A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.7 Environmental Statement – Appendix 6.10 Noise and Vibration DMRB Sensitivity Test

Part A

APFP Regulation 5(2)(a)

Planning Act 2008

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

June 2020

Infrastructure Planning

Planning Act 2008

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

The A1 in Northumberland: Morpeth to Ellingham Development Consent Order 20[xx]

Environmental Statement - Appendix

Regulation Reference:	APFP Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010041
Application Document Reference	TR010041/APP/6.7
Author:	A1 in Northumberland: Morpeth to Ellingham Project Team, Highways England

Version	Date	Status of Version
Rev 0	June 2020	Application Issue

CONTENTS

TABLES

FIGURES

1. INTRODUCTION

1.1. PURPOSE OF THIS DOCUMENT

1.1.1. The Design Manual for Roads and Bridges (DMRB) LA 111 Noise and Vibration Revision 0 (LA 111) was released in November 2019 which was then superseded by Revision 1 in February 2020 (**Ref. 1.1**). This new guidance supersedes the former DMRB HD 213/11 (**Ref. 1.2**) and Interim Advice Note 185/15 (IAN 185/15) (**Ref. 1.3**).

1.1.2. The purpose of this Appendix is to report the potential changes to the noise and vibration assessment presented in **Chapter 6: Noise and Vibration, Volume 2** of this Environmental Statement (ES) (**Application Document Reference TR010041/APP/6.2**) as a result of the updated guidance.

1.1.3. Only operational noise and vibration is considered in this Appendix. This is because the HD 213/11 (**Ref. 1.2**) methodology used to undertake the construction assessment set out in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference TR010041/APP/6.2**) is not dissimilar to that proposed in LA 111 (**Ref. 1.1**). Therefore, the potential for changes to the conclusions of the construction assessment is considered to be very low.

1.1.4. The first part of this document highlights the key changes in the new LA 111 (**Ref. 1.1**), with consideration given to the implications for the noise and vibration assessment in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference TR010041/APP/6.2**). The second part presents a brief appraisal of the potential for additional significant effects as a result of applying the new LA 111 (**Ref. 1.1**) methodology. A summary is included at the end of this Appendix.

2. KEY UPDATES

2.1. TRAFFIC SPEEDS

2.1.1. The requirement for speed banding has been removed but the need to 'pivot' speeds is retained. This also has implications for the road surface correction that is applied in the noise model to each road segment, as this is dependent not only on the pavement type but also traffic speed.

2.1.2. As the speeds and road surface corrections need to be adjusted in the noise model to align with the LA 111 (**Ref. 1.1**) guidance, there is the potential for additional Environmental Impact Assessment (EIA) significant effects, and so this has been considered further below.

2.2. STUDY AREA

2.2.1. The guidance for the derivation of the Study Area has been updated. Previously HD 213/11 (**Ref. 1.2**) referred to a 'Calculation Area' as well as a 'Study Area'. The Calculation Area referred to the area within which receptor specific analysis would be undertaken and noise contour figures would be produced. The Calculation Area was derived (based on the principles of HD 213/11 (**Ref. 1.2**)) as follows:

I. Identify the start and end points of the physical works associated with the Scheme.
II. Define a boundary 1 km from the carriageway edge of the routes identified in (I) above.
III. Define a boundary 600 m from the carriageway edge around the route identified in (I) above and 600 m from any other affected routes within the boundary defined in (II) above. The total area within these 600 m boundaries is termed the Calculation Area.

2.2.2. The main operational Study Area was taken to be a boundary of 1 km from the carriageway edge of Part A.

2.2.3. LA 111 (**Ref. 1.1**) has simplified this guidance and now states:

"*An operational study area defined as the following can be sufficient for most projects, but it can be reduced or extended to ensure it is proportionate to the risk of likely significant effects:*

1) the area within 600 m of new road links or road links physically changed or bypassed by the project;

2) the area within 50 m of other road links with potential to experience a short term BNL change of more than 1.0 dB(A) as a result of the project."

2.2.4. The road traffic model provided for schemes such as Part A are large, and it would be impractical and disproportionate to include all buildings and roads within the 50 m buffers defined by part 2 of the above in the main noise model at the outset. Therefore, the interpretation of this guidance is that detailed, receptor specific calculations would initially be

undertaken within a calculation area that extends 600 m from Part A. Where there is the potential for significant adverse effects, receptor specific calculations could still be undertaken within the 50 m buffers (and outside the 600 m calculation area), however, this has not been done for the purpose of this sensitivity test.

2.2.5. It is likely, therefore, that the guidance contained within LA 111 (**Ref. 1.1**) would lead to a reduced Study Area (by excluding detailed noise calculations between 600 m and 1,000 m from Part A) compared to that currently adopted for Part A (based on the requirements of HD 213/11 (**Ref. 1.2**)). Nevertheless, to facilitate a simple comparison of the potential significant effects resulting from following HD 213/11 (**Ref. 1.2**) and LA 111 (**Ref. 1.1**) methodologies, it is appropriate to undertake this sensitivity test within the original Study Area and Calculation Area adopted for Part A.

2.3. OPERATIONAL VIBRATION AND AIRBORNE VIBRATION NUISANCE

2.3.1. LA 111 (**Ref. 1.1**) notes that:

"*Operational vibration is scoped out of the assessment methodology as a maintained road surface will be free of irregularities as part of project design and under general maintenance, so operational vibration will not have the potential to lead to significant effects*".

2.3.2. Neither the requirement nor methodology for calculating airborne vibration nuisance is present in LA 111 (**Ref. 1.1**).

2.3.3. As an assessment of operational vibration is scoped out of the assessment methodology in LA 111 (**Ref. 1.1**), and no operational vibration significant effects were predicted in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**), this requires no further consideration.

NOISE NUISANCE

2.3.4. Neither the requirement nor methodology for calculating the operational noise nuisance from Part A is present in LA 111 (**Ref. 1.1**).

2.3.5. As the assessment of noise nuisance is no longer required, and no noise nuisance significant effects were predicted in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**), this requires no further consideration.

2.4. SIGNIFICANCE OF EFFECTS

2.4.1. Where a building is predicted to experience different changes in noise level on different facades, LA 111 (**Ref. 1.1**) advises that the greatest magnitude of change in noise should be reported. HD 213/11 (**Ref. 1.2**) previously advised that the least beneficial change in noise level should be reported.

2.4.2. The least beneficial change represents the worst-case approach in that the largest adverse change in noise level would always be reported, regardless of the potential benefits on other facades.

2.4.3. It should be noted that LA 111 (**Ref. 1.1**) suggests that when determining the significance of effect at a particular property, the noise level changes on all facades of the building are considered rather than just the greatest magnitude change.

2.4.4. LA 111 (**Ref. 1.1**) also sets out more definitively how to determine if an impact gives rise to an EIA significant effect, whereby the magnitude of the short-term noise level change is initially considered, with subsequent regard given to a number of contextual factors.

NIGHTTIME NOISE LEVELS

2.4.5. HD 213/11 (**Ref. 1.2**) previously included a 55 dB L_{night} cut-off threshold for receptors during the night time. This is not included in LA 111 (**Ref. 1.1**) meaning all receptors should now be considered during the nighttime. Whilst this is a change in assessment methodology and reporting of results, the removal of this threshold is unlikely to change the conclusions of **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**). Given that the L_{night} is calculated from the daytime $L_{A10,18h,}$ the nighttime and daytime assessments are directly linked. The differential between the calculated daytime and nighttime noise levels is such that the daytime assessment is comparable to the nighttime assessment. The assessment of significance applicable to the daytime $L_{A10,18h}$ results is also expected to be reflective of the nighttime assessment. Consequently, including nighttime results below the 55 dB L_{night} cut-off threshold should not alter the assessment of significant effects and is unlikely to necessitate the consideration of additional mitigation. Nighttime noise levels and the threshold cut-off would therefore not be included in the appraisal which follows.

OTHER SENSITIVE RECEPTORS

2.4.6. Consideration of nighttime short-term noise changes has been introduced for dwellings and other sensitive receptors (whereas previously it was only considered in the long-term for dwellings). LA 111 (**Ref. 1.1**) now also includes other sensitive receptors[1] in the long-term assessments.

2.4.7. Whilst these represent a change in assessment methodology and to the reporting of results, as stated above, given that the assessment of significance applicable to the daytime $L_{A10,18h}$ results is also reflective of the night time results, the introduction of these additional requirements is unlikely to change the conclusions of **Chapter 6: Noise and Vibration,**

[1] Other sensitive receptors include hospitals, healthcare facilities, education facilities, community facilities, Environmental Noise Directive (END) quiet areas or potential END quiet areas, international and national or statutory designated sites, public rights of way and cultural heritage assets.

Volume 2 of this ES (**Application Document Reference: TR010041/APP/6.2**). This aspect is not considered further.

2.5. SUMMARY OF KEY CHANGES

2.5.1. Whilst it is acknowledged there are a number of changes which are unlikely to affect the conclusions operational road traffic Noise and Vibration assessment, as summarised above, the following issues warrant further consideration:

a. Traffic Speeds
b. Significance of Effects

2.5.2. The following section presents the findings of a proportionate appraisal of the potential implications of the change in DMRB guidance with respect to traffic speeds and significance of effects.

3. APPRAISAL

3.1. ABSOLUTE NOISE LEVELS

3.1.1. It is first pertinent to consider the potential changes in absolute noise levels resulting from the use of banded speeds rather than pivoted speeds. This has the potential to impact the number of properties above the Lowest Observed Adverse Effect Level (LOAEL) and Significant Observed Adverse Effect Level (SOAEL) thresholds, which in turn are used to assist in determining potential significant effects.

3.1.2. Following IAN 185/15 (**Ref. 1.3**) methodology, traffic speeds were originally banded into the following, 20, 33, 63 and 97 kph speeds (these are the specific bands for non-motorway roads).

3.1.3. The general pattern for the majority of Part A, from the southern end to West Moor Junction is that in the Do-minimum opening year (2023) the pivoted speeds were banded 'up' into the 97 kph speed band (i.e. a speed of 85 kph would be banded to 97 kph). In the Do-something opening year, generally speeds were banded 'down' into the 97 kph speed band (i.e. a speed of 110 kph would be banded to 97 kph).

3.1.4. This means that for large sections of Part A, under the previous HD 213/11 (**Ref. 1.2**) and IAN 185/15 (**Ref. 1.3**) methodology the Do-minimum opening year and Do-something opening year speeds were the same. This is no longer the case following LA 111 (**Ref. 1.1**) methodology, with a decrease in speeds along some sections of the A1 in the Do-minimum generally leading to reduced Do-minimum noise levels and an increase in speeds along some sections of the A1 in the Do-something generally leading to increased Do-something noise levels.

3.1.5. Whilst this outcome is not observed for the entire A1, and some of the local roads in the model also do not follow this pattern, it is likely that:

a. The number of properties above the daytime and nighttime LOAELs and SOAELs would reduce in the Do-minimum opening and future years; and
b. The number of properties above the daytime and nighttime LOAEL and SOAEL would increase in the Do-something opening and future years.

3.1.6. Whilst this would certainly change the results reported in the assessment, it is unlikely to cause a significant change in the conclusions of **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**). The Noise Policy Statement for England (**Ref. 1.4**) notes that where properties are predicted to experience noise levels above the LOAEL and SOAEL, noise levels should be mitigated and minimised as far as possible, within the context of sustainable development.

NOISE LEVEL CHANGES

3.1.7. As the purpose of this Appendix is to identify the potential changes to the conclusions of the noise and vibration assessment (including whether there was likely to be changes in

significant effects and therefore mitigation) presented in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**), the full results tables have not been replicated.

3.1.8. Instead, this section focuses on the minor, moderate and major beneficial and adverse impacts, which have the potential to be significant.

3.1.9. LA 111 (**Ref. 1.1**) notes that the short-term noise level changes should be used initially when determining potential EIA significant effects. It is therefore appropriate to compare the results of the short-term noise level changes following both HD 213/11 (**Ref. 1.2**) and LA 111 (**Ref. 1.1**) methodology. This analysis considers the different methods of selecting a representative noise change for each building as discussed (under Significance of Effects) above. For simplicity only the daytime results are presented in **Table 3-1** for residential properties, the nighttime results follow broadly the same pattern.

Table 3-1 - Short-term Magnitudes of Impact at Residential Properties for HD 213/11 and IAN 185/15 Methodology Compared to LA 111 Methodology

Adverse/Beneficial	Magnitude of Impact	HD 213/11 and IAN 185/15 Methodology	LA 111 Methodology
Beneficial	Major	9	22
	Moderate	4	3
	Minor	12	50
	Negligible adverse/beneficial and no change	328	264
Adverse	Minor	26	39
	Moderate	1	1
	Major	3	4

3.1.10. It is clear from the above table that the LA 111 (**Ref. 1.1**) methodology results in more receptors in the minor to major categories, than negligible or no change than the HD 213/11 (**Ref. 1.2**) methodology.

3.1.11. The increase in minor and major adverse results is thought to be caused mainly by the change from banded speeds to pivoted speeds as discussed above.

3.1.12. The increase in minor and major beneficial results is thought to be mainly due to selecting the façade with the greatest magnitude of change result to represent each building, rather than the least beneficial change (which would always favour an adverse result over a beneficial one, regardless of the magnitude).

3.1.13. The Noise and Vibration assessment presented in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) concluded that the three receptors with major adverse impacts were likely to experience significant adverse effects. No other significant adverse effects for operational road traffic noise impacts were identified.

3.2. SIGNIFICANCE OF EFFECTS

3.2.1. The following paragraphs focus on the potential for the LA 111 (**Ref. 1.1**) methodology to give rise to additional significant adverse noise effects which would result in a change in the conclusions as set out in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**).

3.2.2. It is first appropriate to consider the major and moderate adverse impacts as LA 111 (**Ref. 1.1**) notes that these are likely to be significant:

a. The three previous major impacts (at Causey Park and New Houses Farm) are still major (and with higher noise level changes) meaning these three receptors remain significant adverse effects.

b. The one moderate impact previously is now the fourth major impact. Whilst this receptor is predicted to experience a major impact on one façade, as the noise level changes on other facades range from minor adverse to moderate beneficial and the absolute noise levels are less than 5 dB above the LOAEL, this is still considered non-significant.

c. The moderate impact (which does not correspond to the previous HD 213/11 (**Ref. 1.2**) moderate impact which is discussed above) is adjacent to the wider road network as opposed to the A1. This receptor is in the lower half of the moderate threshold and the noise levels around the property are only marginally above the daytime LOAEL. Therefore, the effect at this receptor is considered to be non-significant.

3.2.3. LA 111 (**Ref. 1.1**) states that receptors with a minor short-term noise level change and which are also predicted to experience noise levels above the SOAEL have the potential to be significant. One receptor at Northgate Farm, within the Northgate Farm Noise Important Area (NIA 10003), is predicted to experience a minor adverse noise level change in the short-term on a number of facades and noise levels above SOAEL. Although this property is deemed likely to experience a significant adverse effect, this would be mitigated such that the effect was non-significant by a noise barrier already included for Part A. This is discussed further below (under the heading ‘Proposed Noise Barriers’).

3.2.4. As highlighted by **Table 3-1** above, whilst there is an increase in adverse impacts of minor to major magnitude, there is also an increase in minor to major beneficial impacts.

3.2.5. Following HD 213/11 (**Ref. 1.2**), 13 dwellings were predicted to experience significant beneficial effects as a result of Part A. Following the LA 111 (**Ref. 1.1**) methodology, and shown in **Table 3-1** above, 25 dwellings are predicted to experience moderate or major benefits, however, 24 of these are predicted to be significant beneficial effects. One of the receptors in the moderate beneficial impact category is deemed not to be significant due to contextual factors such as the noise level changes on other facades and the predicted absolute noise levels.

3.2.6. The results (following LA 111 (**Ref. 1.1**) methodology) for Felmoor Park and Bockenfield Holiday Park were also compared with the results following HD 213/11 (**Ref. 1.2**) methodology. Whilst the predicted noise levels have changed due to the factors discussed above, no receptors in this area are likely to experience significant adverse effects, as was previously the case.

OTHER-SENSITIVE RECEPTORS

3.2.7. The results (following LA 111 (**Ref. 1.1**) methodology) for the six other sensitive receptors were also compared with the results following HD 213/11 (**Ref. 1.2**) methodology. Whilst the predicted noise levels have changed due to the factors discussed above, none of the six other sensitive receptors are predicted to experience moderate or major adverse impacts, meaning no significant adverse effects are predicted, as was previously the case.

3.2.8. The results (following LA 111 (**Ref. 1.1**) methodology) for the Burial Ground (Northumberland Woodland Burials), St Oswald's Way and the River Coquet and Coquet Valley Woodlands were also compared with the results following HD 213/11 (**Ref. 1.2**) methodology. Whilst the predicted noise levels have changed due to the factors discussed above, none of these three areas are predicted to experience significant adverse effects, as was previously the case.

3.2.9. Three of the receptors, the two holiday cottages and Tritlington Church of England First School are still predicted to experience significant beneficial effects following LA 111 (**Ref. 1.1**) methodology.

3.3. PROPOSED NOISE BARRIERS

3.3.1. It should be noted noise barriers PNB2 and PNB3 have been included to reduce noise levels for the three receptors predicted to experience significant adverse effects at Causey Park and New Houses Farm. PNB4 is included as an enhancement barrier for Felmoor Park and Bockenfield Holiday Park.

3.3.2. The potential significant adverse effect at Northgate Farm is mitigated by PNB1 such that the worst-case façade is only predicted to experience a negligible increase in noise level. This means that with mitigation, this receptor is not expected to experience a significant adverse effect. It is noted in **Chapter 6: Noise and Vibration, Volume 2** of this ES

(**Application Document Reference: TR010041/APP/6.2**) that it cannot be confirmed whether a barrier can be built in this location until the detailed design stage. If PNB1 can be built, the attenuation afforded by the barrier would mean that Northgate Farm is not predicted to experience a significant adverse effect.

3.3.3. It is noted in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2)** that Northgate Farm is likely to be eligible for compensation under the Noise Insulation Regulations 1975 (as amended) (**Ref. 1.5**) (NIR) if PNB1 cannot be built. Following LA 111 (**Ref. 1.1**) methodology, the same outcome would occur. If PNB1 can be built, Northgate Farm would not be eligible for compensation under the NIR (**Ref. 1.5**).

3.3.4. In addition, Strafford House is also predicted to be likely to be eligible for compensation under the NIR (**Ref. 1.5**), following the LA 111 (**Ref. 1.1**) assessment methodology.

3.4. SUMMARY

3.4.1. The three likely significant adverse effects identified in **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) would remain significant adverse effects following LA 111 (**Ref. 1.1**) methodology. There is the potential for one additional significant adverse effect at Northgate Farm if PNB1 cannot be built in this location, however, it is likely that this property would be eligible for compensation under the NIR (**Ref. 1.5**) if this is the case.

3.4.2. It is noted that 27 significant beneficial effects (24 dwellings and three other sensitive receptors) are predicted following LA 111 (**Ref. 1.1**) methodology. The total number has increased as a result of following LA 111 (**Ref. 1.1**) methodology.

3.4.3. Whilst there is the potential for one additional significant adverse effect (at Northgate Farm if PNB1 cannot be built), the acoustic mitigation measures proposed in the **Chapter 6: Noise and Vibration, Volume 2** of this ES (**Application Document Reference: TR010041/APP/6.2**) (four noise barriers and a low noise road surface) remain appropriate.

3.4.4. The locations of all significant beneficial and adverse effects as a result of the LA 111 (**Ref. 1.1**) methodology are shown on **Figure 6.10**.

REFERENCES

Ref. 1.1 Highways England, Design Manual for Roads and Bridges, Sustainability & Environment Appraisal, LA 111 Noise and Vibration, Revision 1 (2020), November 2019. Available at: http://origin.standardsforhighways.co.uk/ha/standards/DMRB/vol11/section3.htm

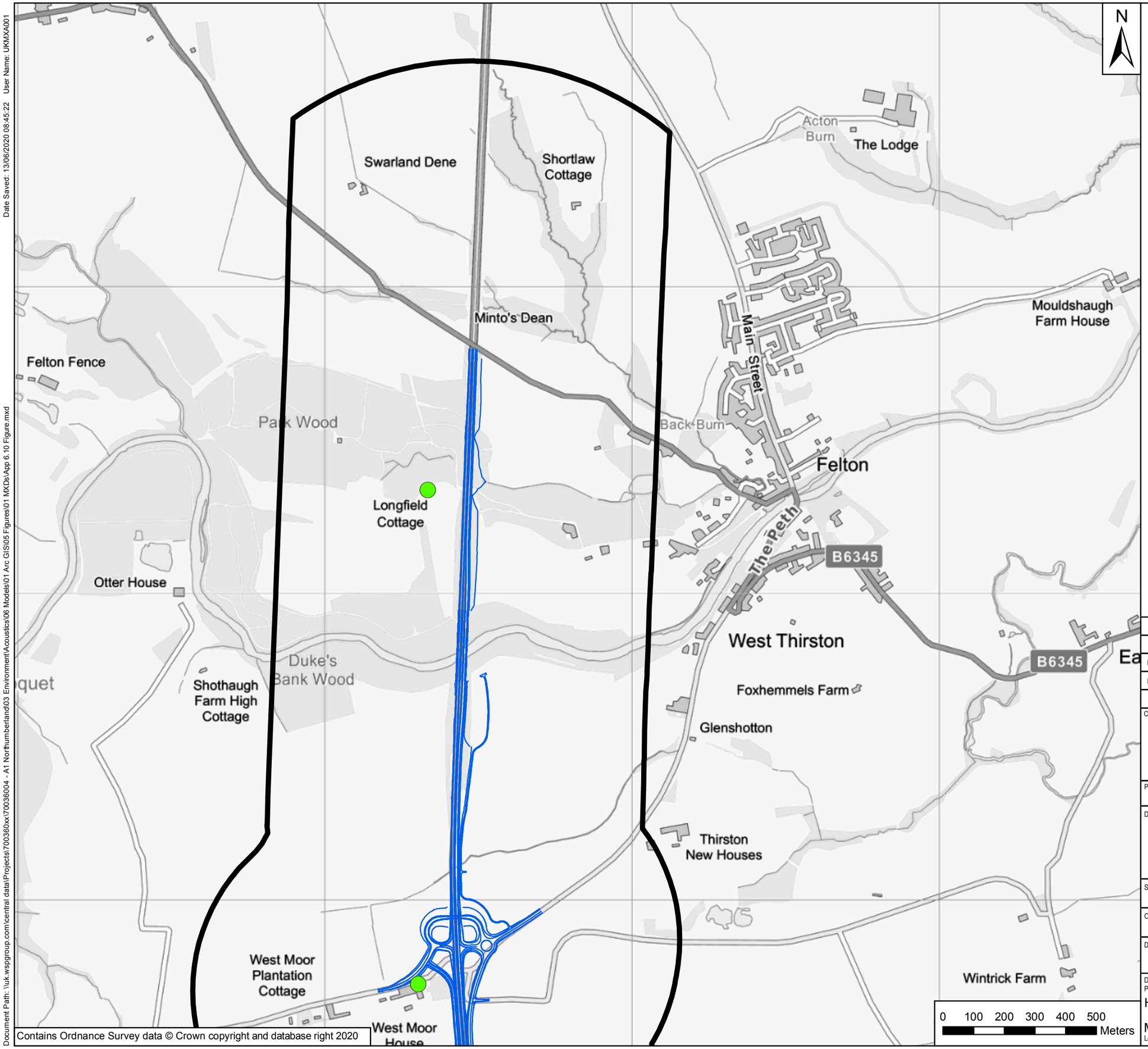
Ref. 1.2 Highways Agency, Scottish Government, Welsh Assembly Government and the Department for Regional Development Northern Ireland (2011), Design Manual for Roads and Bridges, Volume 11, Section 3, Part 7, HD 213/11 revision 1. Noise and Vibration.

Ref. 1.3 Highways England (2015). Interim Advice Note (IAN) 185/15 Updated traffic, air quality and noise advice on the assessment of link speeds and generation of vehicle data into 'speed-bands' for users of DMRB Volume 11, Section 3, Part 1 'Air Quality and Volume 11, Section 3, Part 7 Noise.

Ref. 1.4 Defra (2010). Noise Policy Statement for England (March 2010). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69533/pb13750-noise-policy.pdf

Ref. 1.5 HM Government (1975, as amended 1988). The Noise Insulation Regulations 1975 (as amended 1988). Available at: http://www.legislation.gov.uk/uksi/1975/1763/contents/made

Figure - Part A Appendix 6.10, Figure 6.10, Part A LA 111 Significant Effects



Key

- General Arrangement
- Operational Calculation Area

Part A LA 111 Significant Effects

- Adverse
- Beneficial
- Northgate Farm

Rev	Date	Description	By	Chk'd	App'd
P02	June 2020	Second Issue	MA	RP	KS
P01	16/05/20	First Issue	MA	NM	KS

Client: highways england

Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title: Part A Appendix 6.10
Figure 6.10 Part A LA 111 Significant Effects
Page 1 of 5

Scale	Drawn	Checked	Approved	Authorised
1:11,840	MA	NM	KS	DM
Original Size	Date	Date	Date	Date
A3	16/05/20	16/05/20	16/05/20	16/05/20

Drawing Status: For Information

Suitability: S1

Drawing Number: Project HE551459 | Originator WSP | Volume 6.7 | M2F Location | RP Type | LE Role | 1942 Number

Project Ref. No.: 70044136

Revision: P02

Cottage
West Moor House
Howdens Glebe Cottage
Blackwood Hall
Blackbrook Farm
The Paddock
Eshottheugh
Bywell Cottages
Bywell Letch
Burgham
Bell's Hill
Longdyke
East Linden
Longdike Burn
Home Cottage
Eshott Bi

N

Key
- General Arrangement
- Operational Calculation Area

Part A LA 111 Significant Effects
- Adverse
- Beneficial
- Northgate Farm

0 100 200 300 400 500 Meters

Rev	Date	Description	By	Chk'd	App'd
P02	June 2020	Second Issue	MA	RP	KS
P01	16/05/20	First Issue	MA	NM	KS

Client: highways england

Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title:
Part A Appendix 6.10
Figure 6.10 Part A LA 111 Significant Effects
Page 2 of 5

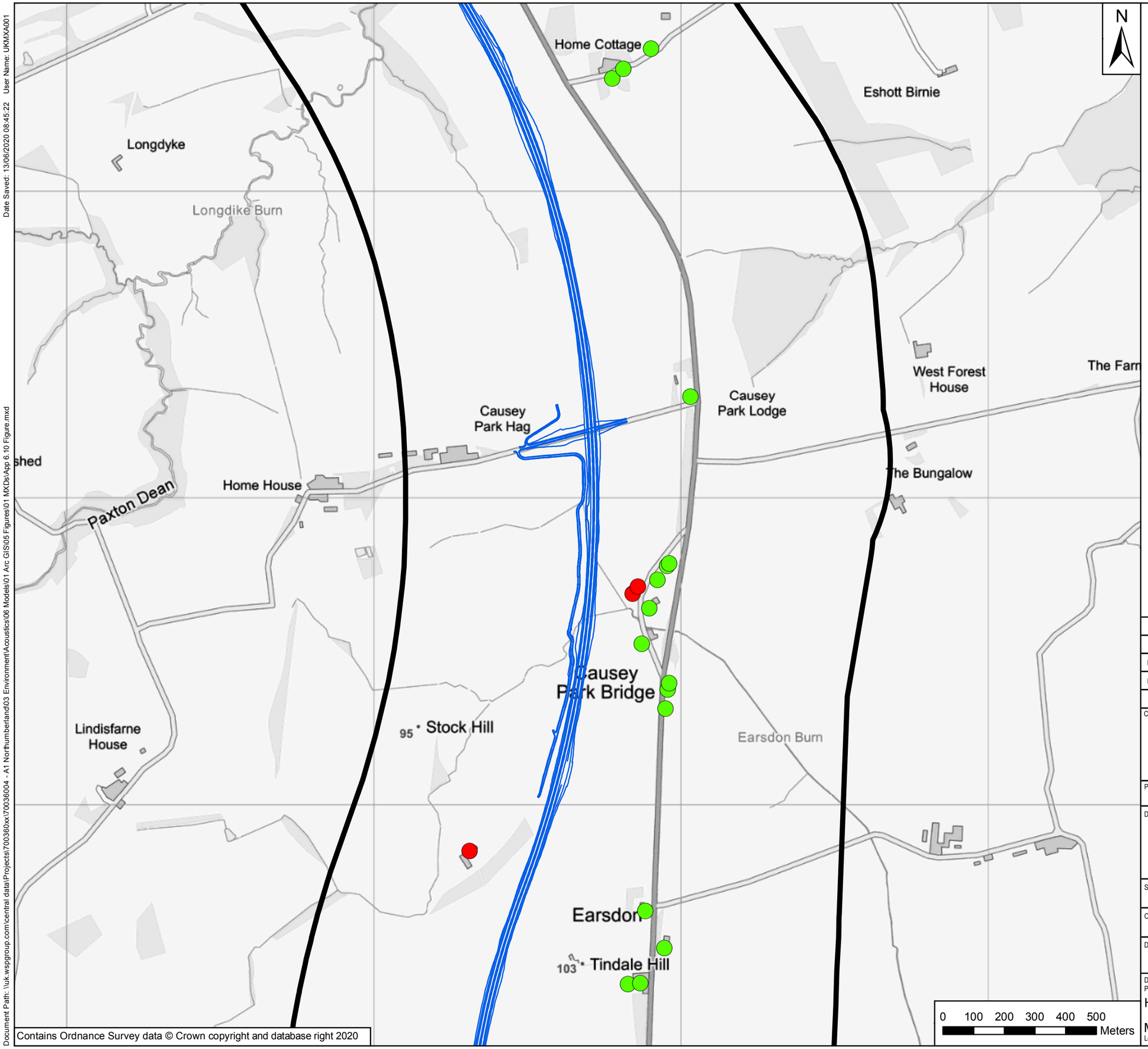
Scale	Drawn	Checked	Approved	Authorised
1:11,840	MA	NM	KS	DM
Original Size	**Date**	**Date**	**Date**	**Date**
A3	16/05/20	16/05/20	16/05/20	16/05/20

Drawing Status: For Information

Suitability: S1

Drawing Number Project	Originator	Volume	Project Ref. No.
HE551459	WSP	6.7	70044136

Location	Type	Role	Number	Revision
M2F	RP	LE	1942	P02



Key

- General Arrangement
- Operational Calculation Area

Part A LA 111 Significant Effects

- Adverse
- Beneficial
- Northgate Farm

Rev	Date	Description	By	Chk'd	App'd
P02	June 2020	Second Issue	MA	RP	KS
P01	16/05/20	First Issue	MA	NM	KS

Client

highways england

Project Title

A1 in Northumberland: Morpeth to Ellingham

Drawing Title

Part A Appendix 6.10
Figure 6.10 Part A LA 111 Significant Effects
Page 3 of 5

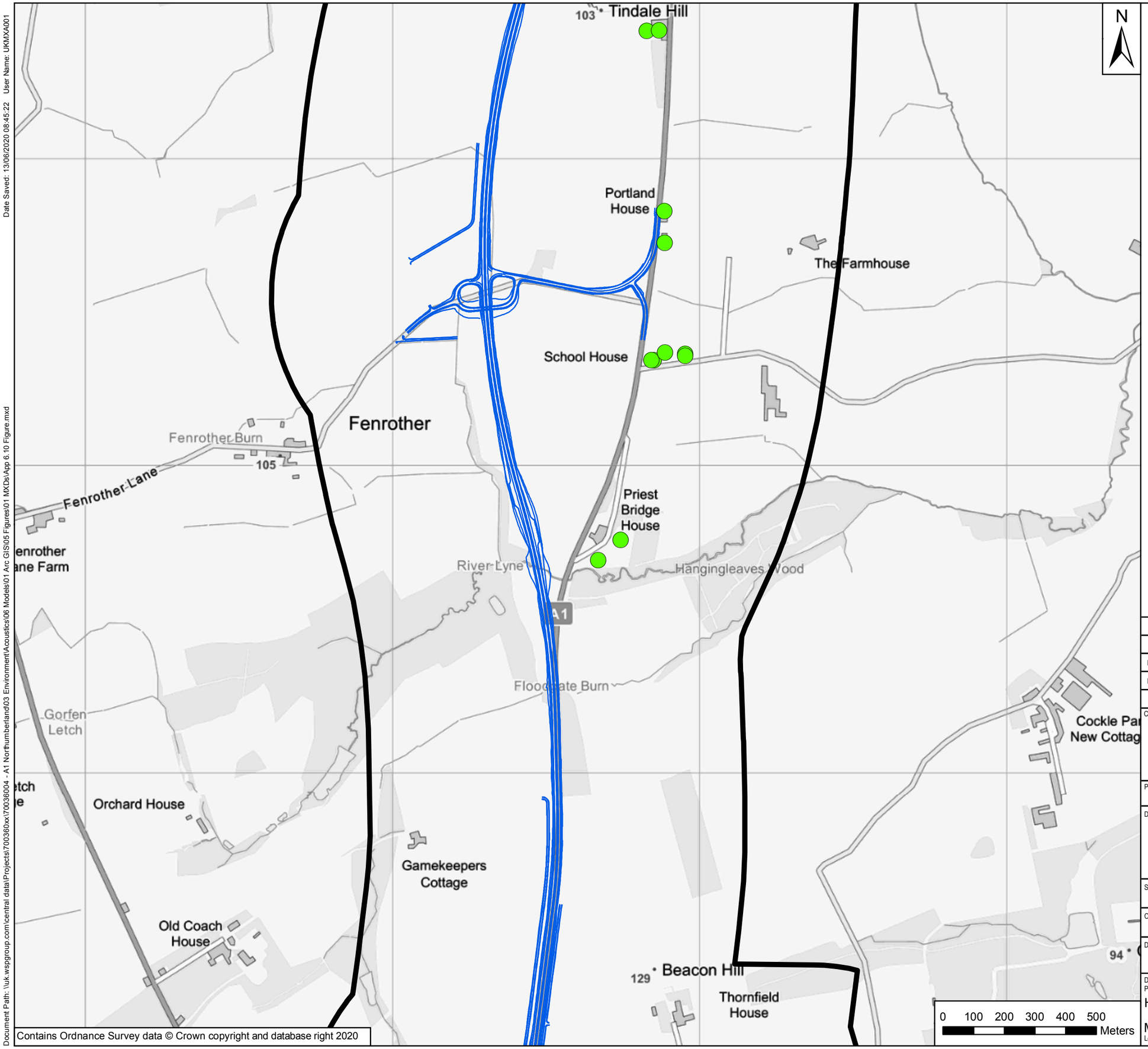
Scale	Drawn	Checked	Approved	Authorised
1:11,840	MA	NM	KS	DM
Original Size	**Date**	**Date**	**Date**	**Date**
A3	16/05/20	16/05/20	16/05/20	16/05/20

Drawing Status: For Information

Suitability: S1

Drawing Number Project	Originator	Volume	Project Ref. No.
HE551459	WSP	6.7	70044136
M2F Location	**RP Type**	**LE Role**	**1942 Number**

Revision: P02



Key

- General Arrangement
- Operational Calculation Area

Part A LA 111 Significant Effects

- Adverse
- Beneficial
- Northgate Farm

Rev	Date	Description	By	Chk'd	App'd
P02	June 2020	Second Issue	MA	RP	KS
P01	16/05/20	First Issue	MA	NM	KS

Client: highways england

Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title: Part A Appendix 6.10
Figure 6.10 Part A LA 111 Significant Effects
Page 4 of 5

Scale	Drawn	Checked	Approved	Authorised
1:11,840	MA	NM	KS	DM
Original Size	**Date**	**Date**	**Date**	**Date**
A3	16/05/20	16/05/20	16/05/20	16/05/20

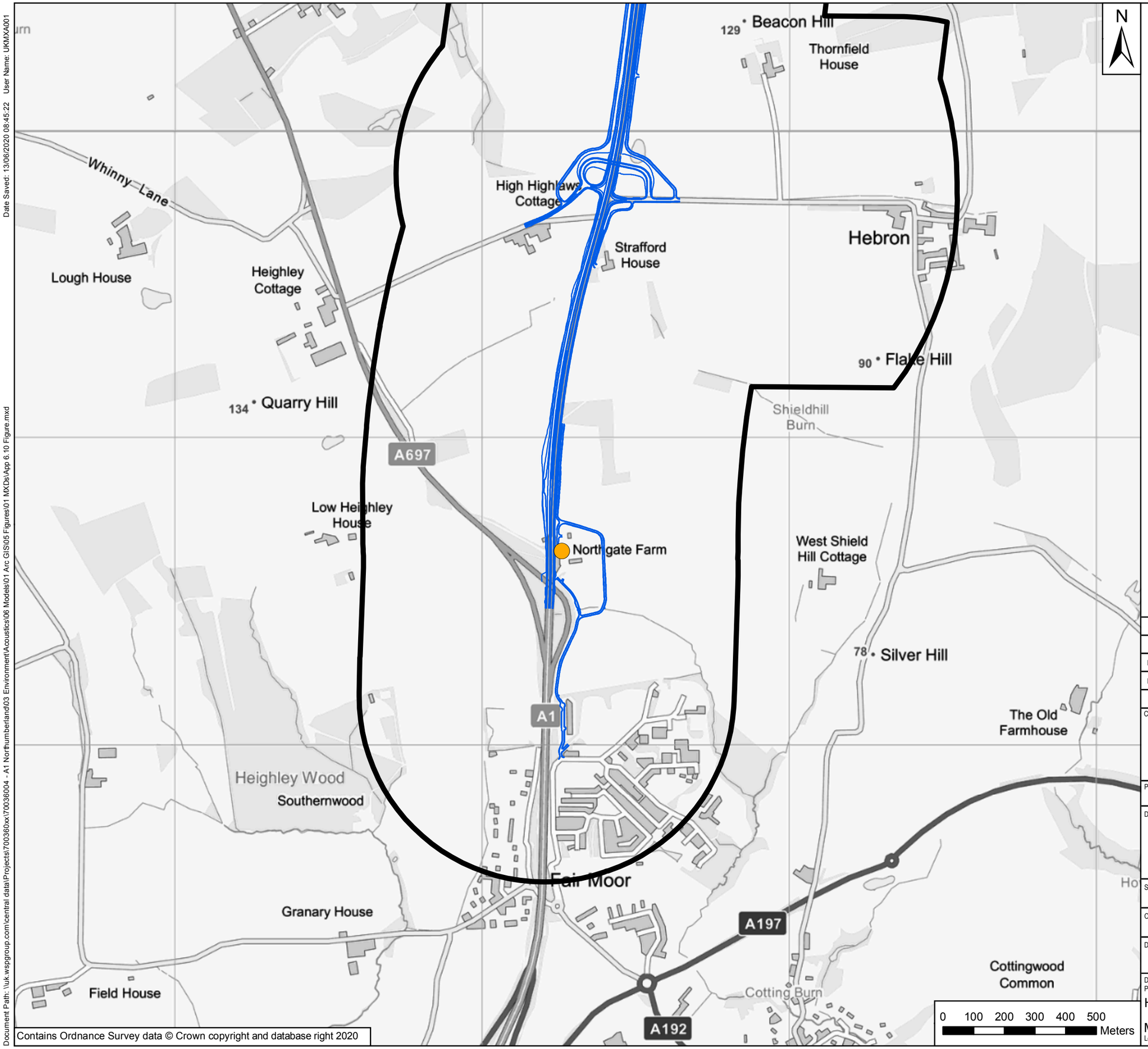
Drawing Status: For Information

Suitability: S1

Drawing Number: Project HE551459 | Originator WSP | Volume 6.7 | Location M2F | Type RP | Role LE | Number 1942

Project Ref. No.: 70044136

Revision: P02



Key

- General Arrangement
- Operational Calculation Area

Part A LA 111 Significant Effects

- Adverse
- Beneficial
- Northgate Farm

Rev	Date	Description	By	Chk'd	App'd
P02	June 2020	Second Issue	MA	RP	KS
P01	16/05/20	First Issue	MA	NM	KS

Client: highways england

Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title: Part A Appendix 6.10
Figure 6.10 Part A LA 111 Significant Effects
Page 5 of 5

Scale	Drawn	Checked	Approved	Authorised
1:11,840	MA	NM	KS	DM
Original Size	**Date**	**Date**	**Date**	**Date**
A3	16/05/20	16/05/20	16/05/20	16/05/20

Drawing Status: For Information

Suitability: S1

Drawing Number Project	Originator	Volume	Project Ref. No.
HE551459	WSP	6.7	70044136

Location	Type	Role	Number	Revision
M2F	RP	LE	1942	P02

This document is also available on our website at www.gov.uk /highways

If you have any enquiries about this document A1inNorthumberland@highwaysengland.co.uk or call 0300 470 4580*.

*Calls to 03 numbers cost no more than a national rate call to an 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls.
These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone. Calls may be recorded or monitored.

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ
Highways England Company Limited registered in England and Wales number 09346363