Homes England

The Housing and Regeneration Agency

# West of Ifield, Crawley
# **Biodiversity Net Gain Report**

WOI-HPA-DOC-BNG-01
Version 1 - Planning submission

**July 2025**

# Biodiversity Net Gain Assessment

## West of Ifield - Phase 1 Infrastructure

JUNE 2025

Prepared By:

80 Fenchurch Street
London EC3M 4BY
United Kingdom

**Prepared For:**

Turner and Townsend Management Ltd

**Arcadis UK**

_____

Author – George Parry, Prasad Tonde, Consultant Ecologist,
Shah Nawaz Jelil, Project Consultant

_____

Reviewer – Brandon Murray

_____

Approver – Steph Davies

# VERSION CONTROL

| Version | Date | Author | Checker | Approver | Changes |
|---|---|---|---|---|---|
| 1.0 | 29/05/2024 | G. Parry | H. Corcoran | M. Girvan | N/A |
| 2.0 | 29/08/2024 | G.Parry | H. Corcoran | S Walters | |
| 3.0 | 04/06/2025 | P. Tonde, S. Jelil | B. Murray | S. Davies | |

# CONTENTS



## TABLES

## APPENDICES

# 1 Introduction

## 1.1 Background

This Biodiversity Net Gain report (BNG) assesses the potential change in biodiversity value of the West of Ifield Phase 1 Infrastructure scheme. It has been prepared by Arcadis Consulting (UK) Ltd (Arcadis) on behalf of Homes England as a requirement to support the planning application to Horsham District Council (HDC) for the construction of the enabling infrastructure at the West of Ifield site. This comprises the Crawley Western Multi-modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school site and future development, including access to Rusper Road (herein referred to as the 'Proposed Development'. This is a component of a hybrid application, the description of which is:

*Hybrid planning application (part outline and part full planning application) for a phased, mixed use development comprising:*

*A full element covering enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school site and future development, including access to Rusper Road, supported by associated infrastructure, utilities and works, alongside:*

*An outline element (with all matters reserved) including up to 3,000 residential homes (Class C2 and C3), commercial, business and service (Class E), general industrial (Class B2), storage or distribution (Class B8), hotel (Class C1), community and education facilities (Use Classes F1 and F2), gypsy and traveller pitches (sui generis), public open space with sports pitches, recreation, play and ancillary facilities, landscaping, water abstraction boreholes and associated infrastructure, utilities and works, including pedestrian and cycle routes and enabling demolition.*

*This hybrid planning application is accompanied by an Environmental Statement.*

*This hybrid planning application is for a phased development intended to be capable of coming forward in distinct and separable phases and/or plots in a severable way.*

This report relates solely to the Phase 1 road redline, which is being submitted for full planning permission, and includes the enabling infrastructure including the Crawley Western Multi-Modal Corridor (Phase 1, including access from Charlwood Road and crossing points) and access infrastructure to enable servicing and delivery of secondary school site and future development, including access to Rusper Road, supported by associated infrastructure utilities etc.. This report should be read alongside the wider Land West of Ifield BNG report (Ramboll, 2025). This BNG assessment document identifies the baseline biodiversity value, and the proposed interventions to achieve a minimum of 10% net gain in biodiversity, of the footprint of the proposed development in relation to the Phase 1, the highways infrastructure, and does not include the wider proposed development site. Phase 1a and 1b are the initial proposed development activities for a project that shall be delivered in phases over several years.

Homes England intends to redevelop approximately 172 hectares (ha) of Land West of Ifield within the administrative area of Horsham District Council (HDC) which immediately abuts Crawley Borough Council (CBC) boundary in West Sussex for a residential-led mixed use development.

The area of the proposed Phase 1 infrastructure works is referred to in this report as 'the Site'. The area of the Site is approximately 29.5ha. Image 1 details the wider West of Ifield housing development site boundary and the footprint of the proposed Phase 1a and 1b infrastructure scheme is shown in Image 2.

*Image 1: Land West of Ifield Outline application boundary*

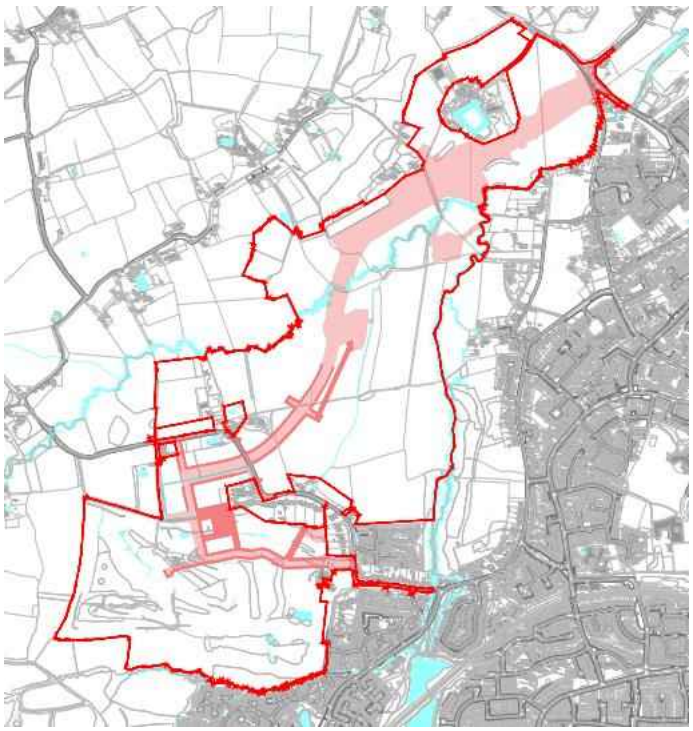
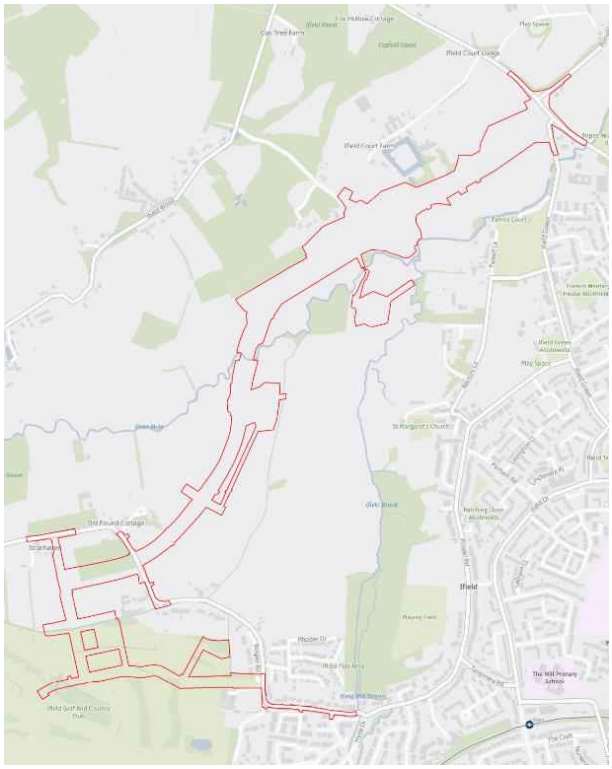


*Image 2: Redline of the Phase 1a and 1b infrastructure detailed planning application*



A habitat survey was completed by Ramboll in August 2022. Further surveys were completed in April 2023 and in 2025 by Ramboll due to changes to the red line boundary. Details of the updated 2022, 2023 and 2025

surveys can be found within the Ramboll West of Ifield Biodiversity Assessment Report (Ramboll, 2025). This report outlines the baseline value of the Site, and the measures required to achieve a minimum of 10% net gain in biodiversity post-development.

## 1.2 Site Location and Setting

The wider Land West of Ifield site covers approximately 172 ha and is located to the west of Ifield near Crawley in West Sussex (see Image 3). The wider Land West of Ifield site is bounded by Charlwood Road in the north, beyond which lies Gatwick Airport. The site comprises predominantly agricultural land in the northern and central areas (dominated by arable and grazed pasture fields) and Ifield Golf Course in the south. A range of habitats are present throughout the site including grassland, woodland, scrub, a network of hedgerows and lines of trees and ponds. The River Mole flows west to east through the northern half of the site. The detailled application site for Phase 1 occupies approximately 29.5 ha through the centre of the proposed Development and is centred at Ordnance Survey (OS) Grid Reference TQ 24270 37769, at postcode RH11 0EL.

*Image 3: Aerial imagery of the area within which Land West of Ifield is proposed to be constructed.*


## 1.3 BNG in Policy and Legislation

In line with the 25 Year Plan for the Environment (HM Government, 2018) and the National Planning Policy Framework (MHCLG, 2024), new development should identify and pursue opportunities for securing measurable net gains for biodiversity and for the wider environment. The Environment Act 2021 followed by the Biodiversity Gain Site Register Regulations 2024 mandate the requirement for 10% Biodiversity Net Gain (BNG) for new developments in England from 12 February 2024. This has been inserted into Schedule 7A of the Town and Country Planning Act 1990 (by Schedule 12 of the Environment Act 2021). BNG is measured using the Statutory BNG Metric and guidance documents published by DEFRA.

# 2 Methodology

## 2.1 Baseline Data

A habitat survey was completed by Ramboll between 9 and 11 and 22 and 24 August 2022. Further surveys were completed in April 2023 and in 2025 by Ramboll due to changes to the red line boundary. Details of the updated 2022, 2023 and 2025 survey can be found within the Ramboll West of Ifield Biodiversity Assessment Report (Ramboll, 2025). Habitats were recorded using UK Habitat classification system (UKHab Ltd, 2023) and input into the Statutory Biodiversity Metric tool. Aerial imagery (Google Earth, 2024) and MAGIC mapping (MAGIC, 2024) were used to aid with UK Habitat classification.

All baseline habitat information utilised in this report is taken from the data collected by Ramboll. To avoid duplication, all baseline data details including condition assessments should be read from the Ramboll habitat survey report (Ramboll, 2025).

## 2.2 Biodiversity Metric

The purpose of this document is to estimate the potential net change in biodiversity value of the Phase 1 Site. This approach uses information on the habitats and features of the Site before and after the proposed habitat loss and mitigation through management to calculate a biodiversity value. This information was then used to calculate a change in the biodiversity value of the Site.

These calculations were undertaken using the Statutory Biodiversity Metric, a spreadsheet-based tool into which data can be entered to carry out BNG calculations (DEFRA, 2024a), following the corresponding User Guide (DEFRA, 2024b).

When considering baseline conditions, the metric takes account of several factors, detailed below in Table 1. The numbers in brackets show the multipliers used by the metric for each category.

*Table 1: Biodiversity Metric Criteria*

| Evaluation | Values assigned | Criteria |
|---|---|---|
| Habitat type | UK habitat classification typologies. The unit for each of the habitat types is calculated and then multiplied by the size of this habitat. The unit number is based upon the habitat's distinctiveness, condition and strategic significance. | Based upon species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats. |
| Size of habitat parcel | Area measured in hectares and linear features measured in kilometres. | N/A. The sizes of the different proposed habitats were calculated using a Geographical Information System (GIS) based on the habitats presented on the Baseline Habitat Map within Appendix A. The area taken up by rural trees throughout the Site was calculated using the tree helper tool within the metric. |
| The distinctiveness of the habitat type | Value predetermined for each habitat type on a scale of Very Low (0), Low (2), Medium (4), High (6) and Very High (8) | See Table 2 for distinctiveness criteria. |
| The condition of each habitat parcel | Value assigned based on a scale of Poor (1), Fairly Poor (1.5), Moderate (2), Fairly | The condition of the habitat is defined as: "the biological 'working-order' of a habitat type judged against the perceived ecological optimum state for |

| Evaluation | Values assigned | Criteria |
|---|---|---|
| | Good (2.5) and Good (3). For some habitat types this is pre-determined | that particular habitat." This provides a measure of variation in the quality of areas of the same habitat type. |
| Strategic significance | Value assigned based on a scale of Low (1), Medium (1.1) and High (1.15) strategic importance | Strategic significance assesses the value of habitats from the point of view of environmental objectives and preferred locations for biodiversity.<br>The strategic significance has been used from the Ramboll BNG survey and report. |

Table 2 provides details of the distinctiveness bandings to which each area-based habitat is assigned.

*Table 2: Area based habitat distinctiveness valuation bandings.*

| Distinctiveness band | Multiplier | Typical habitats |
|---|---|---|
| Very High | 8 | Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act (HM Government, 2006) that are highly threatened, internationally scarce and require conservation action e.g. blanket bog.<br>Small amount of remaining habitat with a high proportion unprotected by designation.<br>Endangered or Critical European red list habitats. |
| High | 6 | Priority habitats as defined in Section 41 of the NERC Act (HM Government, 2006) requiring conservation action e.g., lowland fens.<br>Remaining Priority Habitats not in very high distinctiveness band & other red list habitats. |
| Medium | 4 | Semi-natural habitats not classed as a Priority Habitat but with significant wildlife benefit, e.g., mixed scrub.<br>One Priority Habitat (arable field margins). |
| Low | 2 | Habitat of low biodiversity value e.g., temporary grass and clover ley.<br>Agricultural and Urban land of lower biodiversity value. |
| Very low | 0 | Little or no biodiversity value e.g., hard standing or sealed surface<br>Urban – artificial structures which are un-vegetated, sealed surfaces or built linear features of very low biodiversity value. |

## 2.3 Baseline Trees

To align with the Ramboll metric being produced for the wider Land West of Ifield outline application, tree areas were calculated using the tree helper tool in the metric. All trees were given a baseline condition of moderate (with the exception of one veteran tree that was given a condition of 'high'. This tree is identified as an irreplaceable habitat within the metric.

## 2.4 Post-Intervention Calculation

The Site was reassessed for the conditions that will be present under the post-development proposal. The post-intervention landscape plan used for this calculation is illustrated within Appendix B. The landscape strategy contains created habitats, enhanced habitats and retained habitats. For the created habitats, the proposed typologies need to be translated from landscaping typologies into UK Habs habitat types. The translation used in the metric is presented in Table 3 below.

For retained habitats, the baseline habitat and condition was utilised. For enhanced habitats, the habitat condition that would be achieved through management as part of the road scheme was utilised (this is explained in more detail later in this report).

*Table 3: Translation of landscape habitat typologies to UK Habs habitat types*

| Landscape typology | UK Habs typology | Notes |
|---|---|---|
| Grass Swales and Attenuation ponds | Other neutral grassland | Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state. |
| Hardstanding, cycleway, footpath | Developed land; sealed surface | These areas are all tarmac or sealed surface |
| Ornamental Rain Garden | Rain garden (urban typology) | Considering the species list is predominantly ornamental species a urban typology rain garden was considered the correct habitat type. |
| Transitional Rain Garden | Rain garden (urban typology) | Although the species mix would suggest a grassland typology may develop within these areas,, considering the locations alongside the road it was considered that the urban rain garden typology was more appropriate in this situation. |
| Meadow Rain Garden | Other neutral grassland | Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state. |
| Woodland Planting | Other woodland, broadleaved | Considering the seed mix proposed for the ground floor and the tree species proposed, a broadleaved woodland was considered the appropriate typology. |
| Grass Seeding | Other neutral grassland | Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state. |
| Watercourse | Ditch or culvert, as appropriate | Two short sections of ditch with a culvert beneath the newly created rows are to be created |

| Landscape typology | UK Habs typology | Notes |
|---|---|---|
| Temporary seeding of embankments | Other neutral grassland | Considering the seeding mix in the landscape proposals, this will be akin to other neutral grassland in the post construction state. |
| Hawthorn Planting | Hawthorn scrub | Hawthorn scrub will be created |
| Trees planted along road alignment | Urban Tree | The size of these was assumed to be small, with the area calculated using the tree helper in the metric. The number of trees was calculated from the landscape drawing. |

When considering post-intervention calculations, the metric takes account of several factors, detailed below in Table 4.

*Table 4: Biodiversity Metric Post-Intervention Criteria*

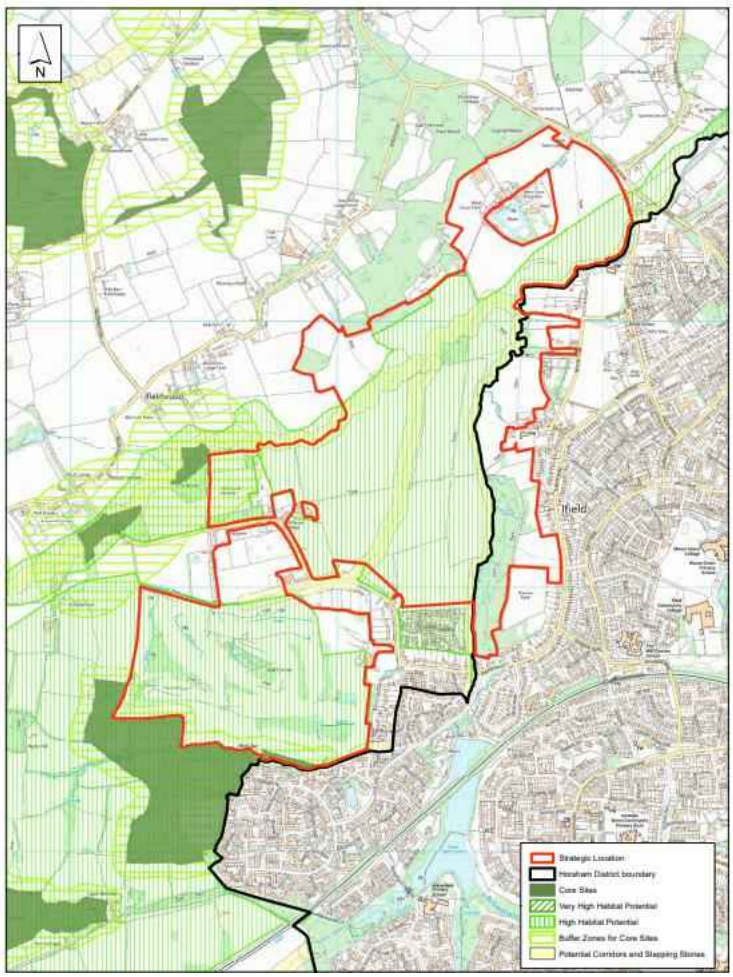
| Factor | Criteria and Site-specific Condition |
|---|---|
| Difficulty categories | The number of biodiversity units provided by each habitat within the Site was calculated in the same way as the baseline habitats but with the following multipliers: Very high (0.1); High (0.33); Medium (0.67); Low (1).<br>Difficulty categories are based on standard scores that reflect how difficult the habitat is to create or restore and temporal risk (how long the habitat type takes to establish). |
| Habitat Change | Different habitats change scenarios are attributed different levels of risk (risk around the confidence in the successful establishment of habitats) and different multipliers are applied to reflect this. Two distinct habitat change scenarios are recognised in the Statutory Biodiversity Metric:<br>Habitat creation - where one habitat type is replaced by another or the habitat is destroyed (e.g., by development works) and the same habitat is recreated.<br>Habitat enhancement - where its distinctiveness and / or condition are improved.<br>Enhancement carries less risk and can therefore provide a greater unit uplift. |
| Spatial risk | A separate risk multiplier is applied to post-intervention sites outside of the Site. This incentivises the use of sites near the intervention site, for ecological and social reasons. Higher multipliers are assigned to more distant sites which results in a decrease in the value of an off-site location with increasing distance.<br>At this stage, post-development interventions are all being undertaken within the Site boundary and the wider development site so spatial risks are not relevant. |
| Advanced and delayed habitat creation | Advanced habitat interventions are encouraged within the metric (along with being good practice), by reducing the multipliers associated with time to target condition. Similarly delayed habitat interventions are discouraged, with delays resulting in increased time to target condition. |

| Factor | Criteria and Site-specific Condition |
|---|---|
| 'Pseudo' double counting areas | The total area input into the tool can be greater than the total area of the Site. This is due to the three-dimensional nature of certain habitats. For example, the area covered by a tree is approximately the area covered by its canopy, but if an area of grassland is underneath, both would be included in the metric. As such the area of the tree canopy is 'counted' twice and can result in the area in the metric being larger than the area of the Site. |
| Calculation of gains or losses | The net change in biodiversity or hedgerow units on and off-site is calculated within the tool by subtracting the baseline units from the post-intervention units. The overall net change is the sum of the change in units on-site and off-site. The percentage net gain is then calculated by dividing this overall net change by the number of baseline units on the Site |
| Changes in broad habitat type calculations | The UKHab classification system is hierarchical in structure, so specific habitat types can be grouped into broad habitat types. The changes in area and biodiversity units associated with each of these broad habitat types was calculated using the baseline and post-intervention data. |
| Areas excluded from the assessment | The metric is not designed to assess impacts to habitats within statutory designated sites or "irreplaceable" habitats. There are no irreplaceable habitats, such as ancient woodland, or statutory designated sites present within the Site and therefore all habitats were assessed. |

## 2.5 Strategic Significance

Within the metric, the application of strategic significance was aligned with the BNG assessment of the wider site being conducted by Ramboll (Ramboll, 2025). The strategic significance for all baseline area-based habitat parcels and hedgerows within the Site that fall wholly or partially into the 'High Habitat Potential' area within the emerging Nature Recovery Network (NRN) for Horsham District Council has been determined as 'Formally identified in local strategy' (i.e. high strategic significance). The strategic significance for any baseline habitats and hedgerows outside of the 'High Habitat Potential' area within the NRN, have been determined as 'Location ecologically desirable but not in local strategy' (i.e. medium strategic significance). The NRN is shown below in Image 4.

*Image 4: Horsham District Council emerging Nature Recovery Network used to inform the strategic significance*




## 2.6 'Red Box' Errors

The Statutory Biodiversity Metric tool will show an ‘error’ flag or 'red box' error when a problem has been encountered and point the user to where this may have occurred. These could relate to mistakes or broken rules in any of the tabs of the Statutory Biodiversity Metric; 'red-box' errors can also be justified, for example, if it’s an outline application, if there are exceptional ecological circumstances, or if the plan is to purchase statutory credits from Natural England.

## 2.7 Watercourse information

All watercourse information was extracted from the Ramboll baseline. For further information on the condition assessments of these features please refer to the Ramboll Habitat Survey (Ramboll, 2025).

## 2.8 Overlap Areas

There are areas of ‘overlap’ the detailed application as part of Phase 1 and the subsequent development as part of the wider Land West of Ifield scheme. These areas are predominantly where land will be utilised for the road construction but may then subsequently be redeveloped as part of the wider Land West of Ifield development. Within this metric, the post-construction habitats of these areas are assumed to be as it would be upon the completion of the Phase 1 scheme. This is considered appropriate as this will be the status should subsequent developments not commence.

## 2.9 Delay to starting habitat creation or enhancement

Within the metric, a two-year delay has been applied to all habitat creation and enhancement in line with the proposed construction timeline. This matches the delay applied in the Ramboll metric (Ramboll, 2025).

## 2.10 Limitations

The habitat data was collected using the metric 4.0 condition assessments methodology, but since this time the Statutory Biodiversity Metric was released and has been used to assess the baseline and post-intervention biodiversity value. The condition assessments for each habitat have not changed between metric 4.0 and the statutory metric so no conversion was required for the habitat condition assessments and no differences are expected. Update surveys have been conducted accruing to the Statutory Metric approach.

Survey data from Ramboll has been used to calculate the biodiversity baseline of the Site, there were limitations with those assessments in terms of extreme drought conditions for the distinctiveness and habitat condition assessments, particularly the grasslands. The distinctiveness and condition of the habitats have not been confirmed by Arcadis. Neither have they been agreed with the Local Planning Authority.

# 3 Results

## 3.1 Baseline

This section details the UK Habitat Classification typologies and their condition and strategic significance scores. The condition assessments for each of the habitat areas is detailed in Appendix D.

The Site predominantly comprised fields of modified grassland, cereal crops and other neutral grassland. The fields are bordered by hedgerows, mixed scrub and parcels of other broadleaved woodland and lowland mixed deciduous woodland. The baseline habitats are displayed in the Baseline Habitat Plan in Appendix A. Table 5 provides a summary of each habitat type within the Site boundary and the conditions. A full description of the habitats, including species, present within the Site is provided in the Ramboll West of Ifield BNG Assessment Report (Ramboll, 2025).

While there are areas of ancient woodland and designated sites within the wider site, these areas are not within the redline boundary of the Phase 1 infrastructure works, referred in this report as the Phase 1 Site.

Table 5 details the baseline habitats and their size and condition. A breakdown of the different condition assessments and strategic significance can be found within the BNG calculator appended as Appendix C.

*Table 5: Baseline Habitat Typology and Condition Summary)*

| Habitat | Total Area (ha)/ Length (km) | Condition |
|---|---|---|
| Artificial unvegetated, unsealed surface | 0.132626 | N/A |
| Cereal crops | 5.152063 | N/A |
| Developed land; sealed surface | 1.972251 | N/A |
| Lowland mixed deciduous woodland | 0.022929 | Moderate / Good |
| Mixed scrub | 0.675659 | Poor / Moderate / Good |
| Modified grassland | 18.00056 | Poor / Moderate |
| Other neutral grassland | 1.700296 | Poor / Moderate |
| Other woodland; broadleaved | 1.632571 | Moderate / Good |
| Sparsely vegetated land | 0.067014 | Poor / Moderate / Good |
| **Total Area** | **29.337** | **N/A** |
| Species-rich native hedgerow with trees | 0.774 km | Poor / Moderate / Good |
| Line of trees | 0.258 km | Moderate |
| Non-native and ornamental hedgerow | 0.107 km | Poor |
| Other river and streams | 0.05 km | Fairly Good |
| Ditches | 1.13 km | Poor |
| **Total Length** | **2.32 km** | **N/A** |

## 3.2 Post Intervention Habitat Change

Several habitats on the Site are proposed to change to facilitate the Proposed Development. This includes transforming areas of cereal crops, grassland and small areas of mixed scrub and woodland to habitats for the proposed road layout and associated footpaths, cycle paths and verges. This is detailed below in

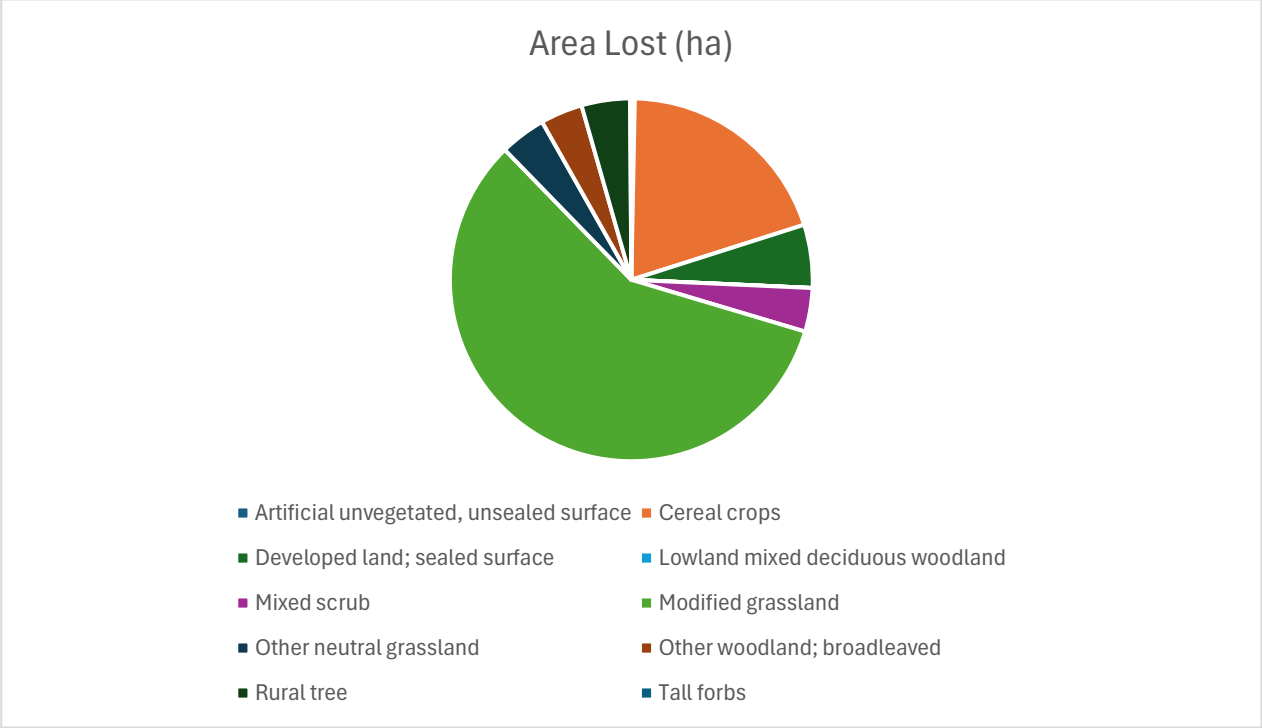
Table 6 summarises the proposed habitat changes (i.e. where habitat is retained, enhanced or lost) as a result of the development. The post development landscape plan in Appendix B illustrates the Site post intervention.

*Table 6: Habitat Change Summary*

| Habitat | Total Area/Length | | |
|---|---|---|---|
| | Retained | Enhanced | Lost |
| Artificial unvegetated, unsealed surface | 0.054265 | | 0.078361 |
| Cereal crops | 0.083815 | | 5.068248 |
| Developed land; sealed surface | 0.259471 | | 1.442616 |
| Lowland mixed deciduous woodland | 0.131461 | | 0.000129 |
| Mixed scrub | | 0.001049 | 0.9963 |
| Modified grassland | | 3.047457 | 14.884643 |
| Other neutral grassland | 0.592107 | | 1.049247 |
| Other woodland; broadleaved | 0.619389 | | 0.962365 |
| Rural tree | 0.1587 | | 1.1075 |
| Tall forbs | 0.039904 | | 0.026897 |
| **Total Area** | **c.1.939 ha** | **c.3.049 ha** | **c. 25.616 ha** |
| Hedgerows | 0.84 km | 0 km | 0.3 km |
| Other rivers and streams | 0.054 km | 0 km | 0 km |
| Ditches | 0.084 km | 0.57 km | 0.48 km |
| **Total Length** | **0.978 km** | **0.57 km** | **0.78 km** |

Most of the habitat loss is agricultural land, largely pasture and cereal crop followed by woodland and mixed scrub with some other neutral grassland, presented in Image 5. There is a loss of linear habitat, 0.3 km of hedgerow, and 0.48 km of ditches.

*Image 5: Habitat area lost (ha)*




The total area of habitat lost to the development is 24.51 ha; 0.3 km of hedgerow is also lost. Table 7 summarises the habitat composition of the Site boundary post development and the target condition for each habitat type. For each habitat created the target condition (explaining how this is considered achievable) is shown in Appendix D.

*Table 7: Habitat Creation Summary*

| Proposed Habitat | Total Area or Length | Target Condition | Rationale for Target Condition |
|---|---|---|---|
| Developed land; sealed surface | 9.112 | N/A - Other | N/A - Other |
| Embankment seeding | 0.8948 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Grass swales and Attenuation ponds | 3.2345 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Hawthorn scrub | 0.2054 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Meadow rain garden | 0.2025 | Moderate | A target of moderate condition is considered appropriate for this habitat |

| Proposed Habitat | Total Area or Length | Target Condition | Rationale for Target Condition |
|---|---|---|---|
| | | | when associated with a road scheme and likely maintenance regime. |
| Ornamental rain garden | 0.1004 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Other neutral grassland | 9.8211 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Other woodland; broadleaved | 0.4478 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Other woodland; broadleaved | 0.2826 | Good | A target of 'good' condition should be endeavoured for all areas of woodland planting within the nature recovery network area. |
| Rain garden | 0.1298 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Urban tree | 0.8387 | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| Watercourse footprint | 0.0457 | N/A - Other | N/A - Other |
| Lowland Mixed Deciduous woodland | 0.158 ha | Poor | The intention is to create new parcel of lowland mixed deciduous woodland (LMDW), adjacent to existing LMDW. This approach will likely promote natural regeneration and successful establishment of LMDW.<br>The woodland is expected to take 10 years to establish and reach 'poor' condition, however and ecologically diverse woodland in 'moderate' condition may be achieved through appropriate long-term management for more than 30 years. Habitat management actions include those that:<br>• Manage woodlands according to the UK Forestry |

| Proposed Habitat | Total Area or Length | Target Condition | Rationale for Target Condition |
|---|---|---|---|
| | | | Standard (Forestry Commission 2023);<br>• Maintain structural diversity with mature trees and scrub of varying age to provide a wide range of habitats. Ensure continuity of woodland by regeneration or replanting when necessary;<br>• Maintain 'naturalness' of woods where possible, avoiding sudden and drastic modification of woods;<br>• Maintain woodland 'edge habitat' to encourage a wide variety of flora and fauna;<br>• Maintain open spaces such as ridges and clearings to provide sheltered sunny areas. This encourages the growth of flowering plants which provide nectar and pollen for insects. If possible, the open areas should include bare ground and low and high vegetation;<br>• Leave any wet areas such as streams and ponds undisturbed;<br>• Maintain a range of dead wood, particularly for saproxlyic invertebrates, in both shady and sunny situations. This will also encourage fungi which provide food for invertebrates and birds;<br>• Maintain the undisturbed soil structure; and<br>• Allow natural regeneration of woodlands wherever possible. |
| **Total Area** | **25.36*** ha | **N/A** | |
| Species-rich native hedgerow with trees | 0.033 km | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |

| Proposed Habitat | Total Area or Length | Target Condition | Rationale for Target Condition |
|---|---|---|---|
| Ditches | 0.119 km | Moderate | A target of moderate condition is considered appropriate for this habitat when associated with a road scheme and likely maintenance regime. |
| **Total length** | **0.152 km** | **N/A** | N/A - Other |

***NB: the increase in area from the baseline relates to double counting of tree areas (see methodology for further detail).

Post development, areas of retained habitats will be enhanced. These include retained areas of modified grassland and mixed scrub and lengths of ditch. All retained areas of modified grassland (poor and moderate condition) and scrub (poor condition) will be enhanced. Details of which ditches are to be enhanced are presented in the BNG Statutory Biodiversity Metric calculator. Table 8 summarises the proposed habitat enhancement as part of the development and the target condition for each habitat type. For each habitat enhancement, the target condition (explaining how this is considered achievable) is shown in Appendix D.

*Table 8: Habitat Enhancement Summary*

| Baseline Habitat | Area or length | Baseline Condition | Proposed Habitat | Target condition | Rationale |
|---|---|---|---|---|---|
| Modified grassland | 1.369 ha | Poor | Other Neutral Grassland | Moderate | When brought under a management regime, it is considered that areas of poor condition modified grassland will be able to be managed to achieve a moderate condition other neutral grassland. This will be through removal of nitrogen inputs, over seeding to increase species diversity as required and changed ongoing management. |
| Modified grassland | 1.677 ha | Moderate | Other Neutral Grassland | Moderate | When brought under a management regime, it is considered that areas of poor condition modified grassland will be able to be managed to achieve a moderate condition other neutral grassland. This will be through removal of nitrogen inputs, over seeding to increase species diversity as |

| Baseline Habitat | Area or length | Baseline Condition | Proposed Habitat | Target condition | Rationale |
|---|---|---|---|---|---|
| | | | | | required and changed ongoing management. |
| Mixed scrub | 0.001 ha | Poor | Mixed scrub | Moderate | When brought under a management regime, it is considered that areas of poor condition mixed scrub will be able to be managed to achieve a moderate condition |
| **Total Area** | **3.05 ha** | **N/A** | | | |
| Ditches | 0.57 km | Poor | Ditches | Moderate | When brought under a management regime, it is considered that poor condition ditches will be able to be managed to achieve a moderate condition.<br>In line with Ramboll Recommendations (BNG Report, Ramboll 2025), it is assumed that all ditches to be retained can be improved through the following actions to achieve 'Moderate' condition through design and management:<br>• Maintaining good water quality, with clear water (low turbidity) and no pollution.<br>• Planting a range of emergent, submerged and floating-leaved plants so that there are than 10 species of emergent, floating or submerged plants present in a 20 m ditch length.<br>• Planting a fringe of aquatic marginal vegetation along more than 75% of the ditch.<br>• Maintaining less than 10% cover of filamentous algae and or duckweed |

| Baseline Habitat | Area or length | Baseline Condition | Proposed Habitat | Target condition | Rationale |
|---|---|---|---|---|---|
| | | | | | Lemna spp by minimising eutrophication.<br>• Minimising physical damage to less than 5% of the ditch, by preventing damage from damage from machinery use or storage, or any other damaging management activities.<br>• Maintaining sufficient water levels with a minimum summer depth of approximately 0.5 m in minor ditches and 1 m in main drains. This will be informed by the Flood Risk Assessment at detailed design stage.<br>• Ensure that less than 10% of the ditch is heavily shaded.<br>• Ensure that there is an absence of floral and faunal invasive non-native species (INNS). |
| **Total Length** | **0.57 km** | **N/A** | | | |

# 4 Summary

The headline results of the BNG assessment for the Site, using the Statutory Biodiversity Metric calculator are presented below. It should be noted that this assessment only assesses the Phase 1 works, and the outcome of this assessment should be considered holistically with the wider West of Ifield Development, reported in the Ramboll BNG Report (Ramboll 2025).

Overall, there is a gain of 8.58 habitat units, a 6.19% increase in overall biodiversity value of habitat units. There is an initial loss of modified grassland, but despite this large loss, grassland habitat units are responsible for most of the biodiversity unit delivery in the post development plans. This is provided through the enhancement of existing areas of grassland and planting of new areas of other neutral grassland.

To achieve 10% biodiversity net gain, an additional 5.28 habitat units will be required. In the Phase 1 area, trading rules are met with the exception of habitat creation for medium and low distinctiveness habitats (which are considered deliverable within the wider Ifield site or through other approaches). Medium and low distinctiveness units would need to be delivered elsewhere, this could be delivered on the wider Land West of Ifield site or through a registered habitat bank or through the purchase of statutory credits.

**N.B. within the Phase 1 scheme a single veteran tree, which is considered an irreplaceable habitat is being removed. Within the metric this cannot be accounted for and therefore will always be considered a loss of biodiversity value.**

There is currently an 8.1% loss in hedgerow units due to the removal of hedgerows. It is not possible for the hedgerow units to be recovered within the Site boundary due to a limited availability of area and an aspiration to keep an open nature to the scheme. The loss of hedgerow biodiversity units is expected to be accounted for in the West of Ifield housing development. An additional 2.73 hedgerow units would be required to deliver 10% net gain.

There is currently projected to be a 2.25% loss in watercourse units. An additional 0.72 Water course units would be required to deliver a 10% net gain.

All of these results are presented in Image 6.

*Image 6: Habitats, hedges and watercourse units for baseline and post-intervention scenarios and net change*

| | | | |
|---|---|---|---|
| On-site baseline | *Habitat units* | 138.60 | |
| | *Hedgerow units* | 15.08 | |
| | *Watercourse units* | 5.86 | |
| On-site post-intervention (Including habitat retention, creation & enhancement) | *Habitat units* | 147.19 | |
| | *Hedgerow units* | 13.86 | |
| | *Watercourse units* | 5.72 | |
| On-site net change (units & percentage) | *Habitat units* | 8.58 | 6.19% |
| | *Hedgerow units* | -1.22 | -8.10% |
| | *Watercourse units* | -0.13 | -2.25% |

## FINAL RESULTS

| | | |
|---|---|---|
| Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement) | *Habitat units* | 8.58 |
| | *Hedgerow units* | -1.22 |
| | *Watercourse units* | -0.13 |
| Total net % change (Including all on-site & off-site habitat retention, creation & enhancement) | *Habitat units* | 6.19% |
| | *Hedgerow units* | -8.10% |
| | *Watercourse units* | -2.25% |
| Trading rules satisfied? | | No - Check Trading Summaries ▲ |

Unacceptable loss of irreplaceable habitat recorded - no bespoke compensation for losses has been agreed ▲

| Unit Type | Target | Baseline Units | Units Required | Unit Deficit |
|---|---|---|---|---|
| *Habitat units* | 10.00% | 138.60 | 152.46 | 5.28 |
| *Hedgerow units* | 10.00% | 15.08 | 16.59 | 2.73 |
| *Watercourse units* | 10.00% | 5.86 | 6.44 | 0.72 |

# 5 References

DEFRA (2024a). Statutory Biodiversity Metric Calculation Tool. Available online at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [Last accessed 05/04/2024].

DEFRA (2024b). Statutory Biodiversity Metric – User Guide. website [online] Available online at: https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides [Last accessed 05/04/2024].

Forestry Commission (2023). The UK Forestry Standard The governments' approach to sustainable forest management. Available at: https://assets.publishing.service.gov.uk/media/651670336a423b0014f4c5c0/Revised_UK_Forestry_Standard_-_effective_October_2024.pdf [Accessed June 2025]

Google Earth (2024). website location https://www.google.co.uk/intl/en_uk/earth/. [Accessed February 2024].

HM Government (2006). *Natural Environment and Rural Communities Act 2006*. [online] Available at: https://www.legislation.gov.uk/ukpga/2006/16/contents

HM Government (2018). 'A Green Future: Our 25 Year Plan to Improve the Environment'. Available at https://www.gov.uk/government/publications/25-year-environment-plan.

HM Government (2021). The Environment Act (2021). website [online] Available online at: https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted.

Horsham (2021). Horsham District Council Nature Recovery Network Report. Available at: https://www.horsham.gov.uk/climate-and-environment/wilderhorshamdistrict/horsham-district-nature-recovery-networks/horsham-district-nature-recovery-network-report.

MAGIC (2023). Multi-Agency Geographical Information for the Countryside https://magic.defra.gov.uk/MagicMap.aspx [Accessed February 2024].

National Planning Policy Framework (MHCLG, 2024)

Ramboll (2025). West of Ifield Habitat Report, Ramboll, United Kingdom.

Ramboll (2025). West of Ifield Biodiversity Net Gain Assessment Report – 1620007949. Ramboll, United Kingdom.

Sussex (2009). The Sussex Biodiversity Opportunity Areas. Sussex Biodiversity Partnership, United Kingdom.

UKHab Ltd (2023). UK Habitat Classification Version 2.0. Available at: https://www.ukhab.org).

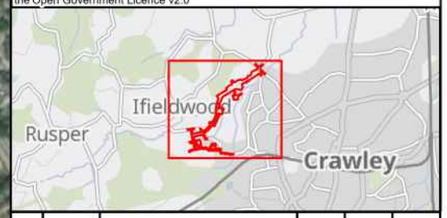
# Appendix A: Baseline Habitat Plan

N

Legend

- Red Line Boundary
- Hedgerow (priority habitat)
- Other hedgerows
- Ditches
- Rivers and streams
- Line of trees
- Arable and horticulture
- Other neutral grassland
- Modified grassland
- Mixed scrub
- Sparsely vegetated land
- Developed land, sealed surface
- Artificial unvegetated unsealed surface
- Lowland mixed deciduous woodland
- Other woodland, broadleaved






| Rev | Date | Description | Drawn | Check | Approv |
|---|---|---|---|---|---|
| 01 | 14/0/25 | INITIAL ISSUE | RM | BE | BM |

Client:

Homes England

PROJECT:
WEST OF IFIELD

Site
West of Ifield

Client
Homes England
Arpley House, 110 Birchwood Boulevard
Birchwood,
Warrington
WA3 7QH

ARCADIS

Registered office:
80 Fenchurch Street
London
EC3M 4BY

Coordinating Office:
Suite 1A
4 Piccadilly Place
Manchester
M1 3BN

www.arcadis.com

Title:

UK Habitats Plan

| | | | |
|---|---|---|---|
| Designed | B. Ellis | Date: 14 MAY 25 | Signed |
| Drawn | R. Millman | Date: 14 MAY 25 | Signed |
| Checked | B. Ellis | Date: 14 MAY 25 | Signed |
| Approved | B. Murray | Date: 14 MAY 25 | Signed |
| Scale: | 1:7,500 | Datum: | AOD |
| Original Size: | A3 | Grid: | OS |
| Suitability Code: | S2 | Project Number: | 10051123 |

Suitability Description:
For Information

Drawing Number:
10051123-ARC-30-1A-DR-LA-00001

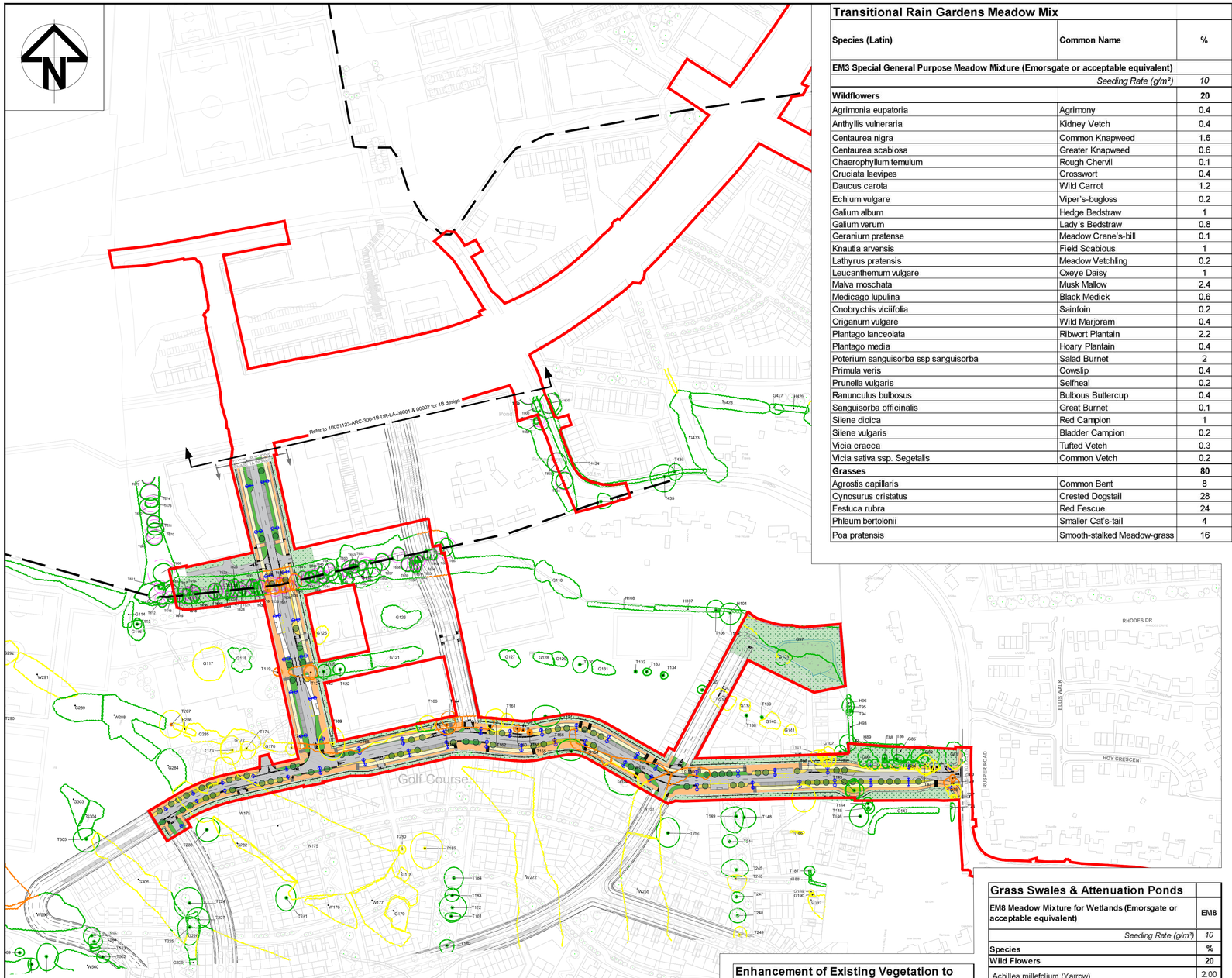
Revision:
P01

0 1:7,500 200m

Print Date: 05-30-25 11:44:47

C:\Users\Rob.Millman\ARCADIS\10051123 - West of Ifield - GIS\APRX\10051123-ARC-300-1A-DR-LA-00001 - UK Habitats Plan.aprx

# Appendix B: Post Intervention Landscape Design




## Transitional Rain Gardens Meadow Mix

| Species (Latin) | Common Name | % |
|---|---|---|
| **EM3 Special General Purpose Meadow Mixture (Emorsgate or acceptable equivalent)** | | |
| | *Seeding Rate (g/m²)* | *10* |
| **Wildflowers** | | **20** |
| Agrimonia eupatoria | Agrimony | 0.4 |
| Anthyllis vulneraria | Kidney Vetch | 0.4 |
| Centaurea nigra | Common Knapweed | 1.6 |
| Centaurea scabiosa | Greater Knapweed | 0.6 |
| Chaerophyllum temulum | Rough Chervil | 0.1 |
| Cruciata laevipes | Crosswort | 0.4 |
| Daucus carota | Wild Carrot | 1.2 |
| Echium vulgare | Viper's-bugloss | 0.2 |
| Galium album | Hedge Bedstraw | 1 |
| Galium verum | Lady's Bedstraw | 0.8 |
| Geranium pratense | Meadow Crane's-bill | 0.1 |
| Knautia arvensis | Field Scabious | 1 |
| Lathyrus pratensis | Meadow Vetchling | 0.2 |
| Leucanthemum vulgare | Oxeye Daisy | 1 |
| Malva moschata | Musk Mallow | 2.4 |
| Medicago lupulina | Black Medick | 0.6 |
| Onobrychis viciifolia | Sainfoin | 0.2 |
| Origanum vulgare | Wild Marjoram | 0.4 |
| Plantago lanceolata | Ribwort Plantain | 2.2 |
| Plantago media | Hoary Plantain | 0.4 |
| Poterium sanguisorba ssp sanguisorba | Salad Burnet | 2 |
| Primula veris | Cowslip | 0.4 |
| Prunella vulgaris | Selfheal | 0.2 |
| Ranunculus bulbosus | Bulbous Buttercup | 0.4 |
| Sanguisorba officinalis | Great Burnet | 0.1 |
| Silene dioica | Red Campion | 1 |
| Silene vulgaris | Bladder Campion | 0.2 |
| Vicia cracca | Tufted Vetch | 0.3 |
| Vicia sativa ssp. Segetalis | Common Vetch | 0.2 |
| **Grasses** | | **80** |
| Agrostis capillaris | Common Bent | 8 |
| Cynosurus cristatus | Crested Dogstail | 28 |
| Festuca rubra | Red Fescue | 24 |
| Phleum bertolonii | Smaller Cat's-tail | 4 |
| Poa pratensis | Smooth-stalked Meadow-grass | 16 |

## Meadow Rain Gardens

| Species (Latin) | Common Name | % |
|---|---|---|
| **EM3 Special General Purpose Meadow Mixture (Emorsgate or acceptable equivalent)** | | |
| | *Seeding Rate (g/m²)* | *10* |
| **Wildflowers** | | **20** |
| Agrimonia eupatoria | Agrimony | 0.4 |
| Anthyllis vulneraria | Kidney Vetch | 0.4 |
| Centaurea nigra | Common Knapweed | 1.6 |
| Centaurea scabiosa | Greater Knapweed | 0.6 |
| Chaerophyllum temulum | Rough Chervil | 0.1 |
| Cruciata laevipes | Crosswort | 0.4 |
| Daucus carota | Wild Carrot | 1.2 |
| Echium vulgare | Viper's-bugloss | 0.2 |
| Galium album | Hedge Bedstraw | 1 |
| Galium verum | Lady's Bedstraw | 0.8 |
| Geranium pratense | Meadow Crane's-bill | 0.1 |
| Knautia arvensis | Field Scabious | 1 |
| Lathyrus pratensis | Meadow Vetchling | 0.2 |
| Leucanthemum vulgare | Oxeye Daisy | 1 |
| Malva moschata | Musk Mallow | 2.4 |
| Medicago lupulina | Black Medick | 0.6 |
| Onobrychis viciifolia | Sainfoin | 0.2 |
| Origanum vulgare | Wild Marjoram | 0.4 |
| Plantago lanceolata | Ribwort Plantain | 2.2 |
| Plantago media | Hoary Plantain | 0.4 |
| Poterium sanguisorba ssp sanguisorba | Salad Burnet | 2 |
| Primula veris | Cowslip | 0.4 |
| Prunella vulgaris | Selfheal | 0.2 |
| Ranunculus bulbosus | Bulbous Buttercup | 0.4 |
| Sanguisorba officinalis | Great Burnet | 0.1 |
| Silene dioica | Red Campion | 1 |
| Silene vulgaris | Bladder Campion | 0.2 |
| Vicia cracca | Tufted Vetch | 0.3 |
| Vicia sativa ssp. Segetalis | Common Vetch | 0.2 |
| **Grasses** | | **80** |
| Agrostis capillaris | Common Bent | 8 |
| Cynosurus cristatus | Crested Dogstail | 28 |
| Festuca rubra | Red Fescue | 24 |
| Phleum bertolonii | Smaller Cat's-tail | 4 |
| Poa pratensis | Smooth-stalked Meadow-grass | 16 |

## Ornamental Rain Gardens - Typical species

| Species (Latin) | Common Name | % |
|---|---|---|
| Achillea millefolium | Yarrow | 2 |
| Achillea 'Walther Funcke' | Yarrow | 2 |
| Betonica officinalis 'Hummelo' | Betony | 2 |
| Carex oshimensis 'Everest' | Japanese Sedge | 20 |
| Carex oshimensis 'Everillo' | Japanese Sedge | 10 |
| Sedum herbstfruede (Hylotelephium spectabile) | Stonecrop | 2 |
| Monarda didyma 'Bee Lieve' | Bergamot | 2 |
| Hakonechloa macra 'Aureola' | Golden Hakonechloa | 20 |
| Kniphofia 'Little Maid' | Red Hot Poker | 5 |
| Kniphofia 'Poco Red' | Red Hot Poker | 5 |
| Imperata cylindrica 'Rubra' | Japanese Blood Grasses | 8 |
| Geranium 'Light Dilys' | Cranebill | 2 |
| Geranium 'Rozanne' | Cranebill | 2 |
| Festuca glauca 'Blaufuchs' | Blue Fescue | 8 |
| Nepeta × faassenii | Cat Mint | 5 |
| Carex buchananii 'Red Rooster' | Sedge | 5 |

## Street Tree Planting - 1A

| Species | SUDS | Girth (cm) | Height (cm) | Clear stem (cm) | Root |
|---|---|---|---|---|---|
| *Acer campestre* (Field Maple) | y | 20 to 25 | 600-700 | 250 min | |
| *Acer campestre* 'William Caldwell' (Field Maple) | y | 20 to 25 | 600-700 | 250 min | |
| Acer x freemanii (Freeman Maple) | y | 20 to 25 | 600-700 | 250 min | |
| *Alnus cordata* (Italian Alder) | y | 20 to 25 | 500-600 | 220 min | |
| *Alnus incana* 'Aurea' (Golden Alder) | y | 20 to 25 | 500-600 | 220 min | |
| Alnus x spaethii (Spaeth's Alder) | y | 18 to 20 | 500-600 | 220 min | |
| Amelanchier arborea 'Robin Hill' (Serviceberry) | y | 18 to 20 | 500-600 | 220 min | |
| Betula albosinensis 'Fascination' (Chinese Birch / Paper Bark) | y | 18 to 20 | 500-600 | 220 min | |
| Betula nigra (River Birch) | y | 20 to 25 | 500-600 | 220 min | |
| *Betula pendula* (Birch) | y | 18 to 20 | 500-600 | 220 min | |
| Carpinus betulus 'Fastigiata' (Hornbeam) | y | 18 to 20 | 500-600 | 220 min | |
| Carpinus betulus (Hornbeam) | y | 20 to 25 | 600-700 | 250 min | |
| Corylus avellana (Hazel) | y | 20 to 25 | 500-600 | 220 min | |
| *Corylus colurna* (Turkish Hazel) | y | 18 to 20 | 500-600 | 220 min | |
| Ginkgo biloba (Maidenhair Tree) | N | 18 to 20 | 500-600 | 220 min | |
| Hamamelis intermedia (Witch Hazel) | y | 18 to 20 | 500-600 | 220 min | |
| Liquidambar styraciflua (Sweet Gum) | y | 18 to 20 | 500-600 | 220 min | |
| Liriodendron tulipifera (Tulip Tree) | y | 20 to 25 | 600-700 | 250 min | |
| Pinus nigra 'Austriaca' (Austrian Pine) | N | 20 to 25 | 600-700 | 250 min | |
| *Pinus sylvestris* (Scots Pine) | N | 20 to 25 | 600-700 | 250 min | |
| *Populus tremula* (Aspen) | y | 20 to 25 | 600-700 | 250 min | |
| *Prunus avium* (Wild Cherry) | y | 20 to 25 | 600-700 | 250 min | |
| *Prunus avium* 'Plena' (Wild Cherry) | N | 20 to 25 | 600-700 | 250 min | |
| *Prunus Padus* (Bird Cherry) | y | 20 to 25 | 500-600 | 220 min | |
| *Quercus frainetto* (Hungarian Oak) | y | 20 to 25 | 600-700 | 250 min | |
| *Quercus robur* (Pendunculate Oak) | y | 20 to 25 | 600-700 | 250 min | |
| *Sorbus aucuparia* (Rowan) | N | 18 to 20 | 500-600 | 250 min | |
| Sorbus torminalis (Wild Service Tree) | y | 18 to 20 | 500-600 | 250 min | |
| *Tilia cordata 'Greenspire'* (Small Leaved Lime) | y | 20 to 25 | 500-600 | 220 min | |
| Ulmus 'New Horizon' (Elm) | y | 20 to 25 | 500-600 | 220 min | |

## Grass Swales & Attenuation Ponds

| EM8 Meadow Mixture for Wetlands (Emorsgate or acceptable equivalent) | EM8 |
|---|---|
| *Seeding Rate (g/m²)* | *10* |
| **Species** | **%** |
| **Wild Flowers** | **20** |
| Achillea millefolium (Yarrow) | 2.00 |
| Agrimonia eupatoria (Agrimony) | 0.60 |
| Centaurea nigra (Common Knapweed) | 3.60 |
| Filipendula ularia (Meadowsweet) | 1.00 |
| Galium verum (Lady's Bedstraw) | 2.00 |
| Geum rivale (Water Avens) | 0.20 |
| Lathyrus pratensis (Meadow Vetchling) | 0.50 |
| Leontodon hispidus (Rough Hawkbit) | 0.10 |
| Leucanthemum vulgare (Oxeye Daisy (Moon Daisy)) | 1.20 |
| Lotus corniculatus (Birdsfoot Trefoil) | 0.10 |
| Lotus pedunculatus (Greater Birdsfoot Trefoil) | 0.40 |
| Plantago lancelata (Ribwort Plantain) | 3.20 |
| Primula veris (Cowslip) | 0.20 |
| Prunella vulgaris (Selfheal) | 0.10 |
| Ranunculus acris (Meadow Buttercup) | 0.40 |
| Rhinanthus minor (Yellow Rattle) | 1.40 |
| Rumex acetosa (Common Sorrel) | 1.20 |
| Sanguisorba officinalis (Great Burnet) | 1.00 |
| Silene flos-cuculi (Ragged Robin) | 0.30 |
| Succisa pratensis (Devil's-bit Scabious) | 0.10 |
| Vicia cracca (Tufted Vetch) | 0.40 |
| **Grasses** | **80** |
| Agrostis capillaris (Common Bent) | 4.00 |
| Anthoxanthum odoratum (Sweet Vernal-grass) | 4.00 |
| Carex divulsa subsp. divulsa (Grey Sedge) | 1.60 |
| Cynosurus cristatus (Crested Dogstail) | 34.4 |
| Deschampsia cespitosa (Tufted Hair-grass) | 1.60 |
| Festuca rubra (Red Fescue) | 20.0 |
| Hordeum secalinum (Meadow Barley) | 4.00 |
| Poa trivialis (Rough-stalked Meadow-grass) | 8.00 |
| Schedonorus arundinaceus (Tall Fescue) | 2.40 |

## Enhancement of Existing Vegetation to Other Neutral Grassland

| Species (Latin) | Common Name | % |
|---|---|---|
| **EM Wildflower Meadow Mixture (Emorsgate or acceptable equivalent)** | | |
| | *Seeding Rate (g/m²)* | 10 |
| **Wildflowers** | | **15** |
| *Achillea millefolium* | Yarrow | 0.75 |
| *Betonica officinalis* | Betony | 0.75 |
| *Centurea nigra* | Common Knapweed | 2.25 |
| *Daucus carota* | Wild Carrot | 1.5 |
| *Galium verum* | Lady's Bedstraw | 0.4 |
| *Geranium pratense* | Meadow Crane's-bill | 0.4 |
| *Leucanthemum vulgare* | Oxeye Daisy | 1.35 |
| *Plantago lanceolata* | Ribwort Plantain | 1.5 |
| *Poterium sanguisorba ssp sanguisorba* | Salad Burnet | 1.5 |
| *Primula veris* | Cowslip | 1 |
| *Prunella vulgaris* | Selfheal | 1.1 |
| *Ranunculus acris* | Meadow Buttercup | 1.2 |
| *Ranunculus bulbosus* | Bulbous Buttercup | 0.15 |
| *Rumex acetosa* | Common Sorrel | 0.4 |
| *Silene vulgaris* | Bladder Campion | 0.75 |
| **Grasses** | | **85** |
| Agrostis capillaris | Common Bent | 8.5 |
| Cynosurus cristatus | Crested Dogstail | 29.75 |
| Festuca rubra | Red Fescue | 25.5 |
| Phleum bertolonii | Smaller Cat's-tail | 4.25 |
| Poa nemoralis | Wood Meadow-grass | 17 |

## Ditches

| EP1F Wild Flowers for Pond Edges (Emorsgate or acceptable equivalent) | EM8 |
|---|---|
| *Seeding Rate (g/m²)* | *10* |
| **Species** | **%** |
| **Wild Flowers** | **20** |
| *Angelica sylvestris* (Wild Angelica) | 5.00 |
| *Centurea nigra* (Common Knapweed) | 12.00 |
| *Dipsacus fullonum* (Wild teasel) | 3.00 |
| *Eupatorium cannabinum* (Hemp Agrimony) | 1.00 |
| *Filipendula ulmaria* (Meadowsweet) | 10.00 |
| *Galium album* (Hedge Bedstraw) | 5.00 |
| Geum rivale (Water Avens) | 3.00 |
| *Iris pseudacorus* (Yellow Iris) | 20.20 |
| *Lathyrus pratensis* (Meadow Vetchling) | 4.00 |
| *Lythrum salicaria* (Purple Loosestrife) | 1.50 |
| *Lycopus europeeus* (Gypsywort) | 0.50 |
| *Oenanthe pimpinelloides* (Corky-fruited Water-dropwort) | 1.00 |
| *Plantago lanceolata* (Ribwort Plantain) | 3.00 |
| *Prunella vulgaris* (Selfheal) | 4.00 |
| *Ranunculus acris* (Meadow Buttercup) | 5.00 |
| *Silene dioica* (Red Campion) | 14.00 |
| *Silene flos-cuculi* (Ragged Robin) | 6.00 |

## LANDSCAPE KEY

- Detailed (Phase 1) Boundary

**Existing Landscape Features**

- Public Right of Way
- Retained existing trees
- Other retained existing woody vegetation (incl. tree, shrubs, hedgerows)
- Removed existing trees
- Removed existing woody vegetation (inclu. tree, shrubs, hedgerows)
- Retained if possible trees
- Retained if possible woody vegetation (inclu. tree, shrubs, hedgerows)
- Root Protection Area
- Enhancement of existing vegetation to Other Neutral Grassland (trees, woodlands, tree groups retained/removed as shown)
- Watercourse / Body

**Proposed Engineering Features (Refer to Engineers' Proposals for details)**

- Carriageway
- Footway / Hardstanding
- Cycleway
- Attenuation Basin
- Lighting column
- Mobility Hub

**Proposed Landscape Features**

- Specimen tree planting
- Meadow rain gardens
- Ornamental rain gardens
- Transitional rain gardens
- Grass Swale
- Ditches

Note: All hard copy drawings are to be checked against digital PDFs for consistency.

| Rev | Date | Description | Prod. | Chk. | Rev. | App. |
|---|---|---|---|---|---|---|
| P09 | 23.06.25 | Issued for planning | JL | AS | MH | MH |
| P08 | 28.05.25 | Work in Progress | IDG | AS | MH | MH |
| P07 | 12.05.25 | Issued for planning | IDG | AS | MH | MH |
| P06 | 04.04.25 | Issued for planning | IDG | AS | MH | MH |
| P05 | 15.08.24 | For Information | IDG | AS | MH | MH |
| P04 | 05.08.24 | Updated layout | IDG | AS | MH | MH |
| P03 | 13.03.24 | Preliminary | IDG | AS | MH | MH |
| P02 | 14.12.23 | Preliminary | IDG | AS | BH | BH |
| P01 | 26.10.23 | Preliminary | IDG | AS | BH | BH |

Project:

West of Ifield

Site

Ifield, Crawley
West Sussex

Client

Homes England
Arpley House, 110 Birchwood Boulevard
Birchwood,
Warrington
WA3 7QH

ARCADIS

Registered office:
80 Fenchurch Street
London
EC3M 4BY

Coordinating office:
80 Fenchurch Street
London
EC3M 4BY
Tel: 44 (0)20 7812 2000

www.arcadis.com


Drawing Title:

Phase 1B
Landscape Typologies Plan
Sheet 1 of 2

| | | | |
|---|---|---|---|
| Designed: IDG | Signed: Digitally Signed | Date: 23.06.25 | |
| Produced: IDG | Signed: Digitally Signed | Date: 23.06.25 | |
| Checked: AS | Signed: Digitally Signed | Date: 23.06.25 | |
| Reviewed: MH | Signed: Digitally Signed | Date: 23.06.25 | |
| Approved: MH | Signed: Digitally Signed | Date: 23.06.25 | |
| Design Stage: Detailed Design | | | |
| Original Size: A1 | Grid: OS | Datum: AOD | |
| Suitability Code: A3 | Scale: 1:2000 | Project Number: 10051123 | |

Suitability Description:

Definition Design Stage Complete Authorized and Accepted

Drawing Number: 10051123 - ARC-300 - 1A - DR - LA - 00001

Revision: P09