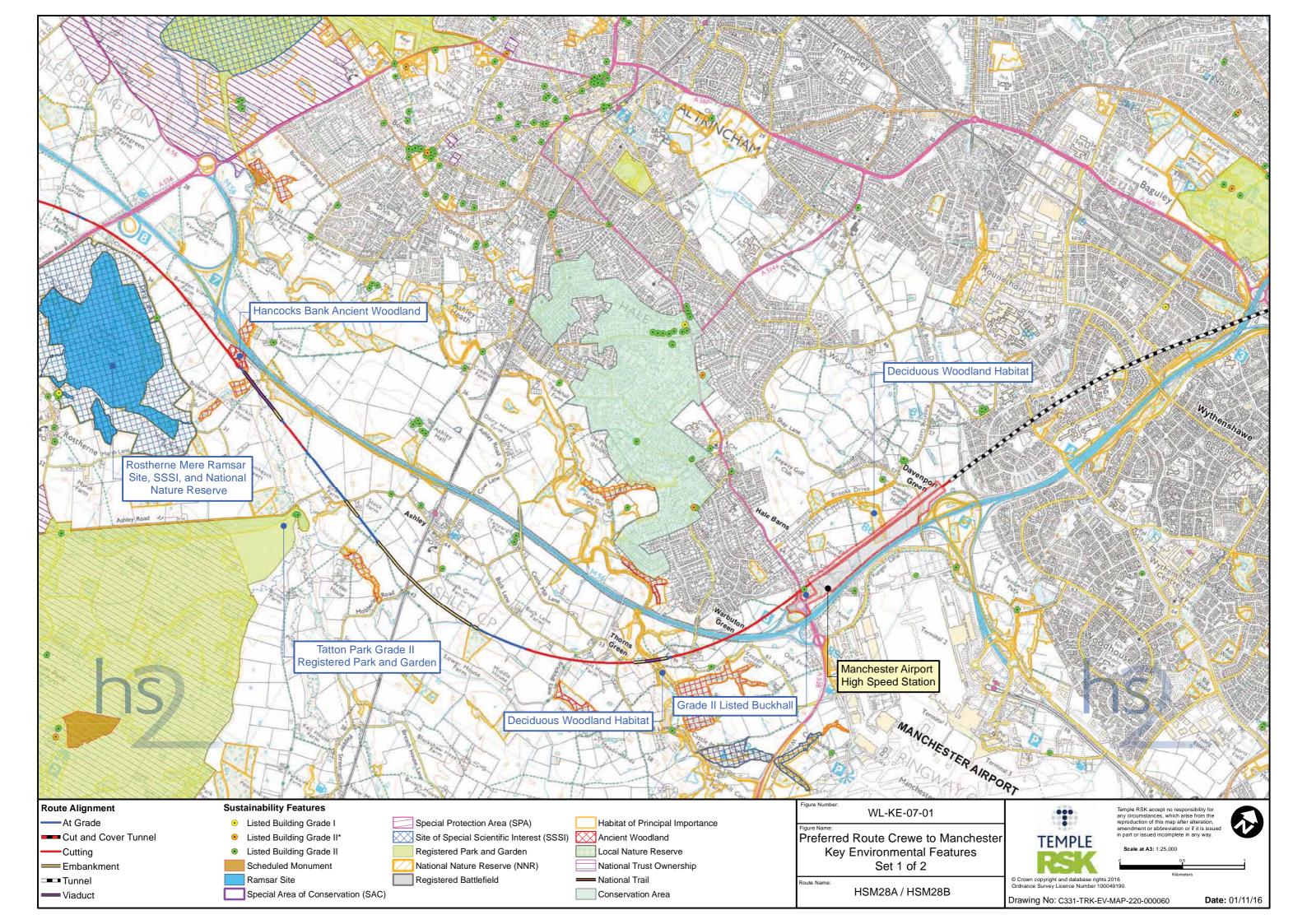


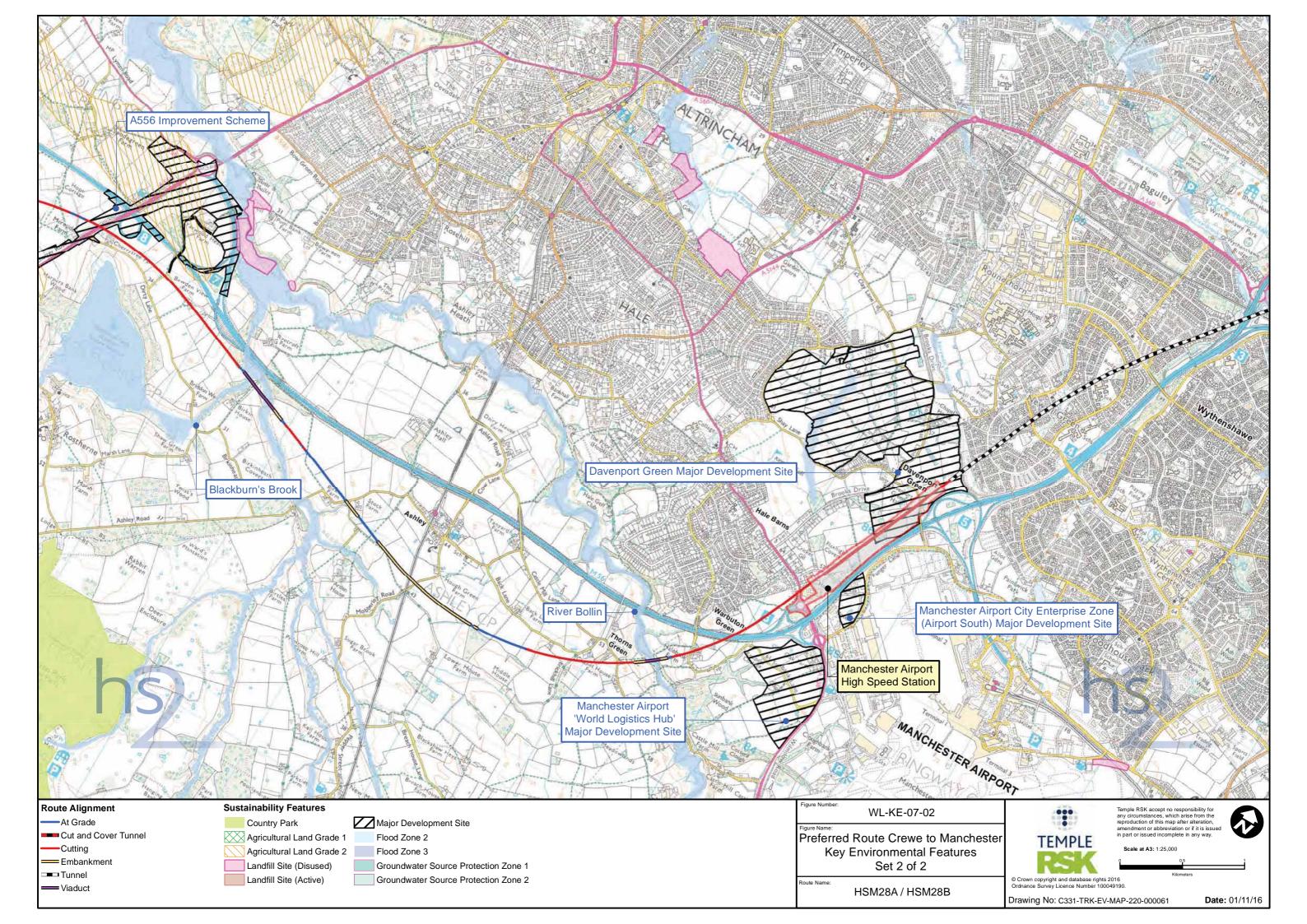


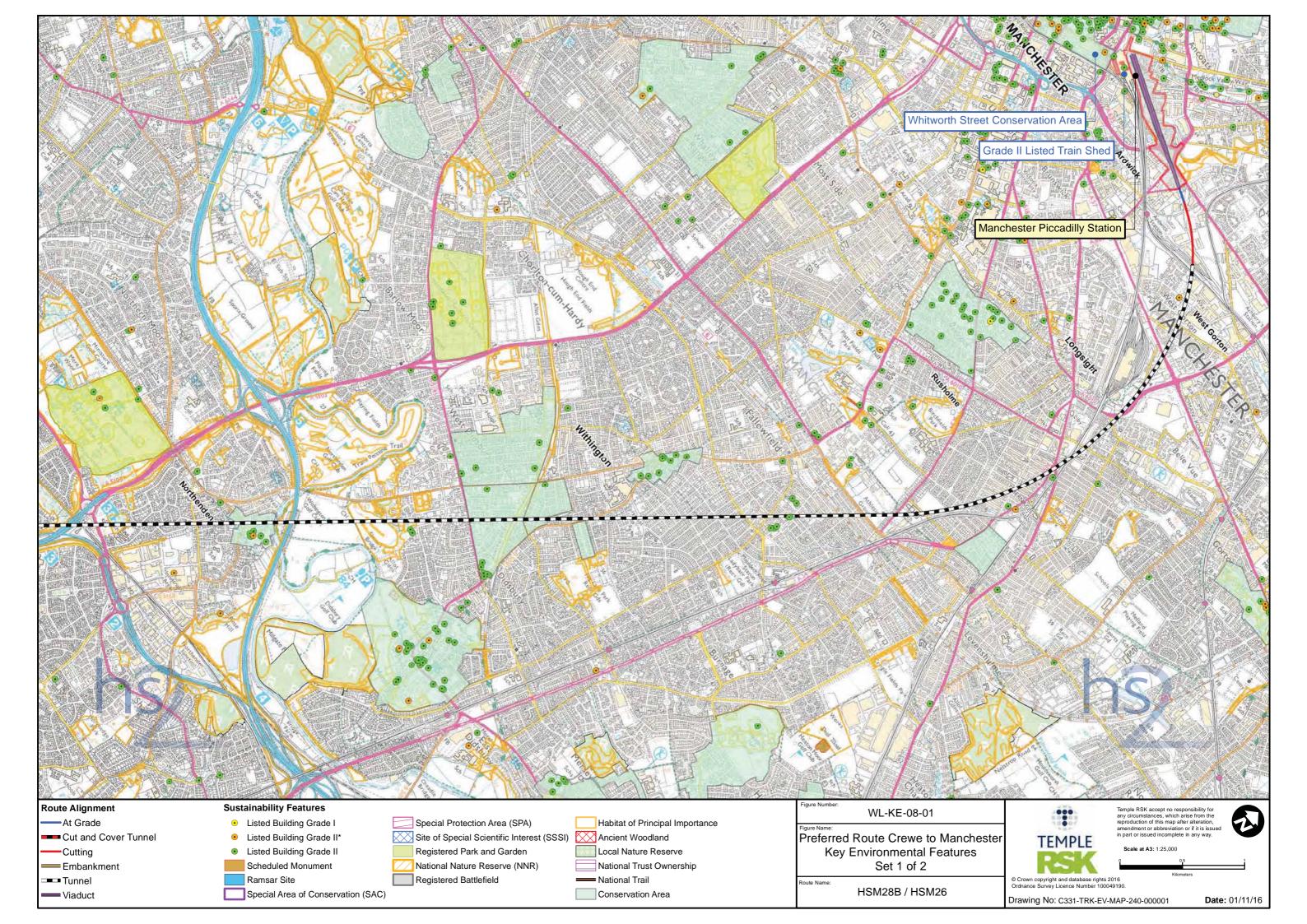


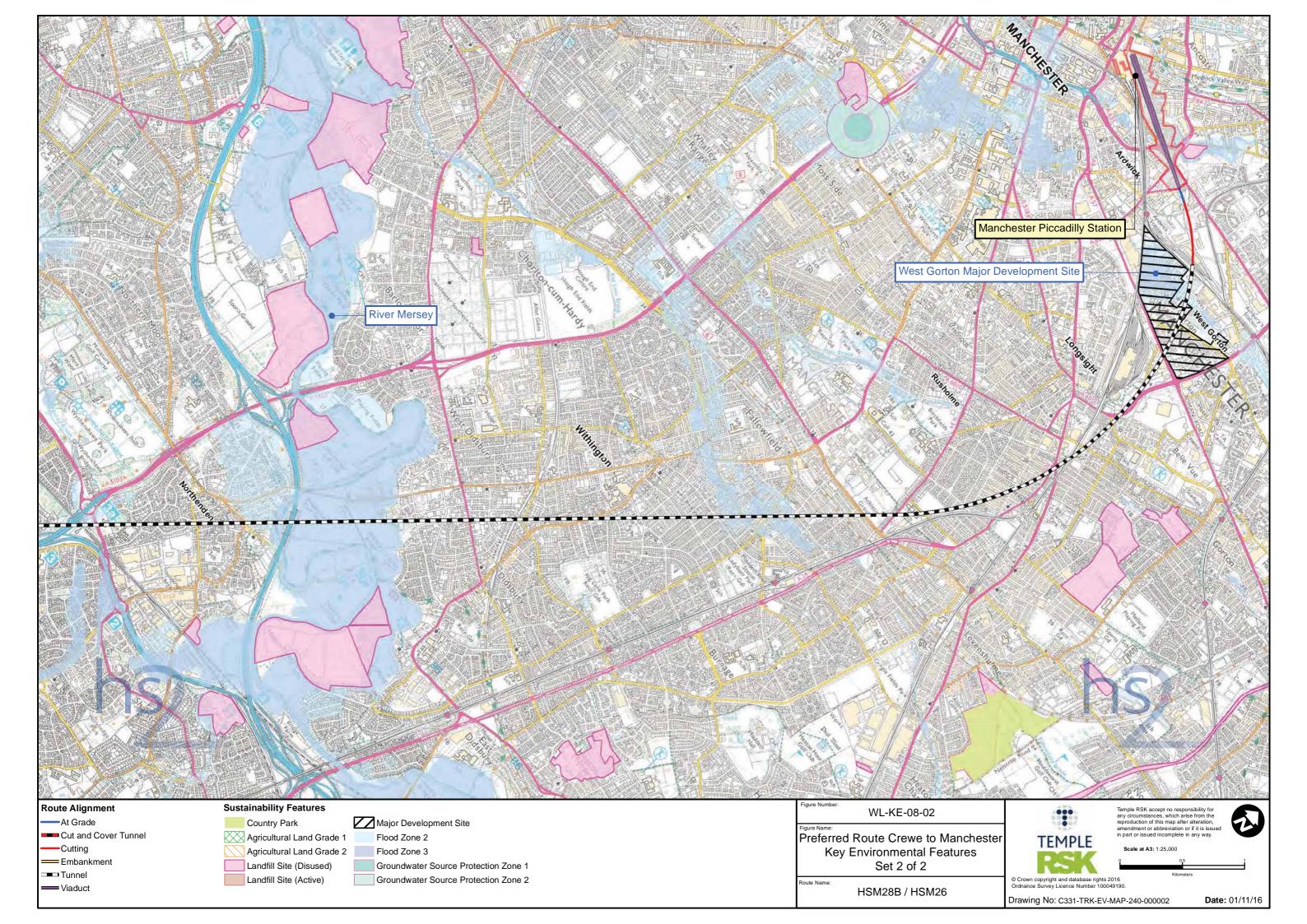


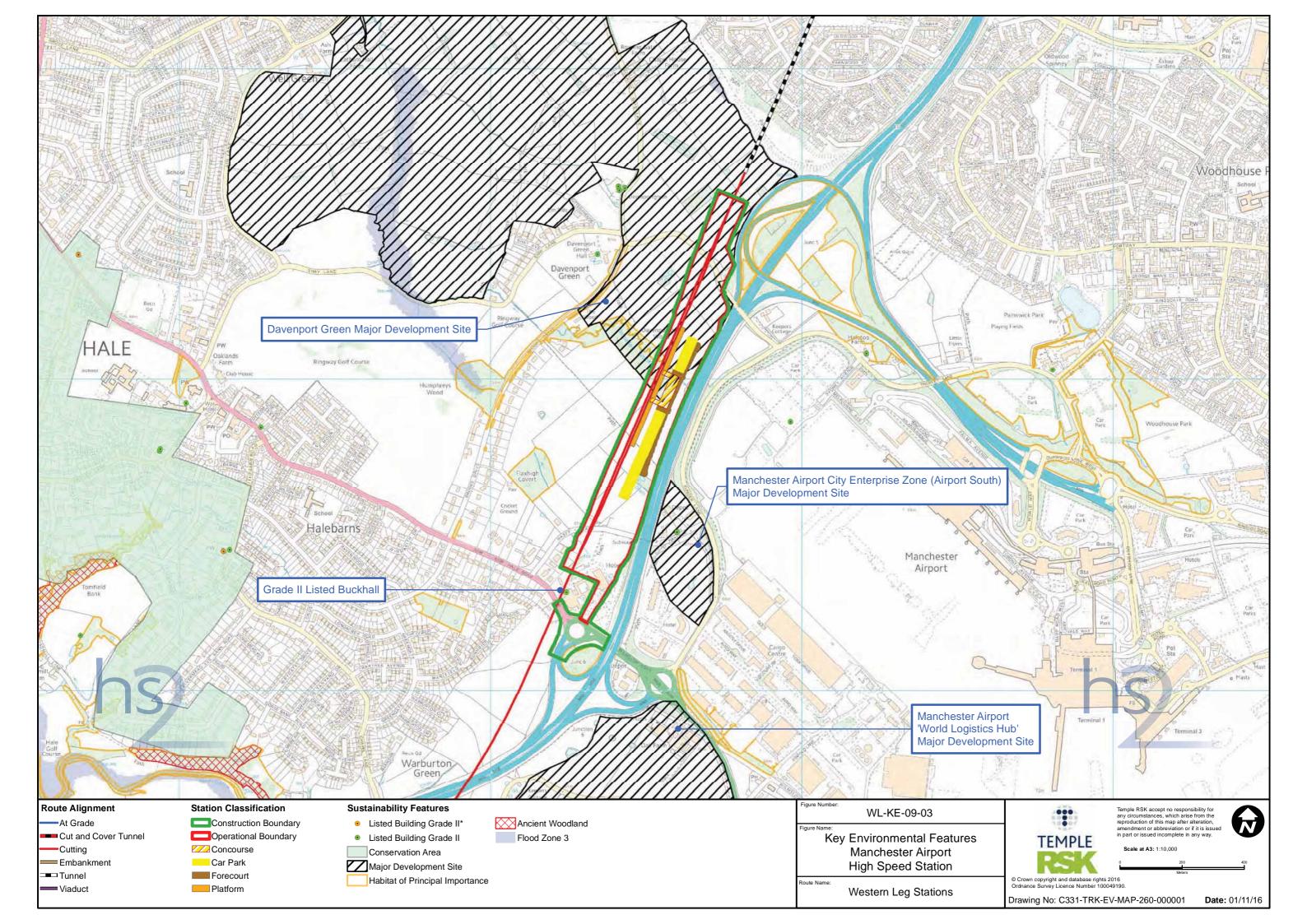


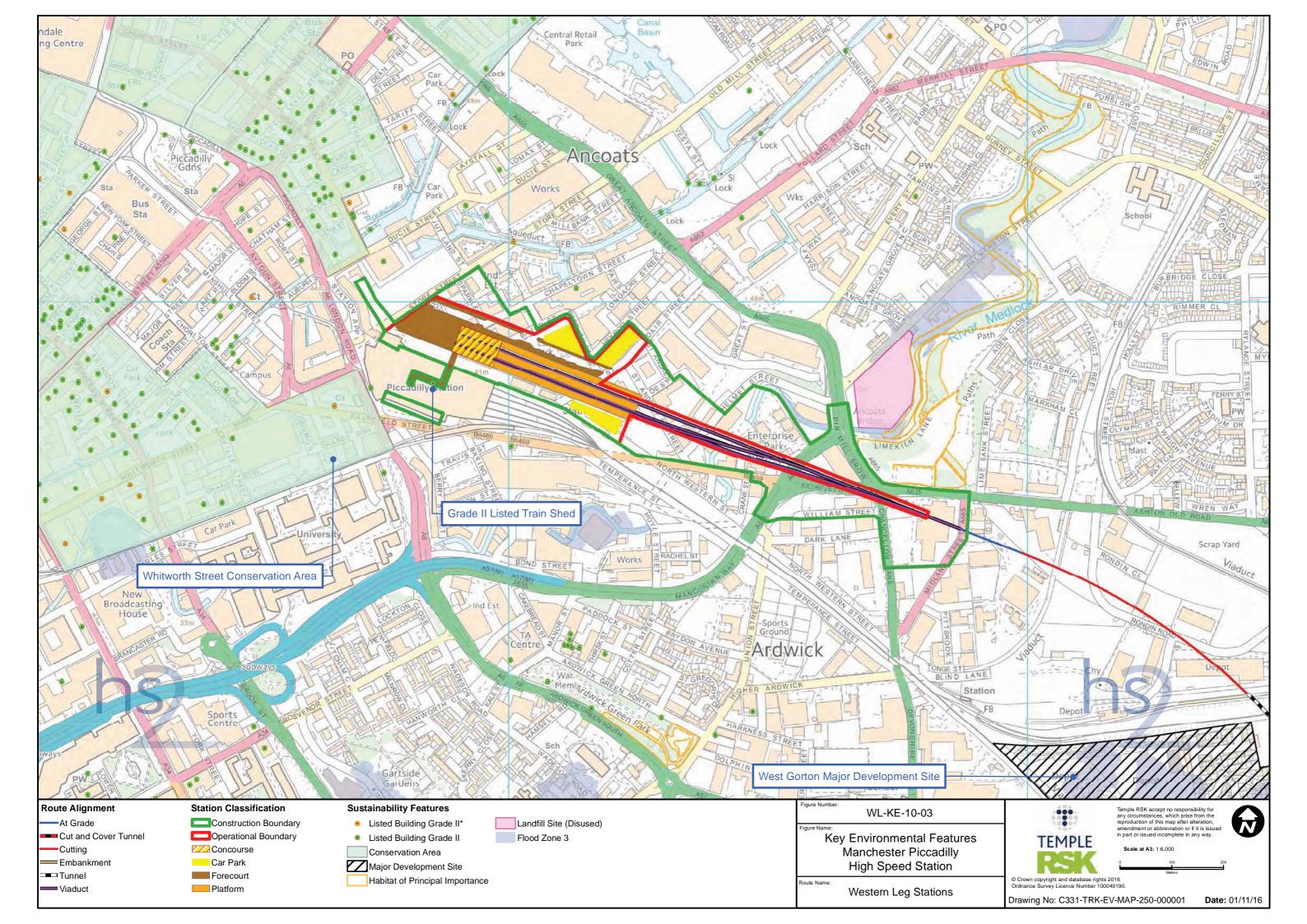


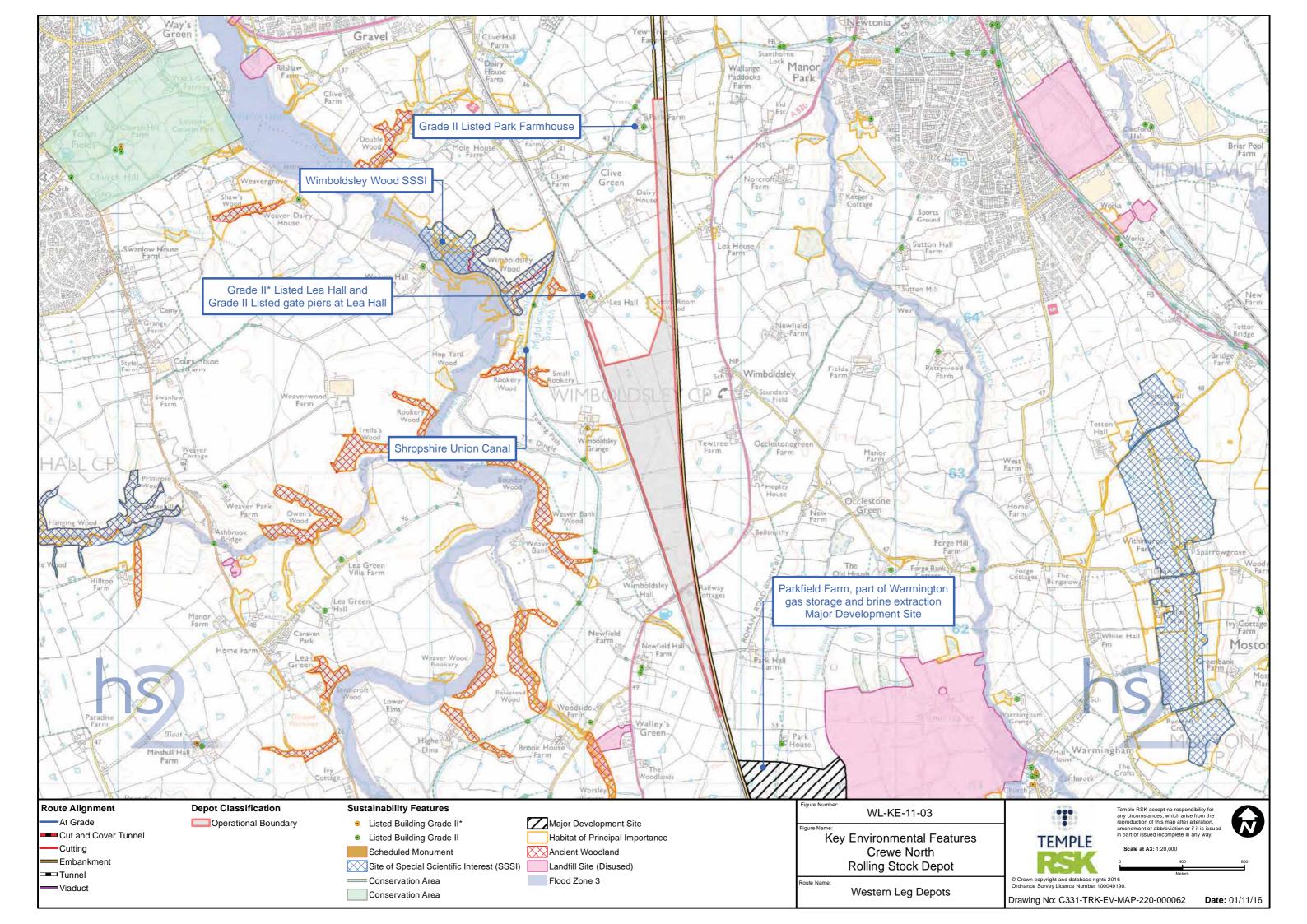










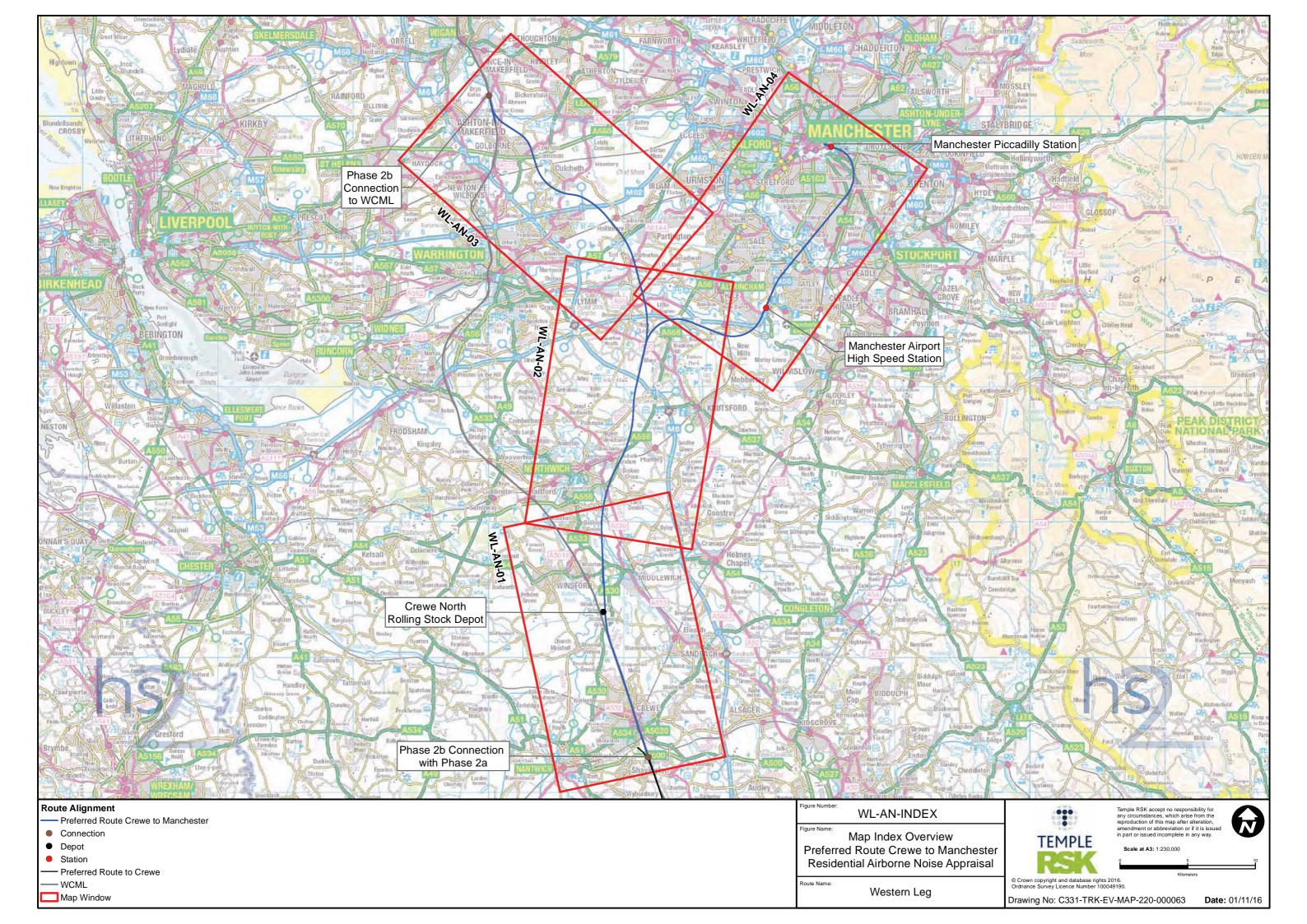


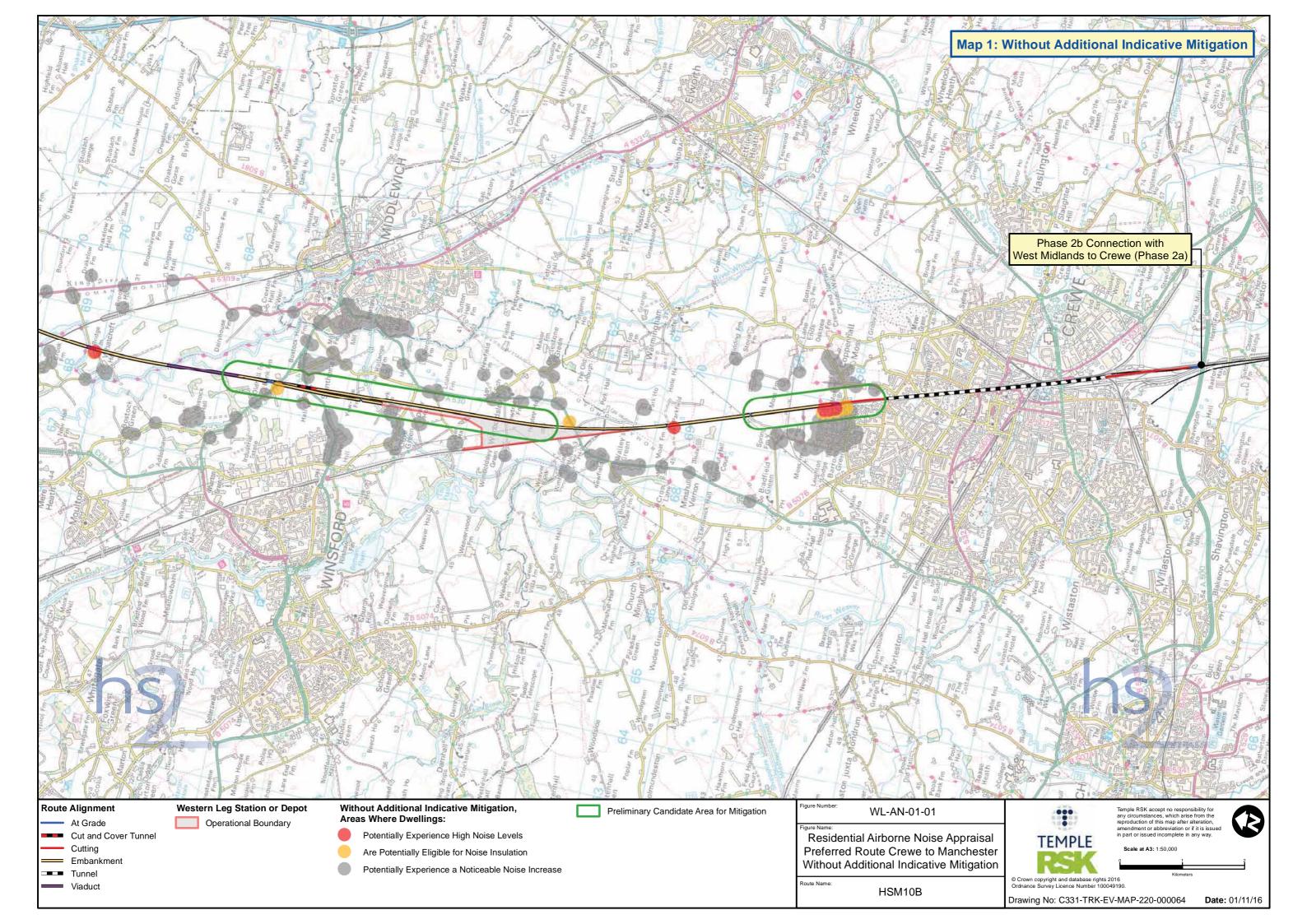


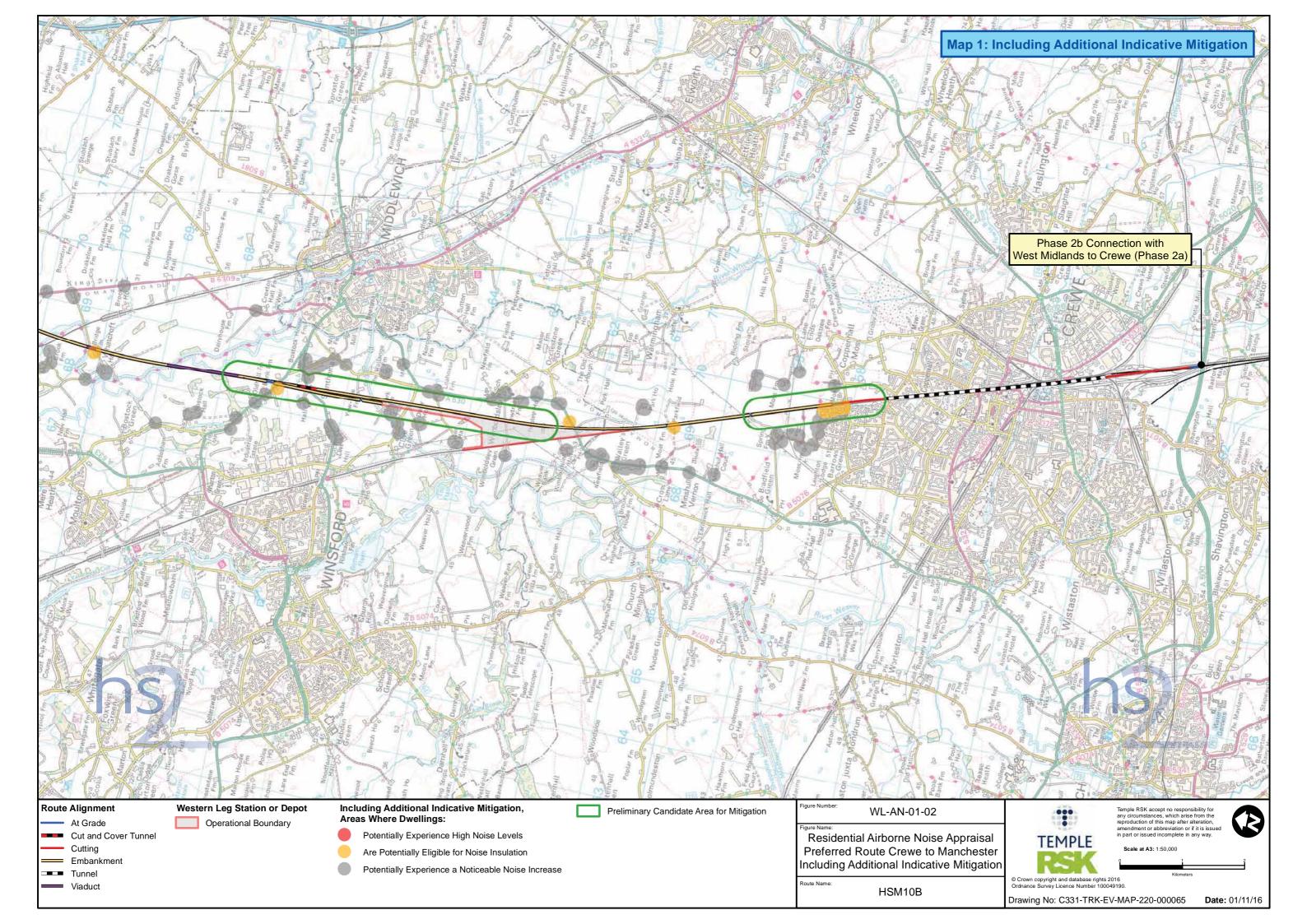
# Western Leg – Manchester Residential Airborne Noise Mapping

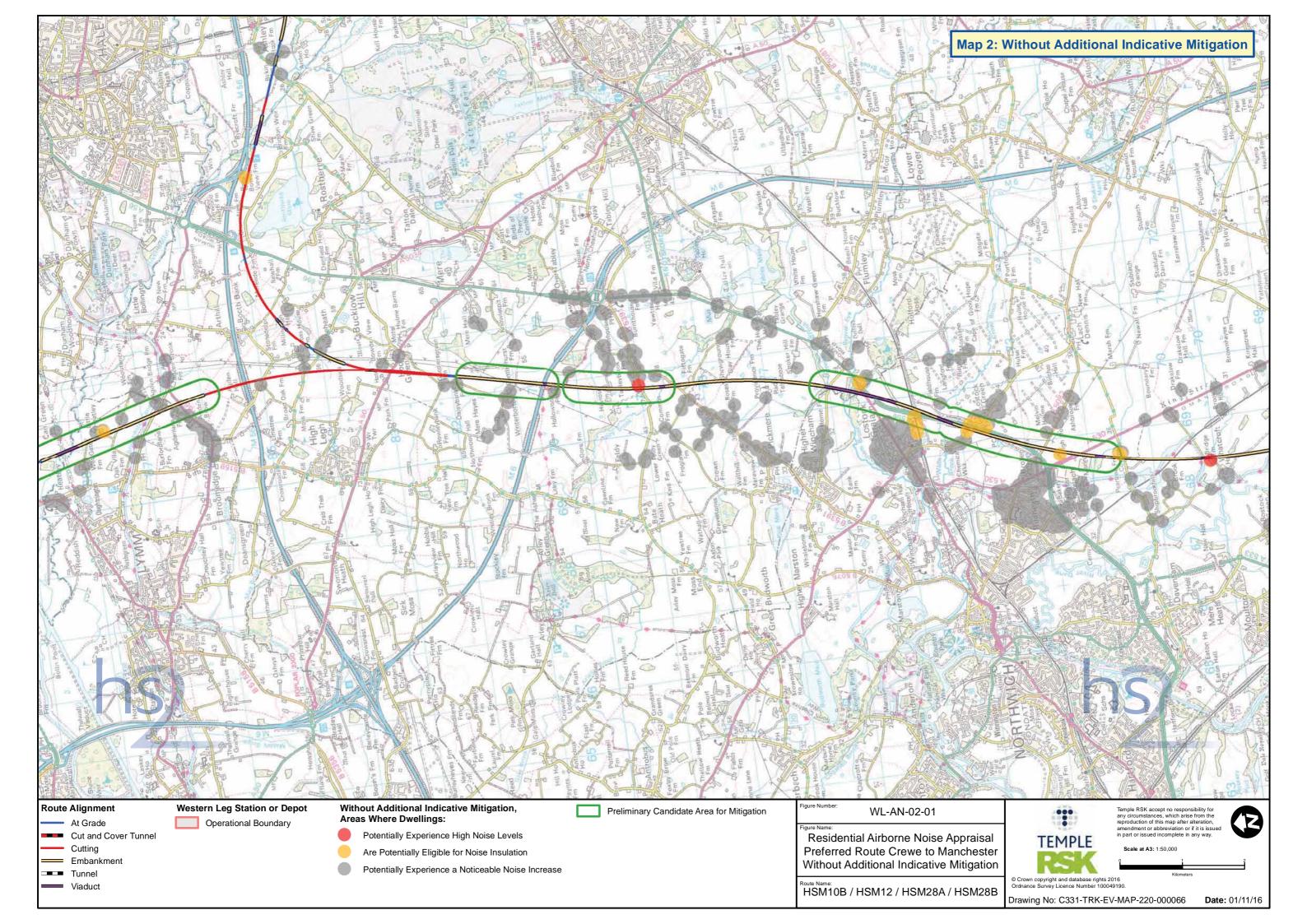
Sets 1 and 2: without and including additional mitigation

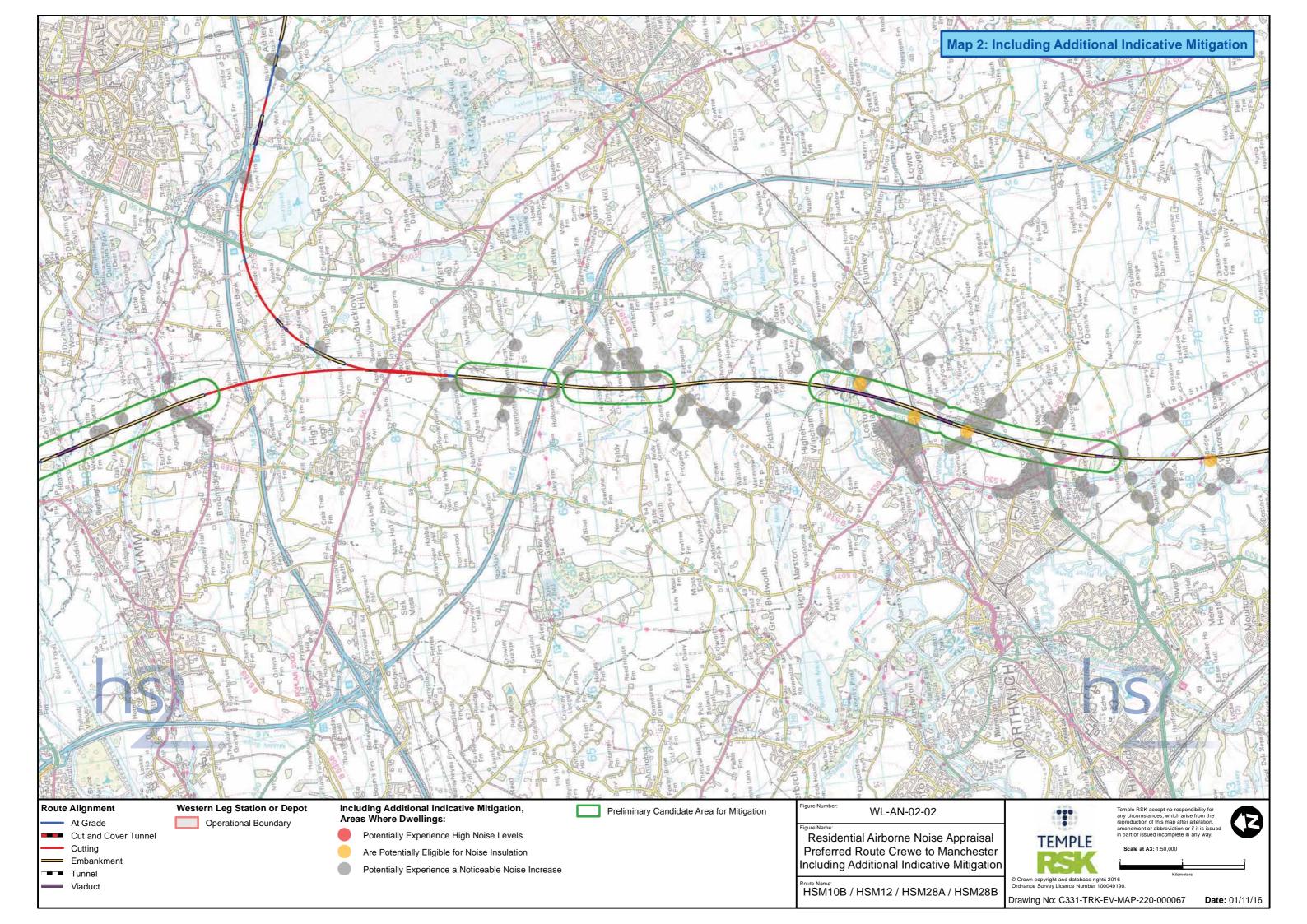


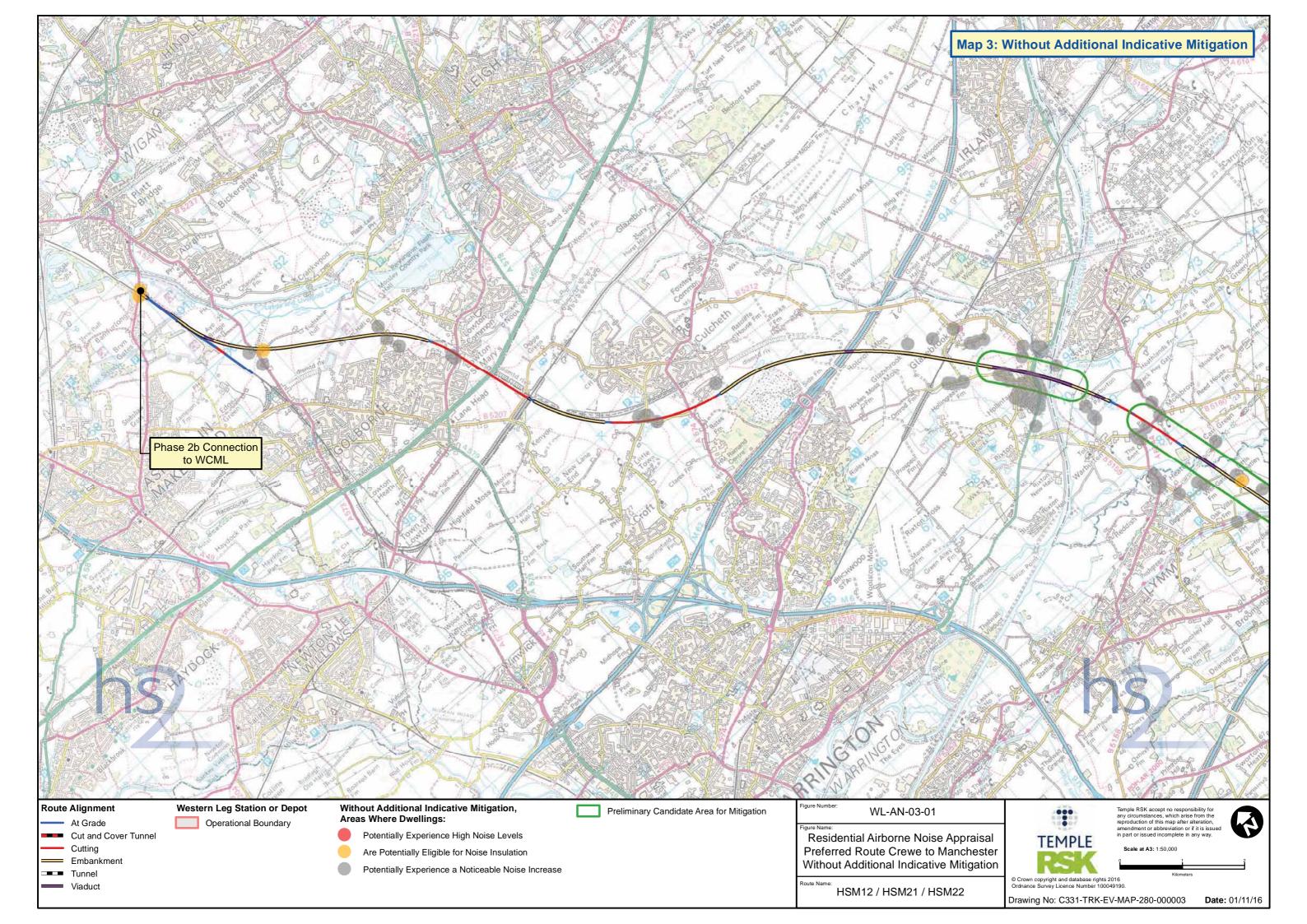


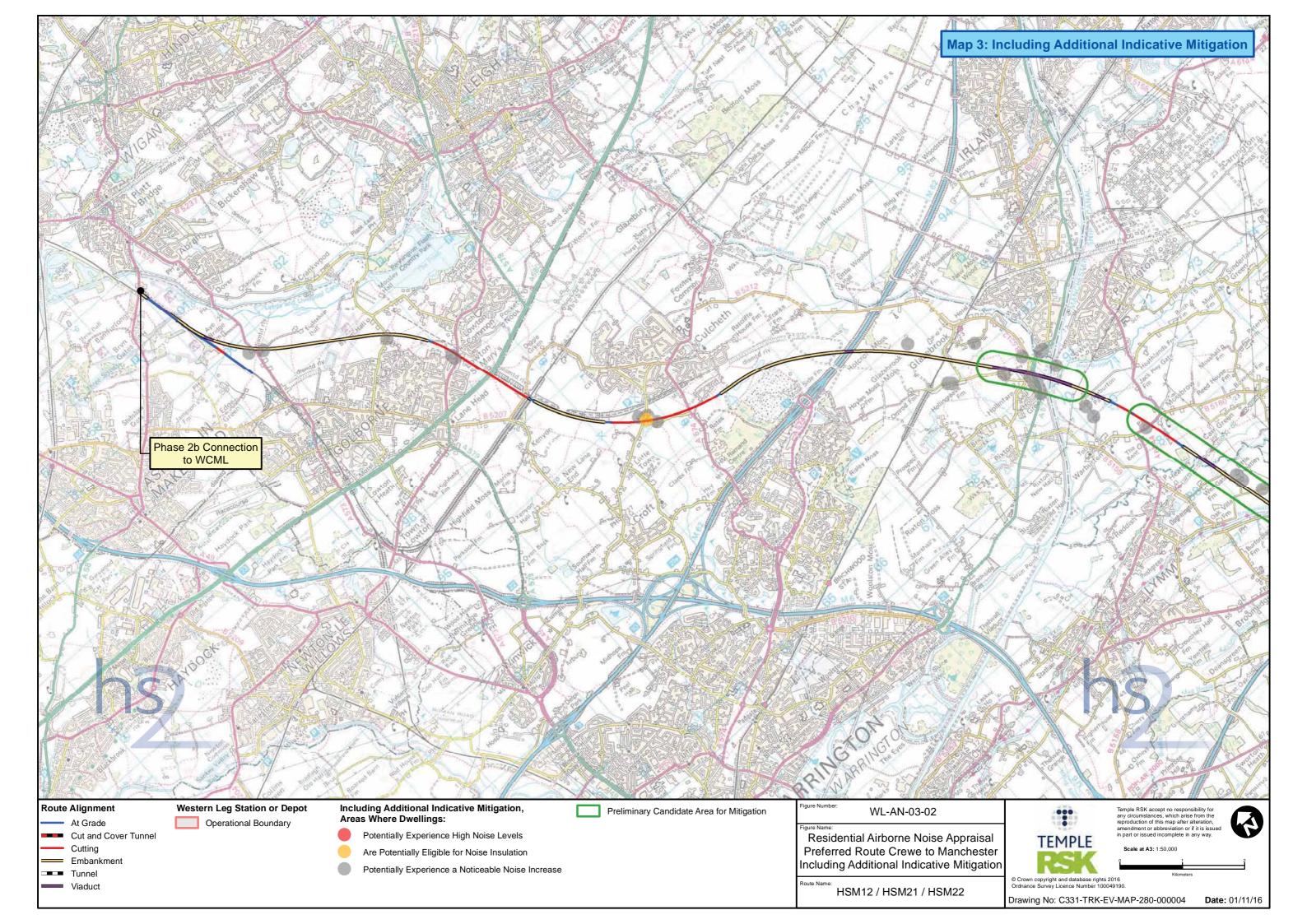


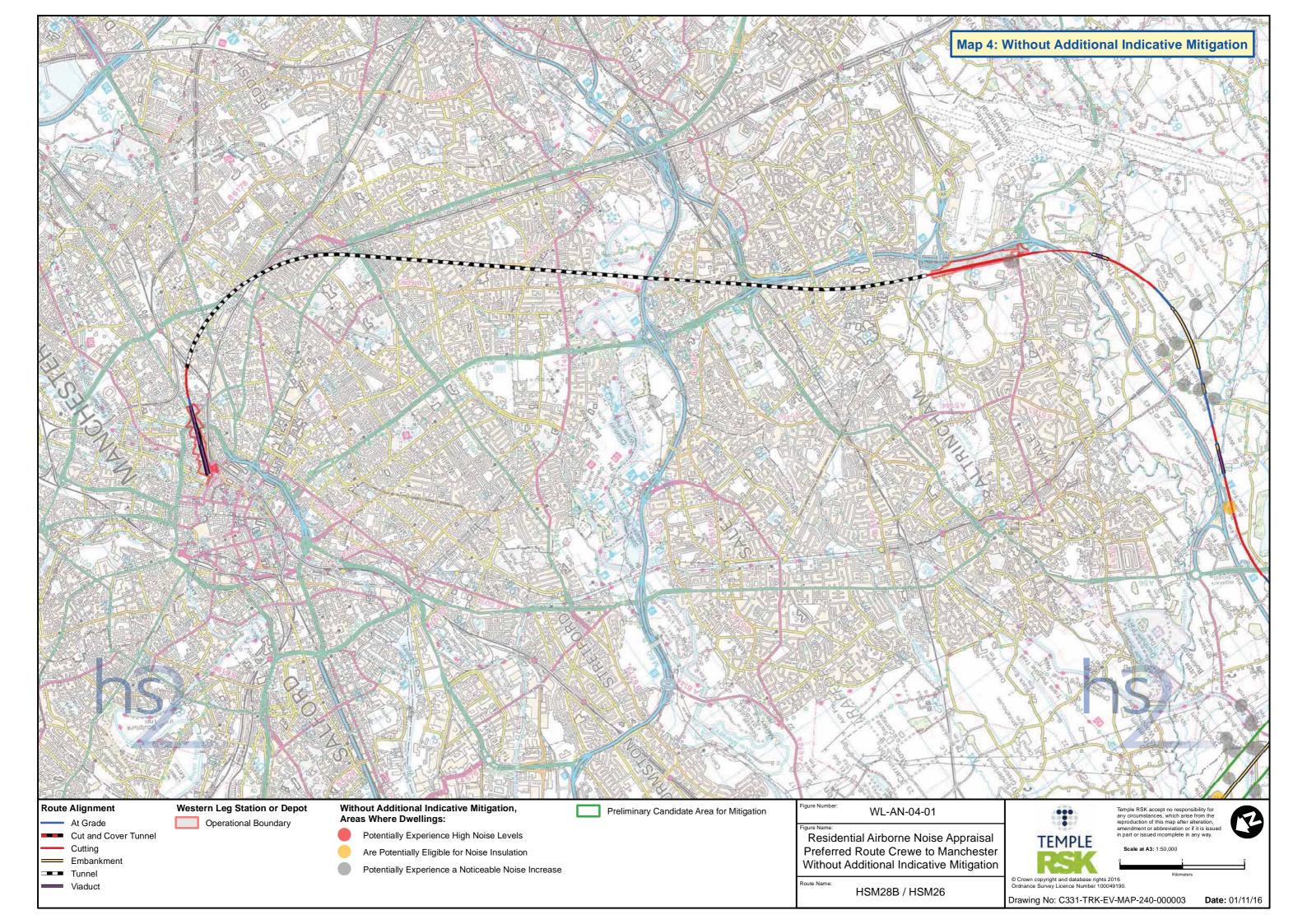


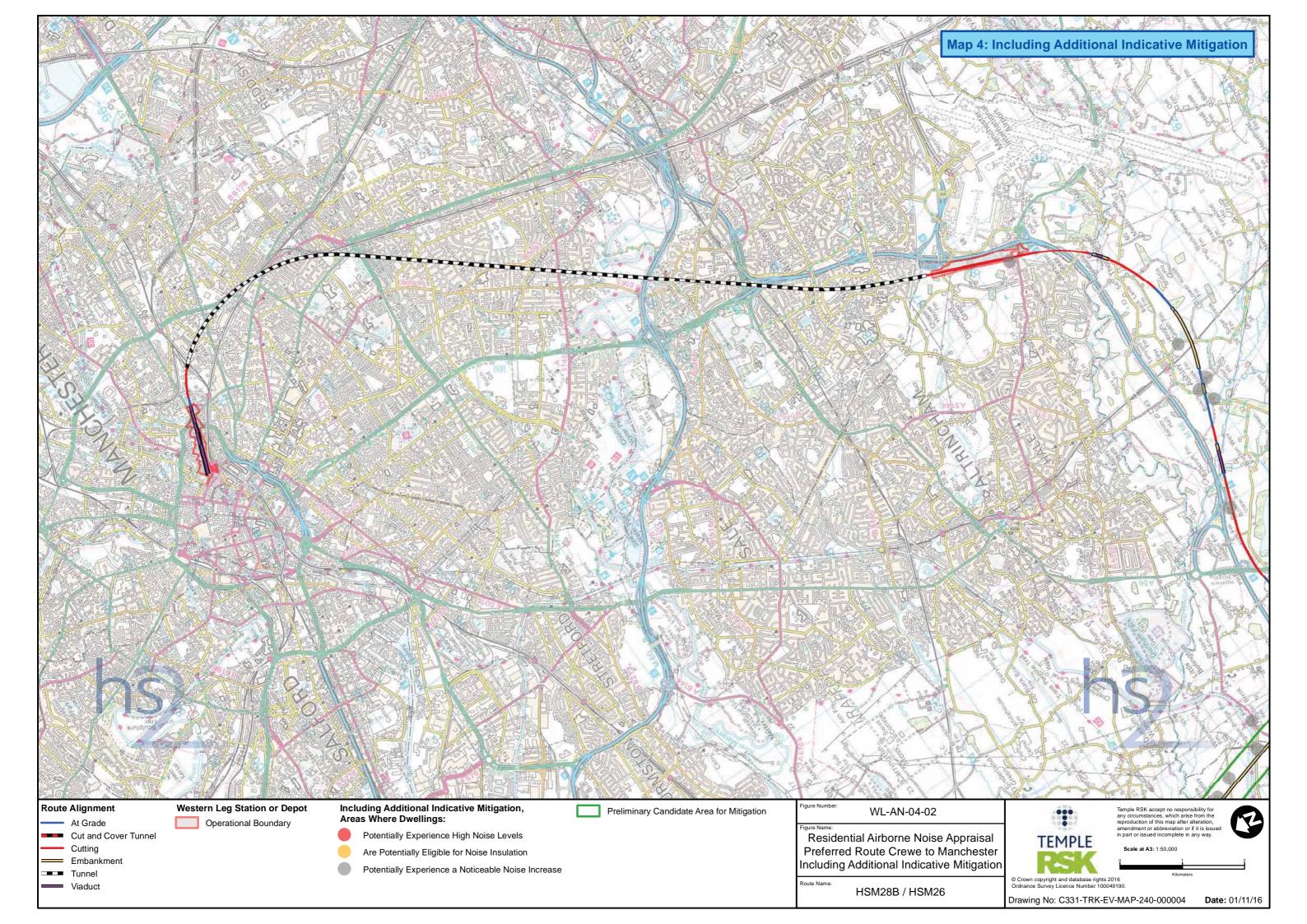
















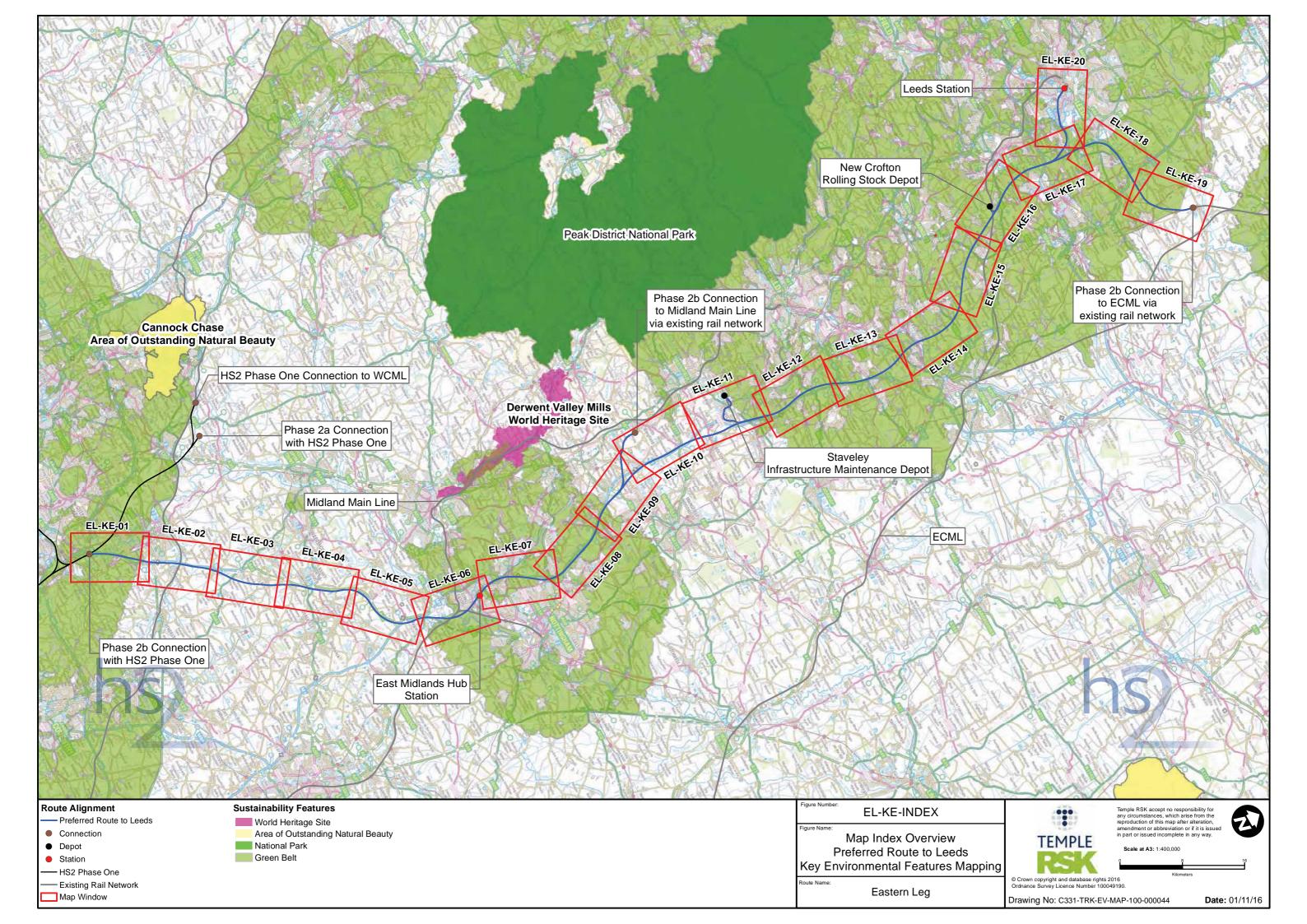
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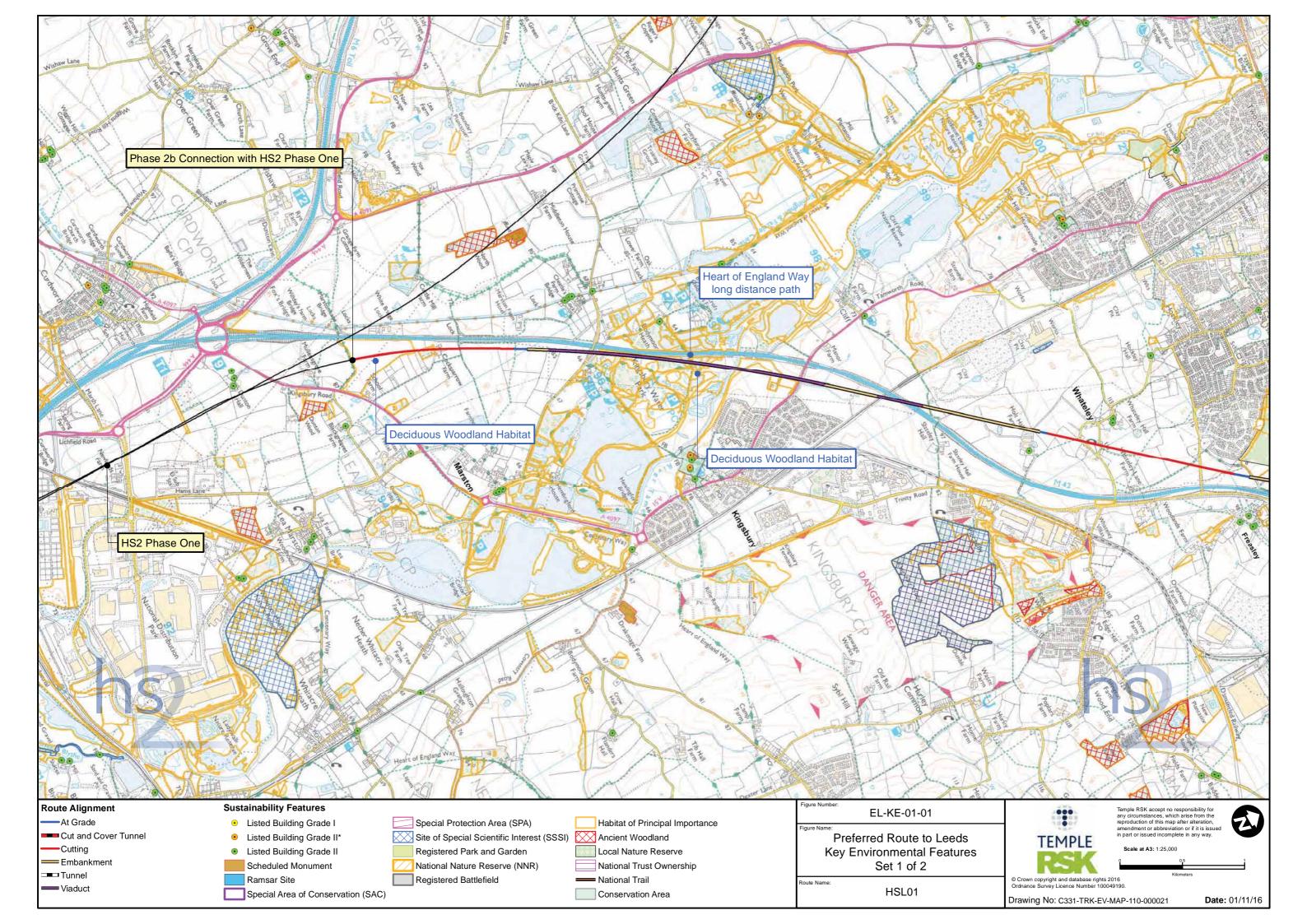


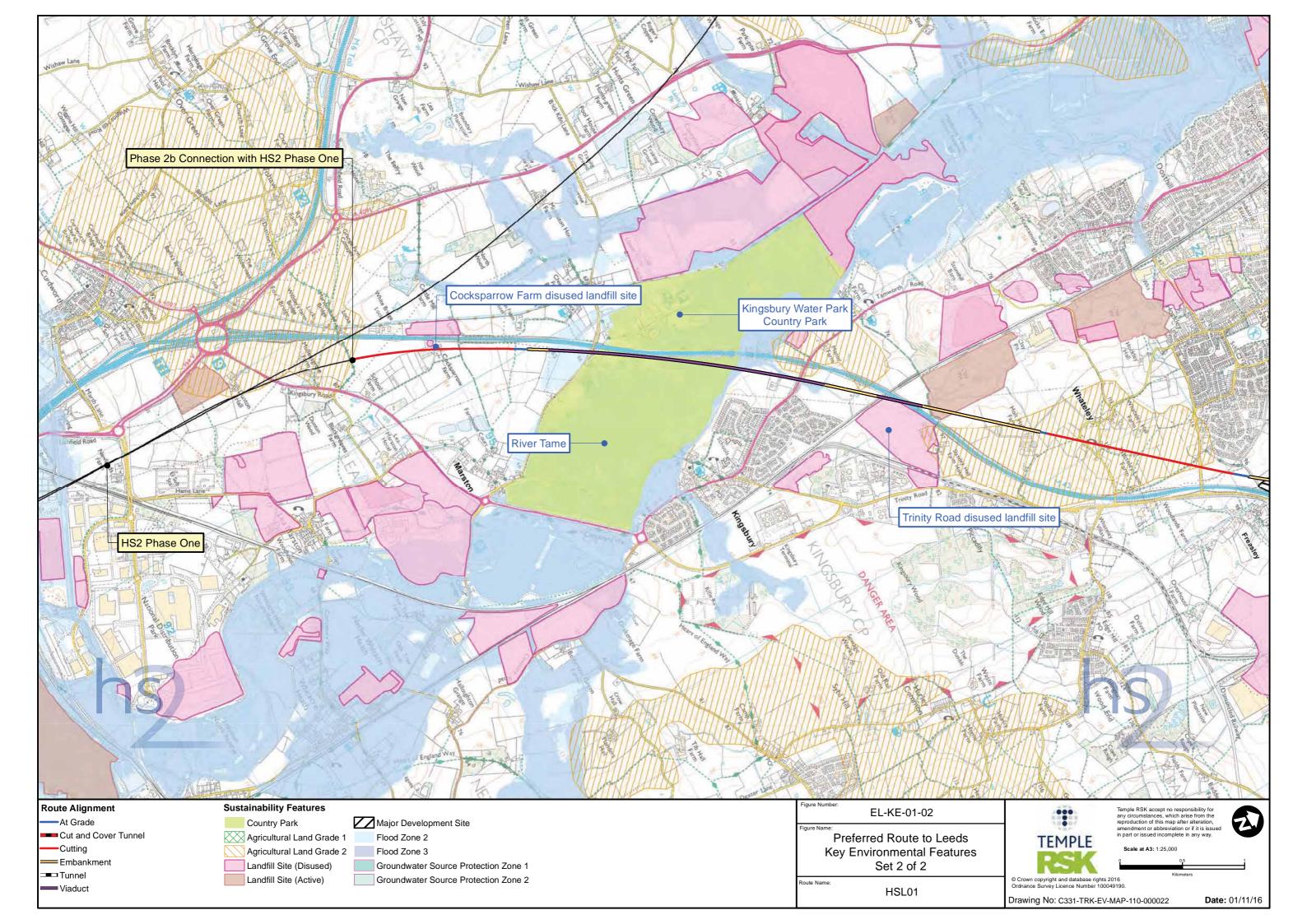


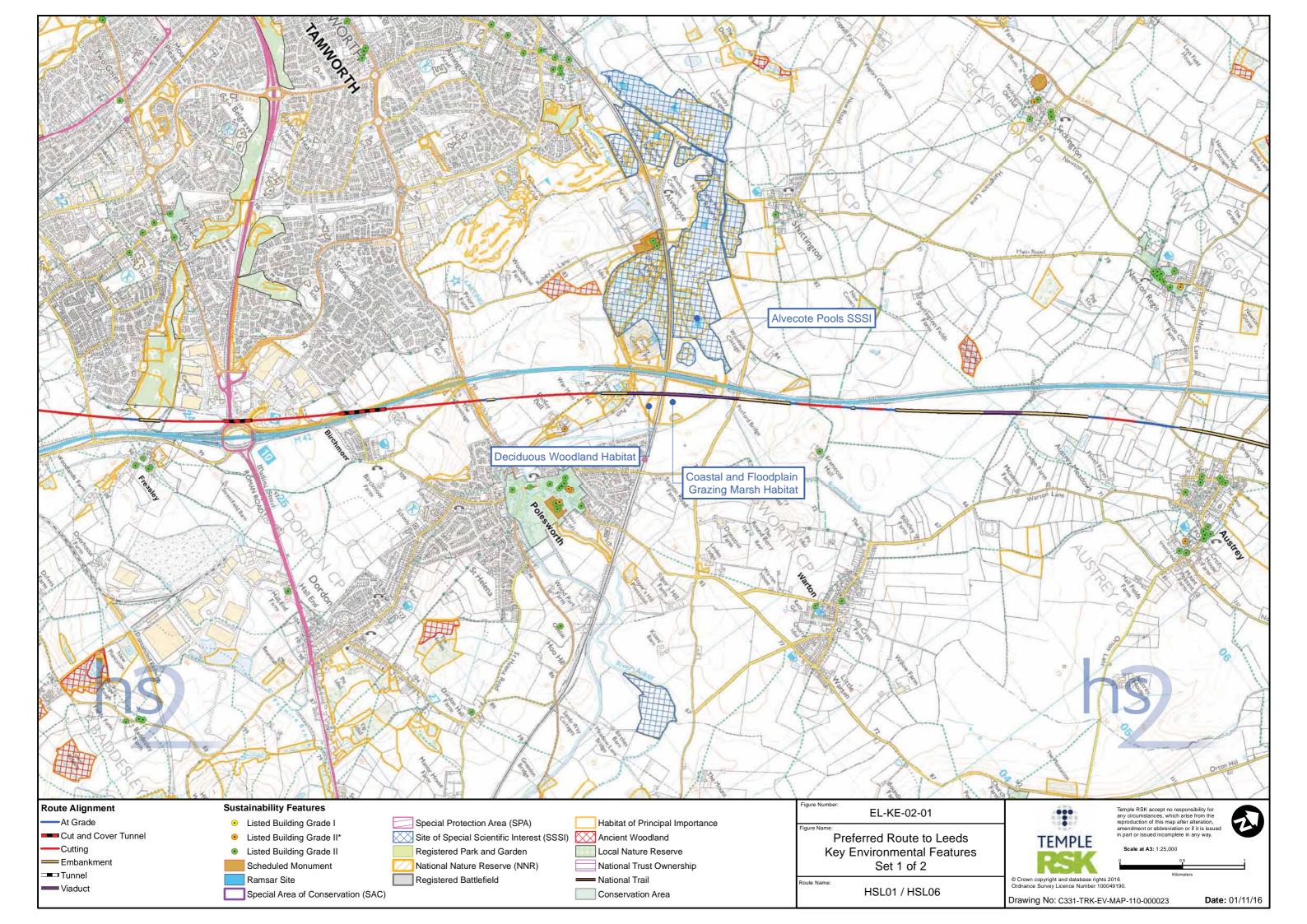
## Eastern Leg – Leeds Environmental Features Mapping Sets 1 and 2

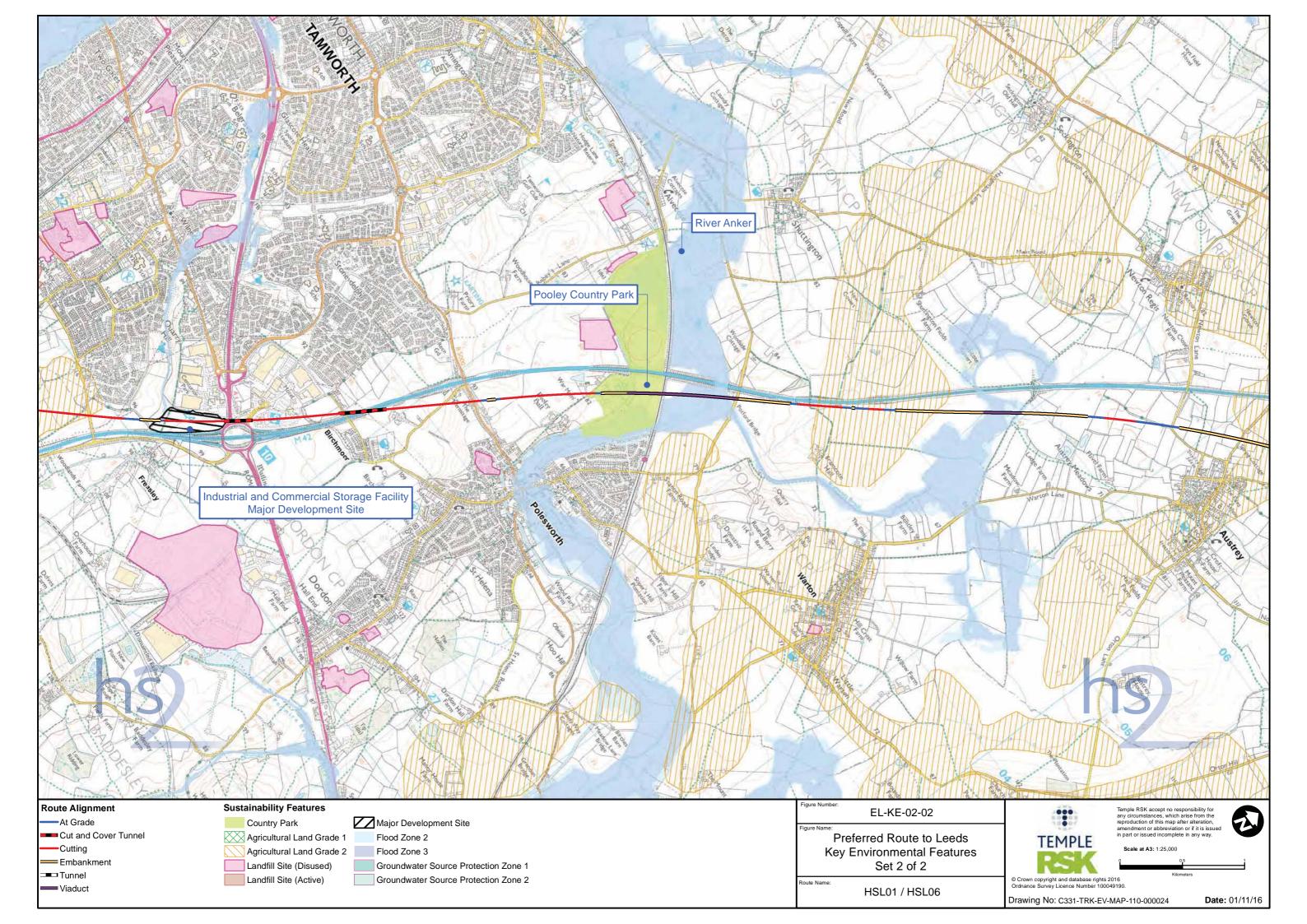


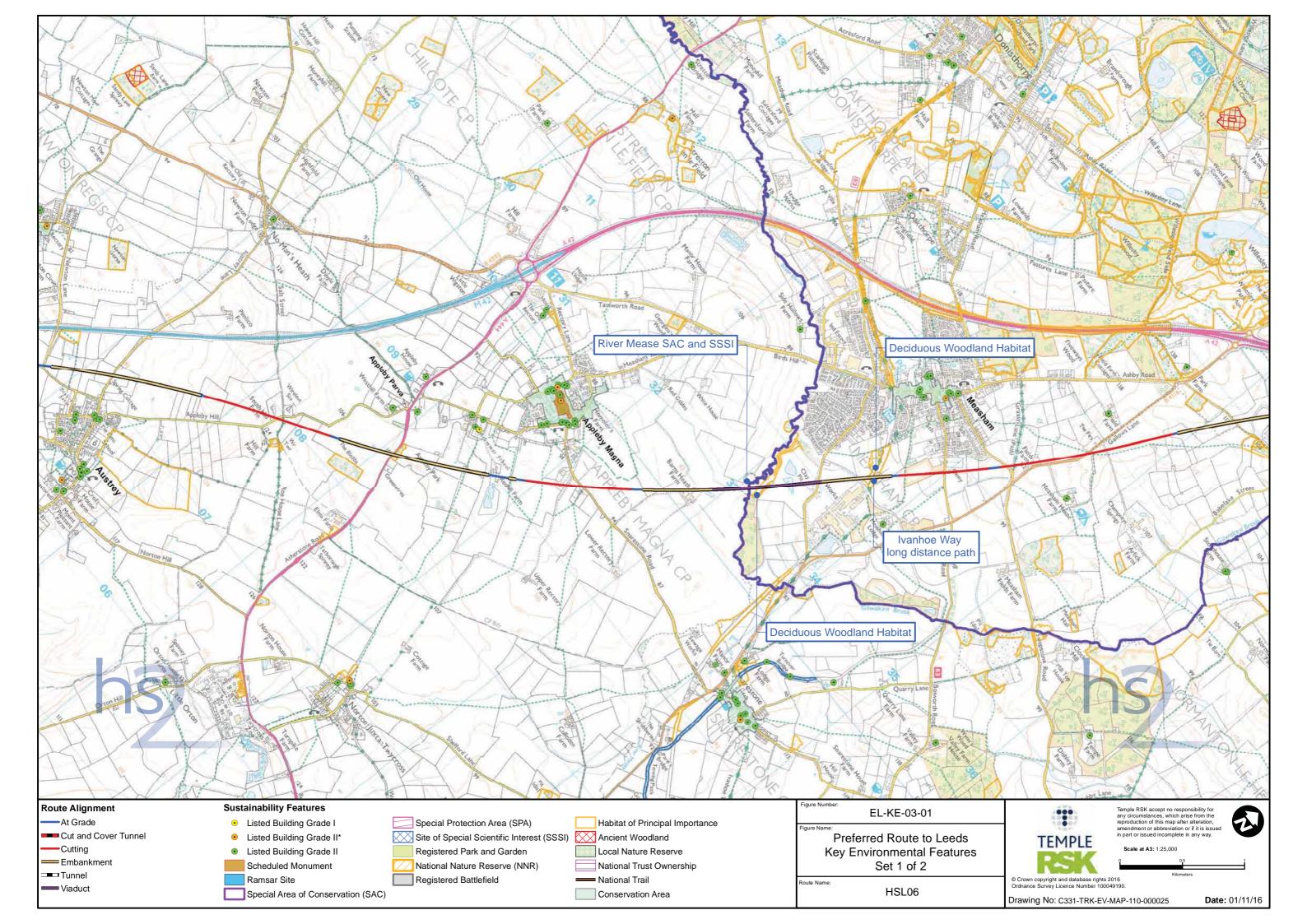


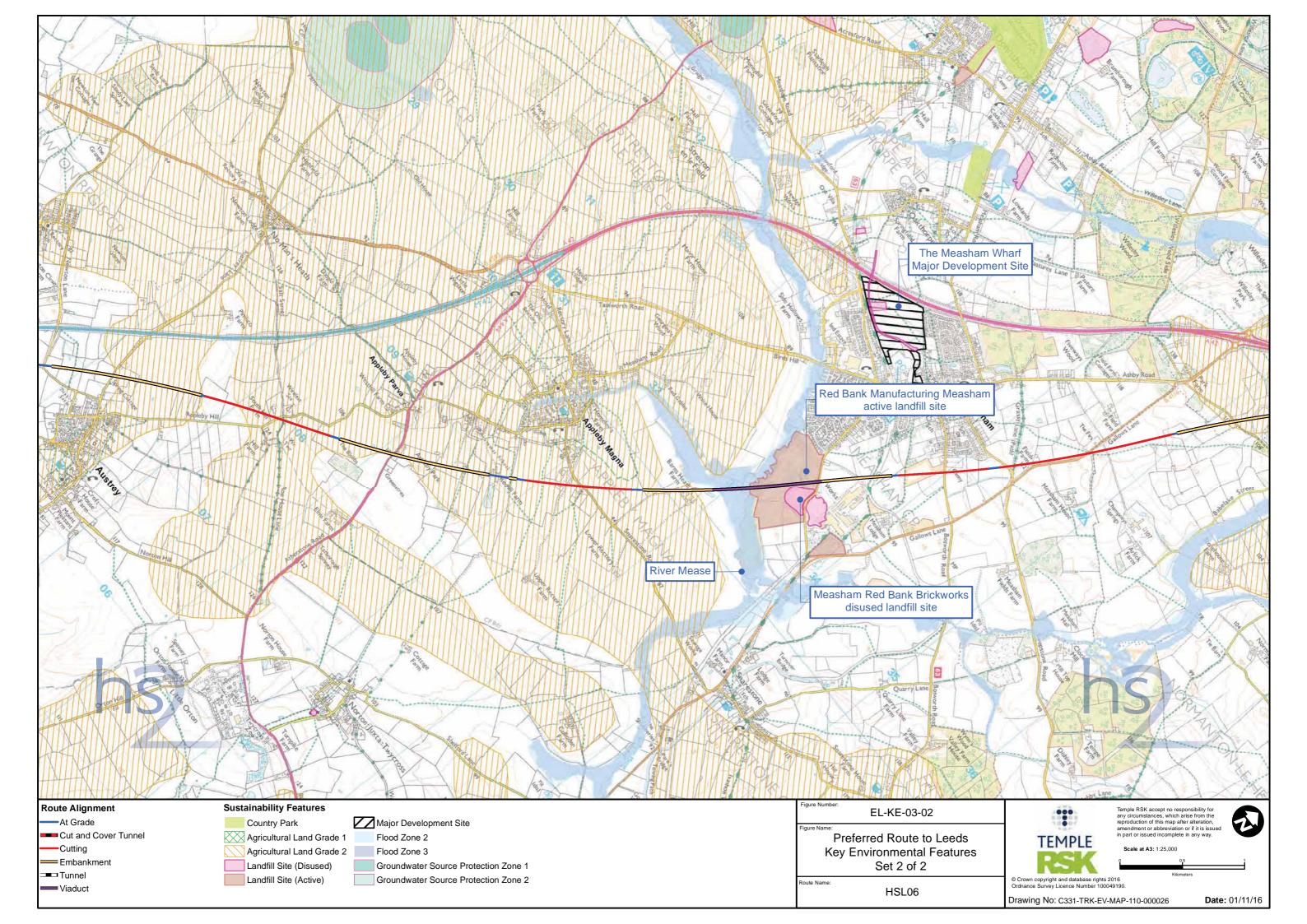


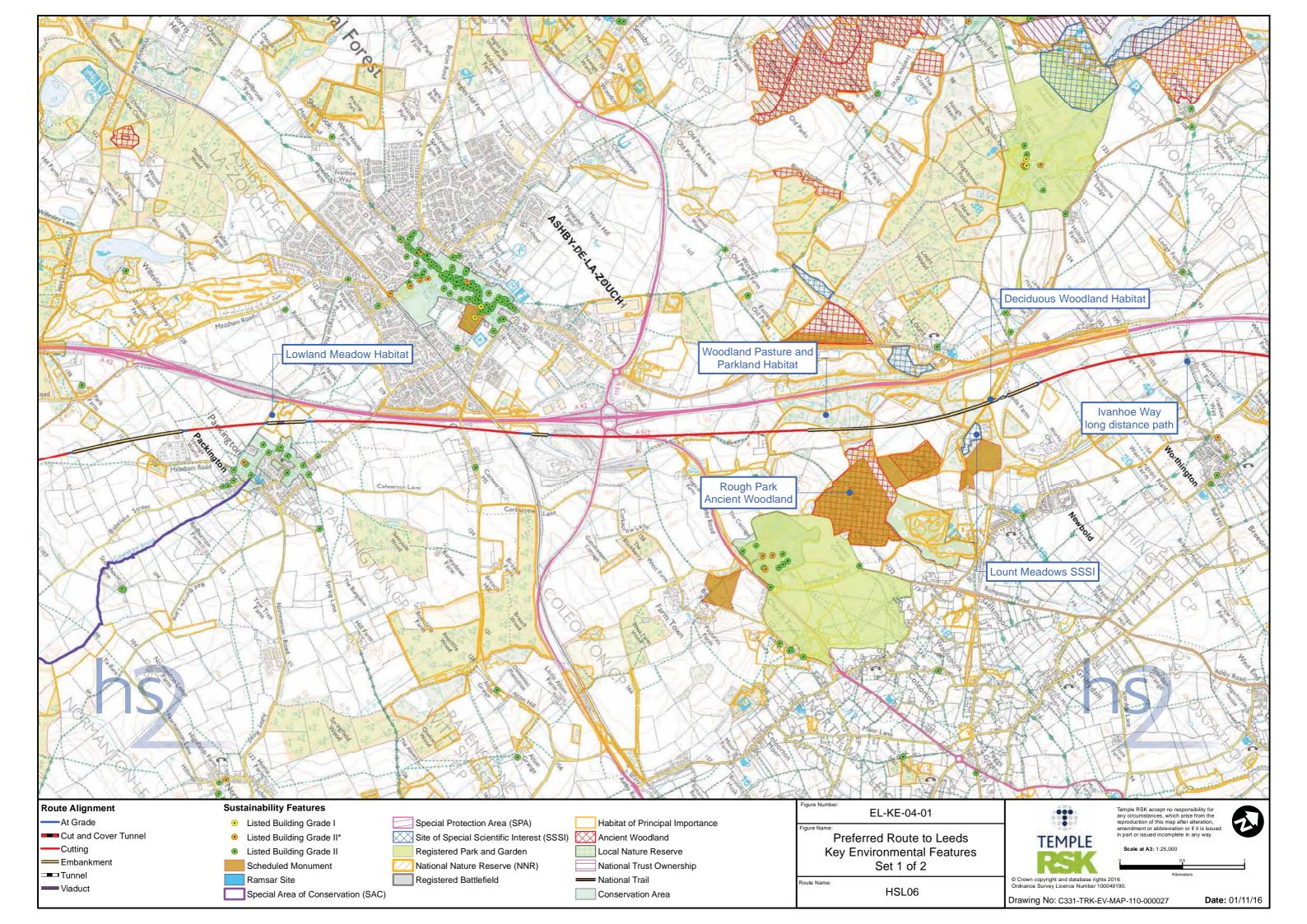


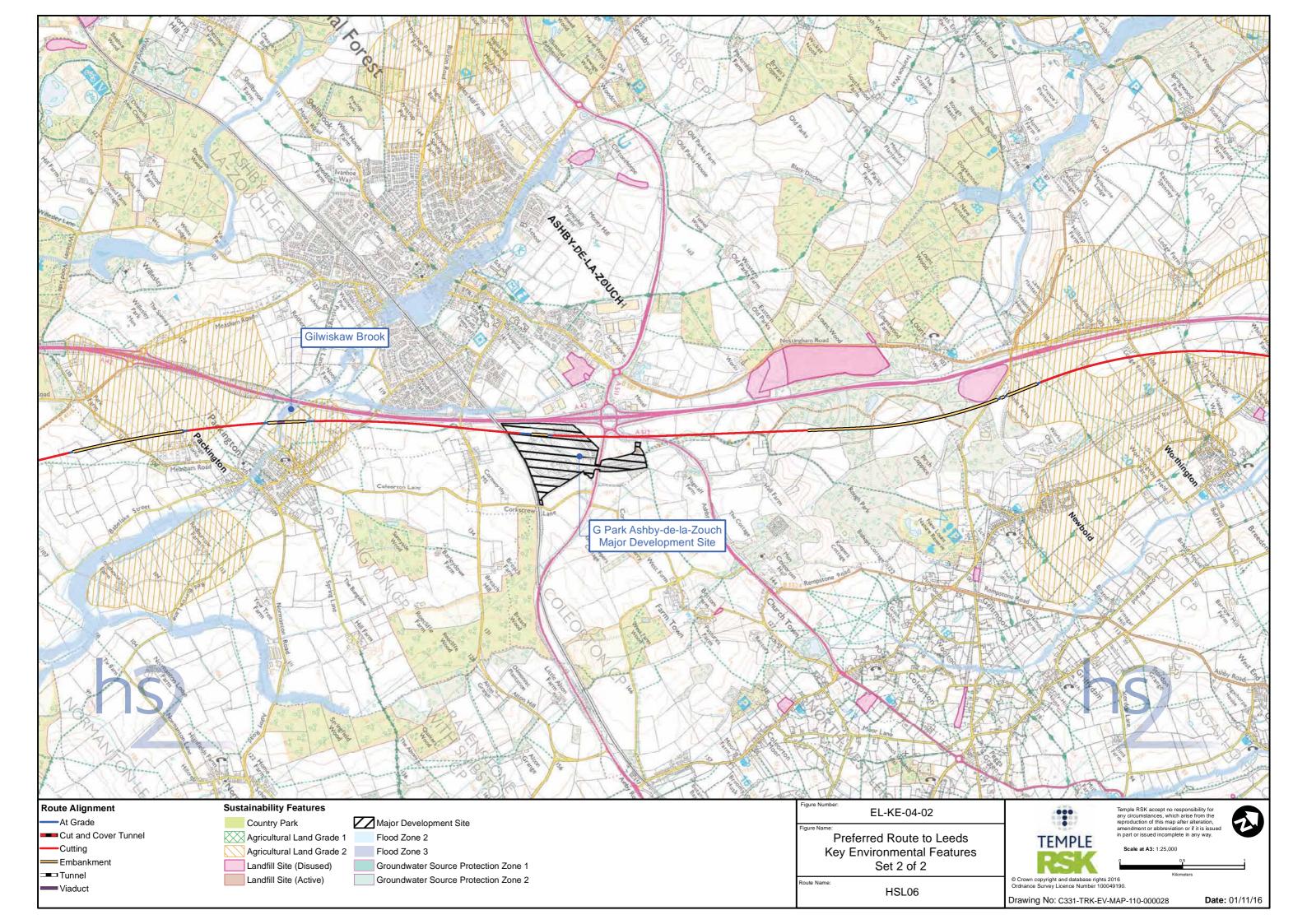


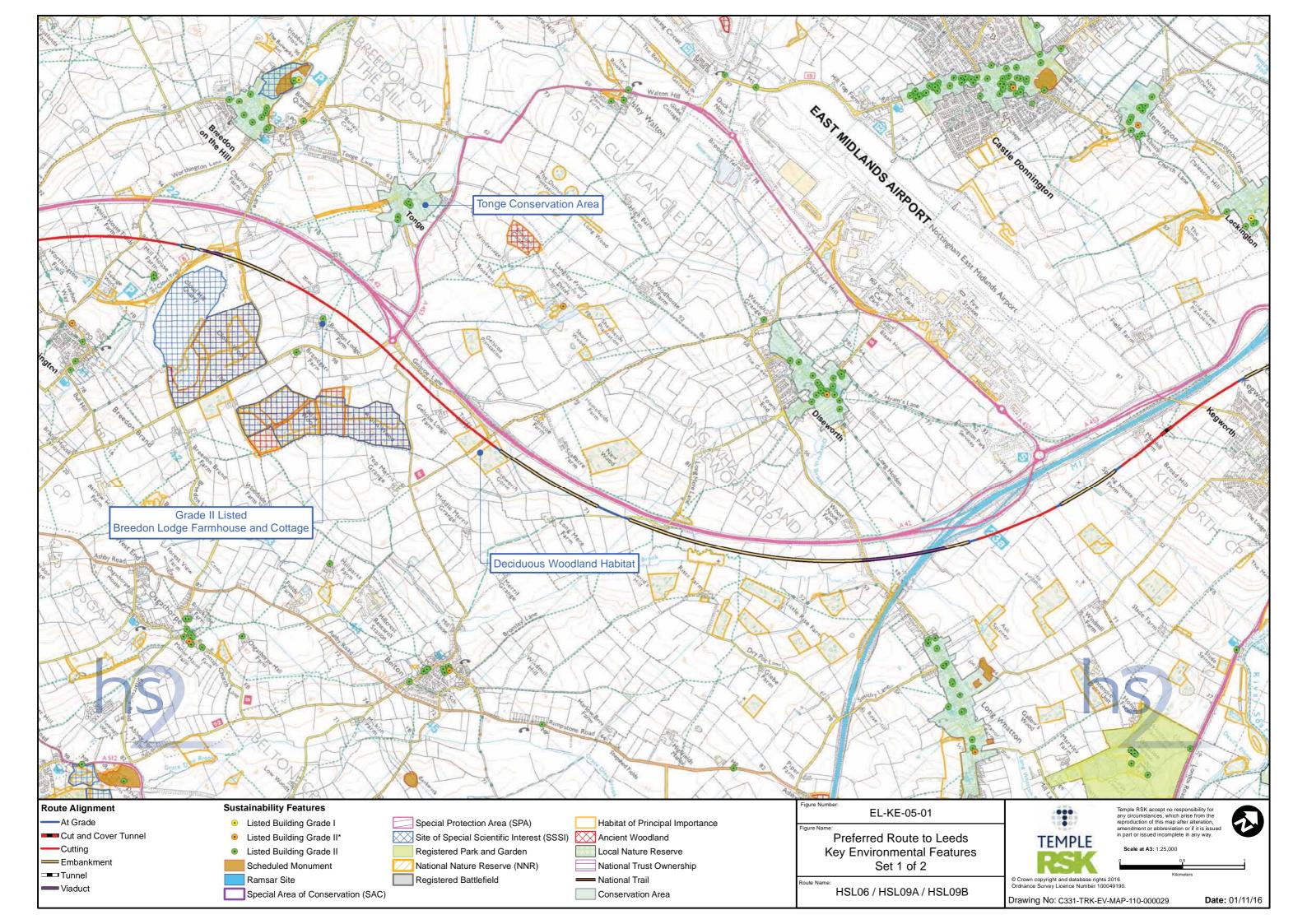


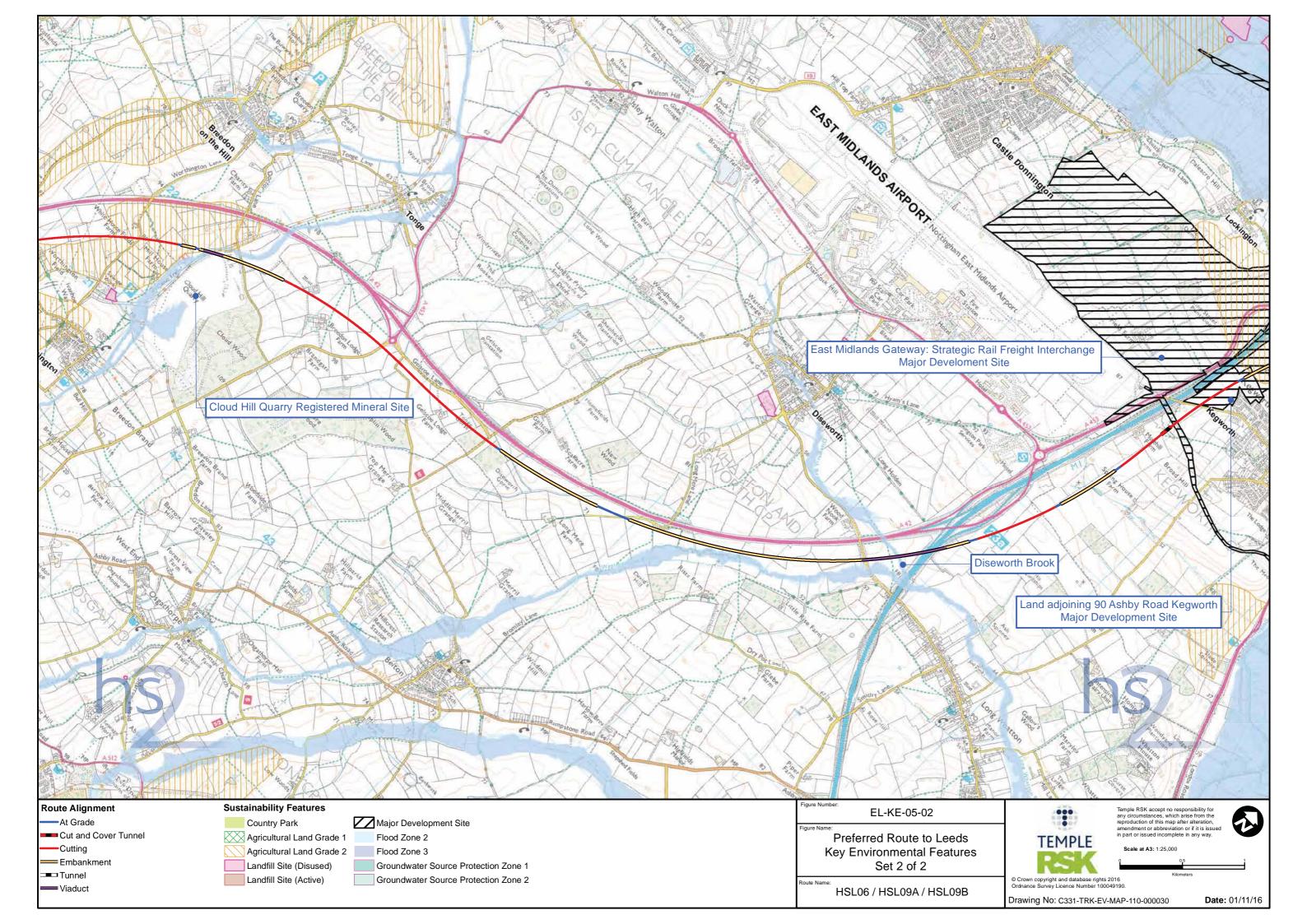


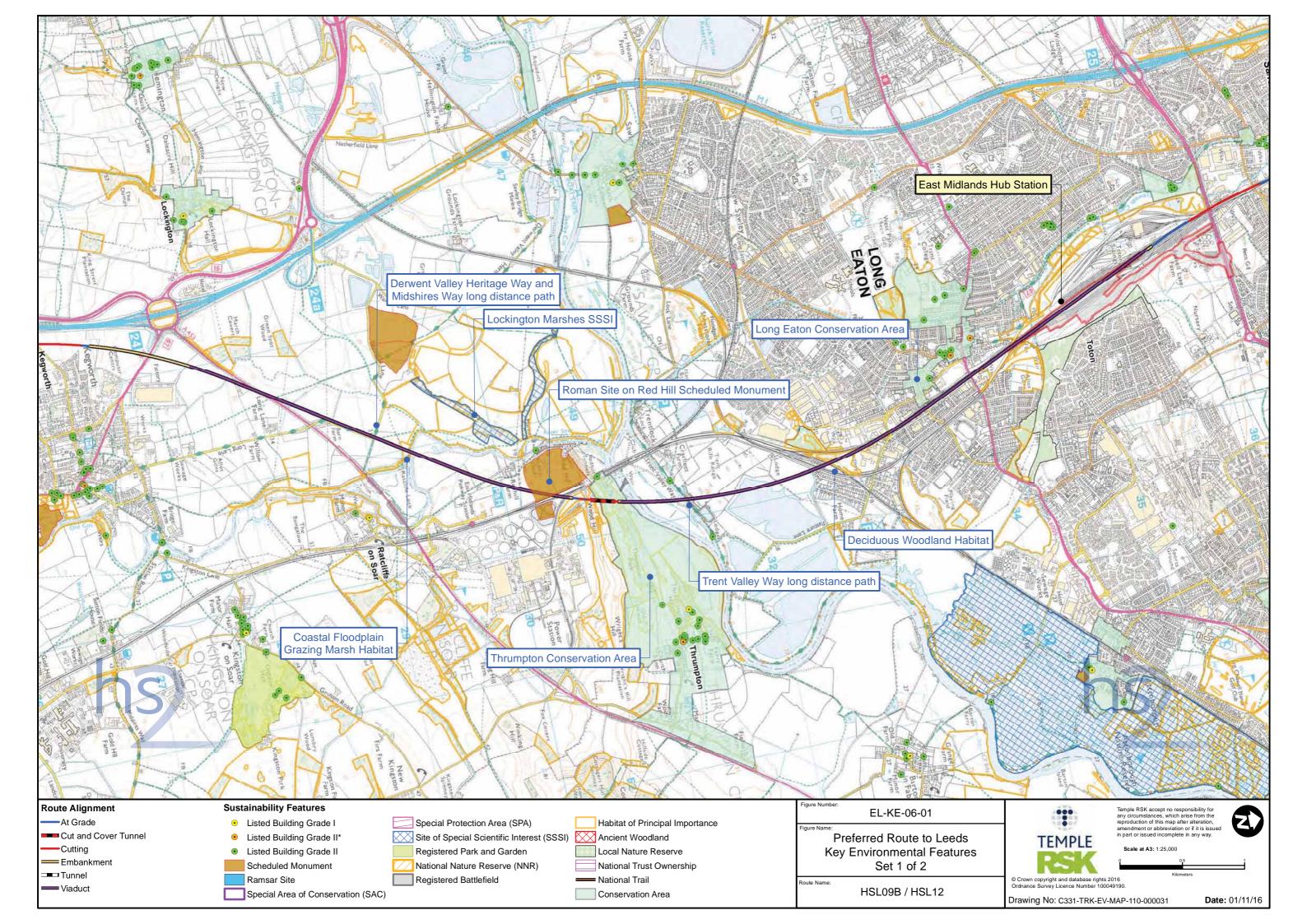


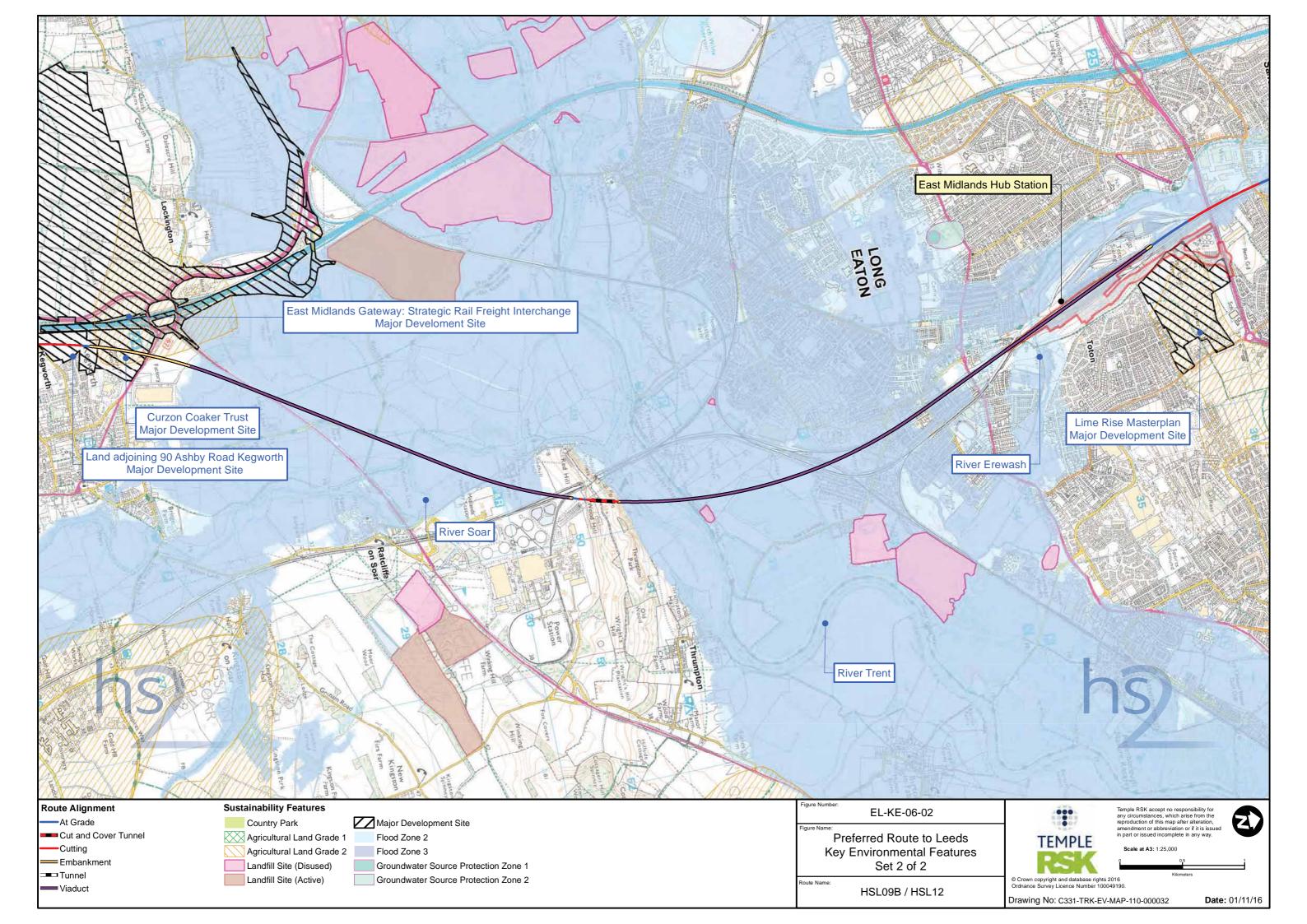


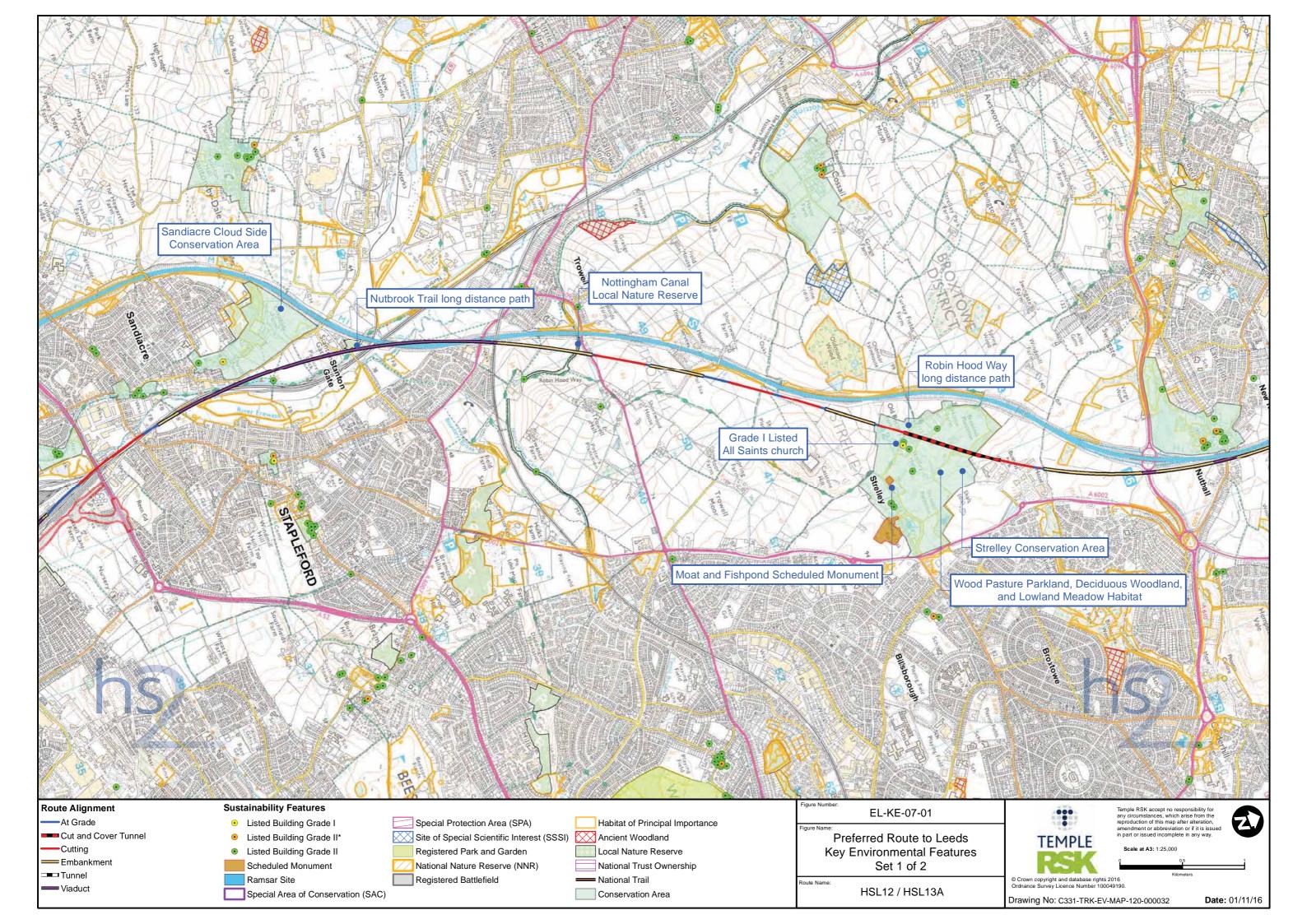


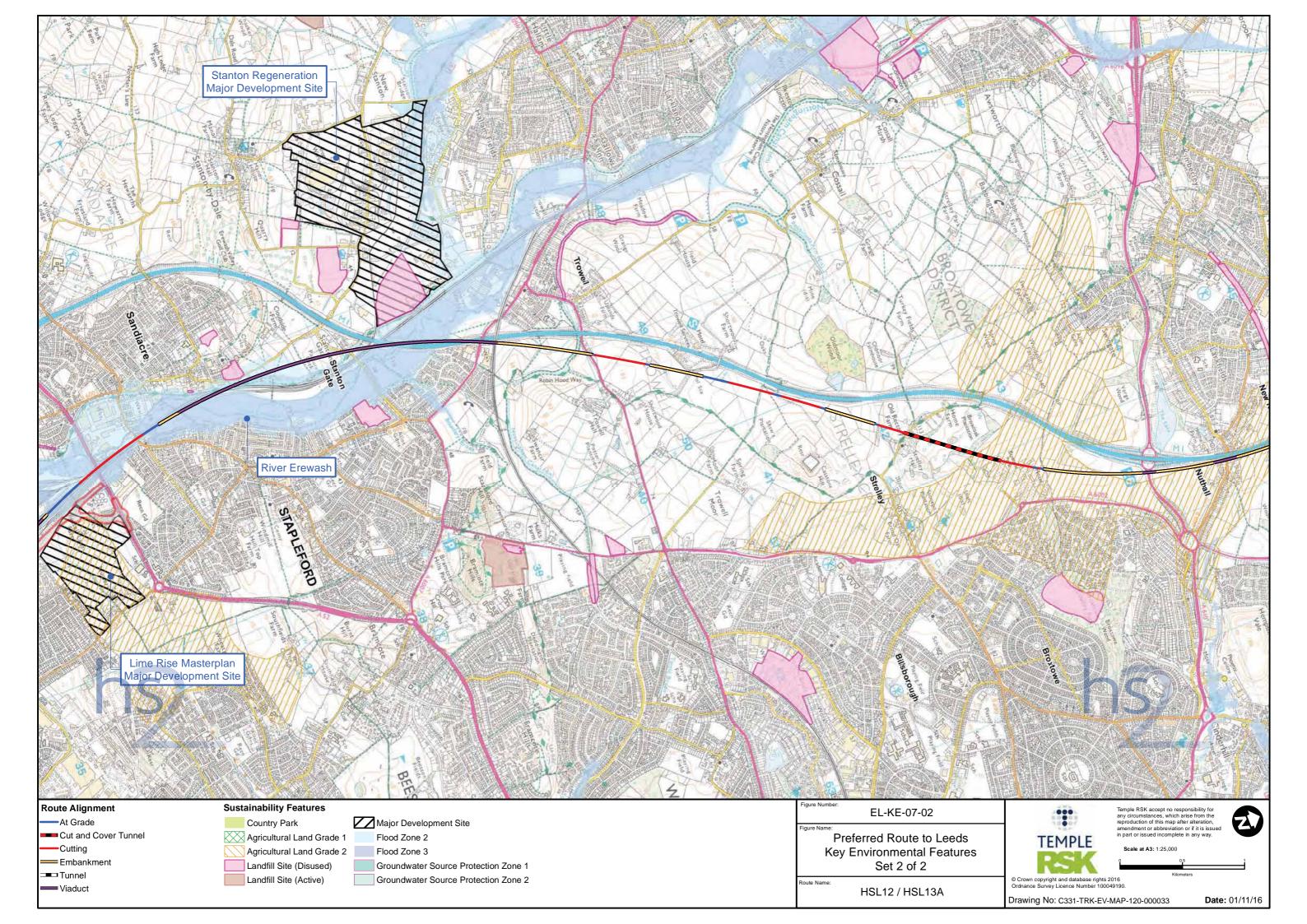


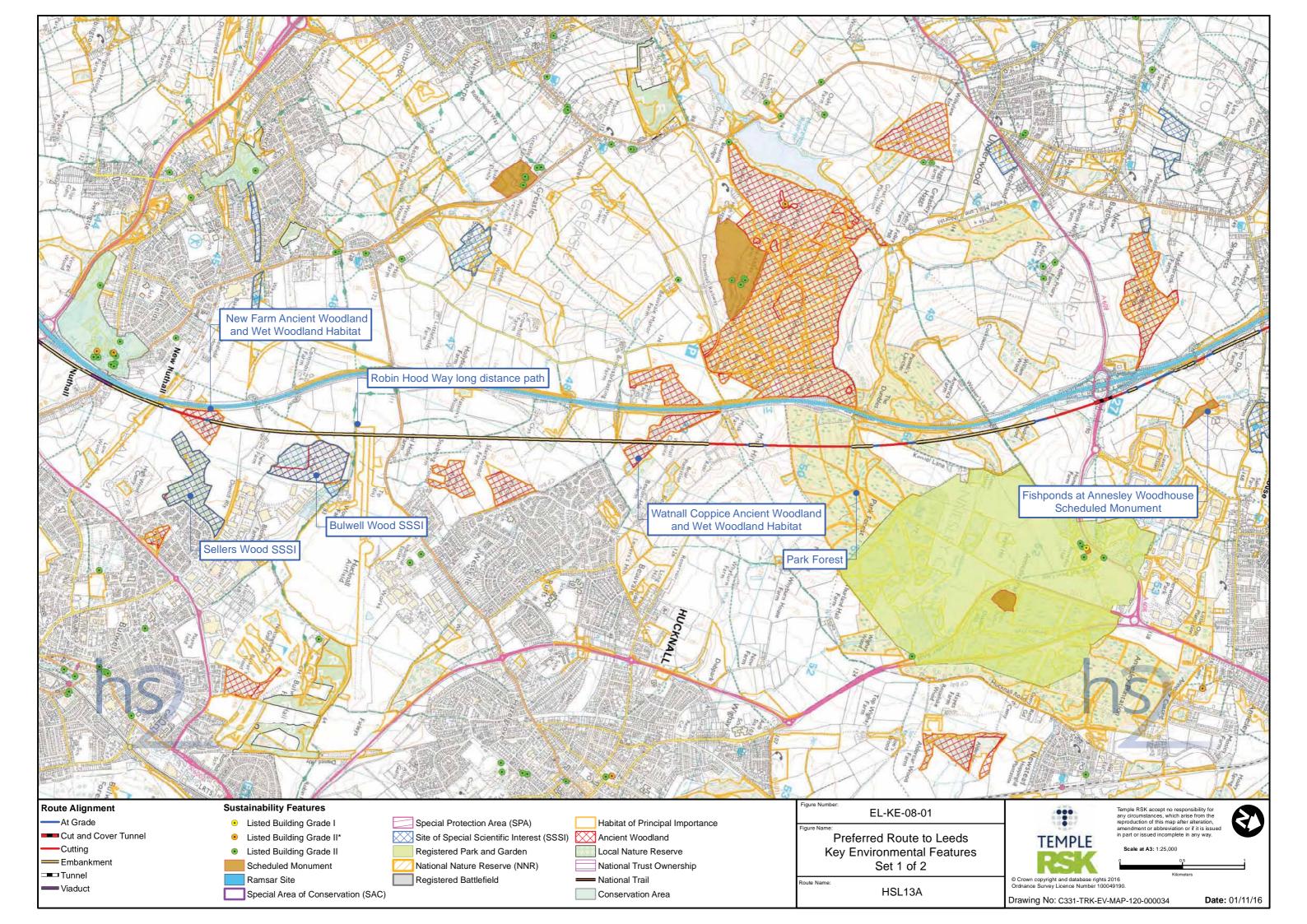


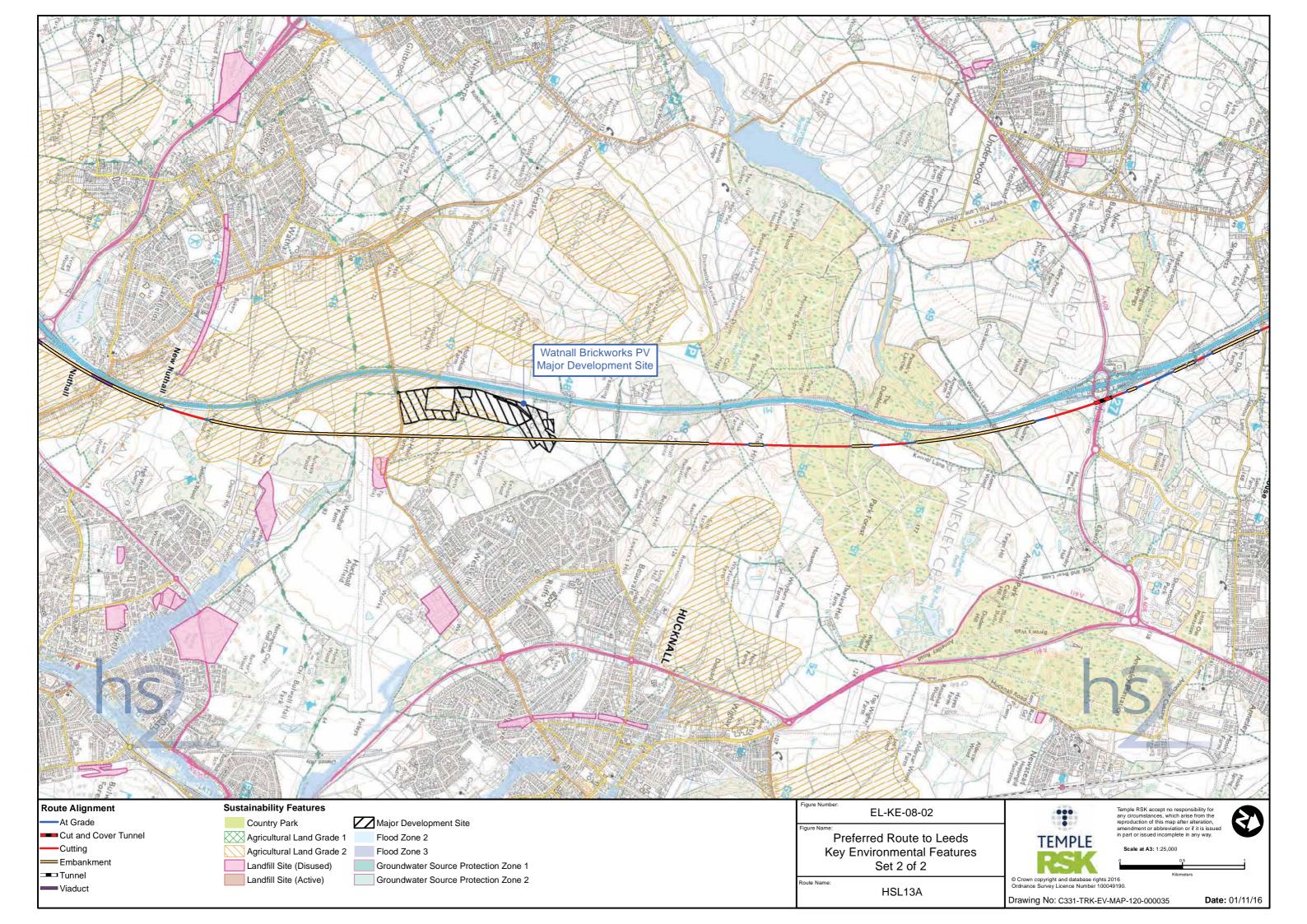


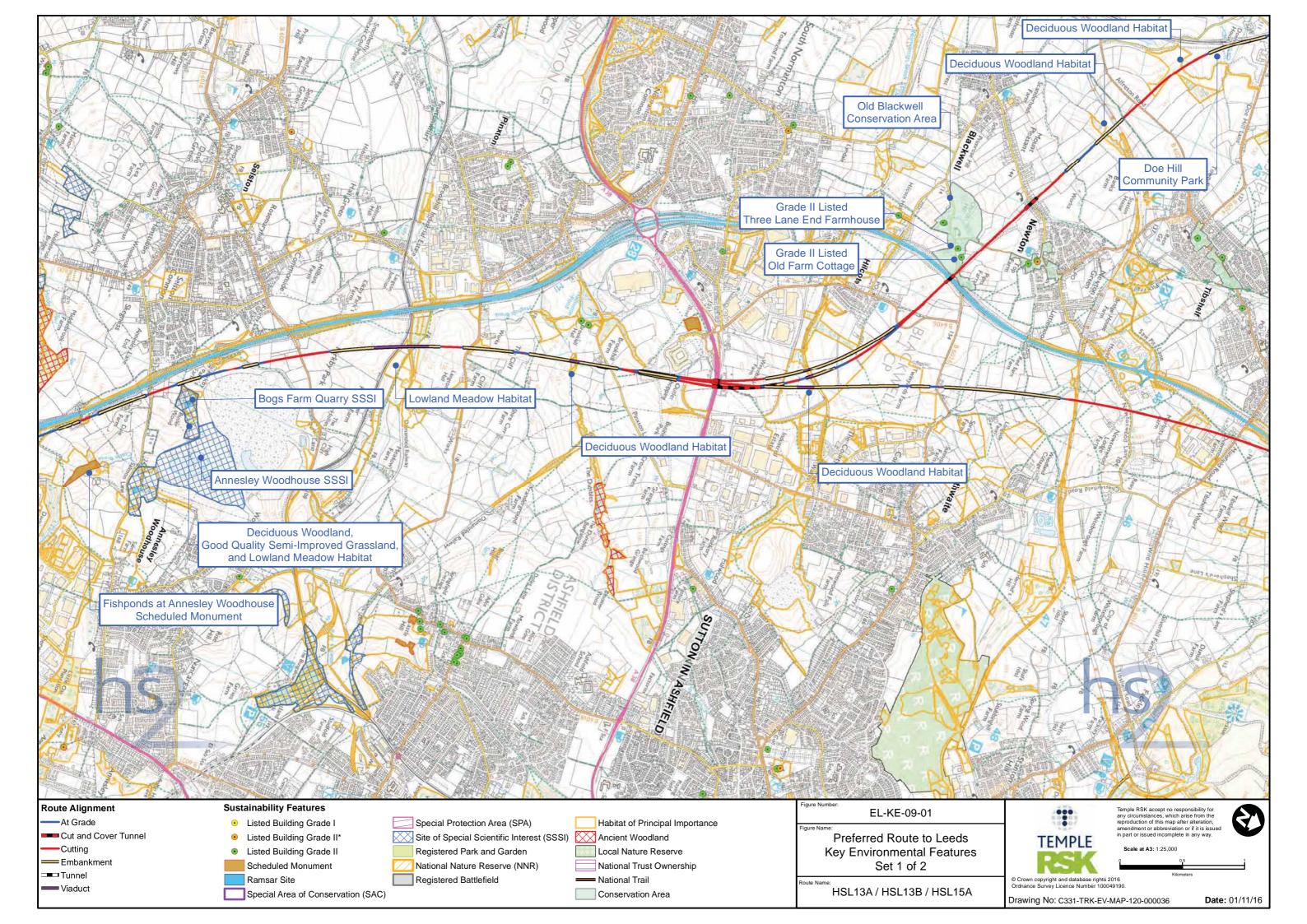


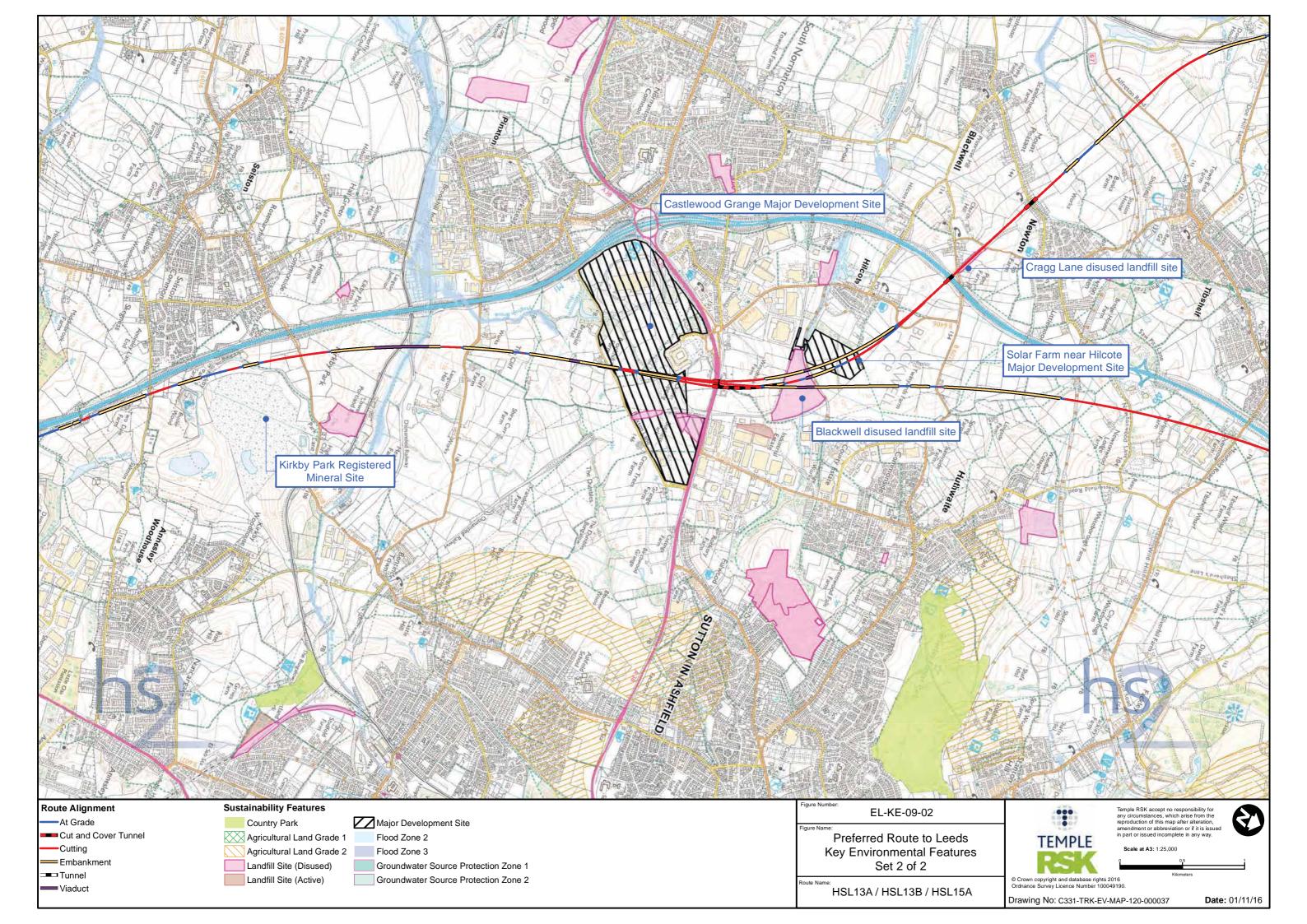


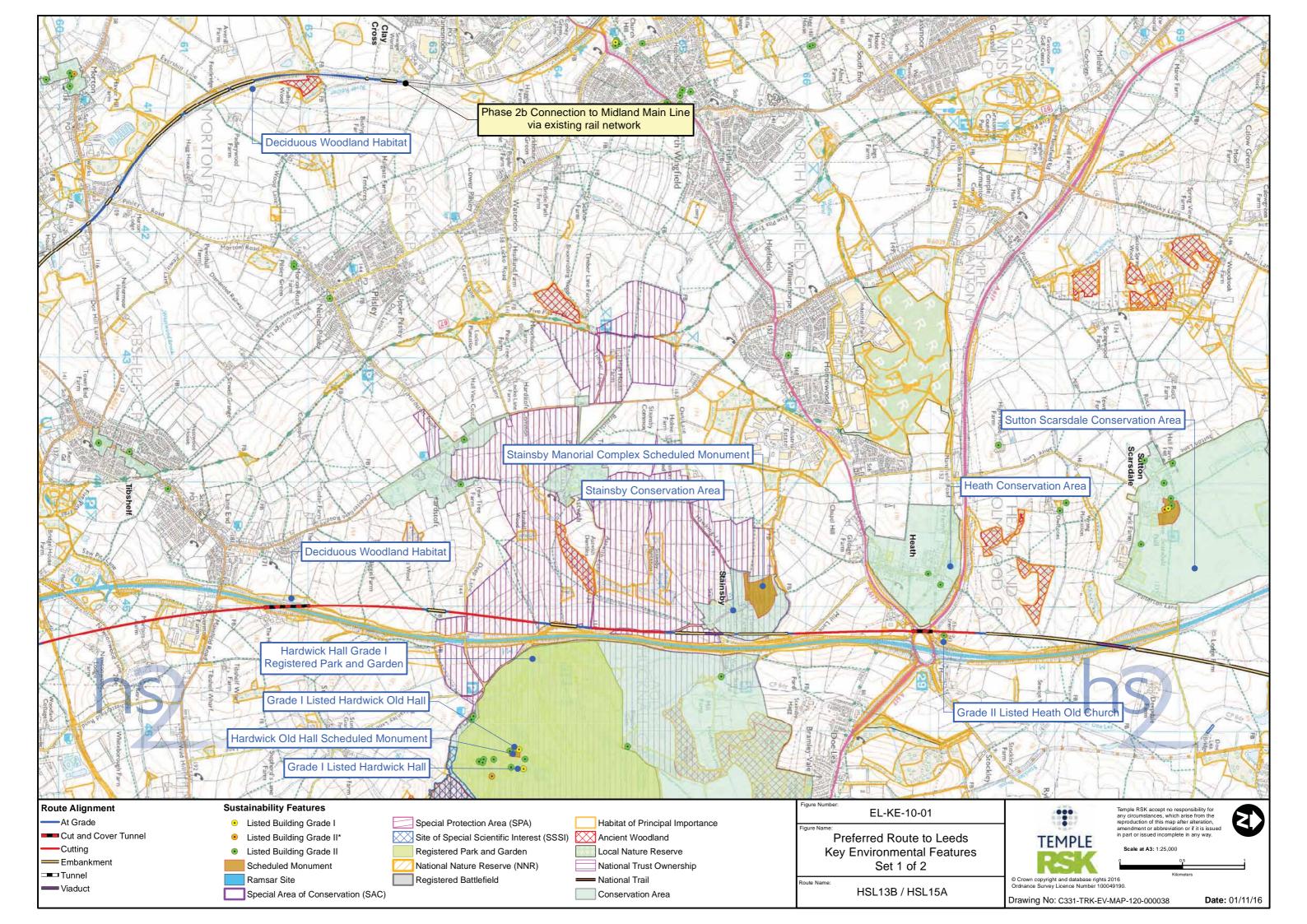


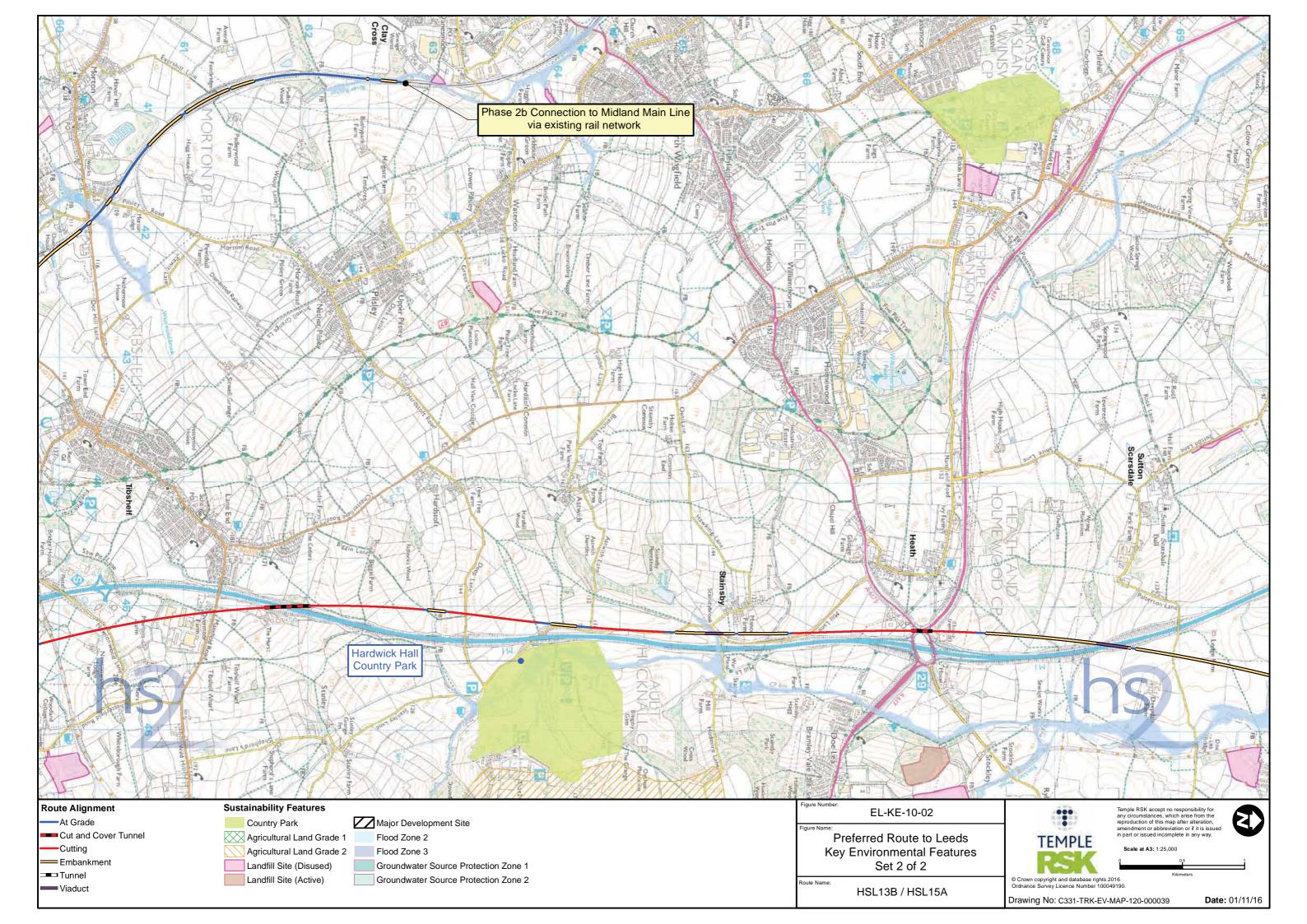


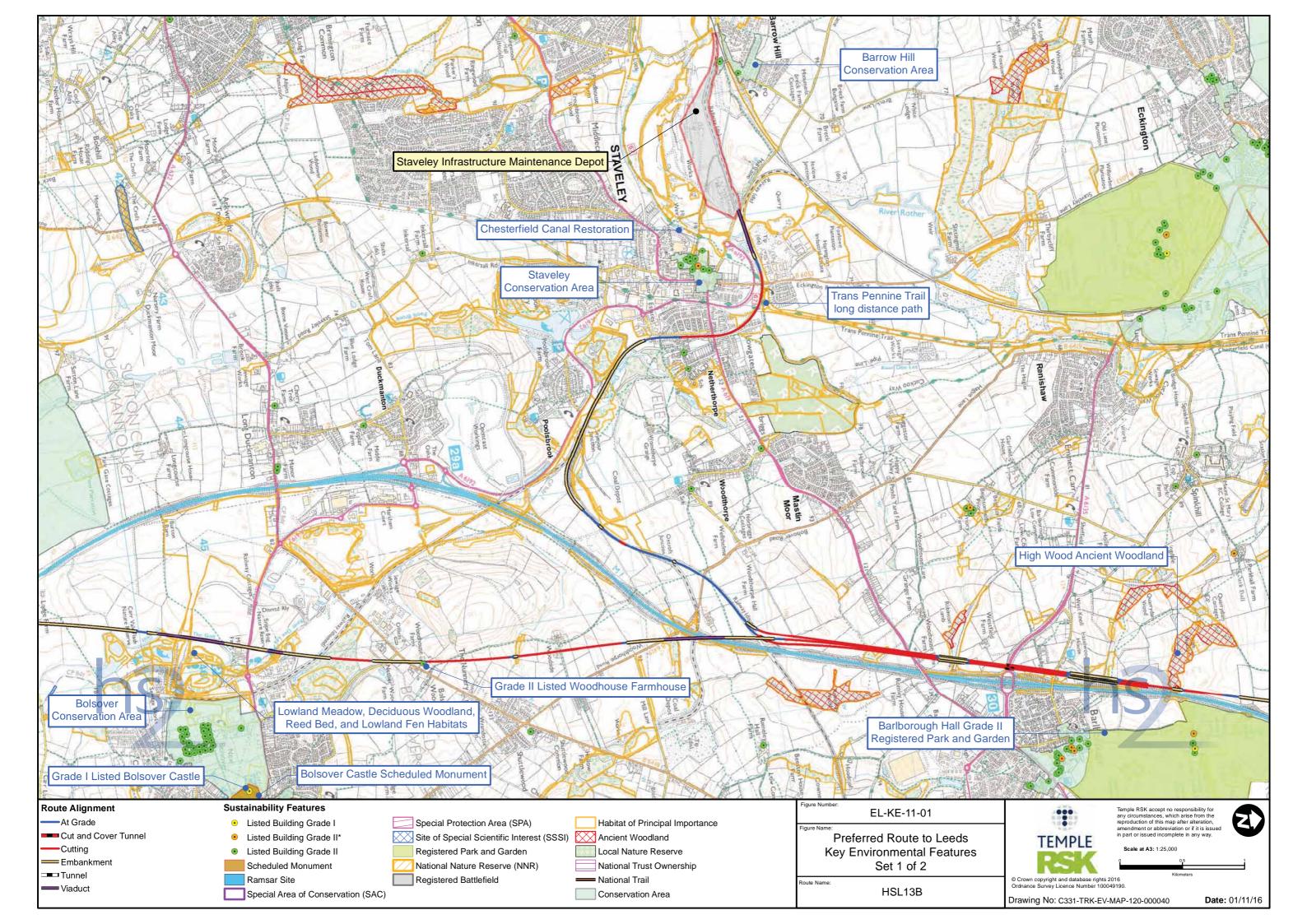


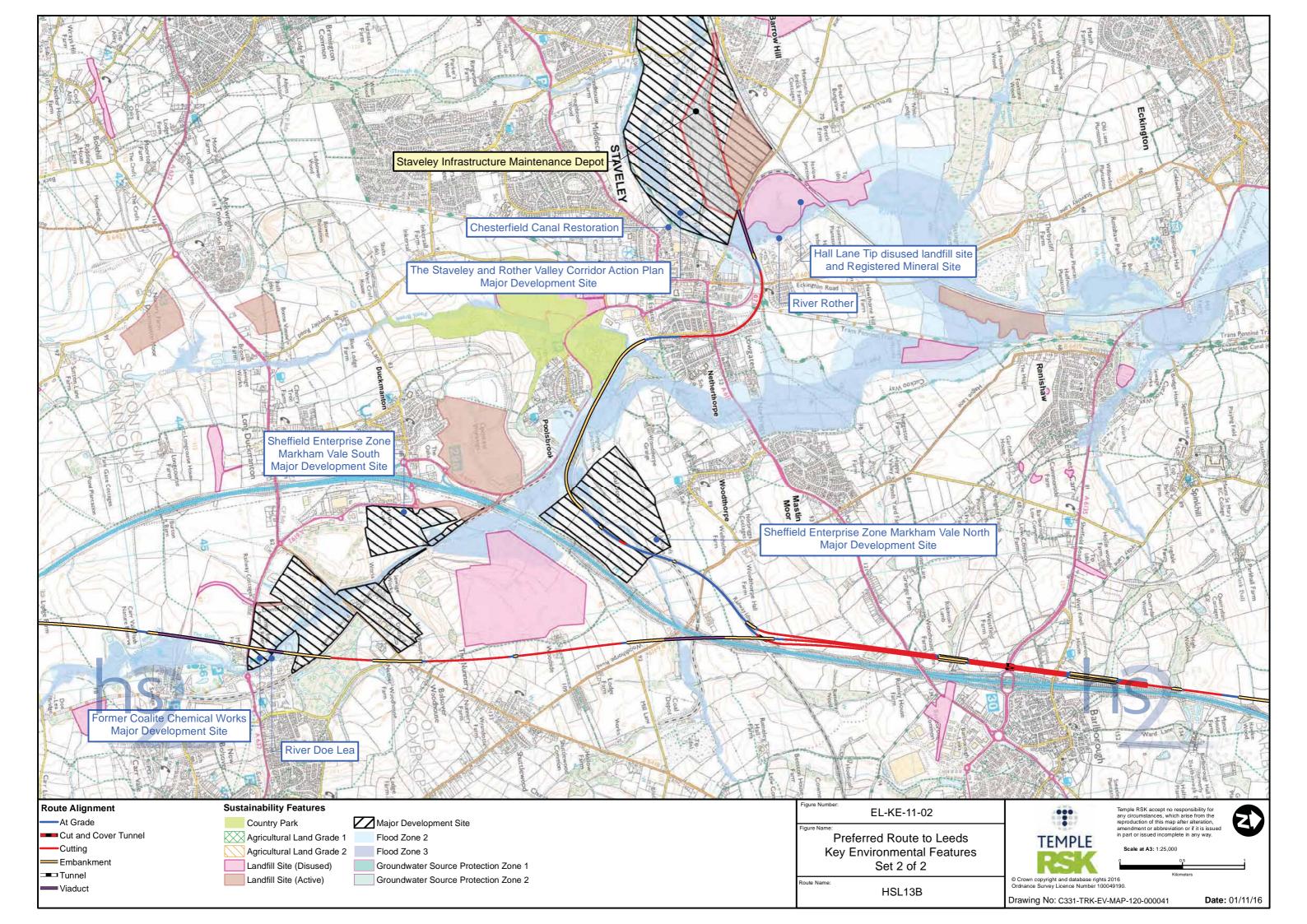


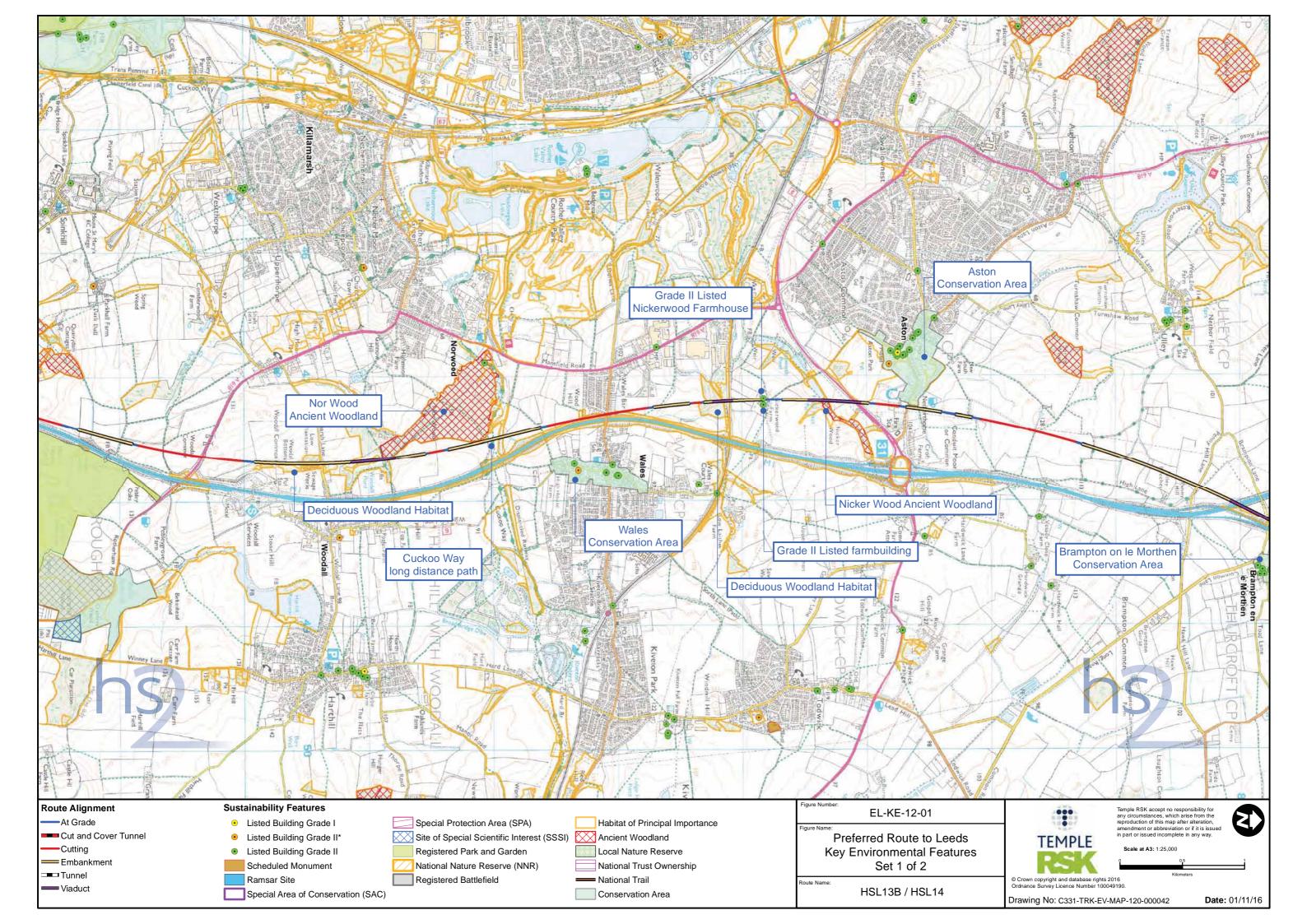


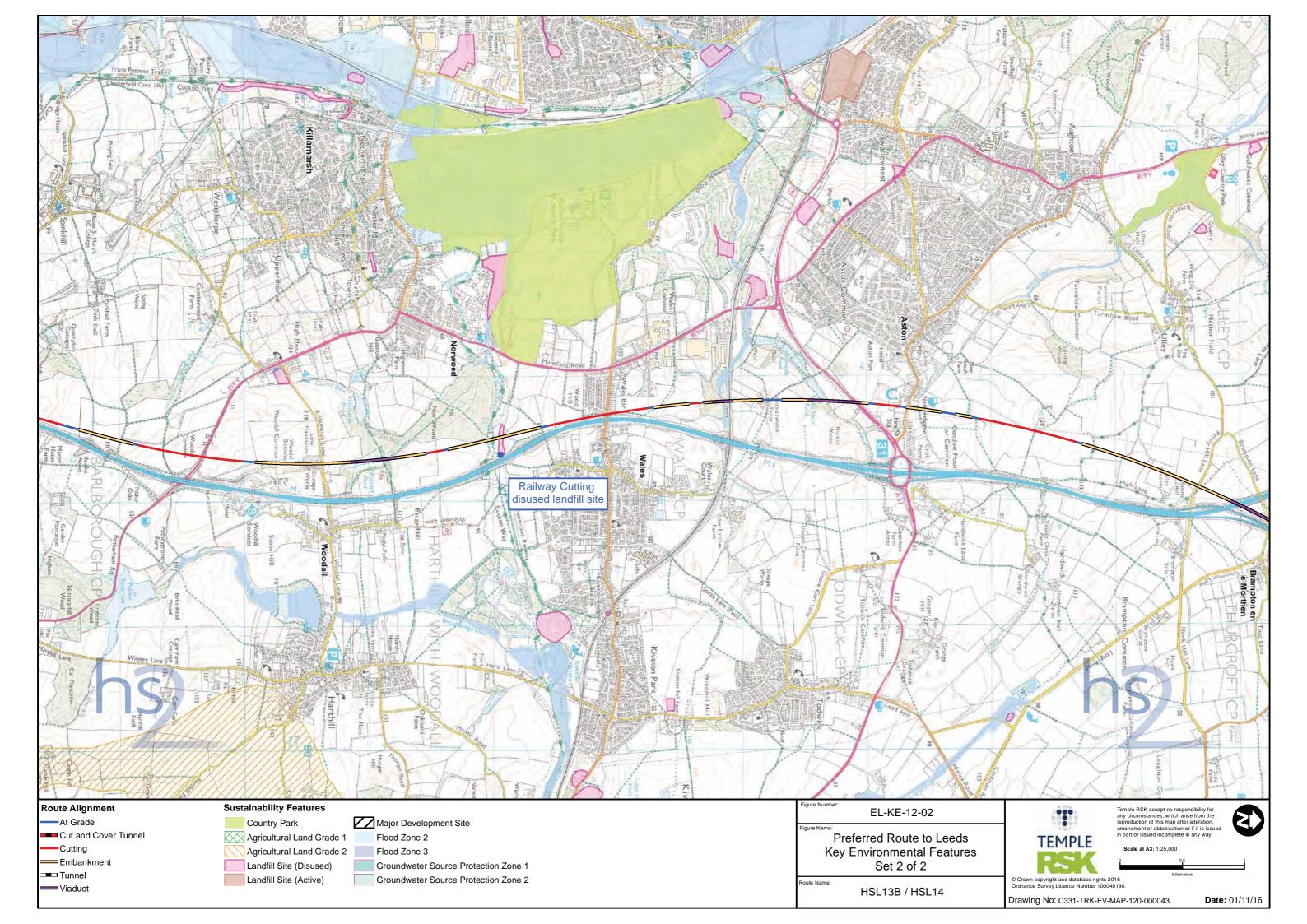


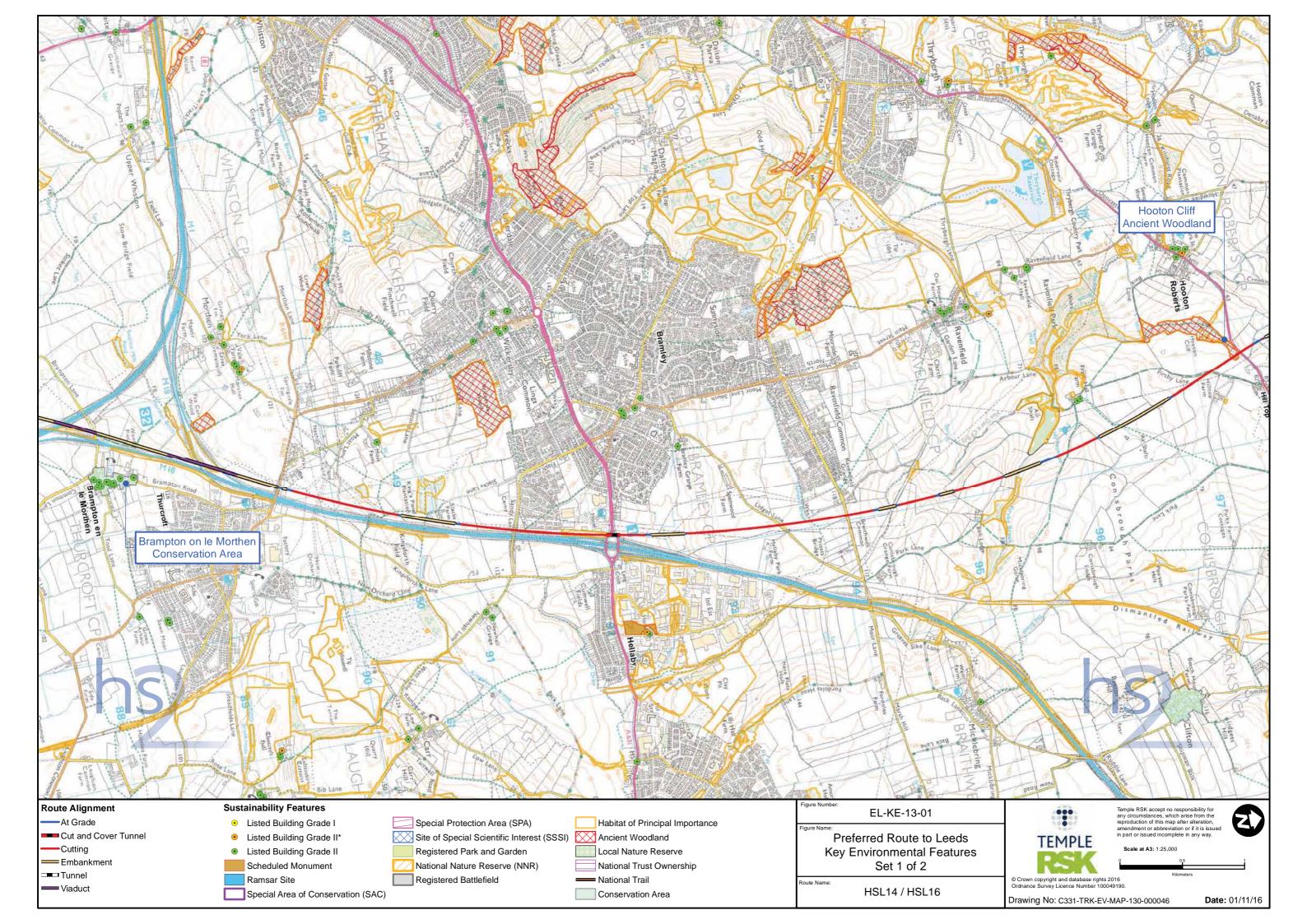


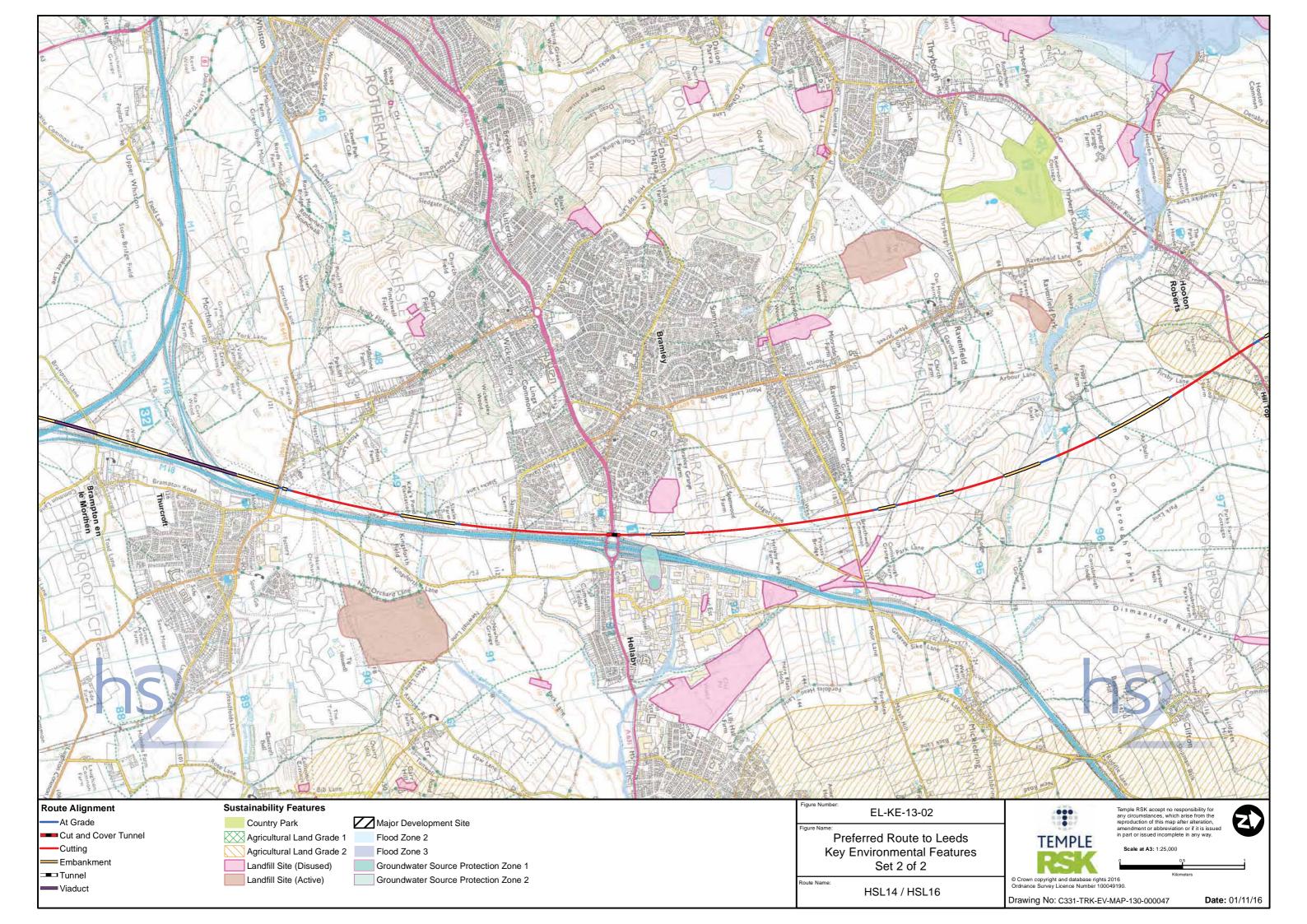


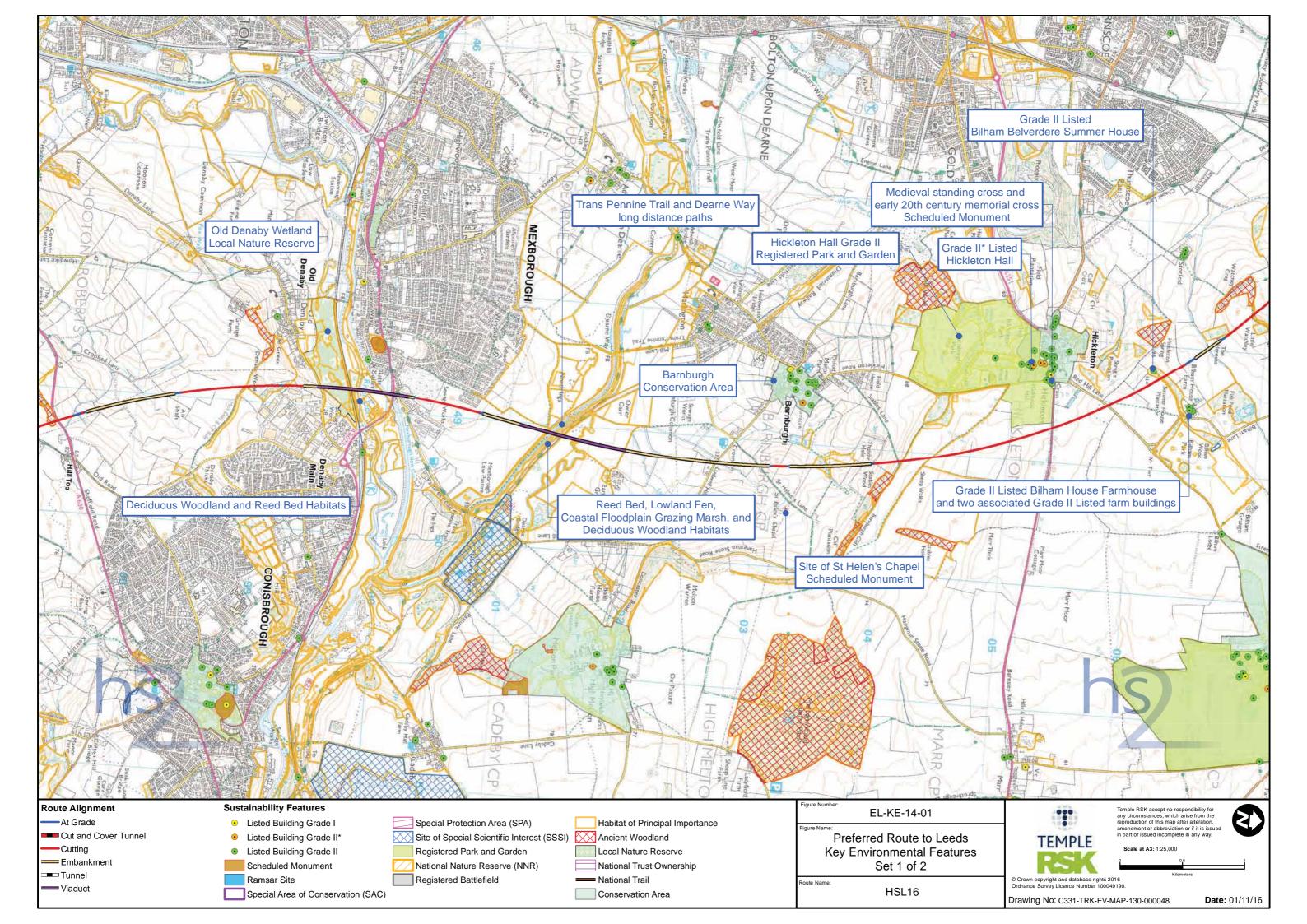


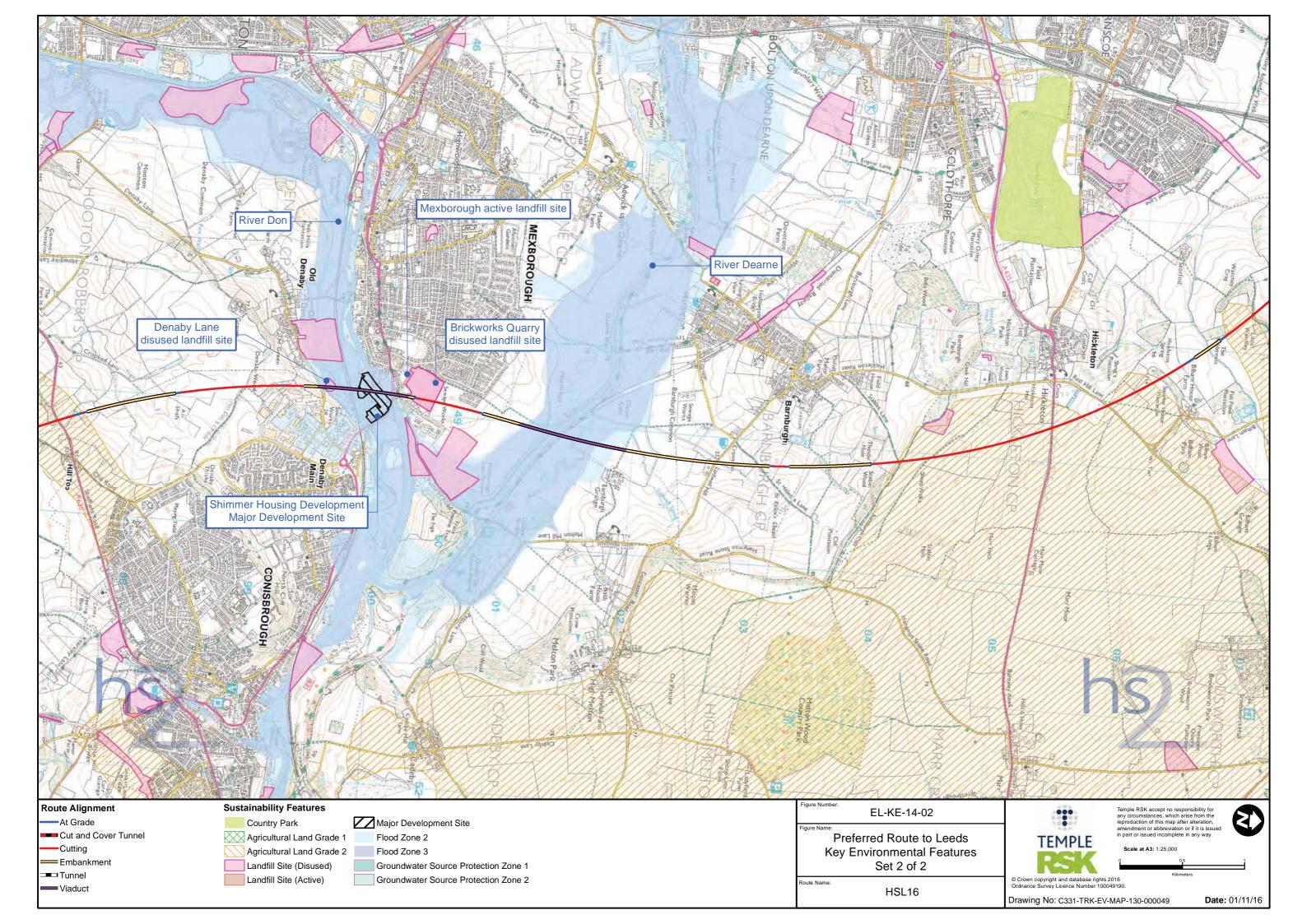


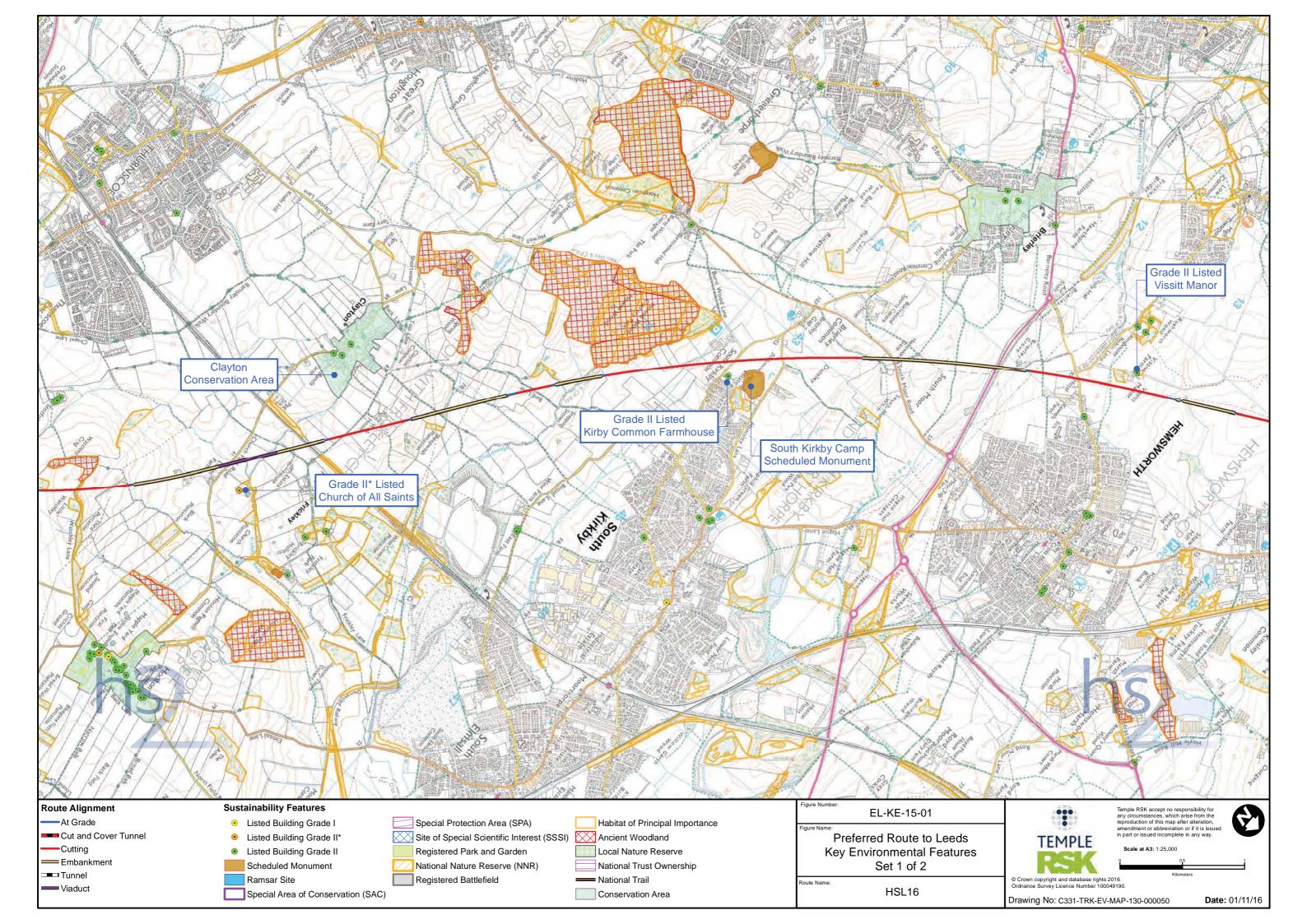


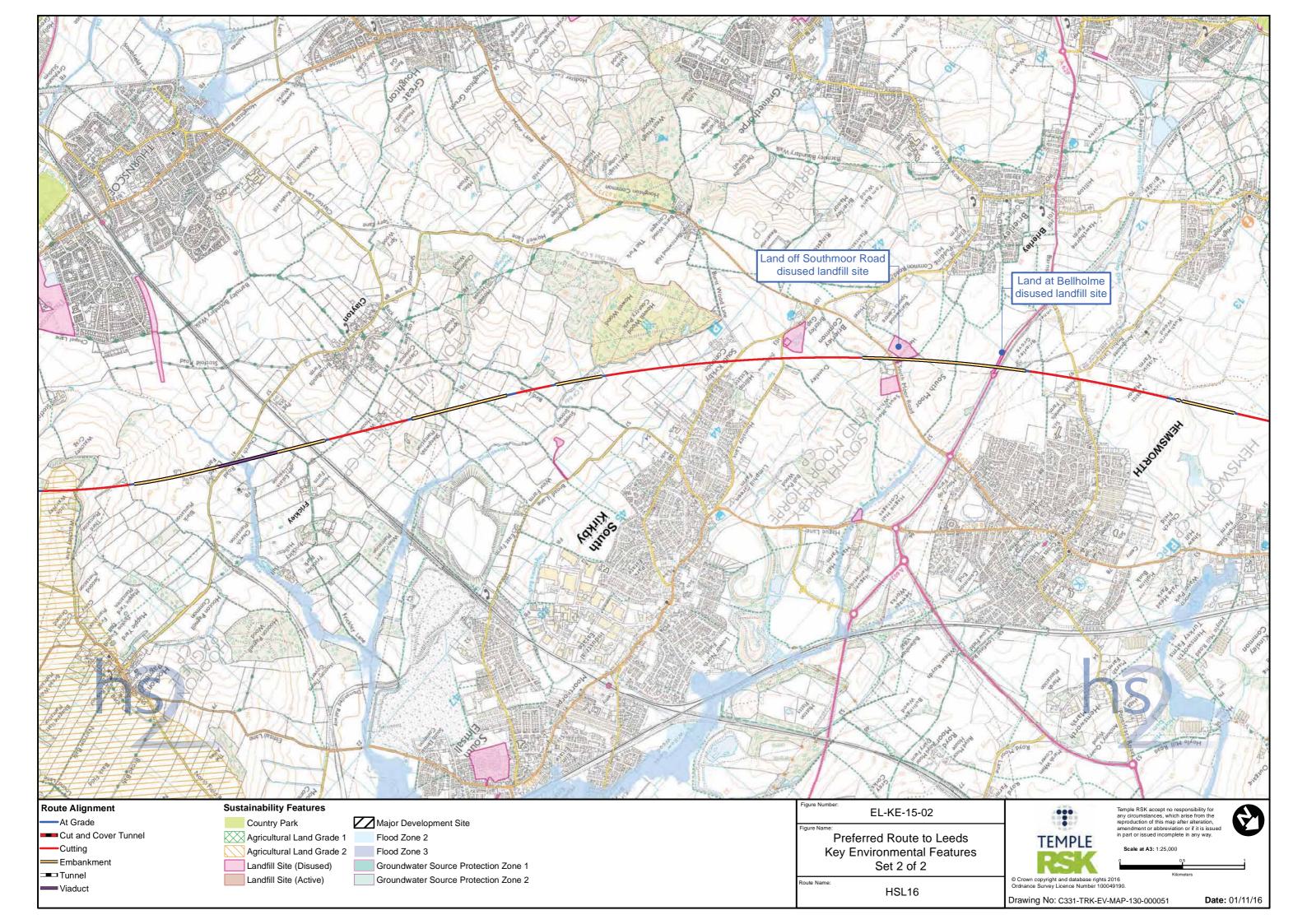


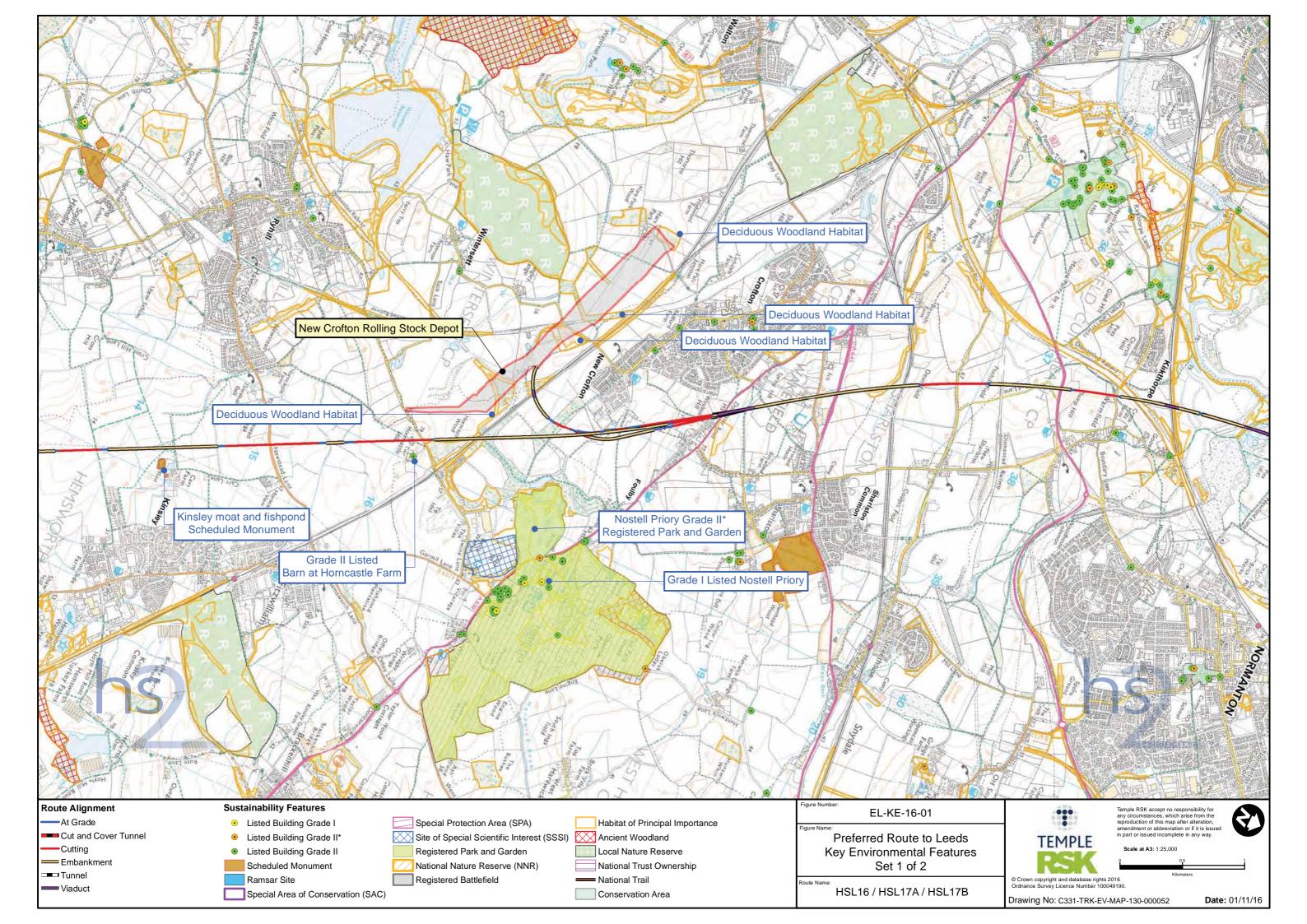


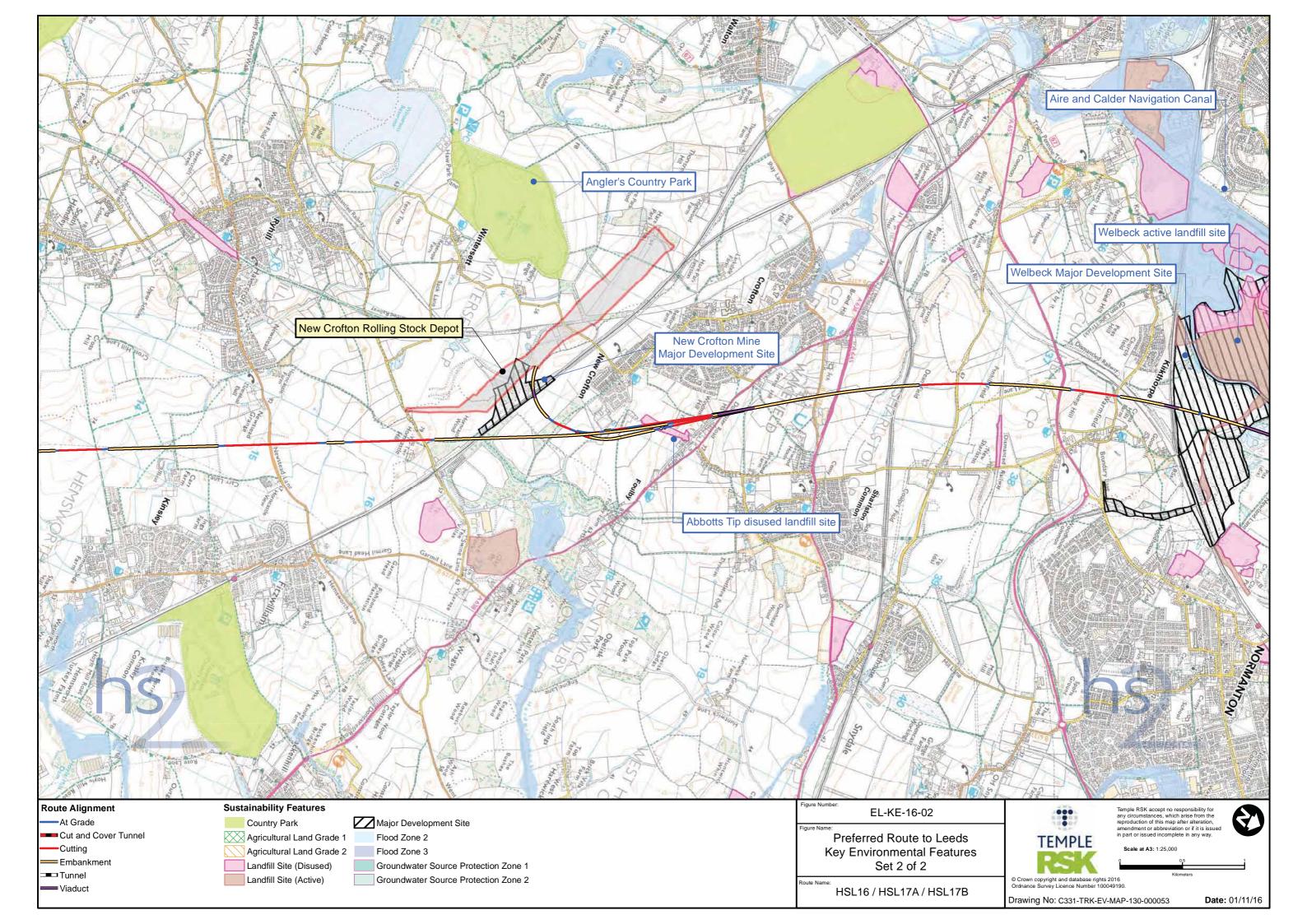


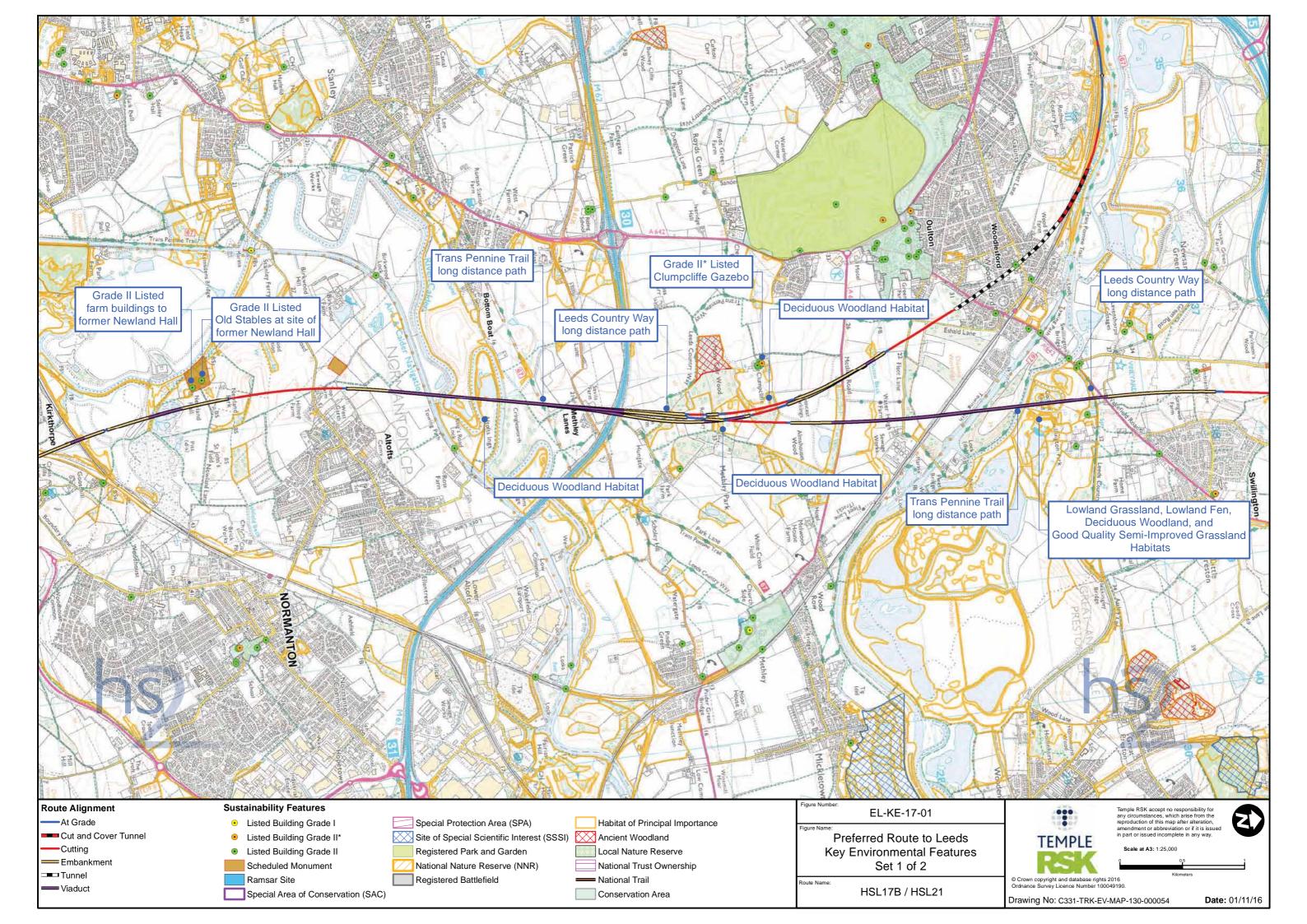


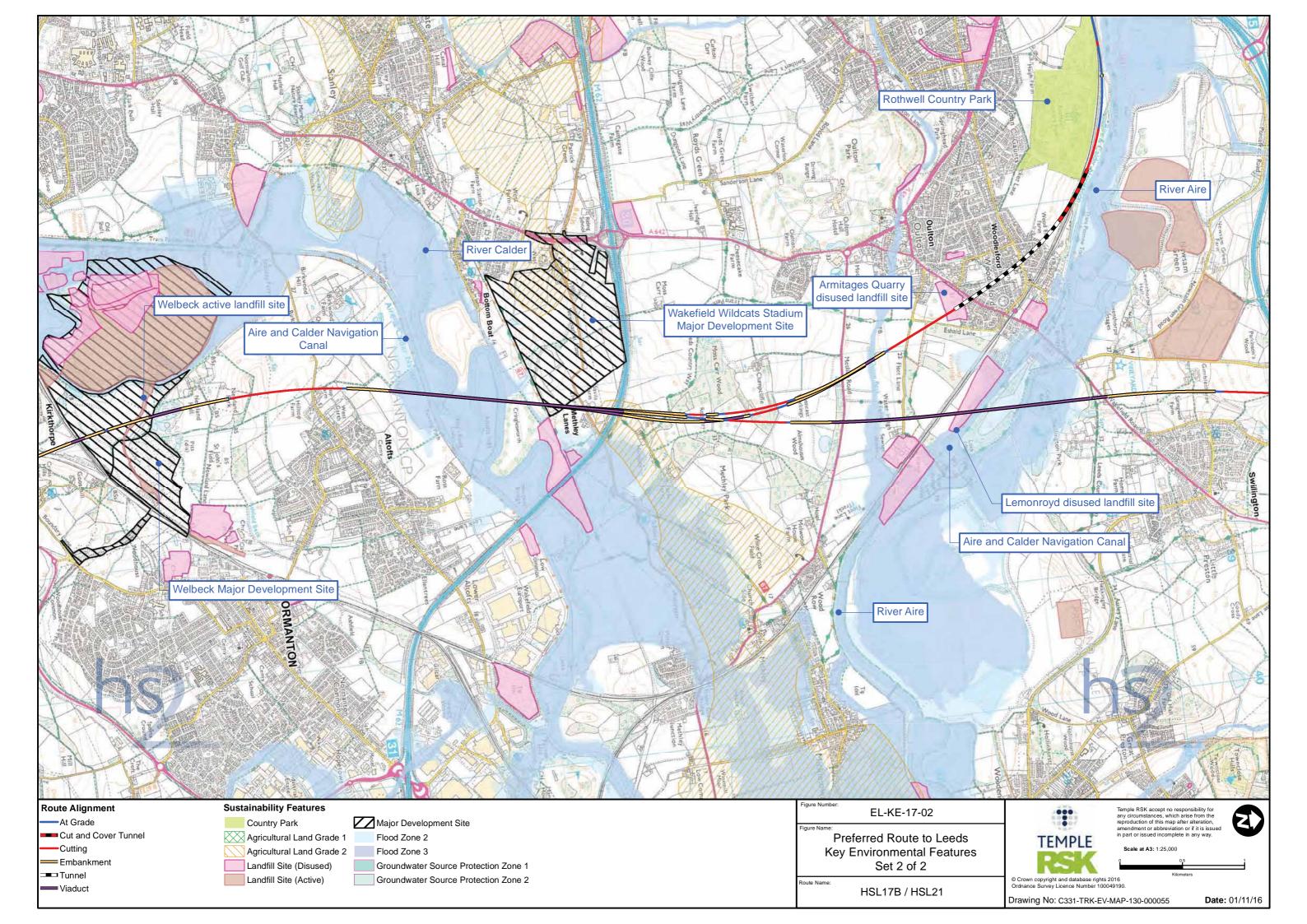


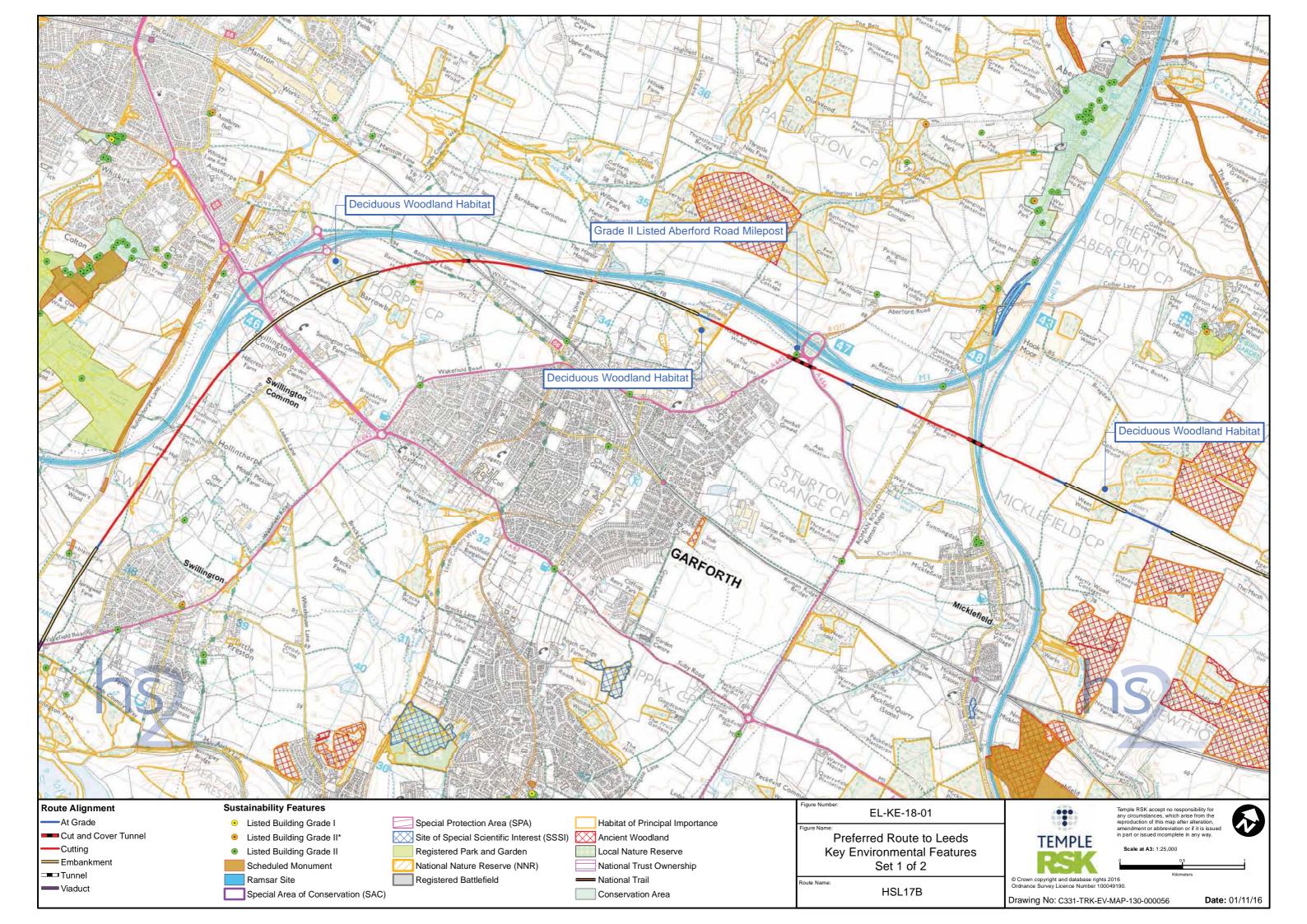


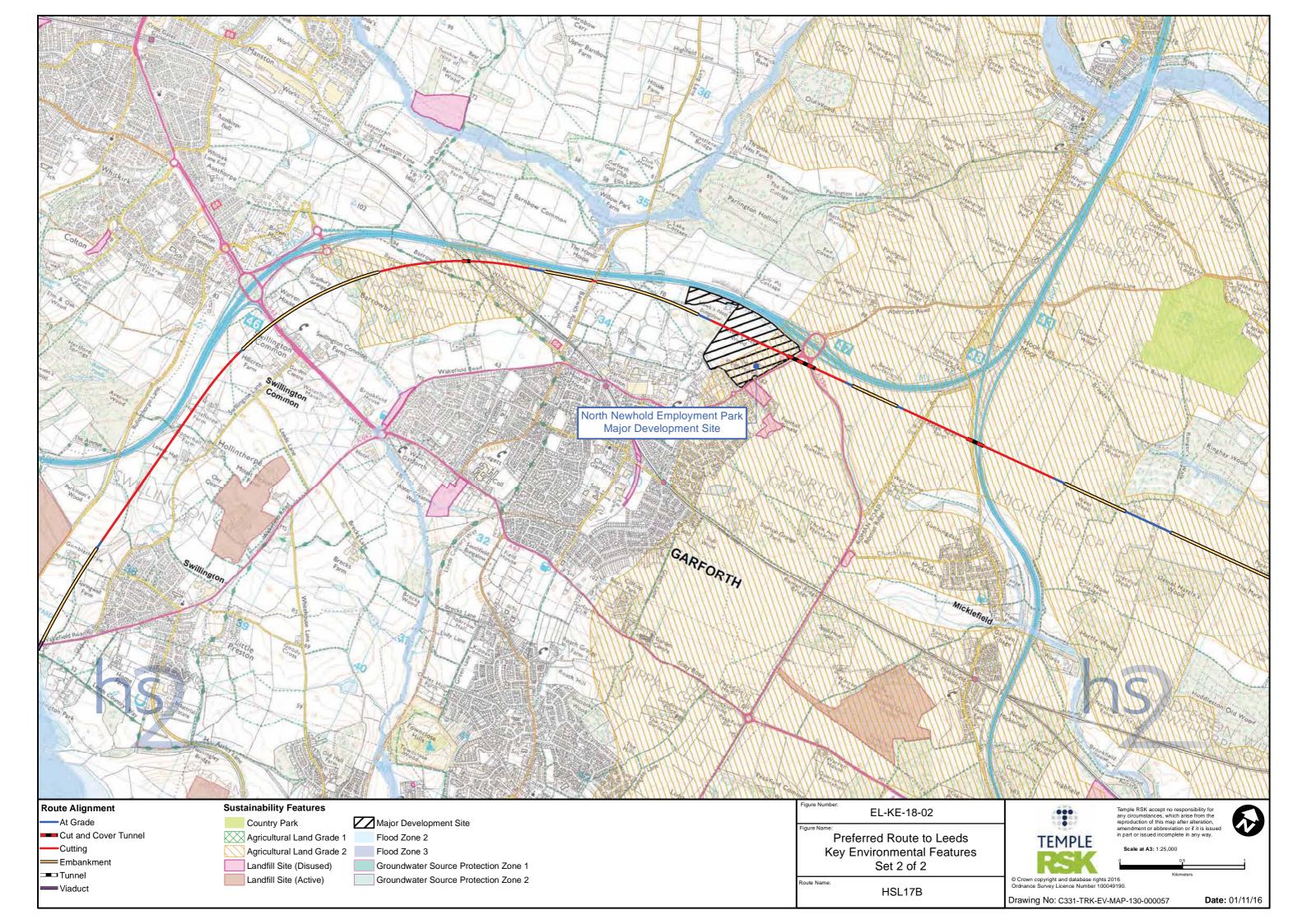


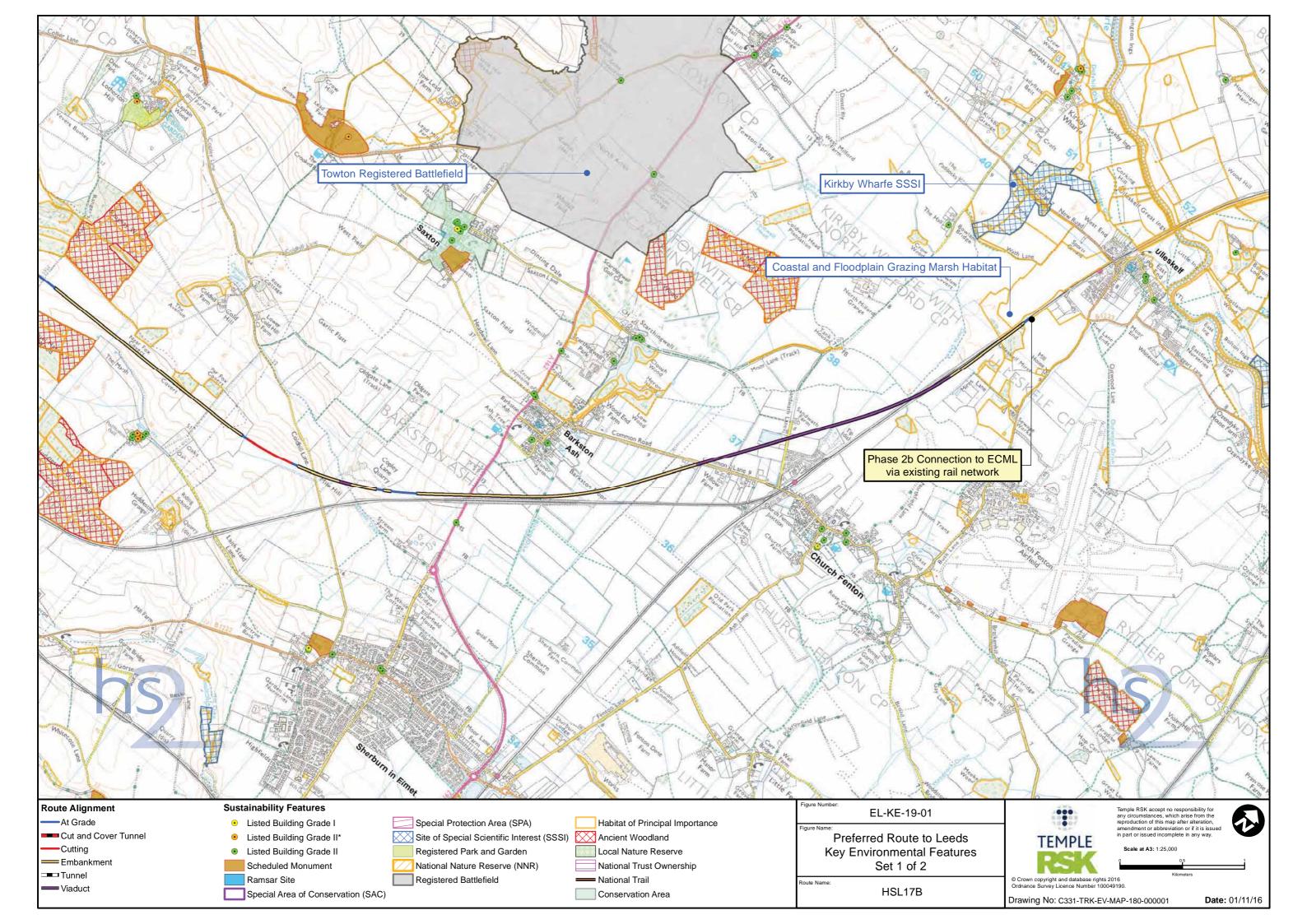


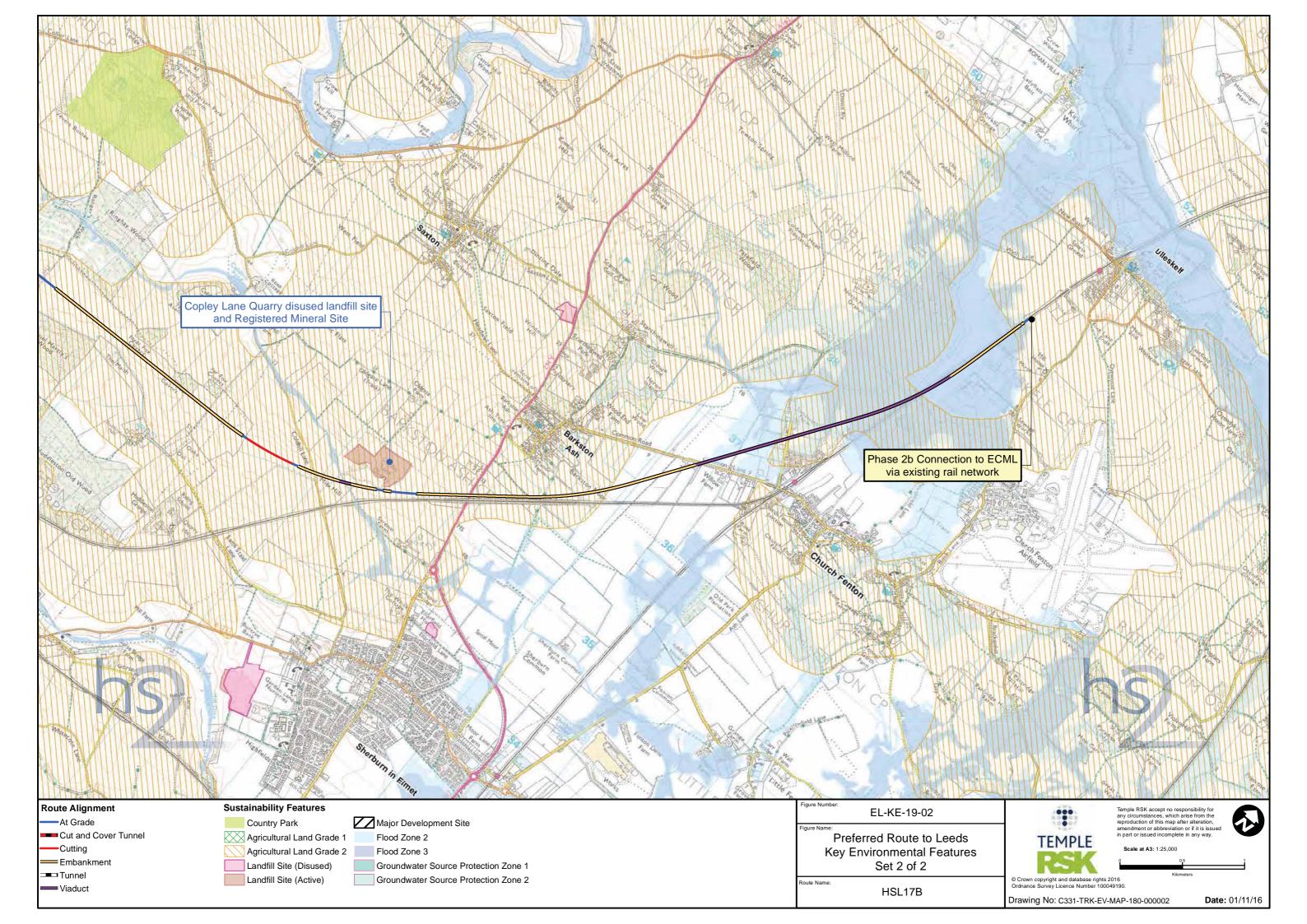


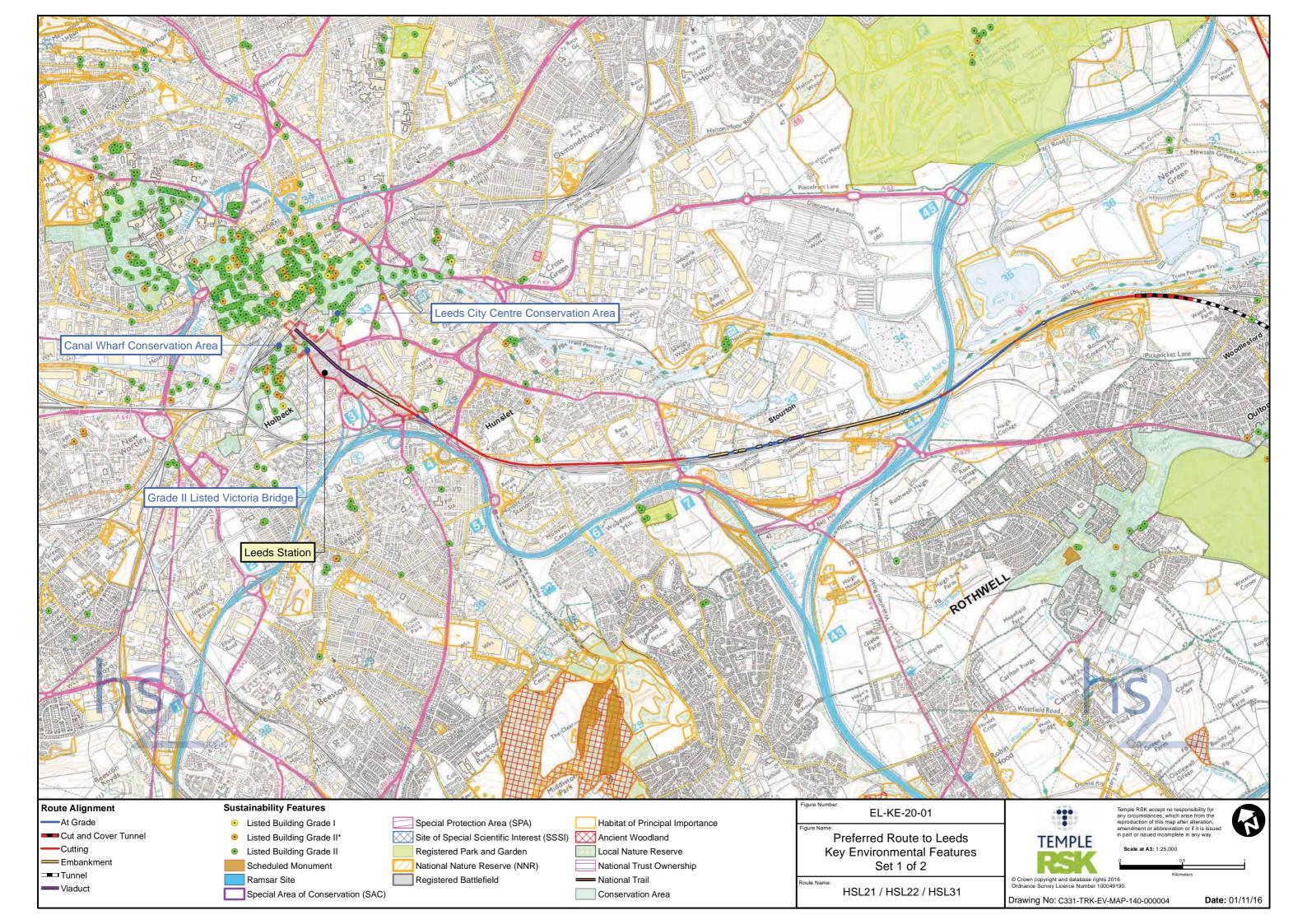


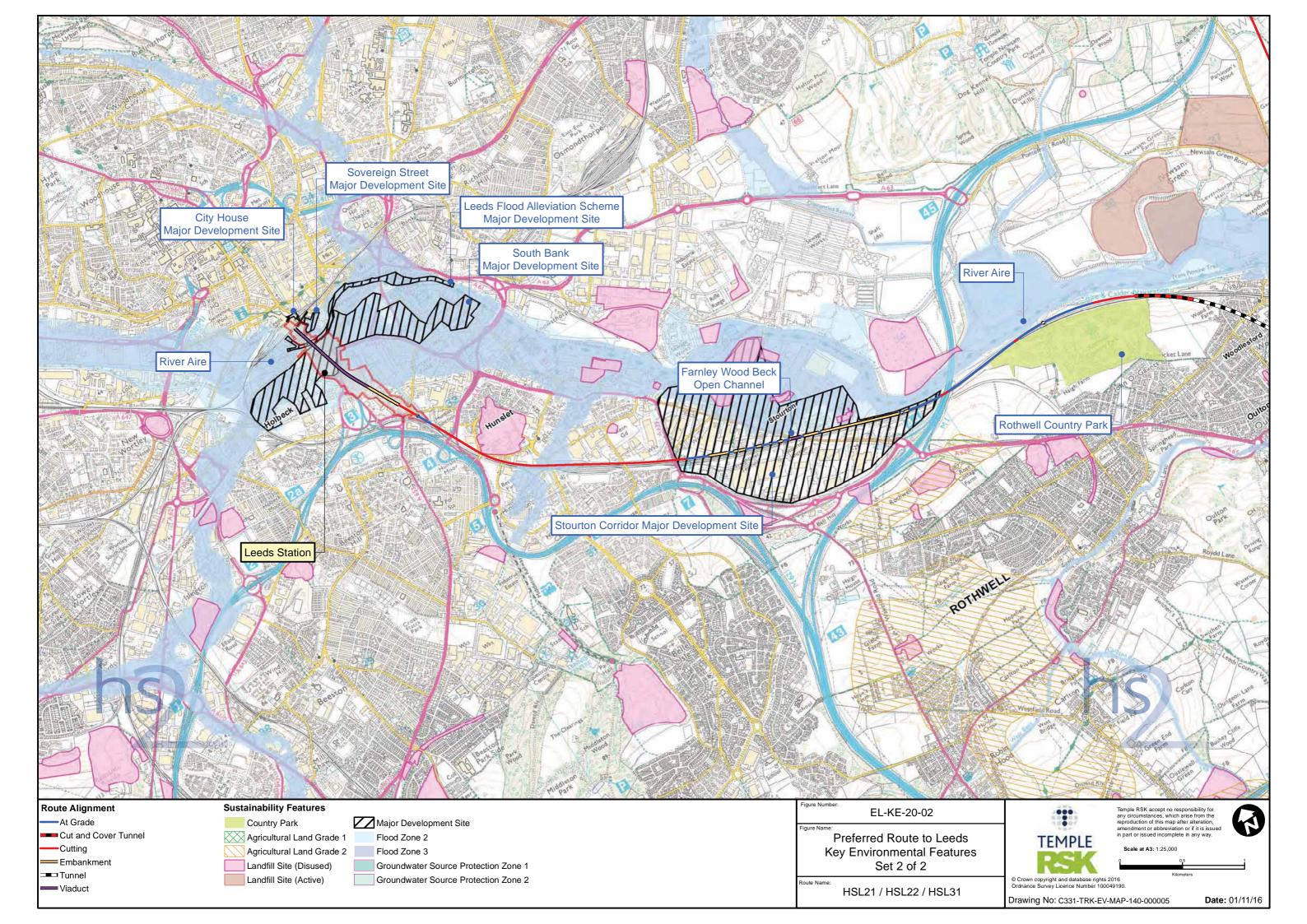


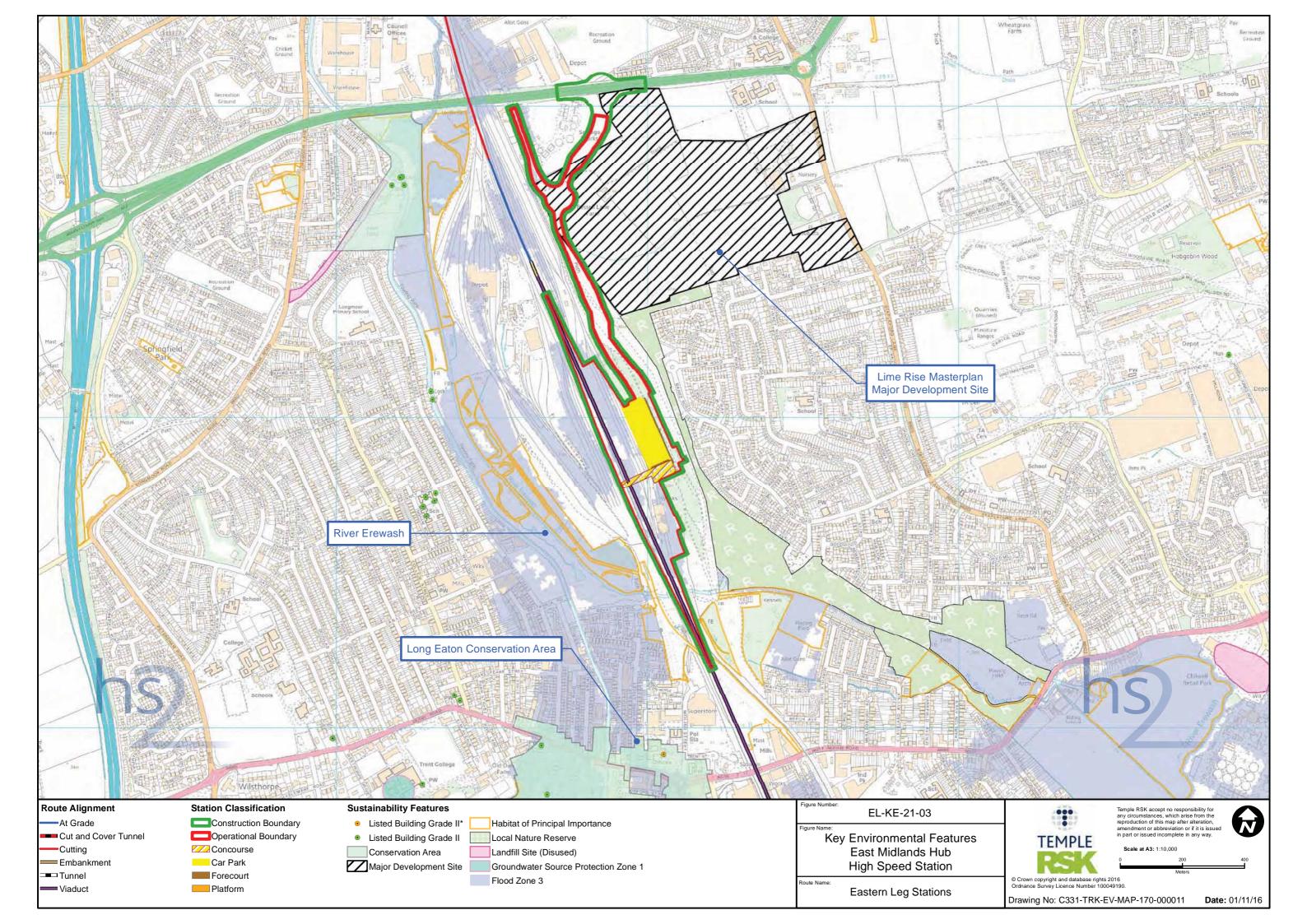


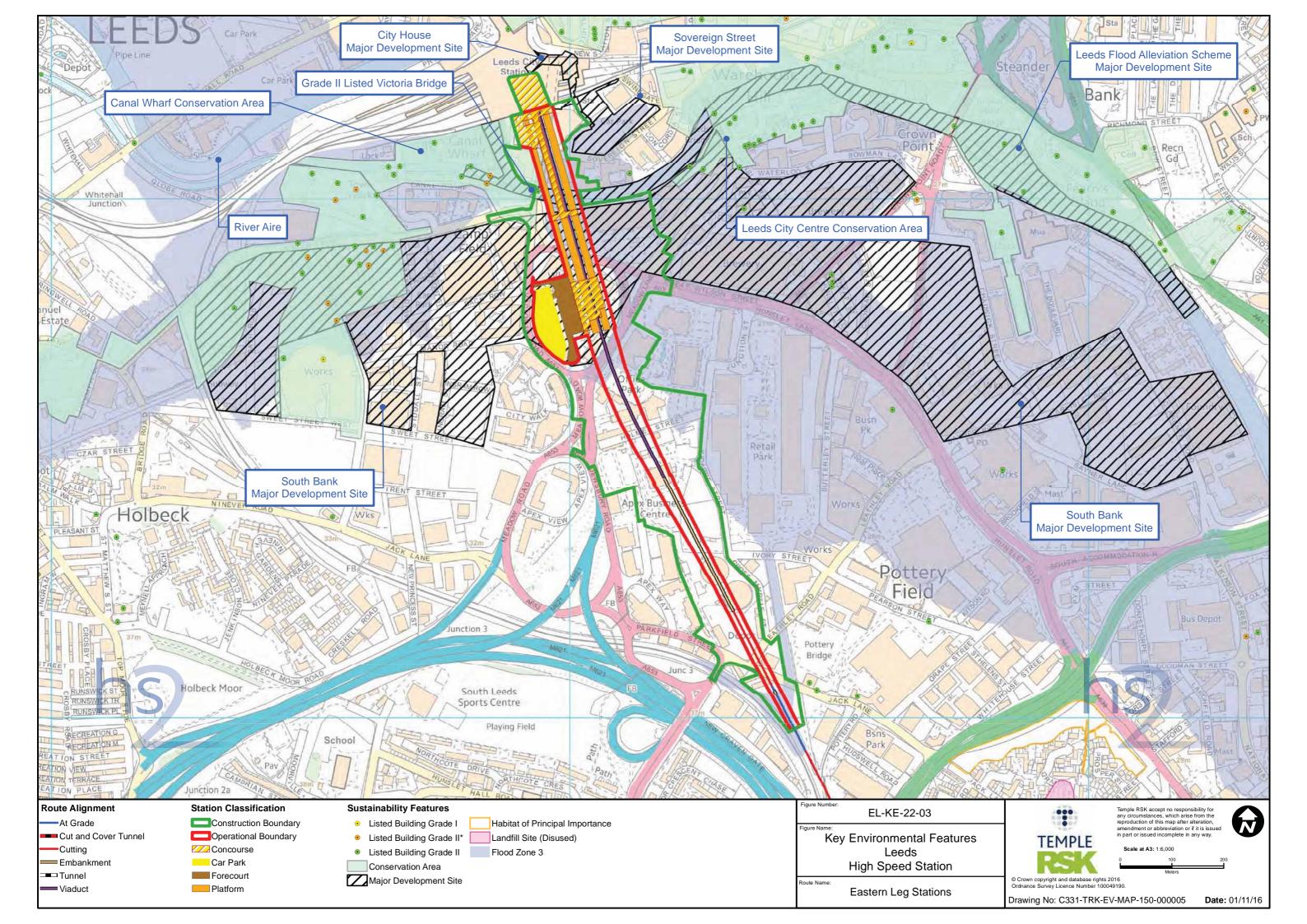


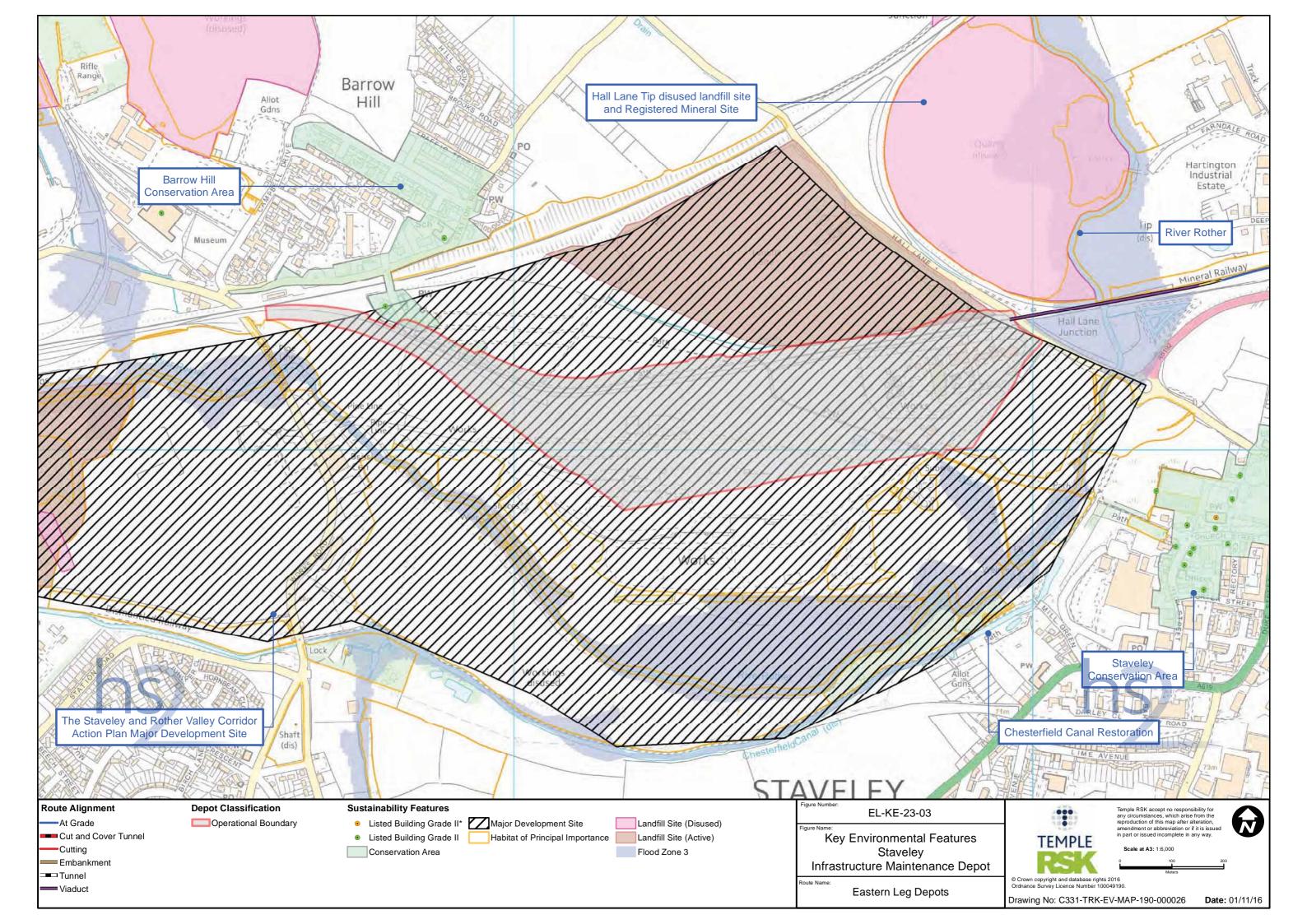


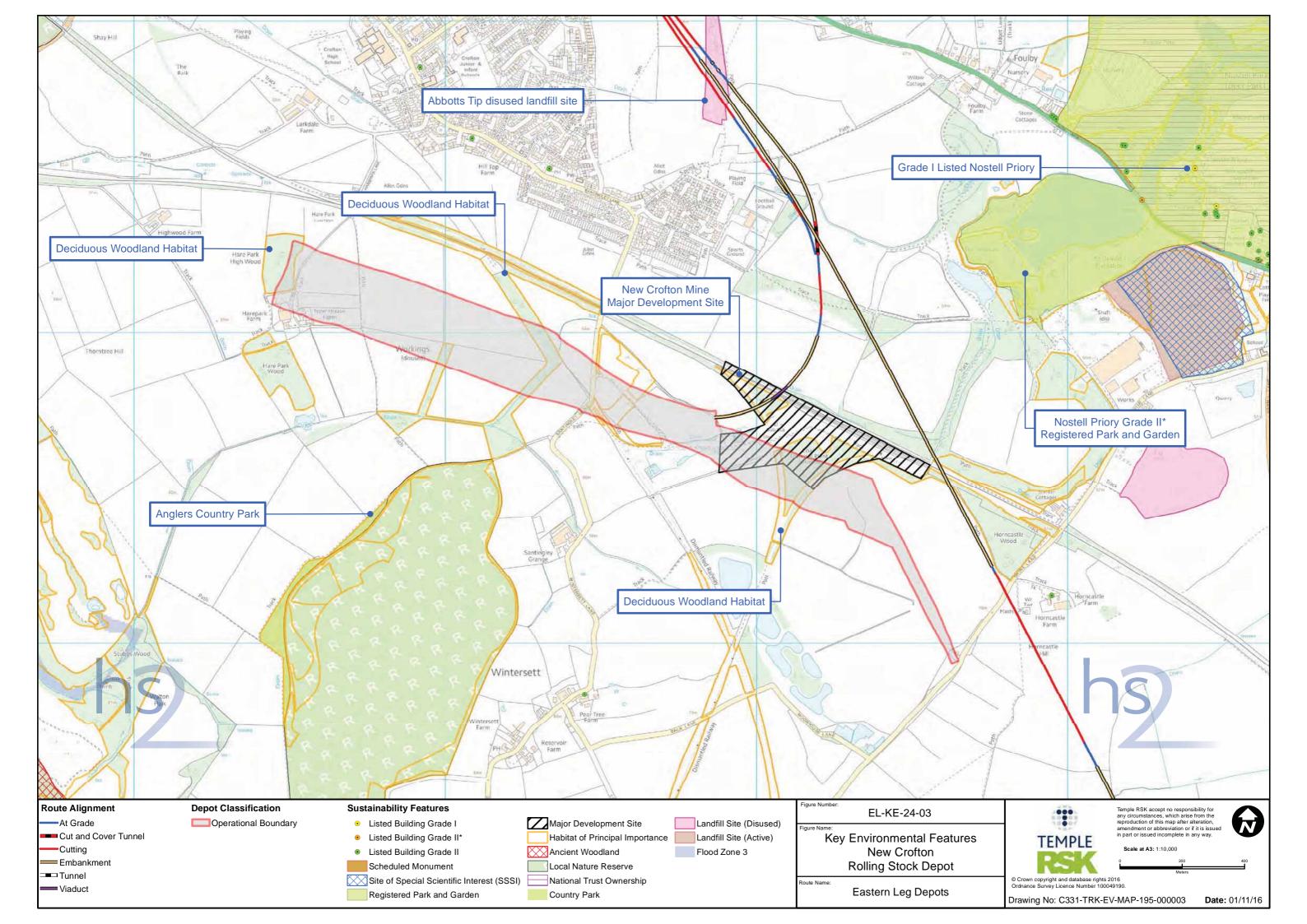
















## Eastern Leg – Leeds Residential Airborne Noise Mapping

Sets 1 and 2: without and including additional mitigation



