

A47 North Tuddenham to Easton

Scheme Number: TR010038

Volume 9

9.24 Applicant's Response to the Examining Authority's Third Written Questions (ExQ3)

The Infrastructure Planning (Examination Procedure) Rules 2010
Rule 8(1)(c)

Planning Act 2008

December 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning
(Examination Procedure) Rules 2010**

A47 North Tuddenham to Easton
Development Consent Order 202[x]

**9.24 APPLICANT'S RESPONSE TO THE EXAMINING AUTHORITY'S
THIRD WRITTEN QUESTIONS (ExQ3)**

Rule Number:	8(1)(c)
Planning Inspectorate Scheme Reference	TR010038
Application Document Reference	TR010038/EXAM/9.23
BIM Document Reference	HE551489-GTY-LSI-000-RP-TX-40018
Author:	A47 North Tuddenham to Easton Project Team, Highways England

Version	Date	Status of Version
Rev 0	December 2021	Deadline 6

CONTENTS

1	Introduction	1
2	Key Abbreviations	1
3	General and Cross-Topic Questions	2
4	Air Quality and Emissions	2
5	Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))	3
6	Climate	5
7	Compulsory Acquisition, Temporary Possession and Other Land or Rights Considerations	5
8	Cumulative Effects	5
9	Draft Development Consent Order (DCO)	6
10	Geology and Soils	6
11	Historic Environment	6
12	Landscape and Visual	6
13	Material Assets and Waste	7
14	Noise and Vibration	8
15	Population and Human Health	8
16	Transport and Traffic	8
17	Water Environment	12
	APPENDIX A – BERRY HALL CROSS SECTIONS	13
	APPENDIX B – COPY OF APPENDIX A IN ‘9.21 APPLICANT’S RESPONSE TO EXAMINING AUTHORITY’S ACTION LIST FROM ISH1, ISH2, CAH1 AND CAH2’ (REP4-016)	14
	APPENDIX C – COPY OF APPENDIX A IN ‘9.21 APPLICANT’S WRITTEN SUMMARY OF ORAL SUBMISSIONS AT ISH2’ (REP4-015)	18

1 INTRODUCTION

- 1.1.1 The Development Consent Order (DCO) application for the A47 North Tuddenham to Easton scheme was submitted on 15 March 2021 and accepted for examination on 12 April 2021.
- 1.1.2 The purpose of this document is to set out Highways England's (the Applicant) response to the Examining Authority's Third Written Questions (ExQ3) issued on 30 November 2021.

2 KEY ABBREVIATIONS

- 2.1.1 The following abbreviations have been used in the Applicant's responses to the Third Written Questions:
- dDCO = draft Development Consent Order
 - DMRB = Design Manual for Roads and Bridges
 - ES = Environmental Statement
 - ExA = Examining Authority
 - NPSNN = National Policy Statement for National Networks 2014
 - NWL = Norwich Western Link
 - the Scheme = the A47 North Tuddenham to Easton dualling scheme

3 GENERAL AND CROSS-TOPIC QUESTIONS

No	Question To	ExA Question	Response
Q1.3.1	The Applicant	<p>In 'Road to Good Design', environmentally sustainable is defined as '<i>making an important contribution to the conservation and enhancement of the natural, built and historic environment, good road design seeks to achieve net environmental gain.</i>'</p> <p>Please explain how the proposal meets this and, in particular, how the proposal achieves environmental net gain.</p>	<p>Environmental net gain is the concept of ensuring that infrastructure developers leave the environment in a measurably better state compared to the pre-development baseline.</p> <p>The Case for the Scheme (APP-140) sets out how the Scheme has developed and the following sections in particular outline how the Scheme will leave the built environment in a measurably better state:</p> <ul style="list-style-type: none"> • Sections 3.5 and 4.12 summarise how the Scheme will reduce congestion, improve journey time reliability, and help enable regional development and growth in Norwich and its surrounding area. • Section 4.13 demonstrates how the Scheme improves safety for all road users and those living in the local area. • Section 4.14 shows the Scheme would improve accessibility for walkers, cyclists and horse-riders in the local area and thereby support the promotion of active travel modes. <p>Through the Environmental Impact Assessment process, environmental mitigation and enhancements for the natural, built and historic environment have been included in the design to achieve environmental net gain. The Scheme Design Report, Rev.1 (AS-008), in particular Sections 3.8 and 8, outline how environmental considerations have influenced the design of the Scheme; these environmental mitigation measures are embedded into the final Scheme design. The approach to the landscape design sought to integrate the Scheme with surrounding landscape character, minimise visual intrusion and minimise impacts on the settings of Listed Buildings.</p> <p>All environmental commitments and actions detailed in the ES are detailed in Table 3.1 of the Environmental Management Plan (EMP) (APP-143). The provisional design of the proposed landscape and ecological provision post construction is presented in the Environmental Masterplan, Rev.2 (REP3-016). Additional detail regarding the landscape and ecological mitigation design will be presented in Annex B5 'Landscape and Ecology Management Plan (LEMP)' of the EMP, to be produced by an appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring of the landscape and ecological mitigation and compensation features of the Scheme. The LEMP will be developed in consultation with the relevant planning authority, local highway authority, lead local flood authority and the Environment Agency.</p> <p>Delivery of these commitments, including consulting the relevant local planning authority on the final landscaping design and EMP, are secured through the dDCO Requirements 4 'Environmental Management Plan' and 5 'Landscaping' (REP5-005).</p> <p>The above statutory consultation, under the dDCO requirements, provides a mechanism for independent, external challenge of the Applicant's design and environmental actions and commitments to make sure the Scheme continues to maximise its ability to achieve environmental net gain.</p>

4 AIR QUALITY AND EMISSIONS

No	Question To	ExA Question	Response
Q2.3.1	The Applicant	<p>In response to Q2.0.5 of ExQ1, which refers to the approach taken with regards to PM2.5 all parties, except the applicant, considered that predictions and modelling should be supported by localised monitoring of PM2.5. Please can the applicant review and provide justification for their position.</p>	<p>The Applicant acknowledges that the PM10/PM2.5 limit values are due to change under the new Environment Bill. However, as these changes have not yet been confirmed, it is not possible to assess against a potential new standard that may or may not come into force. Therefore, Highways England's assessment follows current DMRB guidance.</p> <p>The Applicant responded to the responses to Q2.0.5 by Broadland District, South Norfolk and Breckland Councils in the Deadline 3 submission '9.9 Applicant's Comments on Responses to the ExA's First Written Questions (ExQ1) (REP3-023), as follows:</p> <p><i>ES Chapter 5 Air Quality (APP-045) has provided full details of the assessment methodology and conclusions, including use of modelling to demonstrate the impact of the Scheme for this pollutant. The dispersion modelling of the baseline PM10 has shown that the predicted concentrations are significantly below the Air Quality Objective (AQO), and thus following DMRB methodology there is no need to further assess this pollutant. This model has been fully verified following LAQM TG(16). PM2.5 makes up around 60% of PM10 dependent on the source of the emissions. The ES has shown that there is no risk to the PM10 objective being exceeded even if all of the PM10 was PM2.5; the modelling confirms that there is also no risk to the current PM2.5 AQO. Therefore, there is no requirement to undertake</i></p>

No	Question To	ExA Question	Response
			<p>further monitoring.</p> <p>The Applicant can confirm that the position with regards the air quality assessment, including PM2.5 monitoring, has now been agreed with all the local authorities and is recorded as such in the following Statements of the Common Ground:</p> <ul style="list-style-type: none"> • Deadline 4 submissions: <ul style="list-style-type: none"> - Final 8.5 Statement of Common Ground - Breckland Council - Rev 1 (REP4-004) - Draft 8.4 Statement of Common Ground - Norfolk County Council - Rev 0 (REP4-003) • Deadline 6 submissions, updated to final issue: <ul style="list-style-type: none"> - 8.6 Statement of Common Ground - Broadland District Council - Rev 1 (REP4-005) - 8.7 Statement of Common Ground - South Norfolk Council - Rev 1 (REP4-006) <p>In addition to the above it should also be noted that there are no exceedances of the PM2.5 AQS Objectives from the national Automatic Urban Rural Network (AURN) [REDACTED].</p> <p>Between 2019 and 2021 there were approximately 80 sites in the UK monitoring for PM2.5; there were no exceedances measured with the highest annual mean concentration recorded being 15µg/m³ recorded in 2019 at the Sheffield Barnsley Road site (below both the PM2.5 AQS Objective of 25µg/m³ and Limit Value of 20µg/m³).</p> <p>In addition, National Highways were required to install air quality monitoring as part of the A14 Cambridge to Huntingdon DCO which is a scheme in a mainly rural area. The monitoring on the A14 scheme is also well below the PM2.5 AQS Objective / Limit Value, recording annual mean concentrations of around 11µg/m³.</p> <p>The national monitoring and prior scheme monitoring for PM2.5 demonstrates how low PM2.5 is in the UK compared to current air quality thresholds and provides further evidence why National Highways consider it unnecessary to install additional particulate analysers.</p>

5 BIODIVERSITY, ECOLOGY AND NATURAL ENVIRONMENT (INCLUDING HABITATS REGULATIONS ASSESSMENT (HRA))

No	Question To	ExA Question	Response
Q3.3.1	Natural England	Please can NE confirm that, at this stage, there is likely to be no impediment to the granting of the required European Protected Species Licences?	No response required by the Applicant.
Q3.3.2	The Applicant	<p>No response has been received to Further Written Question 1, issued on 7 October 2021.</p> <p>Please provide a response. For information, the question was:</p> <p>In Section 3.6.2 of the Report to Inform Habitats Regulations Assessment [APP-139], it is stated that 'Upon further consultation on the submission of this Screening report, Natural England have confirmed that they are in agreement with the findings of this Screening report that there will be no likely significant effects on any NSN site or Ramsar site'.</p> <p>Please can the applicant provide the correspondence with Natural England which confirms this position.</p>	The Applicant responded to this question on 25 October 2021 as the early Deadline 4 submission document '9.14 Applicant's Response to Examining Authority's Further Written Questions' (AS-021).
Q3.3.3	Natural England	No response has been received to Further Written Question 2, issued on 7 October 2021. Please provide a response. For information, the question was: Please can Natural England confirm that the Report to Inform Habitats Regulations Assessment [APP-139]	No response required by the Applicant.

No	Question To	ExA Question	Response
		includes all of the sites that could be affected by the Proposed Development and shows the correct site features.	
Q3.3.4	Wild Wings Ecology	<p>The submitted representation [RR-084] makes reference to the presence of a super colony of Barbastrelle bats, however no survey data or detailed evidence to support this assertion has been submitted to the Examination.</p> <p>Please provide the survey data and evidence to support this submission. If this is not possible, please explain in detail why this cannot be submitted and why the information has not been made available to NCC and the Applicant so far.</p> <p>Having regard to the current timetable, to ensure that this information can be fully considered by all parties, the ExA requires this data be provided by Deadline 6, Monday 13 December 2021. If provided after this date or not at all, the ExA may only be able to attribute limited weight to these submissions.</p>	No response required by the Applicant.
Q3.3.5	Natural England	<p>The potential presence of a super colony of Barbastelle bats has been raised by a number of parties including Wild Wings Ecology [RR-084], Stop Wensum Link [PDB-009], Bryan Robinson [REP2-027] and Norfolk Wildlife Trust [REP4-045]. Please can NE provide their view on these submissions and what the implications are for the proposed development. Please also address whether there are likely to be any cumulative impacts which need to be considered.</p>	No response required by the Applicant.
Q3.3.6	The Applicant Natural England	<p>Considering that substantial elements of the proposed ecological mitigation require the creation and/or restoration of habitats such as woodlands and species-rich grasslands, is a five-year monitoring period sufficient to ensure that these complex habitats achieve good condition? If so, please explain and justify. If not, please explain why and how long would be sufficient.</p>	<p>Annex B.5 of the Environmental Management Plan (APP-143) will contain a Landscape and Ecology Management Plan (LEMP) to be produced by the appointed Landscape Architect and Ecologist prior to construction. The LEMP will describe the proposed management and monitoring, including durations, of the landscape and ecological mitigation and compensation features of the Project. The commitment to deliver the LEMP is secured through dDCO Requirement 4 'Environmental Management Plan' (REP5-005).</p> <p>With regards managing and rectifying failed planting, Requirement 5(f) of the dDCO requires: <i>"measures for the replacement, in the first available planting season, of any tree or shrub planted as part of the landscaping scheme that, within a period of 5 years after the completion of the part of the authorised development to which the relevant landscaping scheme relates, dies, becomes seriously diseased or is seriously damaged."</i></p> <p>The 5 year period referred to in Requirement 5 of the dDCO is the period during which the Applicant must take measures to replace any trees or shrubs which have died, or become diseased or damaged. This requirement has been included in the last five highway DCOs which have been granted.</p> <p>However, the Applicant acknowledges the duration of 'monitoring' may extend beyond the five year after care period (see Objectives of the LEMP in Table B.1 of the Environmental Management Plan (APP-143)). It will keep this under review as the landscape and ecology mitigation design is developed during the detailed design stage. For example, monitoring periods remain to be confirmed in consultation with Natural England for habitat developed as mitigation to be managed under conditions of the European Protected Species Licences.</p> <p>In addition, as the LEMP forms an Annex to the Environmental Management Plan (APP-143), under Requirement 4 of the dDCO (REP5-005) the Applicant will need to demonstrate consultation on the second (construction period) and third (operational maintenance) iterations of the EMP with the relevant planning authority, local highway authority, lead local flood authority and the Environment Agency prior to seeking approval from the Secretary of State.</p> <p>The statutory requirement to consult on the next iterations of the EMP provides a mechanism for independent, external challenge of the Applicant's LEMP and thereby review the monitoring durations for the new and/or restored habitats.</p>

6 CLIMATE

No	Question To	ExA Question	Response
Q4.3.1	The Applicant	Table 15.1 of ES Chapter 15, Cumulative Effects [APP-054], under the heading Climate, states that the emissions assessment reported within the Climate Chapter is inherently cumulative. With reference to Table 14.10 of ES Chapter 14, Climate [REP3-014], how are other schemes represented within these figures? Do they include other A47 projects currently at examination and the NWL? If other schemes are included within this table, what allowance is made within the table for the Greenhouse Gas emissions generated during their construction and what other assumptions are made?	<p>The Applicant's response to Q4.0.12 in Applicant's Response to the Examining Authority's First Written Questions (ExQ1) (REP2-014) sets out how the Applicant has assessed cumulative effects of construction emissions with other schemes. The following expands on this response in light of this ExQ3 question.</p> <p>The study area for the assessment undertaken within ES Chapter 14, Climate (REP3-014) is described in Section 14.6. The boundary for emissions during the construction phase is the physical infrastructure asset associated with the Scheme. This is aligned to the study area defined in Paragraphs 3.8 and 3.9 of DMRB LA 114 (Climate).</p> <p>Table 14-10 in ES Chapter 14 summarises the construction emissions associated with the Scheme and the change in operational emissions associated with the Scheme as well as the end-user tailpipe emissions from the Affected Road Network (ARN).</p> <p>As per the requirements of DMRB LA 114, emissions associated with end-user tailpipe emissions have been derived from the traffic models of the ARN, which are described in Chapter 4 'Transport Assessment of the Case for the Scheme (APP-140). These models include 'other existing development and/or approved development' which includes the other A47 Schemes and the NWL; see Sections 4.3 and 4.4 of the Case for the Scheme. This allows for the comparison of scenarios with and without the Scheme and an understanding of the potential impacts. By including the ARN, the assessment includes the cumulative emissions total from all road users on the affected network.</p> <p>Currently, there is no assessment methodology or policy for how emissions associated with the construction of other schemes would be included, or what schemes should or should not be included, or how likely significance could be assessed. However, end user emissions account for the vast majority of emissions associated with the ARN, with construction emissions from this Scheme accounting for less than 0.2% of overall emissions during the 60 year appraisal period. The Applicant's assessment of greenhouse gas (GHG) emissions in ES Chapter 14 Climate (REP3-014) follows the guidance in DMRB LA114 and includes such information as is reasonably required to assess the environmental effects of the development and which the Applicant could reasonably be required to compile having regard to current knowledge.</p>

7 COMPULSORY ACQUISITION, TEMPORARY POSSESSION AND OTHER LAND OR RIGHTS CONSIDERATIONS

No	Question To	ExA Question	Response
Q5.3.1	The Applicant	Please provide an updated: a) Compulsory Acquisition Schedule; and b) Statutory Undertakers Progress Schedule.	<p>The Applicant confirms that updates to the following documents have been submitted at Deadline 6:</p> <ul style="list-style-type: none"> a) Compulsory Acquisition Schedule (REP5-014); and b) Statement of Commonality for Statements of Common Ground, Rev 1 (REP4-008), which contains a summary of progress engaging with the Statutory Undertakers.

8 CUMULATIVE EFFECTS

No	Question To	ExA Question	Response
Q6.3.1	Natural England	In relation to the ExQ1 3.0.15, can NE comment on the response from the Applicant [REP2-014] and confirm whether they agree that the in-combination effects arising from the Sheringham and Dudgeon Extension Offshore Wind Farm and other developments identified by the Applicant in their assessment would have no significant cumulative environmental effects on European sites and would not affect the conclusions of the HRA report.	No response required by the Applicant.
Q6.3.2	The Applicant	Can the Applicant revise the HRA report so that the justification for scoping Sheringham and Dudgeon Extension Offshore Wind Farm out of the HRA is included in the HRA report rather than just in the ES.	Reference to the Sheringham and Dudgeon Extension Offshore Wind Farm has been added to Section 3.4 of the Report to Inform Habitats Regulations Assessment (APP-139), which has been submitted at Deadline 6 as a revised issue.

9 DRAFT DEVELOPMENT CONSENT ORDER (DCO)

No	Question To	ExA Question	Response
Q7.3.1	Environment Agency	Requirement 6 of the dDCO [REP5-005] addresses Contaminated land and groundwater. Is the EA satisfied that the wording of this Requirement provides adequate protection and would ensure the delivery of necessary mitigation, if required? If not, please explain why and what changes should be made to the Requirement.	No response required by the Applicant.
Q7.3.2	Natural England	Requirement 7 of the dDCO [REP5-005] deals with protected species. Is NE satisfied with the approach outlined in Part 3? If not, please explain why and what changes should be made to the Requirement.	No response required by the Applicant.
Q7.3.3	Natural England	Requirement 12 of the dDCO [REP5-005] refers to specific Ecological works. Should NE be included as a consultee within this Requirement?	No response required by the Applicant.
Q7.3.4	Environment Agency	Please can the EA confirm that they are satisfied that the wording of Article 21 of the dDCO [REP5-005], Discharge of water, provides the necessary level of protection. If not, please explain why and what changes should be made to this Article.	No response required by the Applicant.

10 GEOLOGY AND SOILS

No	Question To	ExA Question	Response
-	-	No further questions on this topic at this stage.	-

11 HISTORIC ENVIRONMENT

No	Question To	ExA Question	Response
Q9.3.1	Historic England	The Owners of Berry Hall Estate have submitted details of the designation of the Estate as a National Heritage Asset under the Inheritance Tax Act 1984, on the basis of its outstanding scenic and historic interest [REP1-044, 045 and 047]. Oral submissions at Compulsory Acquisition Hearing 2 and Issue Specific Hearing 2 were also made on the matter [REP4-022, 023, 024 and 025]. Please can HE provide their view on this designation, these submissions, any implications for the scheme and the impact of the proposed scheme upon it.	No response required by the Applicant.

12 LANDSCAPE AND VISUAL

No	Question To	ExA Question	Response
Q10.3.1	The Applicant	Paragraph 3.4.14 of ES Chapter 3, Assessment of alternatives [APP-042], when discussing alternatives, identifies that the final junction design also took into consideration various constraints, such as the landscape setting of the Grade II listed Berry Hall. Please explain this statement and provide evidence to demonstrate how this was taken into account.	<p>The Scheme alignment (A47 Mainline) traverses along a route of predominantly sidelong ground (where the route runs along the side of a hill / slope naturally falling north to south) and has been designed to sit nominally above or below existing ground level to minimise visual intrusion into the existing landscape setting / environment. This aligns with the principle of "Good Road Design Fits in Context".</p> <p>In this scenario the Applicant could have chosen to either have the Wood Lane junction as an overbridge (above the A47) or underbridge (below the A47).</p> <p>The decision was taken to set the junction below the A47 mainline, which reduced impacts on the Parishes of Hockering and Honingham as well as the Berry Hall Estate, as follows:</p> <ul style="list-style-type: none"> • Reduced landscape / visual impact <ul style="list-style-type: none"> ○ Setting of overbridge ○ Headlight glare from vehicles on an elevated overbridge and slip roads • Reduced landtake • Reduced impact on Berry Hall Estate • Retained more existing vegetation • Reduced noise effects • Reduced impact of lighting on Hockering, Honingham and Berry Hall <p>The Applicant provided a response to a stakeholder query which is covered within the Consultation Report Annex N (APP-038), on pages 86 and 87.</p> <p>The final junction design has taken into consideration the findings from the environmental assessments. The reference to 'landscape setting of the Grade II listed Berry Hall' mainly relates to the heritage setting. However, the effects on Berry Hall Estate and its listed buildings as Heritage, Visual and Landscape constraints were considered in ES Chapter 6 – Cultural Heritage (APP-045) and ES Chapter 7 Landscape and Visual Effects (APP-046).</p> <p>In ES Chapter 6, Berry Hall Estate is assessed as part of the setting of the listed buildings.</p>

No	Question To	ExA Question	Response
			<p>Berry Hall was assessed as of "High value" and the setting was assessed as making a moderate positive contribution to that value. The Slight residual adverse effect on the setting Berry Hall Grade II Listed Building was identified as a result of construction and operation activities, after mitigation measures are implemented.</p> <p>With regards the scenic status, ES Chapter 7 identifies, assesses and proposes mitigation for the likely effects (both adverse and beneficial) of the Scheme on landscape character, landscape features and visual receptors.</p> <p>Screening for visual and noise purposes is provided where required as identified by the assessments undertaken in Chapter 7 Landscape & Visual (APP-046) and Chapter 11 Noise & Vibration (APP-051). In the Berry Hall area, the assessments indicated there is no requirement for the provision of such mitigation infrastructure for these topics.</p> <p>The noise assessment assessed the noise impact on Berry Hall for the Scheme as minor adverse in the short term (scheme opening for operation). This would improve in the long term (15 years-time) to negligible. It was concluded that this noise impact was not significant.</p> <p>Impacts from operational sources, such as light and traffic noise, on the heritage setting of Berry Hall due to the operation of Wood Lane junction are assessed as minor adverse magnitude on a high value asset.</p> <p>The proposed planting layout would reduce the predicted adverse impacts of the new proposed junction and traffic on the setting of nearby heritage assets including the Grade II listed Berry Hall (NHLE1306730). The Environmental Masterplan, Rev.2, (REP3-016) presents additional woodland planting to maintain the belt of woodland that screens views of the existing A47 from within the grounds of Berry Hall to include the new junction layout. This is reinforced by commitment CH1 in the Environmental Management Plan (APP-143), which states that the landscape planting design will be sensitive to the setting of heritage receptors such as Berry Hall. This would include consideration of spacing, species and scale, with appropriate recommendations carried forward into the maintenance regime at completion.</p> <p>The Applicant has provided eight cross sections (Section A-A to H-H) through the proposed A47 Mainline and Wood Lane Junction to demonstrate graphically how the scheme design sits within the existing landscape and also illustrating the Environmental Masterplan planting regime.</p> <p>These are included within Appendix A of this response document - Cross Sections of views from Berry Hall Estate.</p> <p>In addition to considering the ES findings, following the statutory consultation in February to April 2020, the Applicant considered the responses received from Affected Persons and, those received from the Berry Hall Estate. As set out in reply to Q5.0.9 in the 'Applicant's Response to the Examining Authority's First Written Questions (ExQ1)' (REP2-014), the Applicant has made several changes to the Scheme to reduce the impact on Berry Hall Estate.</p> <p>Amongst these, the following pre-application design changes specifically reduced adverse effects of the Scheme on the landscape and setting of Berry Hall:</p> <ul style="list-style-type: none"> • Reduced the length of the National Grid Gas pipeline diversion works so as to keep the gas pipeline diversion works east of Berrys Lane, instead of within the landscaped parkland to the south-east of Berry Hall. • The Scheme was redesigned in the vicinity of Berrys Lane to remove an access road from the Wood Lane junction directly on to Berrys Lane. This reduced the impact on the heritage setting of Berry Hall.

13 MATERIAL ASSETS AND WASTE

No	Question To	ExA Question	Response
Q11.3.1	The Applicant	Does the proposal apply the principles of the waste hierarchy and seek to recycle the maximum levels of material as possible? If so, how will these matters be secured? If not, please explain and justify why.	<p>The following commitment is presented in Section 10.9 'Essential mitigation' of ES Chapter 10 'Material assets and waste (APP-049):</p> <p><i>"10.9.4. The Proposed Scheme aims to prioritise waste prevention, followed by preparing for re-use, recycling and recovery and lastly disposal to landfill in accordance with the EU Waste Framework Directive 2008/98/EC 'waste hierarchy'."</i></p> <p>The Environmental Management Plan (APP-143) also contains Action MA2 with the objective to adopt good waste management practices and follow the waste hierarchy. The actions within the Environmental Management Plan (APP-143) are secured by Requirement 4 of the dDCO (REP5-005).</p>

14 NOISE AND VIBRATION


No	Question To	ExA Question	Response
Q12.3.1	The Applicant	The use of low noise surface material is proposed to mitigate road noise. How will this surface be maintained, will it be retained for the life-time of the proposed development and, if so, how will this be secured? If not, why not?	<p>The low road surface will be maintained by the Applicant's Operations team for the life-time of the asset.</p> <p>Provision of low noise surfacing is detailed in Action NV3 within Table 3.1 of the Environmental Management Plan (EMP) (APP-143).</p> <p>Paragraph 3.1.2 of the EMP states: "On completion of the Proposed Scheme the 3rd iteration of the EMP (end of construction) will be finalised. This is the main vehicle for passing essential environmental information and crucially to the body responsible for the future maintenance and operation of the asset."</p> <p>This commitment will be secured through Part (4) of Requirement 4 in the dDCO (REP5-005) that requires the 3rd iteration of the EMP to be approved in writing by the Secretary of State following consultation with the relevant planning authority and the relevant local highway authority.</p>
Q12.3.2	The Applicant	In response to ExQ1 12.0.13, the locations for early provision of noise barriers were not explicitly outlined in the response received from the Applicant. Please can the Applicant clarify where these locations would be.	<p>The four proposed noise barriers' locations and extents are shown in ES Figure 11.2, sheets 1 to 3 (APP-074).</p> <p>Details of the noise barriers (e.g. height, length, type) are provided in Table 11.13 of ES Chapter 11 Noise and Vibration (APP-050).</p>

15 POPULATION AND HUMAN HEALTH

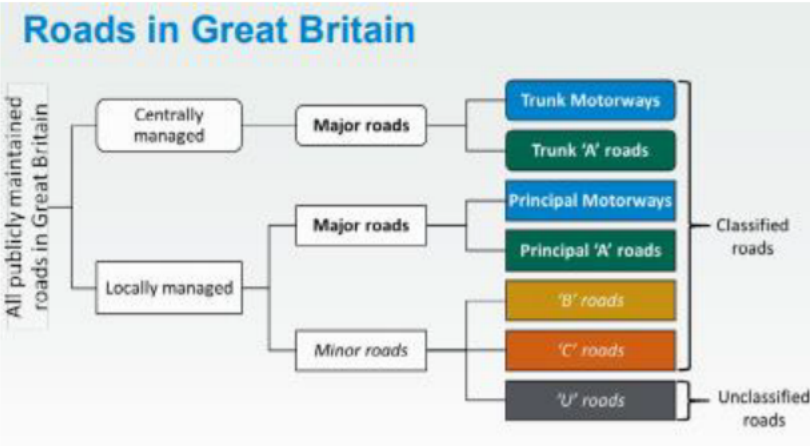
No	Question To	ExA Question	Response
-	-	No further questions on this topic at this stage.	-

16 TRANSPORT AND TRAFFIC

No	Question To	ExA Question	Response
Q14.3.1	The Applicant	With regards to the proposed Wood Lane junction, if the NWL is not delivered, what are the implications for the proposed junction? Would the non-delivery of the NWL result in the provision of an over-designed and over-sized junction arrangement? What options has the applicant looked at to account for the potential non-delivery of the NWL, to identify whether a reduced junction size and land take could be provided?	<p>A statement about the size of Wood Lane junction roundabout was presented as Appendix A to the 'Applicant's Response to Examining Authority's Action List from ISH1, ISH2, CAH1 and CAH2 (REP4-016). This was in response to the ExA's post hearing action "Provide the evidence to demonstrate the size of the Wood Lane Junction required should the Norwich Western Link not be provided."</p> <p>The Applicant at the outset of the scheme development assessed a "With" and "Without" NWL scenario. In the "Without" scenario the roundabouts of the Wood Lane junction were reduced to an Inscribed Circular Diameter (ICD) of 80m.</p> <p>This diameter would meet the safety objectives of the Scheme, ensuring the safe movements of HGVs through the junction to link with the B1535 Wood Lane sideroad, which is the Local Highway Authority's existing HGV route linking the A47 with the A1067 Fakenham Road.</p> <p>This proposal would result in a minimal reduction of land take on the extents of both the Northern and Southern Roundabouts. At the interface with Berry Hall on the southern side this would result in a difference of approximately 0.2 Hectare..</p> <p>The Applicant has included information submitted at Deadline 4 within Appendix B of this response document outlining the benefits for designing to include the NWL and provision for associated development.</p> <p>The Norwich Western Link (NWL) scheme held an Options Consultation (November 2018 – January 2019) where 4 routes were presented with 3 of the 4 route options connecting to the A47 Wood Lane junction.</p> <p>Norfolk County Council are fully committed to delivering a Norwich Western Link scheme to address the North – South traffic issues. The Outline Business Case was submitted to the Department for Transport (DfT) in June 2021 and have appointed a principal Contractor to design and build the scheme.</p>

No	Question To	ExA Question	Response
			 <p>The Applicant submitted Statements of Common Ground with the three District Councils at Deadline 4, who have indicated their support for the Applicants proposals at Wood Lane:</p> <p>Breckland District Council: REP4-004 (Ref. No. 4) Broadland District Council: REP4-005 (Ref. No. 3) South Norfolk Council: REP4-006 (Ref. No. 2)</p>
Q14.3.2	The Applicant	<p>What assumptions have been made with regards to the amount, type and any seasonal timings of agricultural vehicles which currently operate in the area. How will the proposed scheme impact on these?</p>	<p>The NATS strategic traffic models cover a single peak hour across three time periods in a week day of a neutral month. The modelled time periods are:</p> <ul style="list-style-type: none"> • AM peak hour (08:00 to 09:00) • Inter-peak (IP) average hour (10:00 to 16:00) • PM peak hour (17:00 to 18:00) <p>Any agricultural vehicles identified in the base year surveys will be included in the calibration of the model.</p> <p>The NATS model is strategic in nature and therefore doesn't contain a detailed representation of local seasonal agricultural vehicles. However, the Annual Average Daily Traffic Flows (AADT), used as part of the Scheme's assessment, represent average traffic conditions across all 365 days of the year. Seasonality factors are applied to convert the models weekday hourly outputs into the AADT flows.</p> <p>Based on the wider area modelling analysis in paragraph 4.8.14 of the Case for the Scheme (APP-140), overall the Scheme will have a positive impact in terms of improving the operation of the wider network. The global statistics are calculated over the entire NATS study area (see Figure 4.1 in the Case for the Scheme), which contains all of Norwich as well as the wider Broadland and South Norfolk areas. Therefore, deriving a network wide increase in average speeds of 1.6 to 2.9%, from the implementation of the Scheme, is considered to represent a considerable improvement in the overall operation of the network.</p> <p>The Applicant has committed to working with the local landowners with agricultural interests to ensure that the delivery of the scheme does not significantly impact on seasonal activities. The stakeholder mgmt. team have requested planting and cropping schedules which will help to further inform the development of the Outline Traffic Management Plan (APP-144).</p> <p>The Applicant wishes to note that positive discussions are ongoing with local landowners and the Local Highway Authority regarding the implementation of the TTRO on Honingham Lane in a way which fulfils the purpose of the TTRO but does not inhibit agricultural access and movements. A site meeting is scheduled for mid-January with affected parties.</p>
Q14.3.3	The Applicant	<p>Paragraph 2.5.3 of ES Chapter 2, The Proposed Scheme [APP-041], states 'The section of the A47 between North Tuddenham and Easton currently has a significantly lower morning peak average speed compared to the daily average speed along this section of the A47. This is an indicator of congestion and affects journey times and journey time reliability on the road.'</p> <p>Paragraph 2.5.4 then goes on to identify that these indicators show that the section of the A47 North Tuddenham and Easton is already over capacity.</p>	<p>A detailed review of existing and future traffic scenarios, including indicators of congestion and impacts on journey times is presented in Chapter 4 'Transport Assessment' of the Case for the Scheme (APP-140).</p> <p>In particular, paragraphs 4.6.3 to 4.6.10 present an overview of base year traffic flows and delays. The summary in paragraph 4.6.10 states: "Traffic modelling analysis indicates that the A47 mainline is operating above the desirable capacity of 85% during the AM and PM peaks (V/C [volume over capacity ratios] ratio of 94% and 89% respectively). In addition to this, on average vehicles trying to access the A47 from the minor side roads will experience around 0.5 to 2 minutes of delay."</p> <p>The percentage ratio of (volume of traffic) flow to capacity, is an indicator of the likely performance of a road link. According to DMRB guidance, in general a V/C ratio of about 85% or less is advised. In general terms, traffic delays can be classified as either 'over capacity' queuing delays or transient 'under capacity' delays. Thus, traffic movements close to or above 85% will generate additional queuing delay.</p>

No	Question To	ExA Question	Response
		Please provide justification for this statement and conclusion. What is the position in the PM peak?	
Q14.3.4	The Applicant	The proposed development would result in altered access arrangements for local residents attending St Andrew's Church. For those accessing by private vehicle, this would likely result in longer travel distances for residents of Honingham. Has the applicant considered any alternative means of vehicular access to the church? If so, what were they and why were they discounted? Please provide a justification for the additional journey times.	<p>The Applicant has considered alternative means of vehicular access to the church and has noted in the following previous submissions:</p> <ul style="list-style-type: none"> The Applicant's response to item RR-006.3 in the Applicant's response to relevant representations (REP1-013). RR-006.3 asked the Applicant "To justify the lack of a continuing direct connection for two-way traffic between St Andrew's Church, Honingham and the village." Section 5 of the Applicant's Responses to Deadline 4 Comments (REP5-016), which provides a detailed answer to requests by Mr Hooker and Mr Kenny why the Applicant cannot convert the proposed Honingham Church WCH underpass for vehicle access. <p>Section 5 of the Applicant's Responses to Deadline 4 Comments (REP5-016) not only justifies the longer travel distance, but also outlines safety, accessibility and user benefits that offset the extra travel.</p> <p>However, based on analysis of the 2040 AM traffic model, it is important to note that the approximate journey change between St Andrew's Church and Honingham roundabout is only:</p> <ul style="list-style-type: none"> an increase of approximately 1.6 km in distance an increase of approximately 1.5 minutes in travel time
Q14.3.5	The Applicant	Given the future modelled increase in traffic along the A47, why are no works proposed at the existing Fox Lane junction?	<p>The Scheme is located and ties into the existing dual carriageway east of the Fox Lane Junction. Therefore, the Fox Lane junction does not form part of the Scheme design because the A47 is already dualled at that point.</p> <p>With regards concerns about the design of Fox Lane Junction, an update to the current DMRB standard was released in 2019 and is applicable to the design of new grade separated junctions. The Applicant is unable to ensure that all existing junctions are upgraded as / when a new standard is released.</p> <p>Strategic traffic modelling, based on NATs, and safety assessments confirmed Fox Lane junction required no further improvements as part of the Scheme.</p>
Q14.3.6	The Applicant	The traffic modelling shows a large number of vehicles using Taverham Road, both with and without the NWL. Given the current nature of this road, please provide an explanation and a justification for this.	<p>The Applicant has provided responses to queries raised during the Statutory Consultation and Targeted Consultation / Project Update periods within the Scheme Consultation Report Annex N (APP-038) and Annex O (APP-039).</p> <p>Written responses to representations from interested parties have been provided through the Examination process as referenced below:</p> <ul style="list-style-type: none"> REP1-013: RR-0006 / RR-007 / RR-010 / RR-039 / RR-046 / RR-050 / RR-052 REP3-022: Sections 8, 9 and 15 REP4-011: Section 9 REP4-015: Appendix A REP5-016: Sections 9, 10 and 12 <p>A summary of those responses is included below in response to the ExA question:</p> <p>Along the A47 corridor between North Tuddenham to Easton, there are five routes between the A47 and the A1067 Fakenham Road; of which only one is classified as a "B" Road and is assigned as the local authority HGV route, 3 "C" Roads and one unclassified road:</p> <ul style="list-style-type: none"> Lyng Road (C198) Heath Road (C173) Wood Lane (B1535) (Local Authority HGV Route) Taverham Road (C174) Church Lane (Unclassified road)

No	Question To	ExA Question	Response
			<p>The hierarchy of roads is presented in the figure below:</p>  <p>The existing single carriageway A47 has 41 direct connections from existing side roads, farm, field and property accesses between North Tuddenham and Easton - these directly contribute to congestion and the poor safety record.</p> <p>In order to meet the objective of creating a more free-flowing and safe A47 there will be no direct connections to the dualled A47 in the Scheme. Access will solely be via the junctions at Wood Lane and Norwich Road.</p> <p>The sideroad network has been developed to create a parallel local link road network between North Tuddenham and Easton by utilizing the existing A47 carriageway or constructing new single carriageway roads. Existing sideroads severed by the Scheme are connected to the new link roads and the existing local road network.</p> <p>The above is covered within section 5 of the Scheme Design Report (AS-008).</p> <p>The C174 Taverham Road is a 1.6km local authority road linking the A47 to the junction north with Telegraph Hill / Weston Road / Honingham Lane. Along the route there are nine signed formal passing places and an implemented order prohibiting HGV use through to Taverham; this is signed at the junction of the A47 / Taverham Road (No Access for HGVs to Taverham) and this provision is retained with the Applicant's scheme. Taverham Road has a base Year of 600 AADT increasing due to the inclusion of the NDR and through natural growth to 900 in the 2025 Do Nothing (DN) scenario.</p> <p>The Unclassified Ringland Road is a single lane 1.6km local authority road linking Church Lane to the C171 Costessey Lane. Along the first 800m there are a number of properties with frontages onto the road (11 direct accesses) and no formal passing places. At the juncture of Weston road there is a sign indicating "Single track road no passing places for ¾ mile", which is replicated at the juncture of Costessey Lane and Ringland Road. Ringland Road has a base year of 3900 AADT increasing to 4300 in the 2025 Do Nothing (DN) scenario.</p> <p>The initial design concept proposed the Norwich Road junction with a side road connection between Taverham Road (C174) and Church Lane (Unclassified Road), to the east. This arrangement was presented at the March 2020 statutory consultation along with the supporting A47 North Tuddenham to Easton Junction & Sideroad Strategy Report, the arrangement is shown on a drawing contained on page 10 of the Consultation Report, Annex J - Section 47 Consultation Materials (APP-034).</p> <p>Concerns were raised through statutory consultation feedback that the link between Taverham Road (C174) and Church Lane, Easton, would result in additional traffic using Ringland Road (unclassified local road) where there are significant existing safety concerns.</p> <p>In response to Statutory Consultation feedback and through further traffic modelling and engagement with the Local Highway Authority (NCC) and Local Liaison Group (LLG), the route from the proposed Norwich Road junction northern roundabout towards Church Lane was removed. The proposed northern roundabout at Norwich Road junction and link to Taverham Road (C174) was reconfigured to remove the road linking Taverham Road (C174) to Church Lane, Easton.</p> <p>The closure of Church Lane redistributes the flows across the wider north-south routes, with an overall reduction in flow north – south. The Statutory Consultation design, with Church Lane included, demonstrated that this link road would have a very low utilisation by traffic travelling north – south. This change also offered benefits of reduced landtake and is reported in Table 4.12 (item no. 11) of the Consultation Report (APP-024).</p> <p>The Applicant's transport assessment, in Chapter 4 of the Case of the Scheme (APP-140), shows a prediction of 200 AADT along Taverham Road for the Scheme opening year of 2025 with the NWL also open. Both these situations are still lower than the 2015 Baseline of 600 AADT and 2025 "Do Nothing" (DN) scenario of 900 AADT along Taverham Road.</p> <p>The Applicant provided further information to the ExA within Appendix A of REP4-015 regarding local road traffic modelling; this is copied into Appendix C of this response document for reference.</p> <p>The Applicant recognised the risk of increased traffic numbers in a 'no NWL scenario without mitigation'; see Figure 4.27 in Chapter 4 'Transport Assessment' of the Case for the Scheme (APP-140). Therefore, through analysis of traffic modelling scenarios and engagement with the Local Highway Authority and Local Liaison Group, the</p>

No	Question To	ExA Question	Response
			<p>Applicant explored the concerns related to safety and disturbance from increased traffic passing through Ringland, via Honingham Lane and onto Taverham Road during the period between the Scheme opening and NWL opening.</p> <p>As an outcome of this process the Applicant's DCO application includes the power to implement the temporary closure of Honingham Lane to through traffic, in the interim period between the A47 opening and NWL scheme opening.</p> <p>This measure would reduce the volume of traffic utilising this route through to Taverham Road during the interim period between the A47 opening and NWL becoming operational. With no mitigation in place the traffic model is showing flows of 2500 AADT reducing to a mitigated value of 1300 AADT with the closure of Honingham Lane.</p> <p>The Local Highway Authority undertook independent modelling based on the NWL Traffic model which demonstrated that the Average Annual Daily Traffic (AADT) on Taverham Road with the proposed mitigation measures in place (Honingham Lane closure) and the NWL open was 400 AADT in the Scheme opening year of 2025. In the Local Highway Authority 2025 "Do Minimum" scenario (No NWL and Honingham Lane Open) the modelled value was 1800 AADT.</p> <p>If the NWL scheme does not obtain planning consent, the Applicant would continue to engage with the Local Highway Authority, Norfolk County Council, on the implementation of this proposal (e.g. long term closure of Honingham Lane or alternative measures). This commitment is stated within Section 9.2 of the Scheme Design Report, Rev.1 (AS-009); see paragraph 9.2.10.</p> <p>The Applicant has engaged with the Local Highway Authority (Norfolk County Council) the NWL project team and Norfolk County Council Public Rights of Way officers throughout the design development process. This has included engagement on design standards, cross sections, design speeds, speed restrictions, and road signage strategies. No safety concerns have been raised by representatives of the Local Highway Authority at any point during development of the Scheme.</p> <p>The Applicant has continued to engage with the Local Highway Authority since the submission of the DCO application and has proposed to implement a 30mph speed restriction on Taverham Road from the Norwich Road junction to the River Tud Bridge. This has been agreed with the Local Highway Authority and the Applicant's dDCO and supporting DCO plans were revised and submitted to the ExA at Deadline 3 to reflect this agreement.</p> <p>LTN 1/20 references rural lanes which may have higher speed limits but where the daily traffic flow is typically much less than 2,500 vehicles per day. The requirement for formal "Quiet Lane designation" is fewer than 1000 vehicles per day and a speed limit of less than 40mph. The Applicant's proposals coupled with the inclusion of the NWL would provide the opportunity for the Local Highway Authority to designate Taverham Road as a Quiet Lane in the future.</p> <p>The Applicant wishes to note that positive discussions are ongoing with local landowners and the Local Highway Authority regarding the implementation of the TTRO in a way which fulfils the purpose of the TTRO but does not inhibit agricultural access and movements. A site meeting is scheduled for mid-January with affected parties.</p> <p>The Applicant has submitted a Statement of Common Ground with Norfolk County Council (REP4-003) which confirms agreement on traffic modelling; see items 113 to 116 in Section 3.2.</p> <p>The Applicant also submitted a Statement of Common Ground with both Broadland District Council (REP4-005) & South Norfolk Council (REP4-006) to the ExA which confirms there is no difference of opinion between the parties on this matter.</p>

17 WATER ENVIRONMENT

No	Question To	ExA Question	Response
-	-	No further questions on this topic at this stage.	-

APPENDIX A – BERRY HALL CROSS SECTIONS

This drawing should not be relied on or used in circumstances other than those for which it was originally prepared and for which Sweco UK Ltd was commissioned. Sweco UK Ltd accepts no responsibility for this drawing to any party other than the person by whom it was commissioned. This drawing has been prepared on behalf of Galliford Try by Sweco UK Ltd for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Galliford Try being obtained. Sweco UK Ltd accepts no responsibility or liability for the consequences of this drawing being used for a purpose other than the purposes for which it was commissioned. Any person using or relying on this drawing for such other purpose agrees, and will by such use or reliance be taken to confirm his/her agreement, to indemnify Sweco UK Ltd for all loss or damage resulting therefrom.



NOTES

- THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
- ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
- DO NOT SCALE FROM THIS DRAWING.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010

LOCATION PLAN

KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C04	13/12/21	DEADLINE 6	LS	BArt	BArt

DESIGNER

SWECO

CONTRACTOR

GallifordTry

CLIENT

highways england

PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON DUALLING

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

WOOD LANE JUNCTION
LONG SECTIONS
LOCATION PLAN

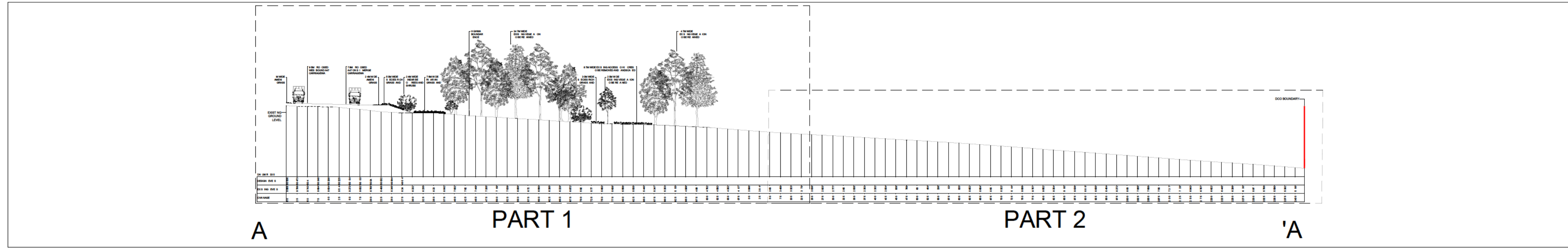
SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

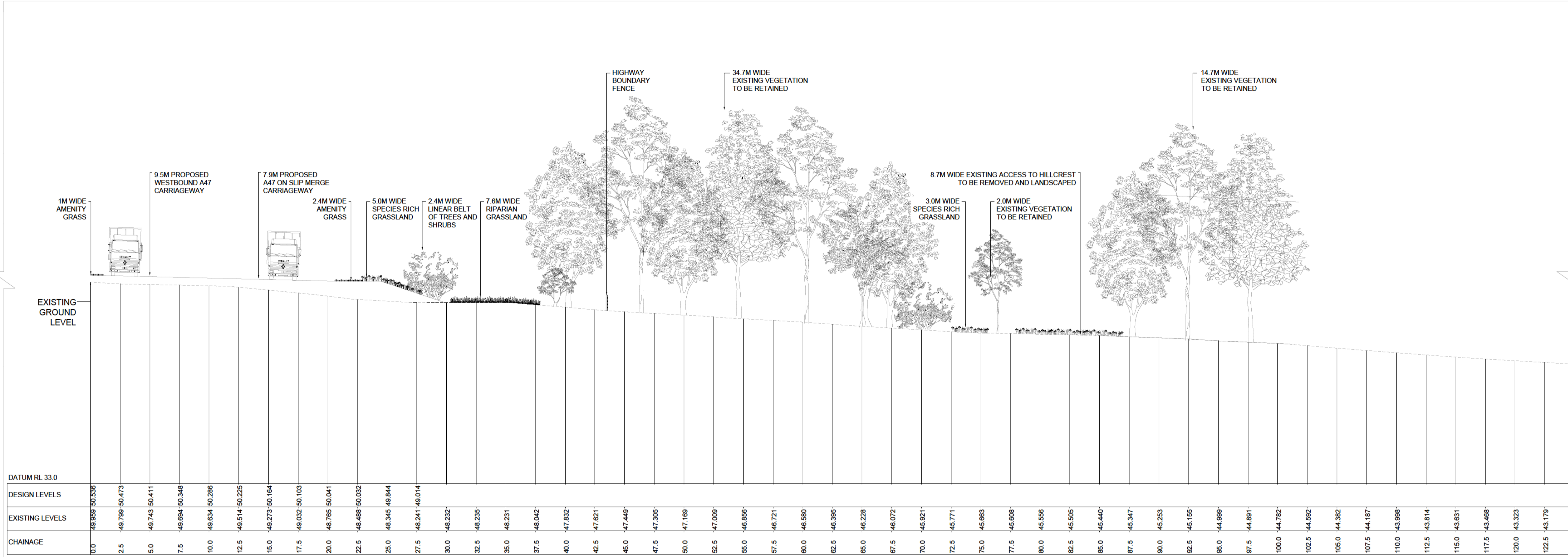
SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C04

DRAWING NUMBER

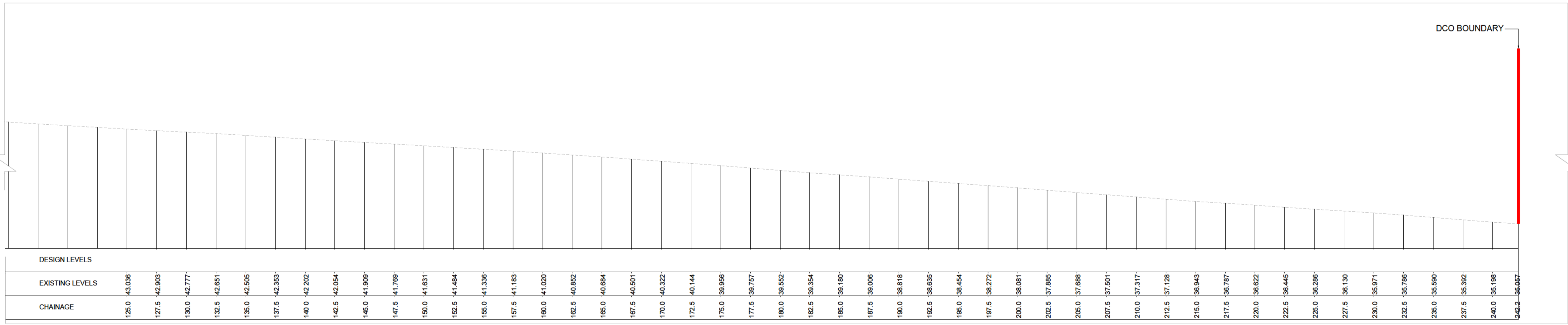
HE551489-GTY-ELS-000-DR-LX-31100



SECTION A - 'A' OVERVIEW
SCALE 1 : NTS



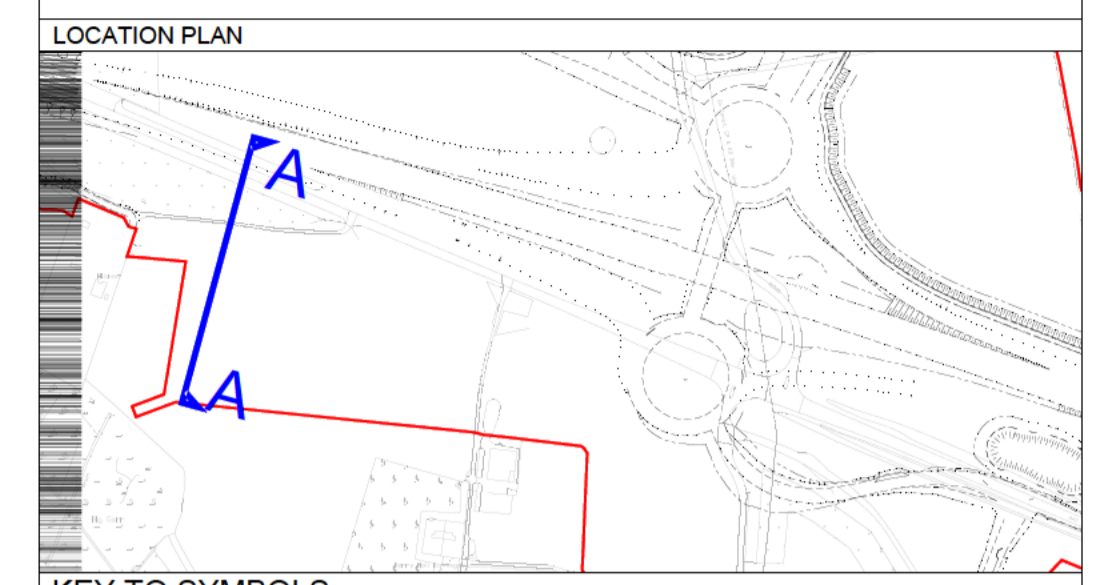
SECTION A - 'A' PART 1 OF 2
SCALE 1 : 200



SECTION A - 'A' PART 2 OF 2
SCALE 1 : 200

NOTES

- THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
- ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
- DO NOT SCALE FROM THIS DRAWING.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6		LS	Bart
C04	13/12/21	DEADLINE 6		LS	Bart

DESIGNER
SWECO

CONTRACTOR
GallifordTry

CLIENT
highways england

PROJECT TITLE
A47 NORTH TUDDENHAM TO EASTON DUALLING

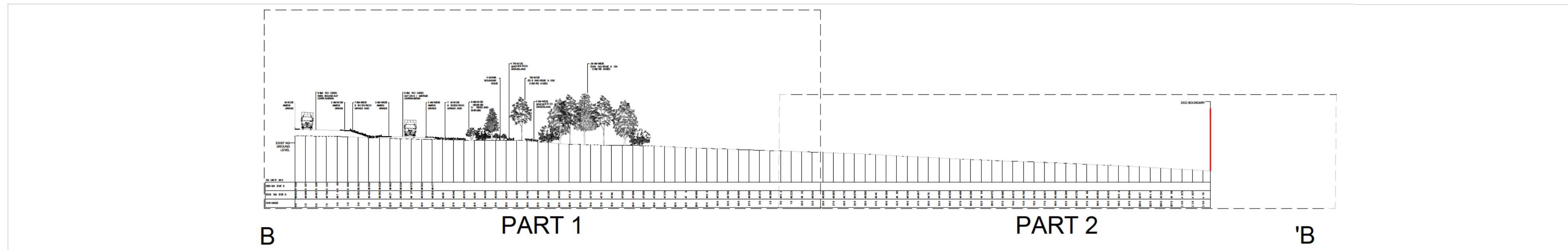
PROJECT STAGE
PCF STAGE 4

DRAWING TITLE
WOOD LANE JUNCTION LONG SECTION A-'A' MAINLINE CHAINAGE 4+500M

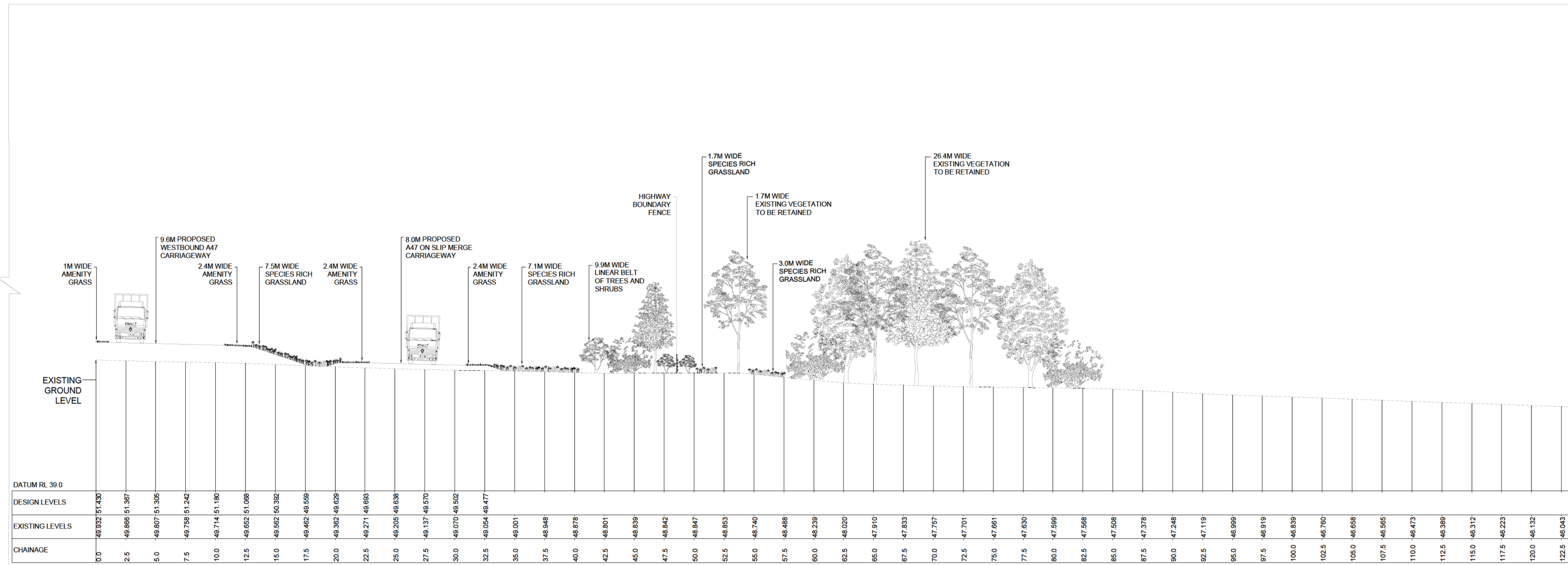
SUITABILITY
AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C04

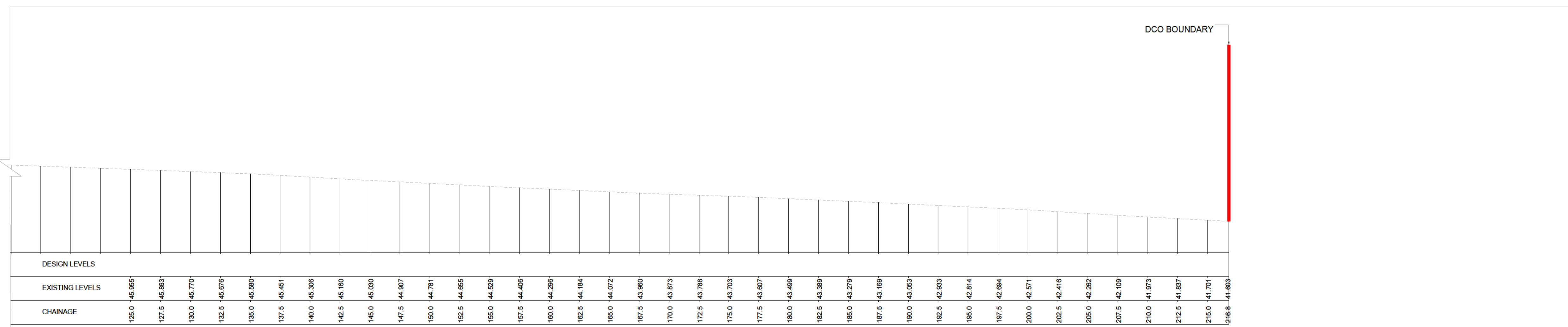
DRAWING NUMBER
HE551489-GTY-ELS-000-DR-LX-31101



SECTION B - 'B' OVERVIEW
SCALE 1 : NTS

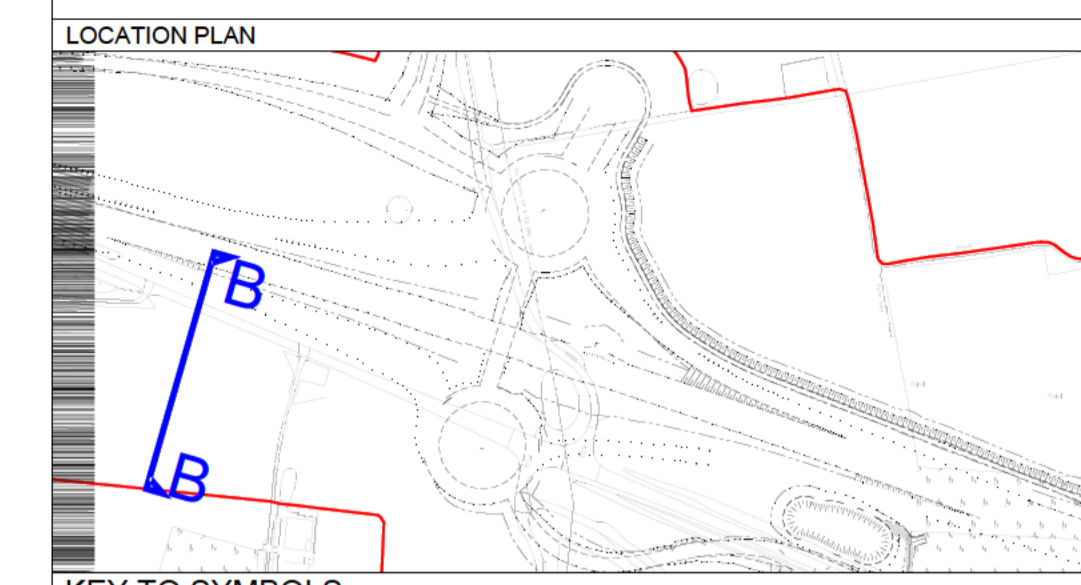


SECTION B - 'B' PART 1 OF 2
SCALE 1 : 200



SECTION B - 'B' PART 2 OF 2
SCALE 1 : 200

NOTES
 1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
 WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
 HE551489-GTY-ELS-000-DR-LX-31100
 WOOD LANE JUNCTION LONG SECTION SHEETS:
 HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
 ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
 HE551489-GTY-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C04	13/12/21	DEADLINE 6	LS	BArt	BArt

DESIGNER

CONTRACTOR

CLIENT

PROJECT TITLE
A47 NORTH TUDDENHAM TO EASTON DUALLING

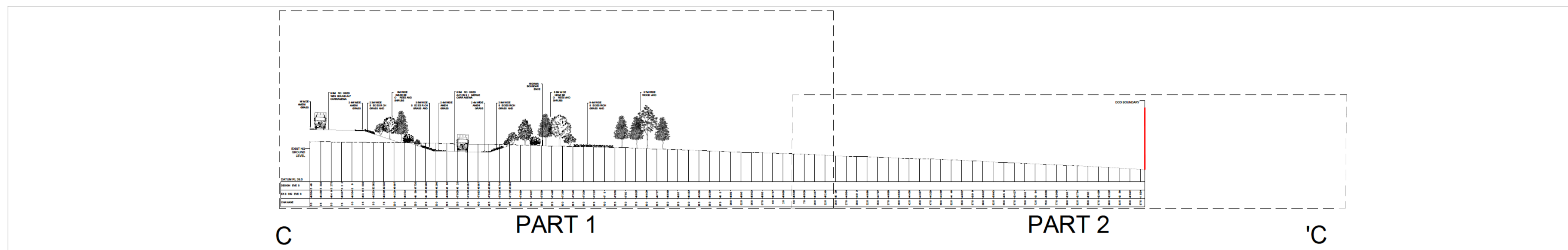
PROJECT STAGE
PCF STAGE 4

DRAWING TITLE
**WOOD LANE JUNCTION
 LONG SECTION B-'B'
 MAINLINE CHAINAGE 4+650M**

SUITABILITY
AUTHORISED AS STAGE 3 COMPLETED

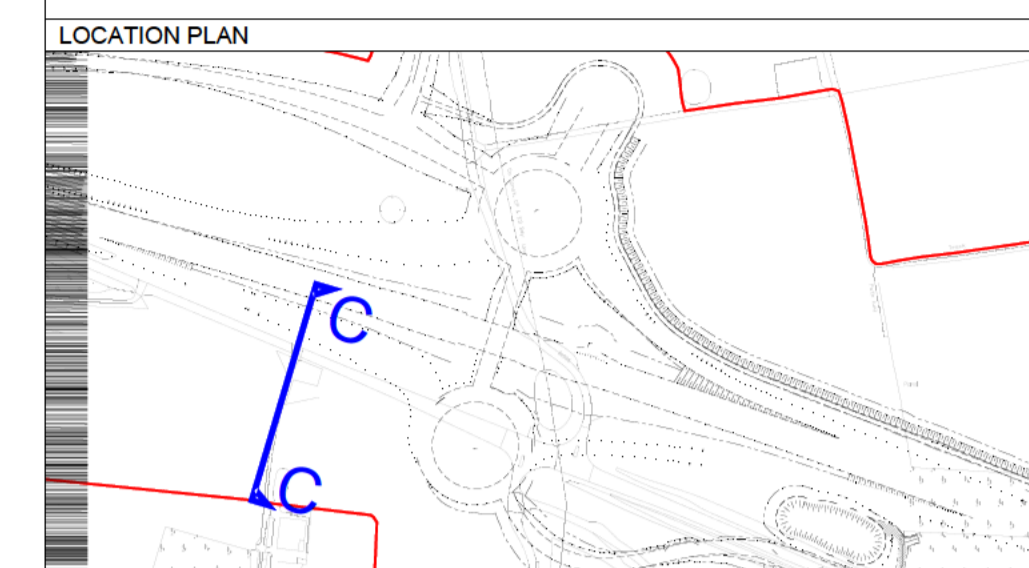
SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C04

DRAWING NUMBER
HE551489-GTY-ELS-000-DR-LX-31102

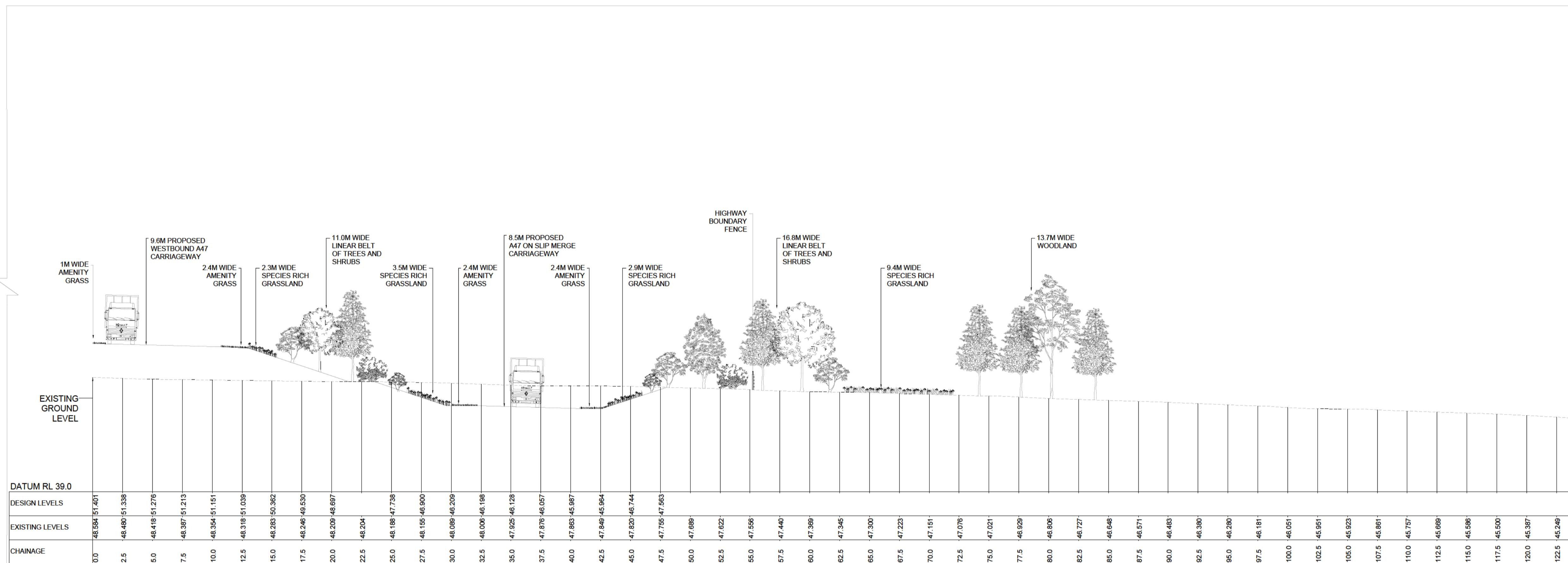


SECTION C - 'C' OVERVIEW
SCALE 1 : NTS

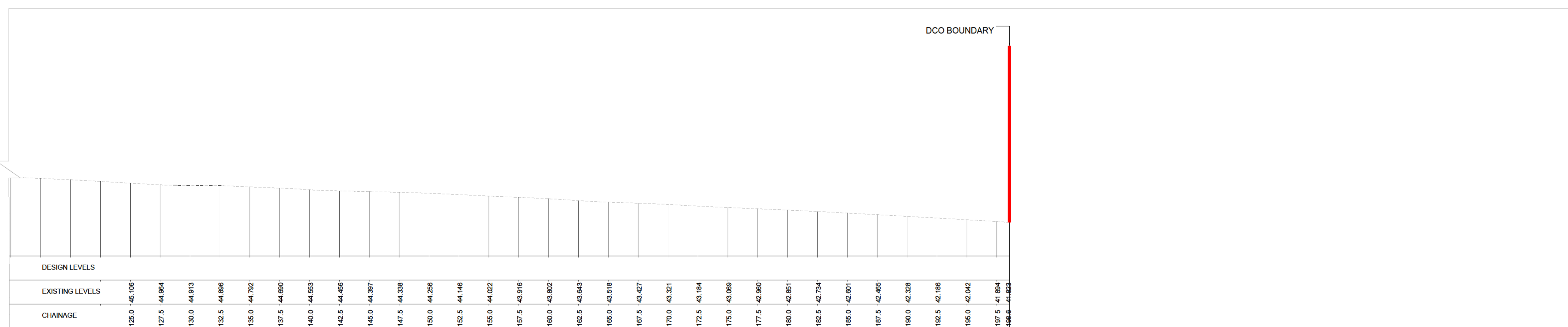
- NOTES**
1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS



SECTION C - 'C' PART 1 OF 2
SCALE 1 : 200



SECTION C - 'C' PART 2 OF 2
SCALE 1 : 200

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6		LS	BArt
C04	13/12/21	DEADLINE 6		LS	BArt

DESIGNER



CONTRACTOR



CLIENT



PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON DUALLING

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

WOOD LANE JUNCTION
LONG SECTION C-'C'
MAINLINE CHAINAGE 4+750M

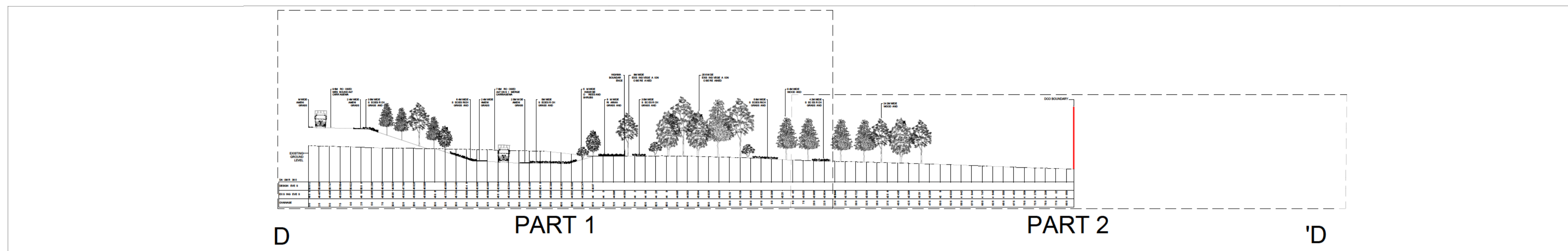
SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C04

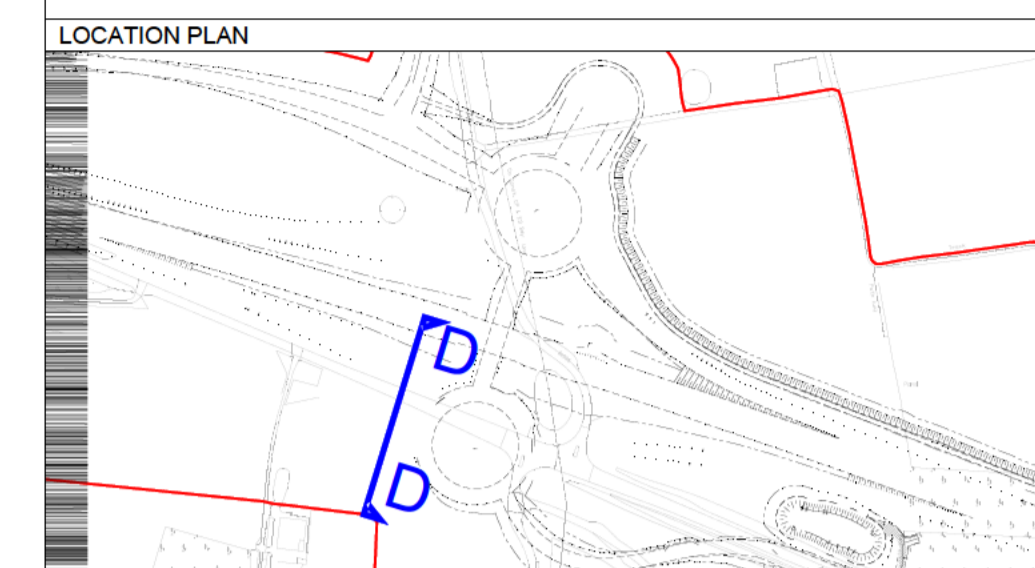
DRAWING NUMBER

HE551489-GTY-ELS-000-DR-LX-31103

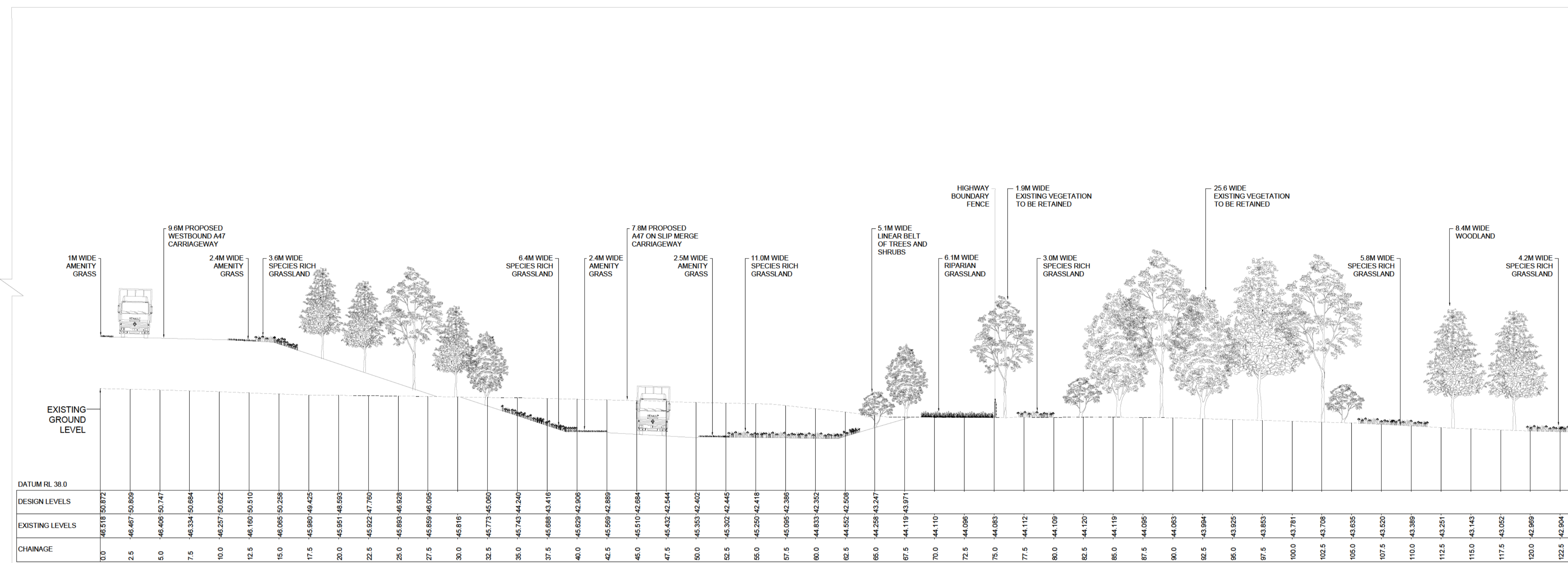


SECTION D - 'D' OVERVIEW
SCALE 1 : NTS

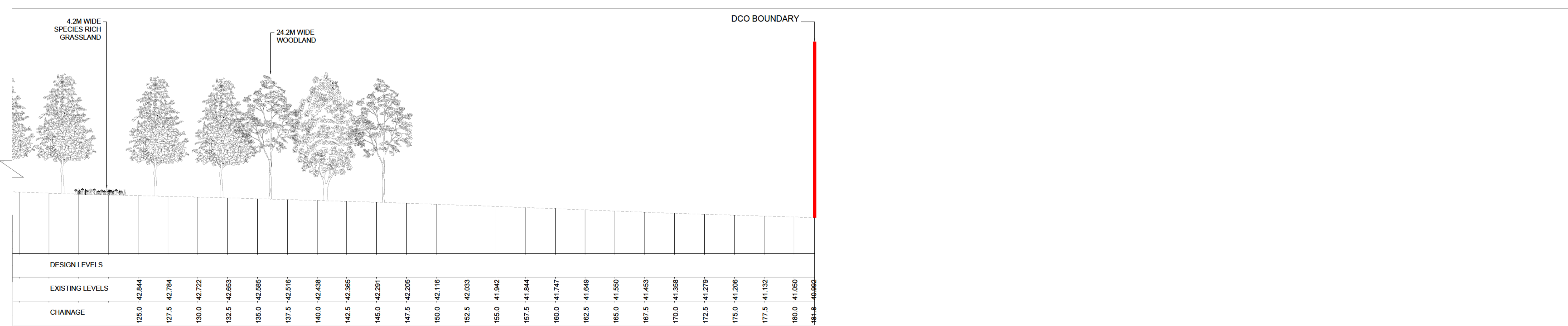
- NOTES**
1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS



SECTION D - 'D' PART 1 OF 2
SCALE 1 : 200



SECTION D - 'D' PART 2 OF 2
SCALE 1 : 200

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	Bart	Bart
C04	13/12/21	DEADLINE 6	LS	Bart	Bart

DESIGNER

SWECO

CONTRACTOR

GallifordTry

CLIENT

**highways
england**

PROJECT TITLE

**A47 NORTH TUDDENHAM TO
EASTON DUALLING**

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

**WOOD LANE JUNCTION
LONG SECTION D-'D'
MAINLINE CHAINAGE 4+850M**

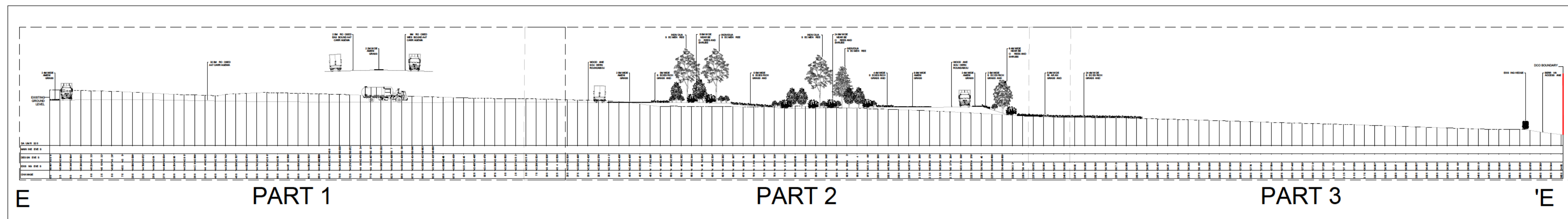
SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C04

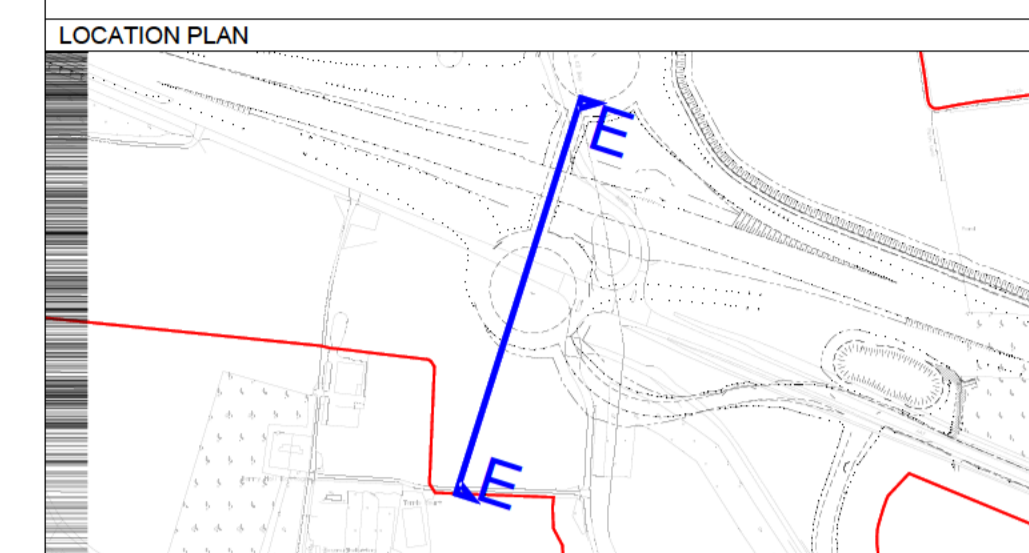
DRAWING NUMBER

HE551489-GTY-ELS-000-DR-LX-31104

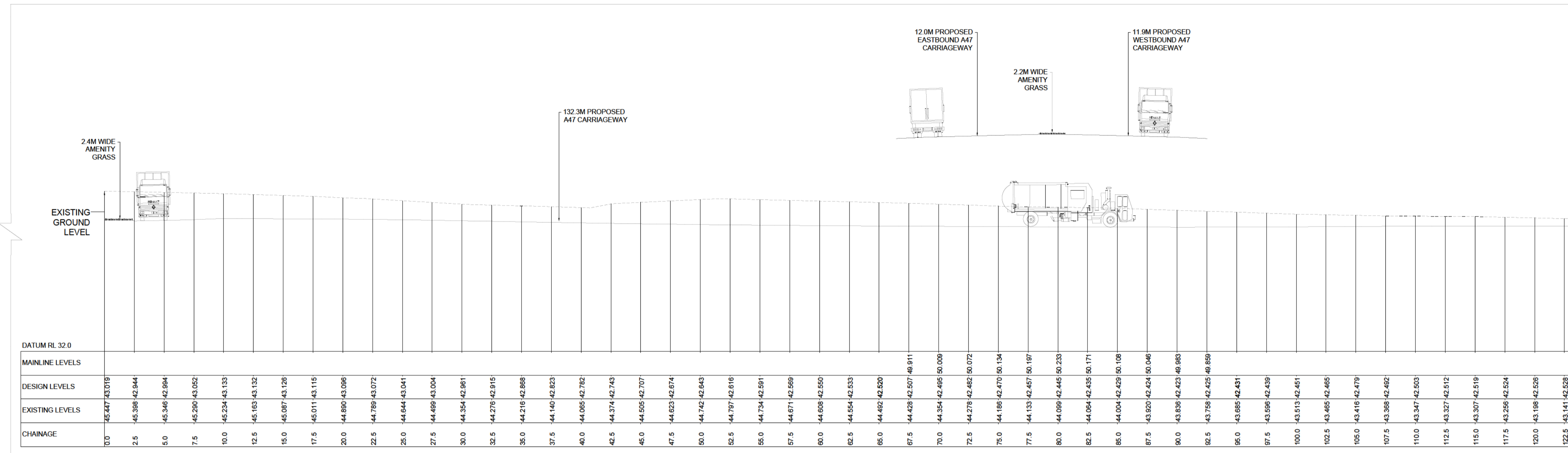


SECTION E - 'E' OVERVIEW
SCALE 1 : NTS

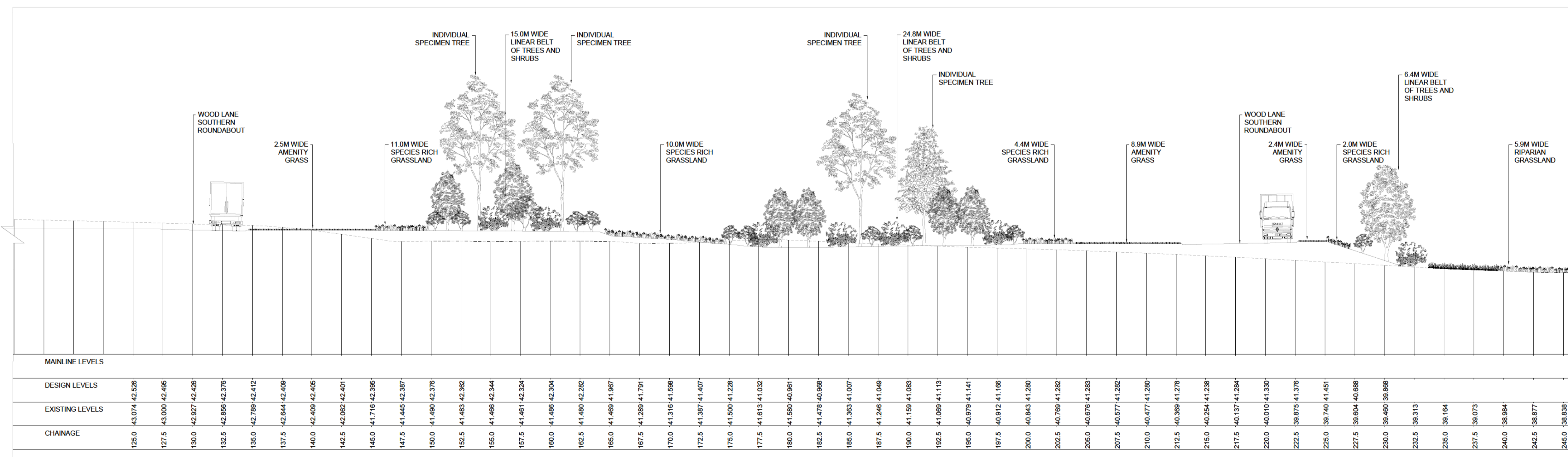
- NOTES**
- THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 - ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 - DO NOT SCALE FROM THIS DRAWING.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS



SECTION E - 'E' PART 1 OF 3
SCALE 1 : 200



SECTION E - 'E' PART 2 OF 3
SCALE 1 : 200

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	Barl	Barl
C01	13/12/21	DEADLINE 6	LS	Barl	Barl

DESIGNER	CONTRACTOR	CLIENT



PROJECT TITLE
A47 NORTH TUDDENHAM TO EASTON DUALLING

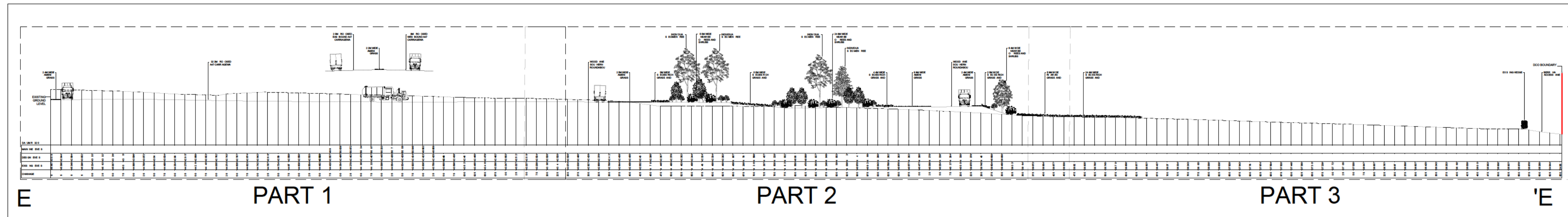
PROJECT STAGE
PCF STAGE 4

DRAWING TITLE
**WOOD LANE JUNCTION
LONG SECTION E-'E'
MAINLINE CHAINAGE 4+916M
SHEET 1 OF 2**

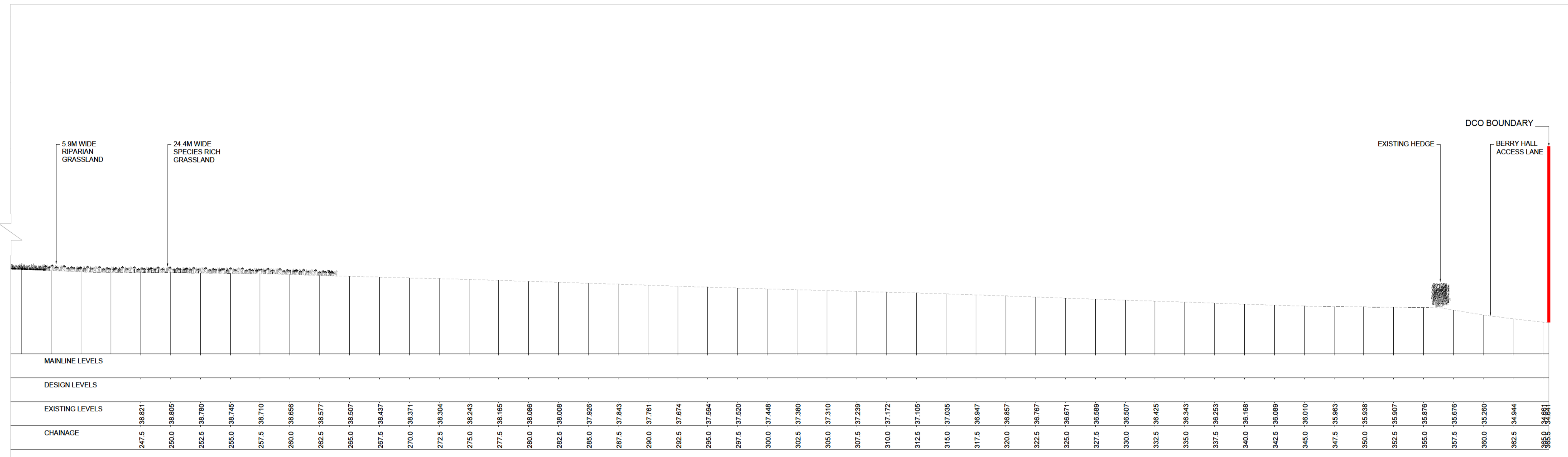
SUITABILITY
AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

DRAWING NUMBER
HE551489-GTY-ELS-000-DR-LX-31105



SECTION E - 'E' OVERVIEW
SCALE 1 : NTS

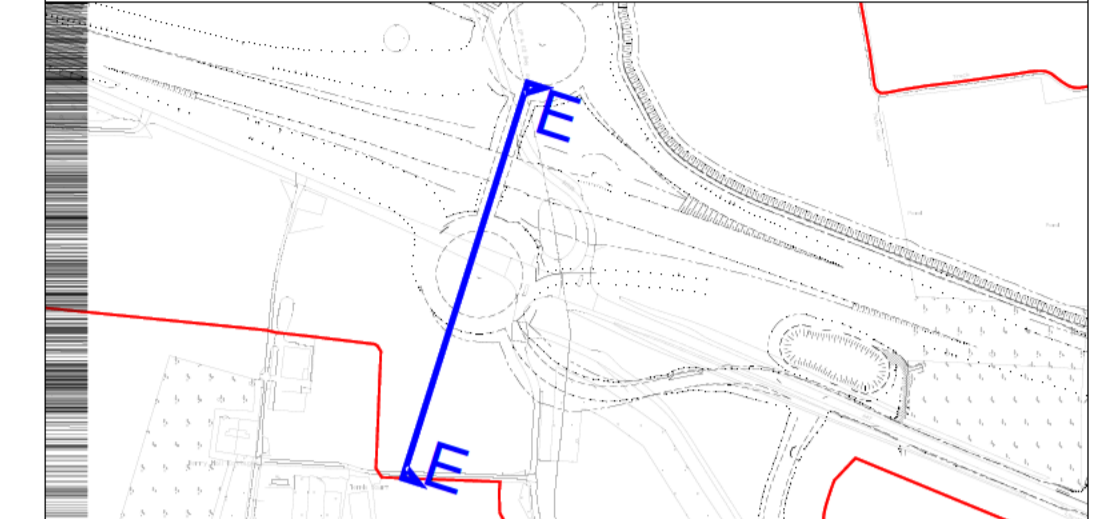


SECTION E - 'E' PART 3 OF 3
SCALE 1 : 200

NOTES

- THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
- ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
- DO NOT SCALE FROM THIS DRAWING.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010

LOCATION PLAN



KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C01	13/12/21	DEADLINE 6	LS	BArt	BArt

DESIGNER



CONTRACTOR



CLIENT



PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON DUALLING

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

WOOD LANE JUNCTION
LONG SECTION E-'E'
MAINLINE CHAINAGE 4+916M
SHEET 2 OF 2

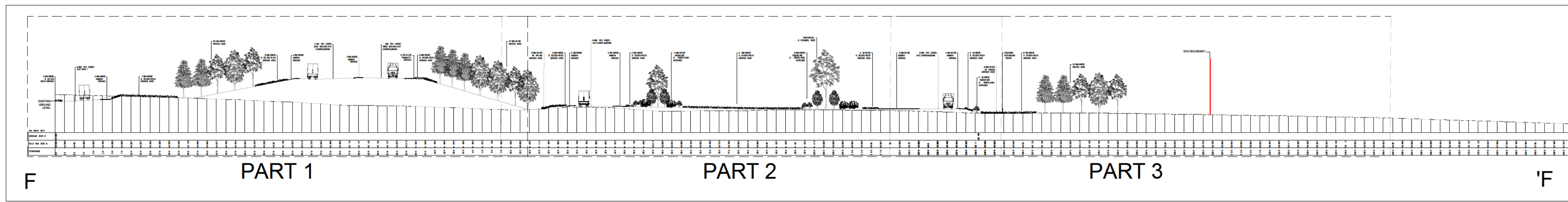
SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

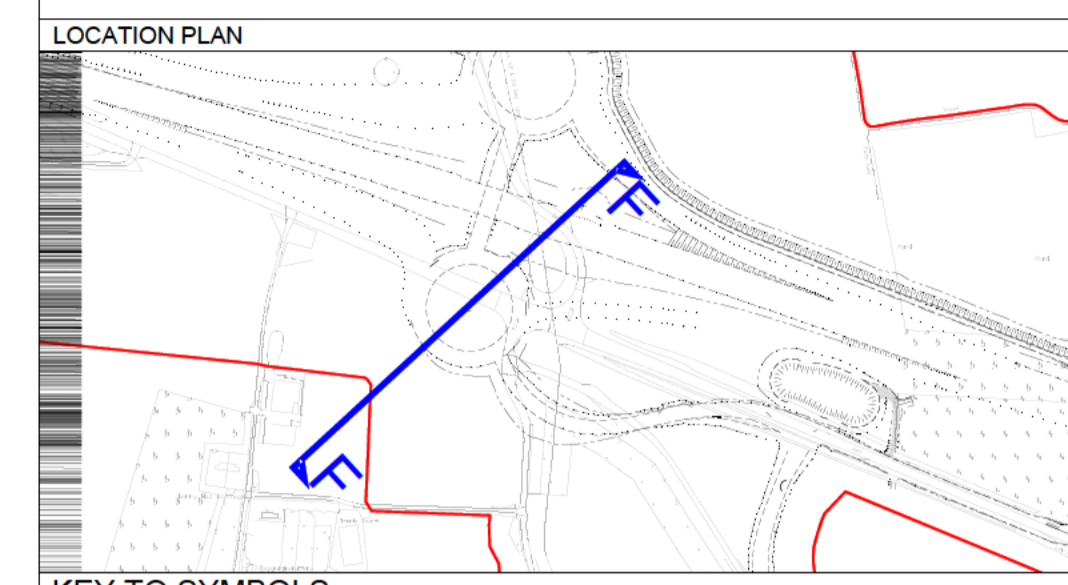
DRAWING NUMBER

HE551489-GTY-ELS-000-DR-LX-31106

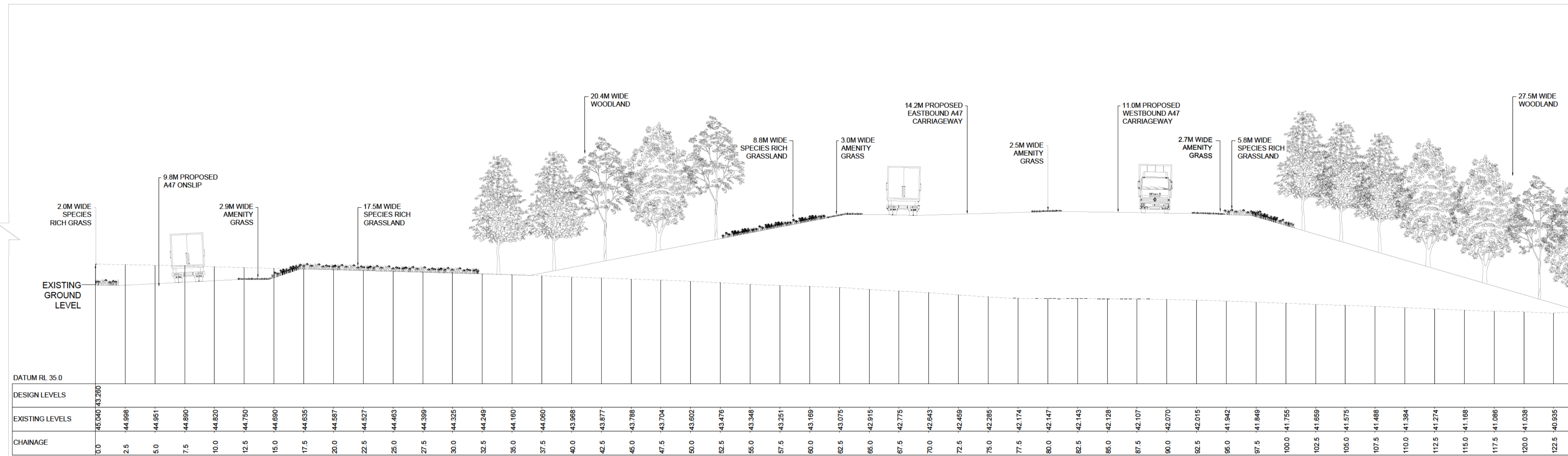


SECTION F - 'F' OVERVIEW
SCALE 1 : NTS

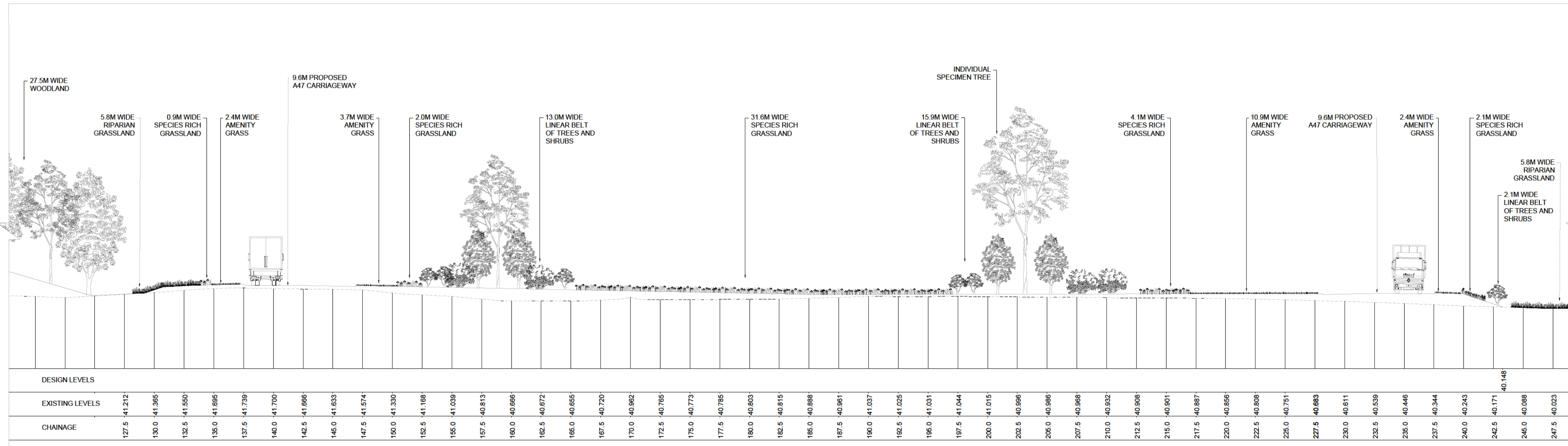
- NOTES**
1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS



SECTION F - 'F' PART 1 OF 3
SCALE 1 : 200



SECTION F - 'F' PART 2 OF 3
SCALE 1 : 200

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6			
C01	13/12/21	DEADLINE 6			

DESIGNER



CONTRACTOR



CLIENT



PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON DUALLING

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

**WOOD LANE JUNCTION
LONG SECTION F-'F'
MAINLINE CHAINAGE 4+975
SHEET 1 OF 2**

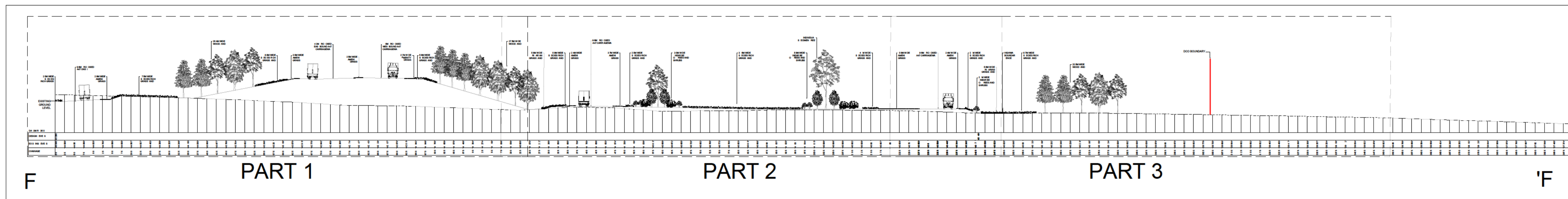
SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

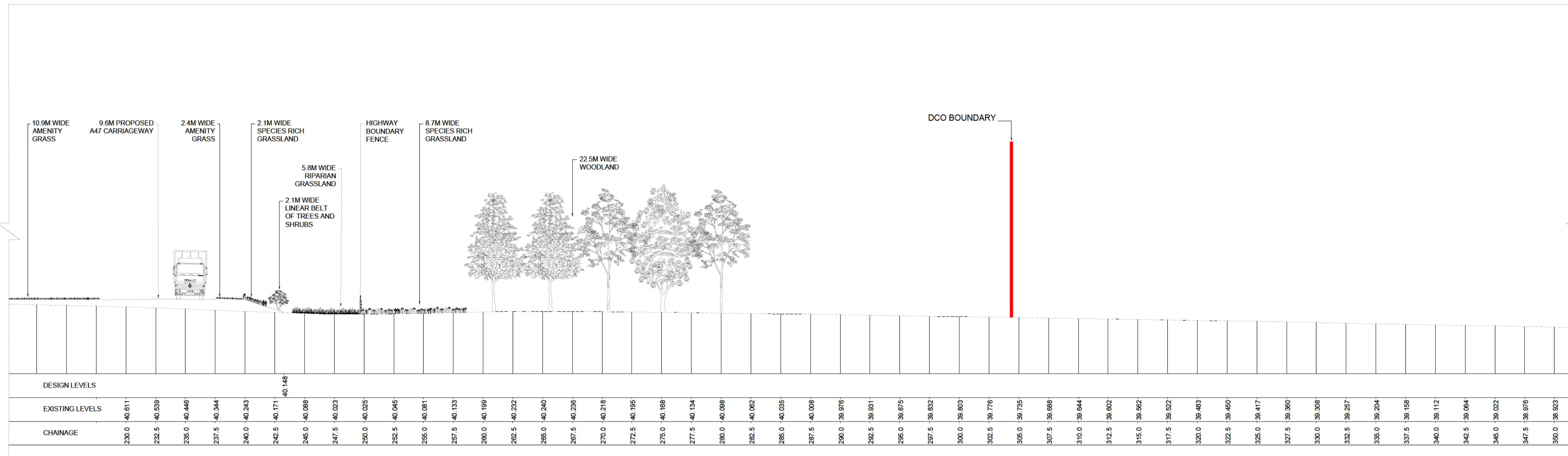
SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

DRAWING NUMBER

HE551489-GTY-ELS-000-DR-LX-31107

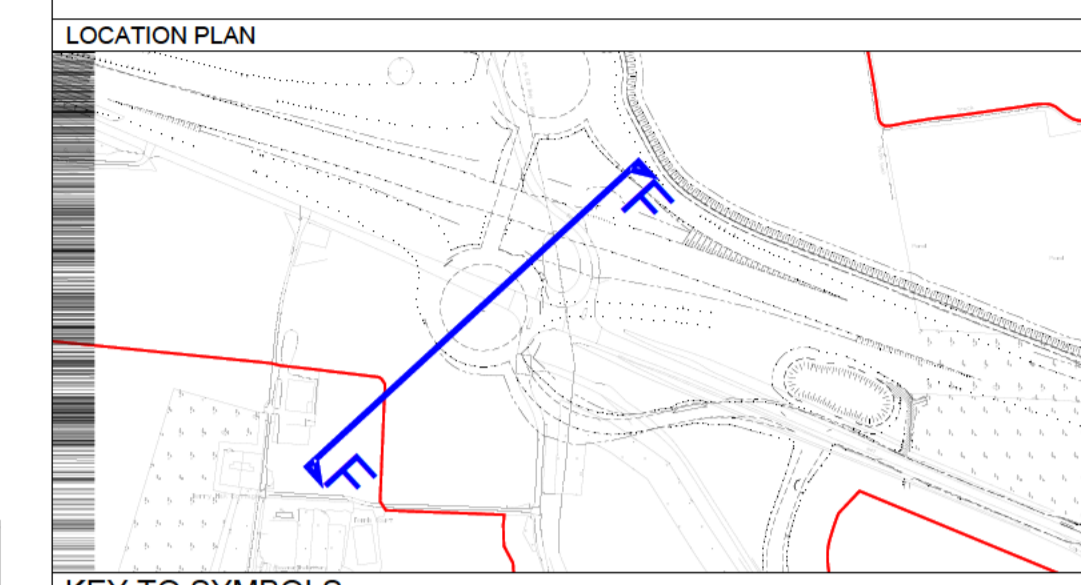


SECTION F - 'F' OVERVIEW
SCALE 1 : NTS



SECTION F - 'F' PART 3 OF 3
SCALE 1 : 200

- NOTES**
1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C01	13/12/21	DEADLINE 6	LS	BArt	BArt

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C01	13/12/21	DEADLINE 6	LS	BArt	BArt

DESIGNER
SWECO

CONTRACTOR
GallifordTry

CLIENT
**highways
england**

PROJECT TITLE
**A47 NORTH TUDDENHAM TO
EASTON DUALLING**

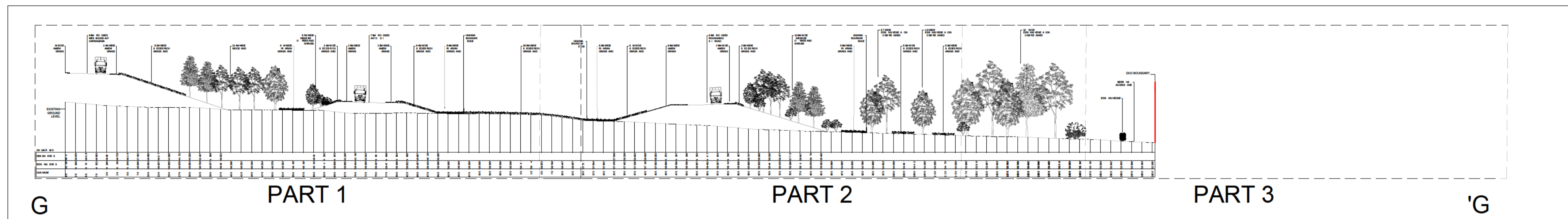
PROJECT STAGE
PCF STAGE 4

DRAWING TITLE
**WOOD LANE JUNCTION
LONG SECTION F-'F'
MAINLINE CHAINAGE 4+975
SHEET 2 OF 2**

SUITABILITY
AUTHORISED AS STAGE 3 COMPLETED

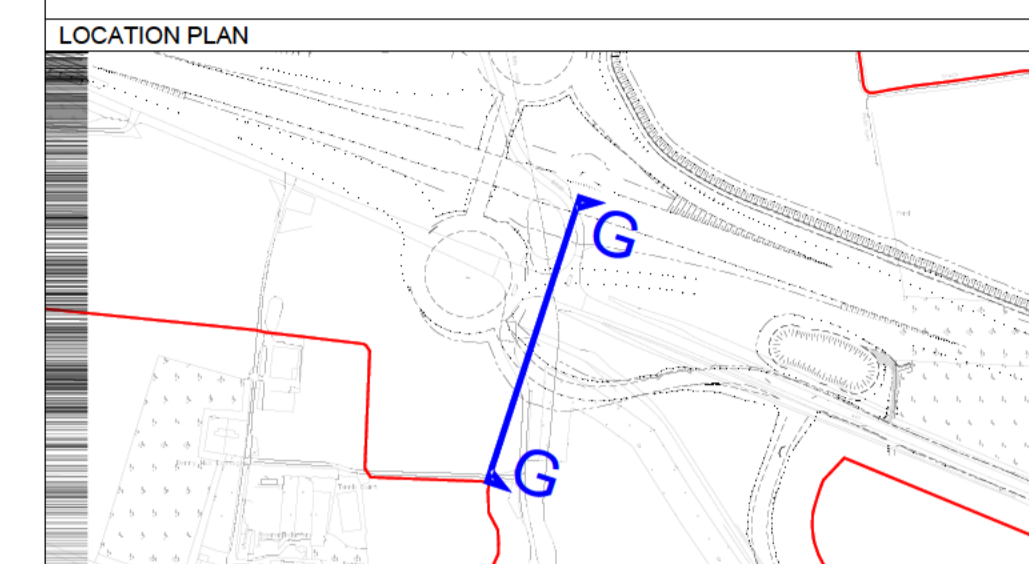
SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

DRAWING NUMBER
HE551489-GTY-ELS-000-DR-LX-31108



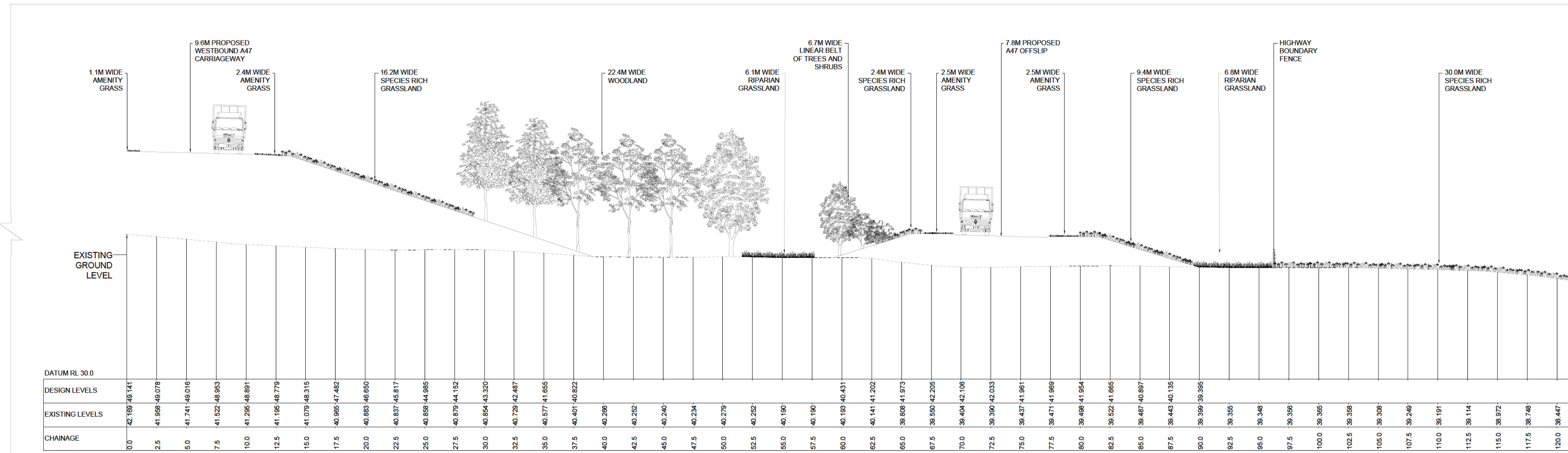
SECTION G - 'G' OVERVIEW
SCALE 1 : NTS

- NOTES**
- THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 - ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 - DO NOT SCALE FROM THIS DRAWING.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010

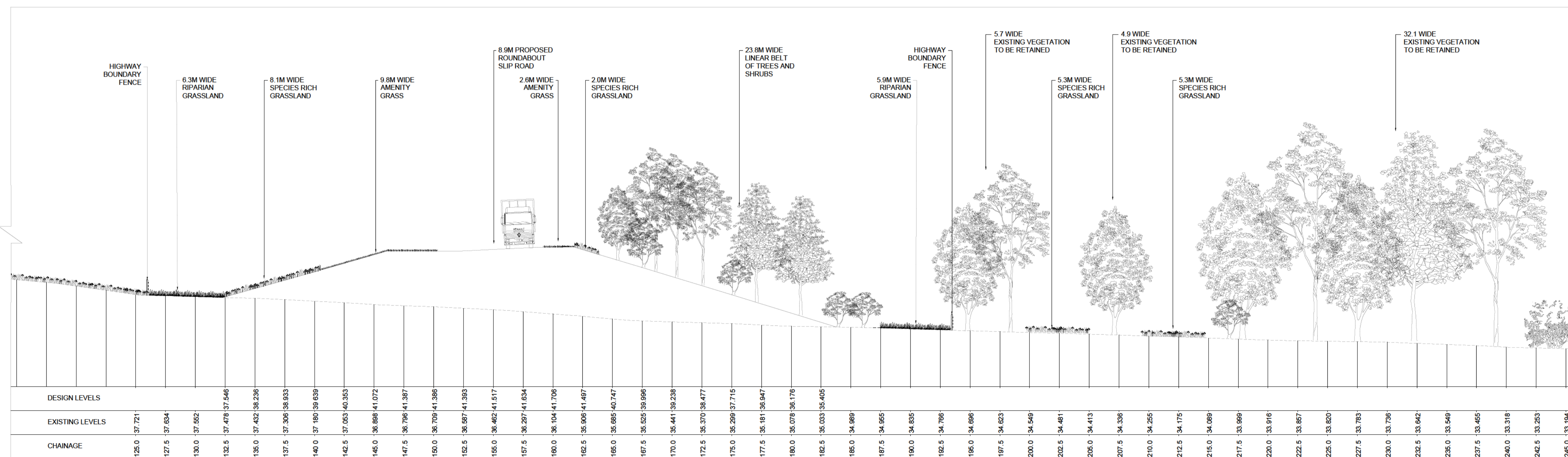


KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6		LS	Bart
C01	13/12/21	DEADLINE 6		LS	Bart



SECTION G - 'G' PART 1 OF 3
SCALE 1 : 200



SECTION G - 'G' PART 2 OF 3
SCALE 1 : 200

DESIGNER

SWECO

CONTRACTOR

GallifordTry

CLIENT

highways england

PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON DUALLING

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

**WOOD LANE JUNCTION
LONG SECTION G-'G'
MAINLINE CHAINAGE 5+000M
SHEET 1 OF 2**

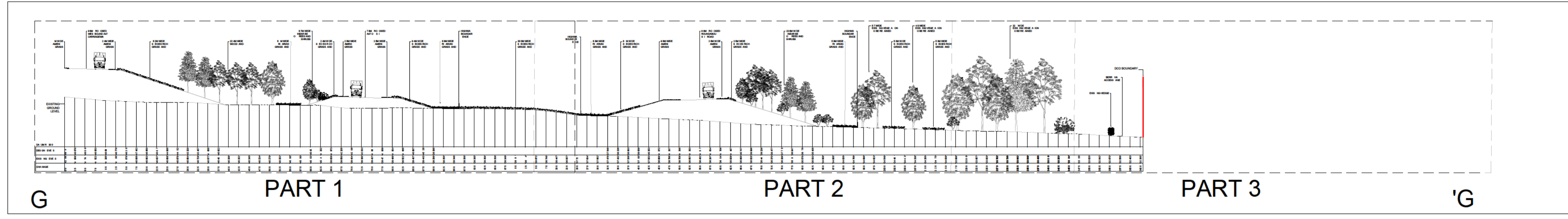
SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

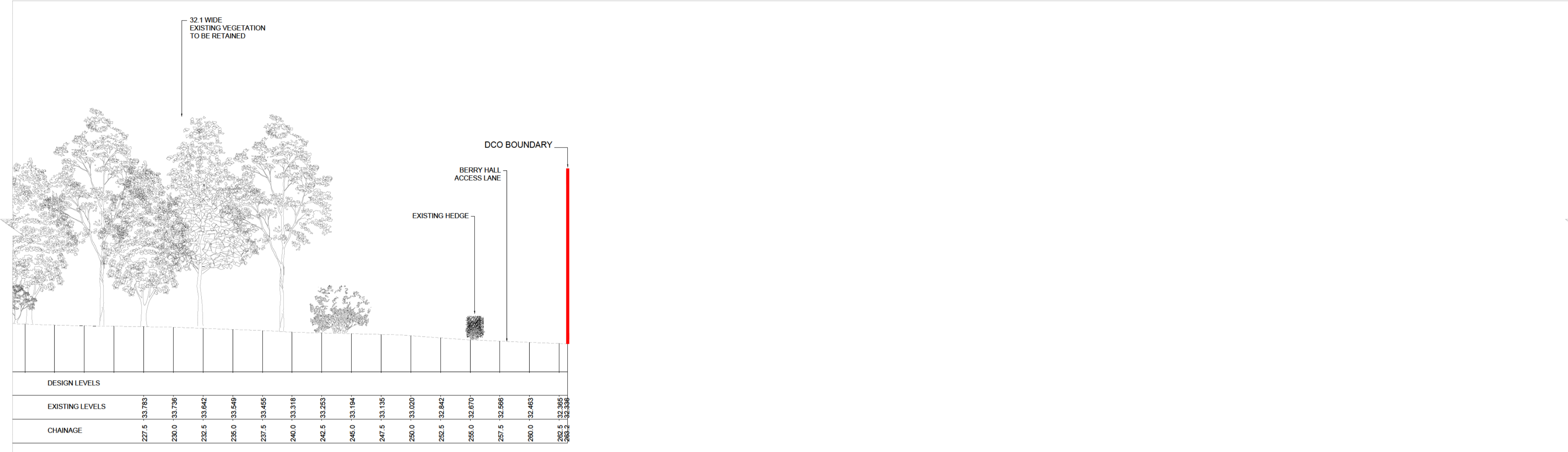
SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

DRAWING NUMBER

HE551489-GTY-ELS-000-DR-LX-31109

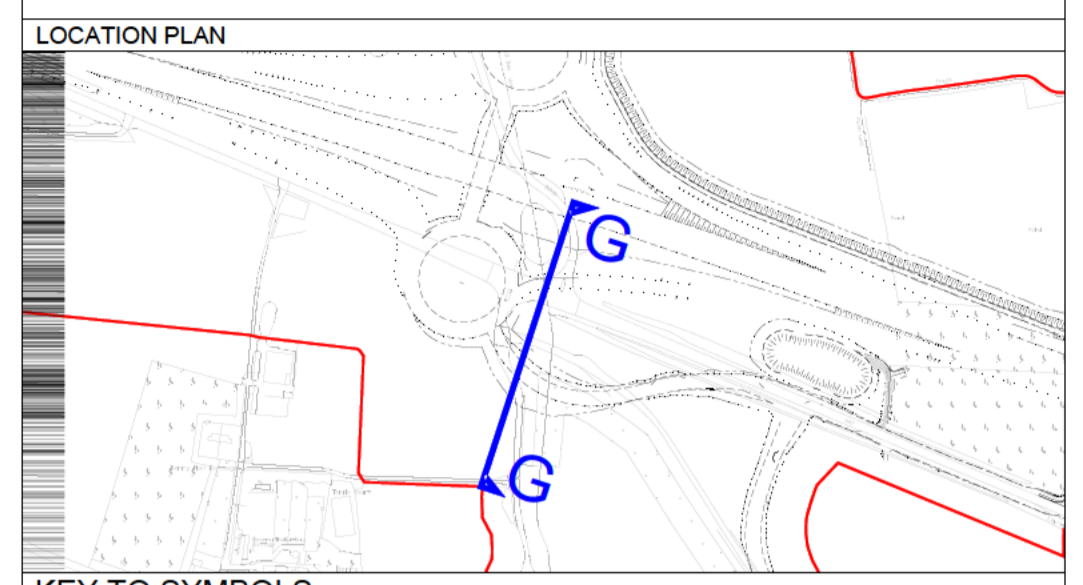


SECTION G - 'G' OVERVIEW
SCALE 1 : NTS



SECTION G - 'G' PART 3 OF 3
SCALE 1 : 200

- NOTES**
1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C01	13/12/21	DEADLINE 6	LS	BArt	BArt

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C01	13/12/21	DEADLINE 6	LS	BArt	BArt

DESIGNER
SWECO

CONTRACTOR
GallifordTry

CLIENT
highways england

PROJECT TITLE
A47 NORTH TUDDENHAM TO EASTON DUALLING

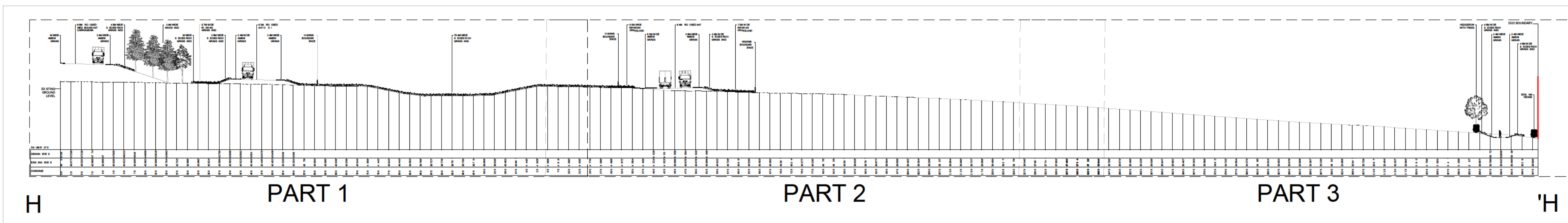
PROJECT STAGE
PCF STAGE 4

DRAWING TITLE
**WOOD LANE JUNCTION
LONG SECTION G-'G'
MAINLINE CHAINAGE 5+000M
SHEET 2 OF 2**

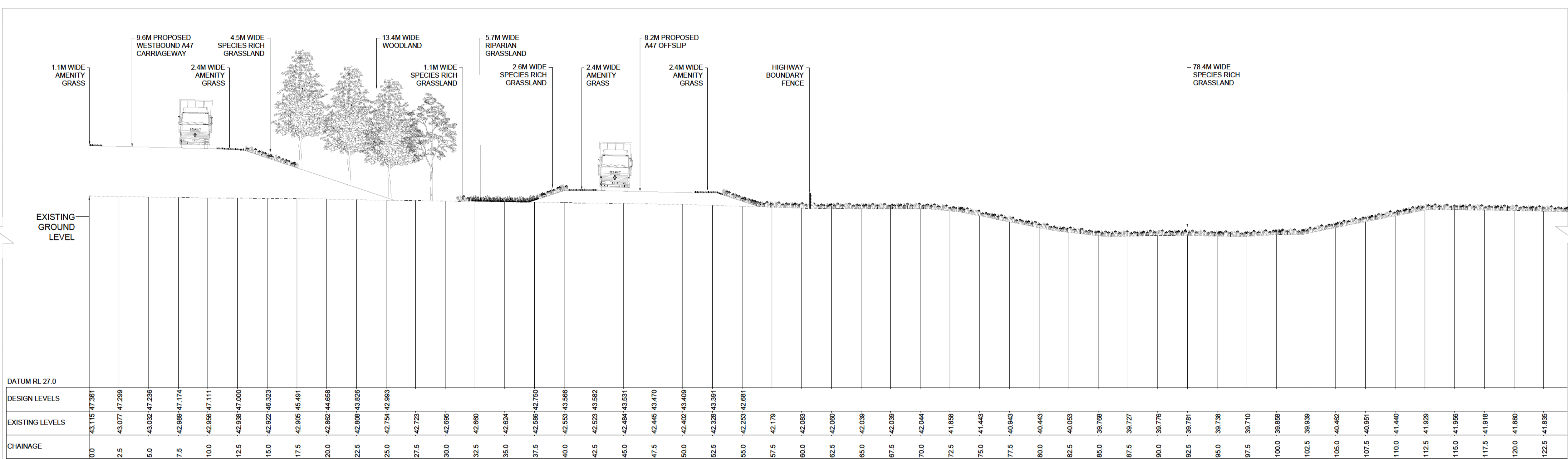
SUITABILITY
AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

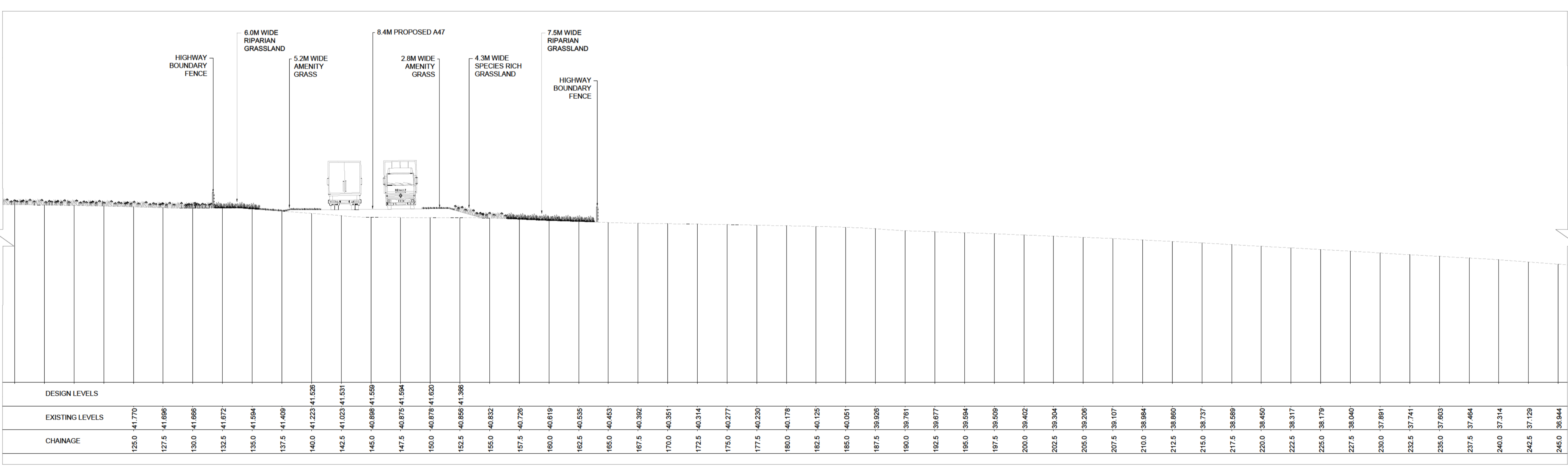
DRAWING NUMBER
HE551489-GTY-ELS-000-DR-LX-31110



SECTION H - 'H' OVERVIEW
SCALE : NTS

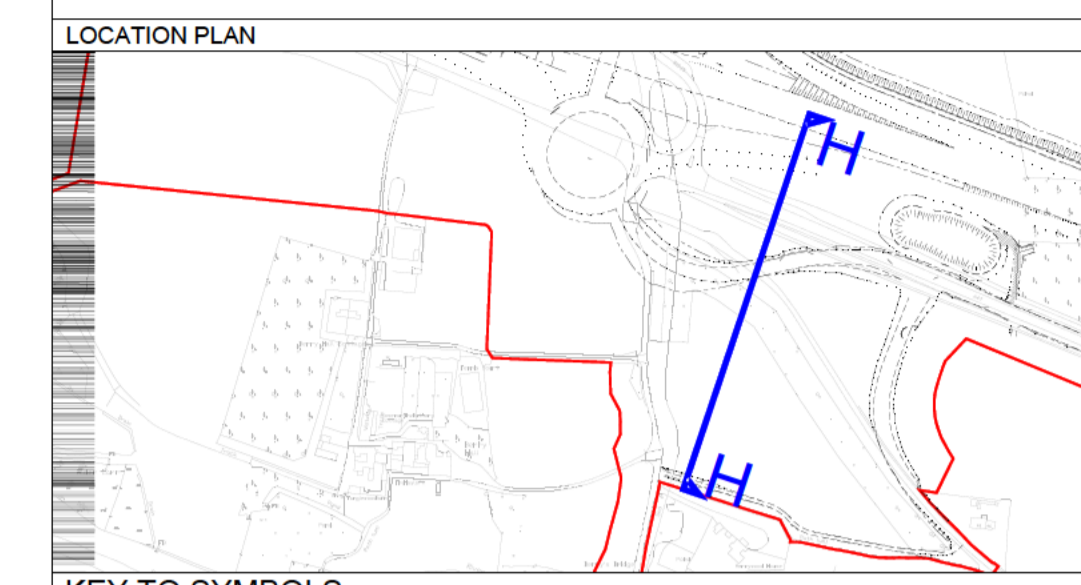


SECTION H - 'H' PART 1 OF 3
SCALE 1 : 200



SECTION H - 'H' PART 2 OF 3
SCALE 1 : 200

- NOTES**
1. THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 2. ALL DIMENSION IN METRES (m) UNLESS OTHERWISE STATED.
 3. DO NOT SCALE FROM THIS DRAWING.
 4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH:
WOOD LANE JUNCTION LONG SECTIONS LOCATION PLAN
HE551489-GTY-ELS-000-DR-LX-31100
WOOD LANE JUNCTION LONG SECTION SHEETS:
HE551489-GTY-ELS-000-DR-LX-31101 TO HE551489-GTY-ELS-000-DR-LX-31112
ENVIRONMENTAL MASTERPLAN SHEETS 6 TO 8:
HE551489-GTY-ELS-000-DR-LX-30008 TO HE551489-GTY-ELS-000-DR-LX-30010



KEY TO SYMBOLS

REV	DATE	REVISION NOTE	ORG	CHKD	APPD
P01	13/12/21	DEADLINE 6	LS	BArt	BArt
C01	13/12/21	DEADLINE 6	LS	BArt	BArt

DESIGNER

CONTRACTOR

CLIENT

PROJECT TITLE

A47 NORTH TUDDENHAM TO EASTON DUALLING

PROJECT STAGE

PCF STAGE 4

DRAWING TITLE

WOOD LANE JUNCTION
LONG SECTION H-'H'
MAINLINE CHAINAGE 5+100M
SHEET 1 OF 2

SUITABILITY

AUTHORISED AS STAGE 3 COMPLETED

SHEET SIZE	SCALE	STATUS	REVISION
A1	AS SHOWN	A3	C01

DRAWING NUMBER

HE551489-GTY-ELS-000-DR-LX-31111

A PPENDIX B – COPY OF APPENDIX A IN '9.21 APPLICANT'S RESPONSE TO EXAMINING AUTHORITY'S ACTION LIST FROM ISH1, ISH2, CAH1 AND CAH2' (REP4-016)

STATEMENT ABOUT SIZE OF WOOD LANE JUNCTION ROUNDABOUT

Provide the evidence to demonstrate the size of the Wood Lane Junction required should the Norwich Western Link not be provided.

Introduction

This note explains why the Applicant has made an application for a DCO which caters for the Norwich Western Link scheme and why the Applicant considers that the design of the Scheme would remain materially the same in a hypothetical no Norwich Western Link (NWL) scenario.

The A47 improvement between North Tuddenham and Easton was identified by the Government and included within the Road Investment Strategy (RIS), which sets a long-term strategic vision for the network by:

- Specifying the performance standards Highways England must deliver under their statutory license as the strategic highway authority in England.
- Listing planned enhancement Schemes expected to be built.
- Stating the funding made available during the second Road Period (RP2) covering the financial years 2020-21 to 2024-25.

The Scheme objectives are covered in Section 2.2 of the Scheme Design Report, Rev.1 (**AS-008**), and section 3.5 of the Case for the Scheme (**APP-140**). The three below objectives are key in understanding the provision at the Wood Lane junction:

- **Supporting Economic Growth**: reduce congestion related delay, **improve journey time reliability** and **increase the overall capacity for future traffic growth** to help enable regional development and growth in Norwich and its surrounding area.
- **A safer and reliable network**: **improve safety for all road users** and those living in the local area by **improving safety issues at junctions along the A47**. Improve user satisfaction by quicker and more reliable journeys.
- **A more free-flowing network**: **increase resilience** in coping with incidents such as collisions, breakdowns, maintenance and extreme weather. Support the smooth flow of traffic and improve journey times reliability by **maximising the operational capability at the junctions** and along the 9km carriageway.

As a result of the NWL scheme announcing a preferred route, under the Department for Transport (DfT) traffic modelling guidance, the NWL has to be considered as a "certain development" in the traffic modelling determining the need case for the A47 North Tuddenham to Easton Dualling scheme; see Scheme Design Report, Rev.1, Section 9.2.3. (**AS-008**).

The classification of “near certain” means that the NWL is included in both the Do Minimum (DM) and Do Something (DS) scenarios for the scheme traffic modelling; see the Case for the Scheme, Section 4.4.3 (**APP-140**). Therefore, the Wood Lane roundabout must be designed to accommodate these flows.

Benefits of Designing for Norwich Western Link:

The Applicant has provided information on the interrelationship with the NWL in Section 9 of the Scheme Design Report, Rev. 1 (**AS-008**).

The benefits of a single delivery approach are covered within Sections 9.2.5 and 9.2.6. Provision of a design with the proposed size of roundabouts would not only cater for the future connection and capacity with NWL included, but would also avoid:

- Additional costs from amending Wood Lane junction after the A47 construction
- Impact on customers and delays to journey times during construction to traffic using the junction after the Scheme opening.
- Demolition of recently built highways, drainage systems, utility services to create the new connection to Wood Lane Junction.
- Associated adverse environmental impacts (e.g. construction plant emissions, waste arising for disposal and embedded carbon emissions) from removing recently built road surfaces, earthworks and utility infrastructure when tying into Wood Lane junction after the Scheme opening.

The Applicant has also explained the justification for including provision of the NWL arm to the roundabout within the Scheme in section 4.16 of the Statement of Reasons (**APP-021**). In particular, paragraph 4.16.6 states:

“The provision of additional capacity for future developments is permitted under, and subject to the provisions of, the DCLG guidance on associated development for DCOs (April 2013), which states at paragraph 5(iv) that a degree of overcapacity may be included as associated development for a DCO “if that associated infrastructure provides capacity that is likely to be required for another proposed major infrastructure project”. The NWL is not anticipated to be a DCO project but will be a significant and necessary element of the roads network if it comes forward and is a major infrastructure project. It is common in highways schemes for new or upgraded roads to accommodate potential future schemes in this manner, and the optional infrastructure (comprised in Work No. 98, which would be accommodated by a realignment inwards of the footway and cycle path in Work Numbers 26 and 26a should the NWL not be constructed) has been fully environmentally assessed.”

The Applicant does not consider that there is overcapacity within the design. However, even if such an allegation were to be made, there remains in any event a compelling case in the public interest for compulsory acquisition powers, associated with the minimal additional land that will be required to facilitate the NWL scheme connecting into the A47 scheme, to be granted.

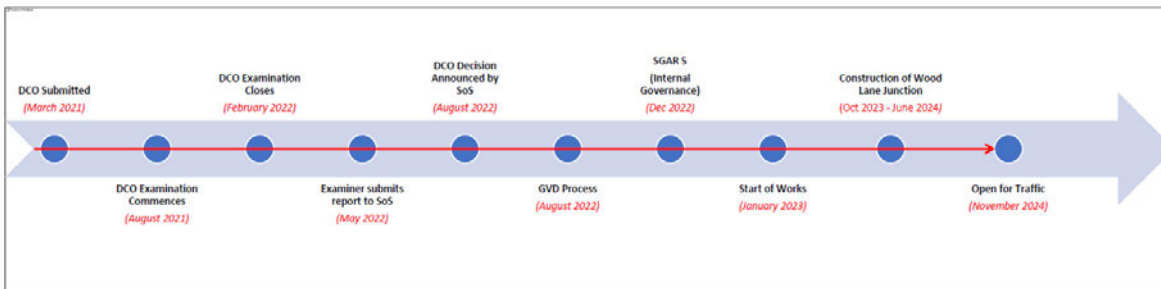
Timeline

The Norwich Western Link scheme is anticipated to be open to traffic within 12 months of the opening of the A47 Scheme.

The timeline below gives a graphical representation of the key dates for both schemes.

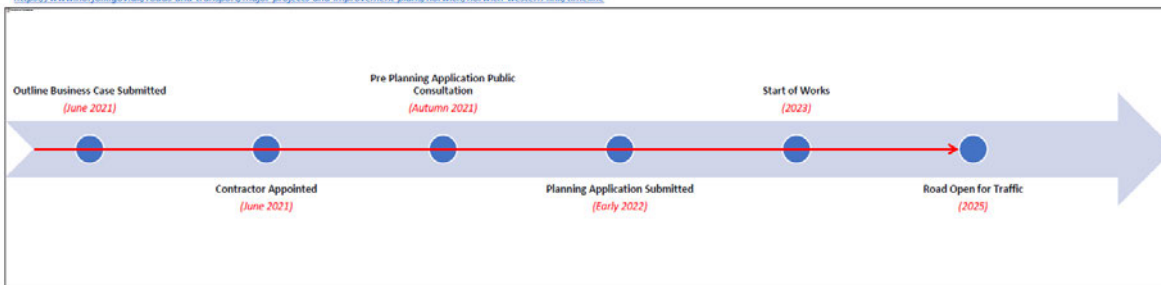
Note that these timelines do not afford a trigger point for a decision to introduce a non-NWL alternative design to be pursued due to the overlap between the start of works (SoW) for the A47 North Tuddenham to Easton scheme and the anticipated determination of a planning application for the NWL. Delaying the finalisation of the design for the A47 and as a consequence, the SoW in order to accommodate a final decision on the NWL scheme would materially delay the A47 open for traffic date – meaning that the date when the benefits of implementing the A47 scheme (including much-needed safety improvements) would start to accrue would also be delayed. Delaying the SoW would also place at risk the Applicant's commitment to complete the works before the end of the Government's Road Investment Strategy 2 (RIS2). Notably, the Scheme is not for the purpose of linking to or facilitating NWL. The myriad of reasons why it is important that the Scheme is open for traffic as soon as possible are set out in the Case for the Scheme [APP-140].

A47 Tuddenham Timeline:



Norwich Western Link Timeline:

<https://www.norfolk.gov.uk/roads-and-transport/major-projects-and-improvement-plans/norwich/norwich-western-link/timeline>



Wood Lane junction in a non-NWL scenario

This preliminary assessment is based on traffic flows in a non-NWL scenario. It makes no allowance for the alternative measures that would need to be implemented by Norfolk County Council in the unlikely event that the NWL does not proceed.

The Applicant has reviewed the anticipated traffic levels and type of vehicles that would use the Wood Lane junction in a non-NWL scenario and has concluded that once the configuration of the local side roads to the south of the proposed Wood Lane junction are considered along with safe weaving lengths, HGV flows and junction flares, the minimum Inscribed Circle Diameter (ICD) required for the operation of the junction would be similar to that required in the NWL scenario.

Therefore, the footprint of the two scenarios would be similar and the changes resulting from

the implementation of a non-NWL scenario scheme to the landowner to the south of the junction in terms of land take would be marginal.

For the reasons set out, the Applicant does not consider that the provision of a redesigned scheme is necessary or appropriate.

APPENDIX C – COPY OF APPENDIX A IN '9.21 APPLICANT'S WRITTEN SUMMARY OF ORAL SUBMISSIONS AT ISH2' (REP4-015)

Annex A of the Applicants Oral Submissions of ISH2

A47 – North Tuddenham to Easton Development Consent Order Application

Predicted traffic levels in Western Longville:

The Applicant has undertaken traffic modelling scenarios throughout the scheme development to inform decision making and communicate impacts to stakeholders through the various engagement channels.

Along the A47 corridor between North Tuddenham to Easton, there are five routes north providing links between the A47 and A1067 Fakenham Road. Only one route is classified as a "B" Road and forms the Local Highway Authority Heavy Goods Vehicle (HGV) route from the A47 to the A1067 Fakenham Road. There are 3 "C" Roads and one unclassified road:

Routes identified West – East:

- Lyng Road (C198)
- Heath Road (C173)
- Wood Lane (B1535) (Local Authority HGV Route)
- Taverham Road (C174)
- Church Lane (unclassified)

Various scenarios were modelled in the strategic highway traffic model and are presented below together with the column heading definitions and a location plan.

Scenarios Modelled:

- Base 2015
A 2015 base year model developed in line with the Department for Transport (DfT) Transport Analysis Guidance (TAG), which demonstrates a good representation of traffic behaviour in the A47 scheme area and Norwich.
- DN
"Do Nothing" - Natural growth only for the proposed scheme opening year of 2025 (Includes the Norwich Distributor Road (NDR))
- DS0
"Do Something 0" - Natural Growth to 2025 + A47 Scheme + Norwich Western link Scheme
- DS1
"Do Something 1" - Natural Growth to 2025 + A47 Scheme + Honingham Lane Closed
- DS2
"Do Something 2" - Natural Growth to 2025 + A47 Scheme + Honingham Lane Open

Notes:

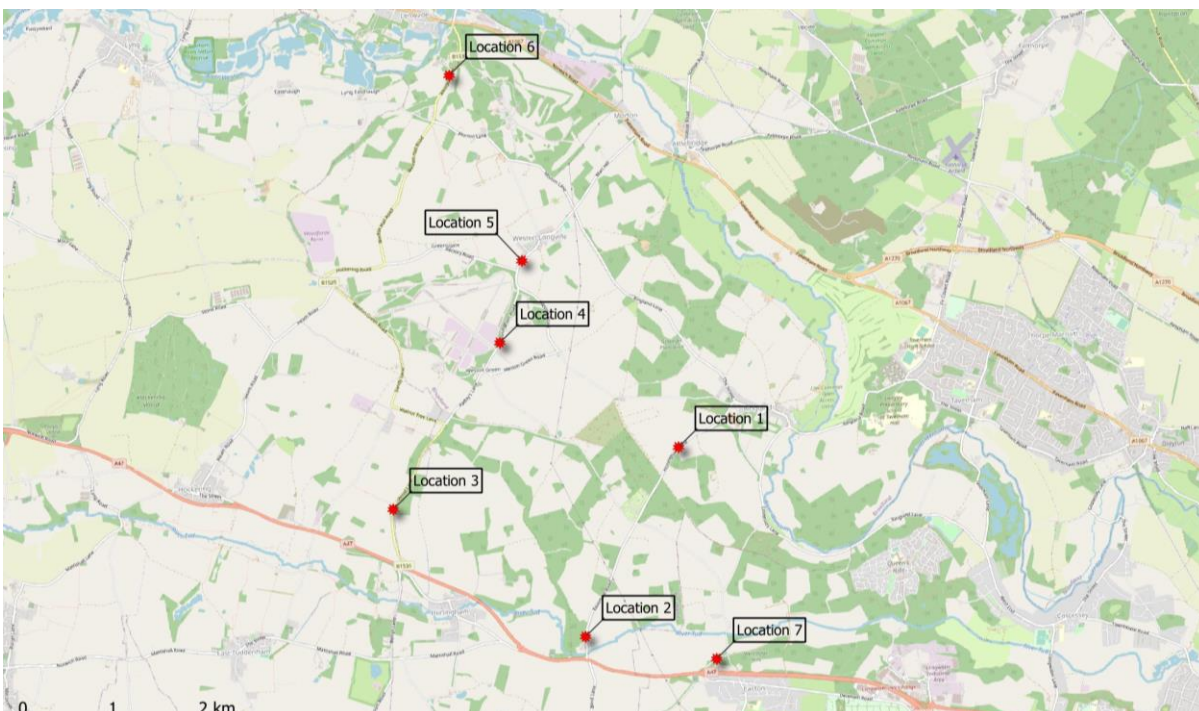
1. Annual Average Daily Traffic (AADT) rounded to the nearest 100 vehicles
2. Base 2015 flows do not account for the Norwich Distributor Road (NDR)
3. The NDR flow impacts are included within the "Do Nothing" scenario

Scenario / AADT Summary:

AADT	Base 2015	DN 2025	DS0 2025	DS1 2025	DS2 2025
Network Assumption					
A47 TUD	No	No	Yes	Yes	Yes
NWL	No	No	Yes	No	No
Honingham Lane at Ringland Village	Open	Open	Open	Closed	Open
1: Honingham Lane	600	900	200	0	2600
2: Taverham Rd	600	900	200	1,300	2600
3: Wood Lane	2,500	3,000	2,300	5,400	4,800
4: Honingham Rd at Weston Green (North of Weston Green Rd)	2,300	2,300	0	4,100	3,800
5: Honingham Rd near Weston Longfield (North of Rectory Rd)	2,900	4,300	0	4,100	3,800
6: Weston Hall Rd	3,400	4,100	2,800	3,100	3,200
7: Church Lane	3,900	4,300	-	-	-

* In the DS0, DS1, DS2 scenarios "-“ denotes Church Lane as closed.

Location Plan:

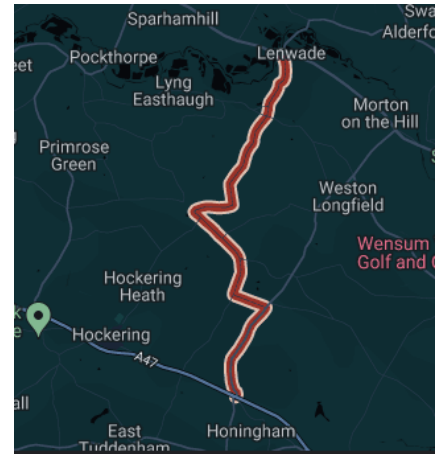


Weston Longville Summary:

The B1535 corridor (see image) links the A47 with the A1067 Fakenham Road and is the Local Highway Authority (Norfolk County Council) HGV route.

The local highway authority operate and maintain this link, which has had various improvements over a period of time.

As a result of this route, Weston Longville experienced an increase in direct through traffic. This has been mitigated by the introduction of traffic mitigation measures through Weston Longville comprising of physical build outs, lane narrowing, speed limits and a width restricted corridor.



The “DN” scenario shows an overall increase in traffic levels from the 2015 Base as a result of the inclusion of the Norwich Distributor Road (NDR) and natural growth.

The DS0 Scenario demonstrates that the strategic traffic is removed from Weston Longville.

In the “DS1” scenario, which contains No NWL and the Church Lane (Easton) closure, there is a reduction in traffic from the “DN” scenario at Location 5 (Weston Longville) of 200 AADT. There is an increase in traffic at Location 4 as a result of the re-routing traffic between the A47 and NDR joining from Rectory Road.

The “DS2” scenario of No NWL and Honingham Lane open also demonstrates a reduction in AADT from 4,300 to 3,800 on Honingham Road at Location 5 in comparison to the DN scenario.

Overall, the model analysis indicates that the scenarios which include the Church Lane (Easton) closure, show there is no increase in traffic through Weston Longville. However, the analysis does demonstrate an increase in traffic at Locations 3 and 4 in the DS1 and DS2 scenarios compared to the “DN” scenario. This is to be expected given the traffic dispersal on the higher quality routes (Location 1 to 3 & Location 6 to 4 to 3).

Taverham Road Summary:

The C174 Taverham Road is a 1.6km local authority road linking the A47 to the junction north with Telegraph Hill / Weston Road / Honingham Lane. Along the route there are nine signed formal passing places and an implemented order prohibiting HGV use through to Taverham; this is signed at the junction of the A47 / Taverham Road (No Access for HGVs to Taverham) and this provision is retained with the Applicants scheme.

The “DN” scenario at Location 2 shows an increase from the 2015 Base, as a result of the inclusion of the NDR and natural growth.

The DS0 Scenario with the A47 and NWL schemes open demonstrates that the strategic traffic is reduced to 200AADT.

In the interim, between the opening of the proposed schemes, we are proposing the introduction of a Temporary Traffic Regulation Order (TTRO) to prohibit through traffic on Honingham Lane. This is modelled in the “DS1” scenario, which contains No NWL and the Church Lane (Easton) closure, which demonstrates there is a slight increase in traffic of 400 AADT.

The “DS2” scenario demonstrates that if Honingham Lane were to remain open without the

NWL being operational then the traffic flows would increase from the DN scenario of 900 to 2,600 AADT. This scenario demonstrates the importance of the TTRO mitigation at Honingham Lane from the closure of Church Lane until the opening of the NWL.

Norfolk County Council have also undertaken further modelling of the scenarios and this joint approach was communicated to the Parish Councils via the Local Liaison Group (LLG) on the 23rd February 2021 based on the proposed A47 mitigation measures.

The Applicant has continued to engage with the local highway authority during the Examination period and has made further proposals to reduce speed limits on Taverham Road (30mph), Dereham Road (30mph), Wood Lane (50mph), Lyng Road (50mph) which have been accepted by the local authority.

As part of the NWL scheme the remaining length of Taverham Road will also be reduced to 30mph.