

M54 to M6 Link Road
TR010054

6.3 Environmental Statement
Appendices
Appendix 8.16: Ancient Hedgerow
Assessment

Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

October 2020

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

**M54 to M6 Link Road
Development Consent Order 202[]**

**6.3 Environmental Statement Appendices
Appendix 8.16 Ancient Hedgerow Assessment**

Regulation Number	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010054
Application Document Reference	6.3
Author	M54 to M6 Link Road Project Team and Highways England

Version	Date	Status of Version
1	October 2020	DCO Application

Table of contents

Chapter	Pages
1 Introduction	1
2 Relevant Legislation and Policy.....	2
2.1 Legislation	2
2.2 Policy.....	2
3 Methodology	3
3.1 Field Surveys	3
3.2 Desk Study.....	3
3.3 Assessment of Effects.....	3
3.4 Assumptions and Limitations.....	3
4 Results and Evaluation.....	5
5 Assessment of Likely Effects.....	9
5.1 Potential Impact.....	9
5.2 Design, mitigation and enhancement	9
5.3 Assessment of likely significant effects	9
6 References.....	10

List of Tables

Table 4.1: Hedgerow Historic Map.....	6
Table 4.2: Hedgerow summary.....	8

1 Introduction

- 1.1.1 Highways England is developing a link road between the M54 and M6 to provide a link between Junction 1 of the M54, M6 North and the A460 to Cannock. The M54 to M6 Link Road (herein referred to as ‘the Scheme’) aims to reduce congestion on local / regional routes, particularly the A449 and A460 and deliver improved transport links to encourage the development of the surrounding area.
- 1.1.2 The likely environmental impacts and effects resulting from the Scheme during construction and operation are reported in the Environmental Statement (ES) [TR010054/APP/6.1] submitted as part of the Development Consent Order (DCO) application for the Scheme.
- 1.1.3 This report has been prepared to ensure consideration of impacts of the scheme on potentially ancient hedgerows.
- 1.1.4 This report includes the following information:
- legislation and planning policy relevant to ancient hedgerows;
 - methodologies for identification and assessment of ancient hedgerows;
 - limitations of the assessment, and any assumptions made as a result of incomplete data; and,
 - results of the assessment.
- 1.1.5 This report should be read in conjunction with Chapter 8: Biodiversity of the Environmental Statement [TR010054/APP/6.1].

2 Relevant Legislation and Policy

2.1 Legislation

Hedgerow Regulations

- 2.1.1 Hedgerows that meet relevant criteria (i.e. those that are considered 'important' under the Hedgerow Regulations 1997) receive legal protection. Ancient hedgerows do not automatically receive this legal protection.
- 2.1.2 Full details of this legislation are provided in Appendix 8.1 Legislation and Policy Framework [TR010054/APP/6.3] of the submitted ES.

2.2 Policy

Planning Policy

- 2.2.1 Full detail of relevant national and local planning policy relevant to nature conservation is provided in Appendix 8.1 Legislation and Planning Policy [TR010054/APP/6.3] and a summary is provided in Chapter 8: Biodiversity of the ES (Version 3) [TR010054/APP/6.1].

Staffordshire Biodiversity Action Plan

- 2.2.2 Staffordshire Biodiversity Action Plan (SBAP) (Ref 1) provides action plans that define conservation objectives for local priority habitats and species. The action plan for ancient/ diverse hedgerows aims to:
- Halt the net loss of ancient and diverse hedgerows and achieve a favourable level of management for such hedges.
 - Increase the net length of native, species rich hedgerows within the County.
 - Ensure development plans provide for the protection and management of species rich hedges.
 - Ensure all hedges under threat of destruction are surveyed for their importance.
 - Seek to ensure that all future hedgerow planting is either species rich or is in accordance with the area in which it is to be created.
- 2.2.3 This assessment has taken account of the SBAP conservation objectives for ancient/ diverse hedgerows to evaluate effects upon relevant hedgerows, and to guide the targeted improvement of biodiversity.

3 Methodology

3.1 Field surveys

3.1.1 No supplementary field surveys have been undertaken. The assessment of ancient hedgerows is based on the field surveys reported in ES Chapter 8 and Appendix 8.4 [TR010054/APP/6.1 and TR010054/APP/6.3].

3.2 Desk study

3.2.1 Ancient hedgerows, which tend to be those which support the greatest diversity of plants and animals, are generally defined as those which were in existence before the Enclosure Acts, passed mainly between 1720 and 1840 in Britain.

3.2.2 To therefore determine if a hedgerow is ancient, a search of available historic mapping was reviewed in order to identify any historically important hedgerows. This included tithe and estate maps from Staffordshire Record Office and 19th and 20th century Ordnance Survey mapping available on National Library of Scotland (maps.nls.uk/). The assessment was limited to the available mapping.

3.2.3 Further to this, the Hooper Formula (Ref 3) has been used to support dating hedgerows identified as part of this assessment. Historic England states that this formula is based on the number of tree and shrub species per unit length and assumes the number of tree and shrub species in a 30-metre length of hedge can indicate its age, with one species for each 100 years. A single species hedge is likely to be less than 100 years old whilst a 1,000-year-old hedge is likely to contain ten to twelve species. This method of assessment has limitations, and these are discussed in Section 3.4 of this report.

3.3 Assessment of effects

3.3.1 The assessment of effects on ancient hedgerows has been undertaken in accordance with the assessment methodology outlined in Chapter 8: Biodiversity of the ES, Section 8.3 'Assessment Methodology' and in line with DMRB LA 108 (Ref 2).

3.4 Assumptions and limitations

3.4.1 Several limitations have been identified in relation to the historic environment information. The data used was limited to available historic mapping as viewed in Staffordshire Record Office and on the National Library of Scotland (maps.nls.uk/). Additional mapping may provide further information not currently possessed but is not publicly available. In addition, the parish boundaries recorded on the historic maps are not specifically recorded as a hedgerow, only as marked lines. In these cases, it cannot definitively be stated whether a hedgerow was present or not at the time the map was produced.




3.4.2 The Hooper formula, used here to determine the age of the hedgerow, is not a definitive indication of hedge age and has therefore been used with caution. Hedges may have been planted with a mixture of species and there is geographical variation (Ref 3). Assumptions on the age of the hedge have therefore been made on species

richness and the presence or absence of mature stands within the length of the hedgerow.

4 Results and Evaluation

- 4.1.1 In support of the hedgerow assessment Historic map details are provided in Table 4.1 and a summary of hedgerow condition during 2019 field surveys are presented in Table 4.2.
- 4.1.2 Hedgerow 27, which follows the boundary between Shareshill and Saredon, on the north-eastern side of the Latherford Brook has ancient characteristics for the following reasons:
- The boundary line is shown on the 1840 Shareshill tithe map but is not specifically a hedgerow. The hedgerow is important as it marks the boundary of a historic parish, present before 1850.
 - The hedgerow is species rich and consists of seven species with stands of mature trees of an even age.
- 4.1.3 Due to the lack of any maps older than 1840 there is no conclusive evidence that this hedgerow is ancient.
- 4.1.4 Hedgerow 71 is located immediately north of Hilton Lane, on the boundary of Shareshill and Hilton Hall. The road is shown on the 1840 Shareshill tithe map, although no hedgerow is specifically recorded. The hedgerow is important under the hedgerow regulations as it marks the boundary of a historic parish, present before 1850, however there is no indication that the hedgerow existed at this location. This hedgerow is also species poor and is dominated by hawthorn with only three other species present with no stands of mature trees identified within the line of the hedge. This hedgerow is therefore not considered to be ancient.
- 4.1.5 Based on the review of the historic mapping, none of the other hedgerows situated within the Scheme boundary are ancient.

Table 4.1: Hedgerow historic map

Target note (Fig 8.3)	Historic map	Location	Historic Map Image
27	1840 Shareshill tithe map	Hedge follows the boundary between Shareshill and Saredon, on the north-eastern side of the Latherford Brook. Boundary line shown on map, not specifically hedgerow.	 <p>1840 Shareshill tithe map</p>  <p>1884 Staffordshire LVI.NE Ordnance Survey map</p>  <p>1924 Staffordshire LVI.NE Ordnance Survey map</p>



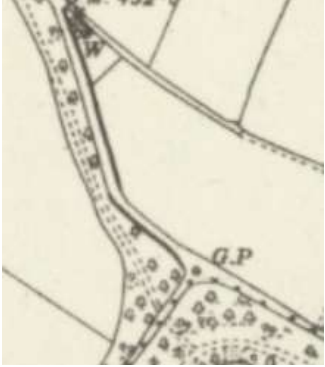


Target note (Fig 8.3)	Historic map	Location	Historic Map Image
71	1840 Shareshill tithe map	Immediately north of Hilton Lane, on boundary of Shareshill and Hilton Hall. Highlighted area on the map is a road and not a hedgerow.	 <p>1840 Shareshill tithe map</p>  <p>1884 Staffordshire LVI.NE Ordnance Survey map</p>  <p>1924 Staffordshire LVI.NE Ordnance Survey map</p>

Table 4.2: Hedgerow summary

Target note (Fig 8.3)	Description	Photograph	Distinctive -ness	Condition	Nature Conservati on Importance	Ancient
27	<p>Contiguous with Brookfields Farm, Shareshill LWS and SBI. Intact species rich hedge with a mature tree line. Located alongside Latherford Brook (TN33).</p> <p>Consists of even aged stands of mature alder and pedunculate oak. Where present the under / mid-storey contains elder and goat willow <i>Salix caprea</i>.</p> <p>Species: alder (D), hawthorn (O), elder (O), sycamore (R), goat willow (F), pedunculate oak (D).</p>		High	Medium	Local	Yes (assumed)
71	<p>Intact species-poor hedge immediately to the north of Hilton lane, forming the southern border of arable field. Appears to have been cut in the past 3-5 years.</p> <p>Species: hawthorn (D) hazel (A), wych elm (LD) sycamore (F)</p> <p>Structure: height <2 m width >1.5 m.</p>		High	Moderate	Local	No

5 Assessment of Likely Effects

5.1 Potential impact

5.1.1 There would be no impact to hedgerow 27 as a result of the Scheme. Hedgerow 71 would be impacted over much of its length.

5.2 Design, mitigation and enhancement

5.2.1 Hedgerow 71 is not considered to be ancient but is still a locally important feature of value to biodiversity. Mitigation will be as described within Chapter 8 Section 8.8 of the ES. In summary this involves replacement planting of species rich hedgerows for those that are damaged or destroyed.

5.3 Assessment of likely significant effects

5.3.1 As Hedgerow 71 is not considered to be ancient, the effects are as described in Section 8.9 of Chapter 8 of the ES.

6 References

- Ref 1 Staffordshire Biodiversity Action Plan. Available online at:
<http://www.sbap.org.uk/>.
- Ref 2 Highways England (2019) LA 108 Biodiversity. Available online at:
<http://www.standardsforhighways.co.uk/ha/standards/dmr/vol11/section3/LA%20108%20Biodiversity-web.pdf>
- Ref 3 Historic England (2020) Hedges. Available online at:
<https://historicengland.org.uk/advice/technical-advice/parks-gardens-and-landscapes/hedges/>