

M3 Junction 9 Improvement

Scheme Number: TR010055

6.3 Environmental Statement Appendix 8.2 - Biodiversity Net Gain Assessment Report

APFP Regulation 5(2)(a)

Planning Act 2008

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

Volume 6

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Infrastructure Planning

Planning Act 2008

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

M3 Junction 9 Improvement
Development Consent Order 202[x]

6.3 ENVIRONMENTAL STATEMENT - APPENDIX 8.2: BIODIVERSITY NET GAIN ASSESSMENT REPORT
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1 Biodiversity Net Gain Assessment Report

1.1 Introduction

1.1.1 Stantec UK Ltd was appointed by National Highways and VolkerFitzpatrick to undertake a biodiversity net gain assessment of the M3 Junction 9 Improvement (hereafter referred to as the 'Scheme'). The biodiversity net gain assessment is an assessment of habitat losses and gains resulting from the Scheme.

1.1.2 This Biodiversity Net Gain Assessment Report presents the results of the biodiversity net gain assessment undertaken for the Scheme prior to submission of an application for Development Consent Order.

1.1.3 This assessment aims to:

- Set out the current legislation, policy and guidance for delivery of biodiversity net gain and the use of the biodiversity metric
- Confirm the steps undertaken through Scheme design evolution to implement the mitigation hierarchy, prior to consideration of the biodiversity metric
- Set out the methodology and assumptions used in the application of the biodiversity metric to the Scheme
- Provide the results of the quantitative biodiversity metric calculations
- Provide a qualitative assessment of the biodiversity outputs from the Scheme

1.1.4 For the purpose of this assessment, the Defra Metric 3.1 Calculation Tool (hereafter referred to as the 'biodiversity metric') was used. This is most recently issued version of the Defra metric (April 2022), and it is becoming the standard metric used across the industry.

1.2 Biodiversity metric and biodiversity net gain: background, legislation and policy framework

Background

1.2.1 Biodiversity is complex and therefore to simplify the quantification, metrics have been developed, including by Defra. Biodiversity metrics use habitat features as a proxy measure for biodiversity. They use a simple calculation that takes into account the importance of these habitats features for nature, using criteria such as their size, distinctiveness and ecological condition. Biodiversity metrics enable assessments to be made of the present and forecast future biodiversity value of a site, by calculating biodiversity gains and losses.

1.2.2 Biodiversity metrics enable developers to better understand and quantify the current biodiversity value of a site, and how proposed changes to that site, would impact on that value. Biodiversity metrics enable developers to see how they might be able to design a site in a way that minimises impacts, or indeed increases its biodiversity value over time.

1.2.3 The use of a biodiversity metric assumes the principles of the mitigation hierarchy have been adopted and used when developing measures to address impacts on biodiversity receptors. The principles of the mitigation hierarchy are that, in order of preference, impacts on biodiversity should be subject to avoidance, mitigation and compensation.

Legislation

1.2.4 Following a transition period, the Environment Act 2021 (EA 2021) would mandate projects in England consented through the Planning Act 2008 or Town and Country Planning Act 1990 to deliver 10% Biodiversity Net Gain. The transition period for NSIPs is likely to come to an end by 2025 and it is understood that Nationally Significant Infrastructure Projects (NSIPs) would not be mandated to deliver net gain until the relevant National Policy Statement commits to it, or a separate Biodiversity Gain Statement is produced and agreed in Parliament. The current Scheme programme is that DCO decision would be made in March 2024, and as such the Scheme is unlikely to be mandated to deliver 10% biodiversity net gain.

1.2.5 In addition to the Environment Act, Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. Section 41 of the NERC Act 2006 defines Habitats and Species of Principal Importance to nature conservation in England which should be considered by all public bodies, including Local Planning Authorities, when carrying out their Section 40 duties.

Policy

1.2.6 The National Policy Statement for National Networks 2014 (NPSNN) sets out the need for, and Government's policies to deliver, development of NSIPs on the national road and rail networks in England. Chapter 5 of the NPSNN discusses biodiversity and ecological conservation. There is no requirement within the NPSNN for delivery of biodiversity net gain, although the documents sets out how projects should '*show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests*'. It also goes on to say '*The applicant may also wish to make use of biodiversity offsetting in devising compensation proposals to counteract any impacts on biodiversity which cannot be avoided or mitigated*'.

1.2.7 Finally, the NPSNN states that 'proposals potentially provide many opportunities for building in beneficial biodiversity or geological features as part of good

design. When considering proposals, the Secretary of State should consider whether the applicant has maximised such opportunities in and around developments.'

- 1.2.8 The National Planning Policy Framework (NPPF) was revised on 20th July 2021 and sets out the government's planning policies for England and how these are expected to be applied (Ministry of Housing, Communities and Local Government, 2021). Underpinning the NPPF is the principal aim of 'sustainable development' which is to be pursued through the fulfilment of interdependent economic, social and environmental objectives.
- 1.2.9 Chapter 15 of the NPPF details core policy principles with respect to conserving and enhancing the natural environment. Securing 'net gains' for biodiversity, in accordance with the Government's paper 'A Green Future; Our 25 Year Plan to Improve the Environment', is a key theme running through the chapter, whereby planning decisions are required to contribute to and enhance the natural environment by '*minimising impacts on and providing net gains for biodiversity*', and plans should '*identify and pursue opportunities for securing measurable net gains for biodiversity*'. The chapter also places planning decisions in the context of the mitigation hierarchy where, if impacts on biodiversity cannot be avoided, mitigated, or as a last resort compensated for, then planning permission should be refused.
- 1.2.10 Through the Road Investment Strategy (RIS) (Department for Transport, 2015), National Highways is committed to reducing the loss of biodiversity across the Strategic Road Network by end-2020, moving towards biodiversity neutrality (no net loss) by 2025, and then towards biodiversity net gain by 2040. This is aligned with the national legislation and planning policy context, which is moving towards mandatory biodiversity net gain. These commitments are reflected in National Highway's Biodiversity Plan including a requirement for transparency in performance, which is evidenced through use of a biodiversity metric.
- 1.2.11 Finally, the 'British Standard for Biodiversity in Planning' (BS 42020:2013) (BSI, 2013) recommends the system of biodiversity offsetting as an appropriate mechanism of delivering biodiversity compensation.

1.3 Methodology

Overview

- 1.3.1 To determine whether the Scheme delivers Biodiversity Net Gain, a biodiversity metric has been used. The methodology for this metric is set out below. The Defra Biodiversity Metric 3.1 tool (April 2022) has been used to forecast the Scheme's biodiversity performance. The metric has been based on the final outline design submitted within the application for Development Consent.

Guidance

1.3.2 The following guidance has been used when undertaking the Biodiversity Metric calculations, and during development of the Scheme:

- The Biodiversity Metric 3.1: User Guide and Technical Supplement (Natural England, 2022)
- Biodiversity Net Gain. Good practice principles for development: a practical guide (CIEEM, CIRIA, IEMA, 2019)
- Biodiversity Net Gain. Good practice principles for development (CIEEM, CIRIA, IEMA, 2016).

Design evolution and mitigation hierarchy

1.3.3 A suite of ecological surveys undertaken by WSP during 2017-2018 (at PCF Stage 2), Jacobs during 2019-2020¹ (PCF Stage 3) and Stantec during 2020-2022² (PCF Stage 3b & 3c) has provided an ecological baseline for land with the Application Boundary (the site). A number of important biodiversity receptors have been identified within the study area. These include various designated areas such as the River Itchen Special Area of Conservation / Site of Special Scientific Interest, Habitats of Principal Importance³ and protected and notable species such as dormice and badgers.

1.3.4 The Scheme design has been ecologically informed, such that 'embedded avoidance and mitigation measures' for ecology were contained within the scheme design as it evolved. These measures include the selection of less damaging options for the walking and cycleway adjacent to the A34, avoidance of permeant structures in the River Itchen, and an ecologically informed Environmental Masterplan providing habitats of ecological value which are appropriate for the local environment.

1.3.5 The application for DCO is accompanied by an Environmental Statement (ES) which includes an assessment for biodiversity receptors. This identifies important or otherwise legally protected sites, habitats and species on or within close proximity to the Site for which additional avoidance, mitigation and compensation measures have also been prescribed. It is these measures, along with 'embedded avoidance and ecological mitigation' and provision of ecological enhancement, which have ensured the implementation of the mitigation hierarchy.

¹ M3 Junction 9 Improvement Scheme: Habitat Verification Survey and Orchid Survey (Jacobs, 2020)

² M3 Junction 9 Improvement Scheme: Preliminary Ecological Appraisal – deposition and compound areas (Stantec, 2020) Confidential; and M3 Junction 9 Improvement Scheme: Update Habitat Survey Report (Stantec, 2022)

³ Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 sets out the duty for public authorities to conserve biodiversity in England. Habitats of Principal Importance (HPI) for the conservation of biodiversity as identified by the Secretary of State for England, in consultation with Natural England, are referred to in Section 41 of the NERC Act 2006 for England.

Biodiversity metric

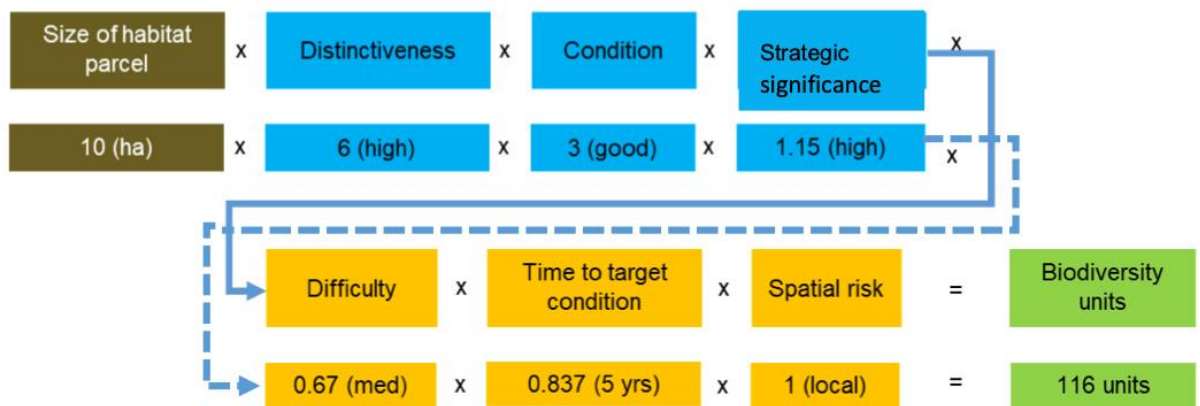
- 1.3.6 The Biodiversity Metric 3.1 tool has been used to undertake the biodiversity metric calculations. The Biodiversity Metric 3.1 was published by Natural England in 2022.
- 1.3.7 The metric calculates the biodiversity value of habitats within the Site (measured as biodiversity units). Habitat area is used, except for linear habitats, where length is used (i.e. for hedgerows). The value of each habitat type is adjusted to site specific circumstances, taking into account distinctiveness, condition and if the habitat parcel is located in an area identified as being of significance for nature, typically in a Local Biodiversity Action Plan. A score is applied to each component, which is then multiplied to produce a score which represents the number of biodiversity units associated with each habitat parcel. The sum of these scores across the whole site represents the overall baseline or 'pre-development' value in biodiversity units.
- 1.3.8 The predicted post-intervention (or 'post-development') unit value is calculated in the same way, but with the addition of factors to take into account risks associated with creating, enhancing or restoring habitats.
- 1.3.9 The calculated value of the 'post-development' biodiversity units is then deducted from the calculated value of the 'pre-development' biodiversity units to give a net change biodiversity unit value. An example calculation is summarised in **Insert 1.1**.
- 1.3.10 Within the Biodiversity Metric 3.1 User Guide there are a number of rules and key principles which apply to Biodiversity Net Gain assessments. Of particular relevance to this assessment is Rule 3 "Trading down". This rule required that habitats of a certain distinctiveness present pre-development should be re-created post development on a 'like for like' basis or better approach.

Insert 1.1: Example of Biodiversity Net Gain Calculation (taken from The Biodiversity Metric 3.1: User Guide, Natural England 2022).

PRE-intervention biodiversity calculation (the baseline)

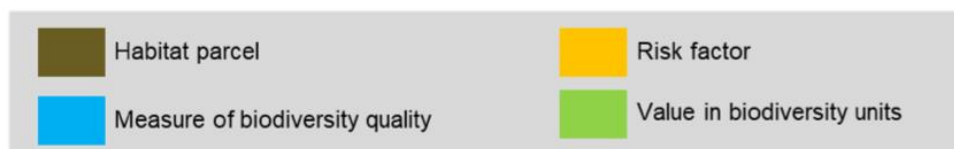
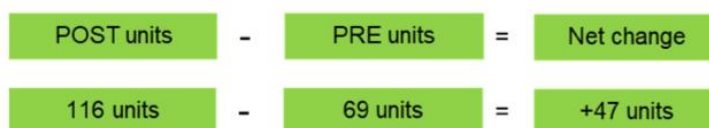


POST-intervention biodiversity calculation (for newly created or enhanced habitats)



Calculation of gains or losses

The net effect of an intervention (or a series of interventions) on biodiversity is calculated as follows:



1.3.11 Where Biodiversity Net Gain is not achievable with the desired design on-site, then off-site compensation areas can be used, and the same calculation undertaken. The biodiversity unit value of the off-site habitats is calculated for the 'pre-intervention' and 'post-intervention' stages. The 'pre-intervention' units are then subtracted from the 'post-intervention' units to work out how many biodiversity units would result from that habitat change.

1.4 Assumptions and limitations

Pre-development baseline score

1.4.1 Notes and assumptions associated with the existing baseline are listed below:

- The Biodiversity Metric calculation has been undertaken for the Scheme using data collected during the most recent habitat surveys undertaken in June 2022. This data has been interpreted to provide the necessary information for the “pre-development” calculation which is based on the UK Habitat Classification system (UKHab). Habitats used in the calculations are shown on the Pre-development Habitats Plan (**Figures 1a-1c**) in **Appendix A**
- Habitat condition has been determined by reviewing the criteria within each habitat condition sheet in The Biodiversity Metric Technical Supplement, together with the results of the habitat surveys. Rationale for habitat condition applied is set out in the table in **Appendix C**
- Due to risks associated with surveying adjacent to the live highway, direct access was not possible to some sections of the highway network (verges) during the habitat surveys. However in these instances the habitats could be surveyed from adjacent farmland, or from viewpoints such as overbridges, which has enabled surveyors to adequately classify habitat types and undertake condition assessments
- Rivers have been excluded from the baseline and post-development scenarios. Whilst there would be some temporary disturbance to a small section of the River Itchen during construction, there would be no loss or gain of riverine habitats

Post-development forecast score

1.4.2 The assumed habitat losses incurred during construction are shown on the Habitat Impacts Plan (**Figures 2a-2b**) in **Appendix A**. The areas of impact have been calculated using the general arrangement drawings, along with discussions with the design team to identify likely temporary works areas.

1.4.3 Post-development habitat information is based on **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**. The data has been analysed and interpreted to provide the necessary information for “post development” calculations.

1.4.4 Notes and assumptions associated with the post-development habitat information are listed below:

- All habitats within footprint of the highway alignment or temporary construction areas would be lost. Areas currently assumed to be lost are shown on **Figures 2a-2c**

- Within the field located between the M3 and A33, the existing grassland habitat would be 'enhanced' through over seeding with wildflowers (including yellow rattle) and favourable management. For all other areas it is assumed that 'habitat loss and creation' is being undertaken
- Existing retained woodland between the A34 and A33 would be enhanced from 'moderate' to 'good' condition through removal of invasive plant species and favourable management
- Newly planted woodlands would contain mixed native woodland planting with management plan created to ensure 'moderate' habitat condition is achieved
- Newly planted scrub would contain a mixture of species with a management plan implemented to ensure "good" habitat condition is achieved. Scrub provides an important intergrade between grassland and woodland habitats, and it's distribution provides important wildlife linkages across the scheme. As such the strategic significance of 'Location ecological desirable but not in local strategy' has been assigned.
- Chalk grasslands would be created on exposed chalk substrate generated during construction, sewn with suitable species mix of chalk grassland plant species of value to local fauna (butterflies and moths). A management plan would be implemented to ensure 'good' habitat condition is achieved
- Following completion of construction, the main compound to the east of Junction 9 would be returned to arable
- The proposed drainage design includes a range of features such as grassed infiltration basins, grassed lined basins, swales, and constructed wetlands, shown on the Drainage Schematic Plan in (Appendix J of **Appendix 13.1 (Drainage Strategy Report)** of the **ES (Document Reference 6.3)**). Whilst the detailed design is still to be developed, the outline design demonstrates that some features would be functional Sustainable Drainage Systems (SuDS) features with limited biodiversity interest, and other drainage features such as the constructed wetlands having an ecologically informed design. Therefore approximately 40% of the area of the drainage system has been classified as 'sustainable urban drainage feature', and 60% as 'ponds (non-priority habitat)'. Due the supporting function that ponds will provide to the adjacent River Itchen and associated wetland habitats, the strategic significance of 'Location ecological desirable but not in local strategy' has been assigned.
- The detail around the timing of habitat creation during the construction programme is currently uncertain. Some areas of habitat creation would be provided as advanced planting prior to construction commencing, with some areas provided during the construction programme, and some following construction completion. Whilst the detail of timing is not available, it is

assumed the benefits of advanced planting in some areas would be balanced by the disbenefits of later planting in other areas. Due to these uncertainties the temporal multiplier has not been used at this stage

- 1.4.5 Due to only very minor effects to the River Itchen during installation of drainage outflows resulting in the loss of c.2m² of riverbank in 2 locations, rivers have been excluded from the baseline and post-development scenarios.

1.5 Summary of results of the biodiversity metric calculation

- 1.5.1 A summary of the key findings is presented below. The headline results of the biodiversity metric calculation are provided at **Appendix B**. The full results of the Metric are provided as a separate Excel file.

- The Scheme would result in a predicted net gain in biodiversity (**+4.14%**), based on the assumptions noted in the assumptions and limitations
- The Scheme would result in a predicted net gain in hedgerow units (**+3.60%**), based on the assumptions noted in the assumptions and limitations
- The Metric habitat Trading Rules are not satisfied

1.6 Discussion

- 1.6.1 The Biodiversity Metric 3.1: User Guide, Natural England 2022 identifies a range of limitations associated with the biodiversity metric, as well as principles and rules for using the metric. These can be found within paragraphs 2.18 – 2.24 of the User Guide. Of particular note, it is acknowledged that the metric uses habitats as a proxy for biodiversity. The metric and its outputs should therefore be interpreted, alongside ecological expertise and common sense, as an element of the evidence that informs plans and decisions (Natural England, 2022).
- 1.6.2 The Trading Summary tab of the metric reports that the Scheme does not comply with the ‘trading rules’ associated with the biodiversity metric calculation. This is due to the loss of 0.1ha of Open Mosaic Habitat, a high distinctiveness habitat of value to invertebrates and other wildlife. The Scheme would result in a net increase of over 17ha of chalk grassland and species rich grassland, plus large additional areas of native woodland and mixes scrub, all of which will be of value to invertebrates and other wildlife. As such, whilst the trading rules are not met, the overall benefits of the habitat provision significantly outweigh this.
- 1.6.3 The Scheme would provide a net increase of approximately 9.6ha of chalk grassland. Such an extensive area of chalk grassland has been included within the Scheme design as it provides multiple biodiversity and landscape benefits and is appropriate to the geology of the local area. It is a Hampshire Biodiversity Action Plan habitat, is a qualifying feature of nearby designated areas (such as St Catherine’s Hill Site of Special Scientific Interest), and the protection and

enhancement of this habitat is a key theme within the South Downs Local Plan 2014-2033 (South Downs National Park Authority, 2019). The provision of chalk grassland has also been a key theme within consultation responses from stakeholders.

- 1.6.4 Much of the chalk grassland would be provided in a single unit to the east of the M3, as well as on highway cuttings and embankments east of the M3. The habitat would be created over exposed chalk substrate, or chalk that has been liberated during construction work, with little or no topsoil to enable a nutrient-poor substrate suitable for chalk grassland. Chalk grassland seed mixes of local provenance would be used. The creation of chalk grassland would provide habitats for a range of species including priority species of invertebrates and birds. As discussed during consultation with Butterfly Conservation, the seed mix used would include dark mullein *Verbascum nigrum*, the larval foodplant of the striped lychnis moth, a Species of Principal Importance (SPI) and Hampshire Biodiversity Action Plan species with very restricted national distribution. This species is known to be present on the A31 Petersfield Road, Chilcomb Site of Importance for Nature Conservation (SINC) (adjacent to the Scheme), and therefore should readily likely colonise new habitats within the Scheme assuming the correct foodplant is present. In addition, the seed mix would include kidney vetch *Anthyllis vulneraria* and horseshoe vetch *Hippocrepis comosa*, the foodplants of small blue (a SPI), Adonis blue and chalkhill blue butterflies.
- 1.6.5 Despite its suitability for the geology of local area, due to the difficulty of creating this habitat in some situations, the Metric includes a significant 'difficulty multiplier' for chalk grassland. This suppresses the quantum of habitat units delivered due to the apparent risk factors in creating this habitat type. The result of this is that the overall habitat score is lower than it would be if a different habitat type were provided. For example, if 'other neutral grassland' was provided in place of chalk grassland then the habitat units delivered by this habitat type would increase from 32.16 to 80.67. This would increase the overall biodiversity net gain score for the Scheme from **+4.14%** to **+14.93%**. This demonstrates that the Scheme can comfortably deliver over 10% biodiversity net gain. However, whilst a change from chalk grassland to other neutral grassland would be technically feasible, given the wider benefits (see **Paragraph 1.6.4** above), chalk grassland has been taken forward as being most appropriate habitat for the Scheme.
- 1.6.6 In addition to the habitat creation measures set out above and shown on **Figure 2.3 (Environmental Masterplan)** of the **ES (Document Reference 6.2)**, National Highways is pursuing an application for Designated Funds to provide further habitat enhancements to the east of the M3. Although it should be noted that this Designated Funds application does not form part of the Scheme and is not considered in any of the DCO application documents.
- 1.6.7 This includes the provision of further substantial areas of chalk grassland, native broadleaved woodland and scrub (in the region of 17- 40ha). This would provide

habitats of value which would support species of national and local importance, as well as supporting the delivery of an overall net gain in biodiversity in combination with the mitigation and enhancements delivered through the securing of the Development Consent Order for the Scheme. This separate habitat provision through Designated Funds, when considered together with habitats delivered through the Scheme, would deliver a substantial increase in habitats of ecological value to the local area.

1.7 Conclusion

- 1.7.1 This Biodiversity Net Gain Report presents the results of the biodiversity net gain assessment undertaken for the Scheme prior to submission of an application for Development Consent Order.
- 1.7.2 The Scheme would result in a predicted net gain in biodiversity (**+4.14%**), based on the assumptions set out in **Section 1.4**.
- 1.7.3 The Scheme would result in a predicted net gain in hedgerow units (**+3.60%**), based on the assumptions set out in **Section 1.4**.
- 1.7.4 The Scheme would provide a net increase of over 9.6ha of chalk grassland, which is appropriate to the local area, however the use of this habitat type suppresses the overall result of the metric, due to risk factors associated with this habitat type. For example, if 'other neutral grassland' was provided in place of chalk grassland then the overall biodiversity net gain score for the Scheme would change from **+4.14%** to **+14.93%**. This demonstrates that the Scheme can comfortably deliver over 10% biodiversity net gain. However, whilst a change from chalk grassland to other neutral grassland would be technically feasible, given the wider benefits, chalk grassland has been taken forward as being most appropriate habitat for the Scheme.
- 1.7.5 In addition to the habitat creation measures delivered as part of the Scheme, National Highways is pursuing a separate application for Designated Funds to provide further habitat enhancements to the east of the M3 (although it should be noted that this Designated Funds application does not form part of the Scheme and is not considered in any of the DCO application documents). However, the habitat provision through Designated Funds, when considered together with habitats delivered through the Scheme, would deliver a substantial increase in habitat of ecological value to the local area.

Appendix A **Figures**

Figures 1a-1c: Predevelopment Habitats Plan

Figures 2a-2c: Habitat Impacts Plan



NOTES
 1. This drawing has been produced using GIS software, therefore all dimensions are shown in metres unless shown otherwise.

- Legend**
- Application Boundary
 - Native Hedgerow
 - c1a - Arable field margins cultivated annually
 - c1c - Cereal crops
 - u1b - Developed land; sealed surface
 - w1f - Lowland mixed deciduous woodland
 - h3h - Mixed scrub
 - g4 - Modified grassland
 - u1a - Open Mosaic Habitats on Previously Developed Land
 - g3c - Other neutral grassland
 - w1g7 - Other woodland; broadleaved
 - River
 - Ruderal/Ephemeral

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REV	DATE	REVISION NOTE	ORIG	CHK'D	APP'D
0	November 2022	APPLICATION SUBMISSION	TL	DM	AS

DESIGNER

CONTRACTOR

CLIENT

PROJECT TITLE
M3 JUNCTION 9 IMPROVEMENT SCHEME

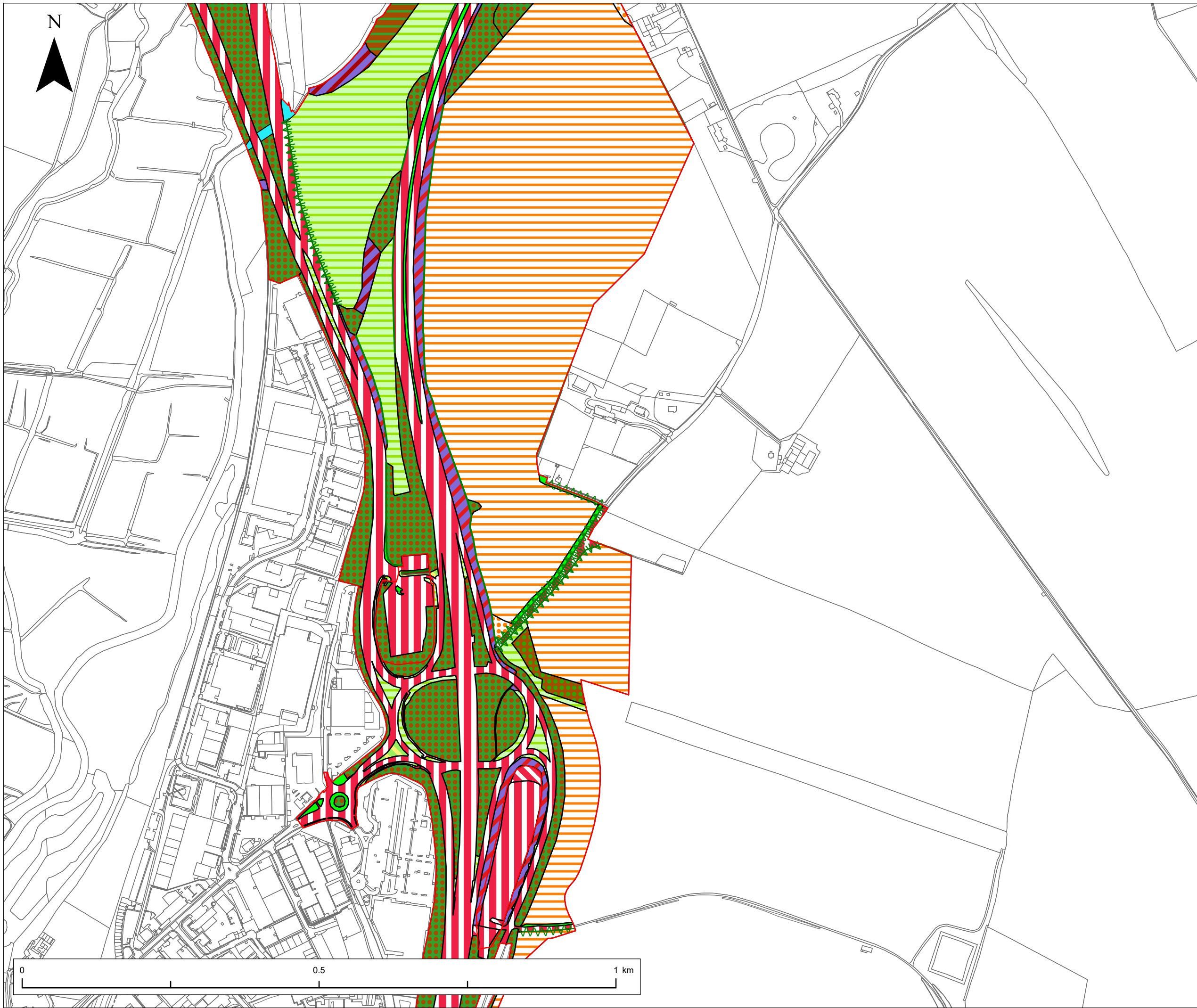
PROJECT STAGE
PCF STAGE 3

DRAWING TITLE
 FIGURE 1A - PRE-DEVELOPMENT HABITATS PLAN
 APPF REGULATION 5(2)(I)(II)
 DOCUMENT REFERENCE 6.2

SUITABILITY
APPLICATION SUBMISSION

SHEET SIZE: A3 SCALE: 1:8,000 STATUS: REV 0

DRAWING NUMBER
 HE551511-VFK-EBD-X_XXXX_XX_DR_LE_0106



NOTES
 1. This drawing has been produced using GIS software, therefore all dimensions are shown in metres unless shown otherwise.

- Legend**
- Application Boundary
 - Native Hedgerow
 - Native Species Rich Hedgerow
 - Native Species Rich Hedgerow with trees
 - c1a - Arable field margins cultivated annually
 - h3d - Bramble scrub
 - c1c - Cereal crops
 - u1b - Developed land; sealed surface
 - h3h - Hawthorn scrub
 - Introduced shrub
 - g2a - Lowland calcareous grassland
 - w1f - Lowland mixed deciduous woodland
 - h3h - Mixed scrub
 - g4 - Modified grassland
 - u1a - Open Mosaic Habitats on Previously Developed Land
 - g3c - Other neutral grassland
 - w1g7 - Other woodland; broadleaved
 - w1h - Other woodland; mixed
 - River

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0	November 2022	APPLICATION SUBMISSION	TL	DM	AS

DESIGNER

CONTRACTOR

CLIENT

PROJECT TITLE
M3 JUNCTION 9 IMPROVEMENT SCHEME

PROJECT STAGE
PCF STAGE 3

DRAWING TITLE
 FIGURE 1A - PRE-DEVELOPMENT HABITATS PLAN
 APPF REGULATION 5(2)(I)(II)
 DOCUMENT REFERENCE 6.2






SUITABILITY
APPLICATION SUBMISSION

SHEET SIZE: A3 | SCALE: 1:6,000 | STATUS: REV 0

DRAWING NUMBER
 HE551511-VFK-EBD-X_XXXX_XX_DR_LE_0107



NOTES
 1. This drawing has been produced using GIS software, therefore all dimensions are shown in metres unless shown otherwise.

- Legend**
-  Application Boundary
 -  c1c - Cereal crops
 -  u1b - Developed land; sealed surface
 -  g3c - Other neutral grassland
 -  w1g7 - Other woodland; broadleaved

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0	November 2022	APPLICATION SUBMISSION	TL	DM	AS

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PROJECT TITLE
M3 JUNCTION 9 IMPROVEMENT SCHEME

PROJECT STAGE
PCF STAGE 3

DRAWING TITLE
 FIGURE 1A - PRE-DEVELOPMENT HABITATS PLAN
 APPF REGULATION 5(2)(I)(II)
 DOCUMENT REFERENCE 6.2

SUITABILITY
APPLICATION SUBMISSION

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DRAWING NUMBER
 HE551511-VFK-EBD-X_XXXX_XX_DR_LE_0108



NOTES
 1. This drawing has been produced using GIS software, therefore all dimensions are shown in metres unless shown otherwise.

- Legend**
- Application Boundary
 - Native Hedgerow
 - c1a - Arable field margins cultivated annually
 - c1c - Cereal crops
 - u1b - Developed land; sealed surface
 - h3h - Mixed scrub
 - g4 - Modified grassland
 - u1a - Open Mosaic Habitats on Previously Developed Land
 - g3c - Other neutral grassland
 - w1g7 - Other woodland; broadleaved
 - River
 - Ruderal/Ephemeral
 - Area Impacted by Footprint of Construction

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REV	DATE	REVISION NOTE	ORIG	CHK'D	APP'D
0	November 2022	APPLICATION SUBMISSION	TL	DM	AS

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PROJECT TITLE
M3 JUNCTION 9 IMPROVEMENT SCHEME

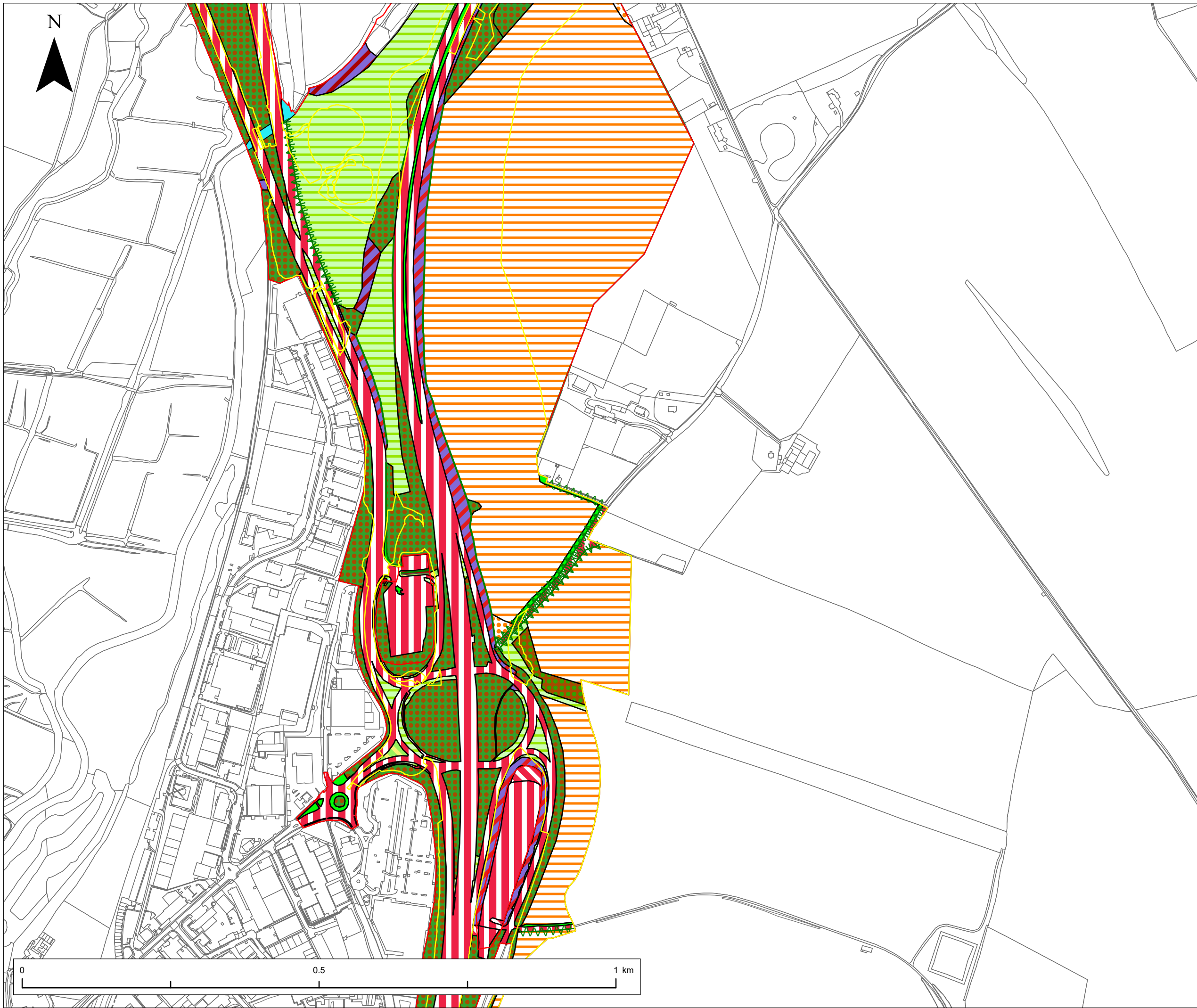
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PCF STAGE 3

DRAWING TITLE
 FIGURE 2A - HABITAT IMPACTS PLAN
 APPF REGULATION 5(2)(I)(II)
 DOCUMENT REFERENCE 6.2

SUITABILITY
APPLICATION SUBMISSION

SHEET SIZE: A3 SCALE: 1:8,000 STATUS: REV 0

DRAWING NUMBER
 HE551511-VFK-EBD-X_XXXX_XX_DR_LE_0111



NOTES
 1. This drawing has been produced using GIS software, therefore all dimensions are shown in metres unless shown otherwise.

Legend

- Application Boundary
- Native Hedgerow
- Native Species Rich Hedgerow
- Native Species Rich Hedgerow with trees
- c1a - Arable field margins cultivated annually
- h3d - Bramble scrub
- c1c - Cereal crops
- u1b - Developed land; sealed surface
- h3h - Hawthorn scrub
- Introduced shrub
- g2a - Lowland calcareous grassland
- h3h - Mixed scrub
- g4 - Modified grassland
- u1a - Open Mosaic Habitats on Previously Developed Land
- g3c - Other neutral grassland
- w1g7 - Other woodland; broadleaved
- w1h - Other woodland; mixed
- River
- Area Impacted by Footprint of Construction

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REV	DATE	REVISION NOTE	ORIG	CHK'D	APP'D
0	November 2022	APPLICATION SUBMISSION	TL	DM	AS

DESIGNER



CONTRACTOR



CLIENT



PROJECT TITLE
M3 JUNCTION 9 IMPROVEMENT SCHEME

PROJECT STAGE
PCF STAGE 3

DRAWING TITLE
 FIGURE 2B - HABITAT IMPACTS PLAN
 APFP REGULATION 5(2)(I)(II)
 DOCUMENT REFERENCE 6.2







SUITABILITY
APPLICATION SUBMISSION

SHEET SIZE: A3 SCALE: 1:6,000 STATUS: REV 0

DRAWING NUMBER
 HE551511-VFK-EBD-X_XXXX_XX_DR_LE_0112



NOTES
 1. This drawing has been produced using GIS software, therefore all dimensions are shown in metres unless shown otherwise.

- Legend**
-  Application Boundary
 -  c1c - Cereal crops
 -  u1b - Developed land; sealed surface
 -  g3c - Other neutral grassland
 -  w1g7 - Other woodland; broadleaved
 -  Area Impacted by Footprint of Construction

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REV	DATE	REVISION NOTE	ORIG	CHK'D	APP'D
0	November 2022	APPLICATION SUBMISSION	TL	DM	AS

DESIGNER


CONTRACTOR


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PROJECT TITLE
M3 JUNCTION 9 IMPROVEMENT SCHEME

PROJECT STAGE
PCF STAGE 3

DRAWING TITLE
 FIGURE 2C - HABITAT IMPACTS PLAN
 APPF REGULATION 5(2)(I)(II)
 DOCUMENT REFERENCE 6.2

SUITABILITY
APPLICATION SUBMISSION

SHEET SIZE: A3 SCALE: 1:8,000 STATUS: REV 0

DRAWING NUMBER
 HE551511-VFK-EBD-X_XXXX_XX_DR_LE_0113

Appendix B Headline Results from Metric 3.1

M3 Junction 9 improvement		Return to results menu	
Headline Results			
On-site baseline	Habitat units	449.54	
	Hedgerow units	35.47	
	River units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	468.15	
	Hedgerow units	36.75	
	River units	0.00	
On-site net % change (Including habitat retention, creation & enhancement)	Habitat units	4.14%	
	Hedgerow units	3.60%	
	River units	0.00%	
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	River units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	River units	0.00	
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	18.60	
	Hedgerow units	1.28	
	River units	0.00	
Total on-site net % change plus off-site surplus (including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	4.14%	
	Hedgerow units	3.60%	
	River units	0.00%	
Trading rules Satisfied?	No - Check Trading Summary ▲		

Appendix C Habitat Condition Assessment

Pre-development habitat condition scores and justification are provided in **Table 2 of Appendix 8.1z UKHab Survey of the ES (Document Reference 6.3)**.

Post-development habitat condition scores and justification are provided in Table AC.1.

Table AC.1: Post-development habitat condition scores and justification

Habitat	Condition	Rationale ⁴
Sustainable urban drainage feature	Moderate	Likely to pass 3 of 3 core criteria but unlikely to meet additional criteria 4b
Pond (non-priority)	Moderate	Likely to pass 6 of 10 criteria
Other woodland, broadleaved	Moderate	Design and management of the habitat has been ecologically informed, with a mixture of native species, and management to ensure a diverse age range establishes. Indicates a moderate condition would be achievable.
Mixed scrub	Good	Design and management of the habitat has been ecologically informed, and achieving all condition assessment criteria would be possible.
Modified grassland	Moderate	Assuming appropriate management it would be possible to pass at least 4 condition criteria.
Lowland calcareous grassland	Good	Design and management of the habitat has been ecologically informed and achieving all condition assessment criteria would be possible.

⁴ Habitat condition has been assigned using condition assessment criteria set out in Biodiversity Metric 3.0 Technical Supplement, using the using information on the proposed habitats set out in the M3 Junction 9 Improvement Outline Landscape and Ecology Management Plan, and ecological interpretation.

Habitat	Condition	Rationale ⁴
Other neutral grassland (species rich grassland)	Good	Design and management of the habitat has been ecologically informed and achieving all condition assessment criteria would be possible.
Cereal crops	N/A – agricultural	Default condition
Built linear features	N/A – other	Default condition