Proposed Development of 99 Dwellings

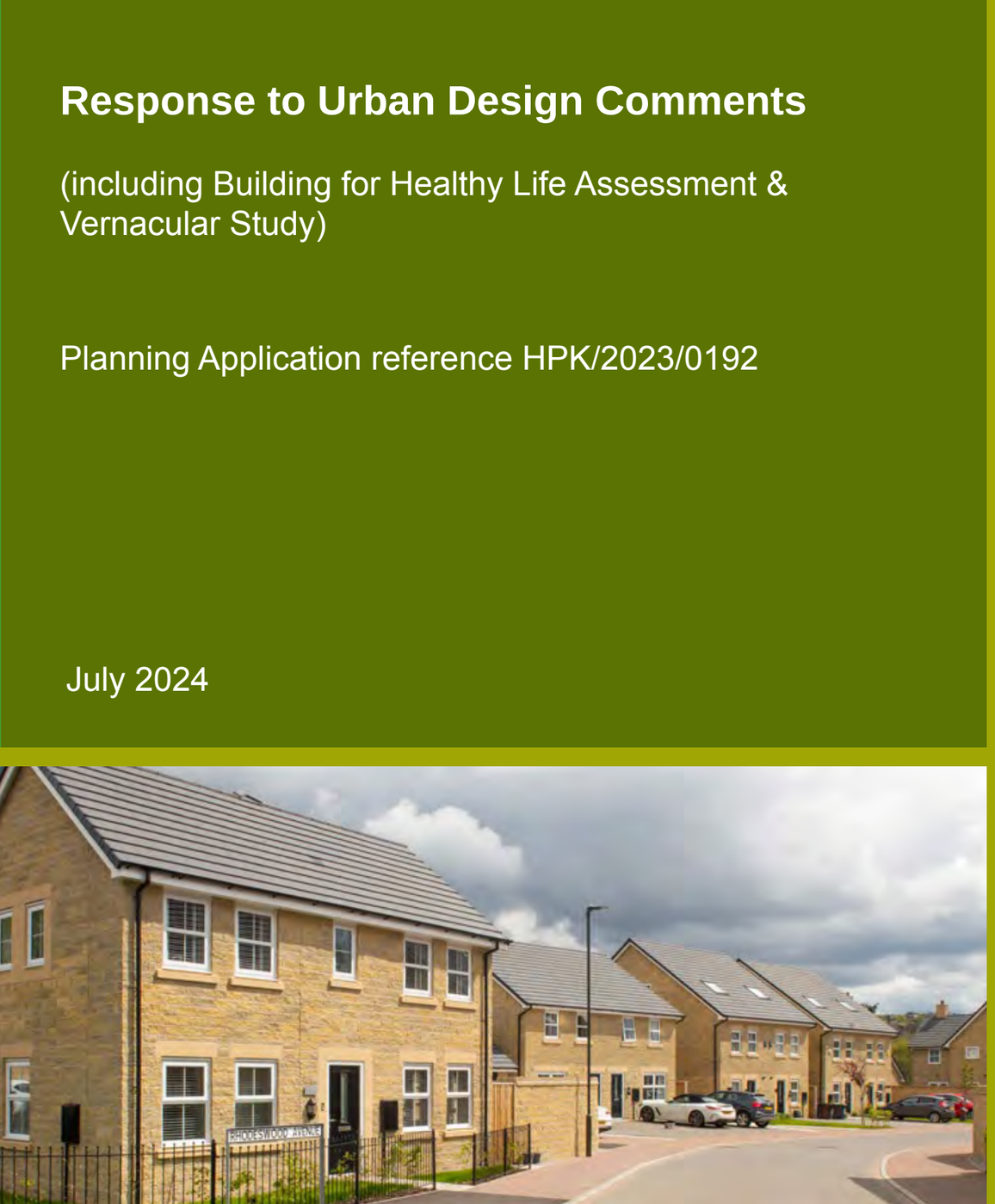
Land at Hogshaw Farm, Fairfield, Buxton

Response to Urban Design Comments

(including Building for Healthy Life Assessment & Vernacular Study)

Planning Application reference HPK/2023/0192

July 2024



BARRATT HOMES

e*SCAPE urbanists

Introduction

This document has been prepared by eSCAPE Urbanists Ltd on behalf of Barratt Homes in respect of a planning application for 99 houses on land at Hogshaw Farm, Fairfield, Buxton (Ref: HPK/2023/0192).

Background

The planing application was submitted to High Peak Borough Council on 15th May 2023.

A number of consultee responses have been received, including comments and feedback from the case officer. These comments have resulted in a number of changes to the scheme which are summarised within this document.

In addition to the consultee comments, the Council appointed Jerry Spencer Associates (JSA) to carry out an urban design and heritage impact assessment in respect of the proposals. The assessment of the urban design quality of the proposal broadly followed the criteria used in the Building for a Healthy Life guidance and made a number of recommendations on how the scheme may be improved.

Purpose

The document provides a response to the urban design assessment carried out by JSA on behalf of the Council. It outlines what changes have been to the scheme in order to address the comments received and provides additional supplementary information and justification for the proposed design response where appropriate.

As with the JSA assessment, our response is structured around the 12 criteria that form the Building for Healthy Life Assessment (BfHL)Toolkit. Under each of the BfHL themes, a summary of JSA's comments is provided followed by our response together with other relevant considerations.

This document also includes (at Appendix A) an extensive photographic study within and around Buxton which identifies local examples of housing (including both new developments and older traditional housing stock) which display a similar character to the house types currently being proposed. Indeed, the proposed house type range has been specifically developed by Barratt and David Wilson Homes for the High Peak area and employs materials and architectural details which reference and complement the local vernacular. This vernacular study responds to comments raised by JSA regarding the character and appearance of the proposed house types and their appropriateness within the settlement context.

Summary of Changes

A number of changes have been made to the submitted layout (ref: 499-P-PL01 - J) which are summarised below. Some these changes are in a direct response to the issues raised in JSA's urban design assessment whilst others relate to comments from other consultees. Some of the changes are a result of technical and sales requirements.

Key changes include:

- Reduction in the number of houses from 116 to 99 in order to retain existing TPO trees, reduce the level of frontage parking and minimise the extent of retaining structures required.
- Revised north-west corner of the site to avoid 30m badger offset.
- Chimneys added to some plots to provide additional references to local vernacular and create more interesting/varied roofscape.
- Repositioning of some plots to reduce the amount of frontage parking.
- Revised Suds design incorporated as per engineering comments and red edge updated to suit.
- Entrance statement added to gateway greenspace.
- Local Area for Play added.
- Repositioning of plots to create strong header buildings.
- Revisions to housing mix to introduce more feature plots/header buildings.
- Revisions to road layout to address LPA comments.
- Changes to the street hierarchy and design including removal of footways from one side of the primary access roads.
- Built form pulled back from site's north-eastern boundary to avoid protected trees.
- Addition of flat roof canopies to all house types to suit CAT2 requirements.
- All garages updated to pitched roof profiles.
- Multi-use footpath added near to the farm to pick up existing FP2.

Design Response & Building for Healthy Life Assessment

Integrated Neighbourhoods

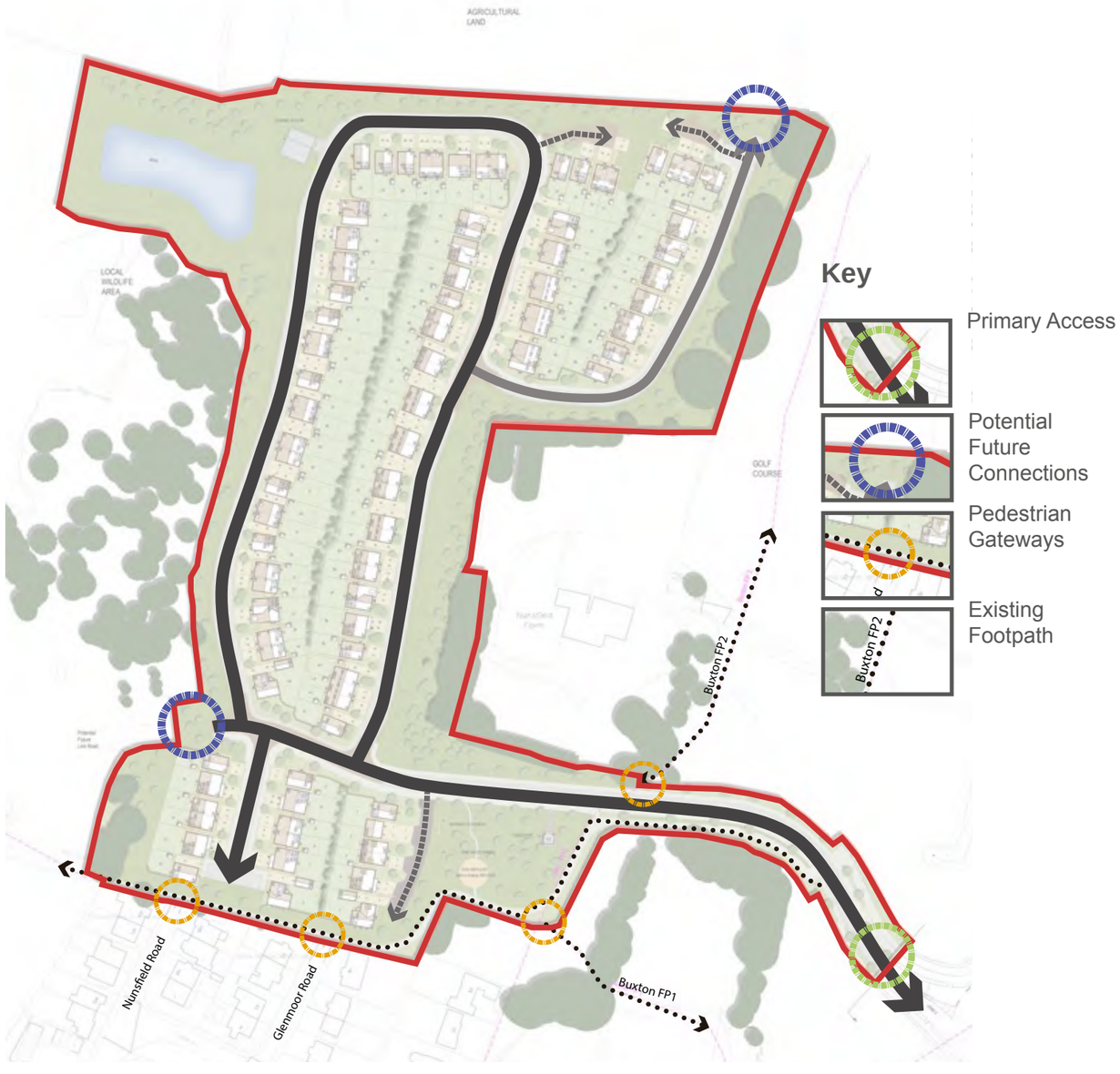
Natural connections

Urban Design Comments (JSA):

- **The existing dry-stone walls around parts of the site perimeter should be retained, repaired and maintained.**
- **The proposed layout retains the one official footpath which runs along the south edge of the site but this is the only pedestrian link proposed with the surrounding area.**
- **The road link entering the site has no proposed or potential exit, as the one road into the site terminates in all directions leaving a ransom strip at all its edges.**

Response/Additional Considerations:

- The existing dry stone wall within the applicant's ownership is to be retained and repaired.
- Pedestrian access into the site is retained via existing footpaths and along footways along the main access road. Buxton FP2 enters the site to the north of the main access road and Buxton FP1 enters the site in the south-east corner. Both routes connect the site to the wider footpath network.
- A footpath connection is proposed onto the existing Public Right of Way along the southern boundary from the play area at the site's south-east corner. Potential also exists for a pedestrian connection from the southern turning head subject to levels.
- Pedestrian access onto Nunsfield Road and Glenmoor Road will be possible from the existing Public Right of Way along the southern boundary.
- A single point of vehicular access into the site is provided off the A6 roundabout. This provides a logical connection into the site which links it directly with the wider neighbourhood. There is no requirement or potential for a second vehicular access into the site.
- Green corridors are retained around the edges of the site that will allow for the movement of wildlife.
- The road layout allows potential for future connections to adjoining land to the west and north off the proposed road network.
- The layout responds to pedestrian and cyclist desire lines with direct north-south and east-west connections along adoptable streets.
- The main access road forms an internal loop through the site creating a highly permeable layout.
- All streets pass in front of people's homes, rather than to the rear, and are well overlooked. Connections through the site will be attractively landscaped with a number of street trees proposed and will be well lit, direct and convenient.



Plan showing proposed connectivity

Integrated Neighbourhoods

Walking, Cycling and Public Transport

Urban Design Comments (JSA):

- **Lack of links/connectivity**
- **There are no proposals to extend public transport into the site, although the circularity of the proposed main roads would allow a bus service to circulate through the area with relative ease.**

Response/Additional Considerations:

- The layout benefits from good accessibility and connectivity with wider movement networks. The proposed access road connects the site with the A6 roundabout which provides direct access into Buxton from the north.
- The site also benefits from links to the existing footpath network (Buxton FP1 and Buxton FP2).
- Existing bus stops along Fairfield Road to the south of the site are within walking distance. The A6 is served with two bus services the 199 and 030 which provide connections to Buxton in the south and Whaley Bridge and Manchester Airport to the north.
- The layout of the development encourages access to local amenities by non-car modes of transport by ensuring direct and convenient pedestrian routes through the site which connect with surrounding streets and public transport routes.
- The layout has been designed to be both legible and permeable in order to encourage walking and cycling for short journeys within the development.
- Cycle parking is provided in secure sheds within private rear gardens.
- All streets and routes pass in front of people's homes rather than to the back of them creating a well overlooked public realm to promote pedestrian safety.

Facilities & Services

Urban Design Comments (JSA):

- **There are no facilities or services proposed on the development other than a small area of open space.**

Response/Additional Considerations:

- Due to the relatively modest scale of development proposed, the provision of additional non-residential uses on the site is not considered feasible or economically viable. Nevertheless, the site does benefit from good access to existing facilities in the local area. The proposed development of 116 new houses will help to support these existing services and facilities by providing additional customers and increased footfall.
- There are a range of existing community facilities within walking or cycling distance of the site including shops, pubs, a church, schools and community centres. Employment opportunities abound towards the town of Buxton located 1km south west of the site. In terms of leisure facilities, the Hogshaw Rec lies to the south of the site with footpath and cycle connections making this a very convenient resource for the future residents. Buxton and High Peak Golf Club lies within walking distance of the site to the east of the A6.
- The nearest primary school is Fairfield Endowed C of E school a kilometre south of the site with easy cycle and pedestrian access. St Annes Catholic Primary and St Thomas More Catholic Academy also lie a kilometre to the south west.
- The nearest supermarket is Waitrose located a kilometre to the south west in Buxton centre.
- The development provides new recreational facilities for use by new and existing residents in the form of a children's play area located close to the site entrance for ease of access and is accessed by direct footpaths.
- Multi-functional public open space within the development is located so that it is easily accessible by all residents and benefits from good surveillance by surrounding homes and streets.
- Generous front gardens and active frontages throughout the development will encourage street activity and inter-action between residents.

Integrated Neighbourhoods

Homes for Everyone

Urban Design Comments (JSA):

- **There appears to be a section of smaller, presumably affordable housing at the south side of the site, separated from the bulk of the site by the access road. The National Design Guide encourages a more mixed distribution.**

Response/Additional Considerations:

- Policy H4 of the High Peak Local Plan (2016) requires the provision of affordable housing and states that where the provision of affordable houses proposed is below the requirements set out, the Council will require applicants to provide evidence by way of a financial appraisal to justify a reduced provision. A viability assessment has been prepared by Roger Hannah to support the application which demonstrates that affordable housing is not viable as part of the development, concluding that the affordable housing on site should be reduced on site to reflect scheme viability.
- The development comprises a broad mix of housing types including semi-detached properties, townhouses, and detached dwellings (see accommodation schedule opposite).
- The housing mix includes a selection of 2, 3 and 4 homes to suit the needs of the local community and to create a socially cohesive and balanced community.
- All homes have access private outdoor space.
- All homes are built to Nationally Described Space Standards (NDSS), with 50% Category1 NDSS and 50% Category 2 NDSS.
- All homes are designed to be flexible to respond to changing needs. This includes flexible floor plans, ample storage space and minimum space standards
- A total of 10 different house types are proposed to encourage a diverse community of residents and providing considerable variation across the site.

SCHEDULE OF ACCOMMODATION

Barratt Type	House Type	Sqft	No	Total Sqft
Private Units				
Rowan - End	2 Bed Terraced House	866	10	8660
Rowan - Mid	2 Bed Terraced House	866	1	866
Oakmoor - End	3 Bed Bed Semi / Mews House Duel Aspect End Unit	1049	1	1049
Birchmoor - End	3 Bed Terraced House	1025	3	3075
Rathlin	3 Bed Detached House	990	11	10890
Matlock - End	3 Bed Semi / Mews House	970	23	22310
Hopton	3 Bed Detached / Semi Detached Dual Aspect House	1017	9	9153
Hopton - End	3 Bed Detached / Semi Detached Dual Aspect House	1017	1	1017
Knightwood - End	4 Bed Townhouse	1122	18	20196
Ashtead	4 Bed Dual Aspect Detached House	1265	4	5060
Wallasea	4 Bedroom Int. Garage Detached House	1206	11	13266
Haweswater	4 Bedroom Int. Garage Detached House	1495	7	10465
Total number of units and square footage			**99**	**106007**
Gross Site Area in Acres				**10.39**
Open Space & Undevelopable Area in Acres				**3.18**
Net Site Area in Acres				**7.21**
Density (Units per Acre)				**14**
Density (Units per Hectare)				**34**
Square Foot / Acre				**14,703**

Accommodation Schedule

Distinctive Places

Making the most of whats there

Urban Design Comments (JSA):

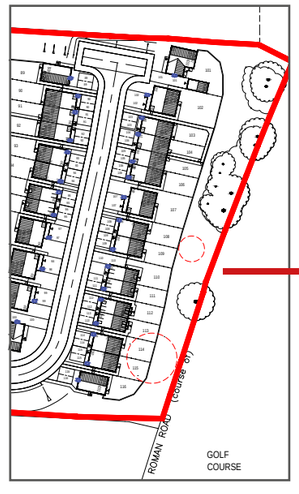
- **The layout takes little account of the lie of the land in order to arrange the roads and houses in such a way as to minimise cut and fill.**
- **The central section of the site which is currently served by two roads could be served instead by a single road.**
- **The road layout runs right alongside the area of emergent woodland at the border of the site. This would introduce a highly urbanising impact on the adjacent woodland in terms of light pollution, noise and traffic.**
- **The opportunity to extend formal pedestrian and cycle routes alongside this pleasant natural area has been lost.**
- **The potential to capitalise on the exceptional views over distant hills and towards Buxton itself by creating a public space within the site at a high vantage point has not been taken.**
- **The opportunity to create recreational pedestrian links with the wider area - both with adjoining streets and with other points of access onto the common has not been taken.**

Houses stepping down the slope

Response/Additional Considerations:

- This is a challenging development site with significant changes in levels. A number of different options were considered for the layout of the site, all of which would require some degree of cut and fill. The proposed site layout achieves an appropriate balance between making efficient use of the land and minimising the extent of cut and fill. Rear gardens will be stepped and retaining walls between adjoining gardens will be used to accommodate level differences whilst avoiding sloping gardens.
- A landscape buffer is proposed along the site's western boundary in order to minimise the urbanising impact of the development on the existing woodland. The nearest houses to the woodland are set back over 20 metres from the site boundary (substantially more in most cases). The proposed road which will run along the western boundary will have a footway along one-side only in order to create a soften transition with the adjoining open space. This will be a relatively low-trafficked route given the number of houses it serves.
- Due to steep level differences, it would not be possible to locate a segregated footpath along the edge of the woodland. Instead, pedestrian access along this boundary is provided for along a 2m wide footway along the roadway which will afford a vantage point for views towards the woodland.
- The development responds to the unique constraints and opportunities presented by the site. At the northern end of the site, the built form has been pulled back from the eastern boundary and highest part of the site to avoid the TPO trees.
- Homes have been orientated to benefit from views of existing natural features including the area of woodland to the west.

The site layout has been revised to provide an increased stand-off and landscape buffer to the existing protected trees along the site's north-eastern boundary



Previous Layout

Current Layout

Distinctive Places

A Memorable character

Urban Design Comments (JSA):

- **The proposed homes are highly similar in design to those in many other parts of the country.**
- **The arrangement of streets and buildings does not accord with the local traditional street massing and rhythm. The developer has attempted to provide a varied street scene by intermingling two and three storey homes of slightly varying design.**
- **An analysis of the traditional street layout in the locality reveals that there is variation in the street scene, but that the massing is restrained in order to develop a strong resulting rhythm. Blocks of housing are grouped together at a single height and street canyons progress in a stepped, often regularly stepped, fashion to punctuate the skyline. The pleasing result is often a varied but unified street scene, rather than an apparently random collection of houses.**

A strong sense of symmetry created by grouping similar house types.

Proposed streetscene showing use of 2.5 storey houses alongside 2 storey houses to create an interesting and varied roofline

Response/Additional Considerations:

- The proposed house type range has been specifically developed for the High Peak area and has been approved for use on other sites in and around Buxton and the High Peak area more widely.
- Reconstituted stone is proposed as the primary facing material for external walls to reflect and compliment the use of natural stone traditionally used on older houses in the area. In additional, grey roof tile has been chosen with a similar appearance to traditional slate.
- Local character is also reflected in the use of stone window and door surrounds, cills and lintels. Chimneys have been added to some house types to further reference local vernacular housing. Elevations display a strong sense of proportion and symmetry which is also in keeping with local character.
- No three storey houses are proposed. The maximum height of buildings will be 2.5 storey with the upper floor living space accommodated within the roof space in order to minimise the overall height and massing of buildings.
- The use of 2.5 storey houses within the streetscene helps to provide a mix of house types and sizes within the development. They have been located them in such a way as to provide a varied streetscene and avoid homogeneous or excessively repetitive rooflines.
- Whilst long runs of terraces would provide a strong sense of rhythm and enclosure to the streetscene, it would result in large amounts of frontage parking which would not be appropriate on this site.
- Symmetry has been created along some sections of street by the arrangement of similar house types (see example opposite).
- An extensive photographic study is presented at **Appendix A** which examines the local built character in and around Buxton. The survey identifies local examples, including both traditional housing stock and new build developments, which have a similar materiality and detailing as the proposed house types. Within this context, it can be seen that the proposed development will be entirely in keeping with local built character. The illustrations over the following pages illustrate the key details and materials of the proposed house types and presents these alongside local examples of similar features.

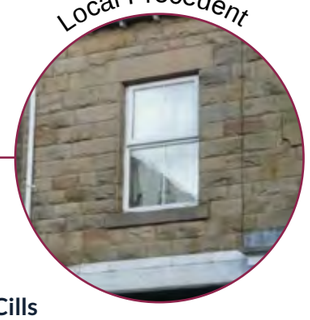
Stone Window Surrounds

Chimneys

Grey Roof Tile

Extended First Floor Canopies

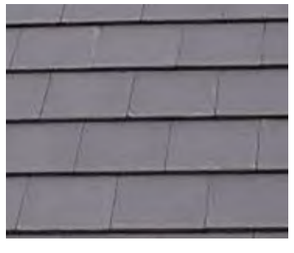
Stone walling



Stone Cills

Pitched Roofs

Edenhall Darlstone Buff Black Split



Russell Grampian Roof Tile (Slate Grey)

Black Rainwater Goods

Projecting stone door surrounds

Flat Roof Canopies

Artsone Window Cills and Heads

Stone Chimneys

Feature Window Surrounds

Local Precedent

Facade Symmetry

Local Precedent

Repeating Pattern of Fenestration

Local Precedent

Stone Door Surrounds

Local Precedent

Gable Fronts

Local Precedent

Well Proportioned Facades with good sized window openings to the street

Distinctive Places

Well defined streets and spaces

Urban Design Comments (JSA):

- **The street design does not provide any breaks in the building line which might create a better sense of containment, but instead allows the view to ebb away along very long roads.**
- **The natural lie of the land will provide some sense of enclosure, by limiting long views, but the overall impression would still be of enervating lengths of monotonous street frontage punctuated only by the varying shapes and sizes of front parked vehicles.**
- **Repetitive use of a corner house design not employed as a device to terminate long views, has limited impact on the street scene.**
- **No locations exist where a strong built form terminates the linear view. Long views from the north looking south along the two main roads would be terminated by perimeter fencing, perhaps mitigated by some semi-public planted strips.**
- **The link between the three roads in the north of the site would appear to be fringed by side garden fencing.**
- **Street trees could greatly enhance all of the streets but there are very few proposed here.**

Response/Additional Considerations:

- Additional side drives have been introduced across the site to reduce frontage parking, provide greater separation between houses and provide increased breaks in the built form whilst still maintaining a strong sense of enclosure to streets.
- Proposed boundary treatments to the front of houses will provide additional enclosure to streets.
- The layout has been revised to provide better termination of key vistas by header buildings (see plan opposite). The main view south along the primary access road (eastern side) is terminated by an area of landscaping which will help to screen and soften the appearance of the side boundary walls.
- Four corner turning house types are proposed (The Montrose, Oakmoor, Hopton and the Ashtead). Each house type has been designed to provide attractive frontage and window openings onto both streets.
- Streets are well overlooked by the principal elevations of the properties which enclose them, with front doors accessing the streetscape via front gardens. Blank walls onto the street are avoided where possible. Buildings are positioned close to the street with small setbacks to allow for frontage parking.
- An urban block structure is proposed, providing good security to private rear gardens.
- Trees are provided in front gardens and areas of open space along the primary access roads which will contribute to creating attractive streetscenes.
- Clear delineation is achieved between public and private space with careful space planning helping to avoid areas of ‘leftover’ space.

Plan showing use of header buildings to terminate vistas along primary streets

Typical Corner Turning House Type

Distinctive Places

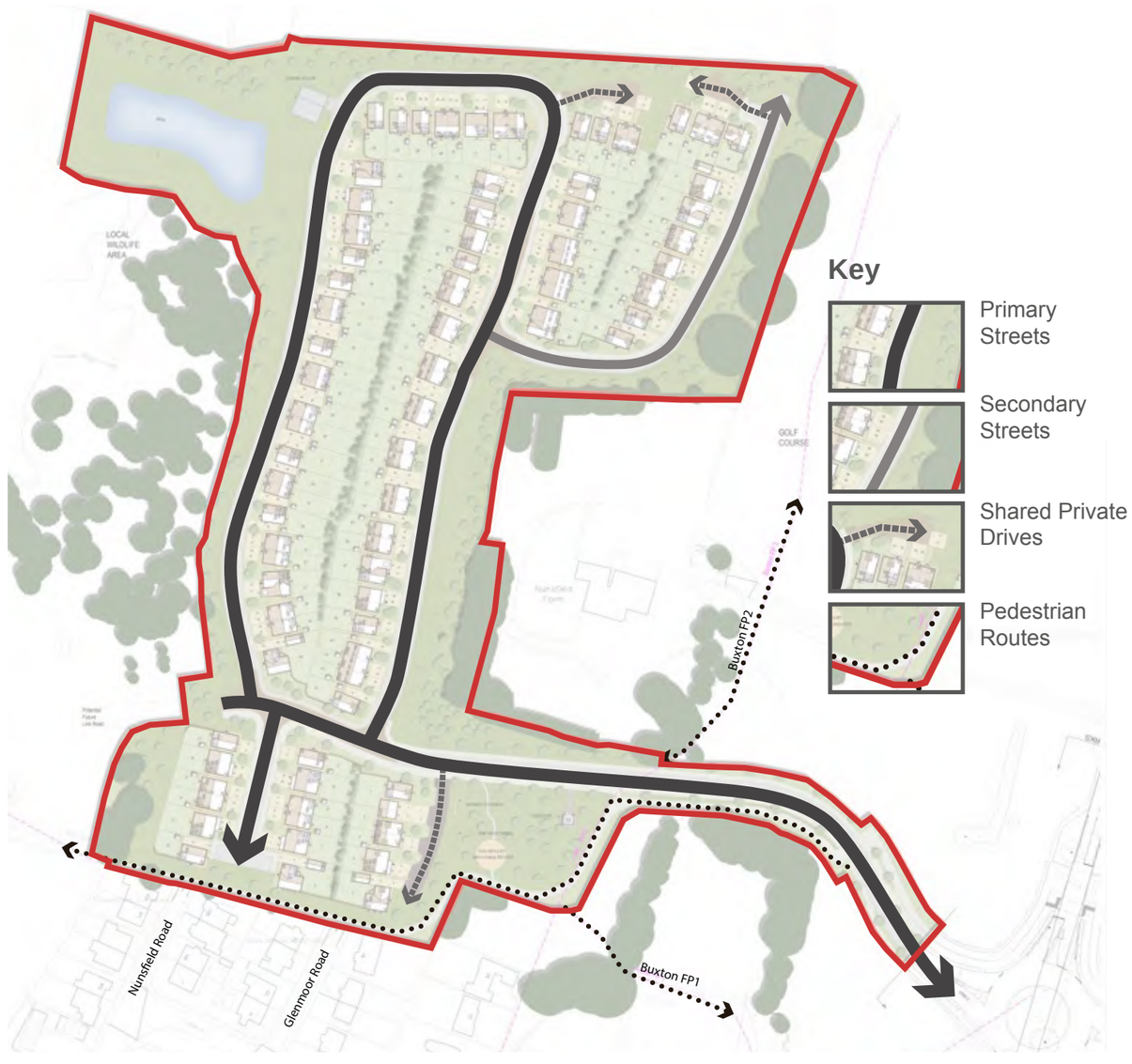
Easy to find your way around

Urban Design Comments (JSA):

- **The guidance suggests that streets ought to be designed differently from each other in order to foster an understanding of the hierarchy of the route network.**
- **The two main roads are identical in design in terms of width, pavements and turning heads.**

Response/Additional Considerations:

- The proposed street hierarchy is illustrated opposite and incorporates differentiation between the different routes. For example, primary access roads will be designed with a 5.5m wide carriageway and 2m wide pavements along one or both sides. In contrast, secondary streets will have a narrower carriageway of 5m with pavements along both sides. An additional layer in the hierarchy is introduced in the form of shared private drives serving small numbers of houses.
- Orientation around the site is aided by the strong landscape and public realm features including a number of retained mature trees, green buffers and areas of open space.
- Views out of the site are retained to the adjoining woodland, surrounding houses to the south and open countryside to the north, aiding orientation within the site.
- Header buildings create landmarks and terminate vistas through the development to aid wayfinding.
- Clear sight-lines are maintained to existing pedestrian routes to ensure these feel safe and convenient to use.
- Straight sections of street will permit longer views through the development to further aid legibility.



Proposed Street Hierarchy

Streets for All

Healthy Streets

Urban Design Comments (JSA):

- **There is no need to design both main streets to an identical car and refuse vehicle dominated design.**
- **National guidance specifically counters against this approach. The westernmost road adjoins the attractive wooded open space and the opportunity exists but has not been taken, to make this an attractive new pedestrian and cycle friendly route, albeit with vehicular access.**

Response/Additional Considerations:

- Due to steep level differences, it would not be possible to locate a segregated footpath along the edge of the woodland. Instead, pedestrian access along this boundary is provided for along a 2m wide footway along the roadway which will still afford a vantage point for views towards the woodland.
- The primary streets are designed to form an internal loop/spine road through the development and therefore it makes sense that they are designed to a similar specification. Both routes have been designed with a footway along one side only to help provide a softer transition with the adjoining areas of open space and woodland edge.
- Variety has been introduced into the street hierarchy in the form of a series of secondary routes which are distinguished by a narrower carriageway. Secondary routes also serve smaller numbers of houses.
- Streets will have active edges with direct plot access, good surveillance by adjoining houses, front doors and habitable room windows facing the street.
- Attractively landscaped front gardens and boundary treatments will add sensory richness to streets.
- The secondary street at the northern end of the site serves a small number of houses than the primary routes and will be lightly trafficked.

Proposed Street Hierarchy

Streets for All

Cycle and Car Parking

Urban Design Comments (JSA):

- **The streets are far too dominated by repetitive frontage parking and national guidance is clear on the need for more variety in the distribution of parking.**

Response/Additional Considerations:

- A balanced approach is adopted to parking which includes a range of solutions including side parking (on private driveways and garages), frontage parking, integral garages and on-street parking.
- Long rows of frontage parking along the street have been avoided where possible. Typically, rows of frontage parking bays are kept to a maximum of four spaces before an area of landscaping is introduced between adjacent bays to help soften the visual impact of parked vehicles.
- Cycle storage is provided for in secure garden sheds located within private rear gardens.
- Streets and pedestrian routes will be designed for safety and security with good lighting and benefiting from active surveillance by adjacent houses.
- Private garages are set behind building lines to reduce their visual dominance along the street.
- Visitor parking is provided on-street and on private drives.
- Integral garages are designed as singles to avoid dominating the front elevation

Soft landscaping and tree planting has been introduced between parking bays to reduce the visual impact of parked cars along the street

Use of side drives to reduce the amount of frontage parking

Streets for All

Green and Blue infrastructure

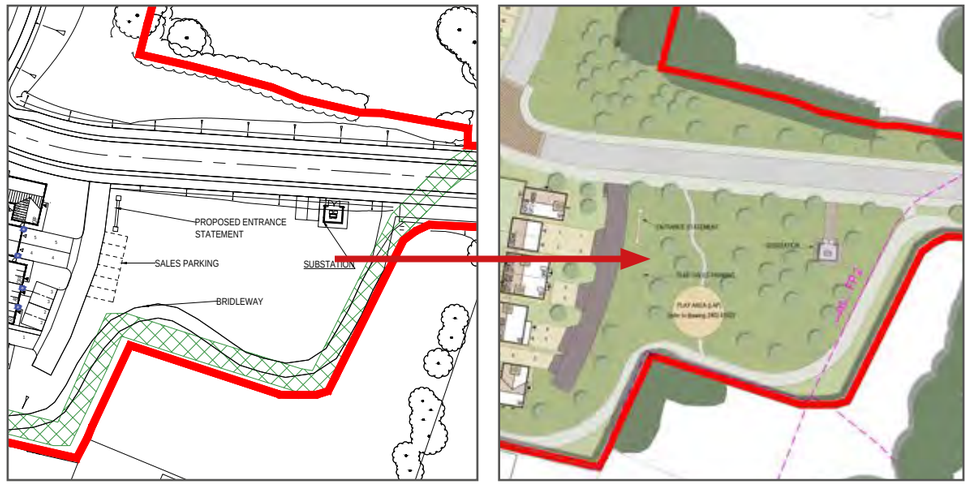
Urban Design Comments (JSA):

- **No provision of open space for recreational purposes.**
- **The provision of an area at the site entrance is poorly enclosed and poorly overlooked by surrounding homes and does not feel part of the new community.**
- **The other area of space would be a narrow strip of land above a steep drop down the excavated hillside along the eastern edge of the site. There appears to be no intention to create a footpath along this edge.**

Response/Additional Considerations:

- The layout includes a large area of public open space located at the entrance into the site which will create an attractive green gateway. The space is located on higher ground and will provide a vantage point for longer distance views across the site and wider landscape. Its location at the site entrance and close to the existing Public Right of Way also maximises its accessibility to existing and future residents.
- The layout has been amended and now shows a children's play area located within the gateway open space.
- The proposed sub station has been relocated and positioned further back from the access road to reduce its visibility and enhance opportunities for screening with soft landscaping.
- The gateway space is overlooked and enclosed by a row of 5 houses along its western edge. Footpaths are provided through the open space which connect with the existing footpath along the site's southern boundary.
- Additional areas of open space are provided throughout the site in the form of landscape buffers around the site edges. Whilst some of these areas will be affected by steep changes in levels, other parts will be publicly accessible and usable open space. This includes a large area of space to the north of the access road.
- Sustainable Urban drainage systems are embedded within the design of the scheme and include a naturalistic attenuation basin located in the north-west corner of the site, set within the development's open space.
- The layout ensures areas of public open space benefit from good surveillance by nearby houses.

Gateway Open Space



Previous Layout

Current Layout

Streets for All

Back of pavement, front of home

Urban Design Comments (JSA):

- **The layout works well. The house frontages all face the street and there are no roads or spaces that are completely un-overlooked.**

Response/Additional Considerations:

- The definition of public and private spaces is delivered through the use of urban blocks, the use of corner turning house types, as well as the use of boundary treatments such as hedgerows. Areas of public open space will be well defined by the adjoining streets vertical markers such as railings, walls or planting.
- Clear delineation is achieved between public and private space with careful space planning helping to avoid areas of ‘leftover’ space.
- Utility boxes will be discretely located and will be painted to match the house elevations or located on secondary elevations where possible.
- Waste storage will be provided for in private rear gardens with a direct path to the street. Collection points will be provided in appropriate locations along the managed drives and lanes.
- A minimum setback of 2m is provided between pavement and front of house (with most plots having increased setbacks) creating an areas of defensible space that delineates between public and private land and provides opportunities for personalising front gardens.

All streets within the development benefit from active surveillance by surrounding houses.

Appendix A:

Local Vernacular Photo Study

New Build Developments

Local Precedent: Heathfield Nook (Barratt Homes)

Local Precedent: Highpeak Meadow (Barratt Homes)

Local Precedent: Otterhole Close (Taylor Wimpey)

New Build Developments

Local Precedent: College Hill Park (Persimmon)

Local Precedent: Hogshaw Drive

Local Precedent: Carr Road

Traditional Housing

Local Precedent: Barn Edge Road

Local Precedent: Market Street & South Avenue

Local Precedent: Rockfield Road

Traditional Housing

Local Precedent: Bennett Street

Local Precedent: London Road

Local Precedent: Torr Street

Noise Impact Assessment

Hogshaw Farm, Buxton

Reference: 50-697-R1-6

Date: June 2024

NOISE IMPACT ASSESSMENT

Hogshaw Farm,
Buxton

Prepared for:

Barratt Homes Manchester

Report Ref: 50-697-R1-6
Date Issued: 25th June 2024

E3P

Taylor Road
Trafford Road
Urmston
Manchester
M41 7JQ

+ 44 (0) 161 707 9612
https://e3p.co.uk

Registered in England
CRN: 807255262

QUALITY ASSURANCE

PROJECT NUMBER	50-697		
VERSION	Version 1	Version 5	Version 6
REMARKS	Initial version for review	Final	Final
DATE	22nd September 2022	13th February 2024	25th June 2024
PREPARED BY	M Bailey	M Bailey	M Bailey
QUALIFICATIONS	BEng (Hons), AMIOA	BEng (Hons), AMIOA	BEng (Hons), AMIOA
POSITION	Graduate Consultant	Consultant	Consultant
CHECKED BY	S Boughton	S Boughton	S Boughton
QUALIFICATIONS	BEng (Hons), AMIOA	BEng (Hons), MIOA	BEng (Hons), MIOA
POSITION	Consultant	Senior Consultant	Senior Consultant
AUTHORISED BY	L Faulkner	L Faulkner	L Faulkner
QUALIFICATIONS	BSc (Hons), PGDip, MIOA	BSc (Hons), PGDip, MIOA	BSc (Hons), PGDip, MIOA
POSITION	Associate Director	Associate Director	Associate Director

EXECUTIVE SUMMARY

BACKGROUND

Site Address	Hogshaw Farm, Buxton, SK17 7BW
National Grid Reference	E 406591, N 374420
Proposed Development	Proposed residential development comprising 99 residential units consisting of detached, semi-detached and attached dwellings along with access and landscaping.
Report Objectives	The objectives of this report are to: • Identify, measure and assess the potential impact of any existing noise sources in the immediate vicinity of the Site upon proposed residential receptors. The report follows current and relevant British Standards in order to provide a robust assessment.

ASSESSMENT

Surveys Completed	A full 24-hour rail traffic noise survey has been undertaken along the western boundary during a typical weekday period. This provided the daytime and night-time average noise levels. Source measurements of idling trains on the railway sidings have been taken and extracted from the 24 hour survey. This gives consideration to the consented Buxton Sidings. Attended and unattended road traffic sound measurements have been undertaken for the A6 during a typical weekday period in accordance with Calculation of Road Traffic Noise.
Assessments	A 3D noise model has been constructed to assess rail and road traffic noise impact at ground and first floor levels as well as within private amenity gardens. Road and rail traffic sound is assessed in accordance with the criterion, for day and night, given in BS 8233:2014+A1:2019 for gardens and internal habitable rooms.
Mitigation Requirements	Given the outcome of the assessment, no mitigation measures are required assuming a Part F compliant whole dwelling ventilation system is installed. Standard glazing is sufficient across the site.

CONCLUSIONS

This assessment has shown that no adverse impact is predicted day or night at the receptors due to existing sound sources.

As such, noise need not be a material consideration in the granting of planning permission if the recommendations of this report are followed and included within the design stage.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2
Background 2
Assessment 2
Conclusions 2

1. INTRODUCTION 4
1.1. Background 4
1.2. Proposed Development 4
1.3. Limitations 4

2. ASSESSMENT METHODOLOGY 5
2.1. National Planning Policy Framework 5
2.2. National Planning Practice Guidance 5
2.3. Building Regulations: Approved Document F - Volume 1: Dwellings (June 2022) 7
2.4. Building Regulations: Approved Document O – Overheating (June 2022) 8
2.5. British Standard BS 8233:2014 – Guidance on Sound Insulation and Noise Reduction for Buildings 9
Noise Criteria Limits 9
Ventilation Requirements 9
2.5.1. 2.6. World Health Organisation (WHO) – Guidelines for Community Noise 10
2.5.2.

3. SURVEY RESULTS 11
3.1. Rail Traffic Sound Measurement 11
3.2. Road Traffic Sound Measurement – A6 13

4. NOISE IMPACT ASSESSMENT 15
4.1. External Amenity Area Noise Level Assessment 15
4.2.1. 4.2. Internal Noise Level Assessment 15
4.2.2. Ventilation Condition 16
Overheating Condition 16

5. CONCLUSION AND RECOMMENDATIONS 17

APPENDIX I GLOSSARY OF ACOUSTIC TERMINOLOGY 18

APPENDIX II FIGURES 21

1. INTRODUCTION

1.1. BACKGROUND

E3P were commissioned by Barratt Homes Manchester to undertake a Noise Impact Assessment for a proposed residential development at Hogshaw Farm, Buxton, to be referred to hereafter as '*the site*'.

This assessment looks to determine the key noise sources in the immediate vicinity of the site and to assess their impact, if any, upon proposed residential receptors and to specify mitigation measures, where required.

1.2. PROPOSED DEVELOPMENT

The developer intends to develop the site for residential use with 99 residential units consisting of detached, semi-detached and attached dwellings along with access and associated landscaping.

The key sources of sound impacting upon the site are rail traffic sound associated with the railway line along the western boundary and road traffic sound associated with the A6 to the east.

This assessment has been undertaken in accordance with the following supplied drawings:

- Planning Layout (H8797-BAH-XX-XX-DR-UD-203001 Rev 2).

The layout is shown in Figure 1 of Appendix II.

1.3. LIMITATIONS

Where a noise or vibration survey is required to inform an assessment, E3P will endeavour to ensure that all noise and vibration measurements taken are robust, representative and reliable in order to inform an accurate assessment.

Where mitigation measures are specified in this report, it should be noted that these measures are relative to a specific sound or vibration source, both in terms of the measured sound pressure and vibration level and the character of the sound source. Where either the sound pressure level or the character of the sound varies following completion of the sound survey, E3P cannot be held responsible for any subsequent variations in the proposed mitigation performance.

2. ASSESSMENT METHODOLOGY

2.1. NATIONAL PLANNING POLICY FRAMEWORK

Planning policies and decisions should ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- Mitigate and reduce to a minimum potential adverse impact resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life.
- Identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and
- Limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

2.2. NATIONAL PLANNING PRACTICE GUIDANCE

Noise needs to be considered when new developments may create additional noise and when new developments would be sensitive to the prevailing acoustic environment. When preparing local or neighbourhood plans, or taking decisions about new development, there may also be opportunities to consider improvements to the acoustic environment.

Local planning authorities' plan-making and decision-making should take account of the acoustic environment and in doing so consider:

- Whether or not a significant adverse effect is occurring or is likely to occur.
- Whether or not an adverse effect is occurring or is likely to occur.
- Whether or not a good standard of amenity can be achieved.

In line with the explanatory note of the NPSE, this would include identifying whether the overall effect of the noise exposure (including the impact during the construction phase, where applicable) is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation.

The "observed effect levels" are as follows:

- **Significant observed adverse effect level:** This is the level of noise exposure above which significant adverse effects on health and quality of life occur.
- **Lowest observed adverse effect level:** This is the level of noise exposure above which adverse effects on health and quality of life can be detected.
- **No observed effect level:** This is the level of noise exposure below which no effect at all on health or quality of life can be detected.

Table 2.1 summarises the noise exposure hierarchy, based on the likely average response.

TABLE 2.1 NOISE EXPOSURE HIERARCHY

PERCEPTION	EXAMPLES OF OUTCOMES	INCREASING EFFECT LEVEL	ACTION
Not Noticeable	No effect.	No observed effect	No specific measures required
Noticeable and Not Intrusive	Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No observed adverse effect	No specific measures required
Lowest Observed Adverse Effect Level			
Noticeable and Intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television, speaking more loudly, or having to close windows for some of the time because of the noise where there is no alternative ventilation. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed adverse effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Noticeable and Disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion, having to keep windows closed most of the time because of the noise where there is no alternative ventilation. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant observed effect	Avoid
Noticeable and Very Disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening, loss of appetite, significant/medically definable harm (auditory and non-auditory).	Unacceptable adverse effect	Prevent

The subjective nature of noise means that there is not a simple relationship between noise levels and the impact on those affected. This will depend on how various factors combine in any situation.

These factors include the following:

- The source and absolute level of the noise together with the time of day it occurs. Some types and level of noise will cause a greater adverse effect at night than if they occurred during the day. The adverse effect can also be greater simply because there is less background noise at night.
- For non-continuous sources of noise, the number of noise events, and the frequency and pattern of occurrence of the noise can be important.
- The spectral content of the noise and the general character of the noise. The local topology and topography should also be considered along with the existing and, where appropriate, the planned character of the area.

More specific factors to consider when relevant:

- Where applicable, the cumulative impacts of more than one source should be considered along with the extent to which the source of noise is intermittent and of limited duration.
- Consideration should also be given to whether adverse internal effects can be completely removed by closing windows and, in the case of new residential development, if the proposed mitigation relies on windows being kept closed most of the time. In both cases, a suitable alternative means of ventilation is likely to be necessary.
- If external amenity spaces are an intrinsic part of the overall design, then the acoustic environment of those spaces should be considered so that they can be enjoyed as intended.

2.3. BUILDING REGULATIONS: APPROVED DOCUMENT F - VOLUME 1: DWELLINGS (JUNE 2022)

Approved document F Volume 1: Dwellings (ADF) provides guidance set by the Department for Levelling Up, Housing and Communities, that relates to means of ventilation within dwellings. The ventilation strategy specified within the ADF are as follows.

> *1.9 The ventilation strategy in this approved document relies on a combination of all of the following.*
>
> *a. Extract ventilation from rooms where water vapour or pollutants are likely to be released (e.g. bathrooms and kitchens), to minimise their spread to the rest of the building. Ventilation fans may be either intermittent operation or continuous operation.*
>
> *b. Whole dwelling ventilation to provide fresh air to the building and to dilute, disperse and remove water vapour and pollutants not removed by extract ventilation.*
>
> *c. Purge ventilation to remove high concentrations of pollutants and water vapour. Purge ventilation is used intermittently and required only for pollutants produced by occasional activities (e.g. fumes from painting).*
>
> *1.10 Ventilation may be delivered through natural ventilation, mechanical ventilation or a combination of both.*

> *1.11 The ventilation systems in this approved document are examples of systems that comply with Part F of the Building Regulations. Other ventilation systems may be acceptable if they can be shown to meet an equal level of performance.*

Within the ADF there are three system specific ventilation systems that can be utilised to provide sufficient ventilation. These methods are as follow.

1. ***Natural ventilation with background ventilators and intermittent extract fans*** *(guidance suitable only for less airtight dwellings) - Ventilation provided by thermal, wind or diffusion effects through doors, windows or other intentional openings without the use of mechanically driven equipment. For the purposes of this approved document, natural ventilation refers to a ventilation strategy using background ventilators and intermittent extract ventilation.*

2. ***Continuous mechanical extract ventilation*** *- Mechanically driven ventilation that continuously extracts indoor air and discharges it to the outside.*

3. ***Mechanical ventilation with heat recovery -*** *A mechanically driven ventilation system that both continuously supplies outdoor air to the inside of the dwelling and continuously extracts indoor air and discharges it to the outside. For the purposes of this approved document, the guidance for mechanical ventilation with heat recovery applies to centralised or decentralised supply and extract systems, with or without heat recovery.*

2.4. BUILDING REGULATIONS: APPROVED DOCUMENT O – OVERHEATING (JUNE 2022)

Approved document O - Overheating (ADO) provides guidance set by the Department for Levelling Up, Housing and Communities, that relates to the mitigation of overheating. In relation to noise the ADO provides the following guidance.

> *3.2 In locations where external noise may be an issue (for example, where the local planning authority considered external noise to be an issue at the planning stage), the overheating mitigation strategy should take account of the likelihood that windows will be closed during sleeping hours (11pm to 7am).*
>
> *3.3 Windows are likely to be closed during sleeping hours if noise within bedrooms exceeds the following limits.*
>
> *a. 40dB $L_{Aeq,T,}$ averaged over 8 hours (between 11pm and 7am).*
> *b. 55dB $L_{AFmax,}$ more than 10 times a night (between 11pm and 7am).*
>
> *3.4 Where in-situ noise measurements are used as evidence that these limits are not exceeded, measurements should be taken in accordance with the Association of Noise Consultants'*
>
> *Measurement of Sound Levels in Buildings with the overheating mitigation strategy in use.*
>
> *NOTE: Guidance on reducing the passage of external noise into buildings can be found in the National Model Design Code: Part 2 – Guidance Notes (MHCLG, 2021) and the Association of Noise Consultants' Acoustics, Ventilation and Overheating: Residential Design Guide (2020)*

2.5. BRITISH STANDARD BS 8233:2014 – GUIDANCE ON SOUND INSULATION AND NOISE REDUCTION FOR BUILDINGS

NOISE CRITERIA LIMITS

2.5.1. The scope of this standard is the provision of recommendations for the control of noise in and around buildings including residential dwellings. It suggests appropriate criteria and limits for different situations, which are primarily intended to guide the design of new buildings or refurbished buildings undergoing a change of use, rather than to assess the effect of changes in the external noise climate.

The standard suggests suitable internal noise levels within different types of buildings, including residential dwellings, as shown in Table 2.2.

TABLE 2.2 BS 8233:2014 RECOMMENDED INTERNAL NOISE LEVELS

CRITERION	TYPICAL SITUATION	DESIGN CRITERION, $L_{Aeq,T}$ (dB)
Suitable Resting and Sleeping Conditions	Living Room	35
	Bedroom	30

BS 8233 goes on to recommend noise levels for gardens:

> *It is desirable that the external noise level does not exceed 50 dB $L_{Aeq,T}$, with an upper guideline value of 55 dB $L_{Aeq,T}$ which would be acceptable in noisier environments. However, it is also recognised that these guideline values are not achievable in all circumstances where development might be desirable. In higher noise areas, such as city centres or urban areas adjoining the strategic transport network, a compromise between elevated noise levels and other factors might be warranted.*

BS 8233 goes on to say:

2.5.2. > *In such a situation, development should be designed to achieve the lowest practicable levels in these external amenity spaces but should not be prohibited.*

VENTILATION REQUIREMENTS

Where a partially open window cannot be relied upon to provide an adequate level of façade sound insulation performance, it is necessary to consider alternative ventilation for habitable rooms. Section 8.4.5.4 within BS 8233 states:

> *The Building Regulations' supporting documents on ventilation [48, 49, 50] recommend that habitable rooms in dwellings have background ventilation. Where openable windows cannot be relied upon for this ventilation, trickle ventilators can be used and sound attenuating types are available. However, windows may remain openable for rapid or purge ventilation, or at the occupant's choice.*
>
> *Alternatively, acoustic ventilation units (see 7.7.2 below) are available for insertion in external walls. These can provide sound reduction comparable with double glazed windows. However, ducted systems with intakes on the quiet side of the building might be required in very noisy situations, or where appearance rules out through-the-wall fans.*

Section 7.7.2 states:

> *NOTE 5 If relying on closed windows to meet the guide values, there needs to be an appropriate alternative ventilation that does not compromise the façade insulation or the resulting noise level.*

2.6. WORLD HEALTH ORGANISATION (WHO) – GUIDELINES FOR COMMUNITY NOISE

The WHO gives guidance on desirable levels of environmental noise. The levels presented in the WHO Community Guidelines are those at which adverse effects become measurable. The 1980 WHO document suggested that *"general daytime outdoor noise levels of less than 55 dB(A) $L_{eq,16hr}$ are desirable to prevent any significant community annoyance."* This level is an external free-field noise level. The 1980 document also stated in relation to internal levels, *"that night-time noise levels of 35 dB(A) $L_{eq,8hr}$ or less will not interfere with the restorative process of sleep"*.

A report was submitted to the WHO in 1995 for consideration as a revision to the 1980 document and revised community guidelines were issued in 2000. In the 2000 guidelines, it is considered that the sleep disturbance criteria should be taken as an internal noise level of 30 dB $L_{Aeq,8\ hr}$ or an external level of 45 dB $L_{Aeq,8\ hr}$. It also recommends that internal L_{Amax} levels of 45 dB and external L_{Amax} levels of 60 dB should be limited where possible.

3. SURVEY RESULTS

The measurement positions are detailed in Figure 1 of Appendix II.

3.1. RAIL TRAFFIC SOUND MEASUREMENT

E3P has conducted a Rail Traffic Noise Survey to measure the level of noise generated by locomotives along the railway line. The survey was carried out over the following time periods in accordance with Calculation of Rail Noise (CRN):

- 13:00 Wednesday 14th September to 13:00 Thursday 15th September 2022.

The following noise measurement position was chosen for the Rail Traffic Noise Survey:

- Noise Measurement Position 1 (NMP1): Located approximately 50m from the nearside rail of the main line and 3m from the nearside rail of the railway sidings, on the western boundary of the Site. The microphone was located at a height of 1.5 m above ground level and in free-field conditions. The sound climate was dominated by occasional rail traffic from the main line and also idling trains using the railway sidings.

A summary of the measured sound pressure levels from the Rail Traffic Noise Survey are presented in Table 3.1.

TABLE 3.1 SUMMARY OF MEASURED NOISE LEVELS FOR NMP1 – RAILWAY LINE

MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVELS (dB)	
	$L_{Aeq,T}$	10th Highest $L_{Amax,fast}$
13:00 – 14:00	56.6	N/A
14:00 – 15:00	51.0	
15:00 – 16:00	48.3	
16:00 – 17:00	56.8	
17:00 – 18:00	45.1	
18:00 – 19:00	55.2	
19:00 – 20:00	47.6	
20:00 – 21:00	61.5	
21:00 – 22:00	57.1	
22:00 – 23:00	44.3	
23:00 – 00:00	47.0	73.9
00:00 – 01:00	52.8	
01:00 – 02:00	30.3	
02:00 – 03:00	56.0	
03:00 – 04:00	53.4	
04:00 – 05:00	53.4	
05:00 – 06:00	37.6	
06:00 – 07:00	51.7	
07:00 – 08:00	48.5	N/A
08:00 – 09:00	45.6	
09:00 – 10:00	41.9	
10:00 – 11:00	51.8	
11:00 – 12:00	42.9	
12:00 – 13:00	48.7	
Average Daytime $L_{Aeq,16\ hour}$		**54.0**
Average Night-time $L_{Aeq,8\ hour}$		**51.9**

Source measurements of the railway sidings during operation have been extracted from the 24-hour railway sound survey. Worst case measurement levels can be seen below:

- Source measurement of train arrival, idling engine and train departure. The worst-case measurement was captured between 20:39 and 20:49 at 5 m distance and had a level of 68.9 dB $L_{Aeq,10\text{-}min}$.

3.2. ROAD TRAFFIC SOUND MEASUREMENT – A6

E3P have undertaken a road traffic sound survey over a full 24-hour period in accordance with procedure given in Calculation of Road Traffic Noise (CRTN) during a typical weekday period. The survey was undertaken during the following period:

- 12:00 Wednesday 14th September to 12:00 Thursday 15th September 2022.

The following noise measurement position was chosen for the Road Traffic Noise Survey:

- Noise Measurement Position 2 (NMP2): Located along the eastern boundary of the site approximately 156 m from the roadside edge. The microphone was located at a height of 1.5 m above ground level and in free-field conditions. Sound sources consisted of road traffic along the A6.

Due to cattle on the site, the microphone of the sound level meter was disturbed at 8am on the 15th of September and therefore only the 8-hour night-time levels have been used in conjunction with an accompanying attended road traffic sound survey.

TABLE 3.2 UNATTENDED NIGHT-TIME ROAD TRAFFIC SOUND LEVELS – A6

MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVELS (dB)	
	$L_{Aeq,T}$	10th Highest $L_{Amax,fast}$
23:00 – 00:00	42.8	64.6
00:00 – 01:00	43.5	
01:00 – 02:00	40.2	
02:00 – 03:00	42.4	
03:00 – 04:00	41.2	
04:00 – 05:00	43.0	
05:00 – 06:00	49.7	
06:00 – 07:00	49.5	
Average Night-time $L_{Aeq,8\ hour}$		**45.5**

E3P have undertaken a road traffic sound survey in accordance with the shortened measurement procedure given in CRTN during a typical weekday period, to capture daytime noise levels. The survey was undertaken during the following period:

- 13:44-16:44 Thursday 15th September 2022.

The following noise measurement position was chosen for the Road Traffic Noise Survey:

- Noise Measurement Position 3 (NMP3): Located along the A6 to the east of the site approximately 10 m from the roadside edge. The microphone was located at a height of 1.5 m above ground level and in free-field conditions. Sound sources consisted of road traffic along the A6.

Table 3.3 details the measured sound pressure levels.

TABLE 3.3 ATTENDED DAYTIME ROAD TRAFFIC SOUND LEVELS – A6

MEASUREMENT START TIME	MEASURED SOUND PRESSURE LEVELS (dB)			
	$L_{Aeq,T}$	10th Highest $L_{Amax,fast}$	$L_{A90,T}$	$L_{A10,T}$
13:44	68.0	79.8	55.5	71.3
14:44	66.8		54.5	70.1
15:44	67.2		56.2	70.8
Derived Daytime Noise Level, $L_{Aeq,16hr}$				**67.7**

Derived daytime noise levels are higher for the daytime period when compared to the average measured noise levels during the daytime period captured at NMP2. As such this can be considered worst case and will be used for the assessment.

During the survey, conditions remained dry and wind speeds rarely exceeded 5 m/s.

TABLE 3.4 NOISE MEASUREMENT EQUIPMENT AND CALIBRATION DATES

MEASUREMENT POSITION	EQUIPMENT DESCRIPTION	MANUFACTURER & TYPE NUMBER	SERIAL NUMBER	CALIBRATION DUE DATE AT TIME OF SURVEY
NMP2	Sound Level Meter	01dB Fusion	14616	29/06/2024
	Pre-amplifier	01dB Pre22	20951	
	Microphone	GRAS 40CD	494264	
	Calibrator	Cirrus CR 515	99206	29/06/2023
NMP1 & NMP3	Sound Level Meter	01dB Fusion	14226	01/12/2023
	Pre-amplifier	01dB Pre22	2135072	
	Microphone	GRAS 40CD	470570	
	Calibrator	Cirrus CR 515	99204	01/12/2022

The sound level meters were field calibrated on site using the above-mentioned calibrator prior to and after noise measurements were taken. No significant drift was witnessed as noted above. Calibration certificates are available upon request.

4. NOISE IMPACT ASSESSMENT

For the purposes of this assessment, E3P has used noise modelling software, CadnaA 2023 MR1, to determine the impact of noise from rail and road traffic.

The following inputs have been included in the model:

- Planning Layout Rev 2.
- NMP1, NMP2 and NMP3 have been used to calibrate the baseline noise model.
- Noise from the railway sidings has been inputted as two point sources emitting worst case measured levels, representing two locomotives with idling engines simultaneously. This will inform a worst-case assessment.
- Site elevations have been taken as existing by way of a 2 m grid Digital Terrain Model (DTM) which contains public sector information licensed under the Open Government Licence v3.0.
- Existing buildings that provide shielding from any of the noise sources have been included in the model.
- A reflection order of 2 has been used in all calculations.
- Noise levels generated using ISO 9613-1 and ISO 9613-2 "*Acoustics – Attenuation of sound during propagation outdoors*" as incorporated into CadnaA software.

Figures 2 and 3 determine the noise levels across the Site during the daytime and night-time periods, respectively, due to rail and road traffic.

4.1. EXTERNAL AMENITY AREA NOISE LEVEL ASSESSMENT

The noise model has been used to predict noise levels in rear gardens which are to be used for relaxation. The predicted levels range from below 35 dB and up to 48 dB in the worst affected garden areas.

As such, it is predicted that the No Observed Adverse Effect Level (NOAEL) is achieved in all private gardens with the following commentary:

> *"Noise can be heard but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life."*

Accordingly, no action is required.

4.2. INTERNAL NOISE LEVEL ASSESSMENT

With regards internal noise levels, E3P has assumed a standard glazing specification of 4 mm glass/20 mm air space/4 mm glass which affords a sound insulation performance in the order of 29 dB R_W (C_t: 1; $C_{t,r}$ -4). The primary noise impact here is road traffic and occasional rail traffic movements, with road traffic sound likely dominant sources at most facades and, as such, the $C_{t,r}$ correction is applied which accounts for road traffic sound. Where rail traffic is dominant the application of the $C_{t,r}$ correction is considered worst case. The AVO Guide suggests an open window would afford a reduction of 13 dB.

The model has been used to predict façade noise levels at all floor levels and orientations. To determine any requirements for mitigation, E3P has added the reduction provided by the glazing (25 dB) to the relevant criterion for day (35 dB) and for night (30 dB). As such, any facades subject to noise levels higher than 60 dB during the day and/or 55 dB during the night will require higher specification glazing. The highest predicted day and night façade levels here are 50 dB and 48 dB respectively. As such, standard thermal double glazing will be sufficient across the site.

Consideration must also be given to maximum noise levels generated by rail and road traffic. The 10th highest maximum noise level has been used and distance corrected to the closest façade for both the railway and the A6. The maximum noise level at the worst affected facades closest to the railway and road would be 64 dB and 54 dB respectively.

Internal maximum noise levels of 45 dB L_{Amax} should also not be exceeded. The sound insulation performance achieved by standard glazing (31 dB) has been added to the 45 dB maximum internal noise level limit. As, such facades subject to maximum noise levels above 76 dB will require higher specification glazing.

As shown, above no facades are subject to levels higher than 64 dB L_{Amax}. Therefore, standard glazing would be sufficient across the site to mitigate against maximum noise levels generated by road traffic from the A6 or rail traffic noise.

With regards to opening windows, there is a requirement to consider the need to open windows for ventilation and the mitigation of overheating. At this stage, the assessment assumes that ventilation would be provided by way of extract fans in kitchens and bathrooms and openable windows.

4.2.1. VENTILATION CONDITION

It is assumed that the developer would be installing a whole dwelling ventilation system in accordance with Part F of the Building Regulations as it is assumed Natural Ventilation is not appropriate for the dwellings.

Where background ventilators form part of the system, consideration is required to the sound reduction provided by these when in the open position and, as such, are discussed in Section 6.0.

4.2.2. OVERHEATING CONDITION

E3P has considered the potential impact of noise, internally, should windows be opened to mitigate overheating, as per the criteria stipulated in ADO. Any plots/facades that pass this test can open windows for this without resulting in unacceptable internal noise levels. Those that fail the test would be subject to a Part O Overheating Assessment by a suitably qualified consultant.

Part O only applies to bedrooms at night in relation to the average 8-hour noise level and 10th highest maximum noise level.

Given that the site is within a moderate risk location, as per guidance within Approved Document O the external noise limit threshold is 49 dB during the night-time ($L_{Aeq,8hr}$) and 64 dB more than 10 times a night ($L_{Af,max}$).

As can be seen above and in the figures, no plots will experience an exceedance of these threshold values. As such, the opening of windows to mitigate overheating would not result in unacceptable internal noise levels.

5. CONCLUSION AND RECOMMENDATIONS

E3P were commissioned by Barratt Homes Manchester to undertake a Noise Impact Assessment for a proposed residential development at Hogshaw Farm, Buxton.

Unattended rail traffic sound measurements and source measurements of operational railway sidings have been undertaken along the western boundary during a typical 24-hour period and unattended and attended road sound measurements have been undertaken along the eastern boundary during a typical weekday period.

A 3D noise model has been constructed to assess potential road and rail sound upon the proposed receptors in accordance with the criterion, for day and night, given in BS 8233:2014+A1:2019.

The assessment determined that standard thermal double glazing would be sufficient for all plots and that acceptable external noise levels would be achieved at all plots.

Accordingly, this assessment has shown that no adverse impact is predicted day or night at the receptors.

As such, noise need not be a material consideration in the granting of planning permission as long as the recommendations of this report are followed and included within the design stage.

END OF REPORT

APPENDIX I
GLOSSARY OF ACOUSTIC TERMINOLOGY

NOISE

Noise is defined as unwanted sound. Human ears are able to respond to sound in the frequency range 20 Hz (deep bass) to 20,000 Hz (high treble) and over the audible range of 0 dB (the threshold of perception) to 140 dB (the threshold of pain). The ear does not respond equally to different frequencies of the same magnitude but is more responsive to mid-frequencies than to lower or higher frequencies. To quantify noise in a manner that approximates the response of the human ear, a weighting mechanism is used. This reduces the importance of lower and higher frequencies, in a similar manner to the human ear.

Furthermore, the perception of noise may be determined by a number of other factors, which may not necessarily be acoustic. In general, the impact of noise depends upon its level, the margin by which it exceeds the background level, its character and its variation over a given period of time. In some cases, the time of day and other acoustic features such as tonality or impulsiveness may be important, as may the disposition of the affected individual. Any assessment of noise should give due consideration to all of these factors when assessing the significance of a noise source. The most widely used weighting mechanism that best corresponds to the response of the human ear is the "A"-weighting scale. This is widely used for environmental noise measurement, and the levels are denoted as dB(A) or L_{Aeq}, L_{A90} etc., according to the parameter being measured.

The decibel scale is logarithmic rather than linear, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. Judgement of sound is subjective but, as a general guide, a 10 dB(A) increase can be taken to represent a doubling of loudness, whilst an increase in the order of 3 dB(A) is generally regarded as the minimum difference needed to perceive a change under normal listening conditions. An indication of the range of sound levels commonly found in the environment is given in the following table.

TABLE A1 TYPICAL SOUND PRESSURE LEVELS

SOUND PRESSURE LEVEL	LOCATION/EXAMPLE
0	Threshold of hearing
20–30	Quiet bedroom at night
30–40	Living room during the day
40–50	Typical office
50–60	Inside a car
60–70	Typical high street
70–90	Inside a factory
100–110	Burglar alarm at 1 m away
110–130	Jet aircraft on take off
140	Threshold of pain

ACOUSTIC TERMINOLOGY

TABLE A2 TERMINOLOGY

DESCRIPTOR	EXPLANATION
dB (decibel)	The scale on which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the root-mean-square pressure of the sound field and a reference pressure (2E-05 Pa).
dB(A)	A-weighted decibel. This is a measure of the overall level of sound across the audible spectrum with a frequency weighting (i.e. "A" weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
$L_{Aeq, T}$	L_{Aeq} is defined as the notional steady sound level which, over a stated period of time (T), would contain the same amount of acoustical energy as the A-weighted fluctuating sound measured over that period.
L_{Amax}	L_{Amax} is the maximum A-weighted sound pressure level recorded over the period stated. L_{Amax} is sometimes used in assessing environmental noise where occasional loud noises occur, which may have little effect on the overall L_{eq} noise level but will still affect the noise environment. Unless described otherwise, it is measured using the "fast" sound level meter response.
L_{10} and L_{90}	If a non-steady noise is to be described, it is necessary to know both its level and the degree of fluctuation. The L_n indices are used for this purpose, and the term refers to the level exceeded for n% of the time. Hence L_{10} is the level exceeded for 10% of the time and as such can be regarded as the "average maximum level". Similarly, L_{90} is the "average minimum level" and is often used to describe the background noise. It is common practice to use the L_{10} index to describe traffic noise.
Free-field Level	A sound field determined at a point away from reflective surfaces other than the ground with no significant contributions due to sound from other reflective surfaces. Generally, as measured outside and away from buildings.
Fast	A time weighting used in the root-mean-square section of a sound level meter with a 125-millisecond time constant.
Slow	A time weighting used in the root-mean-square section of a sound level meter with a 1000-millisecond time constant.

APPENDIX II
FIGURES

Figure 1 - Noise Survey Measurement Positions

Project:
Hogshaw Farm

Project-No:
50-697

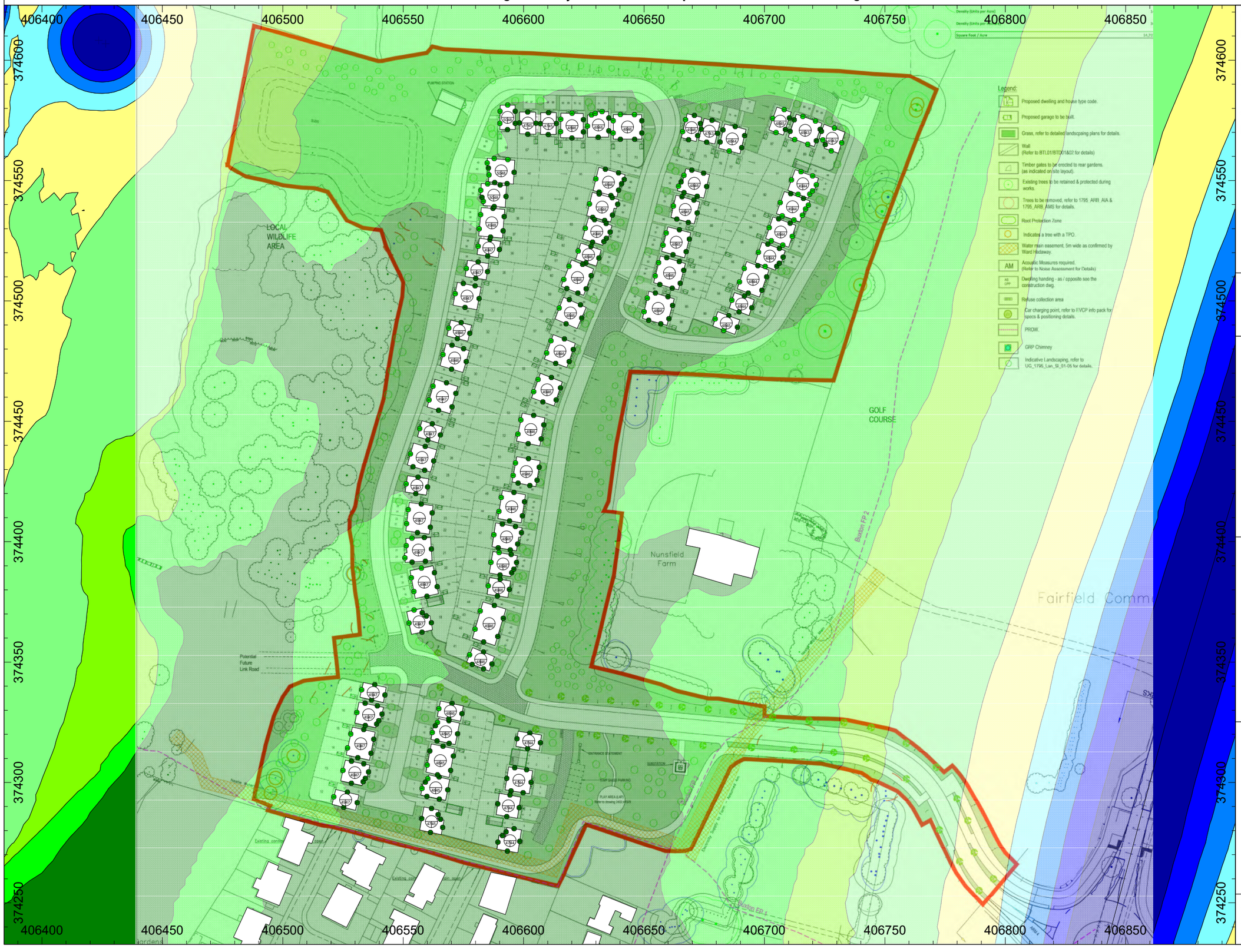
Client:
Barratt Homes (Manchester)

N

e3p

Project Engineer: L Faulkner
Date: 25/06/2024

Figure 2 - Daytime Grid Noise Map - Calculation at 1.5m above ground level



Project:
Hogshaw Farm, Buxton

Project-No:
50-697

Client:
Barratt Homes Manchester

Daytime Noise Level, LAeq,16hr (dB)

- ... <= 48
- 48 < ... <= 50
- 50 < ... <= 52
- 52 < ... <= 56
- 56 < ... <= 58
- 58 < ... <= 60
- 60 < ... <= 62
- 62 < ... <= 65
- 65 < ...

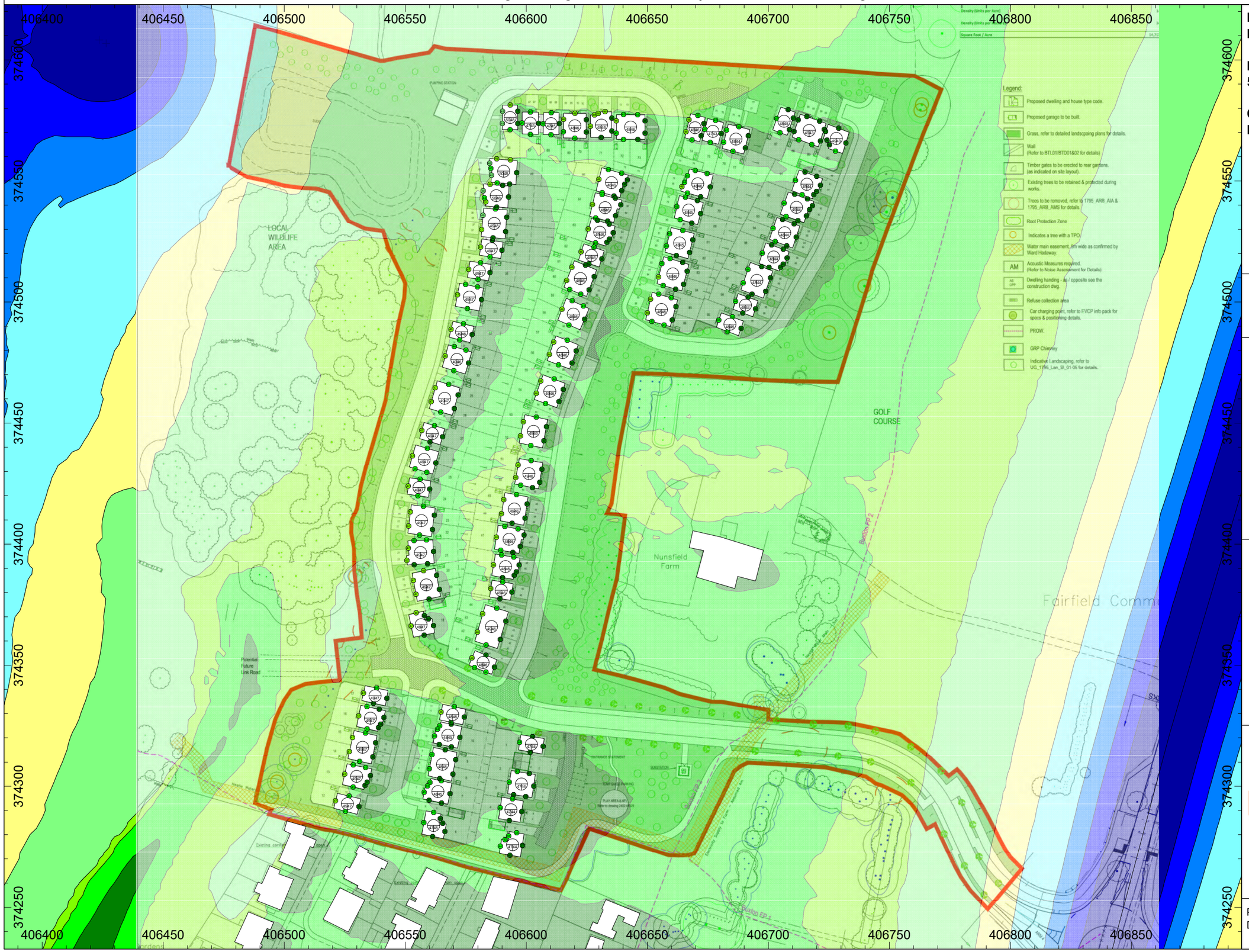
Noise Map Objects

- Point Source
- Road
- Parking Lot
- Railway
- Building
- Barrier
- Building Evaluation
- Calculation Area

e3p

Project Engineer: Melissa Bailey
Date: 25/06/2024

Figure 3 - Night-time Grid Noise Map - Calculation at 4m above ground level



Project:
Hogshaw Farm, Buxton

Project-No:
50-697

Client:
Barratt Homes Manchester

Night-time Noise Level, LAeq,8hr (dB)

- ... <= 42
- 42 < ... <= 45
- 45 < ... <= 47
- 47 < ... <= 50
- 50 < ... <= 52
- 52 < ... <= 55
- 55 < ... <= 57
- 57 < ... <= 60
- 60 < ...

Noise Map Objects

- Point Source
- Road
- Parking Lot
- Railway
- Building
- Barrier
- Building Evaluation
- Calculation Area

e3p

Project Engineer: Melissa Bailey
Date: 25/06/2024

WARNING TO HOUSE PURCHASERS
Property Misdescriptions Act 1991

Buyers are warned that this is a working drawing and is not intended to be treated as descriptive material describing, in relation to any particular property or development, any of the specified matters prescribed by any Order made under the above act. The contents of this drawing may be subject to change at any time, and alterations and variations can occur during the progress of the works without revisions of the drawing. Consequently the layout, form, content and dimensions of the finished construction may differ materially from those shown. Nor do the contents of this drawing constitute a contract, part of any contract, or warranty.

SECTION A-A

Scale 1:200

SECTION A-A CONTINUED

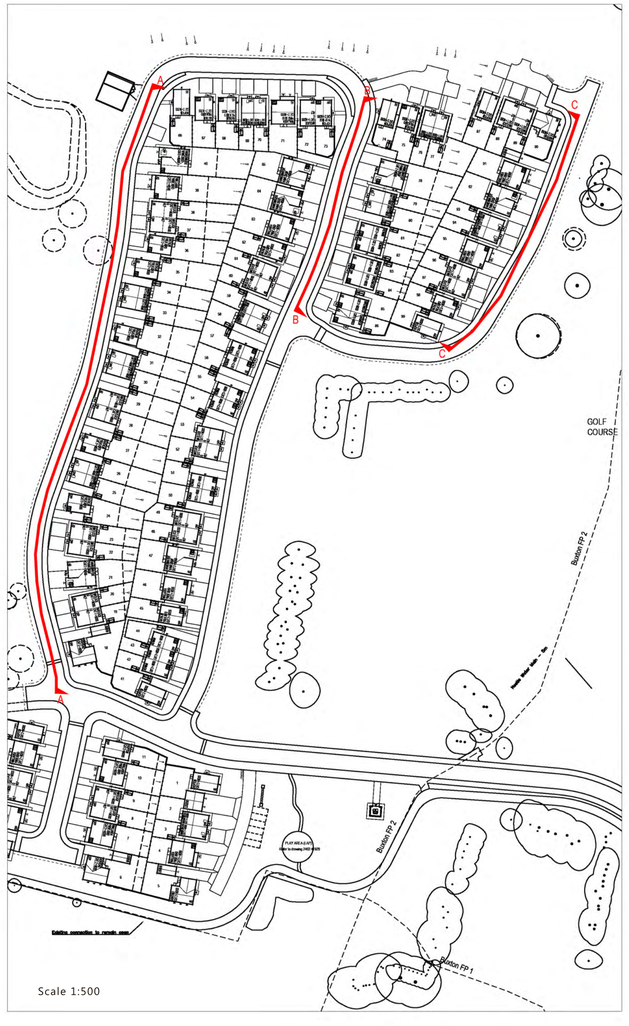
Scale 1:200

SECTION B-B

Scale 1:200

SECTION C-C

Scale 1:200



Scale 1:500

Rev	Description	Date	Drawn	Chk'd

BARRATT
HOMES
MANCHESTER

Barratt Homes Manchester
(A division of BDW Trading Ltd)
4 Brindley Road
City Park
Manchester
M16 9HQ
Tel: 0161 872 0161
Fax: 0161 855 2828

Job
HOGSHAW FARM, BUXTON

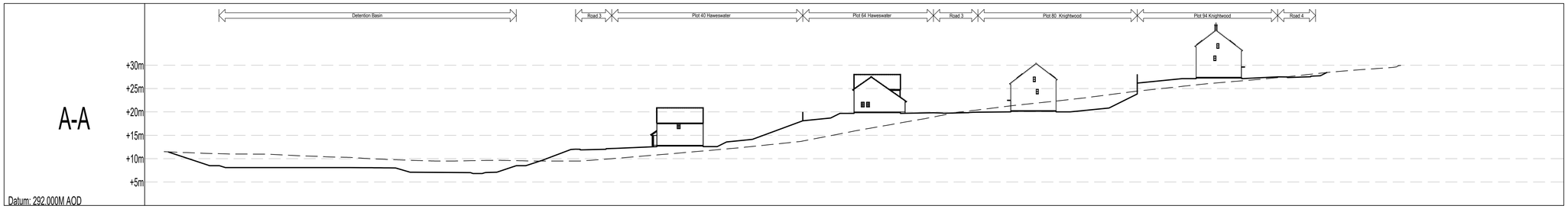
Title
PROPOSED STREET SCENES

Design By	Date	Drawing Number	Rev
GB	JULY 2024	499-P-SS02	-
Drawn By	Scale @ A1		
GB	VARIOUS		

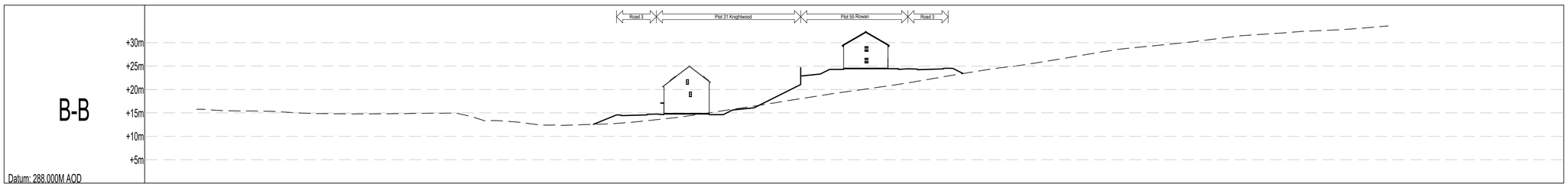
WARNING TO HOUSE PURCHASERS
Property Misdescriptions Act 1991

Buyers are warned that this is a working drawing and is not intended to be treated as descriptive material describing, in relation to any particular property or development, any of the specified matters prescribed by any Order made under the above act. The contents of this drawing may be subject to change at any time, and alterations and variations can occur during the progress of the works without revisions of the drawing. Consequently the layout, form, content and dimensions of the finished construction may differ materially from those shown. Nor do the contents of this drawing constitute a contract, part of any contract, or warranty.

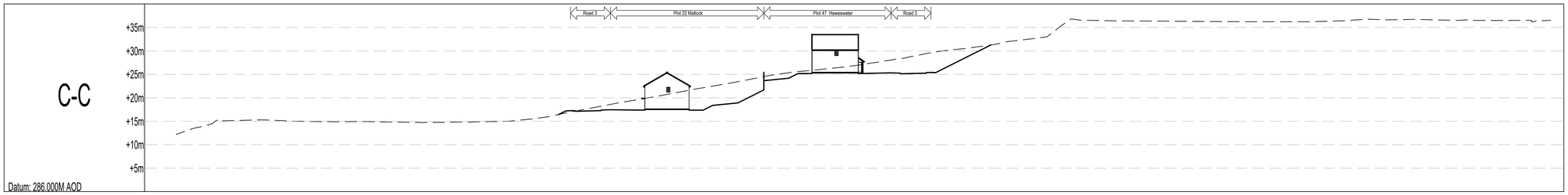
SECTION A-A SCALE- 1:500

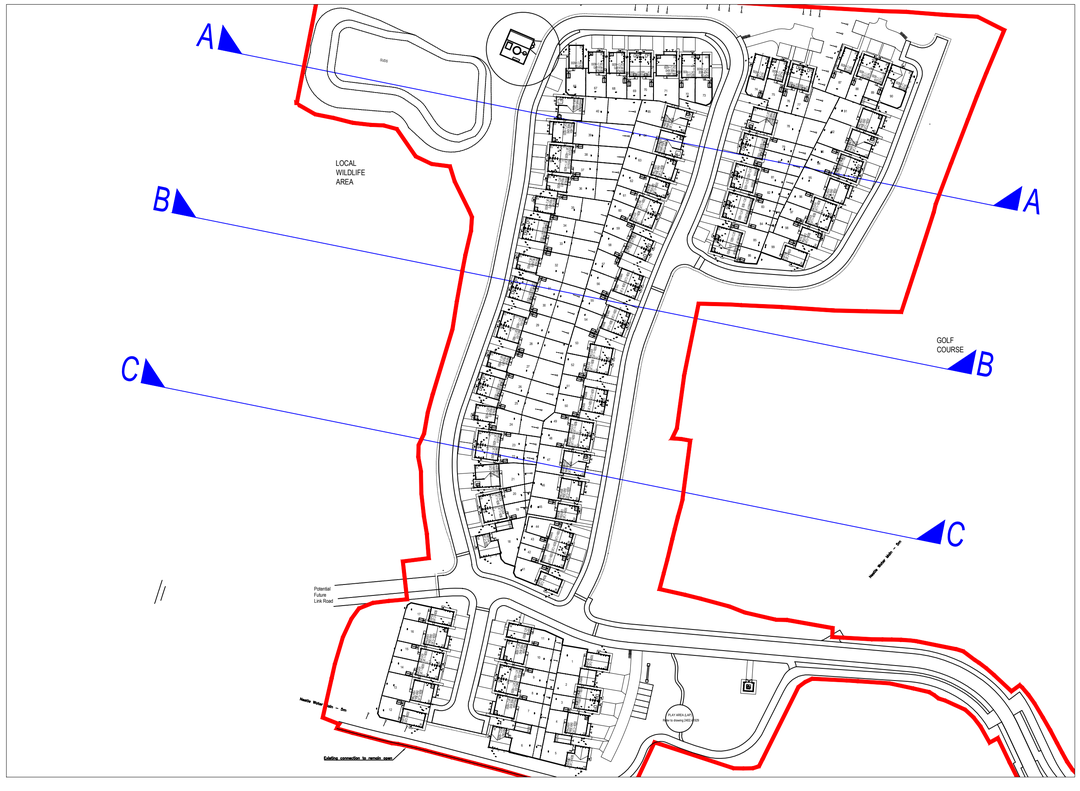


SECTION B-B SCALE- 1:500



SECTION C-C SCALE- 1:500





SECTION LOCATION PLAN SCALE- 1:1250

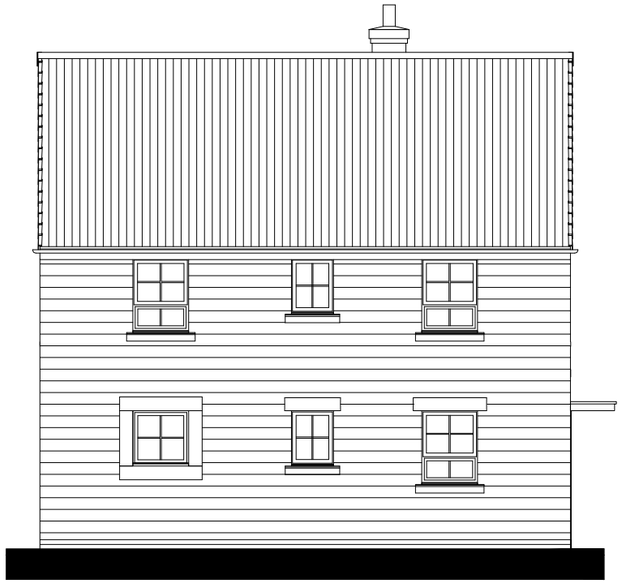
Rev	Description	Date	Drawn	Chk'd

BARRATT
HOMES
MANCHESTER

Barratt Homes Manchester
(A division of BDW Trading Ltd)
4 Brindley Road
City Park
Manchester
M16 9HQ
Tel: 0161 872 0161
Fax: 0161 855 2828

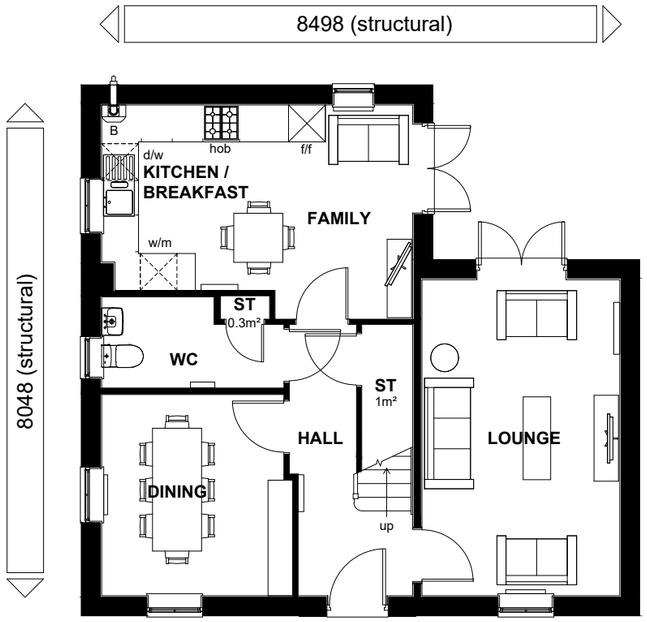
Job: HOGSHAW FARM, BUXTON			
Title: SITE SECTIONS			
Design By: CD	Date: 10-07-24	Drawing Number: 499-P-SSE02	Rev: -
Drawn By: GB	Scale @ A1: VARIOUS		

FRONT ELEVATION 1

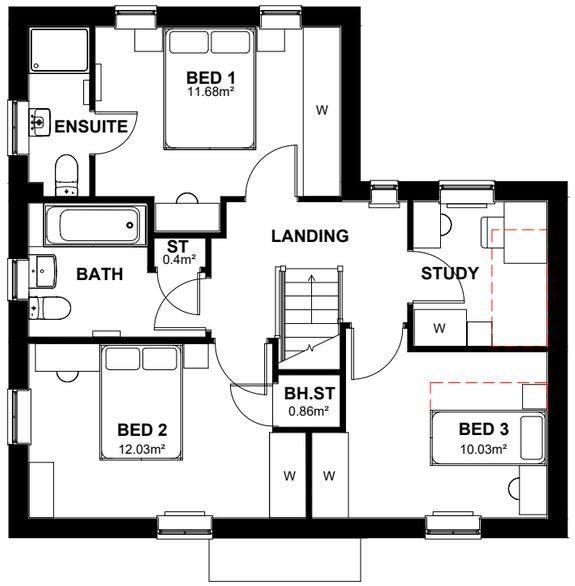


FRONT ELEVATION 2

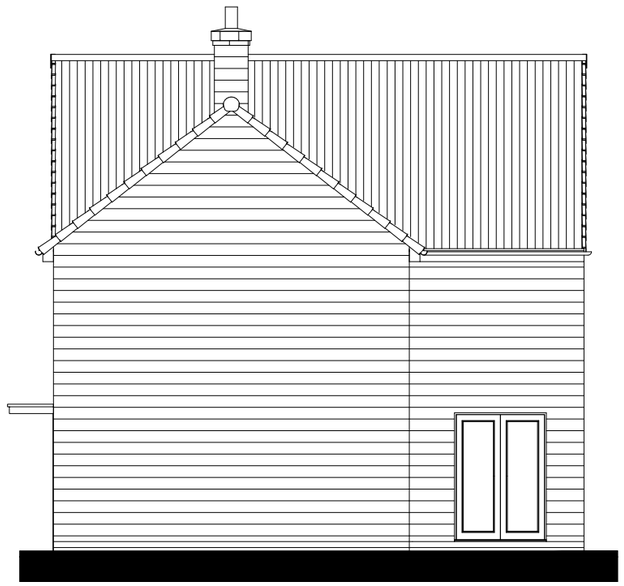
REAR ELEVATION



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SIDE ELEVATION

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ,D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ,D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 5P	93m²	115.89m²	2.5m²	2.56m²

NON-FUNCTIONAL CHIMNEY TO PLOTS: 5, 18 & 85

CAT 2 + NDSS

TOTAL FLOOR AREA : 1265 Sq ft / 117.5m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

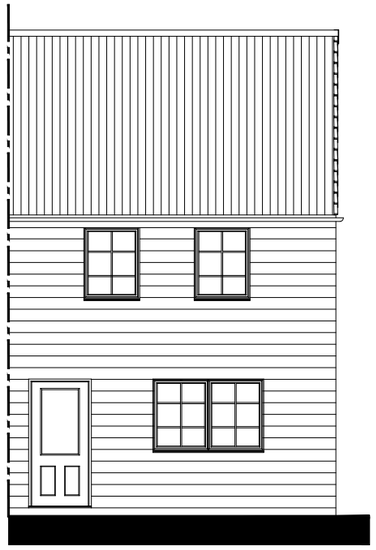
Sales Name: ASHTEAD (ALDERNEY)

House Type Code: YASH X0GD

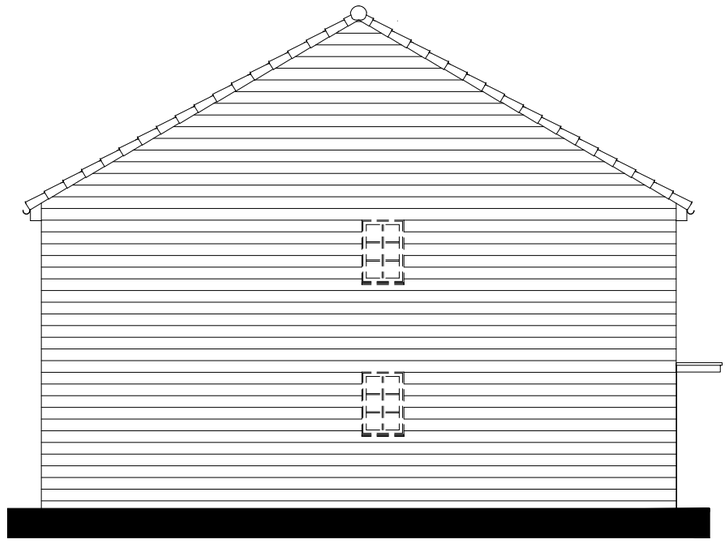
Spec: EMBASSY Drawing No: 01 Date:JAN 23

Drawn: GDT Checked: GDT Scale: 1: 100

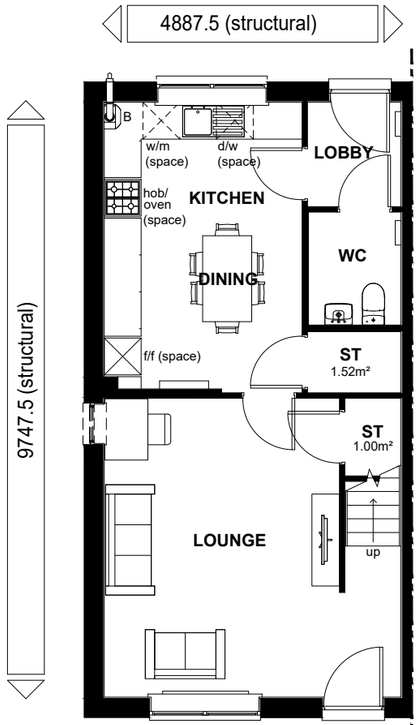
FRONT ELEVATION



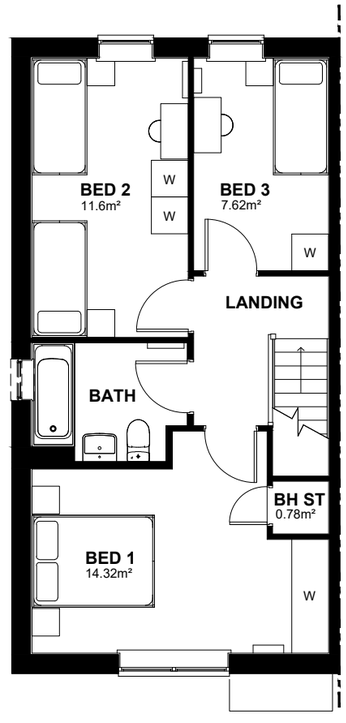
REAR ELEVATION



SIDE ELEVATION / SECTION



GROUND FLOOR PLAN



FIRST FLOOR PLAN

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 5P	93m²	93.82m²	2.5m²	3.3m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 1025 Sq ft / 95.28m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: BIRCHMOOR
House Type Code: BBCH X0HE
Spec: AFF
Drawing No: 01
Date: JAN 23
Drawn: GDT
Checked: GDT
Scale: 1: 100

Warning to House Purchasers

Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the build process. The layout, form, content, and dimensions specified are included for general guidance only. Finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or building practice. Prospective purchasers should not rely on these drawings as a statement or representation of fact. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

ENGINEERING LAYOUT NOTES

1. All adoptable drainage works have been designed and are to be constructed in accordance with "Sewerage Sector Guidance Appendix C – Design and Construction Guide (C.T. and United Utilities Guidelines. Where specification conflicts, UU guidelines shall take precedence.
2. All clay pipe work shall be extra strength clayware to BS 295 and BSEN (SW only).
3. All precast concrete pipework shall be to Class 120 in accordance with BS08911–Part 1, BS EN 1916 and bear the BS Kitemark.
4. All adoptable drainage to be bedded in Class S granular surround unless otherwise stated on the longsections.
5. All concrete manhole and soakaways rings, and concrete cover slabs to be manufactured to BS EN 1917 and BS08111Part 3.
6. Rising mains to be black polyethylene pipes complying to BS EN 13244-2. Polyethylene fittings, including fusion joints, and electro-fusion fittings shall comply with BS EN 13244-2.
7. All levels relate to Ordnance Datum. Contractor to ensure that this drawing is read in conjunction with the site specific topographical survey provided by Barratt Manchester and the benchmark information provided.
8. This drawing is to be read in accordance with all other relevant drawings.
9. The contractor shall be responsible for ensuring that any existing invert levels indicated on the drawings are correct before work commences.
10. All proposed connections to the sewer shall be 150ø unless stated otherwise.
11. All private house drainage shall be 100ø and all drag-out connections shall be 150ø at a minimum gradient of 1:80 unless otherwise stated, and laid in accordance with Part H of the Building Regulations.
12. Runoff from private surfaces shall not discharge across the highway. Gullies or channels shall be provided as appropriate to prevent this.
13. Pram crossings shall be provided at the inner tangent points of all junctions.
14. Pipes shall be protected from concentrated loading by construction traffic during the construction period when insufficient cover to the pipe may make them vulnerable to damage.
15. Insitu CBR tests of the road formation levels are to be carried out to determine the depth of pavement construction required. This is to be approved by Derbyshire County Council prior to construction of the road pavements.
16. Groundworker to ensure that plot drainage be within the curtilage of the plot they serve where possible and inspection covers kept within hardstanding where possible.
17. Contractor to provide Severn Trent Water with sufficient notice prior to commencement of sewer works on their inspections telephone number.
18. Contractor to obtain all necessary highway opening notices from Derbyshire County Council, obtain approval to work on United Utilities Sewerage System, obtain approval to method statement from the Environment Agency and/or the Local Lead Flood Authority for any works affecting a watercourse.

ENGINEERING KEY

- S104 Adoptable Surface Water Sewer & Manhole
- Private Surface Water Drag-Out and Invert (10.25)
- S38 Adoptable Surface Water Sewer & Manhole
- S38 Adoptable Road Gully
- S104 Adoptable Foul Water Sewer & Manhole
- Private Foul Drag-Out and Invert 10.25
- Proposed Adoptable Foul Water Rising Main
- Proposed S104 Sewer Easement
- Proposed Adoptable Foul Water Pumpstation

Revision	Description	Date	Design By
P07	Updated design to suit planning layout revision Rev. 3	01.07.24	CD
P06	Updated design to suit planning layout revision Rev. 2.	27.06.24	CD
P05	Reverted to pumped solution for the whole site.	14.02.24	BJM
P04	Updated design to suit planning layout revision N.	09.02.24	BJM

Project: Hogshaw Farm, Buxton
Description: Preliminary Drainage Layout

Design By	Date	Scale at A0	Revision
CD	Feb 2024	1:500	P07

Project	Originator	Functional	Spatial Form	Discipline	Number
H8797 - BAH -		XX	- XX - DR -	CE -	300001

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd.

PLAY AREA (LAP)
Refer to drawing 2402.41929

Potential
Future
Link Road

Existing connection to remain open

Existing connection to remain open

PLAY AREA (LAP)
Refer to drawing 2402.41929

Arboricultural Report Key

Root Protection Area (RPA)

High Peak Borough Council Tree Preservation (Land at Hogshaw, Fairfield, Buxton) Order 2023 No 311.

ENGINEERING KEY

P09	Revised to suit planning layout Revision 3	03.07.24	CD
P08	Planning Layout Updated to Back of Footpath Plots	–	SPG
P07	Levels redesigned to CAD Layout	24.05.24	SPG
P06	Revised to suit planning layout sketch issued 03.05.24	14.05.24	CD
P05	Revised to suit planning layout revision Q	14.02.24	BJM
P04	Revised to suit planning layout revision N; rollover gardens provided to reduce retaining wall heights	26.01.24	CD
3.2	Actual retaining wall heights added	26.01.24	CD
3.1	Updated to Planning Layout Rev M	22.01.24	CD
A	Drawing scale changed to 1:250. Drg 12 withdrawn. Latest tree constraints added.	13.10.23	RB
Revision	Description	Date	Design By

Project: Hogshaw Farm, Buxton
Description: Preliminary External Levels Sheet 1

Design By:	Date:	Scale at A0:	Revision:
CD	Feb 2024	1:500	P09

Project	Originator	Functional	Spatial	Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR	- GE -	313100

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator
© Barratt Homes Ltd.

LOCAL
WILDLIFE
AREA

Nuns
Far

Revision	Description	Date	Design By
P09	Revised to suit planning layout Revision 3	03.07.24	CD
P08	Planning Layout Updated to Back of Footpath Plots	–	SPG
P07	Levels redesigned to CAD Layout	24.05.24	SPG
P06	Revised to suit planning layout sketch issued 03.05.24	14.05.24	CD
P05	Revised to suit planning layout revision Q	14.02.24	RJM
P04	Revised to suit planning layout revision N; rollover gardens provided to reduce retaining wall heights	26.01.24	CD
3.2	Actual retaining wall heights added	26.01.24	CD
3.1	Updated to Planning Layout Rev. M	22.01.24	CD
A	Drawing scale changed to 1:250, Drg 12 withdrawn, Latest tree constraints added.	13.10.23	RB

Project:
Hogshaw Farm, Buxton

Description:
Preliminary External Levels Sheet 2

Design By	Date	Scale at A0	Revision
CD	Feb 2024	1:500	P09

Project	Originator	Functional	Spatial Form	Discipline	Number
H8797 - BAH -		XX	- XX - DR -	GE -	313101

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd.

SUDS

LOCAL
WILDLIFE
AREA

ROMAN ROAD (course of)

GOLF
COURSE

Revision	Description	Date	Design By
P10	Revised to suit planning layout Revision 3	03.07.24	CD
P09	Planning Layout Updated to Back of Footpath Plots	–	SPG
P08	Levels redesigned to CAD Layout	24.05.24	SPG
P07	Revised to suit planning layout sketch issued 03.05.24	14.05.24	CD
P06	Revised to suit planning layout revision Q	14.02.24	BJM
P05	POS to northern and north-eastern boundaries added	05.02.24	CD
P04	Revised to suit planning layout revision N; rollover gardens provided to reduce retaining wall heights	26.01.24	CD
3.2	Actual retaining wall heights added	26.01.24	CD
3.1	Updated to Planning Layout Rev M	22.01.24	CD
A	Drawing scale changed to 1:250. Drg 12 withdrawn. Latest tree constraints added.	13.10.23	RB

Project:
Hogshaw Farm, Buxton

Description:
Preliminary External Levels Sheet 3

Design By:	Date:	Scale at A0:	Revision:
CD	Feb 2024	1:500	P10

Project	Originator	Functional	Spatial	Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR -	GE -	313102

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd.

Legend:

- Hard Landscaping Material A
  Tarmac surface to main carriageway.
- Hard Landscaping Material B
  Tarmac surface to footpaths.
- Hard Landscaping Material C
  450sq paving to patio & pedestrian access areas.
  Colour Grey.
- Hard Landscaping Material D
  block paving with contrasting dividing
  block laid herringbone.
  Colour Burnt Ochre with pennant grey lines.
- Hard Landscaping Material E
  Multi User Trail Construction -
  Non Bituminous Bound Surfacing to suit existing surfacing
  laid as part of the DCC Roundabout works.

North

AGRICULTURAL
LAND

SUDS

LOCAL
WILDLIFE
AREA

GOLF
COURSE

Nunsfield
Farm

Fairfield Commo

Potential
Future
Link Road

PLAY AREA (LAP)
Refer to drawing 2402.41929

Existing connection to remain open

Existing connection to remain open

Nestle Water Main ~ 5m

Temple Water Main ~ 5m

ARM 4

ARM 3

B.O.A.T

EXTENT OF WORKS

BARMS WAY

GLENMOOR ROAD

NORTH ROAD

Links View

St Peter's Church

The Devonshire
Coach House

324.3m

Northlands

Sub Sta

SD

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By

Project: HOGSHAW FARM

Description: HARD LANDSCAPING PLAN

Design By:	Date:	Scale at A0:	Revision:
GB	10/07/2024	1:500	-

Project	Originator	Functional	Spatial Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR - UD -	203200

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd.

Legend:

Bin Storage Area
Flagged area for storage of wheelie bins.
1 x general waste | 1 x paper & cardboard | 1 x glass & plastic | 1 x garden waste

Refuse Route
Proposed route of bins from dwelling to collection point

North

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

GOLF COURSE

SUDS

Nunsfield Farm

Fairfield Comm

Potential Future Link Road

PLAY AREA (LAP)
Refer to drawing 2402.A1929

Existing connection to remain open

Existing connection to remain open

Nestle Water Main – 5m

Severn Trent Water Main – 5m

BARMS WAY

GLENMOOR ROAD

NUNSFIELD ROAD

St Peter's Church

Northlands

Links View

NORTH ROAD

The Devonshire Coach House

324.3m

ARM 4

ARM 3

EXTENT OF WORKS

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By

Project: HOGSHAW FARM			
Description: REFUSE PLAN			
Design By: GB	Date: 10/07/2024	Scale at A0: 1:500	Revision: -
Project: H8797 -	Originator: BAH -	Functional: XX	Spatial - XX - Form: DR - Discipline: UD - Number: 203500

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd.

SCHEDULE OF ACCOMMODATION

Barratt Type	House Type	Sqft	No	Total Sqft
Private Units				
Rowan - End	2 Bed Terraced House	866	10	8660
Rowan - Mid	2 Bed Terraced House	866	1	866
Oakmoor - End	3 Bed Bed Semi / Mews House Duel Aspect End Unit	1049	1	1049
Birchmoor - End	3 Bed Terraced House	1025	3	3075
Rathlin	3 Bed Detached House	990	11	10890
Matlock - End	3 Bed Semi / Mews House	970	23	22310
Hopton	3 Bed Detached / Semi Detached Dual Aspect House	1017	9	9153
Hopton - End	3 Bed Detached / Semi Detached Dual Aspect House	1017	1	1017
Knightwood - End	4 Bed Townhouse	1122	18	20196
Ashtead	4 Bed Dual Aspect Detached House	1265	4	5060
Wallasea	4 Bedroom Int. Garage Detached House	1206	11	13266
Haweswater	4 Bedroom Int. Garage Detached House	1495	7	10465
Total number of units and square footage			**99**	**106007**
Gross Site Area in Acres				**10.39**
Open Space & Undevelopable Area in Acres				**3.18**
Net Site Area in Acres				**7.21**
Density (Units per Acre)				**14**
Density (Units per Hectare)				**34**
Square Foot / Acre				**14,703**

North

AGRICULTURAL LAND

PUMPING STATION

SUDS

LOCAL WILDLIFE AREA

GOLF COURSE

Nunsfield Farm

Fairfield Commc

Potential Future Link Road

Existing connection to remain open

Existing connection to remain open

ENTRANCE STATEMENT

SUBSTATION

TEMP SALES PARKING

PLAY AREA (LAP) Refer to drawing 2402.4/929

Nestle Water Main 5m

Buxton FP 2

Buxton FP 2

Buxton FP 2

Buxton EP 1

Buxton FP 77

Nestle Water Main 5m

BARMS WAY

GLENMOOR ROAD

NORTH ROAD

NORTH ROAD

Links View

Northlands

The Devonshire Cooch House

324.3m

St Peter's Church

ARM 4

ARM 3

B.O.A.T

Sub Sta

SD

SM

Legend:

- Proposed dwelling and house type code.
- Proposed garage to be built.
- Grass, refer to detailed landscpaing plans for details.
- Wall (Refer to BTL01/BTD01&02 for details)
- Timber gates to be erected to rear gardens. (as indicated on site layout).
- Existing trees to be retained & protected during works.
- Trees to be removed, refer to 1795_ARB_AIA & 1795_ARB_AMS for details.
- Root Protection Zone
- Indicates a tree with a TPO.
- Water main easement, 5m wide as confirmed by Ward Hadaway.
- AS OPP — Dwelling handing - as / opposite see the construction dwg.
- Refuse collection area
- EV — Car charging point, refer to EVCP info pack for specs & positioning details.
- PROW.
- GRP Chimney
- Indicative Landscaping, refer to UG_1795_Lan_SI_01-05 for details.

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By
03	Flipped plot 16, pulled 16&17 south 1m, revised multi use footpath position, various minor tweaks to suit ENG comments	28/06/24	GB
02	Layout updated to various internal comments.	18/06/24	GB

Project: HOGSHAW FARM

Description: PLANNING LAYOUT

Design By:	Date:	Scale at A0:	Revision:
GB	11/06/2024	1:500	3

Project	Originator	Functional	Spatial	Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR -	UD -	203001

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator
© Barratt Homes Ltd.

Legend:

- 1 Storey Unit / Garage.
- 2 Storey Unit.
- 2.5 Storey Unit.

North

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

GOLF COURSE

Nunsfield Farm

Fairfield Commo

Potential Future Link Road

PLAY AREA (LAP) Refer to drawing 2402.41929

SUDS

Nestle Water Main - 5m

Existing connection to remain open

Existing connection to remain open

BARMS WAY

GLENMOOR ROAD

Sub Sta

St Peter's Church

Northlands

Links View

NORTH ROAD

The Devonshire Coach House

324.3m

ARM 4

ARM 3

B.O.A.T

EXTENT OF WORKS

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By

Project: HOGSHAW FARM

Description: STOREY HEIGHTS

Design By:	Date:	Scale at A0:	Revision:
GB	10/07/2024	1:500	-

Project	Originator	Functional	Spatial	Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR -	UD -	203025

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd.

Legend:

Stone (Recon)
- Marshall Edenhall Darlstone Buff Black Split
- Doors / Garage Doors - White
- RWP - Black
- Roof - Russel Grampian (Slate Grey)
- Windows - White

North

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

SUDS

ROMAN ROAD (course of)

GOLF COURSE

Nunsfield Farm

Fairfield Comm

Potential Future Link Road

Nestle Watermain - 5m

Existing connection to remain open

Existing connection to remain open

PLAY AREA (LAP)
Refer to drawing 2402.A1.929

BARMS WAY

GLENMOOR ROAD

NUNSFIELD ROAD

Sub Sta

St Peter's Church

SD

Northlands

Links View

NORTH ROAD

NORTH ROAD

The Devonshire Coach House

324.3m

ARM 4

ARM 3

EXTENT OF WOR

Gardens

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By

Project: HOGSHAW FARM			
Description: MATERIALS LAYOUT			
Design By: GB	Date: 10/07/2024	Scale at A0: 1:500	Revision: -
Project Originator H8797 - BAH -	Functional XX	Spatial Form Discipline Number - XX - DR - UD - 203150	

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.

© Barratt Homes Ltd.

HOGSHAW FARM BUXTON

Legend:

Boundary Treatment A
1800mm Recon Stone Wall with Piers

Boundary Treatment B
1800mm Closeboard Fence

*refer to landscaping drawings UG_1795_LAN_01-05 for for hedge positions.

North

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

GOLF COURSE

Nunsfield Farm

Fairfield Commo

Potential Future Link Road

PLAY AREA (LAP)
Refer to drawing 2402.AI.929

Existing connection to remain open

Existing connection to remain open

Nestle Water Main - 5m

Nestle Water Main - 5m

SUDS

BRAMBLES

BRAMBLES

HEDGE

HEDGE

BARMS WAY

GLENMOOR ROAD

NUNSFIELD ROAD

Sub Sta

The Devonshire Coach House

324.3m

St Peter's Church

Northlands

Links View

NORTH ROAD

NORTH ROAD

ARM 4

ARM 3

B.O.A.T

EXTENT OF WORKS

SD

SM

Revision	Description	Date	Design By

Project: HOGSHAW FARM
Description: BOUNDARY TREATMENTS LAYOUT

Design By:	Date:	Scale at A0:	Revision:
GB	10/07/2024	1:500	-

Project	Originator	Functional	Spatial Form Discipline Number
H8797	- BAH -	XX	- XX - DR - UD - 203250

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.
© Barratt Homes Ltd

SCP

Transportation Planning : Infrastructure Design

Transport Assessment

Proposed Residential Development

Hogshaw Farm, Buxton

Client: Barratt Homes

July 2024

Doc Ref: LB/220650/TA/5

Prepared by:	Liam Bessell
Checked by:	Peter Todd

Document Revision Control

Revision	Date	Status	Prepared By	Approved By
0	08.12.22	Planning	LB	PT
1	05.04.23	Planning	LB	PT
2	21.02.24	Planning	LB	PT
3	10.07.24	Planning	LB	PT
4	11.07.24	Planning	LB	PT
5	25.07.24	Planning	LB	PT

Cowlyn Chambers
19 York Street
Manchester
M2 3BA

T: 0161 832 4400

E: info@scptransport.co.uk
W: www. scptransport.co.uk

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of SCP being obtained. SCP accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purposes for which it was commissioned. Any person using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm his agreement to indemnify SCP for all loss or damage resulting there from. SCP accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

CONTENTS

1.0 INTRODUCTION 4
2.0 EXISTING CONDITIONS 7
3.0 PROPOSED DEVELOPMENT 12
4.0 PLANNING POLICY CONTEXT 19
5.0 SUSTAINABLE TRANSPORT APPRAISAL 26
6.0 FUTURE BASELINE TRAFFIC CONDITIONS 31
7.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT 33
8.0 ANTICIPATED HIGHWAY IMPACT 36
9.0 SUMMARY AND CONCLUSIONS 41

APPENDICES

A A6 SITE ACCESS ROUNDABOUT
B DERBYSHIRE COUNTY COUNCIL CONSULTATION RESPONSES
C TRAFFIC SURVEYS
D PROPOSED SITE LAYOUT
E SWEPT PATH ANALYSIS
F DCC's PROW COMMENTS
G 5KM CYCLING ISOCHRONE AND LOCAL CYCLE INFRASTRUCUTRE PLAN
H 60 MINUTE PUBLIC TRANSPORT ISOCHRONE
I TRICS OUTPUTS – RESIDENTIAL
J JOURNEY TO WORK CENSUS DATA ANALYSIS
K PROPOSED SITE ACCESS ROUNDABOUT – ARCADY ASSESSMENT
L A6 / A53 MINI-ROUNDABOUT – ARCADY ASSESSMENT
M A6 / STATION ROAD / DALE ROAD SIGNAL CONTROLLED JUNCTION – LINSIG ASSESSMENT

TRAFFIC FLOW FIGURES

1 2019 SURVEYED TRAFFIC FLOWS
2 2029 GROWTHED TRAFFIC FLOWS
3 COMMITTED DEVELOPMENT – WATERSWALLOWS ROAD (LPA REF: HPK/0003/936)
4 COMMITTED DEVELOPMENT - GRANBY A (LPA REF: HPK/2019/0164)
5 COMMITTED DEVELOPMENT - GRANBY C (LPA REF: HPK/2022/0352)

6 TOTAL COMMITTED DEVELOPMENT
7 TRIP DISTRIBUTION
8 TRAFFIC ASSIGNMENT
9 2029 'WITHOUT DEVELOPMENT' BASE TRAFFIC FLOWS
10 2029 'WITH DEVELOPMENT' ASSESSMENT TRAFFIC FLOWS

1.0 INTRODUCTION

Overview

1.1 SCP have been appointed by Barratt Homes to provide specialist transport planning and engineering advice in support of the proposed residential development on land to the west of the A6, Buxton.

1.2 The proposed development will provide 99 dwellings, comprising a mix of 2, 3 and 4 bedroom houses. Further details on the proposed development are provided later in Chapter 3 of this report.

Background

1.3 High Peak Borough Council's (HPBC's) Local Plan, adopted April 2016, sets out the development strategy, strategic and development management policies and land designations for the parts of High Peak that lie outside of the Peak District National Park. The Local Plan also identifies that the provision of sustainable, decent and affordable housing, which is one of the key aims of National Planning policy, is a priority locally.

1.4 Policy S3 of the Plan requires the provision of at least 7,000 dwellings across the Borough by 2031, of which, up to 43% are required in the Buxton area with the majority provided via a number of allocated sites. The application site is allocated for up to 124 residential dwellings under sites B3 and B4 of the Local Plan, with additional allocation sites located to the south of Waterswallows Road and east of Tongue Lane.

1.5 A new roundabout has been constructed on the A6, immediately to the north of Buxton, which will allow these sites to come forward and form the site access to this application site.

1.6 The roundabout takes the form of a four arm priority controlled roundabout with the eastern arm linking south to Waterswallows Road and allowing for a future connection into the Tongue Lane Industrial Estate. An existing section of Waterswallows Road will be stopped up with a new priority controlled T-junction being created onto Waterswallows Road east. The A6 northbound approach and the eastern and western arms will all benefit from pedestrian refuges with dropped kerbs and tactile paving to assist pedestrians across. In addition, a Toucan and Pegasus signal-controlled crossing facility will be provided on the A6 north arm, catering for cyclists and equestrians. The layout of the roundabout is shown on **Appendix A**.

1.7 The planning application was submitted to High Peak Borough Council (HPBC) on 15th May 2023 (Local Planning Application Ref HPK/2023/0192) and was supported by a detailed Transport Assessment (TA) and Travel Plan, dated April 2023, which assessed the impact of the development on the local transport network.

1.8 Following a review of the TA and TP, Derbyshire County Council (DCC) as the acting Highway Authority provided comments on the application in responses dated 5th and 7th July 2023. A copy of both responses is provided in **Appendix B**. The proposed site layout has been updated in response to the LHA's and LPA's comments and has reduced in size to 99 dwellings from the original planning submission.

Purpose and Structure of Report

1.9 This Transport Assessment (TA) has therefore been updated to reflect the revised scale of development and provides responses to DCC's comments. This TA has been developed in accordance with the National Planning Practice Guidance (NPPG) and gives due regard to the now archived Department for Transport's (DfT's) March 2007 "Guidance on Transport Assessment" document.

1.10 This report concludes that the proposed development of this site can be accommodated without detriment to the operational capacity or safety of the local highway network and that it can be readily accessed on foot, by bicycle and by local public transport services.

1.11 The structure of the TA is set out as follows:-

- Chapter 2 - describes in detail the site location and composition, surrounding area, local highway network, existing traffic conditions and road safety record;
- Chapter 3 – defines the development proposals including the proposed access, servicing and car parking arrangements;
- Chapter 4 – summarises the national, regional and local transport policies and describes how the proposed development accords with these;
- Chapter 5 – considers the location of the site with regard to the existing local sustainable transport infrastructure;
- Chapter 6 – describes the future baseline traffic conditions on the local highway network in relation to committed development traffic flows and traffic growth;

- Chapter 7 – estimates the number of multimodal trips generated by the development and distributes and assigns the vehicular trips on the local highway network;
- Chapter 8 – presents an assessment of the impact of the development on the operational performance of the local highway network; and
- Chapter 9 – provides summary and conclusions to this TA derived from the analysis presented in the above Chapters.

2.0 EXISTING CONDITIONS

General

2.1 This Chapter provides a detailed description of the location of the site and composition, local highway network, existing traffic conditions and road safety record.

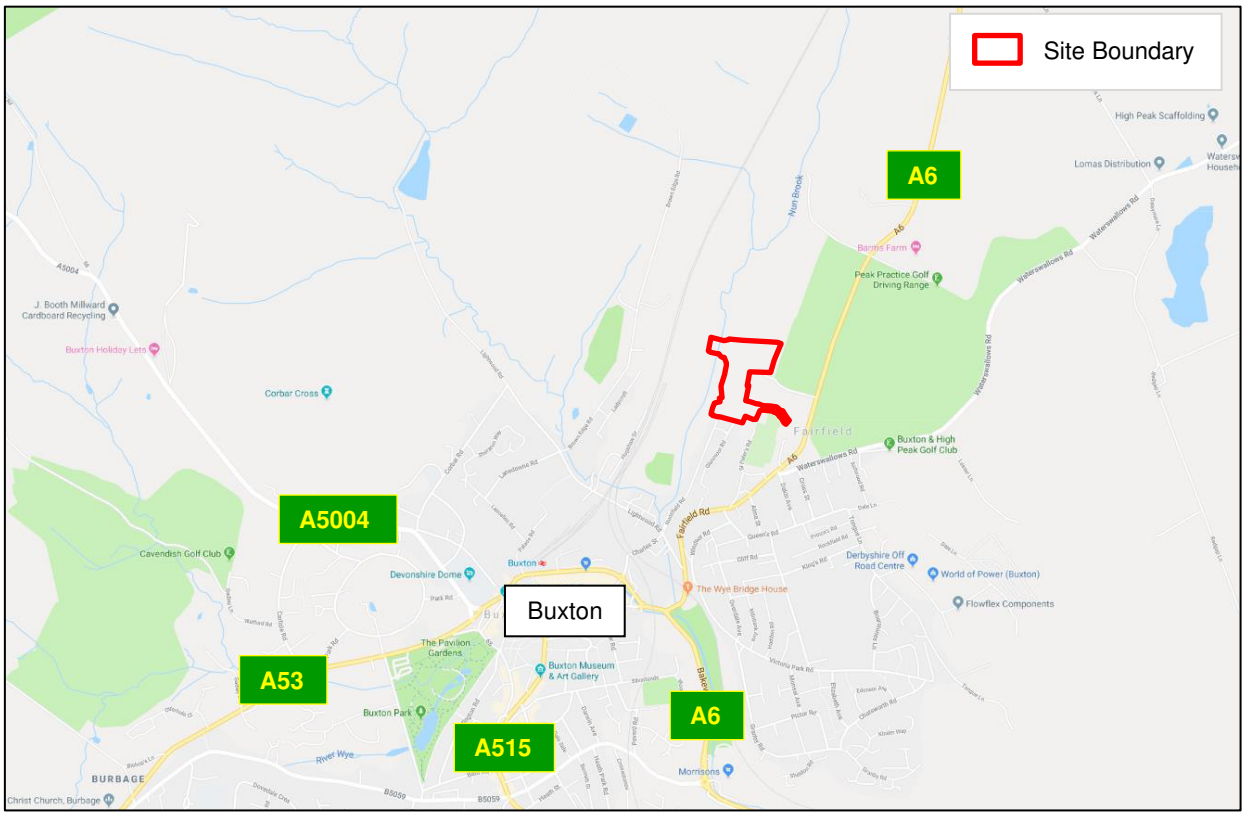
Site Location and Composition

2.2 The site located to the west of the A6 in Buxton and comprises undeveloped land which forms part of Hogshaw Farm and Nunsfield Farm.

2.3 The application site is allocated for residential development (sites B3 and B4) in the High Peak Local Plan (2016) for up to 124 dwellings.

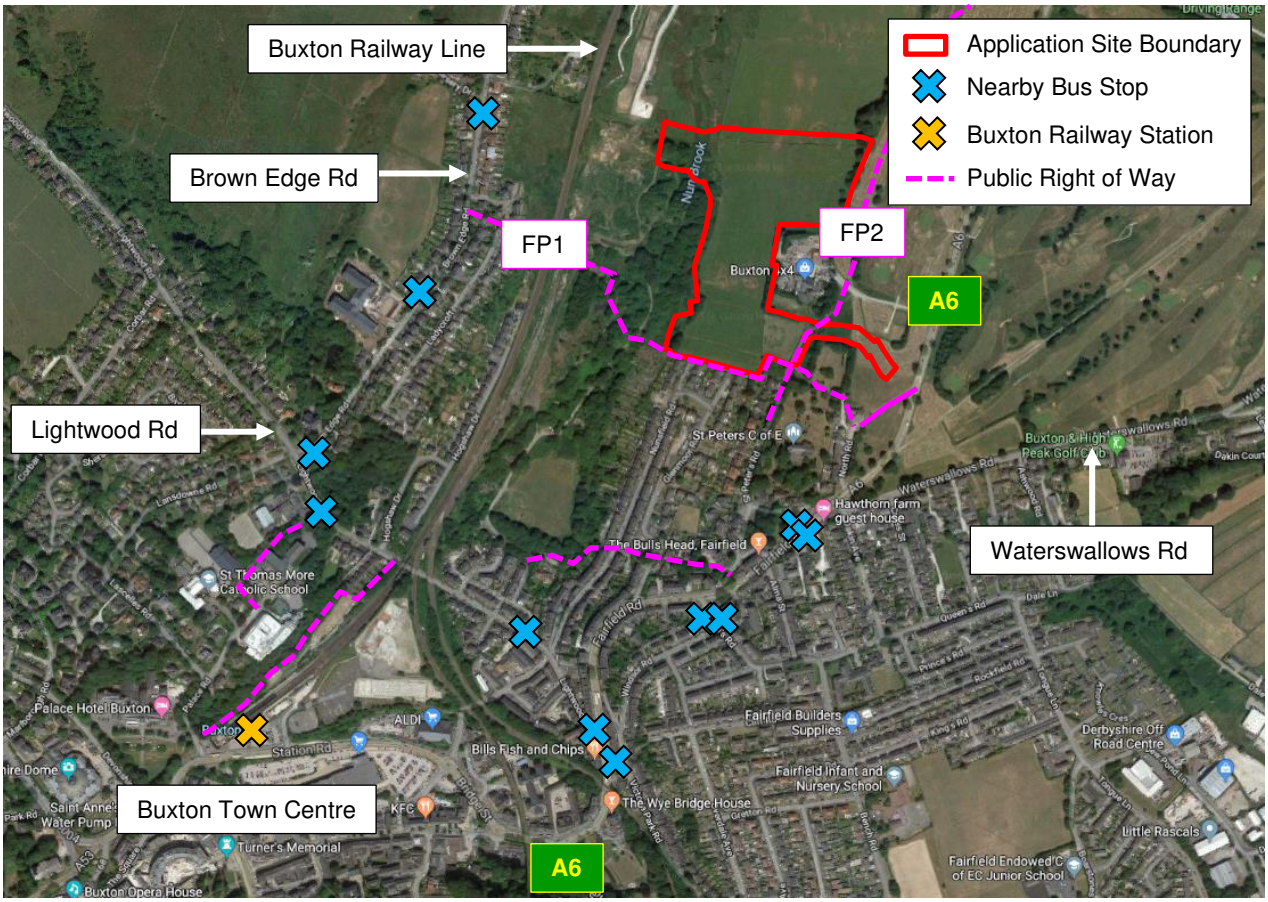
2.4 The site is bounded by undeveloped land to the north and west, undeveloped land and commercial/industrial uses to the east, residential properties and Nunsfield Road and Glenmoore Road to the south. The location of the site in relation to the wider highway network is shown on **Figure 2.1** below.

Figure 2.1 – Site Location – Wider Highway Network



2.5 The location of the site in relation to the local highway network is shown on **Figure 2.2** below.

Figure 2.2 – Site Location - Local Highway Network



Source: Google Maps

2.6 The application site currently comprises mostly undeveloped land which forms part of Hogshaw Farm.

2.7 There are a number of bus stops in the vicinity of the site as shown in **Figure 2.2** above. The nearest bus stop is located along the A6 within 300m of the proposed site access. The nearby bus stops provide access to a number of locations including Whaley Bridge, Hazel Grove, Stockport and Manchester Airport. Further details on public transport are provided in **Chapter 5**.

2.8 There are a number of public rights of way (PROW) within the vicinity of the site. PROW Buxton FP1 runs along the southern boundary of the site and then crosses the site in a north / south direction becoming FP2. FP1 provides a link between Brown Edge Road and the A6 via North Road and Buxton FP 77. FP 1 also links onto FP2 which provides a link between St Peter's Road and the A6.

Local Highway Network

2.9 The study area for the TA includes the following junctions:-

- Proposed Site Access Roundabout along the A6;
- A6 Fairfield Road / A53 Roundabout; and
- A6 Fairfield Road / Station Road / Dale Road Junction.

A6 Fairfield Road

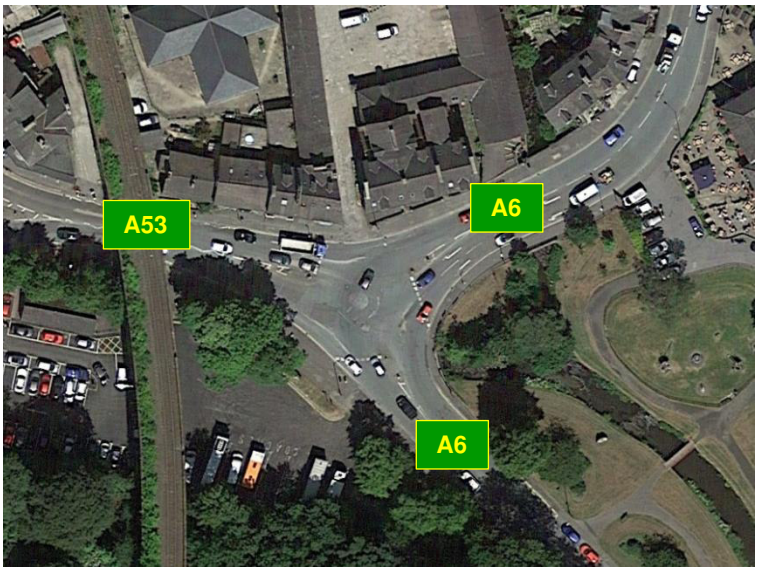
2.10 The A6 is located to the south and east of the site and is a major distributor route which provides long distance connection to Stockport and Manchester in the north and Derby, via Bakewell and Matlock in the southeast.

2.11 In the vicinity of the site, the A6 has a carriageway width of approximately 7.4m and benefits from footways and street lighting and is subject to a mandatory 50mph speed limit.

A6 / A53 Roundabout

2.12 The A6 / A53 roundabout is located to the south of the site in Buxton Town Centre and takes the form of a priority controlled mini-roundabout. The layout of the junction is shown on **Figure 2.3** below:

Figure 2.3 - A6 / A53 Roundabout



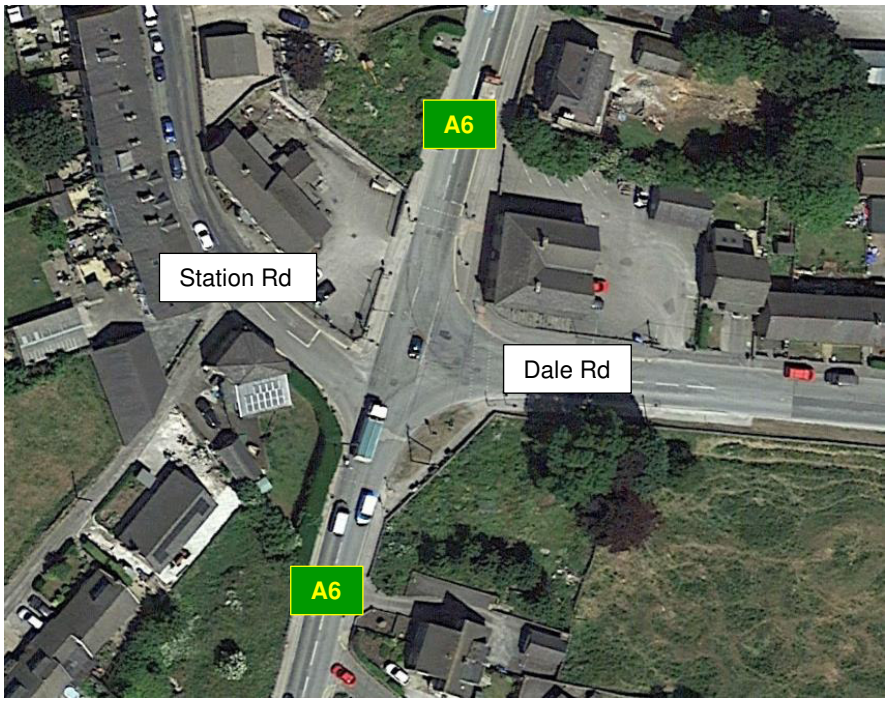
2.13 Pedestrian refuges are provided on the north-eastern and south-eastern arms of the roundabout in order to further assist pedestrians.

A6 / Station Road / Dale Road Junction

2.14 The A6 / Station Road / Dale Road junction is located to the north-east of the site in Dove Holes and takes the form of a signalised staggered crossroads junction with the A6 forming the major arms and station Road and Dale Road the minor arms.

2.15 The layout is shown on **Figure 2.4** below:

Figure 2.4 - A6 / Station Road / Dale Road



2.16 Signalised crossings are provided on all arms of the junction in order to further assist pedestrians.

Traffic Flow Data

2.17 In order to establish existing traffic flow demand on the local network traffic flow surveys have been undertaken on Thursday 2nd May 2019 at the off-site junctions identified in 2.9 earlier. The traffic survey data is presented in **Appendix C** and shown diagrammatically on **Traffic Flow Figure 1**. The peak hours for the local highway network have been calculated as being between 07:45 and 08:45 and 16:15 to 17:15.

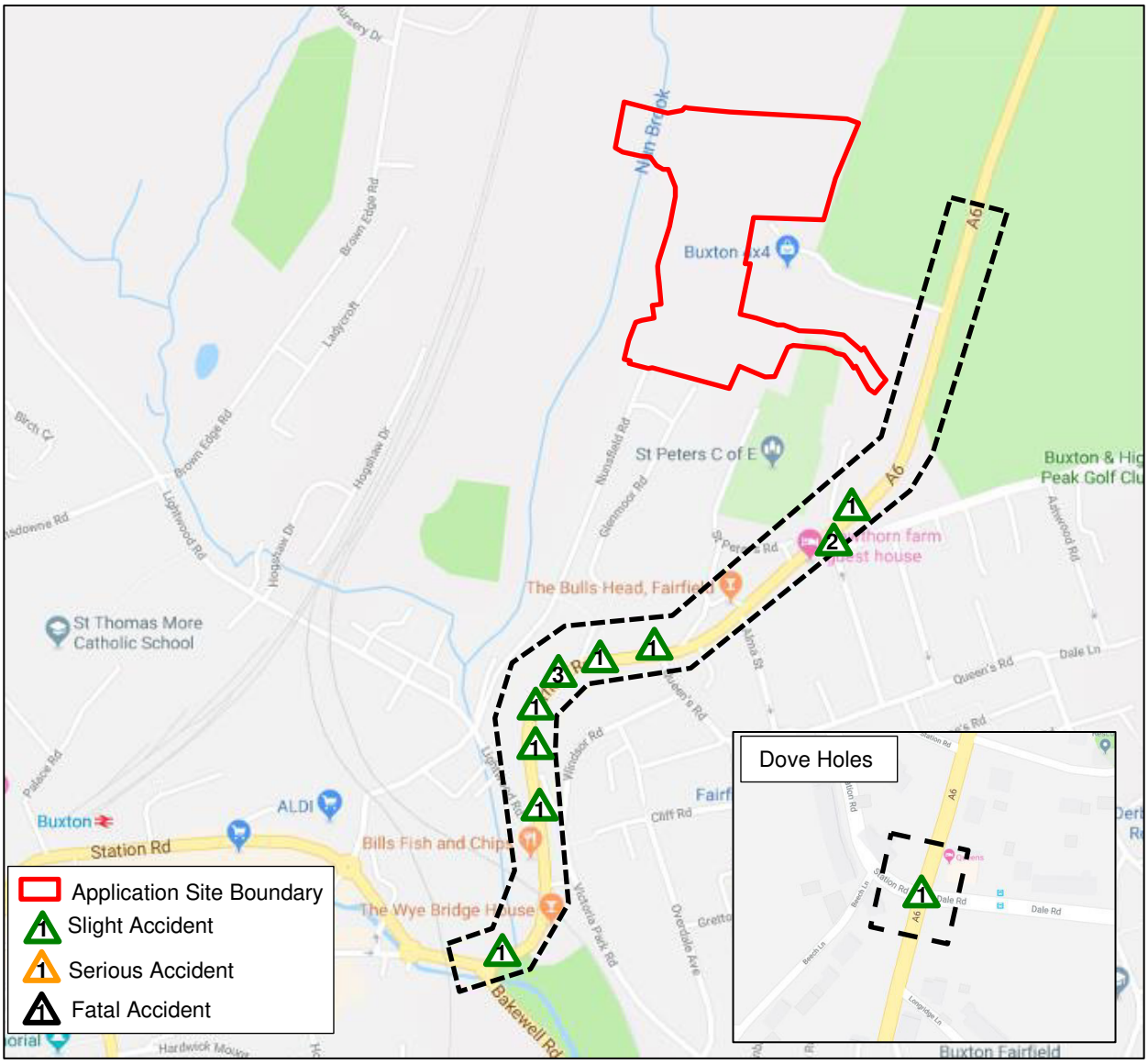
2.18 The use of the historic traffic flow data is considered acceptable in this instance and robust given that the surveys were undertaken pre-COVID19, with increased levels of working from home since the pandemic. DCC reviewed the previous TA and raised no queries with the traffic survey data used in the assessments.

Road Safety

2.19 The Planning Practice Guidance (PPG) 'Transport evidence bases in plan making and decision taking' document states that, *"Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems".*

2.20 In order to identify critical locations on the network with a poor accident record, the personal injury accident data has been obtained from the online resource website CrashMap for the most recently available 5-year period ending 31st December 2022, as shown on **Figure 2.5** below.

Figure 2.5 – Personal Injury



2.21 The key points derived from the 5-year accident analysis are summarised below:-

- One slight accident occurred within 20m of the A6 / A53 mini-roundabout;
- One slight accident occurred within 20m of the A6 / Queen's Road junction;
- Two slight accidents occurred at the A6 / Station Road / Dale Road junction;
- Three slight accidents occurred within 20m of the A6 / Waterswallows Road / North Road crossroads; and

- Seven slight accidents occurred along the A6 between the A6 / A53 mini-roundabout and the A6 / Queen's Road junction.

2.22 Whilst any accident is regrettable, there is a relatively low number of accidents within the study area with all accidents classed as slight severity. As a result, the existing accident record does not represent a material concern in the context of the proposed development.

3.0 PROPOSED DEVELOPMENT

Overview

3.1 The proposed development will provide 99 dwellings, comprising a mix of 11no. 2-bed houses, 48no. 3-bed houses and 40no. 4-bed houses.

3.2 The proposed site layout is presented in **Appendix D**, which, as mentioned previously has been updated from the original submission in response to DCC's comments. Scaled plans which show the appropriate dimensions of the internal highway are also provided in **Appendix D**.

Proposed Access Arrangements

3.3 As detailed earlier, vehicular access to the development will be provided from the new roundabout on the A6. as detailed earlier, the roundabout has been introduced to allow the application site and other allocated sites within Buxton to come forward and has been specifically designed to accommodate the traffic generated by these developments.

3.4 The roundabout will take the form of a four-arm priority-controlled roundabout with the eastern arm linking south to Waterswallows Road and allowing for a future connection into the Tongue Lane Industrial Estate. An existing section of Waterswallows Road will be stopped up with a new priority-controlled T-junction being created onto Waterswallows Road east. The A6 northbound approach and the eastern and western arms all benefit from pedestrian refuges with dropped kerbs and tactile paving to assist pedestrians across. In addition a Toucan and Pegasus signal-controlled crossing facility will be provided on the northern arm, catering for cyclists and equestrians. The layout of the roundabout is shown on **Appendix B**.

3.5 At the request of DCC in their consultation comments, the access road into the site has been designed with a 5.5m wide carriageway. It also provides a 6m wide shared footway/cycleway/equestrian route on the northern side of the road, which links into the facility at the A6 roundabout, and a 2m wide footway on the southern side of the road, both of which separated from the carriageway by a verge. This arrangement runs for a length of approximately 70m into the site, where the shared footway / cycleway / equestrian route then crosses the internal access road and a 2m wide footway is provided adjacent to the carriageway and a separate bridleway runs along the southern boundary of the site and connects to the existing PRoW.

3.6 The equestrian facilities proposed at the A6 roundabout and access road have been designed to form part of the White Peak Loop (WPL). The WPL is a circular route of 54-miles (86km) around the Derbyshire Peak District to provide a predominantly traffic-free cycling and walking trail, with provision for equestrian use wherever possible. When complete the WPL will connect three of the most popular trails: Monsal, Tissington and High Peak, with the towns of Buxton, Bakewell, Matlock, and Matlock Bath, as well as links to local railway stations.

3.7 The internal equestrian crossing will take the form of an uncontrolled crossing. This form of crossing is acceptable given that LTN3/03 states that uncontrolled equestrian crossings are suitable where 'the visibility is adequate and the vehicular flows and the 85th percentile speeds are reasonable'. As detailed later, the access will be relatively lightly trafficked, visibility from the crossing is good and traffic speeds low due vehicles just having negotiated the site access roundabout

3.8 The WPL is also part of a unique Key Cycle Network (KCN) to deliver strategic off road routes for work and leisure. The proposed KCN Link No. 17 between Buxton Railway Station and Fairfield Common (A6) has been identified as one of the top priority sections and a route through the application site is necessary to help complete the WPL. As part of the development, a segregated bridleway through the site is proposed delivering part of the WPL which is achieved through the retention and upgrading the PRoW that runs along the southern boundary of the site, as shown on the site plan.

Internal Road Layout

3.9 The internal road layout to be designed to achieve a 20mph design speed. It is proposed that the internal junctions will be on a raised table to help control speeds and provide improved pedestrian crossing.

3.10 The internal highway layout has been designed to comply with the Delivering Streets and Places Guidance 2017, as adopted by DCC, with the main internal spine road being designed with a 5.5m wide carriageway and more minor cul-de-sacs with a 5.0m wide carriageway. In addition, the footways designed with 2m width.

3.11 DCCs previous comments stated that frontage access to properties should be spaced 20m from junctions and that consideration should be given to converting the internal access junctions to bends to control speeds.

3.12 The layout has been revised from the original submission and, where possible, the junctions have been replaced with bends, particularly to the north of the site. As detailed earlier, it is proposed that the internal junctionswill be on a raised table to help control speeds and provide improved pedestrian crossing. The raised table, along with the change in priority are considered to be as effective at reducing speeds as converting these junction to bends.

3.13 Carriageway and footway materials are to be addressed at the Section 38 stage of the application.

Servicing

3.14 In accordance with the principles set out in the MfS, the internal road network has been designed to ensure the movements of a refuse vehicle can be safely accommodated without allowing their requirements to dominate the layout.

3.15 After the initial site access, the internal access roads provide 5.5m wide carriageways with 2m wide footways and turning heads to ensure that reversing distances are kept to a minimum. Swept path analysis of a Denis Eagle Elite 6 (Mid Steer) refuse vehicle.is shown on the plan provided in **Appendix E**.

Parking

Car parking standards for residential development are presented in High Peak Borough Council's 2016 Local Plan and are summarised below:

Car Parking

- 1/2 bedrooms – 1.5 spaces per unit
- 3 bedroom – 2 spaces per unit
- 4+ bedrooms – 3 spaces per unit

3.16 The scheme provides parking in accordance with HPBC's standards and the parking spaces are designed with geometries of 2.4 x 4.8m.

Cycle Parking

- 1/2/3 bedrooms – 1 cycle parking space per unit if no garage or shed provided.
- 4+ bedroom 1 cycle space per unit if no garage or shed provided

- Motorcycle parking – no standard.

3.17 It is confirmed that cycle parking will be provided for each dwelling which do not benefit from a garage. This will be provided in a secure cycle storage in the curtilage of each property, as shown on the site plan.

3.18 Based on the above, the proposed development provides parking in accordance with HPBC's standards.

Levels

3.19 It was noted in DCC's consultation response that longitudinal sections are required to allow assessment of level differences within the siteand that street gradients should not exceed 1 in 20. Longitudinal section will be provided at Section 38 detailed design stage. Notwithstanding this, the internal gradients are based on a pre-application meeting with DCC and are as follows:-

- Road 1 / main access from roundabout – 1 in 10
- All other roads – 1 in 12
- These gradients are the same as the applicant has had agreed and approved on Heathfield Nook and Midshires Meadow development and therefore acceptable.

Public Rights of Way

3.20 Consultation between SCP and DCC has taken place with regards to proposed PRoW and Bridleway upgrades/diversions and a copy of DCC's comments are provided in **Appendix F**. The proposed layout plan presented in **Appendix D** has been updated to address these comments and includes the following:-

- Convert/upgrade a designated footpath within the site to a bridleway in order to form part of the White Peak Loop. In accordance with DCC's comments, the internal route has been designed to take a more meandering course and removal of the sharp right-angled bends. Between the spur road and the south-western corner of the site, the path has a minimum width of 3m and forms part of wider green corridor. The route has also been offset from the boundary with existing properties on Glenmoor Road and Nunsfield Road and forms a green corridor at this location with limited physical separation from the proposed dwellings to the south of the spur road. Chicane barriers set wide apart will be provided to allow ease of access for all users should be installed on the uphill side of the junctions with Glenmoor Road and Nunsfield Road to help slow cyclists down in advance.

- A new section of bridleway along the proposed site access between Buxton FP2 to the west and the proposed site access roundabout to the east. Two paths (minimum 3m wide) will be provided in order to segregate equestrians from other non-motorised users.

- Further design details such a surfacing materials, signage and illumination are to be agreed with DCC during the detailed design stage, however it is confirmed that these will be provided in accordance with DCC's comments.

3.21 It is understood that a diversion order and creation agreement will need be dealt with by High Peak Borough Council, however confirmation is sought.

4.0 PLANNING POLICY CONTEXT

Introduction

4.1 This Chapter provides a summary of relevant national, regional and local transport policies and provides a brief analysis of how the proposed development will contribute towards their aims and objectives.

Introduction

4.2 This chapter provides a summary of relevant national, regional and local transport policies and provides a brief analysis of how the proposed development will contribute towards their aims and objectives.

National Planning Policy Framework (NPPF)

4.3 NPPF is published by the Ministry for Communities and Local Government to set the framework under which local transport, parking and accessibility plans and policies are set. The NPPF has been revised most recently in December 2023.

4.4 At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development which for decision-taking means:

- "approving development proposals that accord with an up-to-date development plan without delay; or
- where the there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
  - the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
  - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

4.5 In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
b) safe and suitable access to the site can be achieved for all users; and

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and
d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

4.6 Importantly, NPPF states that:

'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe'.

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and
e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.

Derbyshire County Council Local Transport Plan

4.7 Derbyshire Local Transport Plan was published in 2011 and sets out the transport vision, goals, challenges to be tacked and a strategy covering the period to 2026. The vision aims to achieve a transport system that is both fair and efficient, promotes healthier lifestyles, safer communities, safeguards and enhances the natural environment and provides better access to jobs and services. Whilst also improving choice and accessibility of transport and integrating economic, social and environmental needs.

4.8 The five transport goals are:

- Supporting a resilient local economy
- Tackling climate change.
- Contributing to better safety, security and health;
- Promoting equality of opportunity;
- Improving quality of life and promoting a healthy natural environment

4.9 The plan puts emphasis on supporting a resilient local economy, contributing to better safety, security and health, and improving quality of life and promoting a healthy natural environment.

High Peak Local Plan

4.10 The site is allocated for housing in the High Peak Local Plan (Site Ref B4). In regards to the transport related aspects of the site, the High Peak Local Plan states the following:

"6.93 There are extensive footpaths within the site, but these will need improving, and cycle ways included, within the first phase of development."

"*6.96 Currently, there is only limited access to the site. An unadopted vehicular access from Hogshaw Villas serves garages, allotments and the playing field. To the north, the site abuts both Nunsfield Road and Glenmoor Road, although neither would be suitable to cater for the increased level of traffic as a result of development. Overall, the existing road network is incapable of improvement to provide anything but an access for emergency vehicles. Therefore, a new access to the site is required from the A6, which is congested for much of the day."*

"*6.97 The Local Plan proposes a new roundabout at Fairfield Common which lies within the Fairfield Conservation Area. Potentially, this roundabout would serve both the Hogshaw development, and further development in Fairfield. There is currently an outline permission for this roundabout as part of a residential development at Fairfield. A recent renewal application has been made for the same scheme. However, there is no agreed programme for this scheme. Consequently, provision of the roundabout would fall to the developer of Hogshaw, if this came forward first. A local distributor standard road of approx 265m from this roundabout would also be required to access the site.*"

4.11 Policy CF 6 states the following:

"*Accessibility and Transport*

The Council will seek to ensure that development can be safely accessed in a sustainable manner. Proposals should minimise the need to travel, particularly by unsustainable modes of transport and help deliver the priorities of the Derbyshire Local Transport Plan.

This will be achieved by:

Delivering sustainable patterns of development

- *Ensuring that additional growth within the Market Towns and Larger Villages is managed and where possible, accompanied by accessibility improvements*
- *Promoting a balanced distribution of housing and employment*
- *Ensuring the development of social, cultural and community facilities in locations that allow for ease of access by multiple methods of transportation*
- *Requiring that all new development is located where the highway network can satisfactorily accommodate traffic generated by the development or can be improved as part of the development*
- *Requiring that new development can be integrated within existing or proposed transport infrastructure to further ensure choice of transportation method and enhance potential accessibility benefits*
- *Supporting proposals for new community assets and facilities where these are required to meet the needs of the Plan Area or lead to the provision of additional assets that improve community well-being*

- *Requiring that facilities are well related to public transport infrastructure and provide high standards of accessibility to all sectors of the community*
- *Supporting innovative schemes to secure the local delivery of public services in rural communities and other areas with poor public transport, in particular the delivery of some services through the use of mobile services and technology will be encouraged where this results in better local provision*
- *Ensuring development does not lead to an increase in on street parking to the detriment of the free and safe flow of traffic*
- *Supporting transport infrastructure and services*
- *Supporting the implementation of the A6 Corridor Transport Strategy in Buxton and the Central Area. Specific measures are identified in the relevant Local Plan policies and Infrastructure Delivery Plan*
- *Supporting highways and junction improvements required to address the cumulative impact of development across High Peak as identified in the High Peak Local Plan*

Transport Study and Infrastructure Delivery Plan

- *Promoting the maintenance and introduction of appropriate facilities to support cyclists, pedestrians and horse riders, ensuring that development supports the use of local cycleway and pathway networks to improve choice of travel and ensuring safe access to developments on foot and by bicycle*
- *Encouraging and promoting improvements to public transport networks in association with the Local Highway Authority, Network Rail and other providers*
- *Supporting the use of rail for the transportation of freight wherever feasible to do so*

- *Approving developments provided that the capacity and design of the transport network serving the site will reasonably accommodate the anticipated increase in travel without materially harming highway safety or local amenity. In addition, the traffic generated by the development will not unduly interrupt the safe and free flow of traffic on trunk or primary roads or materially affect existing conditions to an unacceptable extent Requiring applicants to submit and implement Travel Plans (or Travel Plan Statements) and Transport Assessments to support relevant proposals, as advised by the Highways Authority. Consultation with Network Rail when development may impact on the rail network, including impacts on level crossings will also be required. Where appropriate, Transport Assessments will consider the impact on the rail network and identify appropriate mitigation measures Developments that will result in a material increase or significant change in the character of traffic using a rail crossing will be refused, unless it can be demonstrated that safety will not be compromised in consultation with Network Rail*

- *Requiring applicants to submit details of parking which includes the proposed parking provision based on an assessment of the parking needs of the development and the impact on the surrounding road network. Developments which will lead to an increase in traffic or include parking provision will need to submit details. The details should be proportionate to the impact of the development. Guidance on parking is given in Appendix 1.*

Developer contributions or funding pooled through a Community Infrastructure Levy will be used to deliver transport and accessibility improvements required to accord with this policy. Further details are provided in Policy CF7 and Infrastructure Delivery Plan. In the event that a Community Infrastructure Levy is adopted, the Regulation 123 "Infrastructure List" will also specify appropriate measures to be funded."

Summary

4.12 In general, the national, regional and policies set out above promote common aims in respect of reducing car borne trips and encouraging travel by sustainable modes such as public transport, walking and cycling. In particular, policy advocates locating developments that generate significant movement where there is high quality infrastructure and sustainable transport modes can be maximised.

4.13 The site is allocated for housing in the local plan and the following chapter demonstrates that the proposed development is well located in relation to sustainable transport facilities making the development accessible to non-car modes of transport. The development proposals are therefore considered to be in accordance with the thrust of national, regional and local policy aims.

5.0 SUSTAINABLE TRANSPORT APPRAISAL

General

5.1 This Chapter presents a review of the accessibility of the site by walking, cycling and public transport modes. Policies to encourage travel by sustainable modes are developed further within the Interim Travel Plan for the development that accompanies this application.

Pedestrians

5.2 The MfS states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, it goes on to state that this is not an upper limit and that walking offers the greatest potential to replace short car trips, particularly those under 2km.

5.3 The pedestrian accessibility of the development has been modelled using Geographical Information System (GIS) software to produce isochrones mapping.

5.4 As detailed in the High Peak Local Plan (2016), "*most of the* [application] *site is within 1km walk of the town centre facilities,"* which includes a wide range of facilities, including education, leisure, retail and commercial facilities, as summarised below:

Table 5.1 – Local Facilities within 2km

Facility	Detail	Distance from centre of site (approximate)
Supermarket	Aldi	600m
Primary School	St Thomas Moore Catholic School	700m
Shopping Centre	The Springs Shopping Centre	800m
Post Office	Buxton Post Office	800m
Railway Station	Buxton Railway Station	950m
Buxton Centre	Shopping Facilities/Tourist Attractions	1.1km
School/Pre School	Fairfield Infant and Nursery School	1.1km
University	University of Derby (Buxton Campus)	1.2km
School/Pre School	Buxton Infant and Nursery School	1.2km
Pharmacy	Peak Pharmacy	1.4km
Primary School	Fairfield Endowed C of E Primary School	1.4km
Supermarket	Morrisons	1.5km
Library	Buxton Library	1.8km

5.5 In relation to the quality of the pedestrian routes, the new site access roundabout onto the A6 with provide high quality, pedestrian, cycle and equestrian facilities which will connect the development into the wider highway network. This includes a shared footway / cycleway and equestrian route on the northern side of the site access arm and a and a 2m wide footway on the southern side of the road, both of which separated from the carriageway by a verge. In relation to the crossing facilities, the A6 southern arm and the eastern and western arms all benefit from pedestrian refuges with dropped kerbs and tactile paving. In addition, a Toucan and Pegasus signal controlled crossing facility will be provided on the northern arm, catering for cyclists and equestrians.

5.6 In addition, a segregated bridleway through the site is proposed delivering part of the WPL which is achieved through the retention and upgrading the PRoW that runs along the southern boundary of the site.

5.7 A new section of footway will be provided on the eastern side of the A6 which will link into the existing footway which provides a continuous connection south into Buxton and the associated facilities, with only minor side road arms that that require crossing. As detailed earlier, the review of the accident record has not highlighted any safety issues, suggesting that the existing facilities are operating safely. Having regard to the above, the existing and proposed pedestrian facilities are considered appropriate to serve the development.

Cyclists

5.8 Transport policy identifies that cycling represents a realistic and healthy option to use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.

5.9 The plan in **Appendix G** illustrates the 5km cycle catchment area around the site, which is roughly equivalent to a 25 minute cycle time. The plan demonstrates that the entirety of Buxton and the nearby village of Dove Holes is located within 5km of the development.

5.10 As can be seen from the local cycle infrastructure plan in **Appendix G**, National Cycle Route (NCR) 68 is located approximately 1.0km to the south-west of the site along the A5004 which forms part of the Pennine Cycleway and provides cycle access to the nearby areas of New Mills and Glossop, amongst others.

5.11 In their consultation comments, DCC requested that a Walking, Cyclist and Horse Riding Assessment (WCHRA be undertaken along the A6. It is not typical for residential developments to undertake WCHAR assessments. WCHAR's are used for assessing highway schemes on motorways and all-purpose trunk roads, the A6 is not a trunk road. Furthermore, the site access roundabout onto the A6 has been designed by DCC and introduced to allow the application site and other allocated sites within Buxton to come forward. Pedestrian, cycle and equestrian user have been taken into account in the design, with a Toucan and Pegasus signal-controlled crossing facility provided on the northern arm and appropriate links provided. If a WCHAR is deemed necessary is should have been carried out as part of the A6 roundabout design works.

5.12 A Cycling Level of Service (CLoS) and Junction Assessment Tool (JAT) are assessment tools for scoring cycle schemes against the standards in LTN 1/20 and give local authorities flexibility on infrastructure design whilst also setting a measurable quality threshold to achieve when designing new cycling schemes.

5.13 A JAT examines all potential movements at a junction and enables designers to assess how well a junction provides for cycling as well as identify any measures required. Similarly, a CLoS is undertaken as part of the design process to assess potential schemes and their relative benefits, to ensure that a scheme conforms to good practice, and are also used as part of the funding process.

5.14 Therefore, the requested assessment tools are relevant for wider new cycle route schemes but are not considered necessary as part of the proposed development/access arrangement. Again, the site access roundabout onto the A6 has been designed by DCC and provides high quality facilities for pedestrians, cyclists and equestrians. If a CLoS and JAT was considered necessary, this should have been carried out as part of the A6 roundabout design works.

Public Transport

5.15 In terms of bus services, the Chartered Institute of Highways & Transportation's (CIHT's) *"Guidelines for Planning for Public Transport in Developments"* document identifies, at section 6.20, that *"Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m."*

5.16 The nearest bus stops are located along the A6, less than 300m walking distance of the proposed site access and are therefore within the recommended walking distance. Further bus stops are provided along Lightwood Road and Brown Edge Road which can be access via FP1.

5.17 Whilst it is acknowledged that some of the proposed dwellings fall outside of 400m threshold, they are still located within an acceptable walk distance. As detailed previously, continuous and high-quality footways are provided along the route to the bus stops, with a signalised crossing facilities provided over the A6.

Services from the bus stops at these locations are summarised in **Table 5.2** below:

Table 5.2 – Bus Service Summary

Service Number	Bus Stop Locations			Route	Mon-Fri		Sat		Sunday	
	Fairfield Road (A6)	Lightwood Road	Brown Edge Road		Frequency	First/Last	Frequency	First/Last	Frequency	First/Last
030	✓			Dove Holes – Peak Dale - Buxton	School Service		No Service		No Service	
62	✓			Buxton – Hope – Castleton	3 services per day	08:28 – 15:48	3 services per day	08:28 – 15:48	3 services per day	08:28 – 15:48
76		✓	✓	Buxton – Brown Edge	4 services per day	09:00 – 15:00	4 services per day	09:00-15:00	-	-
185	✓			Burlow – Harpur Hill – Buxton – Fairfield Estate	60	07:02-19:15	60	07:20-19:20	-	-
190	✓			Buxton – Upper End – Chapel – Whaley Bridge	1-2 hours	08:45 – 17:50	2-3 hours	08:45 – 17:50	-	-
Skyline 199	✓			Buxton – Chapel -Whaley Bridge – Stockport – Manchester Airport	30	04:30 – 22:40	30	04:30 – 22:40	60	03:30-21:25

5.18 Buxton Bus Station is located directly opposite Buxton Railway Station and provides further bus services throughout the region.

5.19 Buxton Railway Station is located approximately 1.5km to the south-west of the pedestrian site access along the A6 and cycle parking with CCTV is provided at the station.

5.20 Buxton Railway Station provides regular train services throughout the week (approximately two services per hour during peak hours) to Manchester Piccadilly via Chapel-en-le-Frith, Hazel Grove, Stockport and Levenshulme, amongst others. The journey time from Buxton Railway Station to Manchester Piccadilly Station is approximately one hour.

5.21 The plan in **Appendix H** indicates a 60 minute public transport journey from the site. The time includes the walk to the nearby bus stops and railway station, demonstrating that it is possible to reach areas such as Leek, Macclesfield and Stockport within an acceptable commute time.

5.22 On this basis, the existing public transport provision is considered acceptable and provide a viable option for prospective residents. In addition, the development will provide bus taster tickets, as requested by DCC, to further encourage use by public transport.

Summary

5.23 The application site is allocated under sites B3 and B4 of the High Peak Loal Plan so the principle of residential development and accessibility of the site has already been established and found acceptable by HPBC. In particular and as detailed in the TA, the High Peak Local Plan (adopted 2016), states that “most of the [application] site is within 1km walk of the town centre facilities,”

5.24 The accessibility analysis above presents a detailed assessment of the accessibility of the site with the pedestrian, cycle and public transport accessibility of the development having been modelled using GIS software with isochrone mapping. In addition, a list of the available facilities within acceptable 2km walk distance of the site is provided.

5.25 Based on this and the accessibility analysis presented in this report, there is no requirement in the Local Plan to provide any improvements to sustainable modes of travel.

5.26 Notwithstanding this, accessibility should be considered in the round, with this site benefiting from good levels of accessibility within easy walk distance of Buxton and the wide range of facilities provided. Again the site is allocated for residential development, with there being no requirement as part of the allocation policy to improve public transport assess.

6.0 FUTURE BASELINE TRAFFIC CONDITIONS

Introduction

6.1 This Chapter describes the future baseline traffic conditions on the local highway network in relation to traffic growth and committed development traffic flows.

Traffic Growth

6.2 Capacity assessments in this TA are undertaken for the predicted year of submission and 5-years hence, which is broadly compliant with guidance contained in the DfT's *"Guidance on Transport Assessment"* document. The year of submission is 2024 and the future assessment year adopted is therefore 2029.

6.3 In order to quantify the level of background traffic growth that could occur on the local network between the date of the traffic surveys and the assessment years, National Traffic Model (NTM) growth factors, modified by TEMPRO local growth factors, have been extracted for the High Peak 010 Middle Super Output Area (MSOA) and are summarised in **Table 6.1** below:-

Table 6.1 – Traffic Growth Factors

Period	AM Peak	PM Peak
2019 to 2029	1.0967	1.0961

6.4 The above growth factors are applied to the surveyed traffic flow to obtain the 2029 growthed surveyed traffic flows, as shown on **Traffic Flow Figure 2**.

Committed Development Flows

6.5 The committed development to be taken into account in this TA are summarised below.

Waterswallows Residential Development

6.6 The Waterswallows residential development was approved at outline for 330 dwellings (Application Reference: HPK/0003/9366). There is limited information on the Council's planning website, however, it is understood that the planning permission is still extant through the submission of a reserved matters application and on this basis, the Waterswallows site is proposed to be taken into account in the TA.

6.7 Given that no TA for the Waterswallows site is available on the Council's website, the approved trip rates presented later in this scoping note have been applied to the Waterswallows 330 dwelling scheme and distributed through the study area based on information from the 2011 Census. The resultant Waterswallows committed development traffic is presented diagrammatically in **Traffic Flow Figure 3**.

Granby Road Residential Development

6.8 A planning application (Application Reference: HPK/2019/0164) for a 73 dwelling residential development (known as Granby A) was granted planning permission on 26th March 2020, with the majority of the site already constructed. Notwithstanding this, the Granby A committed development traffic flows have been included in the assessment which provides a robust assessment, with the traffic flows shown on **Traffic Flow Figure 4**.

6.9 No planning application has been submitted for the Granby B site so there is no reasonable degree of certainty that development will come forward in the next 3 years. Given that this is an allocated site, any traffic will be taken into account through the application of background traffic growth.

6.10 A planning application has been submitted for Granby C which, at the time of preparing this report has not been granted planning permission. However, to provide a robust assessment the traffic flows have been obtained from the supporting TA and included in the assessments presented later in this report. The Granby C traffic flows are shown on **Traffic Flow Figure 5.**

6.11 The total committed development flows are shown on T**raffic Flow Figure 6**.

7.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

Overview

7.1 This chapter provides an estimate the number of multi-modal trips generated by the proposed uses of the site, along with the distribution and assignment of vehicular traffic on the local highway network.

Trip Generation

7.2 To estimate the trip generating potential of the proposed residential use of the site, the TRICS Database has been interrogated for surveys of developments similar to that proposed.

7.3 The selection criteria for the residential TRICS-based trip rates is as follows:-

- Land use Residential / Houses Privately Owned;
- London and NI / Ireland sites excluded;
- Multimodal surveys;
- 'Edge of Town' and 'Suburban Area' locations included; and
- Based on number of dwellings.

7.4 The TRICS outputs are presented in **Appendix I** with the trip rate summarised in **Table 7.1** below:-

Table 7.1 – Residential Use Trip Rates (Trip Rate per Dwelling)

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.134	0.365	0.322	0.164
Cyclists	0.006	0.020	0.014	0.010
Pedestrians	0.051	0.138	0.065	0.032
Public Transport	0.003	0.045	0.026	0.003

7.5 The above trip rates have been applied to the proposed 99 dwellings to determine the multi-modal trip generation for the development, as summarised in **Table 7.2** below

Table 7.2 – Proposed Residential Development Trip Generation

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	13	36	32	16
Cyclists	1	2	1	1
Pedestrians	5	14	6	3
Public Transport	0	4	3	0

Trip Distribution and Assignment

7.6 The trip distribution methodology is based on Special Workplace Statistics (SWS) from the 2011 National census for all "out-moves" for the High Peak 10 Middle Super Output Area (MSOA), as presented in **Appendix J**.

7.7 Out-moves provide an indication of the numbers and destinations (on a ward basis) of people who reside in the MSOA and who work elsewhere. The out-moves are assigned to the routes summarised in **Table 7.3** below and are expressed as a percentage of the total number of movements out of the ward:-

Table 7.3 – Trip Distribution

Route Description	Percentage
Station Road West	3%
Dale Road East	2%
A6 North	32%
Waterswallows Road East	12%
A53 West	29%
Bakewell Road South	21%

7.8 The above distribution routes are shown diagrammatically on the **Traffic Flow Figure 7**.

7.9 As mentioned previously, the proposed site access roundabout will provide a link between the A6 and Waterswallows Road. Traffic which currently routes via Waterswallows Road in order to access the A6 will instead route via the proposed roundabout.

Traffic Assignment

7.10 The development related traffic has been assigned to the above distribution method and are shown on **Traffic Flow Figure 8**.

8.0 ANTICIPATED HIGHWAY IMPACT

Introduction

8.1 This Chapter describes the impact of the additional trips generated by the proposed development on the operation of the local highway network.

Assessment Methodology

8.2 Assessments of the priority controlled and roundabout junctions within the study area have been undertaken using Junctions 9 (ARCADY and PICADY) software and for the signal junction LINSIG software.

8.3 With the Junctions 9 model the results generated provide a Ratio to Flow capacity (RFC) along with an estimate of the likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions. Values between 0.85 and one and represents variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of one represents overloaded conditions (i.e. congested conditions).

8.4 LINSIG software presents results as a percentage Degree of Saturation (DoS) and corresponding likely traffic queues for each modelled link at the junction. For Traffic Signals it is generally accepted that DoS of 90% or less on individual links represents satisfactory signal operation. DoS of between 90% and 100% represent variable operation which warrants further investigation and values in excess of 100% represent overloaded conditions.

8.5 Capacity assessments have been undertaken in future assessment year (2029) in the 'with' and 'without' development scenarios. The 2029 'without development' baseline traffic flows are the sum of the growthed traffic flows plus the committed development flows and are shown on **Traffic Flow Figure 9**. The 2029 'with development' assessment traffic flows are the sum of the baseline traffic flows and the proposed development traffic flows, as shown on **Traffic Flow Figure 10**.

Proposed Site Access Roundabout

8.6 As detailed earlier, vehicular access to the development will be provided via from the new roundabout on the A6 which, at the time of preparing this report, is currently under construction. The roundabout has been introduced to allow the application site and other allocated sites within Buxton to come forward and has been specifically designed to accommodate the traffic generated by these developments.

8.7 Notwithstanding this ARCADY software has been used in the assessment of the proposed site access roundabout and the results are presented in **Appendix K** with the results summarised in **Table 8.1** below.

Table 8.1 – Proposed Site Access Roundabout – 2029 'With Development' ARCADY Results

Arm	AM PEAK (0800 to 0900)		PM PEAK (1700 to 1800)	
	RFC	MMQ	RFC	MMQ
A6 (North)	0.70	2.3	0.61	1.6
Waterswallows Road	0.27	0.4	0.32	0.5
A6 (South)	0.62	1.6	0.74	2.8
Site Access	0.06	0.1	0.03	0.0

8.8 As to be expected, the above table demonstrates that the proposed site access roundabout is forecast to operate within capacity with the development proposals in place.

A6 / A53 Mini-Roundabout

8.9 Assessments of the operation of A6 / A53 mini-roundabout have been undertaken using ARCADY software. The ARCADY outputs are presented in **Appendix L** with the results summarised in **Table 8.2** and **Table 8.3** below.

Table 8.2 – A6 / A53 Mini-Roundabout – 2029 Without Development ARCADY Results

Arm	AM PEAK		PM PEAK	
	RFC	MMQ	RFC	MMQ
A6 (North-west)	1.03	32.1	1.01	21.1
A6 (South-west)	0.89	6.2	0.98	13.8
A53	0.75	2.8	1.12	35.1

Table 8.3 – A6 / A53 Mini-Roundabout – 2029 With Development ARCADY Results

Arm	AM PEAK		PM PEAK	
	RFC	MMQ	RFC	MMQ
A6 (North-west)	1.05	38.8	1.02	22.3
A6 (South-west)	0.89	6.3	1.00	15.5
A53	0.76	2.9	1.13	39.2

8.10 The above results demonstrate that the A6 / A53 mini-roundabout is predicted to operate over capacity in 2026 without the proposed development in place. However, with the additional development traffic there is no material change in overall junction performance / predicted queue lengths, when comparing the 'with' and 'without development' scenarios, with a maximum increase in RFC values of only 0.1 and queues of 6-7 PCU, which cannot be considered to be material or severe.

8.11 It should be noted that when junctions reach their theoretical capacity, ARCADY software is unable from that point to accurately predict how the junction would cope with additional traffic flows, very often results in an exponential increase in queueing, which is not commensurate with the actual number vehicles added to the approach flows, as is the case here.

8.12 When junctions reach their theoretical capacity, ARCADY software is unable from that point to accurately predict how the junction would cope with additional traffic flows, very often results in an exponential increase in queueing, which is not commensurate with the actual number vehicles added to the approach flows, as is the case here.

8.13 Furthermore, it should be noted that the proposed development will only result in an increase of 26 two-way trips in both the AM and PM peak hours, which equates to an average of less than one additional vehicle every two minutes. This falls below the widely accepted 30 two-way trip threshold for when a traffic impact requires detailed assessment or considered material (now archived DfT Guidance on Transport Assessment).

8.14 Paragraph 111 of the NPPF states "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe". It is important to note the distinction that NPPF paragraph 111 draws between consideration of the acceptability of road safety matters (where an 'unacceptable' test applies) and traffic impact matters (where a 'severe' test applies), although there is no definition of 'severe' impact within the NPPF.

8.15 There are a number of Appeal and High Court decisions which have considered the 'severe' impact test with it being widely accepted that this is a qualitative term and calls for the exercise of judgment on the part of the decisionmaker. However, Inspectors have concluded that the term 'severe' sets a high bar for intervention via the planning system in traffic effects arising from development and that mere congestion and inconvenience / delay was not sufficient to trigger the 'severe' test but rather it was a question of the consequences of such congestion.

8.16 As detailed previously, this junction is operating safely and the relatively minor increase in additional traffic and delay as a result of the development is not going to result in drivers taking undue risks or result in any highway safety issues. Drivers already experience some level of delay at this junction which again, from a review of the accident record, is clearly not resulting in any accident issues.

8.17 As part of DCC's consultation response, there was no suggestion that the development is having a 'severe' impact at this junction, although DCC did request an assessment of how the queues could be reduced by the promotion of alternative modes of transport. As detailed earlier, the site already benefits from good levels of accessibility, being within easy walk distance of Buxton and the wide range of facilities provided. In addition, a Travel Plan has been provided (submitted under separate cover) which provides a range of sustainable travel measures and will help reduce single occupancy car trips generated by the development. On this basis and given that the development will not have a material impact on the operation of this junction, mitigation through physical measures or sustainable transport measures (with the exception of those already proposed in the Travel Plan) is not necessary or justified and no further assessments are required.

A6 / Station Road / Dale Road Signal Controlled Junction (Dove Holes)

8.18 LINSIG software has been used to model the A6 / Station Road / Dale Road signal controlled junction (Dove Holes). The results of the 'with' development assessments are presented in **Appendix M** and summarised in **Table 8.4** below:-

	2029 With Dev Scenario			
	AM PEAK		PM PEAK	
	DoS	MMQ	DoS	MMQ
Dale Road - Left Ahead Right	87.2%	6.7	83.9%	6.5
A6 Buxton Road - Right Left Ahead	74.7%	15.6	87.8%	22.0
Station Road - Ahead Right Left	80.6%	5.4	46.3%	2.1
A6 Hallsteads Road - Left Ahead Right	88.8%	23.1	77.2%	16.9
Dale Road - Exit	8.4%	0.0	5.7%	0.0
A6 Buxton Road Exit	46.0%	0.4	39.8%	0.3
Station Road Exit	4.0%	0.0	5.4%	0.0
A6 Hallsteads Road Exit	36.5%	0.3	42.0%	0.4
PRC (%):	**1.4%**		**2.5%**	

8.19 The above table demonstrates that the A6 / Station Road / Dale Road signal controlled junction is forecast to operate within capacity with the development proposals in place.

9.0 SUMMARY AND CONCLUSIONS

9.1 SCP have been appointed by Barratt Homes to provide specialist transport planning and engineering advice in support of the proposed residential development on land to the west of the A6, Buxton. The application site is allocated for residential development (sites B3 and B4) in the High Peak Local Plan (2016) for up to 124 dwellings.

9.2 The proposed development comprises a residential development of 99 dwellings providing a mix of 2, 3 and 4-bed houses

9.3 Vehicular access to the development will be provided via from the new roundabout on the A6. The roundabout has been introduced to allow the application site and other allocated sites within Buxton to come forward and has been specifically designed to accommodate the traffic generated by these developments.

9.4 The roundabout takes the form of a four-arm priority-controlled roundabout with the eastern arm linking south to Waterswallows Road and allowing for a future connection into the Tongue Lane Industrial Estate. An existing section of Waterswallows Road will be stopped up with a new priority-controlled T-junction being created onto Waterswallows Road east. The A6 northbound approach and the east and west arms all benefit from pedestrian refuges with dropped kerbs and tactile paving to assist pedestrians across. In addition, the A6 southbound approach benefits from a Toucan and Pegasus signal-controlled crossing facility.

9.5 A segregated bridleway will be provided through the site which will deliver part of the White Peak Loop, which is achieved through the retention and upgrading the PRoW that runs along the southern boundary of the site. The White Peak Loop is a circular route of 54-miles (86km) around the Derbyshire Peak District which will provide a predominantly traffic-free cycling and walking trail, with provision for equestrian use wherever possible. When complete the White Peak Loop will connect three of the most popular trails: Monsal, Tissington and High Peak, with the towns of Buxton, Bakewell, Matlock, and Matlock Bath, as well as links to local railway stations

9.6 The personal injury accident data for the most recently available five year period for the most recently available five year period has been reviewed and does not represent a material concern in the context of the proposed development.

9.7 The development is compliant with local, regional and national policy as it will promote sustainable modes of travel and reduce the number of car trips to local facilities.

9.8 It has been demonstrated that the development is sustainable with good accessibility to the site provided to those travelling by foot, bicycle and public transport.

9.9 It is estimated that the scheme will generate a total of 58 two-way vehicle movements in the AM peak hour and a total of 56 two-way vehicle movements in the PM peak hour.

9.10 The impact of the traffic arising from the scheme has been tested in detail at the following junctions:

- Site Access Roundabout along the A6
- A6 / A53 Mini Roundabout; and
- A6 / Station Road / Dale Street Signalised Junction

9.11 The assessments show that all the junctions have sufficient spare capacity to accommodate the proposed development or the development will not have a material impact on the operation of these junctions.

9.12 On this basis, the residual cumulative impact of the development cannot therefore be considered 'severe' and, in accordance with paragraph 111 of the NPPF, there is no reason to prevent or refuse this planning application on transport grounds.

9.13 The proposed development is therefore commended for approval.

S|C|P

APPENDIX A

Plot Date: - 7/31/2019 9:42 AM
File Name: - HOG-AEC-XX-XX-DR-PN-00002

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

IT IS ASSUMED THAT ALL WORKS ON THIS DRAWING WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROPRIATE METHOD STATEMENT.

THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS INTENDED FOR AND IS SUBJECT TO AMENDMENT.

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS IN METRES, ALL CHAINAGES, LEVELS AND COORDINATES ARE IN METRES UNLESS DEFINED OTHERWISE.
4. THIS DRAWING IS BASED ON ORDNANCE SURVEY DATA AND TOPOGRAPHICAL DATA PROVIDED BY DERBYSHIRE COUNTY COUNCIL.
5. ALL WORKS TO THE GOLF COURSE TO BE DESIGNED AND COMPLETED BY OTHERS.
6. FOR DETAILS OF TREE PROTECTION AND TREE FELLING REFER TO THE ARBORICULTURAL IMPACT ASSESSMENT (REPORT REFERENCE HFRBAIA) AND THE PRELIMINARY TREE PROTECTION PLAN (DRAWING HFRB-AIA-TPP-01).

KEY

- VERGE/GRASSED AREAS
- EQUESTRIAN ROUTE
- SHARED FOOTWAY / CYCLEWAY
- ROAD CONSTRUCTION
- FOOTWAY / PAVED AREAS CONSTRUCTION
- FOOTWAY CONTINUES THROUGH EQUESTRIAN CROSSING
- EARTHWORKS
- AREA TO BE LANDSCAPED
- BLISTERED TACTILE PAVING
- TRAMLINE / LADDER TACTILE PAVING

Revision Details	By / Check	Date	Suffix
UPDATED AS A RESULT OF ARBORICULTURAL IMPACT ASSESSMENT	SH / MD	31/07/19	P1

Purpose of issue

PLANNING

Client

DERBYSHIRE County Council
MIKE ASHWORTH
Strategic Director – Economy, Transport and Environment

Project Title

HOGSHAW
FAIRFIELD ROUNDABOUT
BUXTON

Drawing Title

GENERAL ARRANGEMENT

Designed	Drawn	Checked	Approved	Date
AT	EL	AT	SD	25/07/2019

AECOM Internal Project No.	Suitability
60580883	
Scale @ A1	Zone
1:500	

THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.

AECOM Infrastructure & Environment UK Limited
Royal Court, Basil Close
Chesterfield
S41 7SL
Tel:+44 (0)1246 209 221
Fax:+44 (0)1246 209 229
www.aecom.com

AECOM

Drawing Number	Rev
HOG-AEC-XX-XX-DR-PN-00002	P1

© Crown copyright and database rights 2019. Ordnance Survey 100023251. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

S|C|P

APPENDIX B

Chris Henning
Director Place
County Hall
Matlock
Derbyshire
DE4 3AG

Head of Planning
Planning Dept.
High Peak Borough Council

Telephone:
Email: Our ref: PM/Strategic Consultations HPBC Your ref: HPK/2023/0192
Date: 5 July 2023

FAO: John Copestake

Dear Sir/ Madam,

Application Number: HPK/2023/0192

Construction of 116 Dwellings

Address: Land at Hogshaw, Fairfield, Buxton

Thank you for consulting Derbyshire County Council on the above planning application.

Derbyshire County Council's Member and Officer technical comments on the planning application are set out below, which are submitted under Delegated Procedures and are made in the context of national and local planning policies that are relevant to the assessment of the planning application.

The application site is 4.2 hectares (ha) in size and comprises agricultural land.

The majority of the application site (3.0 ha equating to 71% of the total site area of 4.2 ha) is within defined limits to development and is allocated for housing (Policy DS17) in the High Peak Borough Local Plan (HPBLP). The exception is a rectangular portion of the site at the north-east (1.2 ha equating to 29%) where 43 of the total 116 dwellings are located outside (and adjacent to) the defined settlement limit and the housing allocation.

The applicant has sought to avoid providing any affordable housing. The applicant has also submitted a Viability Assessment.

The south-east portion of the application site is within the Buxton Fairfield Conservation Area. There are no Listed Buildings within the site or adjacent to it. There are several Listed Buildings to the south/ south-east of the site.

Local Wildlife Site (LWS) ref. HP026 'Railway Land Hogshaw Former Sidings' is adjacent to the site to the west and part of the application site extends into this. There are no County Tree Preservation Orders (TPO's) within the site or its vicinity.

The site and lies within Flood Zone 1 (land least likely to flood). The site is within a Coal Authority 'Off-Coalfield Area'. The application site is not within Green Belt.

Public Right of Way (PROW) ref. Buxton HP4/1/3 is adjacent to the site to the south. PROW ref. HP4/2/1 is to the east of the site. There is a Proposed Key Cycle Network adjacent to the site to the south.

A number of supporting studies have been submitted with the application including:

Planning and Affordable Housing Statement;
Design and Access Statement;
Travel Plan;
Transport Assessment;
Arboricultural Impact Assessment;
Arboricultural Method Statement;
Landscape and Visual Impact Assessment;
Built Heritage Statement;
Preliminary Ecological Appraisal;
Viability Assessment;
Flood Risk Assessment.

The studies are referred to below where relevant.

Derbyshire County Council's Overall Assessment and Conclusions on the Planning Application

On the basis of the detailed Officer comments below, Derbyshire County Council considers that there is no compelling justification for the part of the planning application site that is outside of the High Peak Borough Local Plan housing allocation and defined settlement limits for Buxton to be developed for housing. The Borough Council is able to demonstrate in excess of a five year housing land supply.

If the Borough Council is minded to approve this planning application then it should be satisfied that the need for this part of the proposed development outside of the housing allocation and the defined settlement limits is sufficient to weigh positively in the planning balance and that it can be accommodated on the site without detriment to the local environment and heritage assets.

With regard to the lack of any affordable housing forming part of the overall scheme, it is considered important that the Borough Council commissions an independent analysis, via the District Valuer if necessary, of the applicant's viability assessment, before arriving at a decision on this issue.

The comments of the Derbyshire County Council Public Rights of Way (PROW) Team are noted below (these were also sent directly to the Borough Council by the PROW Team), particularly the lack of clarity (is it an intention to divert footpaths, the width and surfacing of footpaths, the safety of users?) on the public footpaths in and around the application site. The PROW Team requires further information before it can provide a full response to the Borough Council.

The comments of the Derbyshire County Council Key Cycle Network (KCN) Team are also noted below where it is an ambition for the multi-user White Peak Loop to route through the planning application site with onward connections. The KCN Team requests that the applicant considers the benefits of increased walking and cycling for prospective occupants of the proposed development.

Childrens play facilities, whether on or off-site, would provide significant community benefit and a community fund could form part of on-going community involvement. The absence of any affordable housing from a community benefit perspective is a cause for concern.

Key to Derbyshire County Council's consideration and assessment of the application proposals is Paragraph 11 of the National Planning Policy Framework (NPPF) (July 2021) which states that:

Paragraph 11: The Presumption in Favour of Sustainable Development

Plans and decisions should apply a presumption in favour of sustainable development.

For decision taking this means:

c) approving development proposals that accord with an up-to-date development plan without delay; or

d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out of date, granting permission unless:

i) The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or

ii) Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies of the Framework taken as a whole.

MEMBER COMMENTS
Councillor Linda Grooby, County Council Member for Buxton North and East County Electoral Ward has been consulted on the planning application and responded on 31 May 2023 with the following comments:

My main comment relates to the link road. It shows on the map. However there is no indication how this is going to be achieved. When we put in the roundabout the indication was that the link road would come from S106 money from the developer.

OFFICER COMMENTS
The planning application has been assessed below in the context of national planning policies in the NPPF, associated National Planning Practice Guidance (NPPG) and local planning policies in the adopted DDDLP for the following relevant sub-headings:

Sustainable Development;

Housing Land Supply and Affordable Housing;
Landscape and Visual Impacts;
Impact on Biodiversity;
Highways Impacts;
Sustainable Travel;
Community Benefits.

Relevant High Peak Borough Local Plan (HPBLP) policies are as follows:

S1: Sustainable Development Principles
S2: Settlement Hierarchy
S7: Buxton Sub-Area Strategy
EQ2: Landscape Character
EQ5: Biodiversity
EQ8: Green Infrastructure
EQ9: Trees, Woodland and Hedgerows
H4: Affordable Housing
CF5: Provision and Retention of Local Community Services and Facilities
CF6: Accessibility and Transport
DS17: Land at Hogshaw, Buxton

SUSTAINABLE DEVELOPMENT

The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 8 of the NPPF states:

Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

*a) **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*

*b) **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*

*c) **an environment objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.*

Policy S1: Sustainable Development Principles of the HPBLP seeks that all new development shall make a positive contribution towards the sustainability of communities, protect and where possible enhance the environment and mitigate the process of climate change. This would be achieved by meeting most development

needs within or adjacent to existing communities, reusing brownfield land, protecting and enhancing the natural and historic environment, supporting the local economy, minimising the need to travel, reducing reliance on motor vehicles and seeking reductions in greenhouse gas emissions.

Buxton is categorised as a Market Town in the HPBLP defined Settlement Hierarchy in Policy S2: Settlement Hierarchy. This policy seeks to direct development towards the most sustainable locations where Buxton is one of the settlements which will be the main focus for housing, employment and service growth, consistent with maintaining and where possible enhancing its role, distinctive character, vitality and appearance.

HOUSING LAND SUPPLY AND AFFORDABLE HOUSING

It is noted that the majority of the site is allocated for housing under Policy DS17: Land at Hogshaw, Buxton of the HPBLP for approximately 124 dwellings including public open space, and for recreation and amenity space. This Local Plan allocation has been deemed to be suitable and acceptable through the Local Plan examination process.

However, a small portion of the application site to the north-east comprises land which is beyond the allocation/ settlement boundary and is designated as Open Countryside. This is a sensitive area of Buxton, particularly the area to the east which forms part of Fairfield Common. There needs to be exceptional circumstances to justify this part of the application proposals.

Paragraph 1.2 of the submitted Planning and Affordable Housing Statement seeks to justify the additional area of land outside of the settlement boundary as follows:

In terms of the small area of land located beyond the existing settlement boundary, there is clear justification for the proposed development extending beyond the boundaries of the allocation:

• The additional land is necessary to achieve the quantum of development within the allocation, as due to ecological constraints only approximately 73 dwellings can be constructed within the allocation. Therefore, without the additional land, the proposed development would be for significantly fewer dwellings, and it would therefore be inconsistent with the proposed allocation.

• There would be no additional landscape harm as a consequence of developing the additional land. In fact, it would allow the allocated quantum of development to be achieved whilst minimising impacts on the Local Wildlife Site.

The key reason appears to be, therefore, that land within the allocation can only accommodate 73 dwellings out of the 124 that are anticipated in Policy DS17 and that the additional land is required to provide for a quantum of development something near the proposed allocation requirement.

However, the Borough Council's High Peak Statement of Five Year Housing Land Supply (as at 1st April 2022) confirms that the Borough Council is able to demonstrate a 6.28 year supply of housing land and this includes a 5% buffer and that in terms of

the Housing Delivery Test. The Borough Council has also exceeded its housing requirements over the past 3 years. In the context of the above, it is considered that there would to be no justification for the additional land outside the allocation and settlement boundary to be developed for housing in terms of any housing land supply shortage in the Borough.

The other key concern with the proposed development is that it does not include any element of affordable housing. In this respect, HPBLP Policy H4: Affordable Housing indicates that the Borough Council will seek to maximise the delivery of affordable housing across the plan area by working in partnership with the Homes and Community Agency, Registered Providers, Developers and Local Communities. In order to address the need for affordable housing, this policy states that residential developments should seek to achieve 30% affordable housing on sites of 25 units or more.

It is noted, however, that HPBLP Policy DS17 does not specify whether 30% affordable housing would apply to the allocated site but it would appear that Policy H4 would nevertheless apply to the site.

In this context, it is noted from the submitted Planning and Affordable Housing Statement in paragraph 7.6, viability experts Roger Hannah have prepared a financial viability assessment to support the planning application, which considers the financial impact of the proposed planning obligations. The assessment concludes that it is not viable to provide any affordable housing as part of the proposed development and provides detailed analysis and data to support that case.

On the basis of the submitted information, it would appear that the applicant has put forward a justifiable case why the scheme should not include any affordable housing. It may be in the interests of the Borough Council, however, to seek an independent evaluation of the viability issue i.e. from the District Valuer before coming to a determination on this issue.

In conclusion, therefore, it is considered that there would appear to be no compelling case or justification for the land outside the allocation and outside the settlement framework boundary to be included for housing development in the scheme in the context that the Borough Council is able to demonstrate more than a five year housing land supply and given the sensitive environmental location of the site and its surroundings. If the Borough Council is minded to approve this planning application, then it should be satisfied that the need for the quantum of development to accord with the requirements of HPBLP Policy DS17 is sufficient to weigh positively in the planning balance and that the additional area of development can be accommodated on the site without unacceptable harmful impacts on the local environment and important heritage assets.

It is also considered important that the application proposals provide for an element of affordable housing in accordance with the requirements of Policy H4 of the HPBLP, unless the Borough Council is satisfied, following independent analysis through the District Valuer, if necessary, that the scheme would not be viable with the inclusion of any element of affordable housing.

LANDSCAPE AND VISUAL IMPACTS

Paragraph 174 of NPPF Chapter 15: Conserving and Enhancing the Natural Environment seeks that planning policies and decisions should contribute to and enhance the natural and local environment. Criterion a) of this paragraph is specifically concerned with protecting and enhancing valued landscapes.

HPBLP Policy EQ2: Landscape Character seeks to protect, enhance and restore the landscape character of the Borough for its own intrinsic beauty and for its benefit to the economic, environmental and social well-being of the Plan area. The policy requires that development has regard to maintaining aesthetic and biodiversity qualities of natural and man-made features within the landscape and that development proposals are informed by and are sympathetic to the distinctive landscape character areas as identified in the Landscape Character Supplementary Planning Document. The fourth criterion of the policy seeks to resist development that would harm or be detrimental to the character of the local and wider landscape or the setting of a settlement.

The submitted Landscape and Visual Impact Assessment (LVIA) considers that there would be a limited change in character and amenity of the views from several visual receptors to the site which would result in Moderate to Negligible adverse effects. The LVIA considers that in the long term, views of the proposed scheme would diminish as planting matures. The LVIA considers that the site has an existing relationship with the built form of the surrounding residential areas of Buxton and would not change the urban edge relationship with the wider countryside. It is recognised that there would be some negative adverse landscape and visual effects, however, the LVIA considers that these would be localised to the site and local level receptors.

The County Landscape Architect was consulted internally and has not commented.

IMPACT ON BIODIVERSITY

NPPF Chapter 15: Conserving and Enhancing the Natural Environment seeks to protect and enhance sites of biodiversity value in paragraph 174a). Criterion d) of this paragraph seeks to minimise impacts on and providing net gains for biodiversity. Paragraph 180 provides advice to local planning authorities on determining planning applications in respect of impact on biodiversity resulting from development, possible mitigation and as a last resort, compensation.

HPBLP Policy EQ5: Biodiversity seeks to protect, manage, and where possible enhance the biodiversity and geological resources of the Borough and its surroundings by ensuring that proposed development would not result in significant harm to biodiversity or geodiversity interests.

Policy EQ9: Trees, Woodland and Hedgerows of the HPBLP states that the Borough Council will protect existing trees, woodlands and hedgerows and in particular veteran trees, ancient woodland and ancient/ species rich hedgerows from loss or deterioration. The policy seeks to retain and integrate these within a proposed development unless the need for and benefits of the development clearly outweigh

their loss.

A Preliminary Ecological Appraisal (PEA) has been submitted which acknowledges that the application site lies within the Nutrient Impact Area of the Peak District Special Area of Conservation (SAC) and that part of the site extends into the Hogshaw Railway Land LWS. Two trees were assessed during survey work as having low bat roosting potential and one tree as having moderate bat roosting potential. There are suitable habitats for common amphibians, nesting birds, bats, hedgehogs, notable invertebrates, brown hare and badger. Nun Brook watercourse may provide suitable habitat for white-clawed crayfish. The PEA recommends Precautionary Working Methods during construction in respect of amphibians, badgers, bats, brown hare and hedgehog. Any removal of vegetation should be undertaken outside of the bird breeding season. If this is not feasible then a Nesting Bird Check is recommended. The PEA recommends further ecological surveys and reports to be undertaken to further assess the suitability of the site for protected/ notable flora and fauna.

The submitted Arboricultural Impact Assessment details the proposed removal of two trees, two tree groups and four trees from two further tree groups. All trees to be removed are within the site boundary except for two trees on/ just outside the boundary. One of the trees to be removed is deemed to be High Value and the remainder are considered to be Low and Moderate Value. Replacement planting is proposed to mitigate the loss of the trees. Root Protection Areas are proposed to protect trees to be retained.

The County Ecologist was consulted internally and has not commented. The Borough Council has a Service Level Agreement with the Derbyshire Wildlife Trust (DWT) to provide advice on the ecological impacts of planning applications. The advice of the DWT should be obtained prior to the determination of the planning application.

HIGHWAY IMPACTS

Derbyshire County Council, as Highway Authority, has been consulted directly by the Borough Council and is presently preparing a separate response to this planning application.

SUSTAINABLE TRAVEL

Paragraph 104 of Chapter 9: Promoting sustainable transport of the NPPF seeks that transport issues are considered at the earliest stages of development proposals. Criterion c) of this paragraph seeks that opportunities for public transport, cycling and walking are identified and pursued.

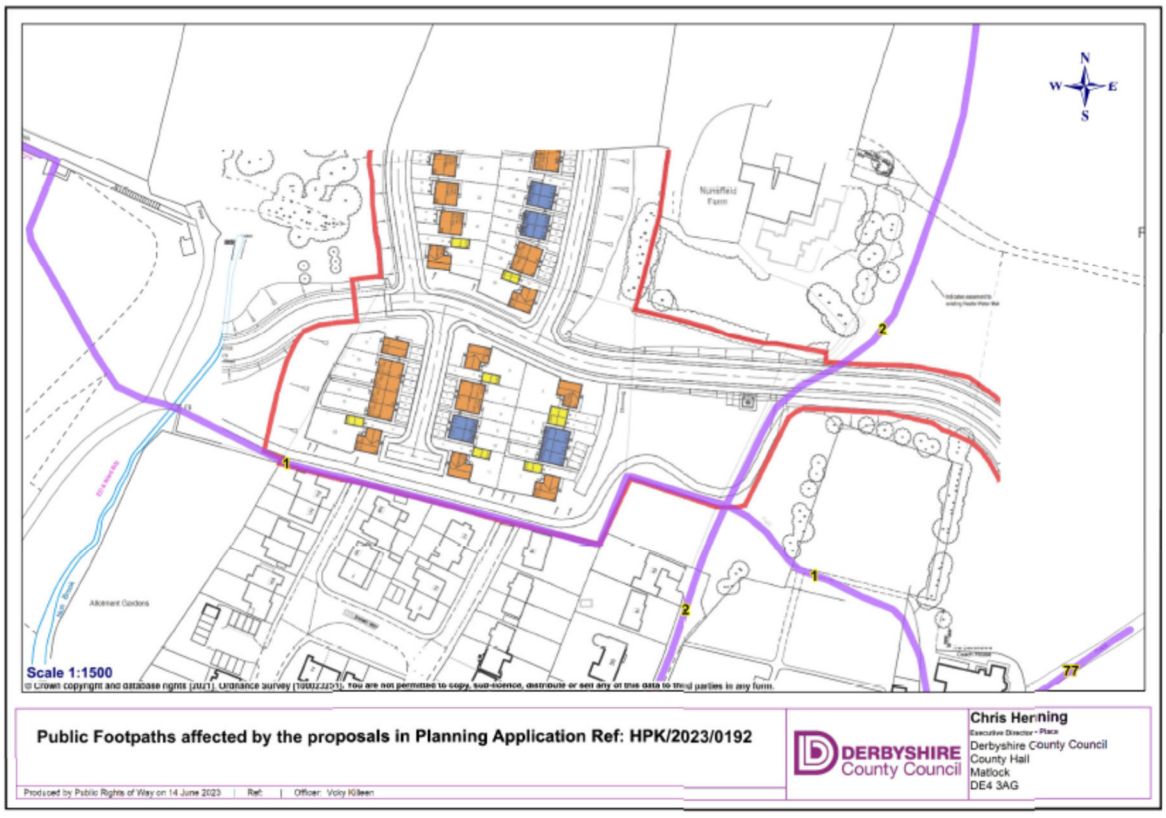
Policy S7: Buxton Sub-Area Strategy of the HPBLP seeks to support proposals to improve connectivity by public transport, walking and cycling to and from the Peak District National Park and supports proposals that would contribute towards the development of the town as a hub for cyclists. These may include proposals to improve or provide new facilities, services and infrastructure for cyclists. HPBLP Policy EQ8: Green Infrastructure seeks the protection and extension of long distance trails and

development of a network of Greenways. The third bullet point of this policy seeks that development proposals contribute, where appropriate, towards the creation of new or enhanced green infrastructure including cycleways and bridleways.

HPBLP Policy CF6: Accessibility and Transport seeks that development can be safely accessed in a sustainable manner. Proposals should minimise the need to travel, particularly by unsustainable modes of transport, through delivering sustainable patterns of development that are well related to public transport infrastructure and by promoting the maintenance and introduction of appropriate facilities to support cyclists, pedestrians and horse riders.

PUBLIC RIGHTS OF WAY
The Derbyshire County Council Public Rights of Way (PROW) team was consulted and made the following comments on 15 June 2023. I note that the PROW team also sent its comments directly to the Borough Council:

I can confirm that Buxton Public Footpaths No. 1 and No. 2 run through the proposed development site, as shown on the plan below. It is important to point out that the routes of the paths as shown on the plan, are the legal lines of the paths, which may differ slightly from the used lines of the paths on the ground. The used paths may have also acquired rights through established use, and must therefore also be protected.



The proposed path that runs along the inside of the southern boundary of the site (closely following the line of Footpath 1), is labelled 'Bridleway' on the layout plans. As

a section of the Key Cycle Network is proposed along the approximate route of this section of Footpath 1, there is a good chance that the footpath will either become a combined pedestrian and cycle path, or that a more fit for purpose cycle path (with less right angles) may need to run alongside the legal line of Footpath 1 in the future. Currently however, footpath 1, as shown on the attached plan, only has footpath status, not bridleway status. Nor does there appear to be any proposals at present to alter its status to that of bridleway.

Any changes to the alignment of either Footpath 1 or 2, must only happen following the confirmation of a diversion order. If a diversion is deemed necessary for the development to proceed, the applicant should apply to your council for the requisite diversion.

In addition to the footpaths already mentioned, there is a heavily used, unofficial footpath running along adjacent to the eastern boundary of the site, to then connect with Buxton Public Footpath No. 4, north of the site. As this path is likely to have acquired rights along it, it must also be protected.

As there is currently a lack of clarity about the proposed treatment of the public footpaths in and around the site, further information is required before full comment can be given. Is it the intention to divert either footpath? If not, then amended plans are needed, showing how the legal lines of the paths will be protected. What widths and surfacing are proposed for the paths? How will the safety of path users be protected where Footpath No. 2 crosses the access road?

In the meantime, I should be grateful if you would advise the applicant as follows: -

- *The footpaths must remain open, unobstructed and on their legal alignments and/ or used alignments.*
- *There should be no disturbance to the path surfaces without prior authorisation from the Rights of Way Section.*
- *Consideration should be given to the safety of members of the public using the paths during the works. A temporary closure of paths will be permitted on application to DCC where the path(s) remain unaffected on completion of the development, which includes the paths remaining on their legal alignments, as shown on the attached plan.*
- *If required, an application can be submitted for the diversion of a public footpath in advance of planning permission being granted.*
- *There should be no encroachment of the paths, and no fencing should be installed without consulting the Rights of Way Section.*

The author of the above comments is Vicky Killeen, Public Rights of Way Assistant. Landline: 01629 536500. Email: vicky.killeen@derbyshire.gov.uk

KEY CYCLE NETWORK
The Derbyshire County Council Key Cycle Network team was consulted and made the

following comments on 26 June 2023:

The County Council officers would like to ensure provision is made for the multi-user strategic White Peak Loop through the site with onward connectivity where feasible.

Derbyshire County Council (DCC) is developing the White Peak Loop (WPL), a visionary circular route of 54 miles (86km) around the Derbyshire Peak District to provide a predominantly traffic-free cycling and walking trail, with provision for equestrian use wherever possible. When complete the WPL will connect three of the most popular trails: Monsal, Tissington and High Peak, with the towns of Buxton, Bakewell, Matlock, and Matlock Bath, as well as links to local railway stations. The WPL is part of the unique Key Cycle Network (KCN) to deliver the County's most ambitious/ strategic off-road routes for work and leisure. The proposed KCN Link No. 17 between Buxton Railway Station and Fairfield Common (A6) has been identified as one of the top priority sections and a route through the Hogshaw development is crucial to help close the remaining gaps in the WPL which is already 71% complete. Designing and planning for this should be an essential requirement of the application.

It is requested that the developer considers the benefits of meeting the aspirations of new homeowners who want to walk and cycle more. Providing for walking and cycling and the casual interaction that this brings, makes it easy for people to visit shops and chat with friends, fostering the sense of community which is an essential element in a successful new development. There are many benefits to be gained from designing a new development with integrated green travel options in mind, including:

The need for wide roads and large car parks is reduced;

It facilitates higher densities without overcrowding: houses need less car parking;

The impact of external traffic impact is reduced: less opposition from surrounding settlements worried about high volumes of car traffic and the noise and pollution that this brings;

A place and community where people want to live: safe, family friendly, accessible, attractive, peaceful;

Easier to gain approval from planning authorities: strong fit with public policy objectives.

A route for non-motorised green travel should be provided at a width of at least 3 metres, within an overall 5 metre corridor south of the spine road. Current guidance specifies smooth, sealed solid surfaces, such as asphalt or macadam, which offer the best conditions for everyday cycling. Routes should seek to enhance accessibility for all wherever possible. We would like to see provision of a segregated pedestrian/ cycle route running along the spine road corridor, the route with the least gradient.

This could be provided by connecting with and continuing the new segregated route which enters the site north of the new roundabout. A road crossing point could be provided in the first area of the development allowing the segregated route to continue along the south side of the spine road. The walking and cycling route should be safe, direct, and easy to use. Where the route runs alongside the spine road it would be more pleasant/ safer for all users if it was separated from the traffic by at least a 2 metre wide grass verge.

A separate route for horse riders would also be requested, provided with a smooth gravel surface such as 'Ultitrec' at a minimum width of 3 metres. This route could commence in parallel with the spine road in the grass corridor then continue south on a separate track around the SUDS lagoon, as indicated in the design provided by the previous developer, linking through to Hogshaw Villas Road.

The routes should provide connectivity and be integrated with the wider network, with clear signage to and from adjacent areas, and properly constructed links between the off-road sections and the adjacent highways. It would also be useful if connections were made with both Glenmoor Road and Nunsfield Road, as well as St Peter's Road and North Road for maximum permeability through the site and onward links to housing, retail, employment and school destinations, improving accessibility for all. It is not clear from the plan what, if anything, will be provided across the recreation ground through to Hogshaw Villas? The County Council would be interested to know whether it would be feasible for the developer to make an onward connection for cyclists across to the western extent of the distributor road that would overcome quite a bit of the gradient challenge on quiet roads.

There are several public footpaths running through the site which will need to be retained on their existing alignments or formerly diverted where this cannot be achieved.

References: Making Space for Cycling https://bicycleinfrastructuremanuals.com/manuals3/MakingSpaceForCycling.pdf
Cycle infrastructure design (LTN 1/20) https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120

The author of the above comments is Carol Parsons, Project Officer Key Cycle Network.
Mobile tel: 07929 851154 . Email: carol.parsons@derbyshire.gov.uk

LOCAL BUSES
The Derbyshire County Council Local Bus Team was consulted and made the following comments on 6 June 2023 as follows:

All the bus services adjacent to this development are now being funded by DCC e.g.

No.s 185/186, 199 etc. As a result there can be no guarantee they will continue unless we get some long term funding from development such as this to support them. Currently we are paying approximately £170k a year for a 1 bus service 7am-7pm service such as the 185/186. I would like to see this development providing at least 25% of the annual cost of this type of service to ensure it can continue.

The author of the above comments is Chris Hegarty, Derbyshire County Council Local Bus Team. Landline: 01629 536721. Email: chris.hegarty@derbyshire.gov.uk

SUSTAINABLE TRAVEL
The Derbyshire County Council Sustainable Travel Team was consulted and made the following comments on 2 June 2023 as follows:

Design Considerations

All new dwellings should be provided with:

- *Secure and accessible cycle storage in line with LTN 1/20, see: Cycle infrastructure design (LTN 1/20) - GOV.UK (www.gov.uk)*
- *Access to electric vehicle charging points, in line with the June 2022 Building Regulations Part S.*
- *Infrastructure to enable high speed broadband connection. As a minimum the development should provide the necessary ducting within the site to facilitate FTTP. (Fibre to the Premises). https://www.openreach.com/fibre-broadband/fibre-for-developers*

Pedestrian walkways at all proposed access points should be provided to relevant standards to match into existing provision, complete with lighting, surfacing and dropped tactile kerbs as appropriate.

Dedicated footways should be provided to the front doors of all dwellings, in order to facilitate safe pedestrian journeys to and from all dwellings on the development.

Existing rights of way should remain in place and upgraded to an all-weather surface wherever feasible, including Buxton Footpaths 1 and 2.

The links to the existing footpaths on the southern edge of the development should be enhanced to optimise the pedestrian accessibility of the site. Specifically, an all-weather surfaced link should be provided from the proposed bridleway to link into Buxton Footpaths 1 and 2 as they enter the site along its southern edge.

A footway /cycleway should be provided to link the development with Nunsfield Road. This should take the form of a sealed surface path between a point close to plot 12, and a point at the end of Nunsfield Road between no's. 105 and 112. This to facilitate direct and safe walking and cycling journeys between the development and local destinations, particularly schools (including St. Annes Primary and St. Thomas More Secondary school), and other town centre destinations. Alternative routes without such

a link are longer, less direct and hence less attractive for the use of sustainable modes. The closest bus stops with a frequency of service likely to be used by residents are on the A6 Fairfield Road. These should be upgraded as appropriate, to include raised kerbs, shelters, timetable cases, lighting, highway bus stop markings and real time information wherever feasible and not already in place. This to include north and southbound stops opposite and adjacent to the Fairfield Road / St Peters Road junction

.

4.0 Travel Plan Administration

Travel Plan Coordinator

4.1 Noted. The name and contact details of the Travel Plan coordinator should be provided to both the Local Planning Authority (LPA) and Derbyshire County Council at least one month prior to first residential occupation.

4.2 The duties of the Travel Plan coordinator should include the provision of personalised travel planning for all new households upon occupation.

Funding

4.5 Noted. This should include £11,020.00 to be set aside for the provision of bus taster tickets, as per item 7.11 below.

5.0 Travel Survey

Travel Survey

5.4 Noted.

Recommendation: The initial baseline residential travel survey should be undertaken upon occupation of each dwelling. Upon completion of 50 surveys, the results should be presented to both the LPA and Derbyshire County Council in the form of a monitoring report.*

** Or within six months of initial residential occupation, whichever is the sooner.*

Nb. Should the 50% occupation be subsequently agreed as a trigger for the survey, the phrase 'when the 150th house is occupied' should be replaced with 'when the 58th house is occupied'.

5.5 Noted. Any draft survey should be submitted to Derbyshire County Council for comment and approval prior to first issue.

Modal Share Targets

6.4 Noted. Whilst specific targets are unable to be set prior to the undertaking of baseline surveys, the travel plan requires a statement regarding the intended percentage change target in single occupancy vehicle journeys. This should be expressed in SMART terms as a percentage reduction over five years.

7.0 Travel Plan measures

Travel Awareness

7.5 Noted. The welcome pack should include, but not be limited to:

Public transport

- *www.derbysbus.info/ for timetable and route maps for bus services throughout Derbyshire.*
- *www.nationalrail.co.uk for all rail services.*

Journey Planning

- *https://www.traveline.info/ for all mode journey planning.*

Cycle information

- *https://cycle.travel/map/derbyshire to plan a cycle route in Derbyshire*
- *www.derbyshire.gov.uk/leisure/countryside/access/cycling/default.asp for cycling information throughout Derbyshire, including the Cycle Derbyshire map.*
- *Promote County Rider, the free adult cycle training scheme for Derbyshire residents. See: www.derbyshire.gov.uk/transport-roads/road-safety/bicycles/county-rider/county-rider.aspx*
- *Investigate and promote local cycle clubs and activities in the local area. See: www.cyclinguk.org/cycle/cycling-derbyshire for a list of Derbyshire Cycle Clubs and societies.*
- *See also: www.activederbyshire.org.uk for activities, including cycling, throughout Derbyshire.*

Other useful cycle related websites:

- *www.sustrans.org for details of the National Cycle Network.*
- *www.lovetoride.net for cycling rewards and incentives.*
- *http://bikeweek.org.uk/ for details of the national cycling focus week.*

Walking

- *https://www.derbyshire.gov.uk/leisure/countryside/access/walking/default.asp for walking information throughout Derbyshire.*

Car Club

- *www.enterprisecarclub.co.uk for details of Enterprise Car Club, the commercial Car Club currently in operation in Derbyshire.*

Car Share

- *https://info.kinto-join.co.uk/derbyshire/ for details of the free of charge journey matching service throughout Derbyshire.*

Local initiatives – Buxton Town Team

- *Residents should be made aware of the 'Buxton on the move' initiative undertaken by the Buxton Town Team.*

Public Transport information

7.11 Noted.

A bus taster ticket should be available to each new household, utilising a suitable budget set aside for this purpose. Such tickets should be available to all households as part of the travel welcome pack, and should be valid for a minimum of four week's commuter journeys on the selected operator's services. For this development, the amount set aside for bus taster tickets should be calculated as follows:

No. of dwellings	*Peak Plus month ticket @1 no. per dwelling*	*Total*
116	*£95.00*	*£11,020.00*

See High Peak Buses - tickets
The above is provided as a budget guide only, and should not preclude the provision of tickets from other providers, subject to demand. For the sake of clarity, it is not a developer contribution request, but an indication of the budget to be set aside by the developer for this purpose. Should the offer of taster tickets not be fully taken up, the funds should be used to support other travel plan initiatives.

Taster ticket price may be subject to negotiation with the operator. For High Peak buses, contact: Keith Myatt, Head of Business Development. keith.myatt@centrebus.co.uk. 07720 088 675.

The provision of bus taster tickets will encourage the uptake of this mode, and hence support the aims and objectives of the Travel Plan.

Car Sharing Scheme

7.12 Noted. An informal site based car share scheme should be established, with journey matches facilitated by the Travel Plan Coordinator.
7.13 Noted. Ensure all households are aware of https://info.kintojoin.co.uk/derbyshire/ for details of the free of charge journey matching service throughout Derbyshire.

9.0 Monitoring and reviewing

Monitoring

9.5 Noted. The monitoring programme should also be agreed with Derbyshire County Council.

Additional comments

Schools
Any initiative undertaken with local schools should be recorded on Modeshift STARS, the national sustainable travel accreditation scheme https://www.modeshiftstars.org/ . This is available to LEA schools free of charge. For further details and support with this scheme, contact sustainable.travel@derbyshire.gov.uk.

Communication and marketing

- *The site based website should include details of all available travel options for residents and visitors.eg. 'How to get to us' page.*
- *A social media presence should be established, e.g. Facebook page or Twitter account, to facilitate prompt communication between the Travel Plan coordinator and residents.*

Residents group

Dependent upon interest and demand, consideration should be given to the establishment of any or all of: (i) a residents group, (ii) a walking group, (iii) a BUG (bicycle user group) or (iv) a dedicated travel plan group. It is to this group (whichever is established or most pro-active) that responsibility for the Travel Plan should be passed beyond the initial monitoring period. Should no group emerge, any interest should be combined with that of a suitable existing community group, e.g. the Buxton Town Team or similar.

Travel Plan document status

The Travel Plan is a working document, and should not be seen as exhaustive in its current form. It will be subject to change in the light of progression and completion of the development, results of actions undertaken, and responsive to results of future travel surveys.

Travel Plan Monitoring

Derbyshire County Council is now able to offer an online toolkit known as Modeshift STARS https://www.modeshiftstars.org/ for the purposes of Travel Plan monitoring. This is available for a fee payable to Derbyshire County Council, and enables the user to input monitoring data and track modal shift. This replaces any other travel plan monitoring fee that may be charged. Should this be of interest, please contact the Derbyshire County Council Sustainable Travel Team: sustainable.travel@derbyshire.gov.uk

Other means of monitoring travel plans exist. There is no obligation to use Modeshift STARS.

The Derbyshire Key Cycle Network and Greenways

The provision of a route along the southern edge of the development is noted. The precise course and specification should be agreed with the Derbyshire County Council Greenways/ Cycle Network team.

For information: Greenways which constitute the Key Cycle Network (KCN) and Local Cycle Network (LCN) are included in the County Council's Developer Contributions Protocol. New development should safeguard existing routes, but also provide an opportunity to improve Greenway connectivity to encourage the use of healthier and more sustainable travel options. Where opportunities arise, the County Council will seek to secure on-site provision within new developments to:

• provide new sections of the Greenways network,
• upgrade existing routes to adoptable standards,
• provide links from the development to an existing Greenway

Where the asset is adopted, commuted sums will be sought towards their maintenance. Increased use of cycleways by developments that directly link to existing cycle infrastructure place additional management and operational obligations on the managing authority. Where a development directly links to KCN and LCN it is proposed that a proportionate requirement for maintenance is noted.
Nb. KCN = Key Cycle Network. LCN = Local Cycle Network.

Travel Plan Monitoring fee: £1,265.00 pa x five years, total £6,325.00.

A couple of issues / concerns:

- *The Travel Plan requires a stated SMART target re: reduction in SOV journeys. This is required before the condition can be considered as discharged.*
- *Layout. A pedestrian and cycle link is requested to join Nunsfield Road. This will facilitate safe and direct walking and cycling routes along less busy roads to local schools and other town centre destinations.*
- *Pedestrian walkways should be provided to all dwellings. None are shown to nos.1-5 inclusive.*

As many of the comments as reasonably possible should be incorporated into a revised document. This should include the provision of bus taster tickets and enhancements, where appropriate, to the bus stops on the A6.

The author of the above comments is Michael Reardon, Derbyshire County Council Local Sustainable Travel – Smarter Business Travel,. Landline: 01629 538065. Email: michael.reardon@derbyshire.gov.uk

COMMUNITY BENEFITS
NPPF Chapter 8: Promoting Healthy and Safe Communities seeks in paragraph 93 that planning decisions plan positively for the provision and use of shared spaces, community facilities and other services to enhance the sustainability of communities.

HPBLP Policy CF5: Provision and Retention of Local Community Services and Facilities seeks to maintain and improve the provision of local community facilities and services through supporting proposals which protect, retain or enhance existing community facilities or provide new facilities. The policy stresses that new facilities should preferably be located within defined built up areas where they are most accessible. In exceptional cases, the policy allows for facilities to be located adjacent to these areas where it can be demonstrated that this is the only practical option and where the site is well related and connected to the existing settlement.

Affordable housing would have contributed to community benefit, particularly for those seeking such accommodation. The lack of an element of affordable housing as part of the overall scheme is a cause for concern from a community benefit point of view.

There may be some scope for children's play facilities as part of the proposal, whether on or off-site. The application proposals and supporting documentation make no reference to any on-going community involvement. This could, for instance, include a community fund.

I hope the above comments are of assistance in the assessment of the planning application.

Yours sincerely

Chris Henning

Director of Place

From: Adrian Martin (Place)
Sent: 07 July 2023 10:20
To: Planning (HPBC)
Subject: HPK/2023/0192 - Land at Hogshaw, Fairfield, Buxton

Categories:

FAO John Copestake,

I refer to the above application recently received by this authority for highway comments.

The site is proposed to be served off the recently completed roundabout junction on the A6 to the east of the site. In general, the conclusions reached in the TA submitted in support of the application are considered acceptable in terms of predicted vehicle trip generation and assignment and distribution on the highway network. However, there are some issues which require further assessment and possible mitigation to reduce the overall impact of the development on the network. These are summarised below:

- the analysis of the A6/A53 roundabout predicts that the junction will operate over capacity with and without the development traffic in the future year assessment and that there is no material increase in the operation of the roundabout with the development traffic included; however, it is noted that the MMQ i.e. queue lengths on the north west arm of the roundabout will increase from 16.5 to 27, an increase of some 63%. Further assessment of how this increase can be reduced by the promotion of alternative travel modes from the development site is required. This is expected in line with the points raised below and in an accessibility appraisal for the development site.

- the overall sustainable transport appraisal is considered lacking. Assessment has been carried out of facilities and amenities in proximity to the site and the availability of access to these amenities by pedestrians and cyclists; however, the assessment is only presented in terms of distances between the site and local amenities. It is expected that the analysis looks at a door to door approach based on actual routes and uses. A range of distances are suggested in "Providing for Journeys on Foot" but these should not be read as absolutes and the approach should recognise the road user hierarchy. Additionally, the assessment should review the quality of the route to ensure it is suitable for the needs of the development. For example, the TA reports that the nearest bus stops are located 300m from the site access; the site access is some distance from the dwellings with many dwellings in excess of 400m from bus stops, therefore further analysis is required.

- the TA should provide a Walking, Cycling and Horse-Riding Assessment following the guidance in GG 142.

- the TA should use the propensity to cycle tool https://url6.mailanyone.net/scanner?m=1qHhci-0008Am-4v&d=4%7Cmail%2F90%2F1688721000%2F1qHhci-0008Am-4v%7Cin6c%7C57e1b682%7C10609168%7C13286642%7C64A7D8A45848F12058F9913AE1DEEBF8&o=..wwictbwpek&s=UBHF6lB1rwvpjgDxv6hsuX0qojk to consider cycling potential. It should also provide CLoS (Cycling Level of Service) and JAT (Junction Assessment Tool) assessments as defined in LTN 1/20.

- transport statements and assessment for residential development must include an accessibility score for the site based on the guidance and checklist provide in “Transport for New Homes”, it may

be appropriate to undertake a “with” and “without” score to understand any off site benefits the proposal delivers.

- Equality Impact Assessments need to be prepared alongside the TA and any health impact assessment. This should include the internal layout.

Regarding the internal layout of the site, this also raises some issues, as highlighted below:

the following is a guide to the expectations of the internal layout which is expected in relation to this application which are requested to be issued to the applicant/agent:

- Maximum Design Speed - 20mph achieved through measures such as junction treatment, surface changes, visual narrowing, central reservations, raised crossing points, sensitive parking provision and green infrastructure.
- Maximum No. Of Dwellings - no limit but subject to modelling
- Frontage Access - restricted 20m from Junctions
- Carriageway Width - 5.5m to 6.2m (if bus route)
- Footways - 2m wide both sides. Where necessary street furniture is accommodated in the footway (such as street lighting columns, cycle parking stands, planters, bins and benches) then a wider footway should be specified.
- Implied side road priority using vertical deflection is required.
- Cycleways - On Street
- On street parking - visitor provision on Street
- Landscaping - optional 2m verge separating carriageway - landscaping permitted.
- Verge - can be used instead of footway where no pedestrian desire line is identified.
- Can be reduced to 1m where no services or pedestrian demands exist.
- On street parking (visitors) - 1.8m wide on either or both sides. To be provided in addition to carriageway and amount to be determined subject to local requirements
- Carriageway materials - predominantly asphalt
- Footway Materials - predominantly macadam, the use of pavers or fine textured pre-cast flags in small appropriate locations may be considered. Alternative surfacing materials must be suitable to withstand accidental mounting by all types of vehicle.

In respect of the development layout the layout plan(s) are required to include dimensions which are not apparent on the submitted plan(s).

Longitudinal sections are required to allow assessment of level differences within the site; street gradients should not exceed 1 in 20.

The access road width is proposed to be 6m and indicates access to further development to the south west of the site. Clarification is required about the intention for the access to serve further development; however, the road width should be 5.5m regardless.

The two junctions off the access road should be converted to bends to reduce vehicle speeds.

All junctions within the site should be pedestrian priority junctions.

The layout indicates excessive straights. Consideration needs to be given to reducing the length of straight lengths of streets.

The layout does not include tree lined streets in accordance with NPPF paragraph 131.

The swept path analysis for the turning heads within the development are based on an smaller refuse vehicle than is required. A typical refuse collection vehicle use is the Denis Eagle Elite 6 (Mid Steer), typical vehicle details are below:

Overall vehicle length 11370mm (11600mm with mirror)
Overall Wheel Base 6400mm
Overall Turning Circle 22.4m
Axles 4 (1 front, 3 rear)

The refuse vehicle must stay within the kerblines but isolated vehicle (body) overhang of the footway may be accepted if the streets on which they occur have low volumes of pedestrians and the driver would have opportunity to observe pedestrians. This is not a constraint where a verge is provided.

The site access road includes an uncontrolled crossing point for the bridleway which runs along the southern boundary. There doesn't appear to be any analysis carried out of the suitability of this crossing point.

Clarification of the parking space sizes is required and confirmation of cycle storage facilities for each dwelling is also required.

To conclude, there are a number of issues and points which require further information and clarification on both the assessment of the development proposal in terms of sustainability and the internal design, all as highlighted in the aforementioned comments. If these comments can be relayed to the applicant/agent and the application be held in abeyance until the required further information has been provided.

Yours sincerely,

Adrian Martin MCIHT | Project Engineer | Highways Development Control | Place | Derbyshire County Council | direct dial: |
Visit us at www.derbyshire.gov.uk | Follow us on Twitter | Find us on Facebook

Join thousands of local residents who receive regular county council news direct to their inbox. Go to our website and click on the Sign Up button.

Think before you print! Save energy and paper. Do you really need to print this email?

Derbyshire County Council works to improve the lives of local people by delivering high quality services. You can find out more about us by visiting www.derbyshire.gov.uk.
If you want to work for us go to our job pages on www.derbyshire.gov.uk/jobs. You can register for e-mail alerts, download job packs and apply on-line.

Please Note
This email is confidential, may be legally privileged and may contain personal views that are not the views of Derbyshire County Council. It is intended solely for the addressee. If this email was sent to you in error please notify us by replying to the email. Once you have done this please delete the email and do not disclose, copy, distribute, or rely on it.
Under the Data Protection Act 2018 and the Freedom of Information Act 2000 the contents of this email may be disclosed.
Any personal information you have given us will be processed in accordance with our privacy notices, available at

www.derbyshire.gov.uk/privacynotices.

Derbyshire County Council reserves the right to monitor both sent and received emails.

CONTROLLED

S|C|P

APPENDIX C

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / QUEENS ROAD

ARM: A6 EAST

TIME / CLASS	LEFT TO QUEENS ROAD								STRAIGHT TO A6 WEST								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	2	0	0	0	0	2	0	1	134	19	4	9	2	169	171
7:15 - 7:30	0	0	1	2	0	0	0	3	0	0	113	23	9	12	2	159	162
7:30 - 7:45	0	0	2	0	0	0	0	2	0	0	102	20	4	10	1	137	139
7:45 - 8:00	0	0	2	2	0	0	0	4	0	0	130	21	6	10	0	167	171
HOURLY TOTAL	0	0	7	4	0	0	0	11	0	1	479	83	23	41	5	632	643
8:00 - 8:15	0	0	2	1	0	0	1	4	0	0	139	26	6	7	2	180	184
8:15 - 8:30	0	0	4	2	1	0	0	7	0	0	131	23	4	12	5	175	182
8:30 - 8:45	0	0	0	1	0	0	0	1	1	0	116	17	0	12	0	146	147
8:45 - 9:00	0	0	6	0	0	0	1	7	0	0	119	22	7	6	1	155	162
HOURLY TOTAL	0	0	12	4	1	0	2	19	1	0	505	88	17	37	8	656	675
PERIOD TOTAL	0	0	19	8	1	0	2	30	1	1	984	171	40	78	13	1288	1318
16:00 - 16:15	0	0	6	0	0	0	0	6	0	1	138	18	1	6	2	166	172
16:15 - 16:30	0	0	8	3	0	0	0	11	0	0	138	17	5	9	1	170	181
16:30 - 16:45	0	0	4	2	0	0	0	6	0	1	146	27	4	8	1	187	193
16:45 - 17:00	0	0	8	2	0	0	0	10	0	0	139	20	5	10	1	175	185
HOURLY TOTAL	0	0	26	7	0	0	0	33	0	2	561	82	15	33	5	698	731
17:00 - 17:15	0	0	9	0	0	0	0	9	0	2	123	11	2	7	2	147	156
17:15 - 17:30	0	0	5	0	0	2	0	7	0	2	148	21	3	8	0	182	189
17:30 - 17:45	0	0	5	3	0	1	0	9	0	2	136	11	1	8	1	159	168
17:45 - 18:00	0	0	8	2	0	0	0	10	0	0	157	13	1	4	4	179	189
HOURLY TOTAL	0	0	27	5	0	3	0	35	0	6	564	56	7	27	7	667	702
PERIOD TOTAL	0	0	53	12	0	3	0	68	0	8	1125	138	22	60	12	1365	1433

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / QUEENS ROAD

ARM: QUEENS ROAD

TIME / CLASS	LEFT TO A6 WEST								RIGHT TO A6 EAST								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	21	7	0	0	1	29	0	0	1	1	0	0	0	2	31
7:15 - 7:30	0	0	31	10	2	0	0	43	0	0	1	2	0	0	0	3	46
7:30 - 7:45	0	0	58	10	0	0	0	68	0	0	2	0	0	0	0	2	70
7:45 - 8:00	0	0	69	13	0	0	0	82	0	0	2	1	0	0	0	3	85
HOURLY TOTAL	0	0	179	40	2	0	1	222	0	0	6	4	0	0	0	10	232
8:00 - 8:15	0	0	46	17	0	0	0	63	0	0	3	1	1	0	0	5	68
8:15 - 8:30	0	0	72	19	1	0	0	92	0	0	0	0	0	0	0	0	92
8:30 - 8:45	0	0	89	10	2	0	1	102	0	0	1	1	0	0	0	2	104
8:45 - 9:00	0	0	85	14	0	0	0	99	0	0	2	0	0	0	0	2	101
HOURLY TOTAL	0	0	292	60	3	0	1	356	0	0	6	2	1	0	0	9	365
PERIOD TOTAL	0	0	471	100	5	0	2	578	0	0	12	6	1	0	0	19	597
16:00 - 16:15	0	0	66	7	0	0	0	73	0	0	1	1	0	0	0	2	75
16:15 - 16:30	0	0	50	15	1	0	0	66	0	0	1	1	0	0	0	2	68
16:30 - 16:45	0	0	57	11	1	0	1	70	0	0	0	1	0	0	0	1	71
16:45 - 17:00	0	0	49	11	0	0	0	60	0	0	0	0	0	0	0	0	60
HOURLY TOTAL	0	0	222	44	2	0	1	269	0	0	2	3	0	0	0	5	274
17:00 - 17:15	0	0	73	12	0	0	1	86	0	0	1	1	0	0	0	2	88
17:15 - 17:30	1	1	64	6	0	0	0	72	0	0	0	1	0	0	0	1	73
17:30 - 17:45	0	0	87	10	0	0	1	98	0	0	3	1	0	0	0	4	102
17:45 - 18:00	0	0	69	7	0	0	0	76	0	0	0	0	0	0	1	1	77
HOURLY TOTAL	1	1	293	35	0	0	2	332	0	0	4	3	0	0	1	8	340
PERIOD TOTAL	1	1	515	79	2	0	3	601	0	0	6	6	0	0	1	13	614

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / QUEENS ROAD

ARM: A6 WEST

TIME / CLASS	STRAIGHT TO A6 EAST								RIGHT TO QUEENS ROAD								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	112	27	6	18	2	165	0	0	12	1	1	0	0	14	179
7:15 - 7:30	0	1	138	24	9	18	1	191	0	0	15	2	0	0	0	17	208
7:30 - 7:45	0	0	122	23	4	17	1	167	0	0	18	5	1	0	0	24	191
7:45 - 8:00	0	1	122	35	6	10	1	175	0	0	46	9	0	0	0	55	230
HOURLY TOTAL	0	2	494	109	25	63	5	698	0	0	91	17	2	0	0	110	808
8:00 - 8:15	0	1	111	26	6	11	2	157	0	0	21	15	0	0	0	36	193
8:15 - 8:30	0	0	133	32	7	11	1	184	0	0	20	8	0	0	0	28	212
8:30 - 8:45	0	0	106	22	12	12	1	153	0	0	44	8	0	0	0	52	205
8:45 - 9:00	0	2	121	28	9	8	1	169	0	0	46	12	0	0	0	58	227
HOURLY TOTAL	0	3	471	108	34	42	5	663	0	0	131	43	0	0	0	174	837
PERIOD TOTAL	0	5	965	217	59	105	10	1361	0	0	222	60	2	0	0	284	1645
16:00 - 16:15	0	0	164	19	7	2	1	193	0	0	72	13	0	0	0	85	278
16:15 - 16:30	0	2	166	23	4	4	2	201	0	0	60	15	1	2	1	79	280
16:30 - 16:45	0	1	168	22	2	2	2	197	0	0	74	11	0	0	0	85	282
16:45 - 17:00	0	0	156	17	5	2	3	183	0	0	73	14	0	0	1	88	271
HOURLY TOTAL	0	3	654	81	18	10	8	774	0	0	279	53	1	2	2	337	1111
17:00 - 17:15	0	1	175	16	4	6	2	204	0	0	80	17	0	0	0	97	301
17:15 - 17:30	0	0	170	26	3	1	2	202	0	0	67	12	1	0	1	81	283
17:30 - 17:45	1	1	156	21	4	4	0	187	0	1	74	13	0	0	0	88	275
17:45 - 18:00	0	1	140	18	0	1	0	160	0	0	87	7	0	0	1	95	255
HOURLY TOTAL	1	3	641	81	11	12	4	753	0	1	308	49	1	0	2	361	1114
PERIOD TOTAL	1	6	1295	162	29	22	12	1527	0	1	587	102	2	2	4	698	2225

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / DALE ROAD / STATION ROAD

ARM: A6 NORTH

TIME / CLASS	LEFT TO DALE ROAD								STRAIGHT TO A6 SOUTH								RIGHT TO STATION ROAD								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	0	2	0	3	0	5	0	1	48	17	3	9	2	80	0	0	0	0	0	0	0	0	85
7:15 - 7:30	0	1	2	3	0	6	1	13	0	0	82	30	6	10	2	130	0	0	1	0	0	0	0	1	144
7:30 - 7:45	0	0	5	5	1	4	0	15	0	0	88	30	2	11	0	131	0	0	0	0	0	0	0	0	146
7:45 - 8:00	0	0	8	4	1	9	1	23	0	0	108	25	4	12	0	149	0	0	0	0	0	0	0	0	172
HOURLY TOTAL	0	1	15	14	2	22	2	56	0	1	326	102	15	42	4	490	0	0	1	0	0	0	0	1	547
8:00 - 8:15	0	0	6	2	0	3	1	12	0	0	97	19	6	6	2	130	0	0	0	0	0	0	0	0	142
8:15 - 8:30	0	0	8	2	1	6	0	17	0	0	102	21	3	12	1	139	0	0	1	0	0	0	0	1	157
8:30 - 8:45	0	0	8	2	1	6	0	17	0	0	78	19	0	12	2	111	0	0	0	0	0	0	0	0	128
8:45 - 9:00	0	0	7	4	0	4	0	15	0	0	79	16	2	4	0	101	0	0	2	0	0	0	0	2	118
HOURLY TOTAL	0	0	29	10	2	19	1	61	0	0	356	75	11	34	5	481	0	0	3	0	0	0	0	3	545
PERIOD TOTAL	0	1	44	24	4	41	3	117	0	1	682	177	26	76	9	971	0	0	4	0	0	0	0	4	1092
16:00 - 16:15	0	0	15	2	0	7	0	24	0	0	119	26	2	6	3	156	0	0	0	0	0	0	0	0	180
16:15 - 16:30	0	0	1	0	1	5	0	7	0	0	92	32	2	8	2	136	0	0	0	0	0	0	0	0	143
16:30 - 16:45	0	0	5	1	0	6	1	13	0	0	78	19	2	15	0	114	0	0	2	0	0	0	0	2	129
16:45 - 17:00	0	0	8	1	1	1	0	11	0	0	78	19	1	2	2	102	0	0	0	0	0	0	0	0	113
HOURLY TOTAL	0	0	29	4	2	19	1	55	0	0	367	96	7	31	7	508	0	0	2	0	0	0	0	2	565
17:00 - 17:15	0	2	4	2	0	7	0	15	0	1	122	21	1	9	0	154	0	0	0	0	0	0	0	0	169
17:15 - 17:30	0	0	8	1	0	6	0	15	0	1	108	23	0	4	1	137	0	0	0	0	0	0	0	0	152
17:30 - 17:45	0	0	11	1	0	1	0	13	0	1	95	12	0	2	3	113	0	0	0	0	0	0	0	0	126
17:45 - 18:00	0	0	10	1	0	5	0	16	0	0	101	10	0	3	0	114	0	0	0	0	0	0	0	0	130
HOURLY TOTAL	0	2	33	5	0	19	0	59	0	3	426	66	1	18	4	518	0	0	0	0	0	0	0	0	577
PERIOD TOTAL	0	2	62	9	2	38	1	114	0	3	793	162	8	49	11	1026	0	0	2	0	0	0	0	2	1142

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / DALE ROAD / STATION ROAD

ARM: DALE ROAD

TIME / CLASS	LEFT TO A6 SOUTH								STRAIGHT TO STATION ROAD								RIGHT TO A6 NORTH								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	0	0	4	2	0	8	1	15	19
7:15 - 7:30	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	2	0	5	0	9	11
7:30 - 7:45	0	0	2	1	0	2	0	5	0	0	3	0	0	0	0	3	0	0	7	2	0	4	1	14	22
7:45 - 8:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	7	3	1	6	0	17	18
HOURLY TOTAL	0	0	2	1	1	7	0	11	0	0	3	0	0	1	0	4	0	0	20	9	1	23	2	55	70
8:00 - 8:15	0	0	0	1	1	5	0	7	0	0	1	0	0	1	0	2	0	0	8	2	0	4	2	16	25
8:15 - 8:30	0	0	1	0	0	4	0	5	0	0	2	1	0	0	0	3	0	0	10	3	1	6	0	20	28
8:30 - 8:45	0	0	0	2	0	0	0	2	0	0	0	1	0	1	0	2	0	0	5	3	1	10	0	19	23
8:45 - 9:00	0	0	2	2	1	1	0	6	0	0	2	0	1	0	0	3	0	0	10	0	1	3	1	15	24
HOURLY TOTAL	0	0	3	5	2	10	0	20	0	0	5	2	1	2	0	10	0	0	33	8	3	23	3	70	100
PERIOD TOTAL	0	0	5	6	3	17	0	31	0	0	8	2	1	3	0	14	0	0	53	17	4	46	5	125	170
16:00 - 16:15	0	0	1	1	0	4	0	6	0	0	1	0	0	0	0	1	0	0	14	7	0	4	1	26	33
16:15 - 16:30	0	0	1	0	0	4	0	5	0	0	1	0	0	0	0	1	0	0	13	3	0	7	0	23	29
16:30 - 16:45	0	0	4	0	0	5	0	9	0	0	0	0	0	0	0	0	0	0	21	0	1	1	1	24	33
16:45 - 17:00	0	0	1	0	0	3	0	4	0	0	6	0	0	0	0	6	0	0	12	1	0	6	1	20	30
HOURLY TOTAL	0	0	7	1	0	16	0	24	0	0	8	0	0	0	0	8	0	0	60	11	1	18	3	93	125
17:00 - 17:15	1	1	4	0	0	4	0	10	0	0	3	0	0	0	0	3	0	0	9	1	0	1	0	11	24
17:15 - 17:30	0	0	3	0	0	3	0	6	0	0	0	0	0	0	0	0	0	0	4	1	1	3	0	9	15
17:30 - 17:45	0	0	6	0	2	4	0	12	0	0	1	0	0	0	0	1	0	0	12	4	0	1	0	17	30
17:45 - 18:00	0	0	2	0	0	3	0	5	0	0	0	0	0	0	0	0	0	0	10	2	0	2	0	14	19
HOURLY TOTAL	1	1	15	0	2	14	0	33	0	0	4	0	0	0	0	4	0	0	35	8	1	7	0	51	88
PERIOD TOTAL	1	1	22	1	2	30	0	57	0	0	12	0	0	0	0	12	0	0	95	19	2	25	3	144	213

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / DALE ROAD / STATION ROAD

ARM: A6 SOUTH

TIME / CLASS	LEFT TO STATION ROAD								STRAIGHT TO A6 NORTH								RIGHT TO DALE ROAD								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	5	1	0	0	0	6	2	0	53	13	6	9	0	83	0	0	4	0	0	1	0	5	94
7:15 - 7:30	0	0	6	2	0	0	0	8	0	0	62	14	4	5	0	85	0	0	1	0	0	4	0	5	98
7:30 - 7:45	0	1	8	3	0	0	0	12	0	0	88	18	3	6	2	117	0	0	3	0	0	3	0	6	135
7:45 - 8:00	0	0	10	2	0	0	0	12	0	0	66	18	4	5	0	93	0	0	3	1	0	3	0	7	112
HOURLY TOTAL	0	1	29	8	0	0	0	38	2	0	269	63	17	25	2	378	0	0	11	1	0	11	0	23	439
8:00 - 8:15	0	0	10	2	0	0	0	12	0	0	68	20	6	8	2	104	0	0	2	0	0	2	0	4	120
8:15 - 8:30	0	0	13	3	0	0	0	16	0	0	91	16	7	15	0	129	0	0	1	1	0	5	0	7	152
8:30 - 8:45	0	0	14	1	1	0	0	16	0	0	71	15	5	13	0	104	0	0	0	0	0	3	0	3	123
8:45 - 9:00	0	0	9	1	1	0	0	11	0	1	69	26	4	8	0	108	0	0	1	0	0	1	0	2	121
HOURLY TOTAL	0	0	46	7	2	0	0	55	0	1	299	77	22	44	2	445	0	0	4	1	0	11	0	16	516
PERIOD TOTAL	0	1	75	15	2	0	0	93	2	1	568	140	39	69	4	823	0	0	15	2	0	22	0	39	955
16:00 - 16:15	0	0	10	0	1	0	0	11	0	1	98	19	1	9	1	129	0	0	0	0	0	3	0	3	143
16:15 - 16:30	0	1	11	2	0	1	0	15	0	0	111	21	4	4	1	141	0	0	1	0	0	3	0	4	160
16:30 - 16:45	0	0	17	2	0	0	0	19	0	0	107	28	2	4	1	142	0	0	1	0	0	1	0	2	163
16:45 - 17:00	0	0	27	1	0	0	0	28	0	0	108	18	3	5	2	136	0	0	0	1	0	3	0	4	168
HOURLY TOTAL	0	1	65	5	1	1	0	73	0	1	424	86	10	22	5	548	0	0	2	1	0	10	0	13	634
17:00 - 17:15	0	0	17	0	0	0	0	17	0	1	132	20	3	1	1	158	0	0	0	0	0	2	0	2	177
17:15 - 17:30	0	0	23	4	0	0	0	27	0	1	112	19	1	2	2	137	0	0	0	0	0	1	0	1	165
17:30 - 17:45	0	0	17	2	0	0	0	19	0	0	131	16	5	4	1	157	0	0	3	1	0	0	0	4	180
17:45 - 18:00	0	0	10	0	0	0	0	10	0	0	140	15	2	2	2	161	0	0	0	0	0	1	0	1	172
HOURLY TOTAL	0	0	67	6	0	0	0	73	0	2	515	70	11	9	6	613	0	0	3	1	0	4	0	8	694
PERIOD TOTAL	0	1	132	11	1	1	0	146	0	3	939	156	21	31	11	1161	0	0	5	2	0	14	0	21	1328

Manual Classified Turning Counts, Buxton

DATE: THURSDAY 2nd MAY 2019

LOCATION: A6 / DALE ROAD / STATION ROAD

ARM: STATION ROAD

TIME / CLASS	LEFT TO A6 NORTH								STRAIGHT TO DALE ROAD								RIGHT TO A6 SOUTH								TOTAL MOVEMENT FROM ARM
	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	PEDAL CYCLE	MOTOR CYCLE	CAR/ TAXI	LGV	OGV 1	OGV 2	BUS COACH	TOTAL	
7:00 - 7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	10	3	0	0	0	13	14
7:30 - 7:45	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	0	0	23	2	0	0	0	25	29
7:45 - 8:00	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	3	0	0	12	2	0	0	0	14	18
HOURLY TOTAL	0	0	1	0	0	0	0	1	0	0	6	2	0	0	0	8	0	0	49	8	0	0	0	57	66
8:00 - 8:15	0	0	1	0	0	0	0	1	0	0	1	2	0	0	0	3	0	0	17	2	0	0	0	19	23
8:15 - 8:30	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	20	4	0	0	0	24	26
8:30 - 8:45	0	0	3	0	0	0	0	3	0	0	3	1	0	0	0	4	0	0	38	9	0	0	0	47	54
8:45 - 9:00	0	0	1	0	0	0	0	1	0	0	8	4	0	0	0	12	0	0	8	3	0	0	0	11	24
HOURLY TOTAL	0	0	6	0	0	0	0	6	0	0	13	7	0	0	0	20	0	0	83	18	0	0	0	101	127
PERIOD TOTAL	0	0	7	0	0	0	0	7	0	0	19	9	0	0	0	28	0	0	132	26	0	0	0	158	193
16:00 - 16:15	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	3	0	0	15	4	0	0	0	19	23
16:15 - 16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	0	0	9	9
16:30 - 16:45	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2	0	0	10	2	0	0	0	12	15
16:45 - 17:00	0	0	2	1	0	0	0	3	0	0	1	1	0	0	0	2	0	0	7	2	0	0	0	9	14
HOURLY TOTAL	0	0	4	1	0	0	0	5	0	0	6	1	0	0	0	7	0	0	36	13	0	0	0	49	61
17:00 - 17:15	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	3	0	1	17	1	0	0	0	19	23
17:15 - 17:30	0	0	0	1	0	0	0	1	0	0	3	2	0	0	0	5	0	1	12	4	0	0	0	17	23
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	10	0	0	0	0	10	12
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
HOURLY TOTAL	0	0	1	1	0	0	0	2	0	0	8	2	0	0	0	10	0	2	47	6	0	0	0	55	67
PERIOD TOTAL	0	0	5	2	0	0	0	7	0	0	14	3	0	0	0	17	0	2	83	19	0	0	0	104	128

S|C|P

APPENDIX D

SCHEDULE OF ACCOMMODATION

Barratt Type	House Type	Sqft	No	Total Sqft
Private Units				
Rowan - End	2 Bed Terraced House	866	10	8660
Rowan - Mid	2 Bed Terraced House	866	1	866
Oakmoor - End	3 Bed Bed Semi / Mews House Duel Aspect End Unit	1049	1	1049
Birchmoor - End	3 Bed Terraced House	1025	3	3075
Rathlin	3 Bed Detached House	990	11	10890
Matlock - End	3 Bed Semi / Mews House	970	23	22310
Hopton	3 Bed Detached / Semi Detached Dual Aspect House	1017	9	9153
Hopton - End	3 Bed Detached / Semi Detached Dual Aspect House	1017	1	1017
Knightwood - End	4 Bed Townhouse	1122	18	20196
Ashtead	4 Bed Dual Aspect Detached House	1265	4	5060
Wallasea	4 Bedroom Int. Garage Detached House	1206	11	13266
Haweswater	4 Bedroom Int. Garage Detached House	1495	7	10465
Total number of units and square footage			**99**	**106007**
Gross Site Area in Acres				**10.39**
Open Space & Undevelopable Area in Acres				**3.18**
Net Site Area in Acres				**7.21**
Density (Units per Acre)				**14**
Density (Units per Hectare)				**34**
Square Foot / Acre				**14,703**

North

AGRICULTURAL LAND

PUMPING STATION

SUDS

LOCAL WILDLIFE AREA

GOLF COURSE

Nunsfield Farm

Fairfield Commc

Potential Future Link Road

ENTRANCE STATEMENT

SUBSTATION

TEMP SALES PARKING

PLAY AREA (LAP) Refer to drawing 2402.4/929

Existing connection to remain open

Existing connection to remain open

Nestle Water Main 5m

Buxton FP 2

Buxton FP 2

Electricity Supply to Farm - Assumed 4m

Buxton EP 1

Buxton FP 77

Nestle Water Main 5m

ARM 4

ARM 3

B.O.A.T

PRoW

BARMS WAY

GLENMOOR ROAD

NORTH ROAD

NORTH ROAD

Links View

St Peter's Church

The Devonshire Cooch House

324.3m

Northlands

Sub Sta

SD

SM

Legend:

- Proposed dwelling and house type code.
- Proposed garage to be built.
- Grass, refer to detailed landscpaing plans for details.
- Wall (Refer to BTL01/BTD01&02 for details)
- Timber gates to be erected to rear gardens. (as indicated on site layout).
- Existing trees to be retained & protected during works.
- Trees to be removed, refer to 1795_ARB_AIA & 1795_ARB_AMS for details.
- Root Protection Zone
- Indicates a tree with a TPO.
- Water main easement, 5m wide as confirmed by Ward Hadaway.
- AM — Acoustic Measures required. (Refer to Noise Assessment for Details)
- AS OPP — Dwelling handing - as / opposite see the construction dwg.
- Refuse collection area
- EV — Car charging point, refer to EVCP info pack for specs & positioning details.
- PROW.
- GRP Chimney
- Indicative Landscaping, refer to UG_1795_Lan_SI_01-05 for details.

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By
02	Layout updated to various internal comments.	18/06/24	GB

Project: HOGSHAW FARM

Description: PLANNING LAYOUT

Design By:	Date:	Scale at A0:	Revision:
GB	11/06/2024	1:500	2

Project	Originator	Functional	Spatial	Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR -	UD -	203001

BARRATT HOMES

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator
© Barratt Homes Ltd.

© Crown Copyright, All Rights Reserved. 2021 Licence Number 0100031673

NOTES

REVISIONS

REV	DESCRIPTION	DATE	BY
A	NEW SITE LAYOUT UNDERLAID	20.02.24	LD
B	NEW SITE LAYOUT UNDERLAID	10.07.24	LD

S|C|P
Transportation Planning : Infrastructure Design
Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:
BARRATT HOMES

Project Title:
HOGSHAW FARM, BUXTON

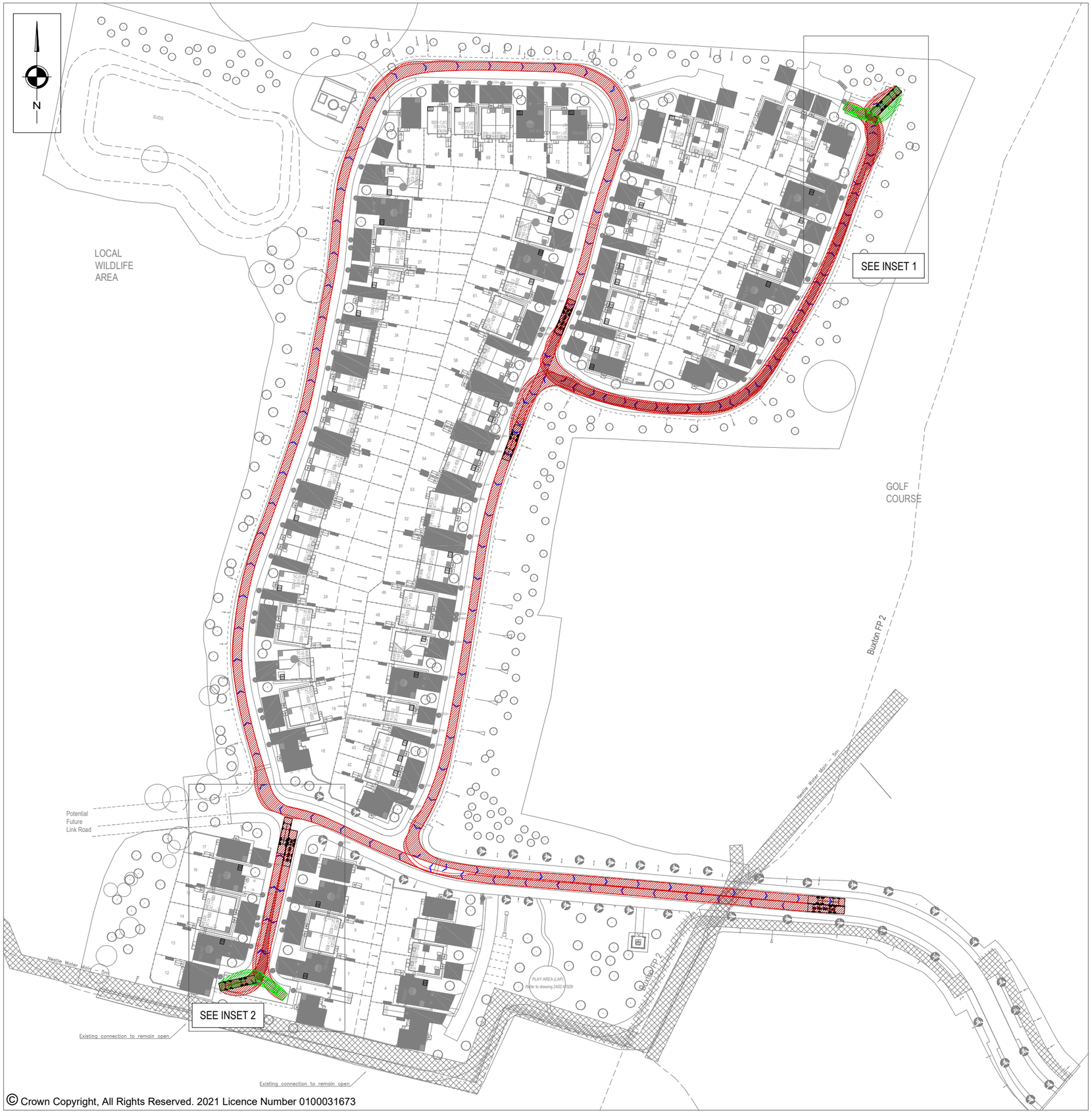
Drawing Title:
INTERNAL DIMENSIONS

Drawn By:	Date:
LD	10.11.2023
Checked: LB	Scale: 1:1250 @ A3 UNLESS STATED
Status: PLANNING	Approved/Unapproved: -

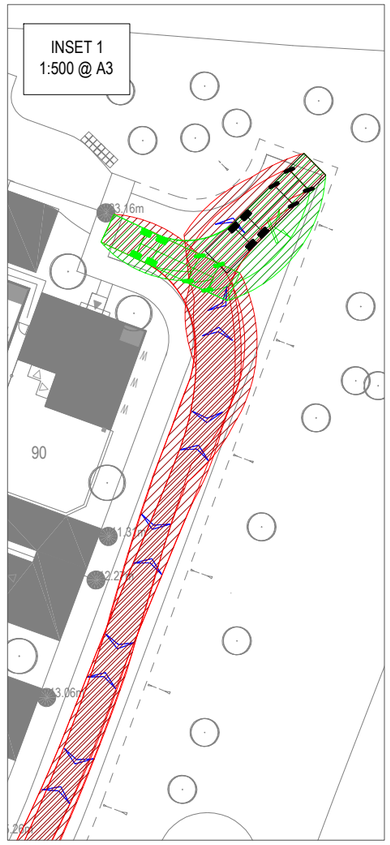
Drawing No. SCP/220650/D01 | Rev. B

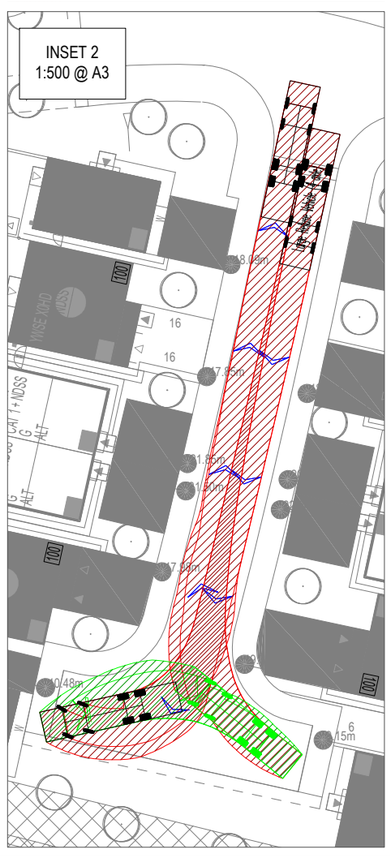
S|C|P

APPENDIX E

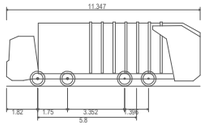


© Crown Copyright, All Rights Reserved. 2021 Licence Number 0100031673





NOTES



Large Refuse Vehicle (4 axle)	
Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

REVISIONS

REV	DESCRIPTION	DATE	BY
A	UPDATED SITE PLAN	06.12.22	AM
B	UPDATED VEHICLE	09.10.23	AM
C	NEW SITE LAYOUT UNDERLAID	20.02.24	LD
D	NEW SITE LAYOUT UNDERLAID	10.07.24	LD

S|C|P
Transportation Planning : Infrastructure Design
Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:
BARRATT HOMES

Project Title:
HOGSHAW FARM, BUXTON

Drawing Title:
SWEPT PATH ANALYSIS

Drawn By: WB	Date: 12.10.2022
Checked: LB	Scale: 1:1250 @ A3 UNLESS STATED
Status: PLANNING	Approved/Unapproved: -

Drawing No. SCP/220650/ATR01 | Rev. D

S|C|P

APPENDIX F

From: Rachael Simpkin < >
Sent: 19 June 2024 16:48
To: Emily Sykes < >; JCoxon < >
Cc: Artiss, Simon < >
Subject: *EXTERNAL:FW: Public Right of Way and Bridleway Scheme - Hogshaw Farm, Buxton (LPA ref: HPK/2023/0192)

Dear All,

Please find County comments below:

“We have received correspondence below from Liam Bessell, Senior Transport Planner at SCP, the Transport Planners working on the proposed development and would like to make the following points for you to pass on regarding the plan for the proposed development at Hogshaw.

The controlled Pegasus crossing which DCC recently installed immediately north of the Hogshaw roundabout will form part of the White Peak Loop, a strategic 54 mile, multi-user route around the White Peak area of the Derbyshire Peak District which, when complete, will connect the market towns of Buxton, Bakewell and Matlock. The form that this route took over the A6 was to segregate equestrians from other non-motorised users, hence there are two 3m wide paths with different treatments leading off the roundabout – Ultitrec for equestrians and a tarmac path for cyclists and pedestrians. This arrangement/ surface treatment should be continued on the east then south side of the new spur road, with the crossing also catering for equestrians as well as pedestrians and cycles.

Once the multi-user trail leaves the spur road and enters the proposed development, there appears to be room for it to take a more meandering course rather than following the existing public footpaths which incorporate sharp right angled bends which apart from being off-putting for users, can also make access for maintenance vehicles difficult. It should not be confined between fences, but left as an open route with a feeling of space which is more attractive and inviting. The route should also be offset from the boundary with existing properties on Glenmoor Road and Nunsfield Road and should not be physically separated from the proposed dwellings to the south of the spur road. Connecting paths should be provided from the cul-de-sacs on the new development so residents are able to directly access the White Peak Loop.

The proposed 3m width is a little narrow to enable all users to negotiate the same space safely and we would ask that this is increased to 5m between the spur road and the SW corner of the site. We would also request that a porous paving surface is provided which is suitable for all users, especially on the steeper section. This would help avoid regular washout associated with a semi bound material and be preferable to an asphalt surface which is slippery and therefore unsafe for horse riders. Chicane barriers set wide apart to allow ease of access for all users should be installed on the uphill side of the junctions with Glenmoor Road and Nunsfield Road to help slow cyclists down in advance. Consideration should also be given to how the route will be signed and illuminated.

The more meandering route will require parts of Buxton Footpaths 1 and 2 to be diverted and the multi-user trail will need to be upgraded to public bridleway between the new spur road and the top of Nunsfield Road, in order to enable equestrian and cycle use, as well as pedestrians. The necessary diversion order and creation agreement can be dealt with by High Peak Borough Council. Reference should be made to legislation/legal processes involved, including the need for public consultation and the fact this is separate from the planning application. The County Council’s Rights of Way team is happy to provide technical assistance if this is required.

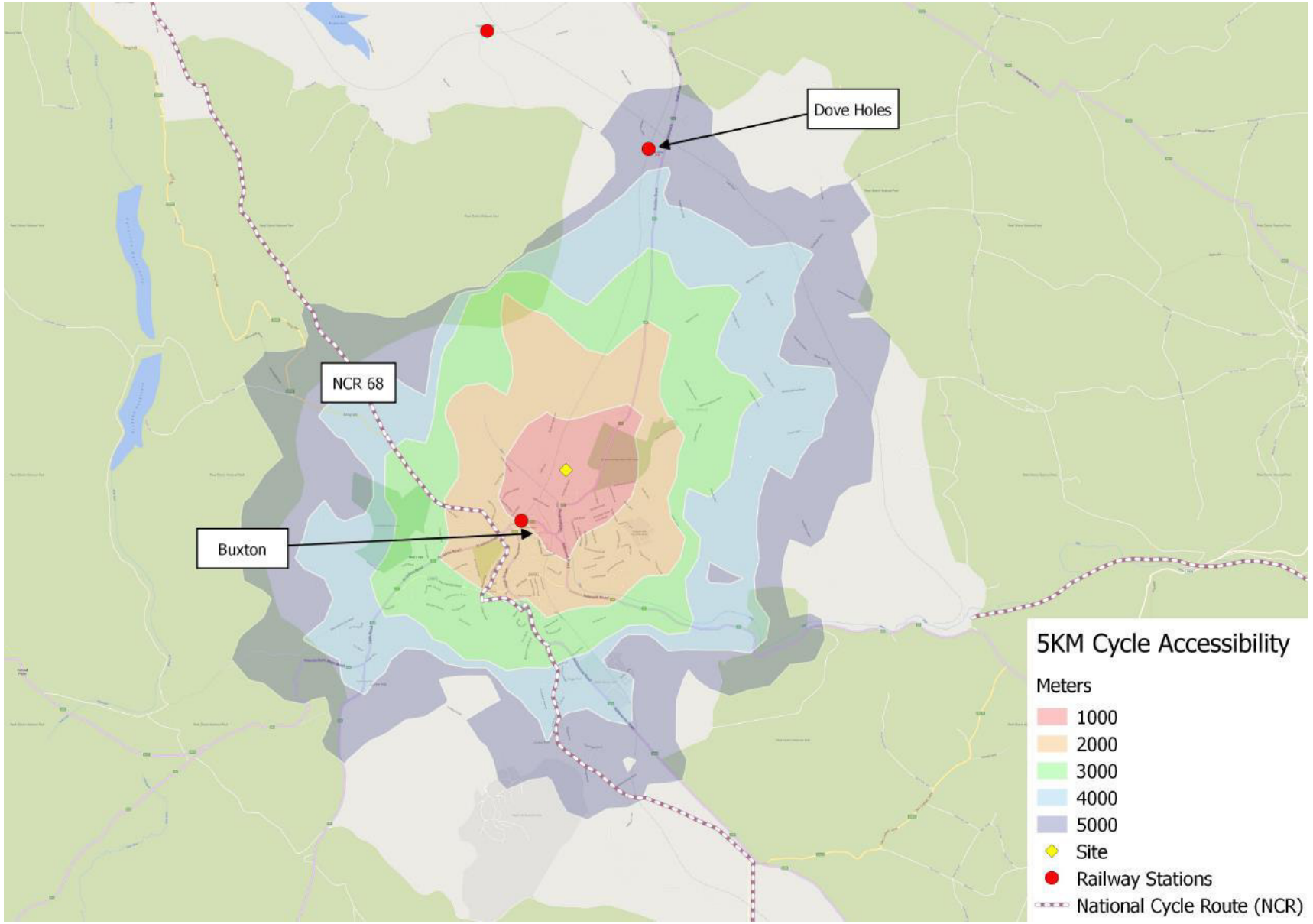
The multi-user trail should facilitate / maximise active travel to and through the site and connect to existing networks. As our longer-term plan is to provide an off-road link with Lightwood Road which could possibly utilise an existing trackway next to the recreation ground, we would request an appropriate developer contribution towards the onward connection, including a bridleway bridge over Nun Brook, along with a commuted sum for maintenance".

Kind regards,

Rachael Simpkin Senior Planning Officer (Majors & Commercial)
(She/Her)
Development Services
High Peak Borough Council and Staffordshire Moorlands District Council

S|C|P

APPENDIX G



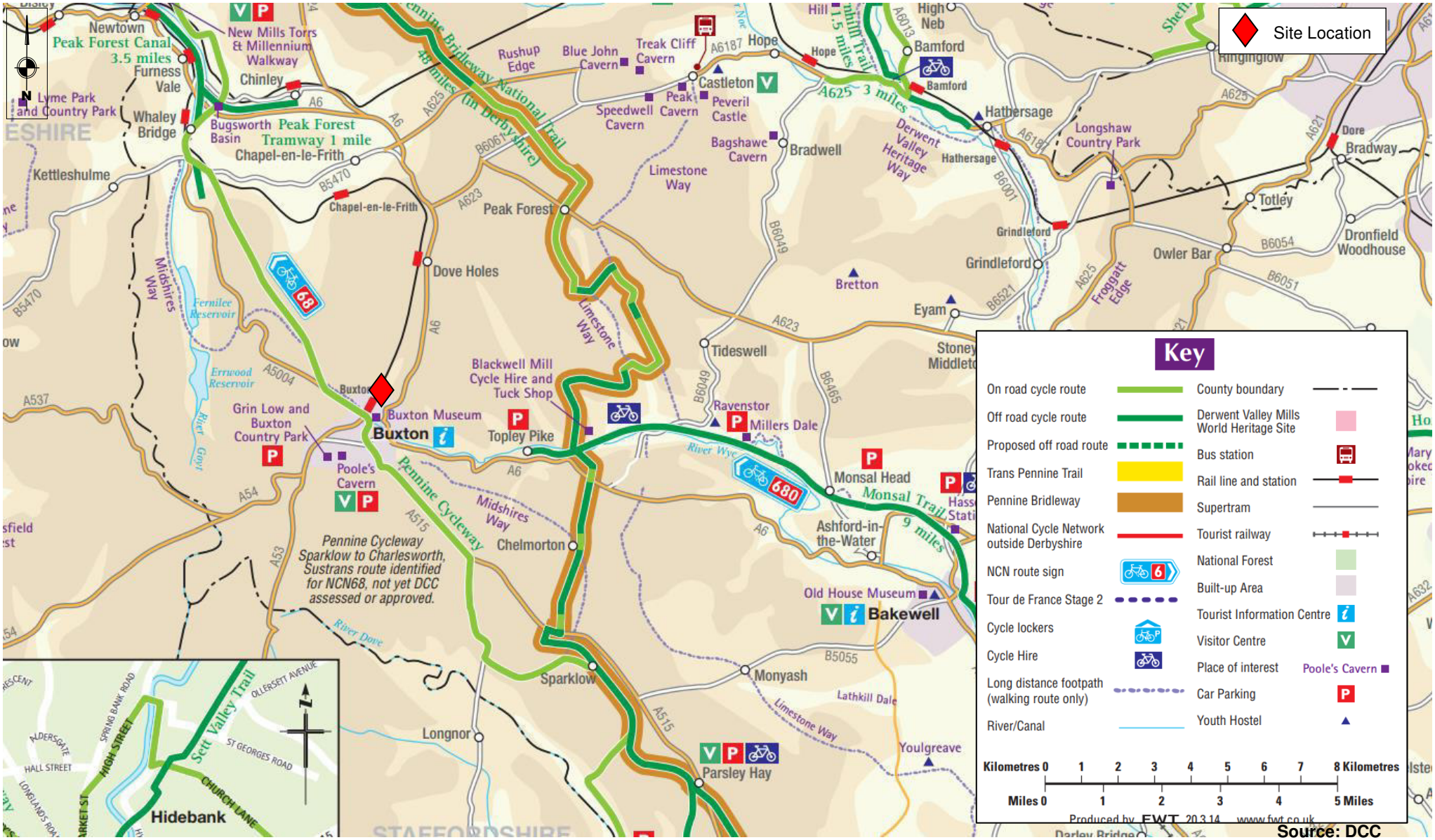
S C P
Transportation Planning : Infrastructure Design
www.scptransport.co.uk

Project Title	220650 Hogshaw Farm, Buxton
Drawing Title	5km Cycle Isochrone
Scale	NTS
By	LB
Date	16.04.19
Checked	WB
Approved/Unapproved	-
Status	PLANNING

Rev	Description	Date	By
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Drawing No. GIS 4

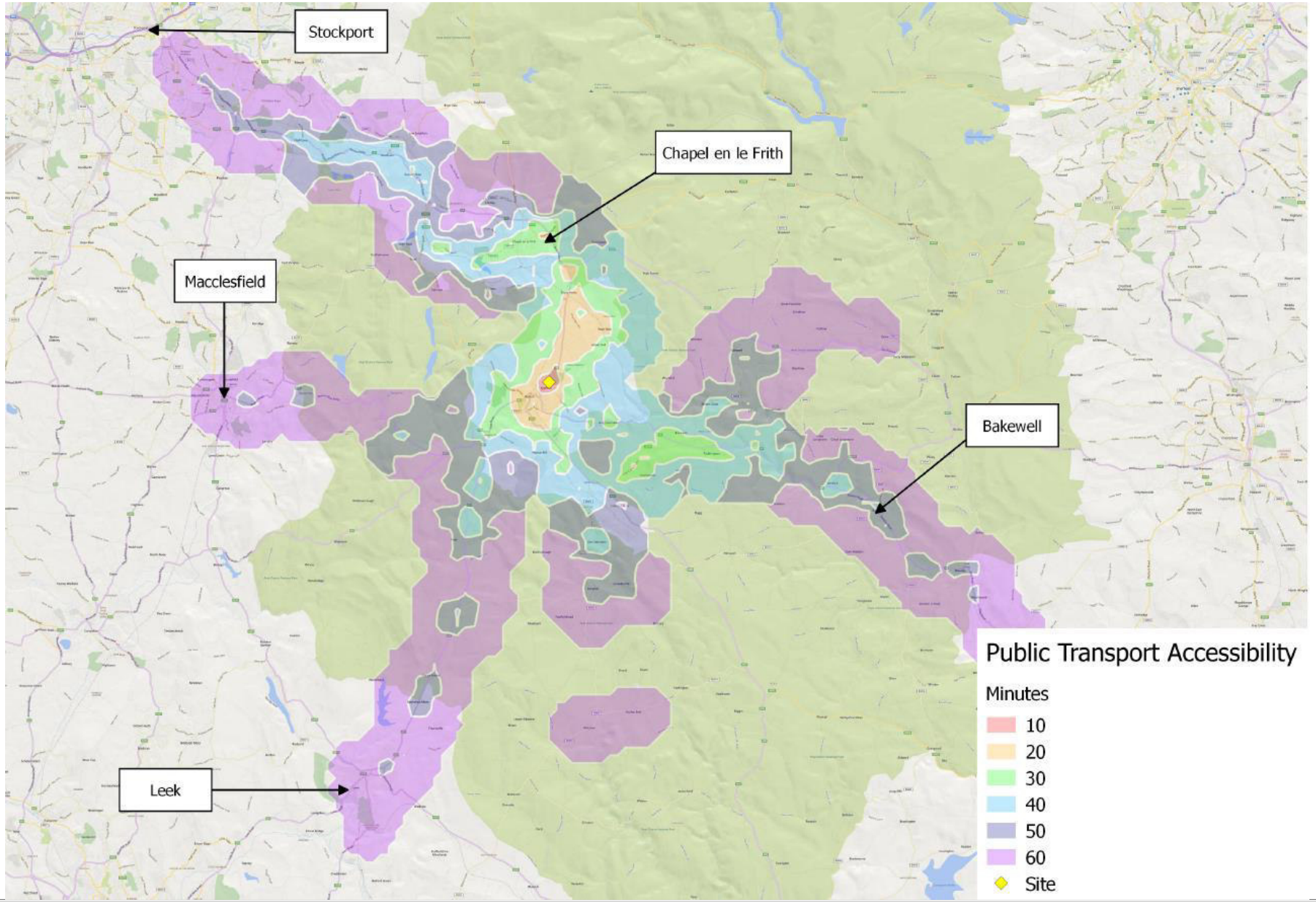
Revision -



S C P Transportation Planning : Infrastructure Design www.scptransport.co.uk	Project Title 220650 Hogshaw Farm, Buxton	Drawing Title Local Cycle Map	Scale NTS	By LB	Rev	Description	Date	By	Drawing No. GIS 3
			Date 16.04.19	Checked WB	-	-	-	-	
			Approved/Unapproved -	Status PLANNING	-	-	-	-	Revision -

S|C|P

APPENDIX H



S|C|P Transportation Planning : Infrastructure Design www.scptransport.co.uk	Project Title: 220650 Hogshaw Farm, Buxton	Drawing Title: 60 Minute Public Transport	Scale: NTS	By: LB	Rev	Description	Date	By	Drawing No.: GIS 5
			Date: 16.04.19	Checked: WB	-	-	-	-	
			Approved/Unapproved: -	Status: PLANNING	-	-	-	-	Revision: -
					-	-	-	-	
					-	-	-	-	

S|C|P

APPENDIX I

Calculation Reference: AUDIT-726001-221005-1051

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	4 days
	EX	ESSEX	1 days
	HC	HAMPSHIRE	4 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	1 days
	SC	SURREY	2 days
	TK	THURROCK	1 days
	WS	WEST SUSSEX	5 days
03	**SOUTH WEST**		
	DV	DEVON	2 days
04	**EAST ANGLIA**		
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	2 days
08	**NORTH WEST**		
	EC	CHESHIRE EAST	1 days
09	**NORTH**		
	CB	CUMBRIA	1 days
	DH	DURHAM	1 days
11	**SCOTLAND**		
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 55 to 237 (units:)
Range Selected by User: 55 to 240 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/08 to 30/06/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	7 days
Tuesday	7 days
Wednesday	6 days
Thursday	7 days
Friday	6 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	33 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	28
Village	1
No Sub Category	4

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	33 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	7 days
10,001 to 15,000	10 days
15,001 to 20,000	6 days
20,001 to 25,000	7 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	5 days
25,001 to 50,000	3 days
50,001 to 75,000	3 days
75,001 to 100,000	6 days
100,001 to 125,000	3 days
125,001 to 250,000	12 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	22 days
1.6 to 2.0	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	14 days
No	19 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	33 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 **CB-03-A-04** **SEMI DETACHED** **CUMBRIA**
MOORCLOSE ROAD
WORKINGTON
SALTERBACK
Edge of Town
No Sub Category
Total No of Dwellings: 82
Survey date: FRIDAY *24/04/09* *Survey Type: MANUAL*

2 **DH-03-A-03** **SEMI-DETACHED & TERRACED** **DURHAM**
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total No of Dwellings: 57
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

3 **DV-03-A-02** **HOUSES & BUNGALOWS** **DEVON**
MILLHEAD ROAD
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 116
Survey date: FRIDAY *25/09/15* *Survey Type: MANUAL*

4 **DV-03-A-03** **TERRACED & SEMI DETACHED** **DEVON**
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

5 **EC-03-A-05** **SEMI-DET./BUNGALOWS** **CHESHIRE EAST**
CREWE ROAD
CREWE

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 129
Survey date: TUESDAY *14/10/08* *Survey Type: MANUAL*

6 **ES-03-A-03** **MIXED HOUSES & FLATS** **EAST SUSSEX**
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

7 **ES-03-A-04** **MIXED HOUSES & FLATS** **EAST SUSSEX**
NEW LYDD ROAD
CAMBER

Edge of Town
Residential Zone
Total No of Dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 **ES-03-A-05** **MIXED HOUSES & FLATS** **EAST SUSSEX**
RATTLE ROAD
NEAR EASTBOURNE
STONE CROSS
Edge of Town
Residential Zone
Total No of Dwellings: 99
Survey date: WEDNESDAY *05/06/19* *Survey Type: MANUAL*

9 **ES-03-A-07** **MIXED HOUSES & FLATS** **EAST SUSSEX**
NEW ROAD
HAILSHAM
HELLINGLY
Edge of Town
Residential Zone
Total No of Dwellings: 91
Survey date: THURSDAY *07/11/19* *Survey Type: MANUAL*

10 **EX-03-A-03** **MIXED HOUSES** **ESSEX**
KESTREL GROVE
RAYLEIGH

Edge of Town
Residential Zone
Total No of Dwellings: 123
Survey date: MONDAY *27/09/21* *Survey Type: MANUAL*

11 **FA-03-A-02** **MIXED HOUSES** **FALKIRK**
ROSEBANK AVENUE & SPRINGFIELD DRIVE
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 161
Survey date: WEDNESDAY *29/05/13* *Survey Type: MANUAL*

12 **HC-03-A-23** **HOUSES & FLATS** **HAMPSHIRE**
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY *19/11/19* *Survey Type: MANUAL*

13 **HC-03-A-27** **MIXED HOUSES** **HAMPSHIRE**
DAIRY ROAD
ANDOVER

Edge of Town
Residential Zone
Total No of Dwellings: 73
Survey date: TUESDAY *16/11/21* *Survey Type: MANUAL*

14 **HC-03-A-28** **MIXED HOUSES & FLATS** **HAMPSHIRE**
EAGLE AVENUE
WATERLOOVILLE
LOVEDEAN
Edge of Town
Residential Zone
Total No of Dwellings: 125
Survey date: MONDAY *08/11/21* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

15 **HC-03-A-29** **MIXED HOUSES & FLATS** **HAMPSHIRE**
CROW LANE
RINGWOOD
CROW
Edge of Town
Residential Zone
Total No of Dwellings: 195
Survey date: THURSDAY *30/06/22* *Survey Type: MANUAL*

16 **HF-03-A-03** **MIXED HOUSES** **HERTFORDSHIRE**
HARE STREET ROAD
BUNTINGFORD

Edge of Town
Residential Zone
Total No of Dwellings: 160
Survey date: MONDAY *08/07/19* *Survey Type: MANUAL*

17 **KC-03-A-04** **SEMI-DETACHED & TERRACED** **KENT**
KILN BARN ROAD
AYLESFORD
DITTON
Edge of Town
Residential Zone
Total No of Dwellings: 110
Survey date: FRIDAY *22/09/17* *Survey Type: MANUAL*

18 **NF-03-A-02** **HOUSES & FLATS** **NORFOLK**
DEREHAM ROAD
NORWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 98
Survey date: MONDAY *22/10/12* *Survey Type: MANUAL*

19 **NF-03-A-04** **MIXED HOUSES** **NORFOLK**
NORTH WALSHAM ROAD
NORTH WALSHAM

Edge of Town
Residential Zone
Total No of Dwellings: 70
Survey date: WEDNESDAY *18/09/19* *Survey Type: MANUAL*

20 **NF-03-A-25** **MIXED HOUSES & FLATS** **NORFOLK**
WOODFARM LANE
GORLESTON-ON-SEA

Edge of Town
Residential Zone
Total No of Dwellings: 55
Survey date: TUESDAY *21/09/21* *Survey Type: MANUAL*

21 **NY-03-A-06** **BUNGALOWS & SEMI DET.** **NORTH YORKSHIRE**
HORSEFAIR
BOROUGHBRIDGE

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 115
Survey date: FRIDAY *14/10/11* *Survey Type: MANUAL*

22 **NY-03-A-10** **HOUSES AND FLATS** **NORTH YORKSHIRE**
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total No of Dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

23 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total No of Dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

24 **SC-03-A-05** **MIXED HOUSES** **SURREY**
REIGATE ROAD
HORLEY

Edge of Town
Residential Zone
Total No of Dwellings: 207
Survey date: MONDAY *01/04/19* *Survey Type: MANUAL*

25 **SF-03-A-09** **MIXED HOUSES & FLATS** **SUFFOLK**
FOXHALL ROAD
IPSWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 179
Survey date: THURSDAY *24/06/21* *Survey Type: MANUAL*

26 **SF-03-A-10** **TERRACED & SEMI-DETACHED** **SUFFOLK**
LOVETOFTS DRIVE
IPSWICH
WHITEHOUSE
Edge of Town
Residential Zone
Total No of Dwellings: 149
Survey date: TUESDAY *22/06/21* *Survey Type: MANUAL*

27 **SH-03-A-04** **TERRACED** **SHROPSHIRE**
ST MICHAEL'S STREET
SHREWSBURY

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 108
Survey date: THURSDAY *11/06/09* *Survey Type: MANUAL*

28 **TK-03-A-01** **SEMI-DET.** **THURROCK**
MILTON ROAD
STANFORD-LE-HOPE
CORRINGHAM
Edge of Town
Residential Zone
Total No of Dwellings: 237
Survey date: TUESDAY *13/05/08* *Survey Type: MANUAL*

29 **WS-03-A-04** **MIXED HOUSES** **WEST SUSSEX**
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total No of Dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

30 **WS-03-A-08** **MIXED HOUSES** **WEST SUSSEX**
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total No of Dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

31 **WS-03-A-12** **MIXED HOUSES** **WEST SUSSEX**
MADGWICK LANE
CHICHESTER
WESTHAMPNETT
Edge of Town
Village
Total No of Dwellings: 152
Survey date: WEDNESDAY *16/06/21* *Survey Type: MANUAL*

32 **WS-03-A-13** **MIXED HOUSES & FLATS** **WEST SUSSEX**
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total No of Dwellings: 197
Survey date: WEDNESDAY *23/06/21* *Survey Type: MANUAL*

33 **WS-03-A-14** **MIXED HOUSES** **WEST SUSSEX**
TODDINGTON LANE
LITTLEHAMPTON
WICK
Edge of Town
Residential Zone
Total No of Dwellings: 117
Survey date: WEDNESDAY *20/10/21* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.75

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	33	126	0.067	33	126	0.284	33	126	0.351
08:00 - 09:00	33	126	0.134	**33**	**126**	**0.365**	**33**	**126**	**0.499**
09:00 - 10:00	33	126	0.141	33	126	0.177	33	126	0.318
10:00 - 11:00	33	126	0.139	33	126	0.171	33	126	0.310
11:00 - 12:00	33	126	0.145	33	126	0.152	33	126	0.297
12:00 - 13:00	33	126	0.159	33	126	0.154	33	126	0.313
13:00 - 14:00	33	126	0.170	33	126	0.156	33	126	0.326
14:00 - 15:00	33	126	0.163	33	126	0.187	33	126	0.350
15:00 - 16:00	33	126	0.266	33	126	0.175	33	126	0.441
16:00 - 17:00	33	126	0.274	33	126	0.158	33	126	0.432
17:00 - 18:00	**33**	**126**	**0.322**	33	126	0.164	33	126	0.486
18:00 - 19:00	33	126	0.250	33	126	0.145	33	126	0.395
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.230			2.288			4.518

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	55 - 237 (units:)
Survey date date range:	01/01/08 - 30/06/22
Number of weekdays (Monday-Friday):	33
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	7
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	33	126	0.005	33	126	0.012	33	126	0.017
08:00 - 09:00	33	126	0.006	**33**	**126**	**0.020**	33	126	0.026
09:00 - 10:00	33	126	0.002	33	126	0.004	33	126	0.006
10:00 - 11:00	33	126	0.003	33	126	0.005	33	126	0.008
11:00 - 12:00	33	126	0.005	33	126	0.005	33	126	0.010
12:00 - 13:00	33	126	0.006	33	126	0.005	33	126	0.011
13:00 - 14:00	33	126	0.004	33	126	0.003	33	126	0.007
14:00 - 15:00	33	126	0.005	33	126	0.005	33	126	0.010
15:00 - 16:00	33	126	0.014	33	126	0.009	33	126	0.023
16:00 - 17:00	**33**	**126**	**0.018**	33	126	0.009	**33**	**126**	**0.027**
17:00 - 18:00	33	126	0.014	33	126	0.010	33	126	0.024
18:00 - 19:00	33	126	0.011	33	126	0.006	33	126	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.093			0.093			0.186

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	33	126	0.024	33	126	0.050	33	126	0.074
08:00 - 09:00	33	126	0.051	**33**	**126**	**0.138**	33	126	0.189
09:00 - 10:00	33	126	0.052	33	126	0.051	33	126	0.103
10:00 - 11:00	33	126	0.037	33	126	0.051	33	126	0.088
11:00 - 12:00	33	126	0.037	33	126	0.039	33	126	0.076
12:00 - 13:00	33	126	0.037	33	126	0.037	33	126	0.074
13:00 - 14:00	33	126	0.034	33	126	0.031	33	126	0.065
14:00 - 15:00	33	126	0.038	33	126	0.045	33	126	0.083
15:00 - 16:00	**33**	**126**	**0.128**	33	126	0.062	**33**	**126**	**0.190**
16:00 - 17:00	33	126	0.075	33	126	0.047	33	126	0.122
17:00 - 18:00	33	126	0.065	33	126	0.032	33	126	0.097
18:00 - 19:00	33	126	0.047	33	126	0.040	33	126	0.087
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.625			0.623			1.248

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	33	126	0.002	33	126	0.029	33	126	0.031
08:00 - 09:00	33	126	0.003	**33**	**126**	**0.045**	**33**	**126**	**0.048**
09:00 - 10:00	33	126	0.003	33	126	0.012	33	126	0.015
10:00 - 11:00	33	126	0.006	33	126	0.008	33	126	0.014
11:00 - 12:00	33	126	0.005	33	126	0.008	33	126	0.013
12:00 - 13:00	33	126	0.007	33	126	0.008	33	126	0.015
13:00 - 14:00	33	126	0.006	33	126	0.006	33	126	0.012
14:00 - 15:00	33	126	0.009	33	126	0.007	33	126	0.016
15:00 - 16:00	33	126	0.024	33	126	0.008	33	126	0.032
16:00 - 17:00	33	126	0.019	33	126	0.004	33	126	0.023
17:00 - 18:00	**33**	**126**	**0.026**	33	126	0.003	33	126	0.029
18:00 - 19:00	33	126	0.023	33	126	0.002	33	126	0.025
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.133			0.140			0.273

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

S|C|P

APPENDIX J

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

ONS Crown Copyright Reserved [from Nomis on 1 May 2019]

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

	usual residence		
place of work : 2011 super output area - middle layer	**E02004102 : High Peak 010**	Dist %	Route
E02004102 : High Peak 010	244	17%	H
E02004102 : High Peak 010	29	2%	I
E02004102 : High Peak 010	14	1%	D
E02006872 : High Peak 013	195	13%	C
E02006872 : High Peak 013	28	2%	A
E02006872 : High Peak 013	28	2%	B
E02006872 : High Peak 013	28	2%	D
E02004104 : High Peak 012	118	8%	H
E02004104 : High Peak 012	118	8%	I
E02004103 : High Peak 011	89	6%	F
E02004103 : High Peak 011	30	2%	I
E02004100 : High Peak 008	10	1%	A
E02004100 : High Peak 008	10	1%	C
E02004100 : High Peak 008	20	1%	H
E02004069 : Derbyshire Dales 002	19	1%	D
E02004069 : Derbyshire Dales 002	19	1%	I
E02003870 : Cheshire East 018	34	2%	C
E02004073 : Derbyshire Dales 006	17	1%	D
E02004073 : Derbyshire Dales 006	17	1%	I
E02004070 : Derbyshire Dales 003	23	2%	I
E02004070 : Derbyshire Dales 003	8	1%	D
E02004097 : High Peak 005	30	2%	C
E02003869 : Cheshire East 017	19	1%	C
E02004068 : Derbyshire Dales 001	14	1%	C
E02004068 : Derbyshire Dales 001	5	0%	D
E02003864 : Cheshire East 012	14	1%	C
E02001213 : Stockport 027	14	1%	C
E02004095 : High Peak 003	14	1%	C
E02003868 : Cheshire East 016	6	0%	C
E02003868 : Cheshire East 016	6	0%	H
E02004064 : Chesterfield 010	12	1%	I
E02001200 : Stockport 014	11	1%	C
E02004072 : Derbyshire Dales 005	10	1%	I
E02004075 : Derbyshire Dales 008	5	0%	I
E02004075 : Derbyshire Dales 008	5	0%	H
E02006204 : Staffordshire Moorlands 001	10	1%	H
E02004074 : Derbyshire Dales 007	9	1%	I
E02004098 : High Peak 006	5	0%	C
E02004098 : High Peak 006	5	0%	A
E02003872 : Cheshire East 020	8	1%	C
E02001241 : Tameside 013	8	1%	C
E02006208 : Staffordshire Moorlands 005	8	1%	H
E02004033 : Amber Valley 005	7	0%	I
E02004071 : Derbyshire Dales 004	7	0%	I
E02004096 : High Peak 004	7	0%	C
E02003853 : Cheshire East 001	6	0%	C
E02003865 : Cheshire East 013	3	0%	A
E02003865 : Cheshire East 013	3	0%	C
E02006912 : Manchester 055	6	0%	C
E02001205 : Stockport 019	6	0%	C
E02001224 : Stockport 038	6	0%	C
E02006210 : Staffordshire Moorlands 007	6	0%	H
E02003858 : Cheshire East 006	5	0%	C
E02003859 : Cheshire East 007	5	0%	C
E02003862 : Cheshire East 011	2	0%	A
E02003862 : Cheshire East 011	3	0%	C
E02003873 : Cheshire East 021	5	0%	C
E02001193 : Stockport 007	5	0%	C
E02001256 : Tameside 028	5	0%	C
E02002803 : Derby 008	5	0%	I
E02004076 : Derbyshire Dales 009	3	0%	I
E02004076 : Derbyshire Dales 009	3	0%	H
E02004094 : High Peak 002	5	0%	C
E02006131 : East Staffordshire 001	3	0%	H
E02006131 : East Staffordshire 001	3	0%	I
E02003867 : Cheshire East 015	4	0%	C
E02006902 : Manchester 054	4	0%	C
E02001155 : Rochdale 024	4	0%	C
E02001219 : Stockport 033	2	0%	C
E02001219 : Stockport 033	2	0%	H
E02001235 : Tameside 007	4	0%	C
E02001259 : Trafford 001	4	0%	C
E02006868 : Sheffield 075	4	0%	I
E02002797 : Derby 002	4	0%	I
E02002800 : Derby 005	4	0%	I
E02004093 : High Peak 001	4	0%	C
E02002965 : Stoke-on-Trent 015	4	0%	H
	1,464		

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Left out of site and North along A6 - Then west along Station Road	Left out of site and north along A6 - Then east along Dale Road	Left out of site and north along A6	Right out of site - then east along Waterswallows Road	Right out of site - then right along North Road	Right out of the site - then west along A6 then south at Queens Road	Right out of the site - then west along A6 then north-east along St Peters Road	Right out of the site - then west along A6 and west along A53	Right out of site - west along A6 and south along Bakewell Road
A	B	C	D	E	F	G	H	I
3%	2%	32%	6%	0%	6%	0%	29%	21%

S|C|P

APPENDIX K

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
© Copyright TRL Limited, 2019

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Site Access Roundabout.j9
Path: Y:\Job Library\2022\220650 - Hogshaw Farm, Buxton\Traffic Data\Junction Assessments\ARCADY - Hogshaw Fairfield Roundabout
Report generation date: 08/07/2024 17:11:39

»2029 Assessment Year, AM
»2029 Assessment Year, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2029 Assessment Year									
Arm 1	D1	2.3	8.11	0.70	A	D2	1.6	6.17	0.61	A
Arm 2		0.4	4.88	0.27	A		0.5	4.77	0.32	A
Arm 3		1.6	5.73	0.62	A		2.8	8.59	0.74	A
Arm 4		0.1	4.98	0.05	A		0.0	5.69	0.03	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Hogshaw Fairfield Roundabout
Location	Buxton
Site number	
Date	22/08/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	18685
Enumerator	SCP\vicky.lomas
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029 Assessment Year	AM	ONE HOUR	07:30	09:00	15	✓
D2	2029 Assessment Year	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2029 Assessment Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hogshaw Fairfield Roundabout	Standard Roundabout		1, 2, 3, 4	6.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A6 Dove Holes	
2	Waterswallows Road	
3	A6 Fairfield Road	
4	Site Access	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.50	7.00	15.0	30.0	38.0	42.0	
2	4.00	7.00	12.0	35.0	38.0	47.0	
3	4.00	7.00	14.0	35.0	38.0	47.0	
4	3.00	6.50	12.5	35.0	38.0	59.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.624	1625
2	0.625	1652
3	0.632	1685
4	0.552	1351

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029 Assessment Year	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	950	100.000
2		ONE HOUR	✓	249	100.000
3		ONE HOUR	✓	922	100.000
4		ONE HOUR	✓	36	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	37	909	4
	2	53	0	194	2
	3	740	176	0	6
	4	14	4	18	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.70	8.11	2.3	A	872	1308
2	0.27	4.88	0.4	A	228	343
3	0.62	5.73	1.6	A	846	1269
4	0.05	4.98	0.1	A	33	50

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	715	179	148	1533	0.467	712	605	0.0	0.9	4.366	A
2	187	47	698	1216	0.154	187	163	0.0	0.2	3.497	A
3	694	174	44	1657	0.419	691	840	0.0	0.7	3.718	A
4	27	7	727	950	0.029	27	9	0.0	0.0	3.898	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	854	214	178	1515	0.564	852	725	0.9	1.3	5.424	A
2	224	56	835	1130	0.198	224	195	0.2	0.2	3.972	A
3	829	207	53	1651	0.502	828	1006	0.7	1.0	4.365	A
4	32	8	870	871	0.037	32	11	0.0	0.0	4.291	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1046	261	218	1490	0.702	1042	886	1.3	2.3	7.965	A
2	274	69	1021	1014	0.270	274	238	0.2	0.4	4.862	A
3	1015	254	65	1644	0.618	1013	1230	1.0	1.6	5.684	A
4	40	10	1064	764	0.052	40	13	0.0	0.1	4.970	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1046	261	218	1489	0.702	1046	888	2.3	2.3	8.108	A
2	274	69	1025	1011	0.271	274	239	0.4	0.4	4.884	A
3	1015	254	65	1644	0.618	1015	1234	1.6	1.6	5.727	A
4	40	10	1067	763	0.052	40	13	0.1	0.1	4.979	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	854	214	178	1514	0.564	858	727	2.3	1.3	5.520	A
2	224	56	841	1126	0.199	224	196	0.4	0.2	3.995	A
3	829	207	53	1651	0.502	831	1012	1.6	1.0	4.403	A
4	32	8	874	869	0.037	32	11	0.1	0.0	4.301	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	715	179	149	1532	0.467	717	609	1.3	0.9	4.425	A
2	187	47	703	1213	0.155	188	164	0.2	0.2	3.515	A
3	694	174	44	1657	0.419	695	846	1.0	0.7	3.751	A
4	27	7	731	948	0.029	27	9	0.0	0.0	3.910	A

2029 Assessment Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hogshaw Fairfield Roundabout	Standard Roundabout		1, 2, 3, 4	7.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2029 Assessment Year	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	841	100.000
2		ONE HOUR	✓	317	100.000
3		ONE HOUR	✓	1092	100.000
4		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	52	777	12
	2	78	0	237	2
	3	917	159	0	16
	4	6	2	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.61	6.17	1.6	A	772	1158
2	0.32	4.77	0.5	A	291	436
3	0.74	8.59	2.8	A	1002	1503
4	0.03	5.69	0.0	A	15	22

Main Results for each time segment

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	633	158	127	1546	0.409	630	750	0.0	0.7	3.918	A
2	239	60	597	1278	0.187	238	160	0.0	0.2	3.456	A
3	822	206	69	1641	0.501	818	766	0.0	1.0	4.354	A
4	12	3	865	874	0.014	12	22	0.0	0.0	4.175	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	756	189	152	1531	0.494	755	898	0.7	1.0	4.633	A
2	285	71	715	1205	0.237	285	191	0.2	0.3	3.912	A
3	982	245	83	1632	0.601	980	917	1.0	1.5	5.498	A
4	14	4	1035	780	0.018	14	27	0.0	0.0	4.702	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	926	231	185	1510	0.613	924	1098	1.0	1.6	6.116	A
2	349	87	875	1105	0.316	348	234	0.3	0.5	4.756	A
3	1202	301	101	1621	0.742	1197	1123	1.5	2.8	8.395	A
4	18	4	1265	653	0.027	18	33	0.0	0.0	5.665	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	926	231	186	1509	0.613	926	1102	1.6	1.6	6.169	A
2	349	87	877	1103	0.316	349	234	0.5	0.5	4.772	A
3	1202	301	101	1621	0.742	1202	1125	2.8	2.8	8.591	A
4	18	4	1270	650	0.027	18	33	0.0	0.0	5.690	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	756	189	153	1530	0.494	758	904	1.6	1.0	4.678	A
2	285	71	719	1203	0.237	286	192	0.5	0.3	3.928	A
3	982	245	83	1632	0.601	987	921	2.8	1.5	5.623	A
4	14	4	1043	776	0.019	14	27	0.0	0.0	4.727	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	633	158	128	1546	0.410	634	755	1.0	0.7	3.955	A
2	239	60	601	1276	0.187	239	161	0.3	0.2	3.471	A
3	822	206	69	1641	0.501	824	771	1.5	1.0	4.419	A
4	12	3	871	871	0.014	12	23	0.0	0.0	4.194	A

S|C|P

APPENDIX L

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.2.1013
© Copyright TRL Limited, 2019

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: 18685_ARCADY_A53.A6_DIRECT.j9
Path: Y:\Job Library\2022\220650 - Hogshaw Farm, Buxton\Traffic Data\Junction Assessments\A53.A6 Rndbt
Report generation date: 08/07/2024 17:15:15

»Base 2029, AM
»Base 2029, PM
»Assessment 2029, AM
»Assessment 2029, PM

Summary of junction performance

	AM							PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	Base 2029													
Arm 1	D1	32.1	89.10	1.03	F	55.90	-8 % [Arm 1]	D2	21.1	55.74	1.01	F	73.66	-13 % [Arm 3]
Arm 2		6.2	28.99	0.89	D				13.8	52.97	0.98	F		
Arm 3		2.8	15.65	0.75	C				35.1	121.49	1.12	F		
	Assessment 2029													
Arm 1	D3	38.8	110.64	1.05	F	67.16	-9 % [Arm 1]	D4	22.3	60.25	1.02	F	81.27	-14 % [Arm 3]
Arm 2		6.3	29.64	0.89	D				15.5	58.02	1.00	F		
Arm 3		2.9	16.04	0.76	C				39.2	136.06	1.13	F		

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	A53/A6 Roundabout
Location	
Site number	
Date	25/04/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\Liam Bessell
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75			✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base 2029	AM	DIRECT	07:30	08:30	60	15	✓
D2	Base 2029	PM	DIRECT	16:15	17:15	60	15	✓
D3	Assessment 2029	AM	DIRECT	07:30	08:30	60	15	✓
D4	Assessment 2029	PM	DIRECT	16:15	17:15	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Base 2029, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	55.90	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-8	Arm 1

Arms

Arms

Arm	Name	Description
1	A6 (NE)	
2	A6 (SE)	
3	A53 (W)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.80	3.80	7.80	44.0	15.70	11.00	0.0	✓
2	4.30	4.30	7.90	8.8	19.00	16.00	0.0	✓
3	5.10	5.10	6.50	15.5	17.00	2.00	0.0	✓

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
1	Percentage		100.00
2	Percentage		100.00
3	Percentage		100.00

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1	0.631	343.147
2	0.629	313.136
3	0.600	306.453

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Base 2029	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000

Origin-Destination Data

07:30 - 07:45

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	195.00	135.00
	2	133.00	0.00	36.00
	3	145.00	17.00	0.00

07:45 - 08:00

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	164.00	145.00
	2	129.00	0.00	33.00
	3	112.00	22.00	0.00

08:00 - 08:15

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	182.00	163.00
	2	154.00	0.00	37.00
	3	130.00	14.00	0.00

08:15 - 08:30

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	167.00	149.00
	2	138.00	0.00	36.00
	3	142.00	25.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/TS)	Total Junction Arrivals (PCU)
1	1.03	89.10	32.1	F	325.00	1300.00
2	0.89	28.99	6.2	D	174.00	696.00
3	0.75	15.65	2.8	C	151.75	607.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	330.00	330.00	16.75	332.58	0.992	313.54	273.92	0.0	16.5	34.504	D
2	169.00	169.00	128.27	232.48	0.727	166.48	202.03	0.0	2.5	13.179	B
3	162.00	162.00	131.02	227.83	0.711	159.66	163.73	0.0	2.3	12.800	B

07:45 - 08:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309.00	309.00	22.01	329.27	0.938	309.11	241.81	16.5	16.4	46.488	E
2	162.00	162.00	144.06	222.55	0.728	161.93	187.06	2.5	2.6	14.795	B
3	134.00	134.00	128.92	229.09	0.585	134.90	177.07	2.3	1.4	9.644	A

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345.00	345.00	14.05	334.29	1.032	329.21	280.57	16.4	32.1	76.994	F
2	191.00	191.00	155.49	215.37	0.887	187.44	187.77	2.6	6.2	28.988	D
3	144.00	144.00	151.11	215.77	0.667	143.51	191.82	1.4	1.9	12.359	B

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	316.00	316.00	24.77	327.53	0.965	316.32	281.00	32.1	31.8	89.105	F
2	174.00	174.00	149.18	219.33	0.793	175.98	191.90	6.2	4.2	21.647	C
3	167.00	167.00	139.65	222.65	0.750	166.11	185.51	1.9	2.8	15.647	C

Base 2029, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	73.66	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-13	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Base 2029	PM	DIRECT	16:15	17:15	60	15	✓

Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000

Origin-Destination Data

16:15 - 16:30

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	149.00	138.00
	2	160.00	0.00	33.00
	3	170.00	24.00	0.00

16:30 - 16:45

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	179.00	153.00
	2	154.00	0.00	34.00
	3	186.00	25.00	0.00

Demand (PCU/TS)

16:45 - 17:00

From \ To	1	2	3
1	0.00	186.00	124.00
2	165.00	0.00	37.00
3	164.00	21.00	0.00

Demand (PCU/TS)

17:00 - 17:15

From \ To	1	2	3
1	0.00	157.00	134.00
2	196.00	0.00	27.00
3	189.00	27.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To	1	2	3
1	0	0	0
2	0	0	0
3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/TS)	Total Junction Arrivals (PCU)
1	1.01	55.74	21.1	F	305.00	1220.00
2	0.98	52.97	13.8	F	201.50	806.00
3	1.12	121.49	35.1	F	201.50	806.00

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	287.00	287.00	23.11	328.58	0.873	281.08	319.78	0.0	5.9	17.251	C
2	193.00	193.00	135.15	228.15	0.846	188.28	169.04	0.0	4.7	20.636	C
3	194.00	194.00	156.09	212.78	0.912	186.81	167.35	0.0	7.2	29.352	D

16:30 - 16:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	332.00	332.00	24.20	327.89	1.013	316.80	333.45	5.9	21.1	49.548	E
2	188.00	188.00	146.11	221.26	0.850	187.58	194.89	4.7	5.1	26.009	D
3	211.00	211.00	153.70	214.22	0.985	203.95	179.99	7.2	14.2	59.534	F

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	310.00	310.00	21.55	329.56	0.941	311.55	332.21	21.1	19.6	55.740	F
2	202.00	202.00	125.90	233.97	0.863	201.47	207.19	5.1	5.7	26.782	D
3	185.00	185.00	164.58	207.69	0.891	189.18	162.80	14.2	10.1	53.398	F

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	291.00	291.00	23.76	328.16	0.887	301.22	355.74	19.6	9.4	37.956	E
2	223.00	223.00	137.52	226.66	0.984	214.86	187.46	5.7	13.8	52.967	F
3	216.00	216.00	188.49	193.34	1.117	191.01	163.89	10.1	35.1	121.488	F

Assessment 2029, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	67.16	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-9	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Assessment 2029	AM	DIRECT	07:30	08:30	60	15	✓

Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000

Origin-Destination Data

07:30 - 07:45

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	197.00	138.00
	2	133.00	0.00	36.00
	3	146.00	17.00	0.00

07:45 - 08:00

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	166.00	148.00
	2	129.00	0.00	33.00
	3	113.00	22.00	0.00

08:00 - 08:15

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	184.00	166.00
	2	154.00	0.00	37.00
	3	131.00	14.00	0.00

08:15 - 08:30

Demand (PCU/TS)

		To		
		1	2	3
From	1	0.00	169.00	152.00
	2	139.00	0.00	36.00
	3	143.00	25.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/TS)	Total Junction Arrivals (PCU)
1	1.05	110.64	38.8	F	330.00	1320.00
2	0.89	29.64	6.3	D	174.25	697.00
3	0.76	16.04	2.9	C	152.75	611.00

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	335.00	335.00	16.75	332.58	1.007	315.98	274.84	0.0	19.0	38.026	E
2	169.00	169.00	130.16	231.29	0.731	166.43	202.56	0.0	2.6	13.397	B
3	163.00	163.00	130.98	227.85	0.715	160.61	165.62	0.0	2.4	12.966	B

07:45 - 08:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	314.00	314.00	22.01	329.27	0.954	313.92	242.81	19.0	19.1	55.859	F
2	162.00	162.00	146.83	220.81	0.734	161.90	189.10	2.6	2.7	15.219	C
3	135.00	135.00	128.90	229.10	0.589	135.92	179.84	2.4	1.5	9.753	A

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	350.00	350.00	14.05	334.29	1.047	330.64	281.50	19.1	38.5	89.039	F
2	191.00	191.00	156.76	214.57	0.890	187.37	187.93	2.7	6.3	29.635	D
3	145.00	145.00	151.05	215.81	0.672	144.50	193.08	1.5	2.0	12.523	B

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	321.00	321.00	24.76	327.54	0.980	320.69	282.81	38.5	38.8	110.638	F
2	175.00	175.00	151.88	217.63	0.804	176.80	193.57	6.3	4.5	22.984	C
3	168.00	168.00	140.51	222.13	0.756	167.06	188.18	2.0	2.9	16.040	C

Assessment 2029, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	81.27	F

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-14	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Assessment 2029	PM	DIRECT	16:15	17:15	60	15	✓

Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000

Origin-Destination Data

Demand (PCU/TS)

16:15 - 16:30

		To		
		1	2	3
From	1	0.00	149.00	139.00
	2	162.00	0.00	33.00
	3	173.00	24.00	0.00

Demand (PCU/TS)

16:30 - 16:45

		To		
		1	2	3
From	1	0.00	180.00	154.00
	2	156.00	0.00	34.00
	3	189.00	25.00	0.00

Demand (PCU/TS)

16:45 - 17:00

From \ To	1	2	3
1	0.00	187.00	125.00
2	167.00	0.00	37.00
3	166.00	21.00	0.00

Demand (PCU/TS)

17:00 - 17:15

From \ To	1	2	3
1	0.00	157.00	135.00
2	198.00	0.00	27.00
3	191.00	27.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From \ To	1	2	3
1	0	0	0
2	0	0	0
3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/TS)	Total Junction Arrivals (PCU)
1	1.02	60.25	22.3	F	306.50	1226.00
2	1.00	58.02	15.5	F	203.50	814.00
3	1.13	136.06	39.2	F	204.00	816.00

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	288.00	288.00	23.00	328.65	0.876	281.96	323.59	0.0	6.0	17.501	C
2	195.00	195.00	136.09	227.57	0.857	189.95	168.87	0.0	5.0	21.673	C
3	197.00	197.00	157.80	211.75	0.930	188.78	168.23	0.0	8.2	32.235	D

16:30 - 16:45

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	334.00	334.00	24.01	328.01	1.018	317.70	336.78	6.0	22.3	51.494	F
2	190.00	190.00	146.61	220.95	0.860	189.52	195.09	5.0	5.5	27.726	D
3	214.00	214.00	155.66	213.04	1.005	205.13	180.48	8.2	17.1	68.768	F

16:45 - 17:00

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	312.00	312.00	21.62	329.51	0.947	312.90	336.73	22.3	21.4	60.245	F
2	204.00	204.00	126.71	233.46	0.874	203.39	207.81	5.5	6.1	28.740	D
3	187.00	187.00	166.52	206.52	0.905	191.83	163.59	17.1	12.3	65.992	F

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Junction Arrivals (PCU)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	Throughput (exit side) (PCU/TS)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	292.00	292.00	23.52	328.32	0.889	303.70	356.87	21.4	9.7	41.477	E
2	225.00	225.00	139.09	225.68	0.997	215.60	188.13	6.1	15.5	58.022	F
3	218.00	218.00	189.35	192.82	1.131	191.04	165.33	12.3	39.2	136.060	F

S|C|P

APPENDIX M

LinSig V1 style report

User and Project Details

Project:	**Nunsfield Farm, Buxton**
Title:	**A6 Hallsteads/Station Road/Dale Road Junction**
Location:	Buxton
Additional detail:	
File name:	A6 Hallsteads.Station Rd. Dale Rd. Model.lsg3x
Author:	
Company:	SCP
Address:	

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		5	5
F	Pedestrian		5	5
G	Pedestrian		5	5
H	Pedestrian		5	5

Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		-	6	6	8	8	7	9
	B	-		6	7	8	8	8	5
	C	7	7		8	7	7	7	8
	D	7	7	6		8	8	5	8
	E	0	0	0	0		-	-	-
	F	0	0	0	0	-		-	-
	G	0	0	0	0	-	-		-
	H	0	0	0	0	-	-	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage 1	To Stage 2	To Stage 3	To Stage 4
1		9	6	7
2	2		2	2
3	7	8		8
4	7	8	6	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	E F G H
3	C
4	D

Give-Way Lane Input Data

Junction: A6 Hallsteads, Station Road, Dale Road Junction											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
2/1 (A6 Buxton Road)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	2.00	0.50	2	2.00
4/1 (A6 Hallsteads Road)	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 8/1 (Ahead)	2.00	2.00	0.50	2	2.00

Lane Input Data

Junction: A6 Hallsteads, Station Road, Dale Road Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Dale Road)	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	19.50
											Arm 7 Ahead	Inf
											Arm 8 Right	26.70
2/1 (A6 Buxton Road)	O	A	2	3	60.0	Geom	-	3.60	0.00	Y	Arm 5 Right	29.90
											Arm 7 Left	17.60
											Arm 8 Ahead	Inf
3/1 (Station Road)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	18.00
											Arm 8 Left	10.00
4/1 (A6 Hallsteads Road)	O	B	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 5 Left	15.70
											Arm 6 Ahead	Inf
											Arm 7 Right	19.00
5/1 (Dale Road Exit)	U		2	3	60.0	Geom	-	3.60	0.00	Y		
6/1 (A6 Buxton Road Exit)	U		2	3	60.0	Geom	-	3.70	0.00	Y		
7/1 (Station Road Exit)	U		2	3	60.0	Geom	-	3.40	0.00	Y		
8/1 (A6 Hallsteads Road Exit)	U		2	3	60.0	Geom	-	3.60	0.00	Y		

Lane Saturation Flows

Scenario 1: 'AM 2029 Base' (FG1: 'AM 2029 Base', Plan 1: 'Network Control Plan 1')

Junction: A6 Hallsteads, Station Road, Dale Road Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Dale Road)	3.50	0.00	Y	Arm 6 Left	19.50	22.2 %	1858	1858
				Arm 7 Ahead	Inf	6.2 %		
				Arm 8 Right	26.70	71.6 %		
2/1 (A6 Buxton Road)	3.60	0.00	Y	Arm 5 Right	29.90	6.2 %	1953	1953
				Arm 7 Left	17.60	9.5 %		
				Arm 8 Ahead	Inf	84.3 %		
3/1 (Station Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	8.4 %	1774	1774
				Arm 6 Right	18.00	86.7 %		
				Arm 8 Left	10.00	4.9 %		
4/1 (A6 Hallsteads Road)	4.00	0.00	Y	Arm 5 Left	15.70	12.8 %	1990	1990
				Arm 6 Ahead	Inf	87.1 %		
				Arm 7 Right	19.00	0.1 %		
5/1 (Dale Road Exit)	3.60	0.00	Y				1975	1975
6/1 (A6 Buxton Road Exit)	3.70	0.00	Y				1985	1985
7/1 (Station Road Exit)	3.40	0.00	Y				1955	1955
8/1 (A6 Hallsteads Road Exit)	3.60	0.00	Y				1975	1975

Scenario 2: 'PM 2029 Base' (FG2: 'PM 2029 Base', Plan 1: 'Network Control Plan 1')

Junction: A6 Hallsteads, Station Road, Dale Road Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Dale Road)	3.50	0.00	Y	Arm 6 Left	19.50	31.4 %	1855	1855
				Arm 7 Ahead	Inf	6.4 %		
				Arm 8 Right	26.70	62.2 %		
2/1 (A6 Buxton Road)	3.60	0.00	Y	Arm 5 Right	29.90	3.4 %	1953	1953
				Arm 7 Left	17.60	11.1 %		
				Arm 8 Ahead	Inf	85.6 %		
3/1 (Station Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	11.1 %	1775	1775
				Arm 6 Right	18.00	81.9 %		
				Arm 8 Left	10.00	6.9 %		
4/1 (A6 Hallsteads Road)	4.00	0.00	Y	Arm 5 Left	15.70	10.2 %	1995	1995
				Arm 6 Ahead	Inf	89.5 %		
				Arm 7 Right	19.00	0.3 %		
5/1 (Dale Road Exit)	3.60	0.00	Y				1975	1975
6/1 (A6 Buxton Road Exit)	3.70	0.00	Y				1985	1985
7/1 (Station Road Exit)	3.40	0.00	Y				1955	1955
8/1 (A6 Hallsteads Road Exit)	3.60	0.00	Y				1975	1975

Scenario 3: 'AM 2029 Traffic Assessment' (FG3: 'AM 2029 Traffic Assessment ', Plan 1: 'Network Control Plan 1')

Junction: A6 Hallsteads, Station Road, Dale Road Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Dale Road)	3.50	0.00	Y	Arm 6 Left	19.50	22.2 %	1858	1858
				Arm 7 Ahead	Inf	6.2 %		
				Arm 8 Right	26.70	71.6 %		
2/1 (A6 Buxton Road)	3.60	0.00	Y	Arm 5 Right	29.90	6.1 %	1953	1953
				Arm 7 Left	17.60	9.6 %		
				Arm 8 Ahead	Inf	84.3 %		
3/1 (Station Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	8.4 %	1774	1774
				Arm 6 Right	18.00	86.7 %		
				Arm 8 Left	10.00	4.9 %		
4/1 (A6 Hallsteads Road)	4.00	0.00	Y	Arm 5 Left	15.70	12.7 %	1991	1991
				Arm 6 Ahead	Inf	87.2 %		
				Arm 7 Right	19.00	0.1 %		
5/1 (Dale Road Exit)	3.60	0.00	Y				1975	1975
6/1 (A6 Buxton Road Exit)	3.70	0.00	Y				1985	1985
7/1 (Station Road Exit)	3.40	0.00	Y				1955	1955
8/1 (A6 Hallsteads Road Exit)	3.60	0.00	Y				1975	1975

Scenario 4: 'PM 2029 Traffic Assessment' (FG4: 'PM 2029 Traffic Assessment', Plan 1: 'Network Control Plan 1')

Junction: A6 Hallsteads, Station Road, Dale Road Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Dale Road)	3.50	0.00	Y	Arm 6 Left	19.50	31.8 %	1855	1855
				Arm 7 Ahead	Inf	6.4 %		
				Arm 8 Right	26.70	61.8 %		
2/1 (A6 Buxton Road)	3.60	0.00	Y	Arm 5 Right	29.90	3.3 %	1953	1953
				Arm 7 Left	17.60	11.1 %		
				Arm 8 Ahead	Inf	85.6 %		
3/1 (Station Road)	3.00	0.00	Y	Arm 5 Ahead	Inf	11.0 %	1775	1775
				Arm 6 Right	18.00	82.2 %		
				Arm 8 Left	10.00	6.8 %		
4/1 (A6 Hallsteads Road)	4.00	0.00	Y	Arm 5 Left	15.70	10.1 %	1995	1995
				Arm 6 Ahead	Inf	89.6 %		
				Arm 7 Right	19.00	0.3 %		
5/1 (Dale Road Exit)	3.60	0.00	Y				1975	1975
6/1 (A6 Buxton Road Exit)	3.70	0.00	Y				1985	1985
7/1 (Station Road Exit)	3.40	0.00	Y				1955	1955
8/1 (A6 Hallsteads Road Exit)	3.60	0.00	Y				1975	1975

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM 2029 Base'	07:45	08:45	01:00	
2: 'PM 2029 Base'	16:15	17:15	01:00	
3: 'AM 2029 Traffic Assessment '	07:45	08:45	01:00	
4: 'PM 2029 Traffic Assessment'	16:15	17:15	01:00	

Traffic Flows, Desired

FG1: 'AM 2029 Base'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	36	10	116	162
	B	43	0	66	585	694
	C	12	124	0	7	143
	D	110	749	1	0	860
	Tot.	165	909	77	708	1859

FG2: 'PM 2029 Base'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	54	11	107	172
	B	28	0	92	712	832
	C	8	59	0	5	72
	D	76	665	2	0	743
	Tot.	112	778	105	824	1819

FG3: 'AM 2029 Traffic Assessment '
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	36	10	116	162
	B	43	0	68	597	708
	C	12	124	0	7	143
	D	110	753	1	0	864
	Tot.	165	913	79	720	1877

FG4: 'PM 2029 Traffic Assessment'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	55	11	107	173
	B	28	0	93	717	838
	C	8	60	0	5	73
	D	76	675	2	0	753
	Tot.	112	790	106	829	1837

Stage Timings

Scenario 1: 'AM 2029 Base' (FG1: 'AM 2029 Base', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	43	5	8	8
Change Point	0	50	64	74

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.4%**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.4%**
1/1	Dale Road Left Ahead Right	U	N/A	N/A	C		1	8	-	162	1858	186	87.2%
2/1	A6 Buxton Road Right Left Ahead	O	N/A	N/A	A		1	43	-	694	1953	946	73.3%
3/1	Station Road Ahead Right Left	U	N/A	N/A	D		1	8	-	143	1774	177	80.6%
4/1	A6 Hallsteads Road Left Ahead Right	O	N/A	N/A	B		1	43	-	860	1990	973	88.4%
5/1	Dale Road Exit	U	N/A	N/A	-		-	-	-	165	1975	1975	8.4%
6/1	A6 Buxton Road Exit	U	N/A	N/A	-		-	-	-	909	1985	1985	45.8%
7/1	Station Road Exit	U	N/A	N/A	-		-	-	-	77	1955	1955	3.9%
8/1	A6 Hallsteads Road Exit	U	N/A	N/A	-		-	-	-	708	1975	1975	35.8%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**44**	**0**	**0**	**11.8**	**10.3**	**0.3**	**22.4**	**-**	**-**	**-**	**-**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**44**	**0**	**0**	**11.8**	**10.3**	**0.3**	**22.4**	**-**	**-**	**-**	**-**
1/1	162	162	-	-	-	1.8	2.8	-	4.6	101.3	4.0	2.8	6.7
2/1	694	694	43	0	0	3.5	1.4	0.3	5.1	26.6	13.7	1.4	15.0
3/1	143	143	-	-	-	1.6	1.9	-	3.4	86.8	3.5	1.9	5.4
4/1	860	860	1	0	0	4.9	3.6	0.0	8.5	35.7	19.4	3.6	22.9
5/1	165	165	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
6/1	909	909	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
7/1	77	77	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
8/1	708	708	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

C1 PRC for Signalled Lanes (%): 1.8 Total Delay for Signalled Lanes (pcuHr): 21.67 Cycle Time (s): 90
PRC Over All Lanes (%): 1.8 Total Delay Over All Lanes(pcuHr): 22.44

Stage Timings

Scenario 2: 'PM 2029 Base' (FG2: 'PM 2029 Base', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	43	5	9	7
Change Point	0	50	64	75

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.1%**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.1%**
1/1	Dale Road Left Ahead Right	U	N/A	N/A	C		1	9	-	172	1855	206	83.5%
2/1	A6 Buxton Road Right Left Ahead	O	N/A	N/A	A		1	43	-	832	1953	955	87.1%
3/1	Station Road Ahead Right Left	U	N/A	N/A	D		1	7	-	72	1775	158	45.6%
4/1	A6 Hallsteads Road Left Ahead Right	O	N/A	N/A	B		1	43	-	743	1995	975	76.2%
5/1	Dale Road Exit	U	N/A	N/A	-		-	-	-	112	1975	1975	5.7%
6/1	A6 Buxton Road Exit	U	N/A	N/A	-		-	-	-	778	1985	1985	39.2%
7/1	Station Road Exit	U	N/A	N/A	-		-	-	-	105	1955	1955	5.4%
8/1	A6 Hallsteads Road Exit	U	N/A	N/A	-		-	-	-	824	1975	1975	41.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**30**	**0**	**0**	**11.3**	**8.2**	**0.1**	**19.5**	**-**	**-**	**-**	**-**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**30**	**0**	**0**	**11.3**	**8.2**	**0.1**	**19.5**	**-**	**-**	**-**	**-**
1/1	172	172	-	-	-	1.9	2.2	-	4.1	85.9	4.2	2.2	6.4
2/1	832	832	28	0	0	4.7	3.2	0.1	8.0	34.8	18.5	3.2	21.7
3/1	72	72	-	-	-	0.8	0.4	-	1.2	59.8	1.7	0.4	2.1
4/1	743	743	2	0	0	3.9	1.6	0.0	5.5	26.4	15.1	1.6	16.6
5/1	112	112	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
6/1	778	778	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/1	105	105	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
8/1	824	824	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4

C1 PRC for Signalled Lanes (%): 3.3 Total Delay for Signalled Lanes (pcuHr): 18.79 Cycle Time (s): 90
PRC Over All Lanes (%): 3.3 Total Delay Over All Lanes(pcuHr): 19.53

Stage Timings

Scenario 3: 'AM 2029 Traffic Assessment' (FG3: 'AM 2029 Traffic Assessment ', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	43	5	8	8
Change Point	0	50	64	74

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.8%**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.8%**
1/1	Dale Road Left Ahead Right	U	N/A	N/A	C		1	8	-	162	1858	186	87.2%
2/1	A6 Buxton Road Right Left Ahead	O	N/A	N/A	A		1	43	-	708	1953	948	74.7%
3/1	Station Road Ahead Right Left	U	N/A	N/A	D		1	8	-	143	1774	177	80.6%
4/1	A6 Hallsteads Road Left Ahead Right	O	N/A	N/A	B		1	43	-	864	1991	973	88.8%
5/1	Dale Road Exit	U	N/A	N/A	-		-	-	-	165	1975	1975	8.4%
6/1	A6 Buxton Road Exit	U	N/A	N/A	-		-	-	-	913	1985	1985	46.0%
7/1	Station Road Exit	U	N/A	N/A	-		-	-	-	79	1955	1955	4.0%
8/1	A6 Hallsteads Road Exit	U	N/A	N/A	-		-	-	-	720	1975	1975	36.5%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**44**	**0**	**0**	**12.0**	**10.6**	**0.3**	**22.8**	**-**	**-**	**-**	**-**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**44**	**0**	**0**	**12.0**	**10.6**	**0.3**	**22.8**	**-**	**-**	**-**	**-**
1/1	162	162	-	-	-	1.8	2.8	-	4.6	101.3	4.0	2.8	6.7
2/1	708	708	43	0	0	3.6	1.5	0.3	5.3	27.2	14.2	1.5	15.6
3/1	143	143	-	-	-	1.6	1.9	-	3.4	86.8	3.5	1.9	5.4
4/1	864	864	1	0	0	5.0	3.7	0.0	8.7	36.2	19.4	3.7	23.1
5/1	165	165	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
6/1	913	913	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
7/1	79	79	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
8/1	720	720	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3

C1 PRC for Signalled Lanes (%): 1.4 Total Delay for Signalled Lanes (pcuHr): 22.04 Cycle Time (s): 90
PRC Over All Lanes (%): 1.4 Total Delay Over All Lanes(pcuHr): 22.82

Stage Timings

Scenario 4: 'PM 2029 Traffic Assessment' (FG4: 'PM 2029 Traffic Assessment', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	43	5	9	7
Change Point	0	50	64	75

Network Results

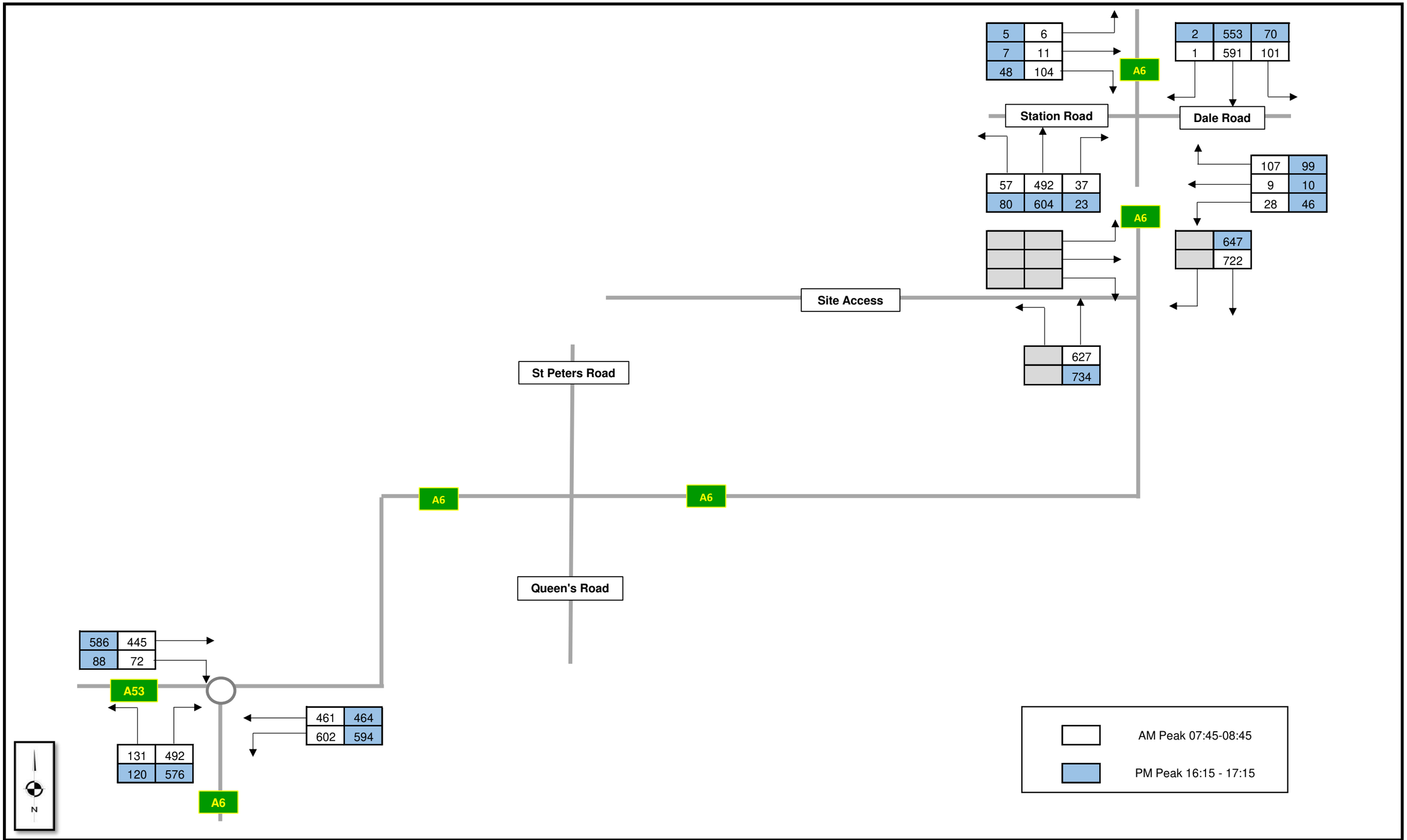
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.8%**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**87.8%**
1/1	Dale Road Left Ahead Right	U	N/A	N/A	C		1	9	-	173	1855	206	83.9%
2/1	A6 Buxton Road Right Left Ahead	O	N/A	N/A	A		1	43	-	838	1953	955	87.8%
3/1	Station Road Ahead Right Left	U	N/A	N/A	D		1	7	-	73	1775	158	46.3%
4/1	A6 Hallsteads Road Left Ahead Right	O	N/A	N/A	B		1	43	-	753	1995	975	77.2%
5/1	Dale Road Exit	U	N/A	N/A	-		-	-	-	112	1975	1975	5.7%
6/1	A6 Buxton Road Exit	U	N/A	N/A	-		-	-	-	790	1985	1985	39.8%
7/1	Station Road Exit	U	N/A	N/A	-		-	-	-	106	1955	1955	5.4%
8/1	A6 Hallsteads Road Exit	U	N/A	N/A	-		-	-	-	829	1975	1975	42.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A6 Hallsteads/Station Road/Dale Road Junction	**-**	**-**	**30**	**0**	**0**	**11.4**	**8.5**	**0.1**	**20.0**	**-**	**-**	**-**	**-**
A6 Hallsteads, Station Road, Dale Road Junction	**-**	**-**	**30**	**0**	**0**	**11.4**	**8.5**	**0.1**	**20.0**	**-**	**-**	**-**	**-**
1/1	173	173	-	-	-	1.9	2.3	-	4.2	87.0	4.2	2.3	6.5
2/1	838	838	28	0	0	4.8	3.4	0.1	8.3	35.5	18.6	3.4	22.0
3/1	73	73	-	-	-	0.8	0.4	-	1.2	60.0	1.7	0.4	2.1
4/1	753	753	2	0	0	3.9	1.7	0.0	5.6	26.9	15.3	1.7	16.9
5/1	112	112	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
6/1	790	790	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
7/1	106	106	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
8/1	829	829	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4

C1 PRC for Signalled Lanes (%): 2.5 Total Delay for Signalled Lanes (pcuHr): 19.30 Cycle Time (s): 90
PRC Over All Lanes (%): 2.5 Total Delay Over All Lanes(pcuHr): 20.05

S|C|P

TRAFFIC FIGURES



S C P

Transportation Planning : Infrastructure Design

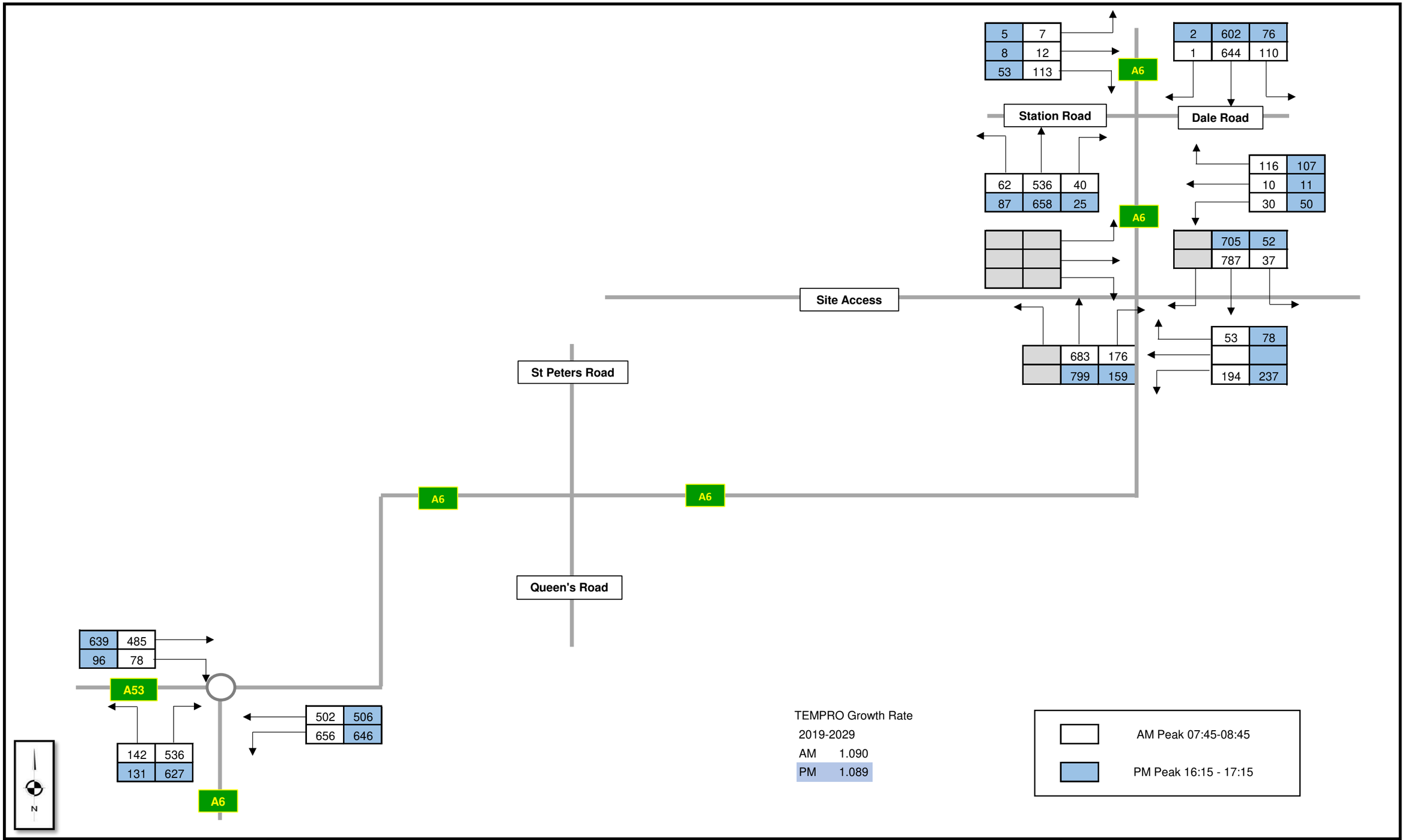
2019 Observed Traffic Flows

Nunsfield Farm, Buxton

11 July 2024

Job Number - SCP/18685

Traffic Figure 1



S C P

Transportation Planning : Infrastructure Design

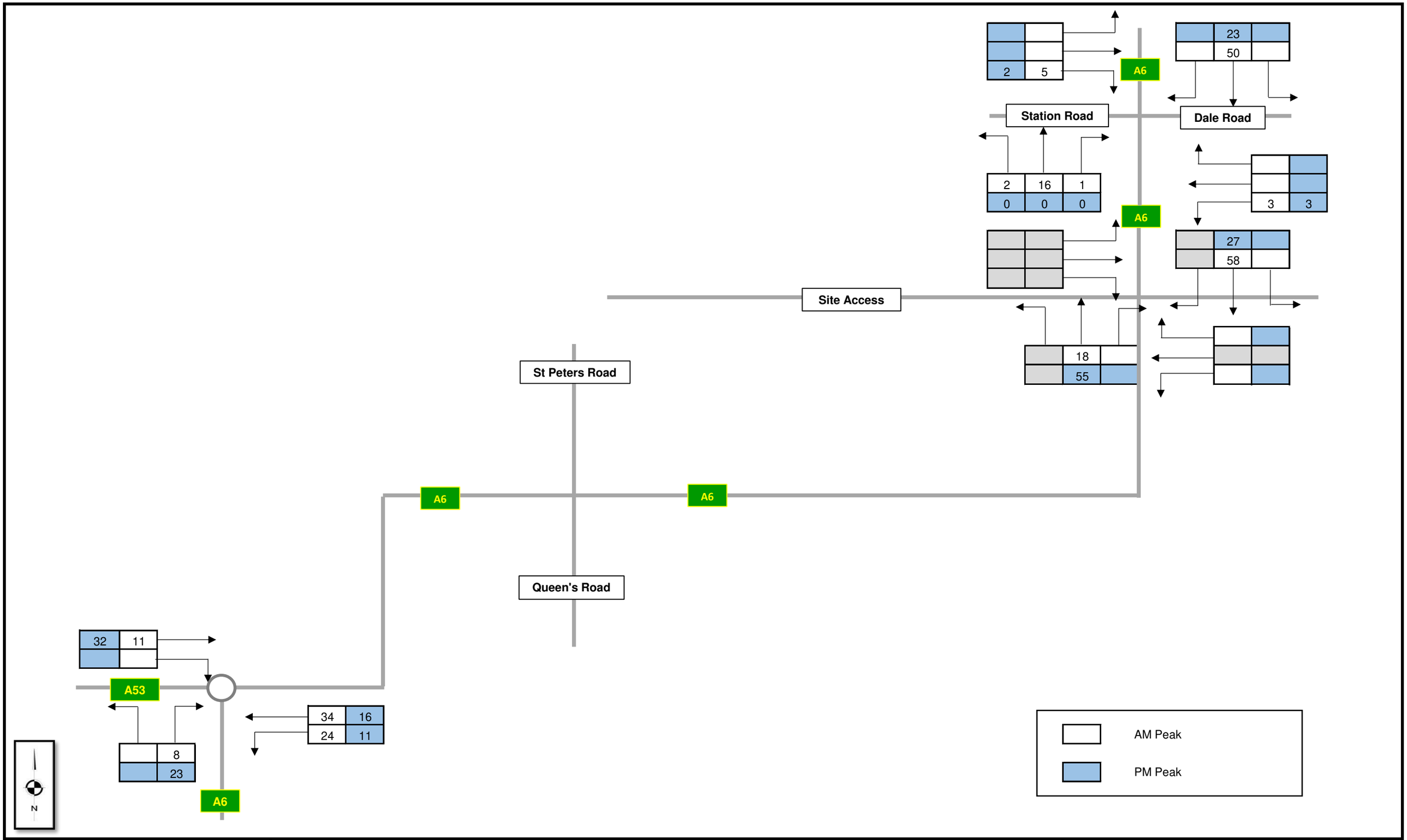
2029 Growthed Flows

Nunsfield Farm, Buxton

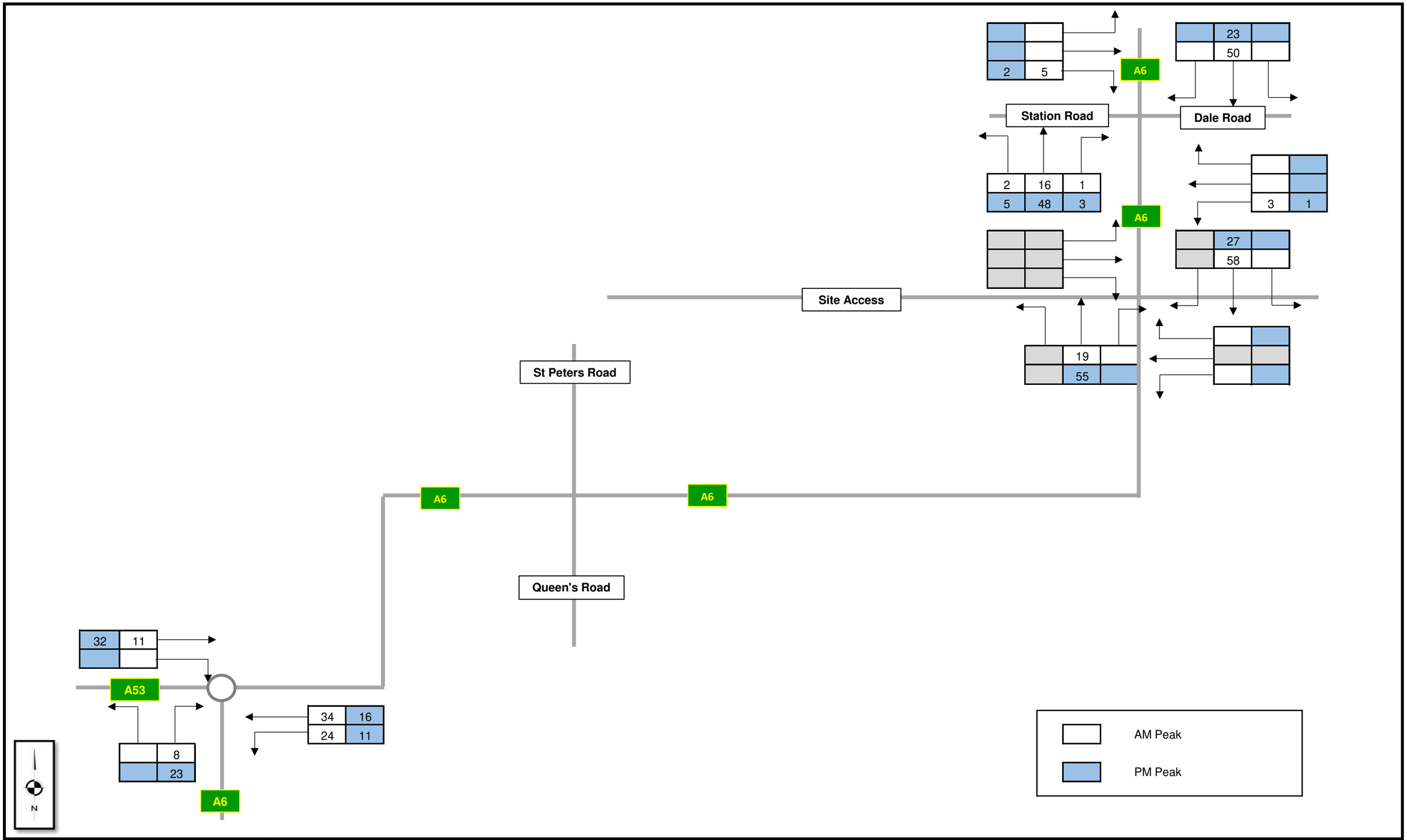
11 July 2024

Job Number - SCP/18685

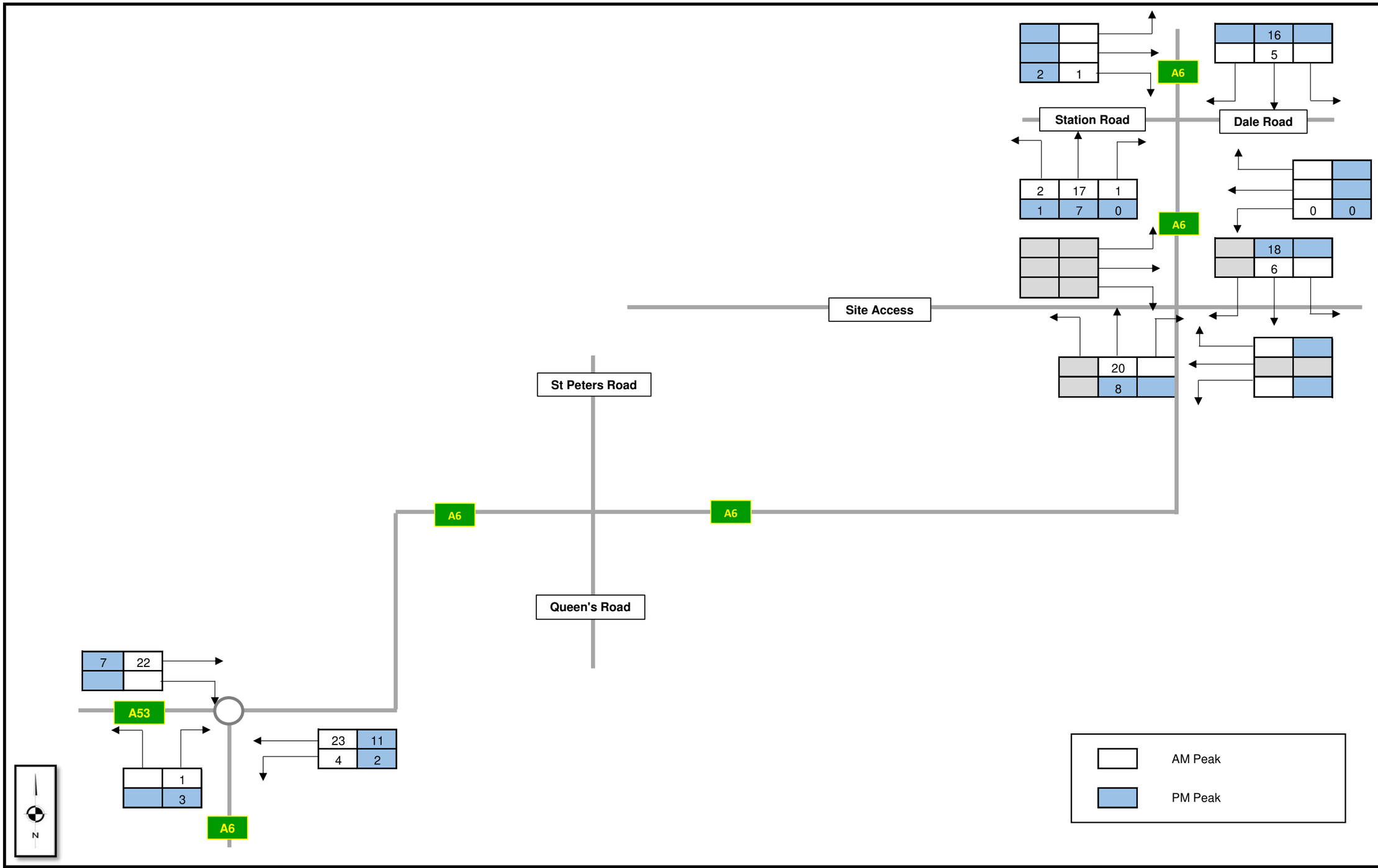
Traffic Figure 2



S C P Transportation Planning : Infrastructure Design	**Committed Development - Waterswallows (LPA Ref: HPK/0003/9366) - 330 Dwellings**	**11 July 2024**
		Job Number - SCP/18685
	Nunsfield Farm, Buxton	**Traffic Figure 3**



S C P Transportation Planning : Infrastructure Design	**Committed Development - Granby A (LPA Ref: HPK/2019/0164) - 73 Dwellings**	**11 July 2024**
		Job Number - SCP/18685
	Nunsfield Farm, Buxton	**Traffic Figure 4**



S C P

Transportation Planning : Infrastructure Design

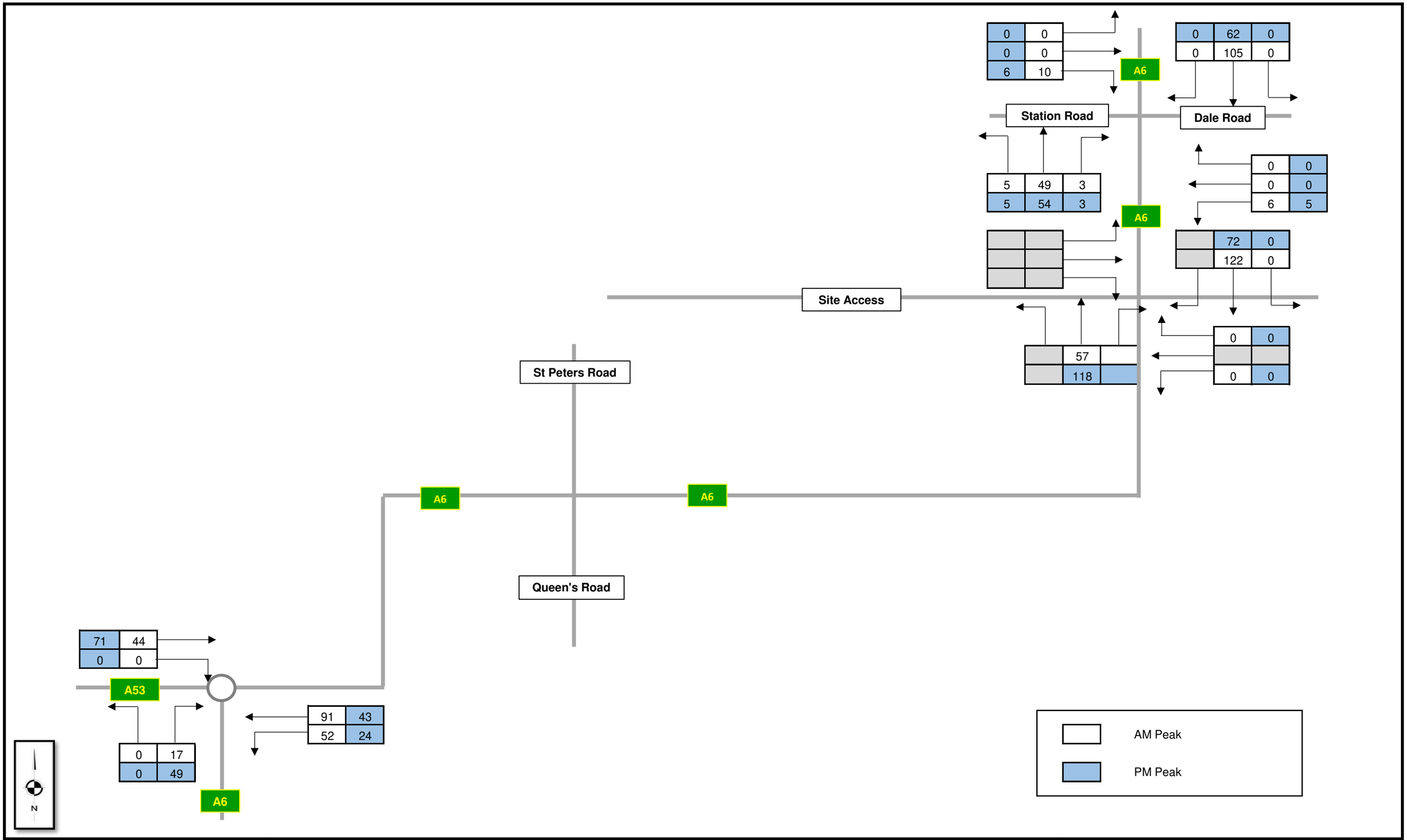
Committed Development - Granby C (LPA Ref: HPK/2022/0352) - 147 Dwellings

Nunsfield Farm, Buxton

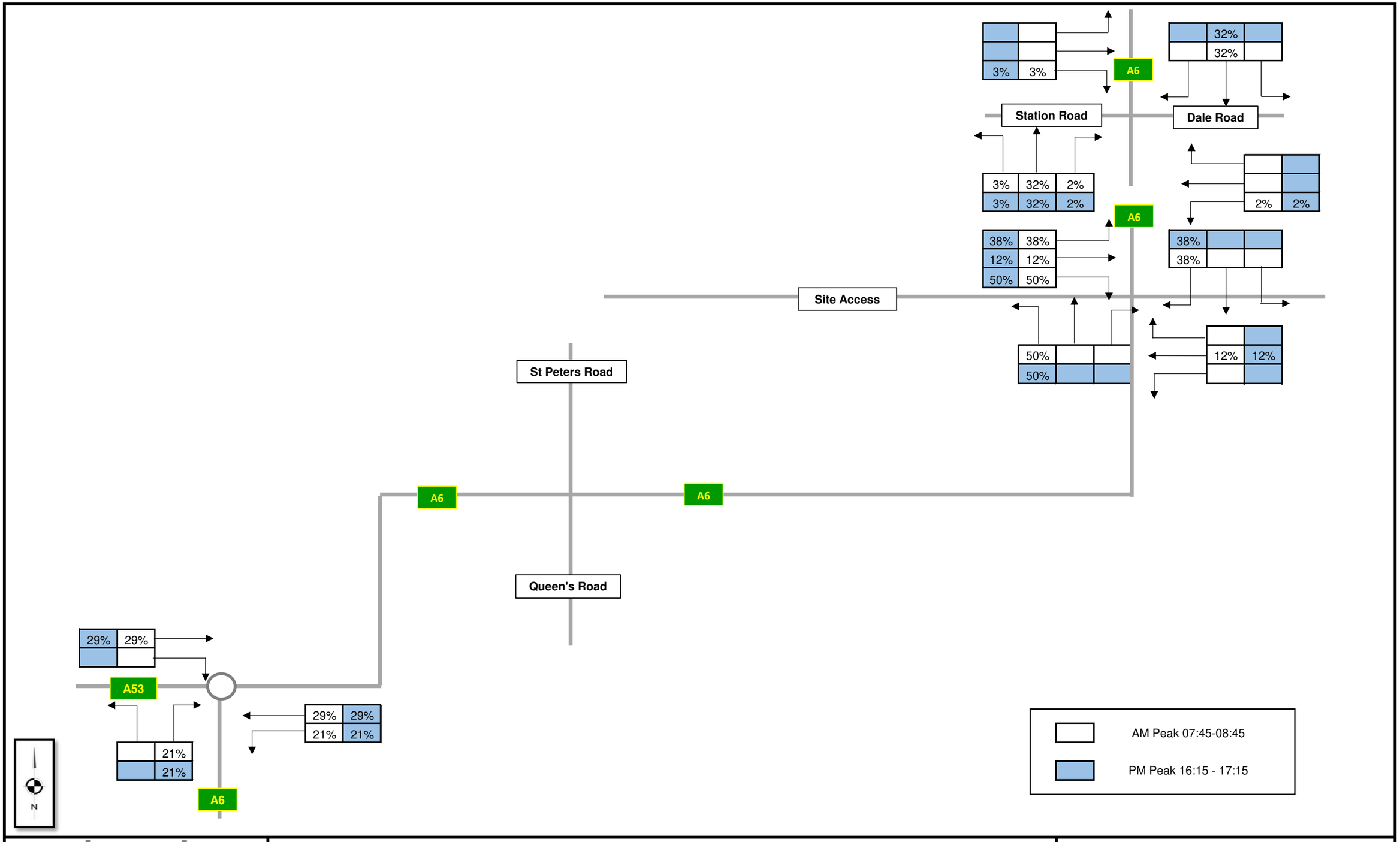
11 July 2024

Job Number - SCP/18685

Traffic Figure 5



S C P Transportation Planning : Infrastructure Design	**Committed Development - Total**	**11 July 2024**
		Job Number - SCP/18685
	Nunsfield Farm, Buxton	**Traffic Figure 6**



S C P

Transportation Planning : Infrastructure Design

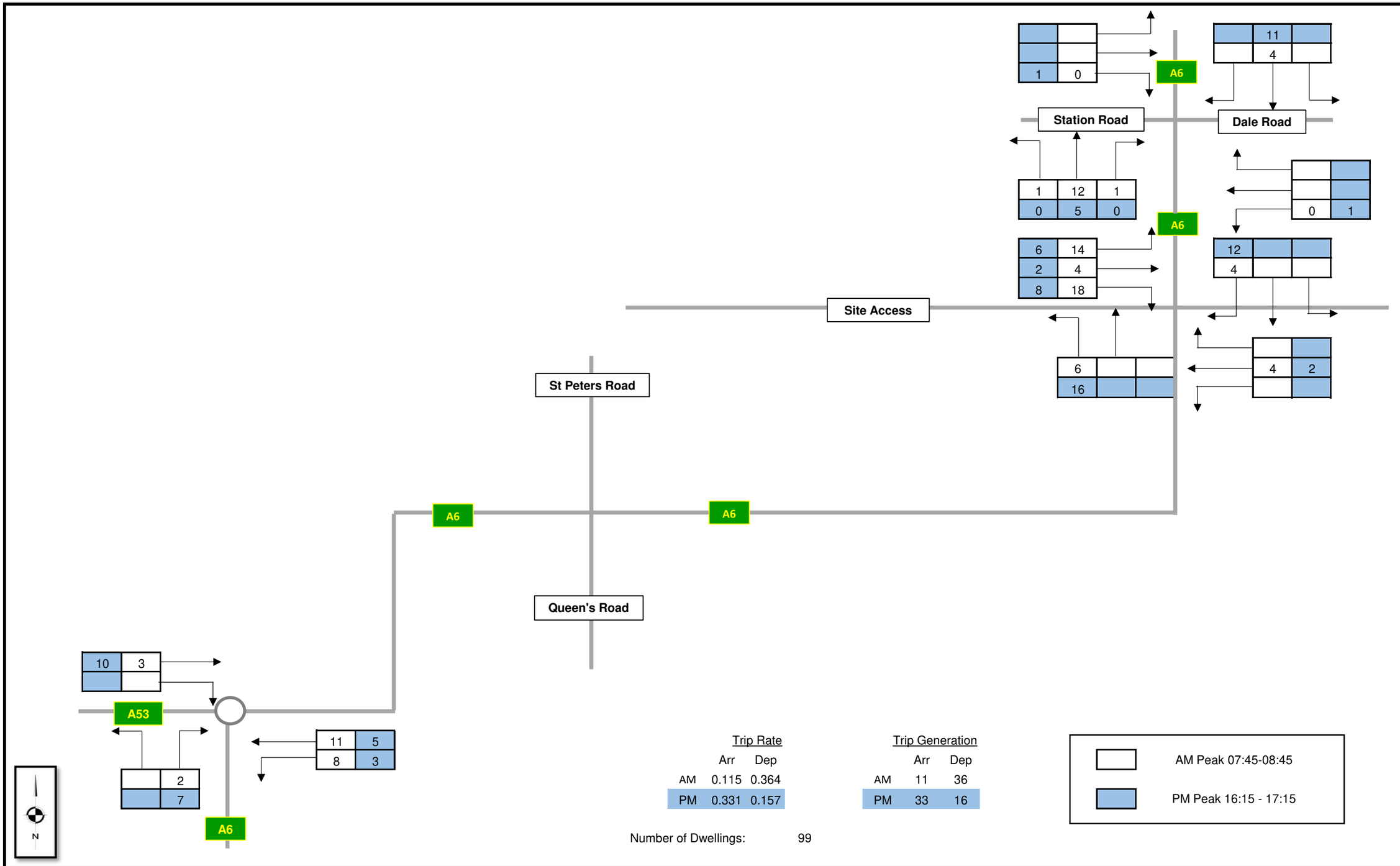
Trip Distribution %

Nunsfield Farm, Buxton

11 July 2024

Job Number - SCP/18685

Traffic Figure 7



Trip Rate	Arr	Dep
AM	0.115	0.364
PM	0.331	0.157

Trip Generation	Arr	Dep
AM	11	36
PM	33	16

AM Peak 07:45-08:45

PM Peak 16:15 - 17:15

Number of Dwellings: 99

S C P

Transportation Planning : Infrastructure Design

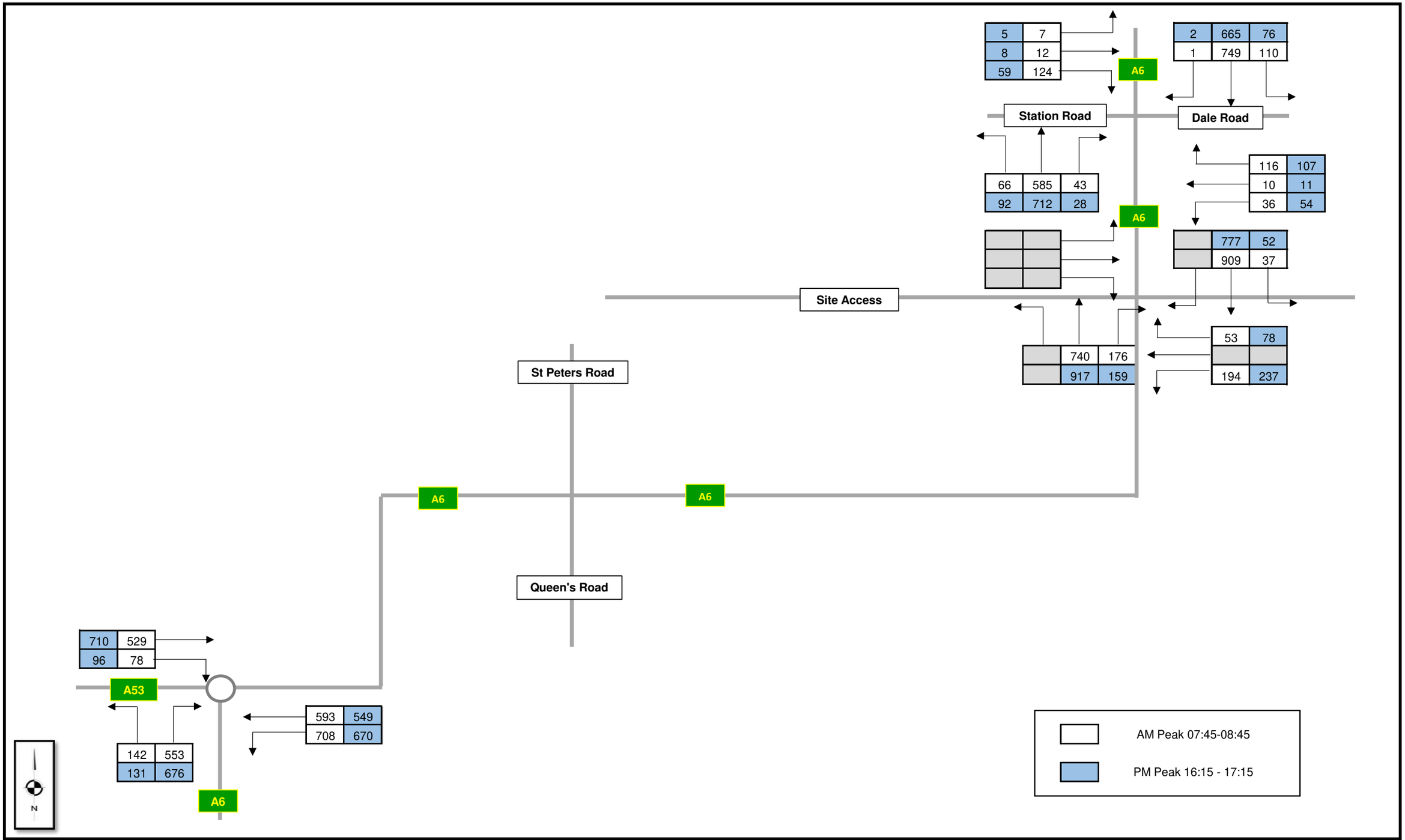
Traffic Assignment

Nunsfield Farm, Buxton

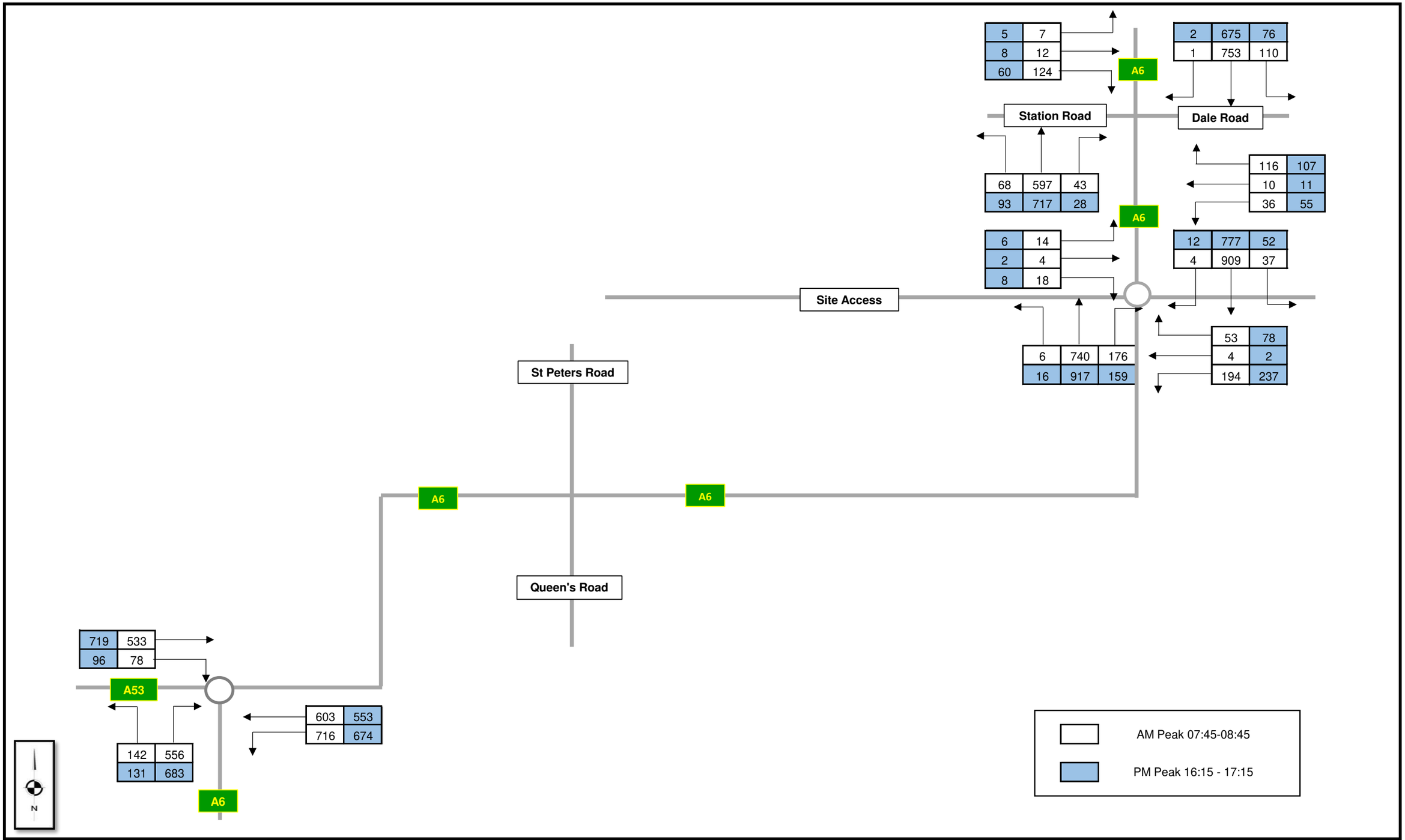
11 July 2024

Job Number - SCP/18685

Traffic Figure 8



S C P Transportation Planning : Infrastructure Design	**2029 Base 'Without Development' Flows**	**11 July 2024**
		Job Number - SCP/18685
	Nunsfield Farm, Buxton	**Traffic Figure 9**



S C P

Transportation Planning : Infrastructure Design

2029 Assessment 'With Development' Flows

Nunsfield Farm, Buxton

11 July 2024

Job Number - SCP/18685

Traffic Figure 10

Transportation Planning : Infrastructure Design

Travel Plan

Proposed Residential Development

Hogshaw Farm, Buxton

Prepared for Barratt Homes

July 2024

Doc Ref: LB/220650/TP/5

Prepared by:	LB
	Liam Bessell
Checked by:	PT
	Peter Todd

Document Revision Control

Revision	Date	Status	Prepared By	Approved By
0	08.12.22	Planning	LB	PT
1	05.04.23	Planning	LB	PT
2	10.11.23	Planning	LB	PT
3	21.02.24	Planning	LB	PT
4	10.07.24	Planning	LB	PT
5	11.07.24	Planning	LB	PT

Colwyn Chambers
19 York Street
Manchester
M2 3BA

T: 0161 832 4400

E: info@scptransport.co.uk
W: www. scptransport.co.uk

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of SCP being obtained. SCP accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purposes for which it was commissioned. Any person using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm his agreement to indemnify SCP for all loss or damage resulting there from. SCP accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

CONTENTS

1.0 INTRODUCTION 1
2.0 POLICY CONTEXT 2
3.0 SITE AUDIT 8
4.0 TRAVEL PLAN ADMINISTRATION 19
5.0 TRAVEL SURVEY 20
6.0 OBJECTIVES AND TARGETS 22
7.0 TRAVEL PLAN MEASURES 25
8.0 ACTION PLAN 30
9.0 MONITORING AND REVIEWING 32
10.0 CONCLUSION 34

APPENDICES

A PROPOSED SITE LAYOUT
B PROPOSED ROUNDABOUT ACCESS

1.0 INTRODUCTION

Background

1.1 This report has been prepared on behalf of Barratt Manchester Ltd to support a planning application for a residential development on land to the west of the A6, Buxton.

1.2 The proposed development will provide 99 dwellings, comprising a mix of 2, 3 and 4-bedroom houses.

1.3 This report sets out Barratt Homes commitment to reducing the number of vehicular trips generated by the development and identifies the key principles which will be developed further as part of the full travel plan.

Travel Plan Approach

1.4 A travel plan is an important tool for delivering sustainable access to a development. Residential travel plans focus on a single origin (home) and aim to provide a long-term strategy to positively influence travel patterns in favour of sustainable modes.

1.5 Implementing a travel plan can bring a number of benefits to a site, including helping to minimise the potential increase in traffic resulting from a development, helping to manage and reduce carbon emissions, and assisting with promotion of healthy lifestyles. As a result, a travel plan forms a key stage in the forward planning process. A travel plan is a 'living document' that should be regularly reviewed to ensure its effectiveness.

1.6 As this travel plan has been prepared for a residential site, the travel plan focuses on journeys to local educational facilities and key local employment areas, along with leisure journeys. The travel plan also suggests measures to reduce reliance on single occupancy private vehicle use and to reduce the overall need and distance that resident's travel.

1.7 This travel plan contains objectives and targets to guide the travel plan, along with a detailed implementation plan which aims to promote sustainable travel through delivery of a number of enabling and assisting measures. Monitoring and marketing measures are also identified, together with time scales for implementation, responsibilities and an indication of the budget required in order to deliver actions.

2.0 POLICY CONTEXT

2.1 Travel plans are dynamic, living documents that should be updated regularly to ensure that the aims and objectives represent the current situation in respect of travel and access. A development-related travel plan will normally be prepared alongside a transport assessment. The plan should then continue to be implemented, for the life of the development.

2.2 Travel plans are designed to be flexible to suit individual sites and their individual local characteristics. As such, they should be developed with consideration for the scale of the development and the likely impact on travel behaviour as a result of any potential measures.

Travel Plan Benefits

2.3 Travel plans can result in a variety of benefits to the occupiers of a development and the wider community, as well as address a range of issues, including:

- Promote healthy lifestyles and sustainable, vibrant communities;
- Provide adequately for all users, with a variety of mobility needs;
- Reduce demand for car parking, thereby enabling more efficient land use;
- Reduce pressure on highway capacity, particularly at peak times;
- Improve social inclusion;
- Cut carbon emissions and their contribution to climate change;
- Reduce road danger and protecting vulnerable road users; and
- Improve local air quality, while reducing noise pollution.

2.4 A travel plan provides benefits to all parties, including the developer, the site occupants and the local authority, which can help in gaining widespread commitment to its implementation and continuing operation.

2.5 Travel plans are secured through a policy framework that extends from national through to local level when dealing with new development proposals.

Policy Context

2.6 Travel plans are secured through a policy framework that extends from national through to local level when dealing with new development proposals.

2.7 Travel plans were first secured within the planning system within the context of "Planning Policy Guidance Note 13: Transport" published by the Government in March 2001. The publication of the government's **National Planning Policy Framework** (NPPF) (updated December 2023) has replaced PPG13 in its entirety. The NPPF is aimed at streamlining the planning process, making it more accessible at neighbourhood and community level and simplifying the decision making process.

2.8 The NPPF advises, in relation to transportation issues surrounding new development and in particular to travel plans and accessibility, that the follow be adhered to:

- All developments which generate significant amounts of movement should be required to provide a travel plan.
- Masterplan design should take account of whether the opportunities for sustainable transport modes have been taken up to reduce the need for major transport infrastructure.
- Access should be safe and achievable by all people.
- Developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised.
- Design should protect and exploit opportunities to use sustainable transport modes for the movement of goods or people; give priority to pedestrian and cycle movements, and give access to high quality public transport facilities; create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians; and consider the needs of people with disabilities by all modes of transport.

2.9 The key national policy document for travel plans was published by the Department for Transport in April 2009 and is entitled **"Good Practice Guidelines: Delivering Travel Plans through the Planning Process"**. This document updates previous guidance following significant changes in travel planning and an increased awareness of how transport affects other aspects of life, such as climate change and health.

2.10 The guidelines identifies that travel plans are an important tool for delivering sustainable access as part of a new development, and encouraging sustainable travel behaviour from the outset. The document provides assistance in the preparation of a travel plan, including when a travel plan is required and what it should contain, as well as how travel plans should be evaluated, secured, implemented and then monitored and managed long term. The document also outlines the responsibilities of the developer, occupier, local transport operators, highways and planning authorities in the implementation of the travel plan.

2.11 The government requires Local Transport Plans (LTPs) to demonstrate a contribution to delivering "shared priorities" and places emphasis on outcome indicators relating to accessibility, road casualty reduction, public transport patronage, congestion reduction and air quality. Local authorities must show that their LTPs contribute to the achievement of their broader policy aims and service delivery as set out in their community strategies.

Derbyshire County Council Local Transport Plan

2.12 Derbyshire Local Transport Plan was published in 2011 and sets out the transport vision, goals, challenges to be tacked and a strategy covering the period to 2026. The vision aims to achieve a transport system that is both fair and efficient, promotes healthier lifestyles, safer communities, safeguards and enhances the natural environment and provides better access to jobs and services. Whilst also improving choice and accessibility of transport and integrating economic, social and environmental needs.

2.13 The five transport goals are:

- Supporting a resilient local economy
- Tackling climate change.
- Contributing to better safety, security and health;
- Promoting equality of opportunity;
- Improving quality of life and promoting a healthy natural environment

2.14 The plan puts emphasis on supporting a resilient local economy, contributing to better safety, security and health, and improving quality of life and promoting a healthy natural environment.

High Peak Local Plan

2.15 The site is allocated for housing in the High Peak Local Plan (Site Ref B4). In regards to the transport related aspects of the site, the High Peak Local Plan states the following:

"6.93 There are extensive footpaths within the site, but these will need improving, and cycle ways included, within the first phase of development."

"*6.96 Currently, there is only limited access to the site. An unadopted vehicular access from Hogshaw Villas serves garages, allotments and the playing field. To the north, the site abuts both Nunsfield Road and Glenmoor Road, although neither would be suitable to cater for the increased level of traffic as a result of development. Overall, the existing road network is incapable of improvement to provide anything but an access for emergency vehicles. Therefore, a new access to the site is required from the A6, which is congested for much of the day."*

"*6.97 The Local Plan proposes a new roundabout at Fairfield Common which lies within the Fairfield Conservation Area. Potentially, this roundabout would serve both the Hogshaw development, and further development in Fairfield. There is currently an outline permission for this roundabout as part of a residential development at Fairfield. A recent renewal application has been made for the same scheme. However, there is no agreed programme for this scheme. Consequently, provision of the roundabout would fall to the developer of Hogshaw, if this came forward first. A local distributor standard road of approx 265m from this roundabout would also be required to access the site*."

2.16 Policy CF 6 states the following:

"*Accessibility and Transport*

The Council will seek to ensure that development can be safely accessed in a sustainable manner. Proposals should minimise the need to travel, particularly by unsustainable modes of transport and help deliver the priorities of the Derbyshire Local Transport Plan.

This will be achieved by:

Delivering sustainable patterns of development

- *Ensuring that additional growth within the Market Towns and Larger Villages is managed and where possible, accompanied by accessibility improvements*
- *Promoting a balanced distribution of housing and employment*
- *Ensuring the development of social, cultural and community facilities in locations that allow for ease of access by multiple methods of transportation*
- *Requiring that all new development is located where the highway network can satisfactorily accommodate traffic generated by the development or can be improved as part of the development*
- *Requiring that new development can be integrated within existing or proposed transport infrastructure to further ensure choice of transportation method and enhance potential accessibility benefits*
- *Supporting proposals for new community assets and facilities where these are required to meet the needs of the Plan Area or lead to the provision of additional assets that improve community well-being*

- *Requiring that facilities are well related to public transport infrastructure and provide high standards of accessibility to all sectors of the community*

- *Supporting innovative schemes to secure the local delivery of public services in rural communities and other areas with poor public transport, in particular the delivery of some services through the use of mobile services and technology will be encouraged where this results in better local provision*

- *Ensuring development does not lead to an increase in on street parking to the detriment of the free and safe flow of traffic*

- *Supporting transport infrastructure and services*

- *Supporting the implementation of the A6 Corridor Transport Strategy in Buxton and the Central Area. Specific measures are identified in the relevant Local Plan policies and Infrastructure Delivery Plan*

- *Supporting highways and junction improvements required to address the cumulative impact of development across High Peak as identified in the High Peak Local Plan*

Transport Study and Infrastructure Delivery Plan

- *Promoting the maintenance and introduction of appropriate facilities to support cyclists, pedestrians and horse riders, ensuring that development supports the use of local cycleway and pathway networks to improve choice of travel and ensuring safe access to developments on foot and by bicycle*

- *Encouraging and promoting improvements to public transport networks in association with the Local Highway Authority, Network Rail and other providers Supporting the use of rail for the transportation of freight wherever feasible to do so*

- *Approving developments provided that the capacity and design of the transport network serving the site will reasonably accommodate the anticipated increase in travel without materially harming highway safety or local amenity. In addition, the traffic generated by the development will not unduly interrupt the safe and free flow of traffic on trunk or primary roads or materially affect existing conditions to an unacceptable extent Requiring applicants to submit and implement Travel Plans (or Travel Plan Statements) and Transport Assessments to support relevant proposals, as advised by the Highways Authority. Consultation with Network Rail when development may impact on the rail*

network, including impacts on level crossings will also be required. Where appropriate, Transport Assessments will consider the impact on the rail network and identify appropriate mitigation measures Developments that will result in a material increase or significant change in the character of traffic using a rail crossing will be refused, unless it can be demonstrated that safety will not be compromised in consultation with Network Rail

- *Requiring applicants to submit details of parking which includes the proposed parking provision based on an assessment of the parking needs of the development and the impact on the surrounding road network. Developments which will lead to an increase in traffic or include parking provision will need to submit details. The details should be proportionate to the impact of the development. Guidance on parking is given in Appendix 1.*

Developer contributions or funding pooled through a Community Infrastructure Levy will be used to deliver transport and accessibility improvements required to accord with this policy. Further details are provided in Policy CF7 and Infrastructure Delivery Plan. In the event that a Community Infrastructure Levy is adopted, the Regulation 123 "Infrastructure List" will also specify appropriate measures to be funded."

2.17 In general, the national, regional and local policies set out above promote common aims in respect of reducing car borne trips and encouraging travel by sustainable modes such as public transport, walking and cycling. In particular, policy advocates locating developments that generate significant movement where there is high quality infrastructure and sustainable transport modes can be maximised.

Summary

2.18 In general, the national and local transport policies set out above follow similar themes and promote common aims. These are to provide sustainable development with good access to jobs and facilities, to encourage non-car modes of transport, to ensure that the highways impact of new developments is acceptable or mitigated against and to promote good site design with appropriate parking levels.

2.19 This travel plan has been developed in line with local and national transport policy and guidance.

3.0 SITE AUDIT

Existing Site

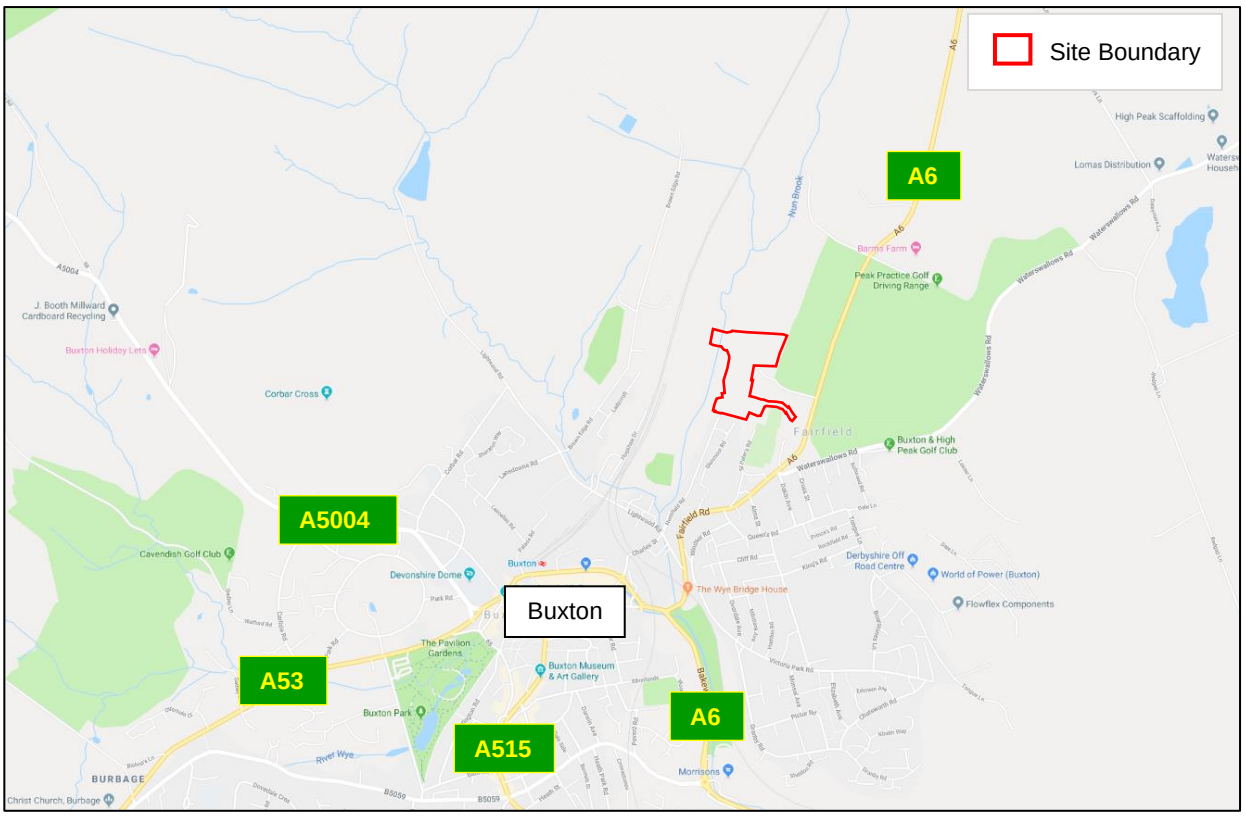
3.1 The site located to the west of the A6 in Buxton and comprises undeveloped land which forms part of Hogshaw Farm and Nunsfield Farm.

3.2 The application site is allocated for residential development (sites B3 and B4) in the High Peak Local Plan (2016) for up to 124 dwellings.

3.3 The site is bounded by undeveloped land the north and west, undeveloped land and commercial/industrial uses to the east, residential properties, Nunsfield Road and Glenmoore Road to the south.

3.4 The location of the site in relation to the wider area is shown on **Figure 3.1** below:-

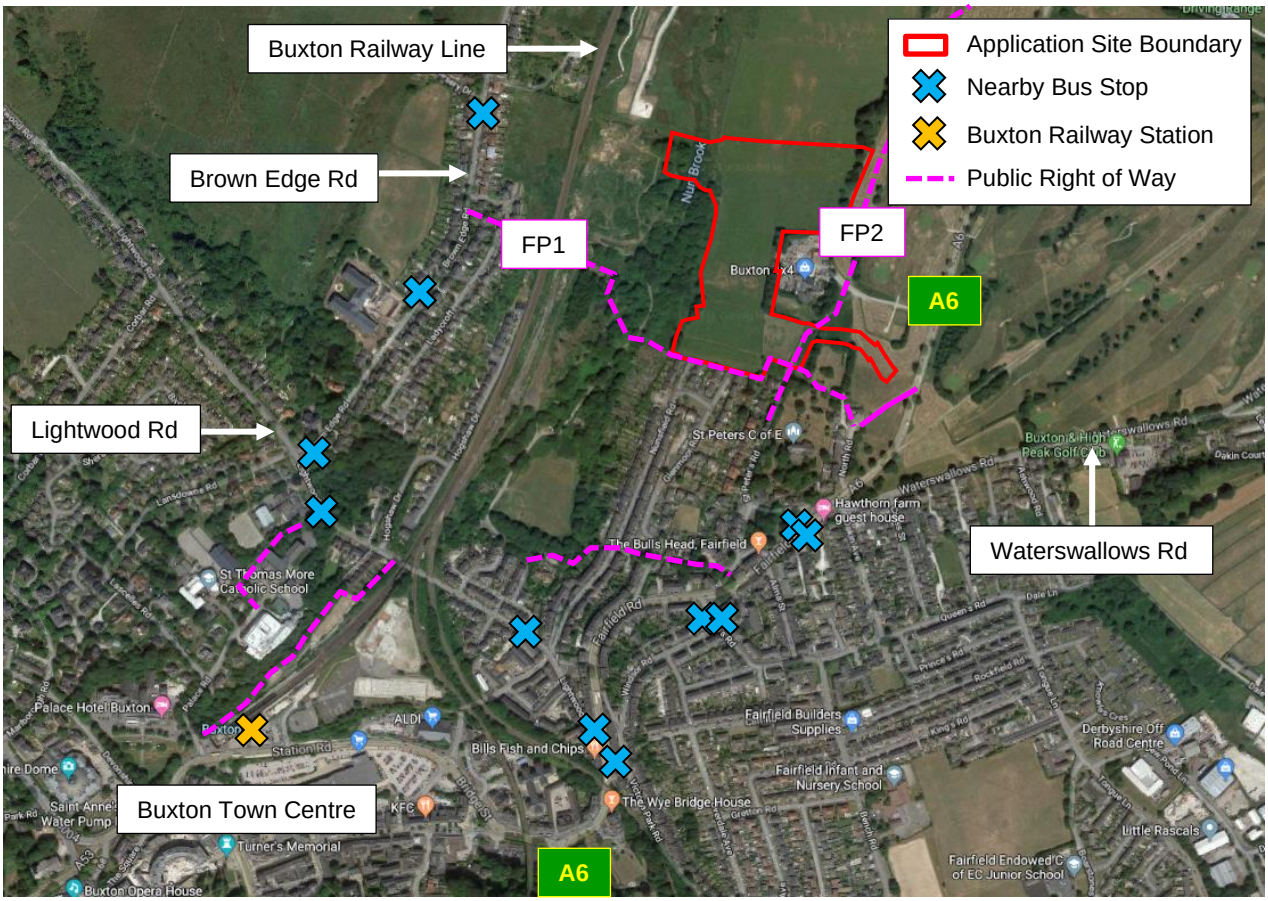
Figure 3.1 – Site Location – Wider Highway Network



Source: Google Maps

3.5 The location of the site in relation to the local area is shown on **Figure 3.2**.

Figure 3.2 – Site Location - Local Highway Network



Source: Google Maps

3.6 There are a number of bus stops in the vicinity of the site as shown in **Figure 3.2** above. The nearest bus stop is located along the A6 within 300m of the proposed site access. The nearby bus stops provide access to a number of locations including Whaley Bridge, Hazel Grove, Stockport and Manchester Airport. Further details on public transport are provided in the following chapter.

3.7 There are a number of public rights of way (PROW) within the vicinity of the site. PROW Buxton FP1 runs across the site and provides a link between Brown Edge Road and the A6 via North Road and Buxton FP 77. FP 1 also links onto FP2 which provides a link between St Peter's Road and the A6.

Development Scheme

General

3.8 The proposed development will provide 99 dwellings, comprising a mix of 2, 3 and 4-bed houses. The proposals are shown on the site layout plan presented in **Appendix A.**

3.9 Vehicular access to the development will be provided from the new roundabout on the A6. as detailed earlier, the roundabout has been introduced to allow the application site and other allocated sites within Buxton to come forward and has been specifically designed to accommodate the traffic generated by these developments.

3.10 The roundabout will take the form of a four-arm priority-controlled roundabout with the eastern arm linking south to Waterswallows Road and allowing for a future connection into the Tongue Lane Industrial Estate. An existing section of Waterswallows Road will be stopped up with a new priority-controlled T-junction being created onto Waterswallows Road east. The A6 northbound approach and the eastern and western arms all benefit from pedestrian refuges with dropped kerbs and tactile paving to assist pedestrians across. In addition a Toucan and Pegasus signal-controlled crossing facility will be provided on the northern arm, catering for cyclists and equestrians. The layout of the roundabout is shown on **Appendix B**.

3.11 At the request of DCC in their consultation comments, the access road into the site has been designed with a 5.5m wide carriageway. It also provides a 6m wide shared footway/cycleway/equestrian route on the northern side of the road, which links into the facility at the A6 roundabout, and a 2m wide footway on the southern side of the road, both of which separated from the carriageway by a verge. This arrangement runs for a length of approximately 70m into the site, where the shared footway / cycleway / equestrian route then crosses the internal access road and a 2m wide footway is provided adjacent to the carriageway and a separate bridleway runs along the southern boundary of the site and connects to the existing PRoW.

3.12 The equestrian facilities proposed at the A6 roundabout and access road have been designed to form part of the White Peak Loop (WPL). The WPL is a circular route of 54-miles (86km) around the Derbyshire Peak District to provide a predominantly traffic-free cycling and walking trail, with provision for equestrian use wherever possible. When complete the WPL will connect three of the most popular trails: Monsal, Tissington and High Peak, with the towns of Buxton, Bakewell, Matlock, and Matlock Bath, as well as links to local railway stations.

3.13 The internal equestrian crossing will take the form of an uncontrolled crossing. This form of crossing is acceptable given that LTN3/03 states that uncontrolled equestrian crossings are suitable where 'the visibility is adequate and the vehicular flows and the 85th percentile speeds are reasonable'. As detailed later, the access will be relatively lightly trafficked, visibility from the crossing is good and traffic speeds low due vehicles just having negotiated the site access roundabout

3.14 The WPL is also part of a unique Key Cycle Network (KCN) to deliver strategic off road routes for work and leisure. The proposed KCN Link No. 17 between Buxton Railway Station and Fairfield Common (A6) has been identified as one of the top priority sections and a route through the application site is necessary to help complete the WPL. As part of the development, a segregated bridleway through the site is proposed delivering part of the WPL which is achieved through the retention and upgrading the PRoW that runs along the southern boundary of the site, as shown on the site plan.

3.15 The internal road layout to be designed to achieve a 20mph design speed. It is proposed that the internal junctions will be on a raised table to help control speeds and provide improved pedestrian crossing.

3.16 The internal highway layout has been designed to comply with the Delivering Streets and Places Guidance 2017, as adopted by DCC, with the main internal spine road being designed with a 5.5m wide carriageway and more minor cul-de-sacs with a 5.0m wide carriageway. In addition, the footways designed with 2m width.

Public Rights of Way

3.17 Consultation between SCP and DCC has taken place with regards to proposed PRoW and Bridleway upgrades/diversions. The proposed layout plan presented in **Appendix A** has been updated to address these comments and includes the following:-

- Convert/upgrade a designated footpath within the site to a bridleway in order to form part of the White Peak Loop. In accordance with DCC's comments, the internal route has been designed to take a more meandering course and removal of the sharp right-angled bends. Between the spur road and the south-western corner of the site, the path has a minimum width of 3m and forms part of wider green corridor. The route has also been offset from the boundary with existing properties on Glenmoor Road and Nunsfield Road and forms a green corridor at this location with limited physical separation from the proposed dwellings to the south of the spur road. Chicane barriers set wide apart will be provided to allow ease of access for all users should be installed on the uphill side of the junctions with Glenmoor Road and Nunsfield Road to help slow cyclists down in advance.

- A new section of bridleway along the proposed site access between Buxton FP2 to the west and the proposed site access roundabout to the east. Two paths (minimum 3m wide) will be provided in order to segregate equestrians from other non-motorised users.

- Further design details such a surfacing materials, signage and illumination are to be agreed with DCC during the detailed design stage, however it is confirmed that these will be provided in accordance with DCC's comments.

3.18 It is understood that a diversion order and creation agreement will need be dealt with by High Peak Borough Council, however confirmation is sought.

Accessibility by Non-Car Modes: Walking

3.19 The MfS states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, it goes on to state that this is not an upper limit and that walking offers the greatest potential to replace short car trips, particularly those under 2km.

3.20 The pedestrian accessibility of the development has been modelled using Geographical Information System (GIS) software to produce isochrones mapping.

3.21 As detailed in the High Peak Local Plan (2016), "*most of the* [application] *site is within 1km walk of the town centre facilities,"* which includes a wide range of facilities, including education, leisure, retail and commercial facilities, as summarised below:

Table 3.1 – Facilities within 2km Walk Distance of the site

Facility	Detail	Distance from site (approximately)
Supermarket	Aldi	600m
Primary School	St Thomas Moore Catholic School	700m
Shopping Centre	The Springs Shopping Centre	800m
Post Office	Buxton Post Office	800m
Railway Station	Buxton Railway Station	950m
Buxton Centre	Shopping Facilities/Tourist Attractions	1.1km
School/Pre School	Fairfield Infant and Nursery School	1.1km
University	University of Derby (Buxton Campus)	1.2km
School/Pre School	Buxton Infant and Nursery School	1.2km
Pharmacy	Peak Pharmacy	1.4km
Primary School	Fairfield Endowed C of EC Primary School	1.4km
Supermarket	Morrison's	1.5km
Library	Buxton Library	1.8km

3.22 The existing PROW which run throughout the site (FP1 and FP2) will be retained and upgraded as part of the proposals.

Accessibility by Non-Car Modes: Cycling

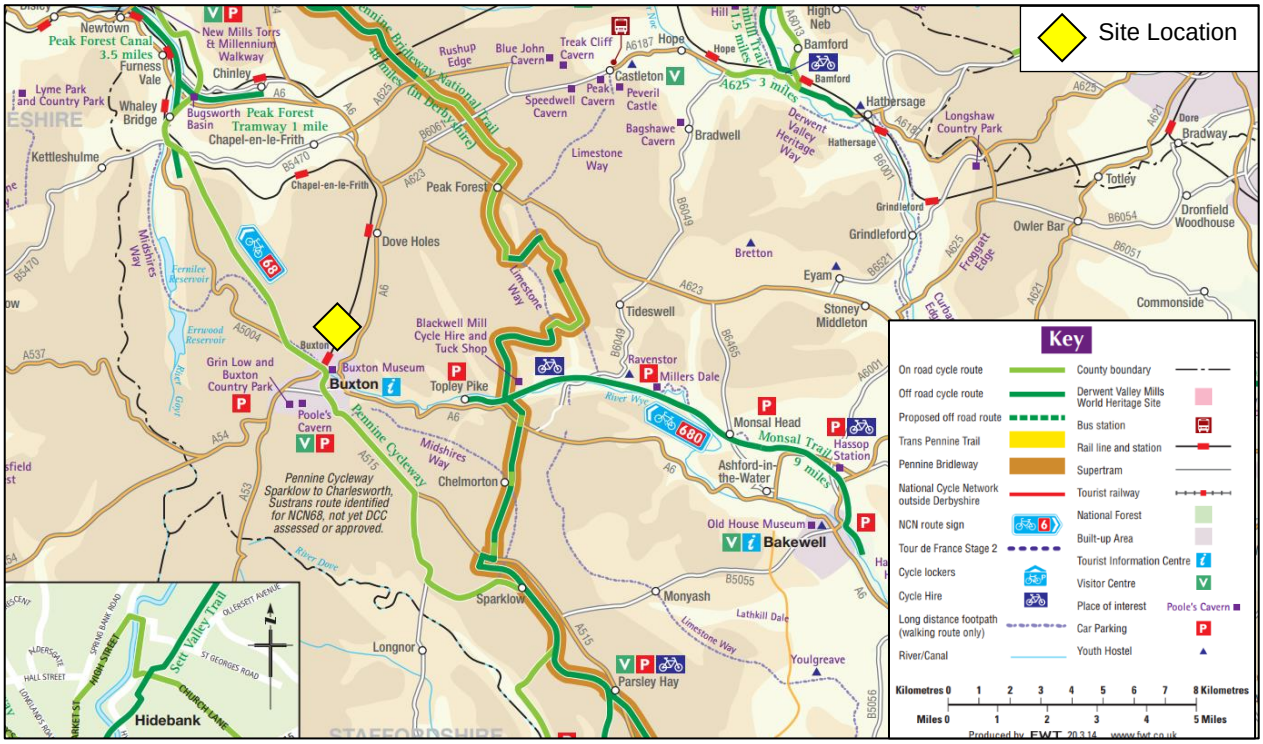
3.23 Cycling is an inexpensive, efficient and healthy way to travel. Cycling also provides a predictable arrival time which is often quicker than driving or using public transport, and is subject to fewer traffic and congestion delays.

3.24 Transport Policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5000m as a whole journey or as part of a longer journey by public transport.

3.25 The site benefits from being located on the National Cycle Route (NCR) 68 approximately 1.0km to the south-west of the site along the A5004 which forms part of the Pennine Cycleway and provides cycle access to the nearby areas of New Mills and Glossop, amongst others.

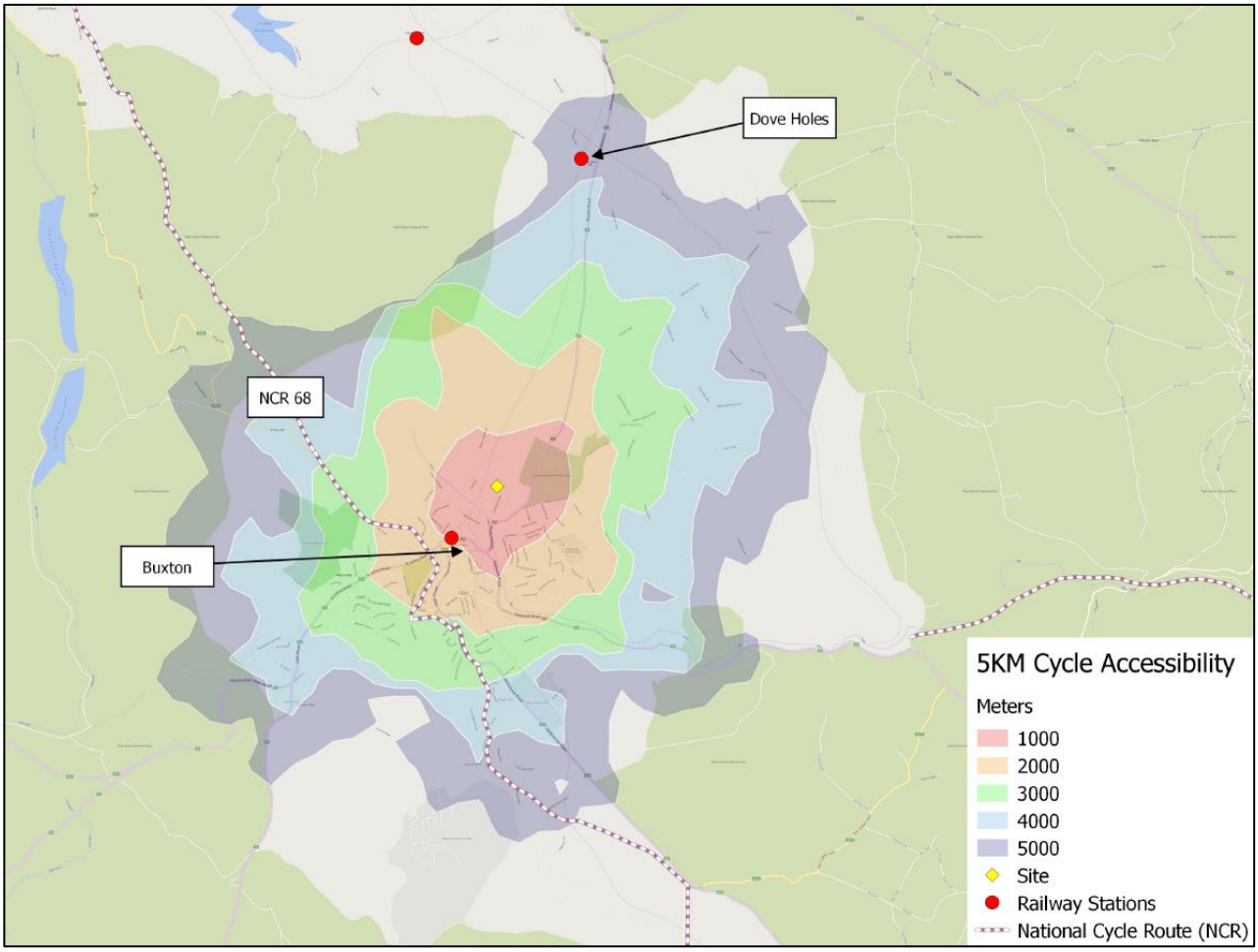
3.26 **Figure 3.3** demonstrates the local cycle routes in the vicinity of the site.

Figure 3.3 – Local Cycle Routes



3.27 GIS software has been used to model 5km cycle catchment from the site and is shown on **Figure 3.4**. The plan demonstrates that the entirety of Buxton and the nearby village of Dove Holes is located within 5km of the development.

Figure 3.4 – Cycle Accessibility



Source: © Copyright Data CC-BY-SA

Public Transport

3.28 In terms of bus services, the Chartered Institute of Highways & Transportation's (CIHT's) *"Guidelines for Planning for Public Transport in Developments"* document identifies, at section 6.20, that *"Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m."*

3.29 As shown in **Figure 3.2** previously, the nearest bus stops are located on Lightwood Road approximately 180m to the south of the pedestrian access along Hogshaw Villas Road and are therefore well within the recommended walking distance. Further bus stops are provided along Brown Edge Road and the A6.

3.30 Services from the bus stops at these locations are summarised in **Table 3.2** below.

Table 3.2 – Bus Service Summary

Service Number	Bus Stop Locations			Route	Mon-Fri		Sat		Sunday	
	Fairfield Road (A6)	Lightwood Road	Brown Edge Road		Frequency	First/Last	Frequency	First/Last	Frequency	First/Last
030	✓			Dove Holes – Peak Dale - Buxton	School Service		No Service		No Service	
62	✓			Buxton – Hope – Castleton	3 services per day	08:28 – 15:48	3 services per day	08:28 – 15:48	3 services per day	08:28 – 15:48
76		✓	✓	Buxton – Brown Edge	4 services per day	09:00 – 15:00	4 services per day	09:00-15:00	-	-
185	✓			Burlow – Harpur Hill – Buxton – Fairfield Estate	60	07:02-19:15	60	07:20-19:20	-	-
190	✓			Buxton – Upper End – Chapel – Whaley Bridge	1-2 hours	08:45 – 17:50	2-3 hours	08:45 – 17:50	-	-
Skyline 199	✓			Buxton – Chapel -Whaley Bridge – Stockport – Manchester Airport	30	04:30 – 22:40	30	04:30 – 22:40	60	03:30-21:25

3.31 Buxton Bus Station is located directly opposite Buxton Railway Station approximately 750m to the south-west of the pedestrian site access along Hogshaw Villas Road and provides further bus services throughout the region.

3.32 Buxton Railway Station is located approximately 750m southwest to the south-west of the pedestrian site access along Hogshaw Villas Road and cycle parking with CCTV is provided at the station.

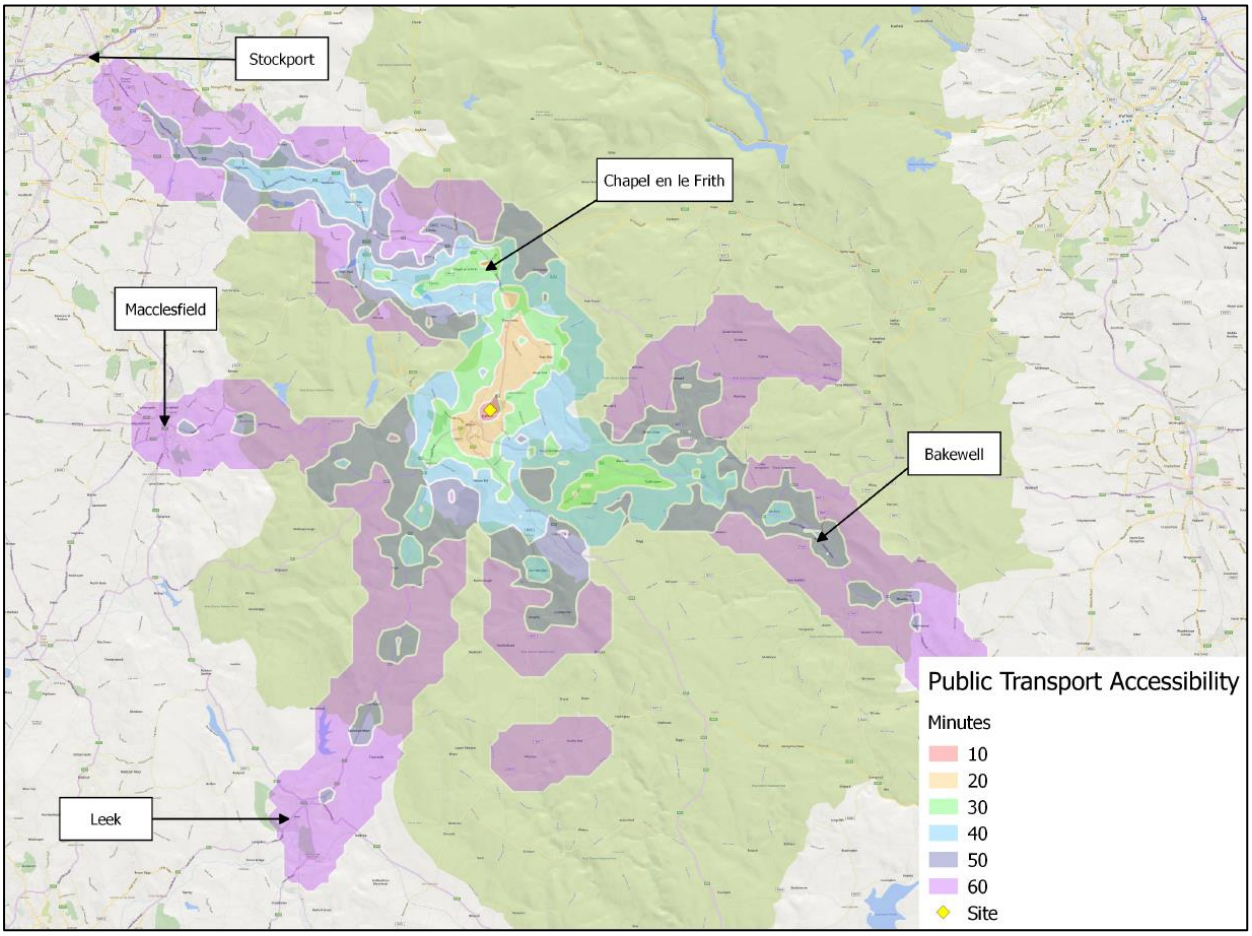
3.33 Buxton Railway Station provides regular train services throughout the week (approximately two services per hour during peak hours) to Manchester Piccadilly via Chapel-en-le-Frith, Hazel Grove, Stockport and Levenshulme, amongst others. The journey time from Buxton Railway Station to Manchester Piccadilly Station is approximately 54 minutes.

Public Transport - Train

3.34 Buxton Railway Station is located approximately 3.5km north of the site. Buxton Railway Station provides cycle parking for 24 bikes and a station car park with 53 spaces. This station serves services to Preston, Manchester Piccadilly and Bolton, whilst also stopping at many other destinations on route.

3.35 TRACC software has been used to map a 60-minute journey time using public transport, including the walk to the nearby bus stops, and railway stations, and are presented in **Figure 3.5**. The analysis demonstrates that it is possible to reach areas such as Whaley Bridge, Chapel-en-le-Frith and New Mills amongst others, within an acceptable 60-minute commute time.

Figure 3.5 – 60 minute public transport Accessibility



3.36 Therefore, future residents of the site will have access to bus and train services which provide travel to a range of destinations at an acceptable frequency, making the site accessible without the use of a private car.

Summary

3.37 Overall, the site is considered to be reasonably well located in terms of its accessibility by non-car modes of transport. Access to the site by foot, cycle and public transport is of an acceptable standard making the site accessible.

4.0 TRAVEL PLAN ADMINISTRATION

Travel Plan Coordinator

4.1 The travel plan will be managed by a travel plan coordinator (TPC). The TPC will provide a key role in delivering a successful travel plan. Once appointed, the TPC role will be undertaken by the technical manager. A contact name will be provided to the local authority at least one month prior to first residential occupation.

4.2 The TPC role will be established prior to the opening of the development and will act as the fulcrum for the development of the travel plan measures and the day to day operation of the plan. The TPC will act as the main contact for the travel plan and will be responsible for undertaking surveys, implementing measures, monitoring the travel plan and the provision of personalised travel planning for all new households upon occupation..

4.3 The TPC will exchange contact details with High Peak Borough Council (HPBC) travel plan officers. The TPC will be responsible for setting up and launching the travel plan in accordance with the following schedule, which will be agreed with HPBC.

Funding

4.4 Appropriate funding will be allocated by the developer at the start of the travel plan process to cover the costs involved in administering the travel plan over an agreed time period.

4.5 The funding will cover all costs relating to the TPC, implementation of measures and initiatives (including provision of bus taster tickets for residents), marketing of the travel plan, annual monitoring and submission of a review to HPBC.

5.0 TRAVEL SURVEY

Travel Survey

5.1 Travel surveys are undertaken at occupation in order to understand how residents currently travel, how they would like to travel and what would encourage them to make those changes; repeat surveys are used to monitor ongoing travel patterns, over time.

5.2 In order to understand how residents are travelling, along with changes to those journeys over time as a result of the travel plan, regular residents' travel surveys are required. The survey responses provide an indication of what targets would be most appropriate for the development, and which measures would be most successful in helping to achieve them.

5.3 To capture resident contact information, the TPC will set up a resident database upon first occupation, containing household contact details.

5.4 The initial baseline residential travel survey should be undertaken upon occupation of each dwelling. Upon completion of 50 surveys (Or within six months of initial residential occupation, whichever is the sooner), the results should be presented to both the LPA and Derbyshire County Council in the form of a monitoring report. Surveys will take place on an annual basis thereafter.

5.5 The survey will be disseminated to all occupied households, to collect the following data:

- Household profile, including number of occupants and children;
- Work postcode;
- Mode of travel to work and other trip purposes;
- Measures that would encourage use of active travel modes or public transport;
- Barriers to use of active travel modes / public transport.

5.6 A draft of the survey will be submitted to Derbyshire County Council for comment and approval prior to first issue.

5.7 The responses received from the surveys will be entered into the resident database to enable modal shift to be tracked and allow future comparison of travel patterns for each household, as well as providing information on which measures are most likely to encourage modal shift.

5.8 All data collected from the travel will be subject to the provisions of the General Data Protection Regulation Act 2018. In the interests of confidentiality, the TPC alone will manage the database and be responsible for the release of information; all data held will be used solely for the purposes of the travel plan.

5.9 Upon completion of the baseline travel survey, a Final Travel Plan will be developed and submitted to HPBC for review. The document will be submitted within three months of survey completion.

6.0 OBJECTIVES AND TARGETS

Objectives

6.1 Objectives are required to give a travel plan direction and focus. Targets are measurable and help to indicate whether the high level objective aspirations have been met. Targets should be linked to objectives and be SMART (Specific, Measurable, Achievable, Realistic and Time-related). Indicators determine whether the targets have been met and thus if objectives have been achieved, and as such will also be used to highlight the progress of the travel plan.

6.2 The travel plan recognises that there is not one specific mode of transport suitable for all residents and that there need to be a number of alternatives in place. The travel plan is intended to promote flexibility and choice, focusing efforts on encouraging a reduction in car use rather than prohibiting it.

6.3 This travel plan has been prepared to achieve the following objectives:

- Minimising the total travel distance of residents;
- Reducing reliance upon the private car and improving awareness and usage of alternative modes of transport;
- Promoting walking, cycling, public transport and car sharing; and
- Promoting healthy lifestyles and sustainable communities which are accessible by all.

Modal Share Targets

6.4 The targets for this site are set out in the table below along with the relevant indicators and monitoring methods that will be used to establish the progress towards these targets. A comparison of known modal split for the area has been taken from the 2011 Census method of travel to work by the daytime population.

6.5 Following the initial monitoring period, the TPC will benefit from baseline figures from which an assessment will be made of whether the above targets can realistically be achieved. The targets may then be revised accordingly, in agreement with the local highway authority, to ensure that they remain SMART. In subsequent years, the results of further monitoring will allow the targets to be reviewed and identify where further initiatives could be implemented to increase the effectiveness of the travel plan in order to reach the objectives.

6.6 The proposed development is located in the High Peak Middle Super Output Area (MSOA) 010. The current modal share of residents who reside in the High Peak MSOA 010, based on 2011 census data, is shown below and includes the initial targets for the development along with the relevant indicators and monitoring methods that will be used to establish the progress towards these targets.

Table 5.1 Travel to Work Modal Split

Mode	2011 Census – Method of Travel to Work; Daytime Population MSOA High Peak 010
Car Driver	40%
Car passenger	7%
Public Transport	25%
Walk and Cycling	26%

N.B. May not equal 100% due to rounding and other modes not included

6.7 Targets for the proposed development can be seen in the below table.

Table 5.2 Five-Year Targets

Mode	Target		
	1 year	3 years	5 years
Car Driver	40%	39%	37%
Car passenger	7%	8%	8%
Public Transport	25%	25%	26%
Walk and Cycling	26%	26%	27%

N.B. May not equal 100% due to rounding and other modes not included

6.8 It is hoped that the initial designed in features for the development, together with the promotion of the Travel Plan process will encourage staff to travel to work by sustainable modes.

Indicators

6.9 The TPC will be responsible for implementing measures at the development, which are set out in an action plan later in this report. The measures will be reviewed annually following monitoring, to identify whether the programmed measures are the most appropriate, and if not, what replacement measures need to be identified. Any new measures will be set out in a revised action plan, alongside timescales for implementation.

6.10 Milestones to assess progress against the travel plan objectives and targets include:

- Issue of a travel plan information pack to all residents upon occupation;
- Undertaking cycle and car parking surveys; and
- Uptake of the various measures, including interest in car sharing.

6.11 Further milestones are programmed into the implementation timescale and will be reviewed on an ongoing basis.

7.0 TRAVEL PLAN MEASURES

7.1 A travel plan is the management tool for implementing measures that promote sustainable transport. A successful and cost effective travel plan is one that implements measures that are relevant and realistic to the development.

7.2 The following sections outline the measures to be promoted by the TPC.

Travel Awareness

7.3 Good accurate information on the range of services and travel initiatives available will be a critical element of a successful travel plan.

7.4 At the outset of the development, the promotional sales material for the site will include reference to the travel plan and list associated benefits. As properties are sold, all residents will be made aware of the travel plan and the key measures to be implemented through their welcome packs.

7.5 The welcome pack will include, though not exclusively, the following:

Public transport

- www.derbysbus.info/ for timetable and route maps for bus services throughout Derbyshire.
- www.nationalrail.co.uk for all rail services.

Journey Planning

- https://www.traveline.info/ for all mode journey planning.

Cycle information

- Details of local bike repair shops/retailers, along with available training and maintenance sessions;
- https://cycle.travel/map/derbyshire to plan a cycle route in Derbyshire
- www.derbyshire.gov.uk/leisure/countryside/access/cycling/default.asp for cycling information throughout Derbyshire, including the Cycle Derbyshire map.
- Promote County Rider, the free adult cycle training scheme for Derbyshire residents. See: www.derbyshire.gov.uk/transport-roads/roadsafety/bicycles/county-rider/county-rider.aspx
- Investigate and promote local cycle clubs and activities in the local area. See: www.cyclinguk.org/cycle/cycling-derbyshire for a list of Derbyshire Cycle Clubs and societies.
- See also: www.activederbyshire.org.uk for activities, including cycling, throughout Derbyshire.
- Other useful cycle related websites:

- www.sustrans.org for details of the National Cycle Network.
- www.lovetoride.net for cycling rewards and incentives.
- http://bikeweek.org.uk/ for details of the national cycling focus week.

  Walking

  https://www.derbyshire.gov.uk/leisure/countryside/access/walking/default.asp for walking information throughout Derbyshire.

  Car Club

  www.enterprisecarclub.co.uk for details of Enterprise Car Club, the commercial Car Club currently in operation in Derbyshire.

  Car Share
- https://info.kinto-join.co.uk/derbyshire/ for details of the free of charge journey matching service throughout Derbyshire.

  Local initiatives – Buxton Town Team
- Residents will be made aware of the 'Buxton on the move' initiative undertaken by the Buxton Town Team

  Additional Information
- An introductory leaflet to the travel plan providing a summary of the contents, as well as the contact details of the TPC;
- A map showing the location of the development in relation to the local area, highlighting the nearby bus stops and key local facilities within easy walking distance of the site;
- https://www.traveline.info/ for all mode journey planning;
- Active travel information, including a map indicating local walk and cycle routes;
- Health information and details of local walk buddy and bike buddy groups.
- A car cost calculator, providing information on the full cost of car use (i.e. financial, environmental, health, etc.); and
- Details of local taxi firms.

7.6 The welcome pack will be made available to residents upon occupation of the dwellings and regularly kept up to date.

7.7 The TPC will ensure that any changes to the travel plan or any relevant information such as timetable seasonal changes are passed on to residents on a biannual basis in leaflet form or via noticeboards.

7.8 The TPC will promote and encourage residents to participate in national and local events, organised by others, aimed at promoting awareness of sustainable transport. The range of events that will be promoted will be agreed and co-ordinated with HPBC.

Walking

7.9 The TPC will encourage walking as a mode of travel by implementing the following initiatives:

- Raise awareness of the health benefits of walking through promotional material in the welcome pack;
- Provide a map showing walking routes as part of the welcome pack, showing all walking access points from the site to local roads, and indicating distances and times to key local facilities near to the site;
- Liaise with local schools in relation to their travel plans and identify any opportunities for implementing a “walking bus”;
- Liaise with a local taxi firm to provide competitive rates for residents in case of emergency to replace the regular walking journey.

Cycling

7.10 The TPC will encourage cycling as an alternative mode of travel by implementing the following initiatives:

- Promote the available cycle access points from the site to local roads;
- Provide information on any local cycle proficiency ‘Bikeability’ or maintenance courses;
- Promote the availability of cycling information, including route maps and useful tips and guidance on the Derbyshire County Councils website (https://www.derbyshire.gov.uk/leisure/countryside/access/cycling/bicycles.aspx); and
- Liaise with a local taxi firm to provide competitive rates for residents in case of emergency to replace the regular cycle journey.
- Promote Bike to Work Week in June (http://bikeweek.org.uk/);
- Establish contact with the HPBC cycling officer to ensure that up-to-date information is available regarding cycle routes and other facilities for cyclists in the vicinity of the site;

Public Transport Information

7.11 The TPC will encourage use of public transport as a mode of travel by implementing the following initiatives:

- Residents will be provided with public transport locations (including bus stops), together with route and timetable information in the welcome packs;
- The TPC will provide details of websites and telephone advice services to enable residents to obtain details on their individual journey requirements, including the Traveline website (http://www.traveline.info/);
- Provide details of routes and destinations served by trains from Buxton Railway Station;
- Details of community transport options and concessionary ticket availability; and
- Liaise with a local taxi firm to provide competitive rates for residents.
- A bus taster ticket will be provided to each new household, utilising a suitable budget set aside for this purpose. Such tickets should be available to all households as part of the travel welcome pack, and should be valid for a minimum of four week's commuter journeys on the selected operator's services. For this development, the guide amount set aside for bus taster tickets is as follows:
  No. of dwellings: 99
  Peak Plus month ticket @1 no. per dwelling: £95.00
  Total: £9,405.00

Car Sharing Scheme

7.12 The TPC will ensure that residents are provided with information within the travel plan information packs promoting car sharing. The information will highlight the benefits of car sharing and the costs savings which may be had.

7.13 Several websites will be suggested for any residents who may wish to register this interest in car sharing. This would include the national online car sharing scheme 'Liftshare' (www.liftshare.com), which is Britain's largest car sharing network.

7.14 Subject to demand, an informal site based car share scheme could be established, with journey matches facilitated by the TPC.

7.15 The TPC will ensure all households are aware of https://info.kintojoin.co.uk/derbyshire/ for details of the free of charge journey matching service throughout Derbyshire.

Marketing Summary

7.16 The TPC will be responsible for providing residents with an overview of the travel plan in order to promote the use of a range of modes of transport and work towards increasing awareness of the alternative modes of transport available.

7.17 As noted above, the following marketing tasks will be undertaken as part of the travel plan implementation:

- Development of an introductory leaflet for the travel plan, to be disseminated to residents;
- Welcome packs will be populated with a range of sustainable transport information and distributed to all residents; and
- Regular updates will be sent to the residents, to promote new and ongoing measures.

8.0 ACTION PLAN

8.1 The action plan follows, and includes measures, monitoring and marketing actions to be implemented, timescales for implementation, responsibilities and an indication of the budget required in order to deliver each action.

Action	Target Date	Responsibility	Budget Indication
Initial Setup – Prior to Occupation			
Provide all highway and transport measures as agreed with HPBC	As per planning agreements with HPBC	Developer / HPBC	Developer
Appointment of TPC	At least 1 month prior to site completion	Developer	Staff time
Exchange contact details with relevant officers	At least 1 month prior to site completion	TPC	Staff time
Obtain public transport timetables, maps, car sharing information, route plans etc. to provide to staff and visitors and residents	At least 1 month prior to site completion	TPC	Staff time
Procure and produce information to populate welcome packs	2 weeks prior to site completion	TPC	Staff time + materials
Negotiate with local taxi firm for reduced price travel	2 weeks prior to site completion	TPC	Staff time
Upon Occupation			
Issue travel welcome packs to residents.	Upon occupation	TPC	Staff time + printing
Ensure resident travel noticeboards are erected and populated, and further leaflets/info are available	Upon occupation	TPC	Staff time + noticeboards
Within 3 Months of 50% Occupation			
Prepare resident baseline travel survey	Within 3 Months of 50% occupation	TPC	Staff time + printing
Issue surveys to residents	Within 3 Months of 50% occupation	TPC	Staff time + printing
Collect travel plan surveys and analyse responses	Within 3 weeks of issue	TPC	Staff time

Produce full travel plan document and submit to HPBC	Within 3 months of survey completion	TPC	Staff time
Liaise with HPBC to agree final travel strategy, objectives and targets	Within 3 months of survey completion	TPC / HPBC	Staff time
Ongoing Tasks			
Update residents with regard to any service or provision changes with regard to local transport on annual basis	Annually	TPC	Staff time
Implement measures in line with staff requirements / interest, including promotion of e.g. Bike Week, Walk to Work Week etc.	Ongoing	TPC	Staff time
Annual Monitoring / Review			
Conduct repeat travel survey one year after the baseline survey, annually for 5 years	For five years after baseline surveys	TPC	Staff time + printing
Analyse responses, produce progress report and submit to HPBC	Within 3 months of receipt of responses	TPC	Staff time
Report updates to residents	Within 1 month of analysis taking place	TPC	Staff time + printing
Continue regular monitoring as set out and agreed with HPBC	As agreed with HPBC	TPC	Staff time
Conduct repeat travel survey one year after the baseline survey, annually for 5 years	For five years after baseline surveys	TPC	Staff time + printing
Analyse responses, produce progress report and submit to HPBC	Within 3 months of receipt of responses	TPC	Staff time

9.0 MONITORING AND REVIEWING

9.1 To establish the success of the travel plan, an effective monitoring and review process must be agreed. Monitoring will ensure that there is compliance with the travel plan, assess the effectiveness of the measures and provide the opportunity for review of targets.

Monitoring

9.2 Monitoring of the plan is important for the following reasons:

- It demonstrates to the local authority the effectiveness of measures implemented and the progress being made towards travel plan objectives;
- It justifies the commitment of the TPC and of other resources;
- It maintains support for the travel plan by reporting successes;
- It helps to identify any deficiencies within the travel plan, including any measures that are not effective; and

9.3 The TPC will monitor travel patterns associated with the site on an annual regular basis over a five year period, commencing within three months of 50% site occupation.

9.4 As part of the annual monitoring, surveys will be distributed to all occupied households to monitor travel to and from the site, and gain an understanding of travel habits.

9.5 The TPC will agree the monitoring programme with HPBC and DCC to ensure that the monitoring procedures are appropriate.

Reviewing

9.6 The TPC will undertake a review of the travel plan annually following monitoring, in conjunction with HPBC. This review will be important in assessing the effectiveness of measures implemented, to identify areas where modification may be necessary. In particular the following will be assessed:

- The level of car / non-car usage at the site; and
- Comments received from residents.

9.7 The TPC will use data collected during the survey to set targets for the development. The TPC may choose to revise the targets on an annual basis, with agreement with the local authority, in order to maintain a realistic travel plan goal.

9.8 The TPC will also use spot check data regarding usage of facilities such as cycle and car parking, to investigate the effectiveness of the measures and initiatives being promoted and the contribution they make towards travel plan objectives. The TPC may choose to remove ineffective measures and/or initiatives and implement new measures, in agreement with the local authority.

9.9 The TPC will prepare a progress report to include the results of monitoring, details and success of measures implemented and an action plan for the forthcoming period. This will be submitted to the local authority for their review and agreement.

Travel Plan document status

9.10 The Travel Plan is a working document,and should not be seen as exhaustive in its current form. It will be subject to change in the light of progression and completion of the development, results of actions undertaken, and responsive to results of future travel surveys.

10.0 CONCLUSION

10.1 This travel plan reviews the existing transport facilities at the development site and identifies a range of measures for implementation by the travel plan coordinator to reduce overall car usage and promote the use of sustainable transport modes.

10.2 Through the delivery of the measures discussed within this travel plan, the objectives identified will be fulfilled. These include:

- Reduce reliance upon the car and improve awareness and usage of alternative modes by both staff and visitors;
- Promote walking, cycling, public transport and car sharing;
- Minimise the total travel distance of staff and visitors;
- Reduce the transport impact of the development upon the environment;
- Promote healthy lifestyles and sustainable, vibrant communities, accessible by all.

10.3 This document therefore ensures that sustainable access to the development is facilitated.

Proposed Residential Development: Hogshaw, Buxton

Air Quality Screening Assessment

1. Background

1.1. Barratt Homes Manchester ('BHM') has submitted a planning application to High Peak Borough Council ('HPBC') for the residential development of an area of land at Hogshaw, Buxton[1].

1.2. A consultation response to the application had been received from the Pollution Specialist Officer, Environmental Health[2]. The response states:

'In relation to the above application Environmental Health is submitting a holding objection to the proposals on the grounds of air quality impacts from the proposals. Within the community engagement assessment, the applicant states that "the application is below the quantum of development at which an AQ assessment would normally be required".

The location of the development is in close vicinity to Fairfield Road where air quality objectives are being or likely to be breached and there are concerns that the proposal could therefore have an adverse impact.

The applicant is required to provide justification to support their conclusion that an air quality assessment is not required in the form of an air quality screening assessment.

Where the applicants statement cannot be supported or justified, an air quality impact assessment with details of suitable mitigation to avoid any adverse impacts will be required to be produced and submitted prior to determination of the application'.

1.3. BHM has accordingly instructed Smith Grant LLP (SGP) to undertake the required Air Quality Screening Assessment (AQSA) for submission with the planning application.

1.4. This following AQSA has been prepared with reference to the Planning Practice Guidance provided in relation to air quality[3] under the National Planning Policy Framework (NPPF)[4] and

[1] High Peak Borough Council, planning reference HPK/2023/0192; submitted May 2023
[2] Correspondence form Pollution Specialist Officer, Environmental Health, Staffordshire Moorlands District Council & High Peak Council, re: HPK/2023/0192, e-mail dated 04 July 2023
[3] Ministry of Housing, Communities and Local Government, Planning Practice Guidance: Air Quality, issued March 2014, last updated 1st November 2019
[4] Ministry of Housing, Communities and Local Government, National Planning Policy Framework, issued, March 2012, last updated 20 December 2023

follows the frameworks described in Institute of Air Quality Management (IAQM) guidance in relation to planning and air quality[5] and construction dust emissions[6].

1.5. The assessment considers the potential aerial emissions associated with the proposals and likely impacts and effects on human health and ecological sites. In preparing this assessment SGP has reviewed available information on the current and proposed development, the site setting and local air quality information.

1.6. It is noted the original application submission was for 116 dwellings. The application is now to be reduced in size to 99 dwellings. For full details on the revision reference should be made to the planning application documentation.

2. Site Details and Setting

2.1. The proposed development site is located in Fairfield on the north-eastern outskirts of Buxton as shown below in Figures 1a / 1b and Appendix A.

Site Details

2.2. The site details are:

Table 1: Site Details

Site Location	Land at Hogshaw, Fairfield, Buxton, Derbyshire SK17 7HN
National Grid Reference	406600, 374400
Local Authority	High Peak Borough Council (HPBC)
Site Area	5.4 hectares
Nature of Current Site	Mainly fields, some areas with trees and vegetation
Proposed Development	Construction of up to 99 dwellings and associated landscaping and infrastructure[1]

1: Original planning application was for 116 dwellings and infrastructure. To be revised to 99 dwellings.

2.3. The Site currently comprises open agricultural land accessed via farm tracks and paths.

Existing Site Setting

2.4. The existing surrounding land is of mixed-use. To the immediate east lies Nunsfield Farm and associated buildings (understood to currently operate as a farmer's supply shop), a golf course, and St. Peter's Church and cemetery. To the immediate west of the Site lies an area of woodland and open land, which forms part of the 'Railway Land at Hogshaw' Local Wildlife Site (LWS). The

[5]Institute of Air Quality Management (IAQM), (2017), *Land-use Planning & Development Control: Planning for Air Quality*. v1.2.
[6]Institute of Air Quality Management (IAQM), (2016), *Guidance on the Assessment of Dust from Demolition and Construction,* v1.1

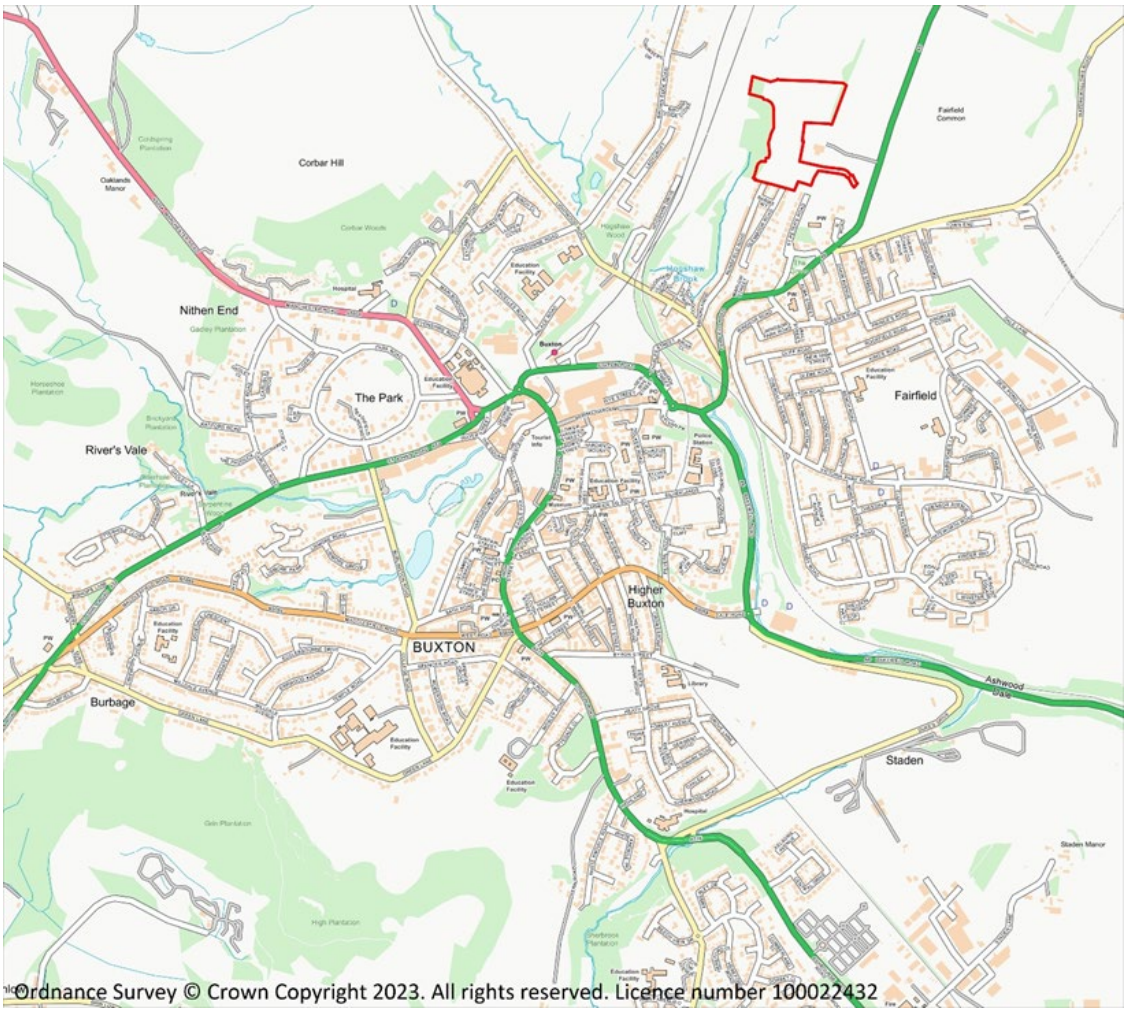
LWS extends into the western part of the Site itself. To the north are open agricultural fields and to the south the residential development of Buxton.

Future Site Setting

2.5. The Site forms part of a wider residential and employment allocation area to the northeast of Buxton. The Site is to be accessed via a new roundabout (Fairfield Common Roundabout) that has been recently constructed on the A6 to the east to provide the initial stretch of access to these areas. Planning permission for the roundabout was granted by Derbyshire County Council (DCC) in July 2020 (planning ref: CON/2020/0010) and construction was completed early 2023.

Figure 1A: Site Location

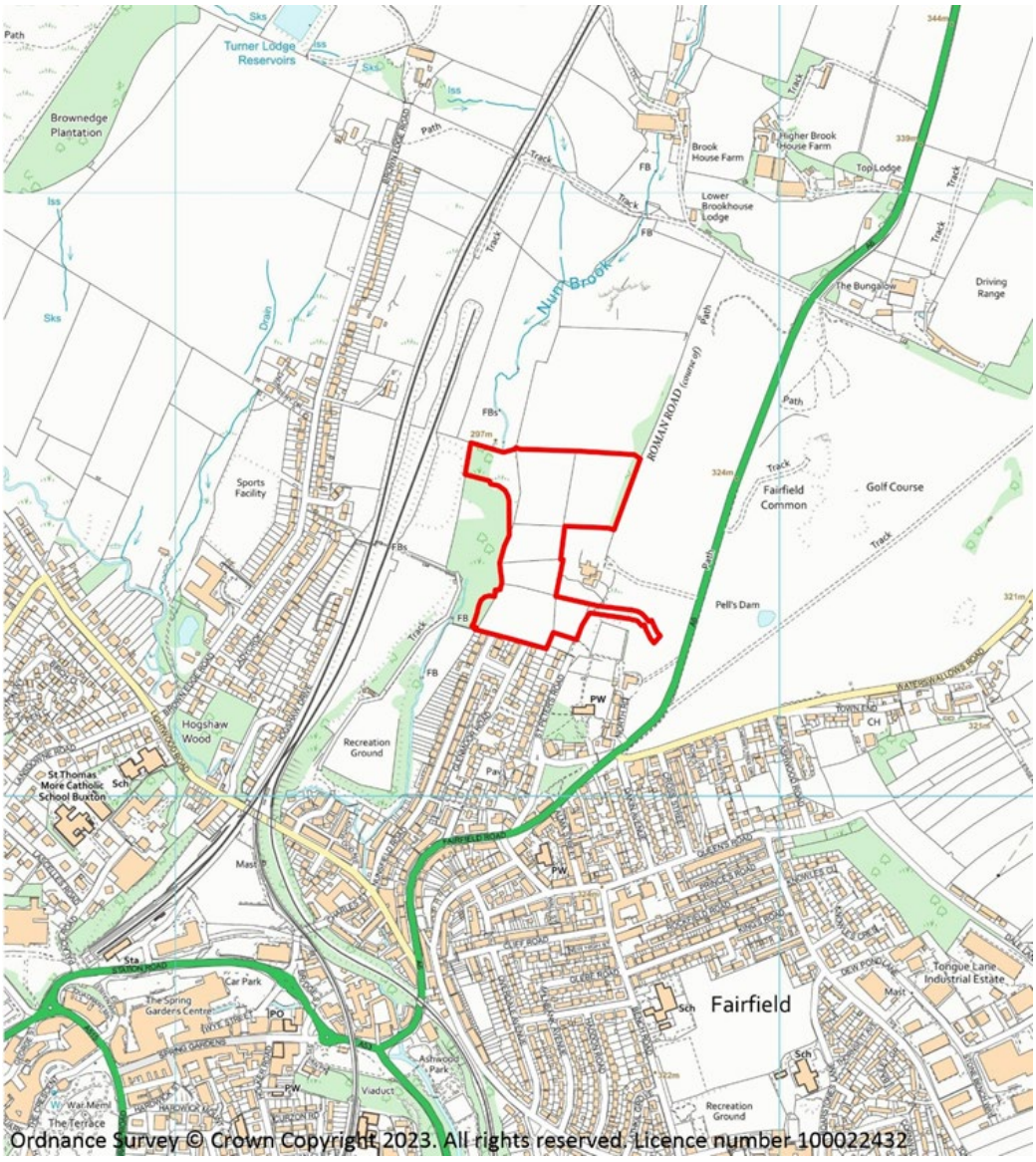
(base plan prior to construction of the Fairfield Common Roundabout)



(note: see planning application documentation and Appendix A for actual application boundary)

Figure 1B: Site Location

(base plan prior to construction of the Fairfield Common Roundabout)



(note: see planning application documentation and Appendix A for actual application boundary)

Nature Conservation Sites

2.6. Several statutory designated nature conservation sites have been identified within 2km of the proposed development. These are shown in Figure 2 and detailed in the table below.

2.7. As noted above a LWS extends into the western part of the Site.

Table 2: Designated Nature Conservation Sites within 2km

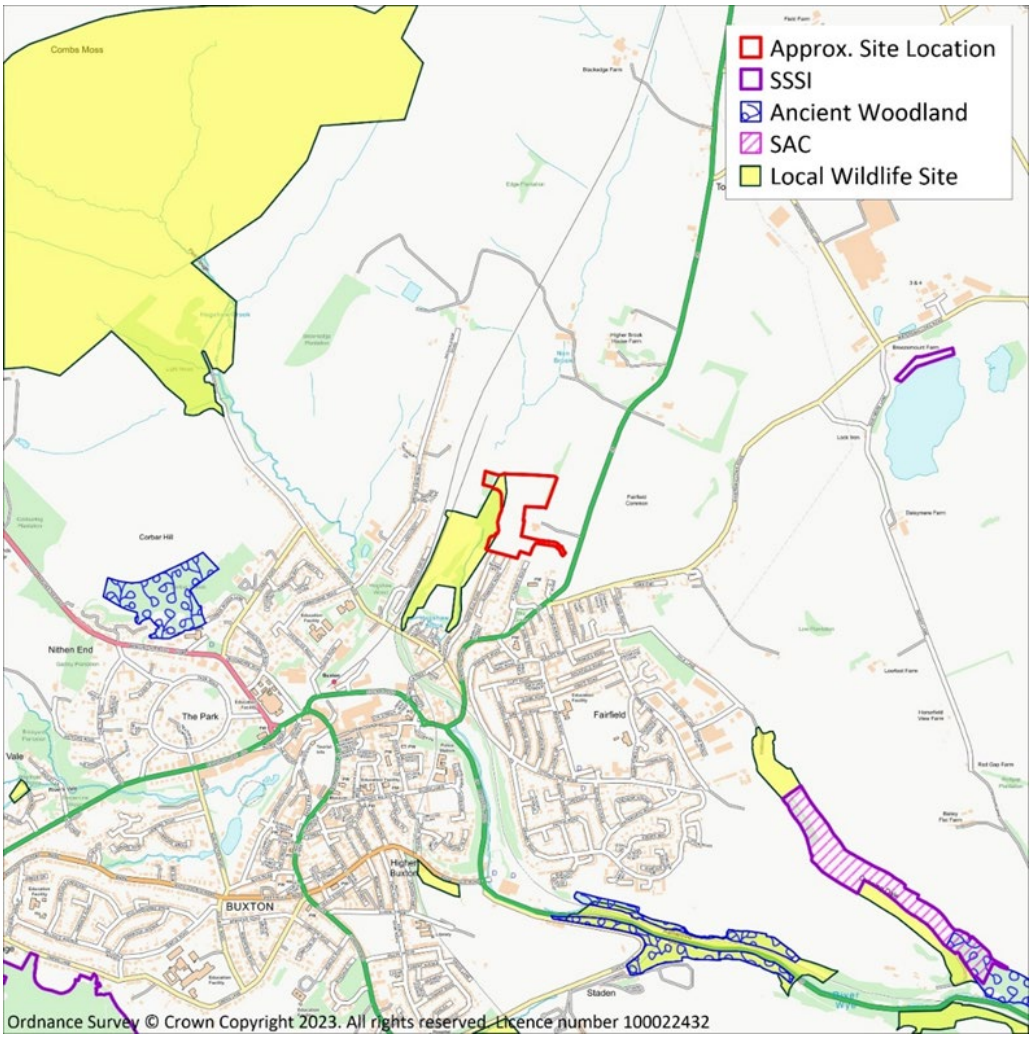
Name	Designation	Distance & Orientation from Site
Statutory Designated Sites		
International		
Peak District Dales	SAC	1.3km SE

Name	Designation	Distance & Orientation from Site
South Pennine Moors[1]	SAC	2.6km W
Peak District Moors (South Pennine Phase 1)[1]	SPA	2.6km W
National		
The Wye Valley	SSSI	1.3km SE
Waterswallows Quarry	SSSI	1.4km NE
Non-Statutory Designated Sites		
Railway Land Hogshaw	Local Wildlife Site	Extends onsite
Corbar Woods	Ancient Woodland	1.1km W
Ashwood Dale South	Ancient Woodland	1.4km S

[1]Overlapping designations
SSSI: Site of Special Scientific Interest
SAC: Special Area of Conservation
SPA: Special Protection Area

Figure 2: Nearby Nature Conservation Sites

(base plan prior to construction of the Fairfield Common Roundabout)



3. Proposed Development

3.1. Proposals are for the construction of 99 housing units and associated infrastructure. The proposed layout plan[7] is included in Appendix A.

3.2. Vehicular access / egress is to be via an access road connecting to the newly built roundabout on the A6 (Fairfield Common Roundabout).

4. Local and Background Air Quality Review

4.1. The existing local air quality has been assessed through a review of available background data and reports prepared by HPBC. These reports summarise the air quality monitoring carried out by HPBC in fulfilment of its' Local Air Quality Management (LAQM) duties. The most recent available report is the 2023 Annual Status Report[8] which details the available air quality monitoring data until the end of 2022 and shows the locations of Air Quality Management Areas (AQMAs).

Air Quality Management Areas (AQMAs)

4.2. As of 2022 HPBC had declared two Air Quality Management Areas (AQMAs) within its' administrative area. These had both been declared due to exceedances of the long-term UK air quality objective (AQO) for nitrogen dioxide (NO_2). These are located in Tintwistle and Dinting Dale and neither are located in the vicinity of the proposed development or local road network.

4.3. However, following the recording of relatively high annual mean NO_2 concentrations due to traffic emissions along the A6 Fairfield Road in Buxton, HPBC identified the need for a Detailed Assessment of this area[7] and announced it was seeking to declare a third AQMA during the summer 2023 encompassing this stretch of road[9]. HPBC has advised this AQMA has now been declared[10]. This AQMA No3: Fairfield Road covers a section of the A6 about 320m south of the proposed development as shown in Appendix B and Figure 3.

Local Air Quality Monitoring

4.4. HPBC undertakes ambient air quality monitoring across its' area, utilising both automatic (continuous) and non-automatic (passive diffusion tubes) monitoring facilities. None of the automatic analysers are located within Buxton. Several of the diffusion tube locations are however located within the town, with all lying within 2km of the Site. These monitoring locations are detailed in Table 3 below and shown in Figure 3.

[7] Barratt Homes Manchester, Hogshaw Nunsfield, Planning Layout, H8797-BAH-XX-XX-DR-U-203001, 11.06.24, rev 2
[8]High Peak Borough Council, 2023 Air Quality Annual Status Report, (ASR), July 2023
[9] High Peak Borough Council, https://www.highpeak.gov.uk/article/3883/Fairfield-Road-Buxton-Summer-2023; accessed 10th October 2023
[10] E-mail from Christopher Humphreys, Pollution and Environment Office, Environmental Heath, Staffordshire Moorlands District Council & High peak Borough Council, to K hawkins, Partner, Smith Grant LLP, dated 11th October 2023

Table 3: Monitoring locations within Buxton

Tube ID	Location Name	Grid Reference	Type	Distance & Orientation from Site
HP33A/B[1]	135 Fairfield Road (Lamp Post)	406600 373951	Roadside	300m S
HP41A/B[1]	22 Fairfield SB	406405 373760	Roadside	530m S
HP42A/B[1]	52 Fairfield NB	406402 373898	Roadside	400m S
HP43[1]	101 Fairfield (SB)	406451 373920	Roadside	365m S
HP44[1]	Bulls Head Fairfield NB	406607 373973	Roadside	280m S
HP65	Brooklyn Place, Fairfield Road NB	406340 373595	Roadside	705m S
HP64	Spring Gardens NB	406314 373597	Roadside	710m S
HP13	8 Granby Rd, Buxton	406582 373422	Roadside	830m S
HP66	5-Ways, High Street	405767 372970	Roadside	1.5km SW
HP67	5-Ways, Dale Road	405813 372942	Roadside	1.5km SW
HP50	Buxton - London Road	405959 372781	Roadside	1.6km SW

Data as presented in the 2023 High Peak Borough Council ASR
[1]Located within the newly declared AQMA No 3: Fairfield Road

4.5. The monitored annual mean NO_2 concentrations for the years 2017 to 2022 at these locations are provided in Table 4.

Table 4: Annual mean NO_2 concentrations at diffusion tubes within Buxton

Tube ID	Annual Mean NO_2 Concentration (µg/m^3)					
	2017	**2018**	**2019**	**2020[2]**	**2021[2]**	**2022[2]**
HP33A/B[1]	-	**48.2**	**45.4**	33.8	39.1	37.3
HP41A/B[1]	-	-	**44.4**	34.1	35.4	36.8
HP42A/B[1]	-	-	**50.3**	36.5	**43.7**	**45.5**
HP43[1]	-	-	34.0	26.5	27.3	29.6
HP44[1]	-	-	36.2	30.6	36.6	**40.7**
HP65	-	-	-	-	-	26.2
HP64	-	-	-	-	-	27.1
HP13	12.5	13.8	13.8	10.8	11.3	10.8
HP66	-	-	-	-	-	25.8
HP67	-	-	-	-	-	23.0
HP50	-	-	-	21.3	23.7	24.5

Data as presented in the 2023 High Peak Borough Council ASR
Highlighted cells indicate exceedances of the UK long-term AQO of 40 µg/m^3
[1]Located within the newly declared AQMA No 3: Fairfield Road
[2]Concentrations recorded in 2020 and 2021 expected to be affected by the implications of the Covid -19 pandemic.

4.6. Monitoring locations HP33, HP41, HP42, HP43 and HP44 are all located along the stretch of the A6 Fairfield Road between the Fairfield Common roundabout (and proposed site access) and the town centre. Annual mean NO_2 concentrations were above the long-term AQO at locations HP33, HP41 and HP42 in 2019. Concentrations were substantially reduced in 2020 and 2021 at these

locations consistent with expectations due to the impact of the Covid-19 pandemic on traffic movements[11], although are noted to have remained above the AQO at HP42 in 2021 and close to the AQO at HP33. HP33 and HP41 are each reported as being within 0.2m of residential facades and HP42 within 3.1m of the residential façade.

4.7. In 2022 concentrations at HP33 and HP41 remained lower whereas those at HP42 and HP44 were higher than 2020/2021 and were above the AQO.

4.8. Locations HP64 and HP65 were established in 2022 to provide increased coverage of Fairfield Road into the town centre. Annual mean NO_2 concentrations at both locations in 2022 were well below the AQO.

[11] COVID-19: Following the outbreak of a global pandemic of the Coronavirus disease 2019 (COVID-19) due to the SAR-CoV-2 virus, the UK Government declared several restrictions on non-essential travel and movement during March 2020. Various restrictions remained in place during 2020 and 2021 with resulting implications on transport movements across the UK.

Figure 3a: Nearby Air Quality Features - Buxton

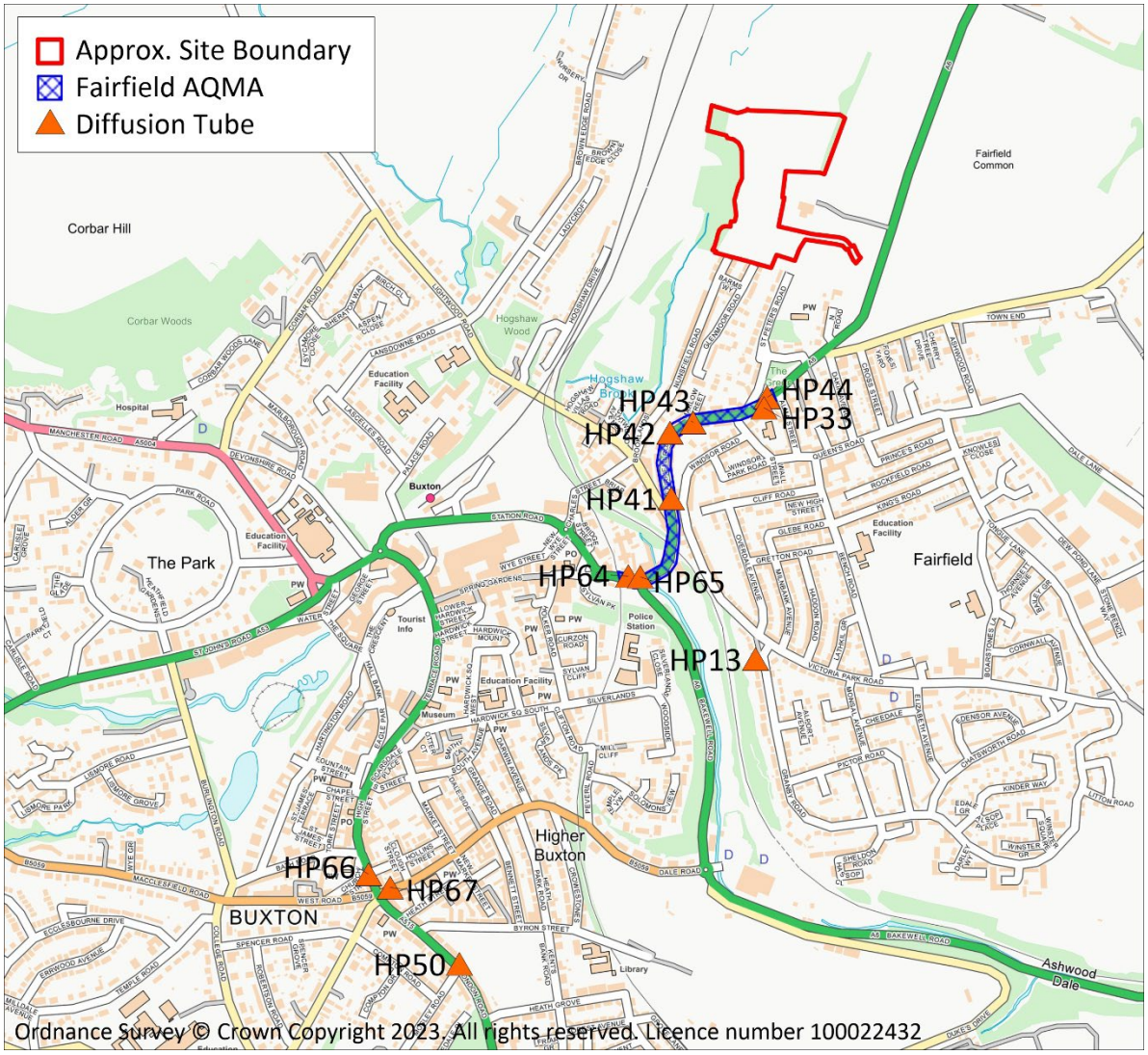
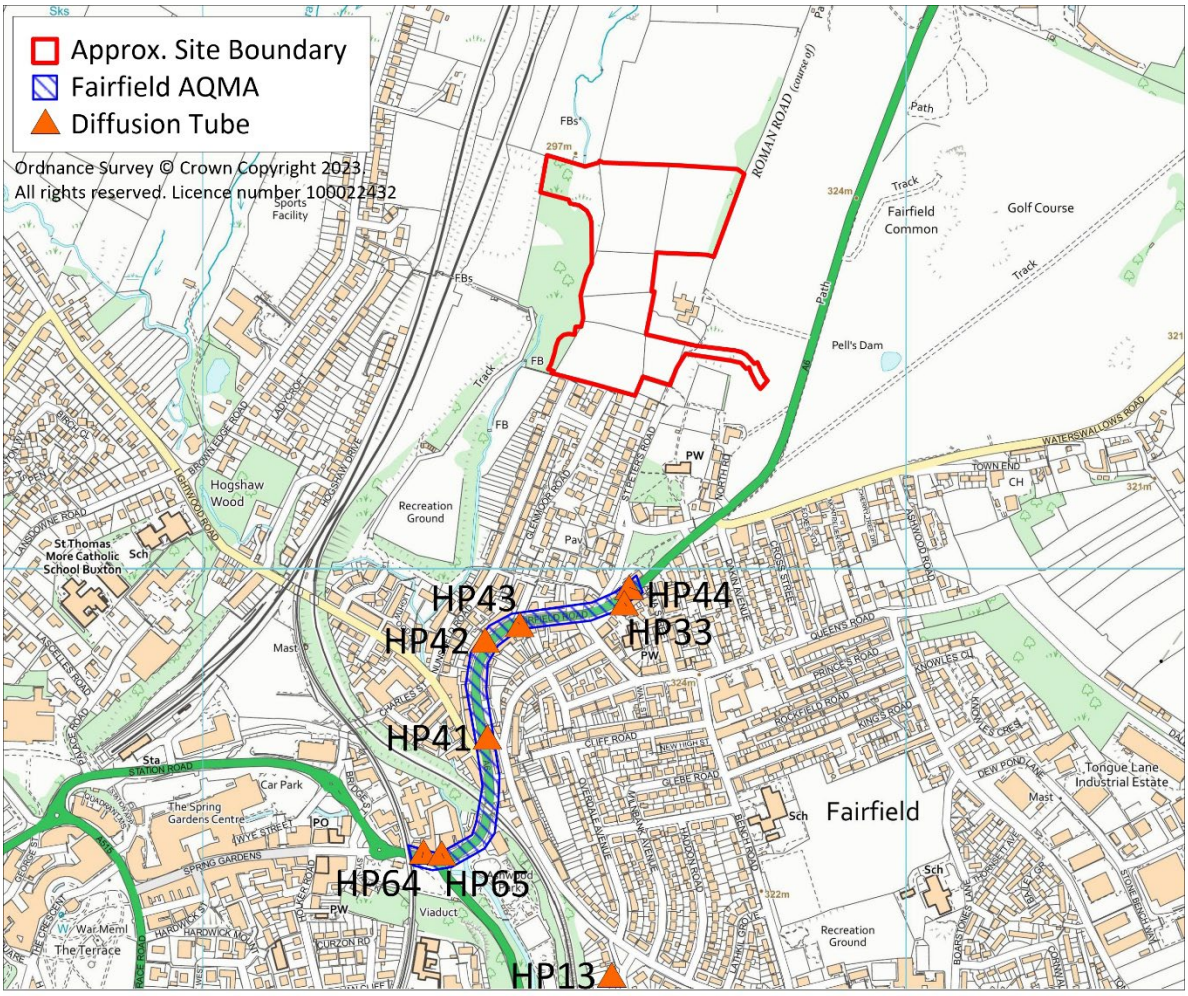


Figure 3b: Nearby Air Quality Features – Fairfield Road



Predicted Background Air Quality Data

4.9. Defra provides predicted background air quality data for key pollutants on a 1km-by-1km grid basis across the UK. The current predicted data is based on 2018 ambient monitoring and meteorological data[12].

4.10. The average annual mean background concentrations of the principal pollutants of interest, NO_2, NO_x, PM_{10} and $PM_{2.5}$, for the grid squares in which the Site and immediate surroundings are located for 2024 and a future year (2029) are summarised below in Tables 4 and 6.

[12]The projections in the 2018 LAQM background maps are based on assumptions which were current before the Covid-19 outbreak in the UK. In consequence these maps do not reflect short or longer term impacts on emissions in 2020 and beyond resulting from behavioural change during the national or local lockdowns.

Table 5: Predicted Background Air Quality Data[1] – Nitrogen Oxides

Grid Square	Location	Predicted Pollutant Concentrations (µg/m^3)			
		NO_2		NO_x	
		2024	2029	2024	2029
406500 374500	Site	6.74	6.13	8.61	7.78
406500 373500	South of Site; proposed Fairfield AQMA	8.56	7.67	11.10	9.88
AQAL[2]		40		30 (v)	
%AQAL (Site)		16.9	15.3	28.7	25.9

1: data downloaded from Defra website on 15th July 2024
2: AQAL – Air Quality Assessment Level; established long-term UK air quality objective (as annual mean)
v – established for the protection of vegetation

Table 6: Predicted Background Air Quality Data[1] – Particulate Matter

Grid Square	Location	Predicted Pollutant Concentrations (µg/m^3)			
		PM_{10}		$PM_{2.5}$	
		2024	2029	2024	2029
406500 374500	Site	9.32	9.17	5.85	5.74
406500 373500	South of Site; proposed Fairfield AQMA	11.25	11.09	6.69	6.58
AQAL[2]		40		20	12[3]
%AQAL (Site)		23.3	22.9	29.3	47.8

1: data downloaded from Defra website on 15th July 2024
2: AQAL – Air Quality Assessment Level; established long-term UK air quality objective (as annual mean)
3: Interim target of 12 µg/m^3 for 2028
v – established for the protection of vegetation

4.11. The background pollutant concentrations in the locality are all predicted to be below the relevant long-term objectives. It should be noted that the Defra projections above are based on assumptions which were current before the Covid-19 outbreak in the UK[10]. As a result, they do not reflect short or longer-term impacts on emissions in 2020 and beyond resulting from behavioural change during the national or local lockdowns.

4.12. No particular activities, other than road traffic and agricultural work, have been identified in the locality that may be expected to impact the local air quality. The recent construction works of the Fairfield Common Roundabout may have temporarily given rise to fugitive dust although would have been subject to dust management measures.

5. Air Quality Screening Assessment

5.1. Introduction

5.1.1. The key issues requiring consideration with regards to the proposed development and air quality are considered to be:

- construction phase: potential for construction activities to result in adverse impacts due to particulate matter (disamenity dust and PM_{10}); and
- operational phase: potential impacts of traffic generated by the development on local air quality and any nearby sensitive receptors;
- operational phase: potential for existing local air quality to impact the proposed new development.

5.1.2. These aspects are considered in turn below.

5.2. Construction Activities

5.2.1. Demolition, earthworks and construction activities can result in the generation of fugitive dust (particulate matter). This can result in dis-amenity impacts due to dust deposition and human health impacts due to elevated PM_{10}. Dust deposition can also result in impacts on ecological receptors. The degree of potential dust generation during construction is primarily dependent on the scale of the works and HGV movements.

5.2.2. The proximity of the existing Nunsfield Farm and residential properties to the south to the Site is noted. The potential for dust related impacts arising from construction activities can however be readily controlled and mitigated through the implementation of standard dust management techniques. The requirement for such measures can be specified through a planning condition requiring provision of an appropriate Construction Dust Management Plan (CDMP). This is broadly consistent with a consultation response advice from the Environmental Protection Team which requested the inclusion of the following condition in any granted planning permission:

'CDD01B - CONSTRUCTION AND DEMOLITION – DUST

No activity hereby permitted shall cause dust to be emitted beyond the site boundary so as to adversely adjacent residential properties and/or other sensitive uses and/or the local environment. In the event dust is caused to escape the site boundary the activity shall be stopped until sufficient dust suppression has been undertaken to prevent further escape. There shall always be the appropriate means and sufficient water resources on site for dust suppression. These should be made available for inspection when required by officers of the Local Planning Authority'.

5.2.3. No additional measures above and beyond those that would be incorporated within a standard CDMP are deemed necessary. Recommended standard measures include, but are not limited

to, the following:

- as an over-riding requirement, should winds carry visible dust towards the Site boundaries, and particularly to the east and south, the operations giving rise to the dust in that part of the Site should be modified or suspended until more suitable conditions pertain, or until effective dust control measures are implemented;
- restriction of haulage to designated haul routes; preparation of haulage routes with compacted stone or other similar material; regular inspection and maintenance of good running surfaces;
- setting an appropriate Site speed limit,
- dust suppression by regular spraying with clean water in dry conditions,
- inspection and cleaning of vehicles leaving Site, through provision of a wheel wash area, equipped with a high-pressure hose and an adequate water supply near the Site entrance,
- cleaning of any trackout or other deposits from the adjacent highways.
- maintenance of a suitable supply of clean water for dust suppression purposes with dust suppression to be implemented through regular spraying of the haul routes, stockpiled material and any freshly exposed earthworks;
- minimisation of drop heights during tipping and loading; loading and tipping in the lee of existing structures and stockpiles; and,
- effective staff training in respect of the causes and prevention of dust.

5.2.4. With the implementation of these and other standard measures the risks of adverse impacts due to construction dust would be negligible.

5.3. Vehicle Exhaust Emissions

Screening Assessment

5.3.1. The IAQM guidance on air quality and planning[5] provides the following indicative criteria for proceeding to an Air Quality Assessment (AQA) for a planning application:

- **where within, or close to, an AQMA**: results in a change of LDV flows of more than 100 Annual Average Daily Traffic (AADT) and / or HGV flows of more than 50 AADT;
- **where distant from an AQMA:** results in a change in LDV flows of 500 AADT and / or HGV flows of more than 100 AADT.

5.3.2. Such an AQA may taken the form of a ‘Simple’ or ‘Detailed’ Assessment. This will be dependent on site-specific circumstances such as the proximity of any relevant receptors to any affected roads.

5.3.3. The project transport consultants, SCP Transport Planning Consultants, have advised SGP that the development for 99 dwellings is expected to result in an additional 438 two-way LDV

movements to / from the Site (as AADT). These would be distributed on the wider local road network from the A6 Fairfield Comon Roundabout as summarised below and shown in Figure 4.

Table 6: Predicted Development-Related Traffic Movements (as 2-Way AADT)

Road Link	Road Name	2-Way AADT[1] (LDVs)	Comments
1	A6 North of Dale Road, Dove Holes	+142	Outside new AQMA
2	Dale Road, Dove Holes	+8	Outside new AQMA
3	A6 South of Station Road / Dale Road, Dove Holes	+164	Outside new AQMA
4	Station Road, Dove Holes	+14	Outside new AQMA
5	Site access / Fairfield Common Roundabout West	+438	Outside new AQMA
6	A6 North of Site Access / Fairfield Common Roundabout	+164	Outside new AQMA
7	Fairfield Common Roundabout East	+54	Outside new AQMA
8	A6 South of Site Access	**+219**	Will extend to within new AQMA
9	A53 Station Road	+128	Outside new AQMA
10	A6 Fairfield Road	**+219**	Within new AQMA
11	A6 Bakewell Road	+92	Outside new AQMA

1: Highlighted cells indicate above IAQM indicative threshold indicating need for an AQA

5.3.4. The development-related traffic movements to / from the Site access off the Fairfield Common Roundabout are below the IAQM indicative threshold of +500 AADT (where distant from an AQMA). This newly constructed roundabout is set-back from any relevant receptors and these additional movements would not be expected to result in any significant adverse impacts due to vehicle exhaust emissions.

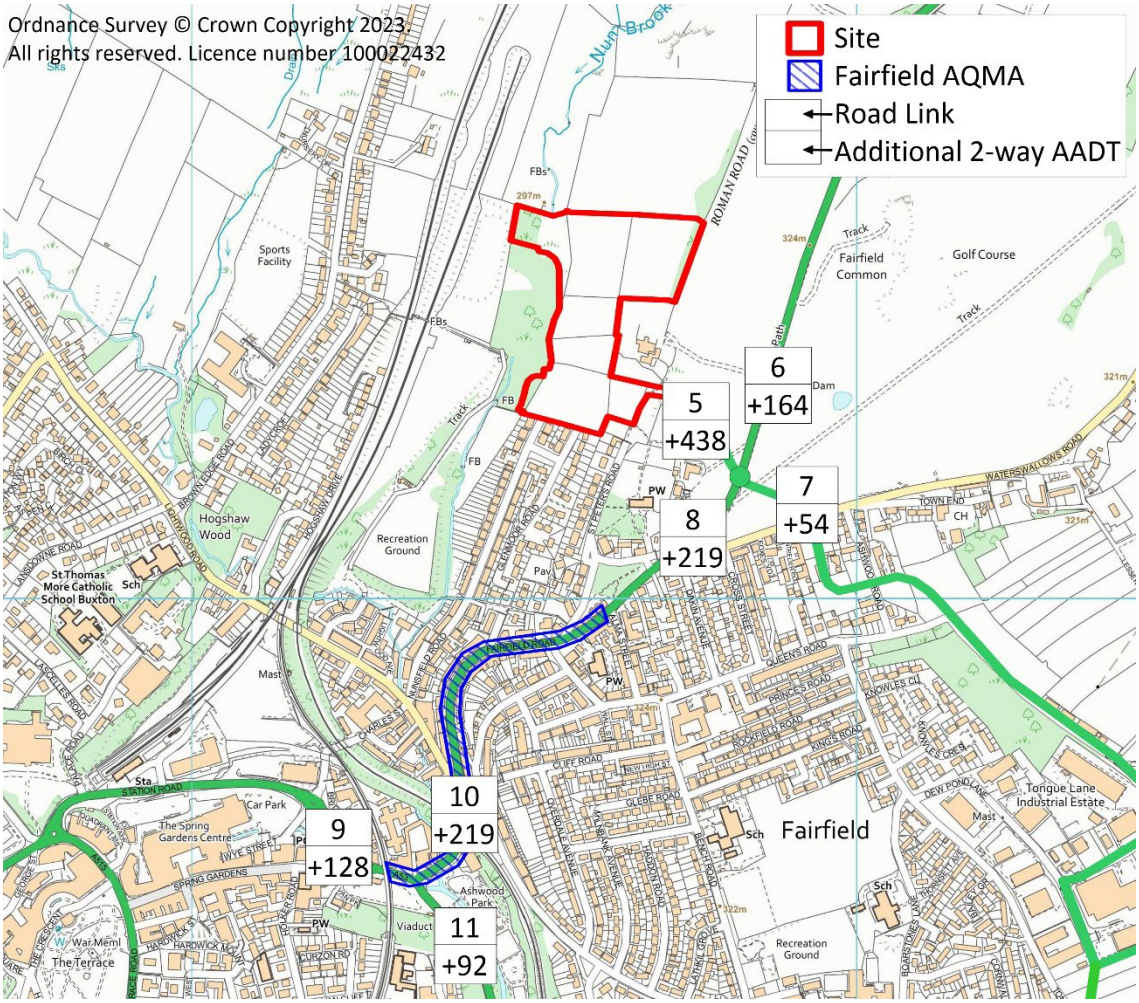
5.3.5. The development-related movements on the local road network to the north of the Fairfield Common Roundabout are well below the indicative thresholds.

5.3.6. The development is however expected to result in +219 2-way AADT on the stretch of the A6 Fairfield Road between the Fairfield Common Roundabout and the A6 / A53 junction in Buxton to the south. This therefore encompasses the newly declared Fairfield AQMA. These movements are above the +100 AADT indicative threshold. There are several residential properties located along this stretch of road and monitoring data for 2022 reported on-going exceedances of the UK long-term AQO at two locations. This is discussed further below.

5.3.7. Separate guidance is provided by Natural England (NE) in relation to vehicle exhaust emissions

and ecological sites and is re-iterated in IAQM guidance[13]. Where the total vehicle flow change by 1,000 AADT or more where an ecological receptor is located within 200m of the affected road then further assessment in relation to ecological receptors is required. The development-related vehicle flows are well below +1,000 AADT and no further assessment is required with regards to potential impacts from the additional vehicle movements on any nature conservation sites.

Figure 4: Development-Related Traffic Movements on Local Road network



Further Assessment

5.3.8. As noted above the Site forms part of a wider residential and employment allocation area. The planning application for the recently constructed new Fairfield Common Roundabout was supported by an Air Quality Assessment[14] (hereafter referred to as the '2020 Roundabout AQA') which was undertaken to determine the potential air quality effects of the proposed roundabout. This considered both the impacts and effects of the redistribution of local traffic due to the proposed roundabout itself and the associated new link road to Waterswallows Road, and of the

[13] Institute of Air Quality Management, A guide to the assessment of air quality impacts on designated nature conservation sites, version 1.1, May 2020
[14] AECOM, Hogshaw Roundabout, Buxton, Air Quality Assessment, HOG-AEC-XX-XX-RP-AQ-00001, 28 May 2020

additional traffic associated with the allocated developments it would provide access to. The assessment took into account the proposals by HPBC to consider declaration of the AQMA on Fairfield Road.

5.3.9. The 2020 Roundabout AQA was undertaken through atmospheric dispersion modelling of vehicle exhaust emissions for several scenarios, of which the following are of relevance to this AQA:

- Future year (2030) without the proposed scheme *(where the 'proposed scheme' is the roundabout and link road to Waterswallows Road)*;
- Future year (2030) with the proposed scheme;
- Future year (2030) with the proposed scheme and with the allocated developments (Hogshaw, Waterswallows and Granby Road).

5.3.10. The 2020 Roundabout AQA therefore incorporated an assessment of additional traffic potentially associated with the Land at Hogshaw site, as well as the other allocated sites. The traffic data contained within the 2020 Roundabout AQA (Appendix C: Traffic Data) indicates that the allocated developments would result in an additional 2,343 AADT on the stretch of Fairfield Road between Waterswallows Road and Queens Road in the town centre in 2030 (assuming construction of the roundabout itself). The Proposed Development under consideration in this assessment would only provide a proportion of these additional flows.

5.3.11. The 2020 Roundabout AQA included an assessment of the potential changes in pollutant concentrations at several modelled receptor points along this stretch of Fairfield Road, including the stretch that now falls within the AQMA. The maximum predicted change in annual mean NO_2 concentrations due to the roundabout scheme and allocated developments, compared to without the scheme, was +1.9 µg/m^3 at modelled receptor point R11 (located within the AQMA). With a resulting total concentration of 26.6 µg/m^{3,} well below the AQO, the resulting impacts at this receptor were described as *negligible*. Impacts at all other receptors were also considered to be *negligible*.

5.3.12. These results are consistent with expectations of on-going reducing annual mean NO_2 concentrations due to improvements in emission technologies and evolution of the UK vehicle fleet with increased take up of low emission vehicles.

5.3.13. The subsequent committee report[15] in respect of the planning application states the following in relation to air quality:

[15] Derbyshire County Council, Regulatory – Planning Committee, 6 July 2020, re: application Code NO: CD1/0220/76

'The EHO provided comments in relation to the impact on air quality and has raised no objection, in principle, subject to submission of an Air Quality Assessment.

The applicant has, since the receipt of initial comments, provided an Air Quality Assessment and the EHO has been re-consulted. The EHO does not object to its findings or the application as proposed and provides the following comments:

"HPBC are in the process of declaring an AQMA [Air Quality Management Area] on Fairfield Road, for the exceedance of the annual mean nitrogen dioxide (NO 2). The EHO was concerned that the presence of the proposed scheme and associated developments may adversely affect the air quality in the proposed AQMA. As such, an air quality assessment was requested in support of the application. The key conclusions of the report are accepted by the EHO that the impact on air quality as a result of the proposal would not be significant, neither would the impact of the proposed scheme combined with that of the allocated developments."

5.3.14. The EHO therefore accepted the findings of the 2020 Roundabout AQA for the roundabout planning application, which included assessment of the impacts associated with the additional traffic that would be generated by the allocated development to be served by the roundabout.

5.3.15. Planning permission was subsequently granted for the scheme on 8 July 2020[16] with no conditions included in relation to vehicle exhaust emissions and air quality. As noted above the roundabout is now built out.

5.3.16. As noted above the Proposed Development itself only forms a proportion of the wider allocated developments that were considered in the 2020 Roundabout AQA. This assessment took into the proposals to consider an AQMA along Fairfield Road and concluded the potential impacts from the combination of the redistributed traffic **and** the additional allocated development traffic were negligible. It can therefore be reasonably concluded that the potential impacts from the additional traffic from the Proposed Development would be negligible and have been previously assessed.

Mitigation

5.3.17. The planning application for the Proposed Development has been supported by a Transport Assessment[17] and Travel Plan[18]. The Travel Plan sets out the developer's commitment to reducing the number of vehicular trips generated by the development and identifies the key principals which will be developed further as part of the full travel plan. This will assist in the transition to sustainable travel and uptake of low emission vehicles.

[16] Derbyshire County Council, Decision Notice, CD1/0220/76, dated 8 July 2020.
[17] SCP, Proposed Residential Development, Hogshaw Farm, Buxton, Transport Assessment, Ref: LB/220650/TA/4, July 2024
[18] SCP, Proposed Residential Development, Hogshaw Farm, Buxton, Travel Plan, Ref: LB/220650/TP/5, July 2024

6. Conclusions and Recommendations

6.1. Proposals are for construction of 99 houses with associated infrastructure.

6.2. Information on the expected operational trip generation of the Proposed Development has been provided and reviewed. An AQMA has recently been declared by HPBC along a stretch of Fairfield Road between the Site access and Buxton town centre due to on-going exceedances of the long-term UK AQO for NO_2. The expected additional vehicle movements along this stretch of road are above screening thresholds that are provided to indicate the need for some form of air quality assessment.

6.3. It is noted however that the Site is allocated in the Local Plan for residential development and the newly completed Fairfield Common Roundabout was constructed specifically to provide access to the local sites in this area, including the Site itself. The 2020 Roundabout AQA undertaken in relation to the roundabout planning application included assessment of the potential impacts associated with emissions from the additional traffic from the allocated sites as well as redistributed traffic arising from the roundabout construction. This assessment therefore included consideration of additional traffic from development of the Site itself. This 2020 Roundabout AQA did not predict significant adverse impacts from the additional traffic movements on Fairfield Road, including within the AQMA.

6.4. The additional traffic generated by the Proposed Development would only form a proportion of the additional traffic generated by the allocated sites and assessed within the 2020 Roundabout AQA. It can therefore be concluded that the additional traffic from the Proposed Development would not result in significant adverse impacts.

6.5. The planning application is supported by a Travel Plan which will assist in the transition to sustainable travel and uptake of low emission vehicles.

6.6. Any fugitive dust impacts during the construction phase of the development can be readily minimised through standard management practices and design implementation of a construction dust management plan incorporated within a Dust Management Plan (DMP) within a wider Construction and Environmental Management Plant (CEMP).

6.7. On the basis of the above, no significant adverse impacts that would preclude the granting of planning permission on air quality grounds have been identified. No further assessment or consideration of air quality issues is deemed necessary.

Prepared on behalf of Smith Grant LLP by:

Name:	**Signature:**	**Date:**
K. Hawkins, Partner BSc MSc MIAQM MEnvSci CEnv		15.07.24

APPENDIX A:

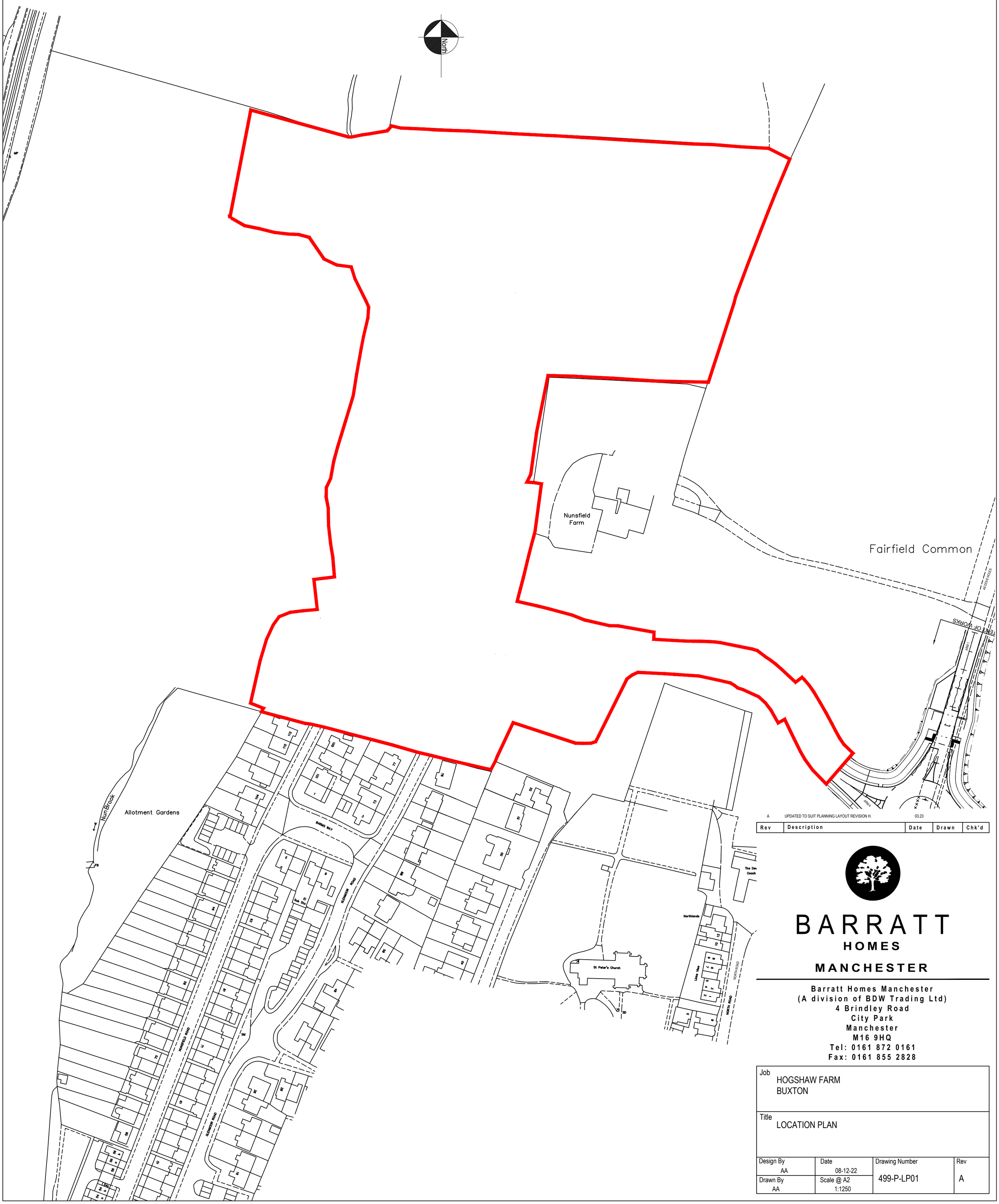
Site Location

and

Proposed Site Layout Plan

WARNING TO HOUSE PURCHASERS
Property Misdescriptions Act 1991

Buyers are warned that this is a working drawing and is not intended to be treated as descriptive material describing, in relation to any particular property or development, any of the specified matters prescribed by any Order made under the above act. The contents of this drawing may be subject to change at any time, and alterations and variations can occur during the progress of the works without revisions of the drawing. Consequently the layout, form, content and dimensions of the finished construction may differ materially from those shown. Nor do the contents of this drawing constitute a contract, part of any contract, or warranty.



Rev	Description	Date	Drawn	Chk'd
A	UPDATED TO SUIT PLANNING LAYOUT REVISION H.	03.23		

BARRATT
HOMES
MANCHESTER

Barratt Homes Manchester
(A division of BDW Trading Ltd)
4 Brindley Road
City Park
Manchester
M16 9HQ
Tel: 0161 872 0161
Fax: 0161 855 2828

Job: HOGSHAW FARM BUXTON			
Title: LOCATION PLAN			
Design By: AA	Date: 08-12-22	Drawing Number: 499-P-LP01	Rev: A
Drawn By: AA	Scale @ A2: 1:1250		

SCHEDULE OF ACCOMMODATION

Barratt Type	House Type	Sqft	No	Total Sqft
Private Units				
Rowan - End	2 Bed Terraced House	866	10	8660
Rowan - Mid	2 Bed Terraced House	866	1	866
Oakmoor - End	3 Bed Bed Semi / Mews House Duel Aspect End Unit	1049	1	1049
Birchmoor - End	3 Bed Terraced House	1025	3	3075
Rathlin	3 Bed Detached House	990	11	10890
Matlock - End	3 Bed Semi / Mews House	970	23	22310
Hopton	3 Bed Detached / Semi Detached Dual Aspect House	1017	9	9153
Hopton - End	3 Bed Detached / Semi Detached Dual Aspect House	1017	1	1017
Knightwood - End	4 Bed Townhouse	1122	18	20196
Ashtead	4 Bed Dual Aspect Detached House	1265	4	5060
Wallasea	4 Bedroom Int. Garage Detached House	1206	11	13266
Haweswater	4 Bedroom Int. Garage Detached House	1495	7	10465
Total number of units and square footage			**99**	**106007**
Gross Site Area in Acres				**10.39**
Open Space & Undevelopable Area in Acres				**3.18**
Net Site Area in Acres				**7.21**
Density (Units per Acre)				**14**
Density (Units per Hectare)				**34**
Square Foot / Acre				**14,703**

North

AGRICULTURAL LAND

PUMPING STATION

SUDS

LOCAL WILDLIFE AREA

GOLF COURSE

Nunsfield Farm

Fairfield Commc

Potential Future Link Road

ENTRANCE STATEMENT

SUBSTATION

TEMP SALES PARKING

PLAY AREA (LAP) Refer to drawing 2402.4/929

Existing connection to remain open

Existing connection to remain open

Nestle Water Main 5m

Buxton FP 2

Buxton FP 2

Buxton FP 1

Buxton FP 77

Electricity Supply to Farm - Assumed 4m

Nestle Water Main 5m

ARM 4

ARM 3

B.O.A.T

RKS

BARMS WAY

GLENMOOR ROAD

NORTH ROAD

NORTH ROAD

Links View

St Peter's Church

The Devonshire Cooch House

324.3m

Northlands

Sub Sta

SD

SM

Legend:

- Proposed dwelling and house type code.
- Proposed garage to be built.
- Grass, refer to detailed landscpaing plans for details.
- Wall (Refer to BTL01/BTD01&02 for details)
- Timber gates to be erected to rear gardens. (as indicated on site layout).
- Existing trees to be retained & protected during works.
- Trees to be removed, refer to 1795_ARB_AIA & 1795_ARB_AMS for details.
- Root Protection Zone
- Indicates a tree with a TPO.
- Water main easement, 5m wide as confirmed by Ward Hadaway.
- AM — Acoustic Measures required. (Refer to Noise Assessment for Details)
- AS OPP — Dwelling handing - as / opposite see the construction dwg.
- Refuse collection area
- EV — Car charging point, refer to EVCP info pack for specs & positioning details.
- PROW.
- GRP Chimney
- Indicative Landscaping, refer to UG_1795_Lan_SI_01-05 for details.

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By
02	Layout updated to various internal comments.	18/06/24	GB

Project: HOGSHAW FARM			
Description: PLANNING LAYOUT			
Design By: GB	Date: 11/06/2024	Scale at A0: 1:500	Revision: 2
Project: H8797 - BAH -	Originator: XX	Functional - XX -	Spatial - DR - Discipline - UD - Number 203001

BARRATT HOMES

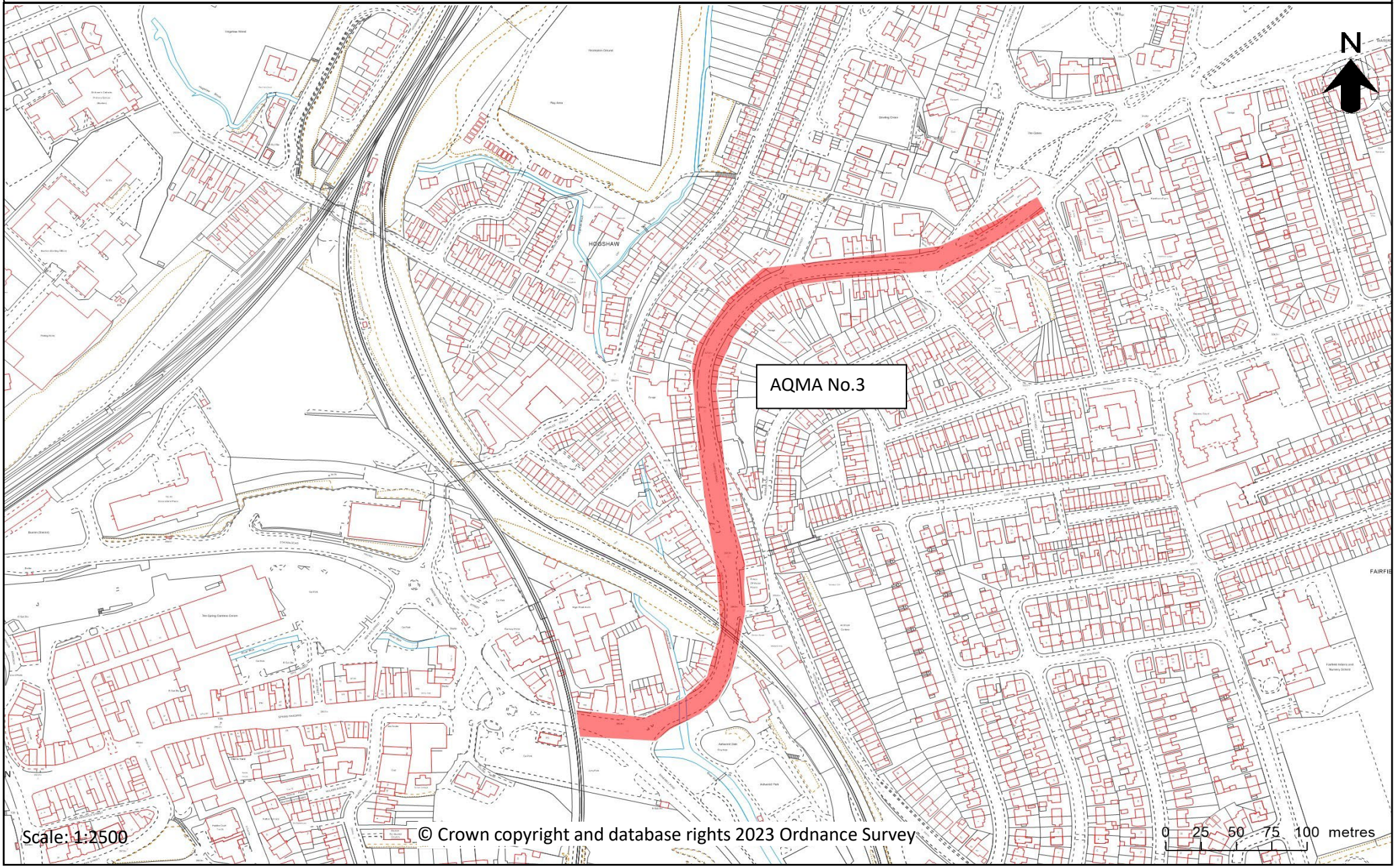
Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator
© Barratt Homes Ltd.

APPENDIX B:

Fairfield Road AQMA

High Peak Borough Council
Air Quality Management Area No3; Fairfield Road

High Peak Borough Council
working for our community



ARBORICULTURAL IMPACT ASSESSMENT (AIA)

JULY 2024

Hogshaw Farm
Fairfield
Buxton
SK17 7HN

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1795
Project:	Hogshaw Farm
Location:	Hogshaw Farm, Fairfield, Buxton, SK17 7HN
Title:	Arboricultural Impact Assessment
Document Type:	BS 5837: 2012
Date:	17/03/2023
Prepared By:	Adam Hodgins
Checked By:	Robert Hickey
Approved By:	Gemma King

Revision Status:

Rev:	Date:	Issue/Purpose/ Comment:	Prepared:	Checked:
01	17/03/2023	Updated layout	AH	AB
02	22/03/2023	Updated layout	AH	AB
03	05/04/2023	Updated layout	AH	AB
04	14/02/2024	Updated layout	HL	AH
05	06/03/2024	Updated layout	HL	AB
06	12/03/2024	Updated layout	HL	AB
07	08/07/2024	Updated layout	HL	AH

CONTENTS

1. Executive Summary 1
2. Introduction 2
   - 2.1. Instructions and References 2
   - 2.2. Scope 4
   - 2.3. Documents Provided 4
   - 2.4. Limitations 4
   - 2.5. The Site 5
3. Legislation 5
   - 3.1. Tree Protection Status 5
   - 3.2. Wildlife 6
4. Arboricultural Impact Assessment (AIA) 7
   - 4.1. Summary of the Development 7
   - 4.2. Tree Constraints 7
   - 4.3. Root Protection Areas (RPAs) Explained 7
   - 4.4. Surveyed Trees 8
   - 4.5. Impacts of Development 8
   - 4.6. Tree Surgery Works 9
   - 4.7. Protective Fencing 10
   - 4.8. Temporary Site Cabins 10
   - 4.9. Utilities 10
   - 4.10. Recommendations 11

Appendix 1 – Tree Data Schedule

Appendix 2 – Tree Data Schedule Definition of Terms

Appendix 3 – Tree Retention Categories

Appendix 4 – Site Plans

1. Executive Summary

1.1.1. Urban Green has been instructed by Barratt Homes Manchester to carry out an Arboricultural Survey to British Standard 5837: 2012 guidelines at land at Hogshaw Farm, Fairfield, Buxton, SK17 7HN and produce our findings in a report.

1.1.2. It is proposed to develop the site into a residential housing estate, featuring ninety-nine new homes with associated hard and soft landscaping. Full details of the proposed site layout can be seen on the plans included in Appendix 4.

1.1.3. The proposed development necessitates the removal of Two individual trees, three tree groups and two trees from a further tree group. All tree removals are within the site boundary except two trees which are on or just outside the site boundary. One tree group to be removed is low value natural colonisation internal to the site. There are several moderate quality trees and one moderate quality tree group which will be removed to accommodate the development which will have only minor impacts on the wider amenity, their loss should be alleviated by replacement tree planting and the production of a robust soft landscaping scheme.

1.1.4. Urban Green have produced a soft landscaping scheme proposal (ref: UG_1795_LAN_GA_DRW_01) which will help mitigate the proposed tree removals to facilitate the development.

1.1.5. One tree and one tree group will require removal irrespective of the proposed development in accordance with good Arboricultural practice; as these trees are offsite and under third-party ownership, the landowner will need to be made aware of their condition and need for removal.

1.1.6. Some construction works are proposed within predicted root protection areas (RPAs) of five individual trees, two tree groups and one woodland to be retained; however, due to the minor extent of these works within predicted RPAs it is considered the impacts will be negligible.

1.1.7. Urban Green have carried out a Preliminary Ecological Assessment (PEA) at the site (ref: UG_1795_ECO_PEA_04) to identify habitats on site and determine the suitability for any 'protected and/or notable' species that may occur on site. Any recommendations within the PEA report should be observed prior to any tree works being carried out.

1.1.8. Tree protection fencing and ground protection will need to be installed at the alignment shown on the Tree Protection Plan in Appendix 4 before any construction activity takes place.

1.1.9. Urban Green have produced an Arboricultural Method Statement (AMS) detailing solutions and working methods to prevent detrimental impacts on retained trees due to the proposed development (ref: UG_1795_ARB_AMS_01_REV_06_FINAL).

1.1.10. Information regarding the layout of new utilities and final site levels should be submitted to the Arboricultural Consultant so that the impact of these on the retained trees can be assessed.

2. Introduction

2.1. Instructions and References

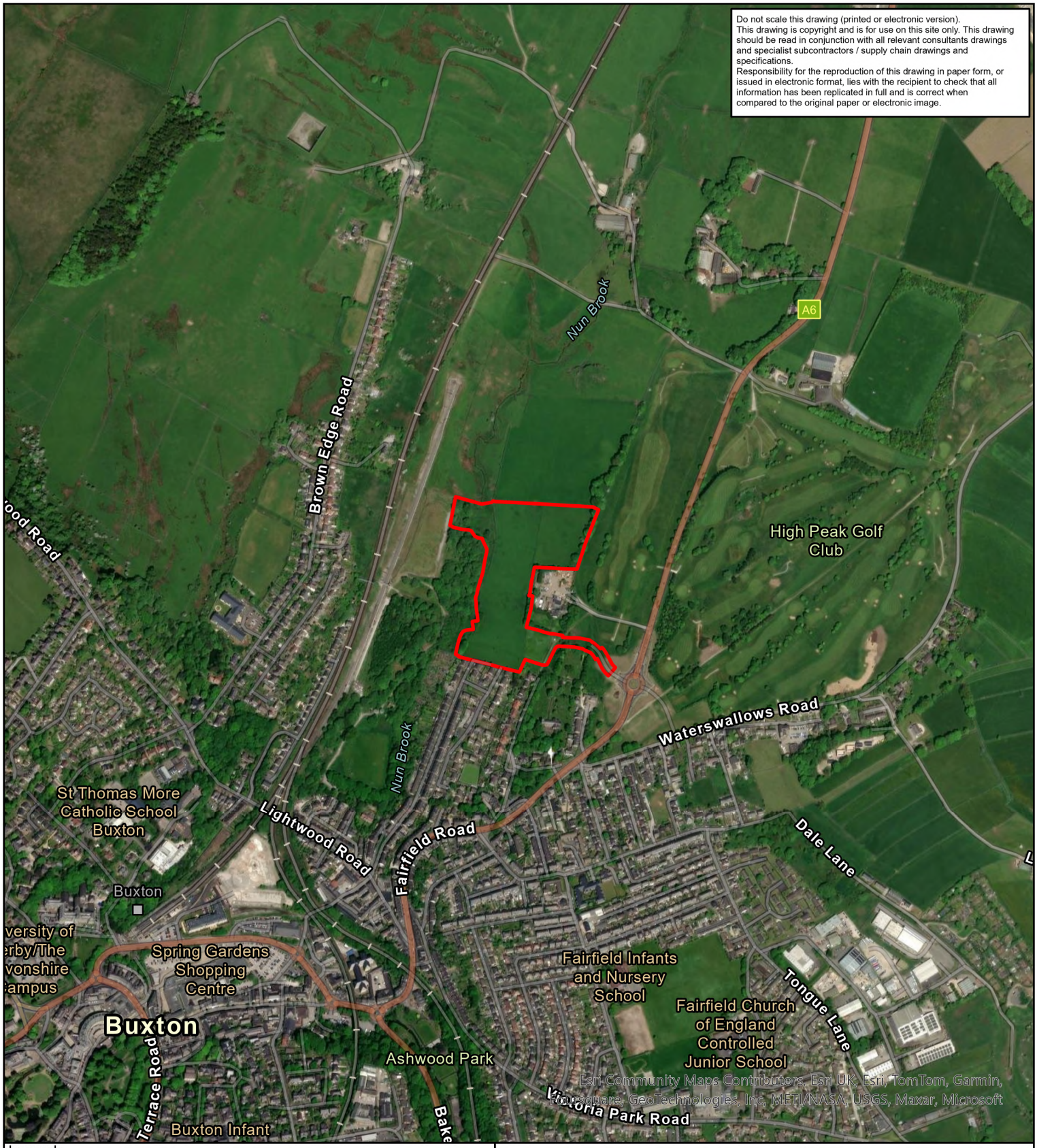
2.1.1. Urban Green have been instructed by Barratt Homes, Manchester to carry out an Arboricultural Impact Assessment (AIA) in accordance with BS 5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations'* at Hogshaw Farm, Fairfield, Buxton, SK17 7HN , and produce our findings in a report to be submitted with a detailed planning application.

2.1.2. All trees, regardless of their statutory status, are a material consideration in a planning application. BS 5837: 2012 recognises the potential conflict between trees and development. The standard sets out to assist those concerned with trees in relation to construction and aid with decision making. This is achieved by providing impartial and balanced information on trees and their potential impacts.

2.1.3. Due to the size and nature of the site, it was decided that the survey methodology would include broadly grouping trees that share very similar characteristics. This method is in line with point 4.4.2.3 of BS 5837: 2012 that states '*Trees forming groups…should be identified and considered as groups where the arboriculturist determines that this is appropriate… It may be appropriate to assess the quality and value of trees as a whole, rather than individuals.*'

2.1.4. The site is located in the area shown in the Site Context image below. The OS Grid Reference is SK 06633 74413.

Do not scale this drawing (printed or electronic version).
This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.
Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.



Legend:

Red Line Boundary

0.85

Kilometers

N

Client: **Barratt Homes**	Issue: **01**	
Project: **Hogshaw Farm**	Scale @ A4 **1:10,000**	
Title: **Site Context**	Approved by: **HL**	Checked by: **HM**
Drawing Ref: **UG_1795_SITE_CONTEXT**	Author: **CL**	Date: **08/07/2024**

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

2.2. Scope

2.2.1. The AIA considers any potential impacts on existing trees including the effect of any tree loss required to implement the design and recommendation for the establishment of new trees.

2.2.2. The AIA will also assess any potentially damaging activities proposed in the vicinity of retained trees and the effect that the retained trees may have on the development such as potential nuisance caused by excessive leaf/fruit litter, lighting levels and potential damage to structures.

2.3. Documents Provided

2.3.1. A scaled topographical plan has been provided with tree positions already plotted (BH.TS12_C Buxton, Fairfield – Topo Survey). Any extra trees found on site that were not included on the original plan have been plotted according to measurements taken on site and/or using aerial photography.

2.3.2. Tree locations which have been estimated are illustrated on the plans included in Appendix 4, by their identifying number with a "#" suffix. The exact locations of these trees must be verified, and any discrepancies discussed with the Arboricultural Consultant before starting works on site.

2.3.3. A plan outlining the development proposals has been overlaid onto the plans included in Appendix 4 to assess the potential impacts.

2.4. Limitations

2.4.1. This report is based upon a visual inspection carried out from ground level only. The consultant shall not be responsible for events that happen after the date of the report due to factors that were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

2.4.2. The consultant accepts no liability in respect of the trees unless the recommendations of this report are carried out under their supervision.

2.4.3. Assessing the potential influence of trees upon load bearing soils, beneath existing and proposed structures resulting from water abstraction by trees or rehydration of shrinkable soils was not included in the contract brief and is therefore not considered in the report. The consultant cannot be held responsible for damage arising from such action.

2.4.4. Trees are living organisms whose health, condition and structure can change over time. The contents of this report are valid for a period of one year from the date of the report.

Potentially hazardous trees are highlighted, and appropriate recommendations are made to reduce the associated risks to an acceptable level.

2.5. The Site

2.6. The site is located at Hogshaw Farm, Fairfield, Buxton, SK17 7HN and comprises agricultural land, featuring several small existing buildings to the eastern perimeter, and a large, wooded area containing a portion of Nun Brook to the west. The site is bounded by agricultural land to the north, east, and west, with residential properties and St. Peter's Church and cemetery to the south.

2.7. Geology

2.7.1. Reference to the Cranfield Soil and Agrifood Soilscapes Viewer (www.landis.org.uk) suggests there are two distinct soil types present at the site. The first soil type, which dominates the eastern portion of the site, is a freely draining, slightly acidic, highly fertile, loamy soil typical of arable and grassland locations. The second type, which is concentrated to the western portion of the site, is a slowly permeable, highly acidic, peaty soil, low in fertility, typical of moorland and forest environments.

3. Legislation

3.1. Tree Protection Status

3.1.1. A Tree Preservation Order (TPO) is an order made by a Local Authority to protect specific trees, groups of trees or woodlands in the interests of amenity. A TPO prohibits the cutting down, topping, lopping, uprooting and wilful damage or destruction of trees without the Local Authority's written consent.

3.1.2. Access to High Peak Borough Council's online interactive mapping facility on 06/02/2024 confirmed the presence of a TPO (reference HPTPO 311) on individual trees T17, T18, T19, T22, T23, T29, T31, T32, T33 and T34, and tree group G39, which are detailed in the Tree Constraints Plan in Appendix 4.

3.1.3. High Peak Borough Council's interactive mapping facility also confirmed the proposed access road off the A6 (Fairfield Road) passes through Fairfield Conservation Area.

3.1.4. It is recommended that the Local Authority is consulted before any tree works are undertaken, as new TPOs may have been created since the time of enquiry, and heavy fines exist for unauthorised works to protected trees.

3.1.5. All works to trees covered by a TPO require permission from the Local Authority, including any pruning. However, this does not include trees that are dead or have become dangerous. The removal of dead branches is also excluded from a TPO. Although the above exceptions exist, it is advisable to give the Local Authority five days' notice in writing of any intended removal. Permission is not needed where tree work is required to implement an approved planning application.

3.1.6. In a Conservation Area, all trees greater than 75mm in diameter at 1.5m above ground level are protected. Where tree work is required in a Conservation Area, a Section 211 notice of intent must be submitted the Local Planning Authority who have six weeks to decide to either make a TPO or allow the work to proceed.

3.1.7. The proposed work can proceed after six weeks as it is presumed that the Local Authority consents if they have not responded in that time.

3.1.8. It is an offence to remove more than 5m^3 of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission. It must be noted, however, that this excludes sites where planning permission has already been granted.

3.2. Wildlife

3.2.1. Prior to the commencement of any tree works, the trees should be assessed for the presence of protected species, many of which are protected under the *Wildlife and Countryside Act 1981* (as amended) and/or the *Conservation of Habitats and Species Regulations 2017* (as amended).

3.2.2. Where there is evidence that roosting bats, nesting birds, or other protected species are present, works in these areas should pause and the advice of a suitably qualified ecologist should be sought about how best to proceed.

3.2.3. If tree works are carried out during the bird nesting season (March to September, inclusive), trees should be inspected by a qualified ecologist to confirm likely absence, no more than 48 hours prior to the commencement of works.

3.2.4. Green have completed a Preliminary Ecological Appraisal (PEA) of the site (Ref: UG_1795_ECO_PEA_04), which should be read and adhered to should any tree work be required. The objectives of the assessment are to identify habitats on site and determine the suitability for any 'protected and/or notable' species, with consideration of any potential impacts on nearby designated sites. This report should be read in conjunction with the PEA report should any tree work be required.

4. Arboricultural Impact Assessment (AIA)

4.1. Summary of the Development

4.1.1. It is proposed to develop the land at Hogshaw Farm into a residential housing estate featuring ninety-nine new homes with associated hard and soft landscaping. Full details of the proposed site layout can be seen on the plans included in Appendix 4.

4.2. Tree Constraints

4.2.1. BS 5837: 2012 recognises that conflicting requirements of the planning system for development means that trees are only one factor which need to be taken into consideration. Although there may be certain specimens that can pose significant constraints to development due to their importance, it is essential that inappropriate tree retention is avoided.

4.2.2. Trees can be adversely affected on development sites if their protection is not factored into the wider project management of onsite operations. The tree survey plan has been transposed over plans detailing current proposals to assess the impact on surveyed trees.

4.2.3. It is essential that roots are protected from construction works including physical damage from excavation and changes in soil structure from compaction and changes in ground levels.

4.3. Root Protection Areas (RPAs) Explained

4.3.1. The RPA is an area of ground around the base of a tree indicated on the Tree Constraints Plan as an ochre yellow circle centred around the stem which is calculated in relation to the stem diameter.

4.3.2. Most tree roots grow within the upper 600mm of the soil profile where most nutrients are available as the result of the decomposition of organic matter close to the surface. Rooting conditions become less favourable at depth as the soil density increases, creating anaerobic conditions.

4.3.3. BS 5837: 2012 states that the default position for proposed structures should always be outside the RPA. It is recognised that this may not always be possible, yet tree retention would be desirable. In this instance, technical solutions might be available that prevent damage to the retained trees.

4.4. Surveyed Trees

4.4.1. Twenty-one individual trees, twenty-two tree groups, one woodland and one hedgerow have been assessed.

4.4.2. Trees T1, G2, half of G3, G4, T5, G8-T16, W25, G28, G37, G38 and T40-T45 are off-site. All remaining surveyed trees are within the site or on the boundaries.

4.4.3. The tree cover comprises mainly of moderate quality native planting, with some natural colonisation and trees of higher quality infrequently encountered across the site. Establishing woodland adjacent to the western boundary provides a significant contribution to the character and appearance of the area.

4.4.4. Trees G8-G12, T17-G21, most of W25, G28, G29, T31-T34, G37 and G39 are visually important in terms of their contribution to the character and appearance of the area. The remaining trees and vegetation internal to the site are of secondary importance in visual terms.

4.4.5. Five individual trees and four tree groups were assessed as BS 5837: 2012 'High Quality' Retention Category 'A'; eight individual trees, thirteen tree groups, one hedgerow and one woodland were assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; seven individual trees and four tree groups were assessed as BS 5837: 2012 'Low Quality' Retention Category 'C'; and one tree and one tree group were assessed as BS 5837: 2012 'Unsuitable' Retention Category 'U'. Details of individual tree categorisation can be found in the Tree Data Schedule at Appendix 1.

4.5. Impacts of Development

4.5.1. The proposed development necessitates the removal of two individual trees (T22 and T24), two tree groups (G21 and G27), and a section of a further tree group (G3) assessed as BS 5837: 2012 'Moderate Quality' Retention Category 'B'; and one tree group (G6) assessed as BS 5837: 2012 'Low Quality' Retention Category 'C' within the site boundary, as detailed in the Tree Removal Plan and Tree Works Schedule in Appendix 4. The removal of these trees will have a low, localised impact on the visual amenity of the site and will not materially harm public views from outside the site. The loss of these trees should be alleviated by replacement tree planting and the production of a robust soft landscaping scheme. Urban Green have produced a soft landscaping scheme proposal (ref: UG_1795_LAN_GA_DRW_01) to be implemented alongside the proposed development.

4.5.2. The current positioning of the batters requires the removal of T22, which is subject to a TPO. Please be advised that the proposed removal of a tree under TPO may be a reason for planning to be refused.

4.5.3. Tree group G3 is mostly offsite, therefore permission will need to be sought from the landowner to remove the trees prior to the commencement of works.

4.5.4. One tree, T7, and one tree group, G26, were assessed as 'Unsuitable' BS 5837: 2012 Retention Category 'U' and will require removal irrespective of the proposed development, in line with good Arboricultural practice. However, as these trees are offsite and under third-party ownership, the landowner will need to be made aware of their condition and need for removal.

4.5.5. The remaining trees surveyed are to be retained and protected throughout the proposed development in accordance with standards and guidelines detailed in BS 5837: 2012.

4.5.6. New non-bituminous bound surfacing is proposed over an existing PROW within the predicted RPAs of trees T15, T16 and T17. An engineered no dig hard surface such as Cellular Confinement should be utilised to avoid damage to tree roots and soil compaction. The approximate coverage is within recommended guidelines as detailed in BS 5837: 2012 section 7.4 and should not have any long-term impacts to the health of the trees if installed following recommended guidelines.

4.5.7. Proposed batters are set to encroach on the RPAs of treesT23 and T45, tree groups G3, G4 and G42 and the edge of woodland W25. As the percentage of the RPA affected for all trees and tree groups does not exceed the 20% advised in BS5837, the use of arboriculturally supervised excavation and root pruning has been deemed acceptable.

4.5.8. Sections of the RPA along the eastern edge of W25 which may be impacted by the construction of batters have been left unprotected. The trees comprising the woodland have been assessed as being in good physiological and structural condition and should therefore be able to withstand a minimal incursion into their RPA; as they are situated in an area of low footfall, any resultant decline in the condition of affected trees should not create an undue risk. It will be necessary to ensure all protective fencing is correctly installed prior to installation of the batters in order to minimise the negative impacts of construction. Raised levels should be achieved using a free-draining granular material as advised in BS5837 section 7.4.4.4.

4.5.9. Tree T45 and tree groups G4 and G42 will require pruning to provide suitable access and clearance for the proposed development, as indicated on the Tree Removal Plan and as detailed on the Tree Works Schedule at Appendix 4. All works should be carried out in accordance with BS5837: 2012 Tree Work – Recommendations.

4.5.10. A group of Himalayan Balsam adjacent to G6 and several groups of Japanese Knotweed within and at the periphery of W25 and adjacent to G37 were identified and will require removal by appropriately qualified personnel. These species are listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) as invasive non-native species, and it is an offence to permit the establishment and spread of such species into the environment.

4.6. Tree Surgery Works

4.6.1. Tree works that are recommended within the Tree Works Schedule (Appendix 4) are works required to facilitate development and include details or remedial works. Tree works stated in the Tree Data Schedule (Appendix 1) are of a general maintenance nature and can be carried out at any time as per recommendations.

4.6.2. Tree works required to facilitate the development will be carried out prior to the commencement of any onsite operations. This should allow sufficient space for approved construction to be carried out.

4.6.3. Any unforeseen tree works that become apparent during the construction process will require written consent from the Local Authority Tree Officer.

4.7. Protective Fencing

4.7.1. Temporary protective fencing will need to be installed at the alignment indicated on the Tree Protection Plan in Appendix 4, prior to the commencement of any construction activities on site including the delivery of materials and site facilities.

4.7.2. Any fencing that is damaged so that it is no longer able to protect retained trees must be replaced/repaired immediately with appropriate fencing.

4.7.3. The required specification for protective fencing is illustrated in the Tree Protection Plan (Insert 1).

4.7.4. The 'in-ground' system involves driving vertical scaffold poles approximately 0.6m into the ground onto which are affixed horizontal scaffold poles and bracing struts. 2m high anti-climb weldmesh panels are then wired to the scaffold framework. The vertical scaffold poles should be at a maximum of 3m apart.

4.7.5. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to the tree roots when locating uprights.

4.7.6. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" shall be fixed to every 10m of protective fencing, as illustrated on the Tree Protection Plan (Insert 2).

4.8. Temporary Site Cabins

4.8.1. All storage facilities and deliveries will make use of existing hard surfaces to avoid unnecessary compaction within RPAs. The locations will be agreed in writing with the LPA prior to delivery and will remain in the agreed locations unless approved by the LPA.

4.8.2. If storage facilities require siting within RPAs, every effort will be made to ensure that any damage to aerial parts of retained trees is avoided and that appropriate footings are used to avoid root damage or compaction of the soil.

4.9. Utilities

4.9.1. At the time of writing, Urban Green have not been made aware of any new utilities or service runs that will be associated with the development. Information regarding the layout of new utilities and final site levels should be submitted to the Arboricultural Consultant so that the impact of these on the retained trees can be assessed.

4.9.2. A preliminary drainage plan has been submitted wherein a culvert running central to W25 has been proposed for use, as detailed in Appendix 4 of this document. Urban Green has been advised that this is an existing culvert. If access or alteration to this culvert is proposed as part of the development, detailed plans will be required in order for the arboricultural impacts of such to be assessed.

4.10. Recommendations

4.10.1. An Arboricultural Method Statement (AMS) has been produced in order to provide solutions and working methods so that the impacts identified do not have a detrimental effect on retained trees (UG_1795_ARB_AMS_01_REV_06_FINAL).

4.10.2. All operations that could affect trees on and adjacent to the site must be considered as part of the project management of the Proposed Development. It is therefore recommended that an Arboricultural Consultant is appointed as part of the design and management team to advise on pre-development issues and supervise on-site operations.

4.10.3. The Arboricultural Consultant may also have an advisory role in the preparation of site including tree surgery works and the protection of trees during demolition processes.

4.10.4. The Arboricultural Consultant shall be responsible for inspecting all protective fencing prior to the commencement of all onsite activity.

Appendix 1 – Tree Data Schedule

The following pages contain information gathered during the site survey. The reader should refer to Appendices 2 and 3 to correctly interpret the tree survey data.

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
T1	Early-Mature **Ash** Fraxinus excelsior	13	2	1	E	380	4 5 5 3	1: Located offsite adjacent to cemetery. 2: Exhibiting symptoms associated with ash dieback. 3: Large vertical scar from 1m above ground level extending to approximately 8m. 4: Significant canker evident throughout crown. Unidentified fungal fruiting body at 0.5m above ground level. 5: Low footfall area.	Monitor condition, consider removal if condition deteriorates. Moderate	1	2	Fair Fair	10-20 C1	4.56
G2	Early-Mature **Mixed** Species	av 16	av 1	0.5	E	av 600	av 6 4 4 6 each	1: Approximately 10 ash trees and 4 silver birch within group. 2: Located offsite along east side of cemetery. 3: Ash trees exhibiting mild symptoms of ash dieback with deadwood upto approximately 50mm diameter. 4: Low foot fall area therefore risk posed is currently acceptable.	Monitor condition. Low	3	2	Fair Good	10-20 B2	7.20
G3	Early-Mature **Ash** Fraxinus excelsior	av 14	av 1	0.5	E	av 550	av 6 6 6 4 each	1: Four trees in group located within fenced off area, ownership uncertain. 2: Trees exhibiting mild symptoms of ash dieback. 3: Included bark union of co-dominant stems with natural bracing noted to one tree within group.	Monitor condition. Low	3	2	Fair Good	10-20 B2	6.60
G4	Early-Mature **Mixed** Species	av 13	av 1.5	0.5	N	av 600	av 9 6 6 9 each	1: Grey alder, goat willow and beech mixed group. 2: Located offsite along northern boundary of cemetery. 3: Provides good screen around cemetery. 4: Significant lateral extension to north and south. 5: Some failed branch unions to goat willows are currently acceptable due to current low footfall.	Monitor condition. Low	3	2	Good Fair	20-40 B2	7.20
T5	Early-Mature **Lime** Tilia sp	7	1	0.5	N	300	4 4 4 4	1: Symmetrical crown, not pruned to any extent.	No action required. N/A	3	2	Good Good	40+ B1	3.60

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
G6	Semi-Mature **Willow** Salix viminalis	av 7	av 2.5	0	n/a	av 150	av 6 4 5 4 each	1: Natural colonisation between cemetery and bridleway. 2: Multiple stems within area of dense himalayan balsam. 3: Broken and failed stems throughout group.	No action required. N/A	3	2	Good Fair	20-40 C1,2	1.80
T7	Mature **Goat Willow** Salix caprea	10	2	0.2	NE	750	4.6 6.4 6.5 3.4	1: Trifurcated stem at 1.5 m above ground level. 2: Large wound with missing bark to main stem approx 1m long and 30cm wide. 3: Decay pockets around union, audible indication of internal hollowing when tapped with nylon hammer. 4: Approx 50% of canopy overhangs into cemetery.	Remove. Moderate	N/A	1	Fair Poor	<10 U	N/A
G8	Early-Mature **Mixed** Species	av 9	3	0	N	av 360	av 4.8 2.5 5.9 3.5 each	1: Dense surrounding vegetation prevents detailed inspection. 2: Linear group of approx 15 grey alder and sycamore and 3 black pine along cemetery retaining wall. 3: Pruned in the past to remove low hanging lateral branches with minimal occlusion. 4: Stubs and tears present from previous branch loss. 5: Densely spaced group with self set tees spreading south away from cemetery.	No action required. N/A	3	2	Good Fair	40+ B2	4.32
G9	Early-Mature **Mixed** Species	av 9	3	0	N	av 300	av 7.1 6 5.4 6.2 each	1: Dense surrounding vegetation prevents detailed inspection. 2: Line of approx 20 grey alder and beech along cemetery retaining wall. 3: Stubs and tears present from previous branch loss, doesn't appear to have been pruned to any extent. 4: Acceptable condition at present.	No action required. N/A	3	2	Good Fair	40+ B2	3.60
G10	Semi-Mature **Beech** Fagus sylvatica	av 9	2	0	NW	av 260	av 0.5 2.5 2.5 5 each	1: Row of 8 beech trees along cemetery retaining wall. 2: Multiple pruning wounds due to crown lifting with some occlusion and some fresh wounding. 3: Two trees previously topped, likely due to encroachment onto overhead power line. 4: Acceptable condition at present. 5: Overgrown section of hedgerow.	No action required. N/A	3	2	Good Fair	40+ C1	3.12

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
G11	Mature **Mixed** Species	av 16	av 1	1	S	av 880	av 9.3 9.3 9.3 9.3 each	1: Group of two large trees one sycamore one elm. 2: Elm has large pile of debris around main stem, evidence of excavation with fine roots visible. 3: Small diameter deadwood present. 4: Stubs and tears present from previous branch loss. 5: Both have bifurcated stems at approx 2m above ground level.	No action required. N/A	3	2	Good Good	40+ A1.2	10.56
G12	Mature **Mixed** Species	av 18	4	0.5	NE	av 360	av 4.9 9.2 6.7 6.8 each	1: Mixed group of ash, horse chestnut, sycamore, cherry, poplar and one thuja with dogwood, elder and privet understory close to cemetery retaining wall. 2: Dense ivy prevented a detailed inspection. 3: Evidence of past stem and limb removal left in situ. 4: Most trees are multistemmed from ground level. 5: Stubs and tears present from previous branch loss, young dead trees among group, likely due to shading/competition. Currently adequate clearance from adjacent footpath,acceptable condition.	No action required. N/A	3	2	Good Fair	40+ B2	4.32
G13	Mature **Lawson Cypress** Chamaecyparis lawsoniana	av 6	av 2	0.2	W	av 460	av 2 2 2 2 each	1: Offsite group of three trees prevented detailed inspection. 2: Previously topped and pruned to remove low hanging lateral branches with some occlusion. 3: Adequate clearance from and over bridleway.	No action required. N/A	3	2	Good Good	40+ B2	5.52
T14	Semi-Mature **Blue Cedar** Cedrus atlantica 'glauca'	3.5	2	0	N	120	1.5 1.5 1.5 1.5	1: Offsite tree prevents detailed inspection. 2: Small ornamental in back garden adjacent to bridleway.	No action required. N/A	3	1	Good Good	40+ C1	1.44

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
T15	Early-Mature **Hawthorn** Crataegus monogyna	4	2.5	2	W	150	N 2.5 W 2.5 E 2.5 S 2.5	1: Offsite tree prevents detailed inspection. 2: In back garden adjacent to bridleway. 3: Adequate clearance from and over footpath currently.	No action required.	N/A	1	Good Good	40+ B2	1.80
T16	Early-Mature **Whitebeam** Sorbus aria	4	2	2	W	350	N 3 W 3 E 3 S 3	1: Offsite tree prevents detailed inspection. 2: In back garden adjacent to bridleway. 3: Adequate clearance from and over footpath currently. 4: Previously topped and heavily pruned.	No action required.	N/A	1	Good Good	40+ C1	4.20
T17	Mature **Sycamore** Acer pseudoplatanus	17	1.5	0	NW	590	N 5.8 W 5.8 E 5.8 S 5.8	1: Stubs and tears present from previous branch loss and removal with minimal occlusion. 2: Bifurcated stem at 2.5m above ground level. 3: Low hanging canopy over field, acceptable due to land use. 4: No major visible defects.	No action required.	N/A	2	Good Good	40+ A2	7.08
T18	Mature **Sycamore** Acer pseudoplatanus	19	1.5	2	SE	310	N 6.6 W 6.6 E 6.6 S 6.6	1: Multiple stems arising from ground level. 2: Pruned in the past to remove low hanging lateral branches with good occlusion. 3: Moisture pocket full of leaf litter in union. 4: Crossing/rubbing stems. 5: In acceptable condition at present.	No action required.	N/A	2	Good Fair	40+ B2	3.72
T19	Mature **Sycamore** Acer pseudoplatanus	18	1	0	NW	410	N 6.3 W 6.3 E 6.3 S 6.3	1: Multiple stems arising from ground level. 2: Small diameter deadwood to lower canopy. 3: Stubs and tears present from previous branch loss. 4: In acceptable condition at present.	No action required.	N/A	2	Good Fair	40+ B2	4.92

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
G20	Young **Mixed** Species	av 5	2	0	NE	av 150	av 3 3 3 3 each	1: Group of two rowan, one cypress and one horse chestnut. 2: Not pruned to any extent. 3: Two rowans in poor condition, one previously topped, presumably due to overhead power line.	No action required.	N/A 3	1	Good Good	40+ C1	1.80
G21	Mature **Mixed** Species	av 18	av 1	1	SE	av 480	av 0.5 7.4 7.4 7.4 each	1: Group of two silver birch and three wild cherry. 2: Canopies biased to the south and stems lean south towards field. 3: Pruned in the past with some occlusion, evidence of large limb removal. 4: Stubs and tears present from previous branch loss. 5: Three have bifurcated stems, one from ground level with included union.	Monitor condition of union.	Low 1	2	Good Fair	40+ B1.2	5.76
T22	Early-Mature **Lime** Tilia sp	8	3	0	N	540	5.3 5.3 5.3 5.3 each	1: Surrounding vegetation prevents detailed inspection. 2: Multiple stems arising from ground level. 3: Low hanging canopy with under 0.5m clearance currently. 4: No major visible defects.	No action required.	N/A 3	2	Good Fair	40+ B2	6.48
T23	Early-Mature **Silver Birch** Betula pendula	13	4	4	W	360	3 3 3 3 each	1: Slight lean to main stem. 2: Stubs present from previous branch loss. 3: Doesn't appear to have been pruned to any extent.	No action required.	N/A 3	2	Good Good	40+ B1	4.32
T24	Early-Mature **Silver Birch** Betula pendula	11	2	1.5	SW	410	2 2 2 2 each	1: Stubs and tears present from previous branch loss. 2: Bifurcated stem at 4m above ground level. 3: Doesn't appear to have been pruned to any extent. 4: Small diameter deadwood noted to canopy.	No action required.	N/A 3	2	Good Good	40+ B1	4.92

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations		Visual Amenity	Physiological Condition	Life Expectancy (yrs)	RPA Radius
									Priority	Inspect Freq (yrs)	1-Low 2-Moderate 3-High 4-Very High	Structural Condition	Retention Category	(m)
W25	Early-Mature **Mixed** Species	av 16	3	0	n/a	av 480	av 5 5 5 5 each	1: Offsite mixed woodland dominated by goat willow with sycamore and english elm. 2: Most trees are multi stemmed, typical woodland characteristics although underdeveloped herb and shrub layer. 3: Group of Japanese knotweed located centrally. 4: Smaller trees along perimeter traversing field show no indication of imminent failure. 5: Has not seen any recent management. Group of Himalayan balsam close to Japanese knotweed but appears to be dying back.	No action required. N/A	3	3	Good Fair	40+ B1	5.76
G26	Mature **Elder** Sambucus nigra	av 6	4	0	n/a	av 440	av 3.5 3.5 3.5 3.5 each	1: Group of two moribund elders on woodland periphery within falling distance of field.	Remove. Low	1	1	Very Poor Very Poor	<10 U	N/A
G27	Early-Mature **Goat Willow** Salix caprea	av 11	3	0	n/a	av 450	av 4.5 4.5 4.5 4.5 each	1: Restricted access prevented detailed inspection. 2: Group of three multistemmed trees, all appear in acceptable condition currently. 3: Off site.	No action required. N/A	3	1	Good Good	40+ B1	5.40
G28	Mature **Mixed** Species	av 15	av 2	1	W	av 800	av 5.5 5.5 5.5 5.5 each	1: Offsite group of two beech and five sycamore. 2: Restricted access prevented detailed inspection. 3: In acceptable condition at present.	No action required. N/A	3	2	Good Good	40+ A1.2	9.60
G29	Mature **Sycamore** Acer pseudoplatanus	av 15	av 2	1	W	av 950	av 5 5 5 5 each	1: Group of two sycamore. 2: Don't appear to have been pruned to any extent. 3: Bird's nest noted. 4: Restricted access prevented detailed inspection. 5: In acceptable condition at present.	No action required. N/A	3	2	Good Good	40+ A1	11.40

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
G30	Mature **Hawthorn** Crataegus monogyna	av 4	4	0	N	av 570	av 3 3 3 3 each	1: Line of five hawthorn. 2: Deadwood present to canopies throughout. 3: Two have bifurcated stems from ground level. 4: In generally poor condition but pose no significant risk due to location.	No action required. N/A	3	1	Fair Poor	10-20 C1	6.84
T31	Mature **Ash** Fraxinus excelsior	15	1	3	E	890	7.5 7.5 7.5 7.5	1: Bifurcated stem at 2m above ground level. 2: Stubs and tears present from previous branch loss. 3: Mild symptoms of ash dieback. 4: Cavity noted to lateral branch approx 4.5 m above ground level. 5: Deadwood throughout canopy.	Remove infected lateral branch and monitor condition. High	3	2	Fair Fair	20-40 B1	10.68
T32	Mature **Sycamore** Acer pseudoplatanus	15	2	3	E	1000	7.5 7.5 7.5 7.5	1: Small diameter deadwood noted to lower canopy. 2: Restricted access prevented detailed inspection. 3: Doesn't appear to have been pruned to any extent. 4: Canopy low hanging with approx 1m clearance currently.	No action required. N/A	3	2	Good Good	40+ A1	12.00
T33	Mature **Sycamore** Acer pseudoplatanus	15	3	4	SW	850	4.6 4.6 4.6 4.6	1: Small diameter deadwood noted to lower canopy. 2: Stubs and tears present from previous branch loss. 3: Pruned in the past with wounds occluding.	No action required. N/A	3	2	Good Good	40+ A1	10.20
T34	Mature **Sycamore** Acer pseudoplatanus	14	3	0.5	E	900	8 8 8 8	1: Open growing tree with small ancillary structure adjacent. 2: Not pruned to any extent.	No action required. N/A	3	2	Good Good	40+ A1,2	10.80

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
T35	Semi-Mature **Ash** Fraxinus excelsior	8	2	1	NE	210	3 3 3 3	1: Symmetical crown. 2: Not pruned to any extent. 3: Probably natural colonisation. 4: Acceptable condition at present. 5: No visual indication of infection with ash dieback.	No action required. N/A	3	1	Good Fair	10-20 C1.2	2.52
T36	Semi-Mature **Goat Willow** Salix caprea	5	2	1.3	NE	240	4 3 4 4	1: Symmetrical crown. 2: Some animal damage exhibiting good closure. 3: Not pruned to any extent. 4: Canopy could be pruned back if required.	No action required. N/A	3	1	Good Fair	20-40 C1	2.88
G37	Early-Mature **Lawson Cypress** Chamaecyparis lawsoniana	av 8	0	0	N	av 350	av 3.5 3.5 3.5 3.5 each	1: Screening group of approx fifteen trees on top of steep embankment at edge of field. 2: Don't appear to have been pruned to any extent. 3: Dense group of two metre tall Japanese knotweed to the south. 4: In acceptable condition at present.	No action required. N/A	3	2	Good Good	40+ A2	4.20
G38	Early-Mature **Sycamore** Acer pseudoplatanus	av 10	av 1.7	1	W	av 430	av 5 4 5 4 each	1: Offsite planted linear group of eight trees located around the site boundary. 2: Two trees within group are dead. 3: No immediate requirement to remove due to low footfall area. Remove dead trees if site is developed. 4: Not pruned to any extent, located atop a 1 metre drystone wall which may restrict root growth/spread.	No action required. N/A	3	2	Good Good	40+ B1,2	5.16
G39	Early-Mature **Mixed** Species	av 15	av 3	1.5	W	av 530	av 3 5 6 3 each	1: Predominantly sycamore with occasional ash and lime. 2: Closely spaced linear group. 3: Not pruned to any extent although some animal damage. 4: Roots possibly contained by adjacent drystone wall. 5: One small moribund tree with severe animal damage.	No action required-remove moribund tree if site developed. N/A	3	3	Good Good	40+ A2	6.36

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
T40	Early-Mature **Sycamore** Acer pseudoplatanus	12	3	1.5	N	520	7 5 6 6	1: Offsite although canopy to south overhangs into site and could be pruned back if required. 2: Trifurcated stem. 3: Not pruned to any extent. 4: Slight included bark union of codominant stems with no signs of failure.	No action required. N/A	3	2	Good Good	40+ B1	6.24
H41	Semi-Mature **Leyland Cypress** x Cupressocyparis leylandii	av 8	1.5	0.5	N	270	4 1 1 4	1: Planted hedgerow, closely spaced providing potential screen. 2: Not pruned to any extent. 3: Occasional failed stems.	No action required. N/A	3	2	Good Fair	20-40 B2	3.24
G42	Early-Mature **Leyland Cypress** x Cupressocyparis leylandii	av 9	av 1	0.3	S	av 500	av 4 4 4 4.5 each	1: 3x trees originally planted as screen hedging and allowed to grow on. 2: Not pruned to any extent. Offsite group, canopies overhang into site to the south. 3: Several crossing/rubbing branches within congested crowns. 4: Acceptable condition at present.	No action required. N/A	3	2	Good Fair	20-40 B2	6.00
G43	Early-Mature **Mixed** Species	av 15	av 3	0.2	SE	av 610	av 6 7 5 6 each	1: Linear group of four planted trees consisting goat willow, ash and 2x horse chestnut. 2: All trees are offsite and have been pruned to remove low hanging lateral branches. Many stubs dying back especially on the willow although acceptable condition at present. 3: Trees are in a low occupancy area although the willow overhangs the	Monitor condition. Low	3	2	Good Fair	20-40 B2	7.32
T44	Mature **Elder** Sambucus nigra	5	1.5	0.3	SE	420	2 4 4 3	1: Codominant stems arising from ground level. 2: Pruned in the past to remove low hanging lateral branches. 3: Incremental growth has damaged adjacent dry stone wall. 4: Cavities and deadwood throughout crown.	Monitor condition. Moderate	1	2	Fair Fair	10-20 C1	5.04

Reference T= Tree G = Group H = Hedge W = Woodland	Age & Species	Height (m)	Crown Ht (m)	Lowest Branch Height (m)	Lowest Branch Direction	DBH (mm)	Crown Spread (m) N W E S	Notes	Recommendations Priority	Recommendations Inspect Freq (yrs)	Visual Amenity 1-Low 2-Moderate 3-High 4-Very High	Physiological Condition Structural Condition	Life Expectancy (yrs) Retention Category	RPA Radius (m)
T45	Semi-Mature **Willow** Salix sp	6	2.5	1	SW	200	4 3 3 4	1: Open growing tree. 2: Multiple stems arising from ground level. 3: Not pruned to any extent. 4: Several snapped/broken branches.	No action required. n/a	3	2	Good Fair	20-40 C1	2.40

Appendix 2 - Tree Data Schedule Definition of Terms

Tree Referencing:	**Individual Trees**	T (+number)
	Grouped Trees	G (+number)
	Hedgerows	H (+number)
	Woodlands	W(+number)
Age Category/Life Stage:	**Young**	Usually <15 years
	Semi-mature	Significant growth expected, approximately one third of life expectancy complete
	Early-Mature	Full height achieved with further significant growth possible, up to two thirds of life expectancy complete
	Mature	Full height has been achieved with possible spreading of the canopy, usually past two thirds of overall life expectancy
	Veteran	Usually a tree of significant age with characteristics that give additional cultural, landscape and conservation benefits,
	Over-mature	A tree declining due to age as indicated by deterioration in the health and condition of its crown and trunk.
Species:	**Botanical Name**	conforming to the International Code of Nomenclature for algae, fungi, and plants (ICN). For universal plant recognition.
	Common Name	commonly used names usually on a local and national scale.
Tree Height:	The vertical distance between the base of the tree (where soil and buttress meet) and the tip of the highest branch on the tree.	
Crown Height :	Measured from ground level to the height at which the main crown begins.	
Stem Diameter (DBH):	Stem diameter is measured at 1.5 m above ground level	
Lowest Branch Height & Orientation:	Height above ground level and direction of growth of the lowest lateral branch extending from the main tree stem.	
Crown Spread:	Measurements taken from all four cardinal points in metres.	
Notes:	Notes are made to inform of any possible defects, peculiarities or points of interest that may relate to the trees position, physiology, safety and possible effects on developments.	
Recommendations:	Recommendations are made in accordance with good Arboricultural practice. Recommendations are made regardless to the end usage of the site.	
Priority Scale:	Priority is given dependant on the perceived threat and the likelihood of failure given to a possible hazard. The priority of work is given regardless of the end usage of the site.	
	Urgent	To be carried out as soon as possible.
	Very High	To be carried out within 1 month.
	High	To be carried out within 3 months.
	Moderate	To be carried out within 1 year.
	Low	To be carried out within 3 years.
Physiological Condition:	**Good**	Usually healthy with no symptoms of poor health or disease.
	Fair	Exhibiting signs of poor health or minor disease infections that are not considered to be hazardous.
	Poor	Disease present in considerable quantities or with very poor physiological vigour.
	Very Poor	Tree is in a moribund state in extremely poor condition, usually with little chance of recovery.
Structural Condition:	**Good**	A tree with no significant structural defects.
	Fair	Minor defects may have been observed but are not considered to be immediately hazardous.
	Poor	Significant defects found. Tree requires monitoring or remedial works.
	Very Poor	Major defects that require immediate remedial work or the removal of the tree.
Visual Amenity:	General significance in the landscape (1 – Low, 2 – Moderate, 3 – High, 4 – Very high).	
Life Expectancy:	The estimated number of years before the tree may require removal should no unexpected mechanical or environmental impacts occur to the tree.	
Retention Category:	Please refer to Tree retention categorisation table on the next page.	

Appendix 3 – Tree Retention Categories

The following table provides an explanation of the BS 5837: 2012 Tree Retention Categories and Subcategories used during the survey and in the report.		
Trees to be Removed:		**Colour on Plan**
BS 5837: 2012 Category U Includes trees of very low quality that offer little or no amenity value.	Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	**RED**
Trees to be Considered for Retention:		
BS 5837: 2012 Retention Category A Trees of a high quality, with an estimated life of expectancy of at least 40 years	Trees that are excellent examples of their species, usually mature, especially if rare or unusual including veteran trees. Category A trees are likely to enhance a development and should be retained wherever possible.	**GREEN**
BS 5837: 2012 Retention Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that are good examples of their species. B category trees are usually mature or younger trees with the potential to reach A category in the future. Although the retention of these trees is desirable, some losses may be acceptable.	**BLUE**
BS 5837: 2012 Retention Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	**GREY**
BS 5837: 2012 Tree Retention Subcategories:		
BS 5837: 2012 Retention Subcategory 1	Trees possessing mainly Arboricultural qualities.	**n/a**
BS 5837: 2012 Retention Subcategory 2	Trees possessing mainly landscape qualities.	**n/a**
BS 5837: 2012 Retention Subcategory 3	Trees possessing mainly cultural values, including conservation.	**n/a**

NOTE 1: Trees may be assessed as belonging to more than one BS 5837: 2012 Tree Retention Subcategory depending on their perceived value and/or contribution, i.e., A1.2; B2.3 *etc.*
NOTE 2: Trees that are viewed as borderline and do not fit neatly into either of the categories are given a plus or minus rating (+/-) in the tree data schedule. Therefore, C+ would denote a tree being borderline C/B although C is deemed to be the most appropriate category. Similarly, B- would denote a tree being borderline B/C with B seen as the most appropriate category.

Appendix 4 - Site Plans

The site plans referred to in the report follow this page which include the following:

- Tree Constraints Plan
- Tree Removal Plan
- Tree Works Schedule
- Tree Protection Plan
- Tree Protection Inserts

Although included plans are usually to scale, they are only intended to indicate positions of surveyed trees and dimensions should not be taken from these drawings.

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

- Category A tree, group or hedge
- Category B tree, group or hedge
- Category C tree, group or hedge
- Category U tree, group or hedge
- Root protection area (RPA)
- High Peak Borough Council Tree Preservation (Land at Hogshaw, Fairfield, Buxton, Order 2023 No. 311)
- # Position estimated on site
- Site Redline Boundary

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
03	10/10/23	TREE PRESERVATION ORDER DETAIL ADDED	AB	AH
02	22/03/23	UPDATED LAYOUT	AH	AB
01	17/03/23	UPDATED REDLINE BOUNDARY	AH	AB

Client: BARRATT HOMES MANCHESTER	**Project:** HOGSHAW FARM, FAIRFIELD, BUXTON	**Drawn:** AH	**Checked:** RH	**Approved:** GK	**Date:** 26/01/23
Issue: PLANNING	**Title:** TREE CONSTRAINTS PLAN	**Dwg No:** UG_1795_ARB_TCP_01		**Scale @ A0:** 1:500	**Revision:** 03

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

BS 5837: 2012 Retention] Category A Tree, Group or Hedge

BS 5837: 2012 Retention Category B Tree, Group or Hedge

BS 5837 2012: Retention Category C Tree, Group or Hedge

BS 5837: 2012 Retention Category U Tree, Group or Hedge

Retained tree

Removed tree

Extents of pruning

\# Position estimated on site

Site Redline Boundary

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
06	08/07/24	UPDATED LAYOUT	HL	AB
05	12/03/24	UPDATED LAYOUT	HL	AB
04	13/02/24	UPDATED LAYOUT	HL	AH
03	05/04/23	UPDATED LAYOUT	AH	AB
02	22/03/23	UPDATED LAYOUT	AH	AB
01	17/03/23	UPDATED LAYOUT	AH	AB

Client: BARRATT HOMES MANCHESTER	**Project:** HOGSHAW FARM, FAIRFIELD, BUXTON	**Drawn:** AH	**Checked:** RH	**Approved:** GK	**Date:** 24/01/23
Issue: PLANNING	**Title:** TREE REMOVAL PLAN	**Dwg No:** UG_1795_ARB_TRP_01		**Scale @ A0:** 1:500	**Revision:** 05

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Tree Works Schedule

Tree/Group Ref Number	BS 5837:2012 Retention Category	Species	Works Required	Reason
G3	B	Ash	Fell the two northernmost trees in group to ground level and grind or grub out stumps.	To facilitate the development.
G4	B	Mixed broadleaf species	Reduce lateral extension by two metres and crown lift to obtain five metres ground clearance to northern canopy- see Tree Removal Plan.	
G6	C	Willow sp.	Fell to ground level, grind or grub out stumps and remove Himalayan balsam.	
T7	U	Goat willow	Inform landowner of condition and need for removal.	Arboricultural best practice.
G21	B	Mixed sp. (Silver birch, Wild cherry)	Fell to ground level and grind or grub out stumps.	To facilitate the development.
T22	B	Lime		
T24	B	Silver birch		
G26	U	Elder	Inform landowner of condition and need for removal.	Arboricultural best practice.
G27	B	Goat willow	Fell to ground level and grind or grub out stumps.	To facilitate the development.
G42	B	Leyland Cypress	Lightly prune southern side of canopy to facilitate construction of northern batter.	To facilitate the development.
G45	C	Willow Sp.		

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
03	12/03/24	UPDATED LAYOUT	HL	AB
02	16/02/24	UPDATED LAYOUT	HL	AH
01	17/03/23	UPDATED LAYOUT	AH	AB

URBAN GREEN

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
BARRATT HOMES MANCHESTER

Project:
HOGSHAW FARM, FAIRFIELD, BUXTON

Title:
TREE WORKS SCHEDULE

Issue: **PLANNING**

Drawn:	Checked:	Approved:
AH	RH	GK
Project:	**Scale @ A0:**	**Date:**
UG1795	N/A	24/01/23
Dwg No:		**Revision:**
UG_1795_ARB_TWS_01		03

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

- BS 5837: 2012 Retention Category A Tree, Group or Hedge
- BS 5837: 2012 Retention Category B Tree, Group or Hedge
- BS 5837: 2012 Retention Category C Tree, Group or H edge
- BS 5837: 2012 Retention Category U Tree, Group or Hedge
- Retained tree
- Root Protection Area (RPA)
- # Position estimated on site
- Redline Site Boundary
- Protective fencing (See Insert 1 & Insert 2)
- Cellular Confinement System
- Arboricultural Supervised Excavations
- RPA Unprotected

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
06	08/07/24	UPDATED LAYOUT	HL	AB
05	12/03/24	UPDATED LAYOUT	HL	AB
04	13/02/24	UPDATED LAYOUT	HL	AH
03	05/04/23	UPDATED LAYOUT	AH	AB
02	22/03/23	UPDATED LAYOUT	AH	AB
01	17/03/23	UPDATED LAYOUT	AH	AB

Client:	Project:	Drawn:	Checked:	Approved:	Date:
BARRATT HOMES MANCHESTER	HOGSHAW FARM, FAIRFIELD, BUXTON	AH	RH	GK	24/01/23

Issue:	Title:	Dwg No:	Scale @ A0:	Revision:
PLANNING	TREE PROTECTION PLAN	UG_1795_ARB_TPP_01	1:500	05

URBAN GREEN

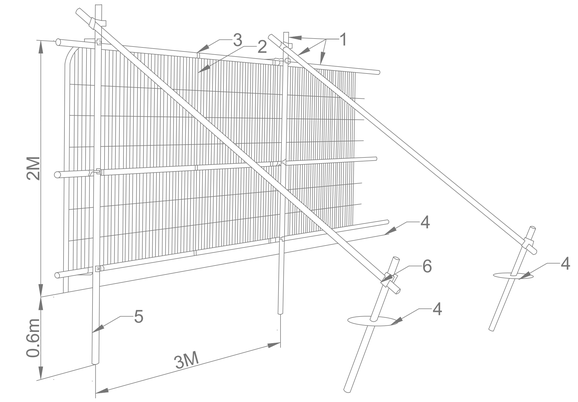
A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Insert 1: Tree protective fencing specification

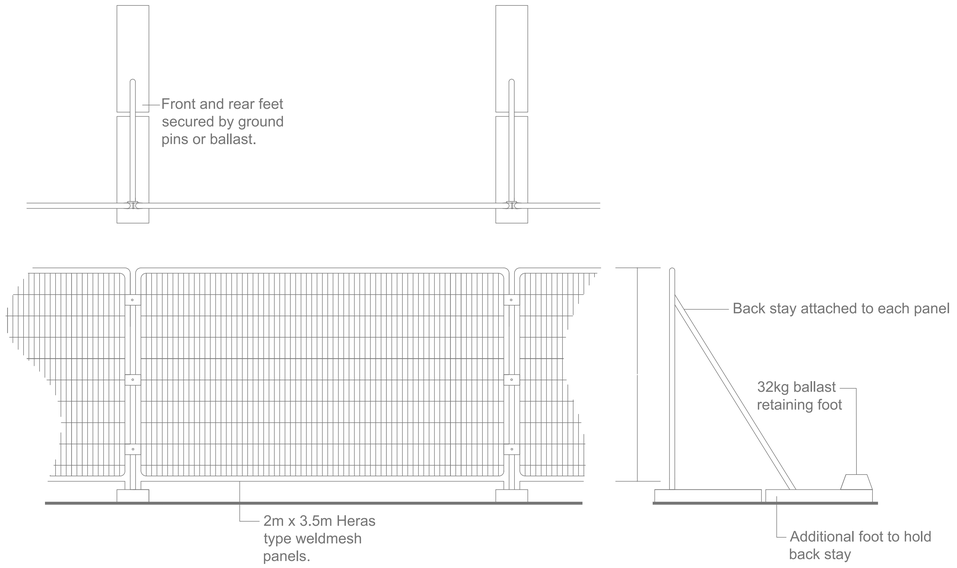
Default specification for protective barrier



Key

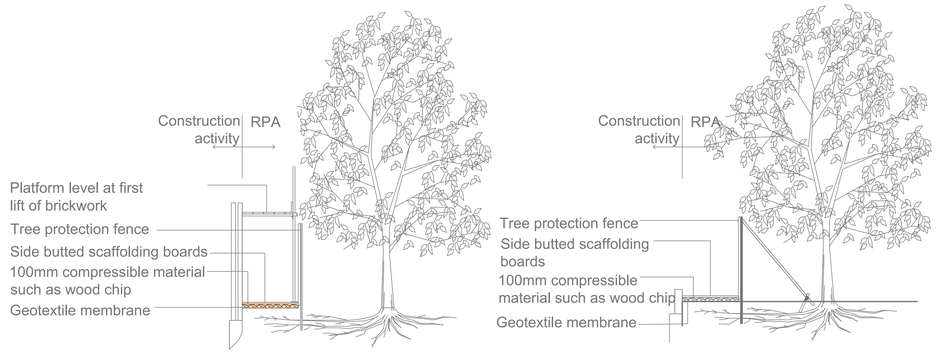
1 Standard scaffold poles
2 Heavy gauge 2m tall galvanised tube and welded mesh infill panels
3 Panels secured to upright and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground untill secure (minimum depth 0.6m)
6 Standard scaffold clamps

Back-stay support



Insert 2: Tree protection notice

Insert 3: Ground protection specification



Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

REV.	DATE	DESCRIPTION	DRAWN	CHK'D

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
BARRATT HOMES MANCHESTER

Project:
HOGSHAW FARM, FAIRFIELD, BUXTON

Title:
TREE PROTECTION INDEX

Issue:
PLANNING

Drawn:	Checked:	Approved:
AH	AB	AB
Project:	**Scale @ A0:**	**Date:**
UG1795	N/A	06/12/22
Dwg No:		**Revision:**
UG_1795_ARB_TPI_01		00

Arboricultural Method Statement (AMS)
Hogshaw Farm UG1795

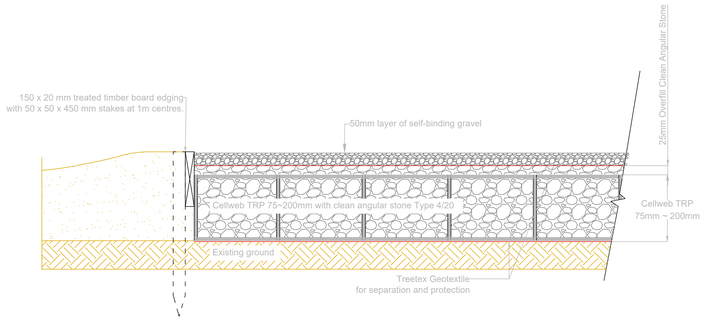
Construction work in close proximity to important trees, or with the Root Protection Area (RPA) of tree(s) due to be retained were identified within the Arboricultural Impact Assessment (AIA) ref UG_1795_ARB_AIA_REV_07_FINAL).

This AMS should be read in conjunction with the Tree Protection Plan, as it cross-references the Tree Protection Plan for each specific area of work.

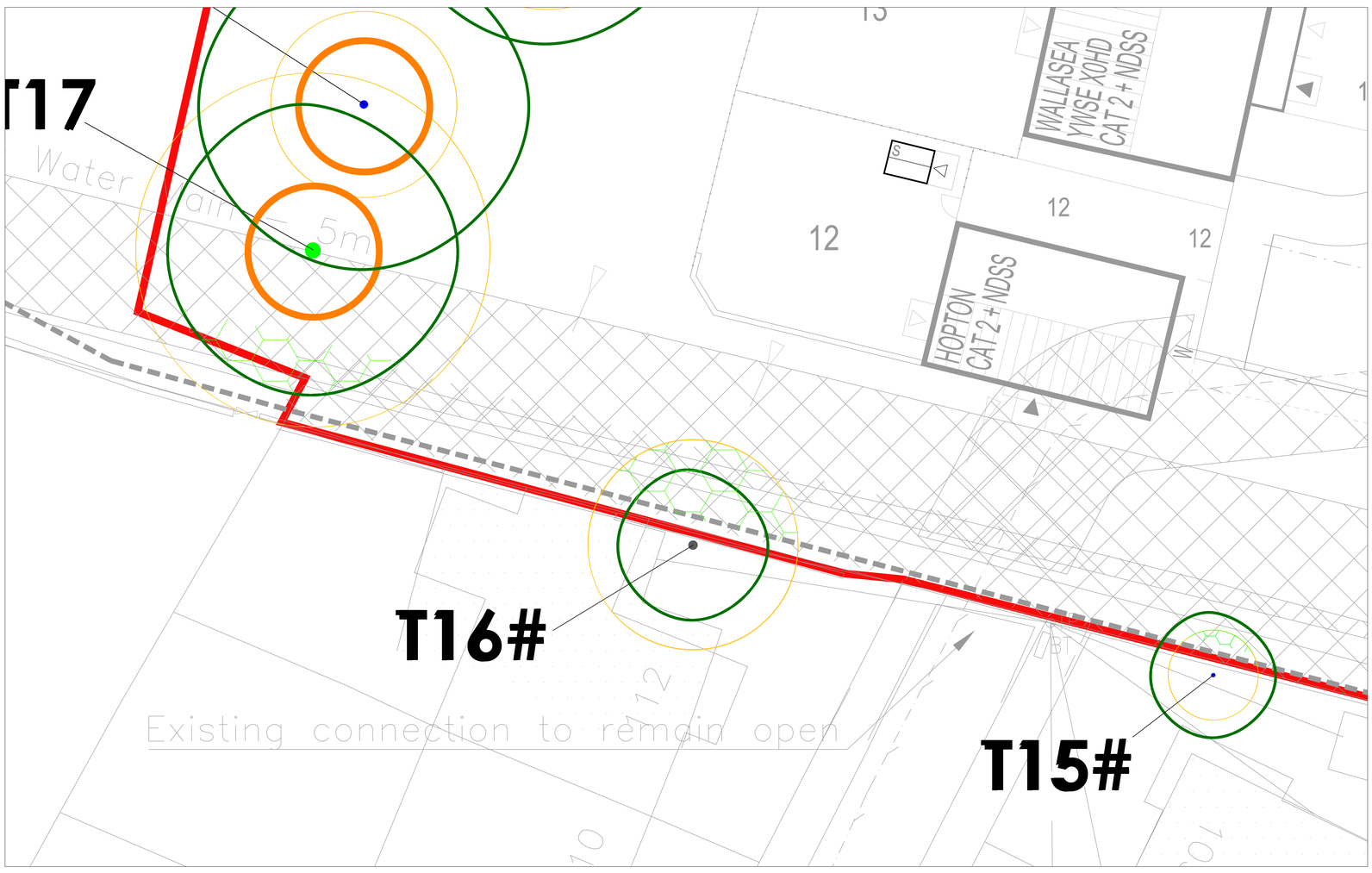
The AMS aims to provide general guidelines to onsite personnel that must be followed when working close to trees on Construction sites. All site personnel should have access to this document and be made aware of any sections that may be relevant to their specific area of work.

It is essential to adhere to the recommendations within this document during on-site operations to ensure the successful retention of trees as part of the proposed development. Compliance with the AMS will be a requirement of all relevant contracts associated with the proposed development.

Cellweb 75~200mm Self Binding Gravel Footpath Standard Detail



Note: Subbase could be required depending on the existing ground CBR % and the type of traffic on the surface.



Cellular Confinement System

The new surface must utilise a cellular confinement to avoid compaction and undue damage to the rooting environment.

The four general principles that will require strictly upholding when designing a no dig solution within the RPA are:

- Roots must not be severed.
- Ground Levels must not be changed.
- Soil structure must not be damaged by compaction.
- Oxygen and water must be able to diffuse into the soil below.

A cellular confinement system will ensure that no excavation is required. This will therefore lead to an increase in ground levels.

The sequence of events for the installation of the cellular confinement system will be as follows:

1.Remove the surface vegetation within the footprint of the roadway up to 50mm.

2.A 40mm layer of washed sharp sand containing no fines or salt will be spread across the footprint of the roadway filling any hollows. High points must not be compacted though rolling.

3.Appropriate kerbing/edging will be set above ground level. The cellular confinement system may be retained using pins that are driven into the ground and supported by treated timber edging.

4.A geotextile membrane will be laid over the footprint of the roadway with each section overlapping by a minimum of 300mm.

5.Open out and lay the specified layer thickness of cellular (to be confirmed by product manufacturer and engineer) and pin in place between the edging boards. It may be necessary to cut the cellular confinement system to size using a sharp knife or it can be left uncut and folded up against the edgings if preferred.

6.Ensure that the cells are fully expanded by inserting steel fixing pins at approximately 1-2m spacings (depending on specific engineering requirements). Avoid tree root damage during the pinning process.

7.The cells must be filled with clean, open graded angular aggregate, normally in the particle size range of 5mm - 45mm, not single sized or rounded aggregate. The project engineer may determine alternative fill materials.

8.Do not roll the surface, a light vibratory compaction plate (whacker) may be permitted to settle the stone into the cells. Do not contaminate the filled cells with site debris, soil or mud.

9.Install the permeable pavement layer/wearing course

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

- Category A tree, group or hedge
- Category B tree, group or hedge
- Category C tree, group or hedge
- Category U tree, group or hedge
- Retained tree
- Root Protection Area (RPA)
- # Position estimated on site
- Cellular Confinement System

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
06	09/07/24	UPDATED LAYOUT	HL	AH
05	12/03/24	UPDATED LAYOUT	HL	AB
04	13/02/24	UPDATED LAYOUT	HL	AH
03	05/04/23	UPDATED LAYOUT	AH	AB
02	22/03/23	UPDATED LAYOUT	AH	AB
01	17/03/23	UPDATED REDLINE BOUNDARY	AH	AB

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: BARRETT HOMES, MANCHESTER

Project: UG1795 HOGSHAW FARM

Title: ARBORICULTURAL METHOD STATEMENT

Issue: PLANNING

Drawn:	Checked:	Approved:
AB	RH	AB

Project:	Scale @ A0:	Date:
UG1795	NTS	05/03/24

Dwg No: UG_1795_ARB_AMS_01

Revision: 05

Arboricultural Method Statement (AMS)
Hogshaw Farm UG1795
Excavations and Root Pruning

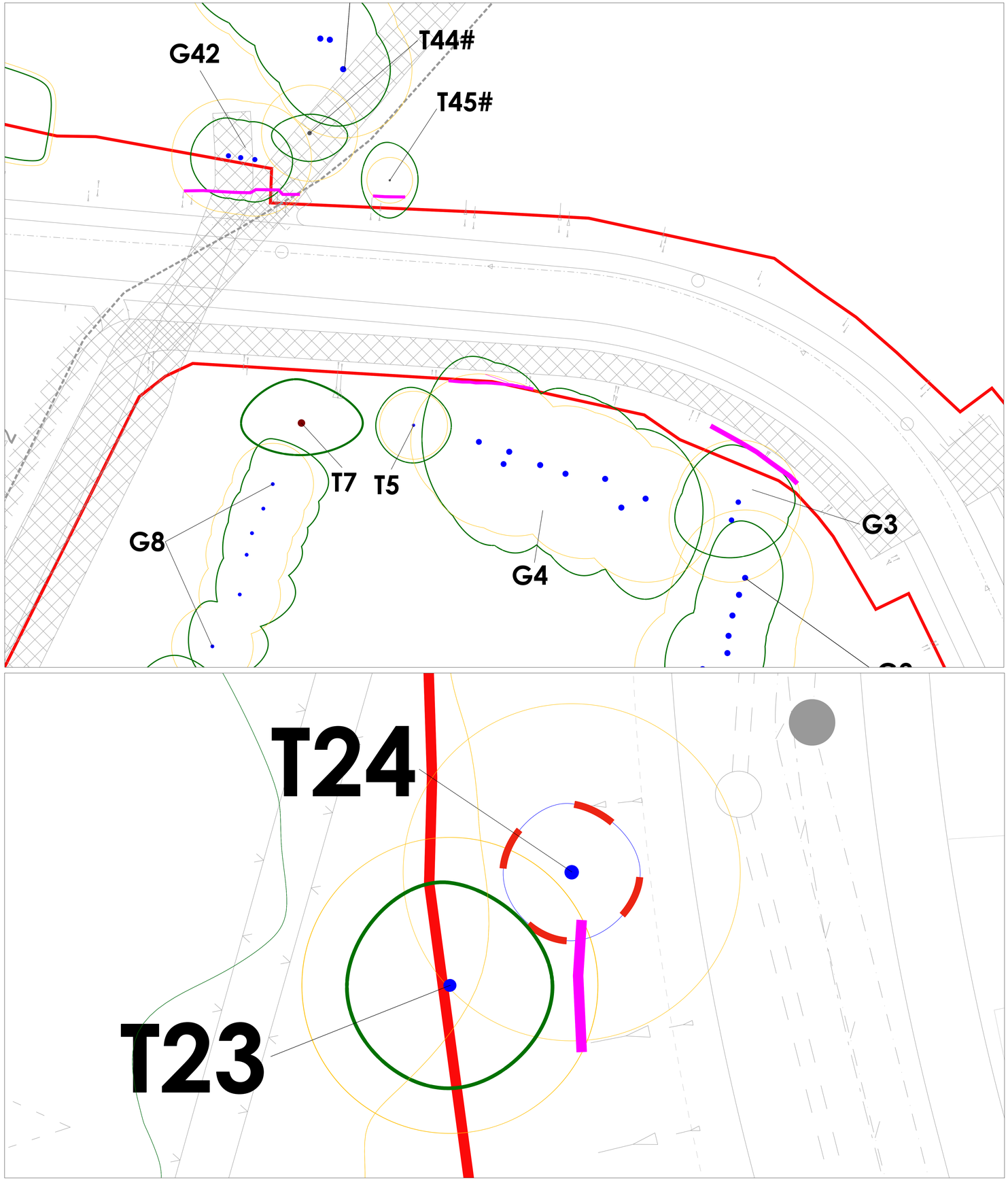
1. Any necessary excavation must be carried out using hand tools to avoid direct damage to the protective bark of tree roots. It may be possible in some instances to use specialised equipment such as high air pressure machinery to excavate the soil with minimal disturbance to roots.

2. Exposed roots will be wrapped in dry, clean Hessian sacking to prevent desiccation and to protect from rapid temperature changes. In warmer weather, the sacking should be kept moist by regular watering. Sacking should be removed before backfilling.

3. Roots less than 25mm diameter may be pruned back, preferably to a growing point. A sharp cutting tool such as bypass secateurs or a handsaw should be used to leave the smallest wound possible. Roots greater than 25mm in diameter should be retained wherever possible.

4. Root pruning should be carried out under the supervision of the Arboricultural Consultant to ensure that only roots necessary to facilitate the development will be removed and the long-term well-being of retained trees is maintained.

5. Backfilling of any excavation should be carried out by hand to avoid direct root damage by excessive compaction and should include, where possible, the replacement of inert granular material mixed with sharp sand (not builder's sand) around retained roots.



Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

- Category A tree, group or hedge
- Category B tree, group or hedge
- Category C tree, group or hedge
- Category U tree, group or hedge
- Retained tree
- Root Protection Area (RPA)
- # Position estimated on site
- Arboricultural Supervised Excervations

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
05	09/07/24	UPDATED LAYOUT	HL	AH
04	12/03/24	UPDATED LAYOUT	HL	AB
03	14/02/24	UPDATED LAYOUT	HL	AH
02	22/03/23	UPDATED LAYOUT	AH	AB
01	17/03/23	UPDATED REDLINE BOUNDARY	AH	AB

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: BARRETT HOMES, MANCHESTER

Project: UG1795 HOGSHAW FARM

Title: ARBORICULTURAL METHOD STATEMENT

Issue: PLANNING

Drawn:	Checked:	Approved:
AB	RH	AB
Project:	**Scale @ A0:**	**Date:**
UG1795	N/A	24/01/23
Dwg No:		**Revision:**
UG_1795_ARB_AMS_02		04

Arboricultural Monitoring Schedule

Task	Description	Person Responsible	Date	Signed
Work Schedule	Agree timeline of construction works, including key arboricultural works.	Site manager / Arboricultural Consultant/ HPBC Tree Officer		
Inspection of tree works	Ensure that all tree works have been completed in accordance with the schedule and in accordance with BS 3998: 2010.	HPBC Tree Officer and/or Arboricultural Consultant		
Inspection of protective fencing	Inspection of protective fencing prior to any construction works beginning on site to ensure that it is installed in accordance with the Tree Protection Plan.	Arboricultural consultant		
Arboricultural supervised excavation	Supervision of excavation within root protection areas to facilitate construction of highway batters, with root pruning if required.	Arboricultural consultant		
Inspection of protective fencing	Ad hoc inspection of protective fencing to ensure continued tree protection during construction.	Arboricultural consultant		
Installation of cellular confinement system	Supervision of installation of cellular confinement system to ensure it is installed in accordance with the suppliers specification.	Supplier / Arboricultural consultant		

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
05	09/07/24	UPDATED LAYOUT	HL	AH
04	16/02/24	UPDATED LAYOUT	HL	AH
03	05/04/23	UPDATED LAYOUT	AH	AB
02	22/03/23	UPDATED LAYOUT	AH	AB
01	17/03/23	UPDATED REDLINE BOUNDARY	AH	AB

URBAN GREEN

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
BARRETT HOMES, MANCHESTER

Project:
HOGSHAW FARM

Title:
ARBORICULTURAL METHOD STATEMENT - SIGN OFF

Issue:
PLANNING

Drawn:	Checked:	Approved:
AB	RH	AB
Project:	**Scale @ A0:**	**Date:**
UG1795	N/A	24/01/23
Dwg No:		**Revision:**
UG_1795_ARB_AMS_04		04

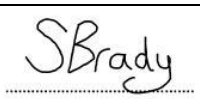
BIODIVERSITY NET GAIN DESIGN STAGE ASSESSMENT

JULY 2024

Hogshaw Farm,
Fairfield,
Buxton,
SK17 7HN

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1795				
Project:	Hogshaw Farm				
Location:	Fairfield, Buxton, SK17 7HN				
Title:	Biodiversity Net Gain Design Stage Assessment				
Document Type:	BNG	**Issue No.:**	01		
Date:	27/01/2023				
Prepared By:	Sarah Child	**Signature:**		**Qualifications:**	Biodiversity Net Gain Consultant
Checked By:	Shannon Brady	**Signature:**		**Qualifications:**	Biodiversity Net Gain Consultant

Revision Status:

Rev:	Date:	Issue/Purpose/ Comment:	Prepared:	Checked:
02	21/03/2023	Updates to habitat classifications	SC	SB
03	06/04/2023	Updated to reflect changes to landscape plans	SC	SB
04	29/02/2024	Updated to reflect consultee comments and amended landscape plans	SC	SB
05	19/07/2024	Updates to reflect changes to landscape plans	SC	TM

NON-TECHNICAL EXECUTIVE SUMMARY

Barratt Homes are proposing to develop land at Hogshaw Farm in Fairfield, Buxton (hereafter referred to as 'the site'). The proposals include the development of the site into a residential estate with associated hard and soft landscaping.

Urban Green have been appointed to complete a Biodiversity Net Gain Design Stage Assessment in order to assess the change in value to the environment provided by the proposed development.

The Assessment was conducted using the Biodiversity Metric 3.1 to calculate the pre-and post-development biodiversity habitat units of the site for the proposed development. The results of this calculation are summarised in the following table:

		Habitat Unit Change					Net change in Biodiversity	
	On-site baseline	Retained	Lost	Enhanced	Created	On-site post development	Habitat units	%
Area Habitat Units	12.71	-	-12.71	-	+23.73	23.73	+11.03	**+86.76**
Linear Hedgerow Units	0.91	0.91	-	-	+0.18	1.09	+0.18	**+19.85**
Linear River Units	0.51	0.51	-	-	-	0.51	0	**0**

Overall, the current landscape proposals for the development of the site produce an 86.76% net gain in area habitat units, a 19.85% net gain in linear hedgerow units, and no net change in river units. Overall, it demonstrates that the post-development habitats on site will provide more ecological benefit to wildlife than the habitats currently found on site and the development is in line with the relevant National Planning Policy Framework and Local Planning Policies. The proposed development also satisfies the trading rules.

To ensure habitats are maintained at the expected condition, a 30-year management plan should be implemented post-development (Urban Green, 2024a).

CONTENTS

1 Introduction 1

1.1 Background to the Scheme 1

1.2 Site Context 1

1.3 Purpose of this Report 2

1.4 Planning Context 2

1.5 Hogshaw Railway Local Wildlife Site (LWS) 3

1.6 Good Practice Principles 4

2 Previous Surveys 5

2.1 Preliminary Ecological Appraisal (PEA) 5

3 Methods 8

3.1 Sources of Information 8

3.2 Site Mapping 9

3.3 The Biodiversity Metric 3.1 9

3.4 Habitat Scoring 10

3.5 MoRPH River Survey 12

3.6 Constraints to the Survey 13

4 Baseline Habitat Assessment 14

4.1 Area Habitats 14

4.2 Linear Hedgerow Habitats 20

4.3 Linear River Habitats 25

5 Retained Habitats 27

5.1 Linear Hedgerow Habitats 27

5.2 Linear River Habitats 27

6 Lost Habitats 28

6.1 Area Habitats 28

7 Pre-Development Unit Summary 29

8 Habitat Creation 30

8.1 Area Habitats 30

8.2 Linear Hedgerow Habitats 38
9 Post-Development Summary and Conclusion 39
10 References 40
APPENDIX 1 – PRE-DEVELOPMENT HABITAT MAP 41
APPENDIX 2 – PRIMARY AND SECONDARY CODES 42
APPENDIX 3 – PROPOSED LANDSCAPE PLAN 43

1 Introduction

1.1 Background to the Scheme

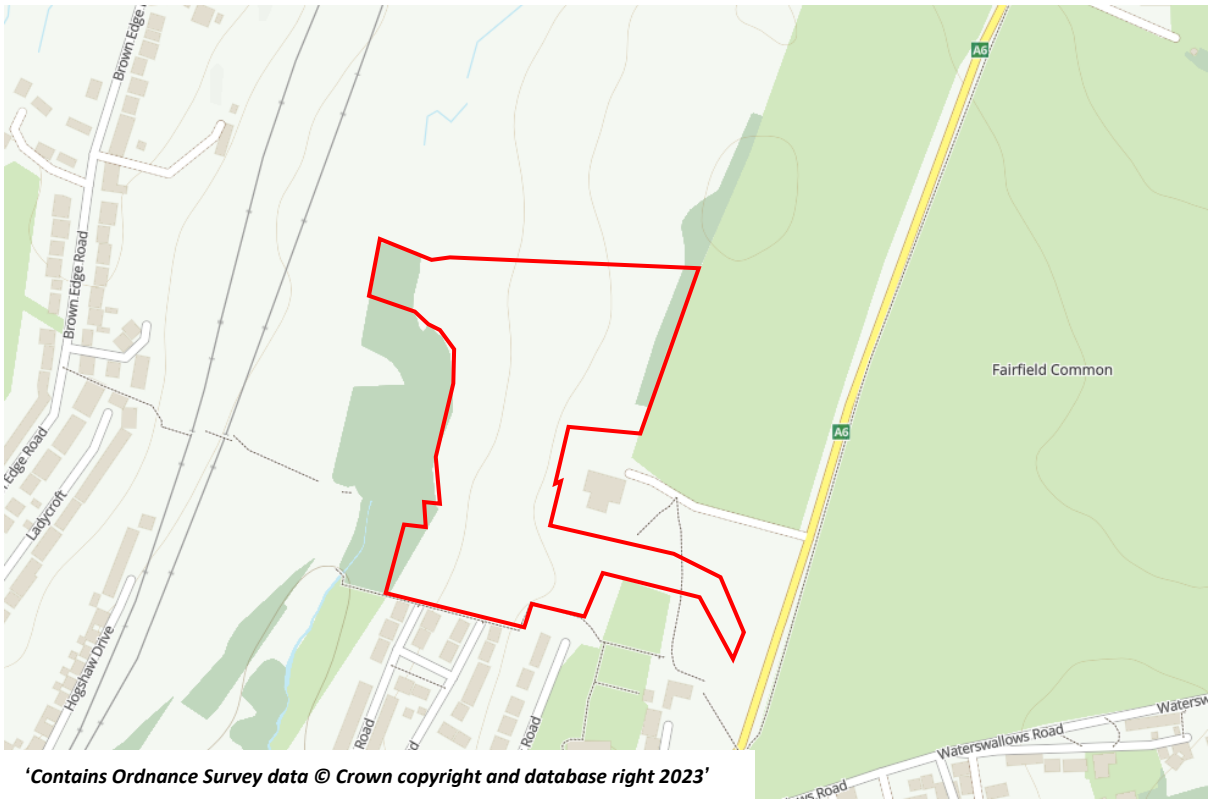
Barratt Homes are proposing to develop land at Hogshaw Farm in Fairfield, Buxton (hereafter referred to as 'the site'). The proposals include the construction of approximately 116 residential units with associated hard and soft landscaping.

Urban Green have been appointed to complete a Biodiversity Net Gain Design Stage Assessment in order to assess the change in value to the environment provided by the proposed development.

The author of the report is Biodiversity Net Gain Consultant, Sarah Child. Sarah has experience providing consulting services in Biodiversity Net Gain for a range of development schemes, both residential and commercial, across the UK.

1.2 Site Context

The site is located at National Grid Reference SK 06584 74409 and comprises a total area of approximately 5.6ha (see Figure 1).



'Contains Ordnance Survey data © Crown copyright and database right 2023'

Figure 1 – Site Extent

The site is located in the rural-urban fringe of Buxton, approximately 1.5km north-east of the town centre. The A6 lies approximately 50m east of the site, with Nun Brook approximately 20m west of the site. Residential housing lies immediately south of the site, with areas of recreational green space to the east and west and agricultural land to the north. An industrial unit is present along the central aspect of the eastern boundary of the site.

1.3 Purpose of this Report

This report has been produced to document the methods, results and conclusions of a BNG Design Stage Assessment that was undertaken on site. The advice herein is based on both desk and field-based studies and intends to fulfil the following purposes:

- Ensure the core principles of Biodiversity Net Gain including the mitigation hierarchy are applied;
- Identify the baseline habitats present on site (pre-development), assess the condition and provide an indication of the ecological value of those habitats;
- Identify the post-development habitats present on site, assess the possible target condition and provide an indication of the likely importance of those habitats;
- Calculate the overall change in biodiversity score from pre- to post-development habitats (measured as habitat units).

1.4 Planning Context

BNG means leaving biodiversity in a better state than it was before. As part of the Government's 25 Year Environment Plan, this requirement is being introduced and mandated for all developments. National planning policy and several Local Plans already require developments to deliver BNG.

Currently the National Planning Policy Framework (NPPF, 2021) details:

Paragraph 174 of the NPPF states:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

The High Peak Borough Local Plan was adopted in 2016. Biodiversity Net Gain is not directly mentioned within the documents, however, there are references to biodiversity and conservation throughout and discussed more specifically the local plan under Policy S1:

- Minimising the risk of damage to areas of importance for nature conservation and/or landscape value, both directly and indirectly and ensuring that there is suitable mitigation for a net gain in biodiversity and the creation of ecological networks.

Policy EQ 5 (Biodiversity) also discusses the following:

The biodiversity and geological resources of the Plan Area and its surroundings will be conserved and where possible enhanced by ensuring that development proposals will not result in significant harm to biodiversity or geodiversity interests.

- Conserving and enhancing regionally and locally designated sites. On these sites the Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests, unless it can be demonstrated that:
    - there is no appropriate alternative site available; and

- all statutory and regulatory requirements relating to any such proposal have been satisfied; and
- appropriate conservation and mitigation measures are provided, such mitigation measures should ensure as a minimum no net loss and wherever possible net gain for biodiversity;
- or if it is demonstrated that this is not possible;
- the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented

1.5 Hogshaw Railway Local Wildlife Site (LWS)

The Hogshaw Railway Local Wildlife Site is a 7-hectare non-statutory designated site along a railway line comprising semi-natural grassland and open mosaic habitat, some of which is within the red line boundary of the site. While Local Wildlife Sites have no direct legal protection, they should receive protection through the planning system.

The High Peak Borough Council states in Policy DS 10:

- Development will be subject to compliance with other relevant Local Plan policies, and;
- Woodland corridors within the site which provide linking habitats to the adjacent Local Wildlife Site should also be retained.

The targets for a number of policies, including Policy EQ5 Biodiversity, states:

- To maintain and enhance the quantity and quality of Sites of Special Scientific Interest, Sites of Importance for Nature Conservation and local wildlife sites.

The site includes an area of semi-natural grassland and broadleaved woodland which is part of the Local Wildlife Site (Figure 2).

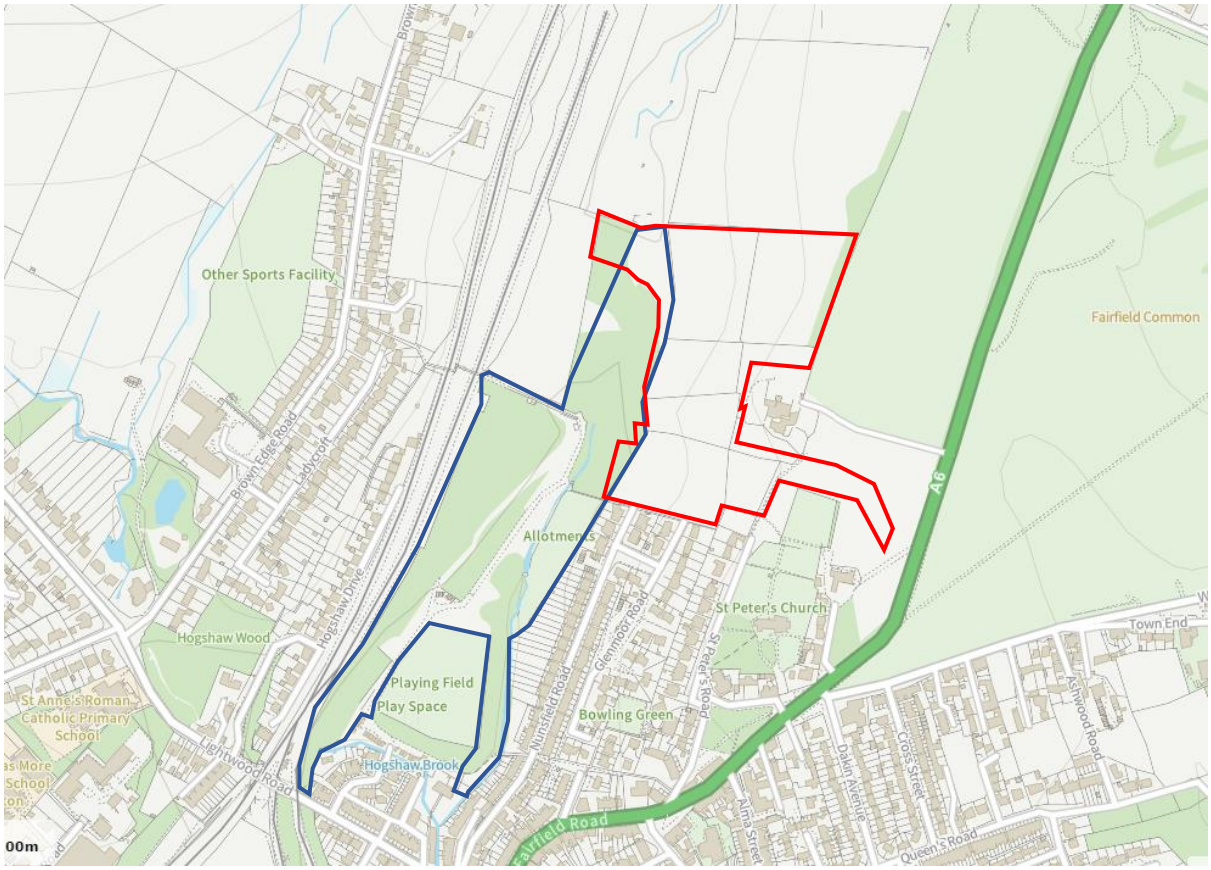


Figure 2 – Site boundary (red polygon) and the Railway Land Hogshaw Local Wildlife Site (LWS) (blue polygon) (Derbyshire Biological Records Centre, 2022)

1.6 Good Practice Principles

To ensure holistic development that makes a lasting positive change to the site's biodiversity, the Good Practice Principles as detailed in Biodiversity Net Gain: Good Practice Principles for Development (Baker *et al.*, 2019) must be followed. Key principles include:

- Following the 'Mitigation Hierarchy':
    - Avoid impacts on biodiversity
    - Minimise impacts on biodiversity
    - Compensate for biodiversity losses on site
    - Compensate for biodiversity loss off site
- Avoid irreplaceable habitats and losing biodiversity that cannot be offset elsewhere;
- Address risks including difficulty and time of habitat creation and enhancement;
- Make a measurable net gain contribution calculated with a suitable metric with limitation and assumptions clearly identified;
- Achieve the best outcome for biodiversity creating lasting long-term benefits that exceed current expectations;

2 Previous Surveys

2.1 Preliminary Ecological Appraisal (PEA)

A preliminary ecological appraisal (PEA) was conducted on the site in October 2022 by Urban Green. This constituted a desk-based study and a field survey. Key information obtained is summarised in Tables 1 and 2; full details can be found within the PEA (Urban Green, 2023). Due to the size and low impact of the proposed development, a 1km Local Data Search was conducted as it is deemed an appropriate distance for the Zone of Influence.

Table 1 – Designated Sites within the Search Areas

Designated Site	Approx. Distance from Site	Details
Statutory designated sites		
Peak District Dales Special Area of Conservation (SAC)	1.3km south-east	A large site with various features that contribute to its designation. Important habitats include Semi-natural dry grasslands and scrubland facies on calcareous substrates (Important orchid sites), Tilio-Acerion forests of slopes, screes and ravines (Priority feature). White-clawed crayfish are present and are also a primary reason for the designation.
South Pennine Moors SAC / Peak District Moors Special Protection Area (SPA)	2.6km west	A large site with a number of important habitats, including European dry heaths, Blanket bogs, Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles.
Non-statutory designated sites		
Railway Land Hogshaw Local Wildlife Site (LWS)	Onsite	A site of 7 hectares comprising a mosaic of habitats along a railway line.

The site also falls within the Impact Risk Zone of the following Statutory Sites, based on consultation with MAGIC:

- Waterswallows Quarry SSSI – Located 1.4km east of the site.
- The Wye Valley SSSI – Located 1.3km south-east of the site.
- Topley Pike and Deep Dale SSSI – Located 3.4km south-east of the site.
- Poole's Cavern and Grin Low Wood SSSI – Located 2.2km south of the site.
- Goyt Valley SSSI – Located 2.6km west of the site.
- Leek Moors SSSI – Located 3.9km south-west of the site.

Table 2 – Summary of the PEA (2023b)

Flora/Fauna	Results
Vascular plants	7 records of notable vascular plant species were returned, which are of local and national importance, including marsh cinquefoil (*Potentilla palustris*), wall whitlow grass (*Draba muralis*), and spring cinquefoil (*Potentilla tabernaemontani*). However, the site holds limited potential for vascular plants and no rare or notable plants were present on site.
Invertebrates	One record of notable invertebrate was received within the data search comprising small heath (*Coenonympha pamphilus*). Suitable habitat for invertebrate species on the site is limited and notable invertebrates are not considered present.
White-clawed crayfish (*Austropotamobius pallipes*)	There were no previous records of white-clawed crayfish returned in the desk search. The presence of Nun Brook on site may provide suitable habitat for white-clawed crayfish. White-clawed crayfish may be present.
Amphibians	Three records of great crested newt (GCN) (*Triturus cristatus*) were returned, with the closest record located approximately 600m south from 2018. GCN are a European Protected Species (EPS) protected through The Conservation of Habitats and Species Regulations (2017), the Wildlife and Countryside Act (1981), Section 41 of the NERC Act (2006) and are a Lancashire BAP species for Derbyshire. No ponds were present on site though there was one pond within 250 m, though this has a below average suitability score for GCN. GCN were not considered present on the site. No other records of amphibians were returned within the data search. The mosaic of grassland, woodland and scrub habitats, and the presence of Nun Brook on site may provide suitable conditions for other common amphibians.
Reptiles	There were no records of reptiles on the site. The majority of habitats on site lack the quality and structure required to support reptiles, however, the woodland and brook may provide suitable habitat for shelter, commuting and foraging.
Birds	A total of 11 records of protected or notable birds were returned within 1km of the site. Of these records, all are listed on either the amber or red lists of Birds of Conservation Concern 2021. The majority are on Section 41 of the NERC Act 2006 and are listed on the Lancashire BAP. The site has limited potential to support ground nesting and wintering birds. Passerine bird species are more likely to use the site, specifically the woodland and scrub. The site provides suitable foraging habitat for birds of prey and nesting potential for barn owls.
Badger (*Meles meles*)	Six records of badger within 1km of the site were returned in the data search, although the most recent record was from 2013. Badgers are protected the Protection of Badgers Act 1992 and are listed on the Lancashire BAP. No evidence of badger was found, however the site contains suitable habitats for foraging and sett creation. Badgers may be present on site.
Bats	Twenty-four records of bat roosts were returned during the data search relating to three confirmed bat species; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and noctule (*Nyctalus noctula*), and three unconfirmed species. Two records were related to bat roosts, the closest being approximately 500m south of the site in 1999. All species of bat are EPS protected through The Conservation of Habitats and Species Regulations (2017), the Wildlife and Countryside Act (1981), and soprano pipistrelle and noctule are also listed on Section 41 of the NERC Act (2006) and the Lancashire BAP. There were structures and trees on site which could support roosting bats and the site was considered to have moderate value for foraging and commuting bats.

Flora/Fauna	Results
Hedgehog (*Erinaceus europaeus*)	The data search returned four records of hedgehog within 1km of the site. The broadleaved woodland and scrub and will provide suitable cover and foraging habitats, as well as provide connectivity to habitats of higher value to this species. Hedgehogs are potentially present.
Brown hare (*Lepus europaeus*)	One record of brown hare was returned within the data search located approximately 160m east of the site from 2016. Brown hare are protected through the WCA (1981) and Section 41 of the NERC Act (2006) and the Lancashire BAP. The presence of grassland and woodland edges provide suitable habitat for brown hare, though was no field evidence of their presence.
Water vole (*Arvicola amphibius*)	One record of water vole was returned within the data search located approximately 800m south of the site from 2013. Water vole are protected through the WCA (1981) and on the Lancashire BAP. The section of the brook on the site is considered unsuitable for water vole, and there was no field evidence of the species. Water vole are not considered present.
Fish	Three records of brown trout (*Salmo trutta*) were returned within the data search, all located approximately 750m south of the site with the most recent from 2015. Brown trout are listed on Section 41 of the NERC Act (2006) and the Lancashire BAP. The watercourse on site (Nun Brook) was not considered suitable for fish.
Invasive species	The data search returned records of 31 invasive, non-native plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) within 1km of the site. Species were Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), and Canadian waterweed (*Elodea canadensis*). Himalayan balsam and Japanese knotweed were observed on site during the field survey.

3 Methods

3.1 Sources of Information

Table 3 – Desk Study Sources of Information

Source	Date Consulted	Information Sought
MAGIC website (www.magic.gov.uk)	30/09/2022	Locations of statutory designated sites within 1km of the site boundary. Locations of the designated sites within the National Site Network (Ramsar, SAC and SPA) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites/.naturalengland.org.uk/)	30/09/2022	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/	30/09/2022	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
Derbyshire Biological Records Centre (DerBRC)	03/10/2022	Locally designated wildlife sites within 1km of site boundary. Records of protected and notable species within 1km of the site boundary.
Derbyshire Local Biodiversity Action Plans	03/10/2022	Species and habitats which are given special conservation status at the local level.
Main River Map (Environment Agency)	03/10/2022	The main river map shows which rivers in England are designated as 'main rivers'. Other rivers are called 'ordinary watercourses'.
Preliminary Ecological Appraisal (Urban Green, 2023)	17/10/2022	Notable species, habitats and designations identified on site and within a 1km radius.

Source	Date Consulted	Information Sought
The Biodiversity Metric 3.1 *Natural England Publications (http://nepubprod.appspot.com/publication/6049804846366720)*	19/07/2024	The Biodiversity Metric 3.1, including the tool itself, user guides and reference documentation associated with the tool.

3.2 Site Mapping

3.2.1 Existing Habitat (Baseline)

The site was subject to a field survey on the 5th of October 2022, by Jake Healy, Ecologist, and Shannon Brady, Biodiversity Net Gain Consultant. The weather conditions were 15°c, overcast (8/8 oktas), with a wind speed of 2 on the Beaufort scale and consistent rain throughout.

Habitat types were identified and recorded using the Coreo habitat mapping application (version V3.1) which utilises UKHab classifications (Butcher *et al.* 2020). Habitat types were based on the UKHab guidance provided and the assessor's best judgment while using these guidelines. These habitats were subsequently mapped using ESRI ArcGIS Pro software, and habitat areas and lengths were calculated to demonstrate habitats within the proposed development and the surrounding area. The baseline habitat map is displayed in Appendix 1. Secondary codes were also used to provide additional information which is not covered by the primary code allocated to the habitat; a full list of primary and secondary codes used within this assessment can be found in Appendix 2.

Plant species were identified and recorded and species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and those which are indicators of important and/or uncommon habitats, were searched for during the survey. Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the *Wildlife and Countryside Act 1981* were also searched for during the field survey.

3.2.2 Post-Development Habitats

The planning layout as provided by Urban Green (2024b) (see Appendix 3) was provided in PDF and DWG format and used to categorise the proposed habitats and calculate the associated areas and lengths.

3.3 The Biodiversity Metric 3.1

The BNG calculation was undertaken utilising The Biodiversity Metric 3.1 from Natural England (full calculation available Urban Green, 2024c) using data obtained from the field survey.

The calculation was performed by a technically competent and experienced person as detailed in British Standard BS8683 - Suitably qualified person –definition in BS8683:2020.

The Biodiversity Metric 3.1 uses habitat features as a proxy measure for capturing the value and importance of nature. The metric considers the size, ecological condition, location and proximity to nearby 'connecting' features. The metric enables assessments to be made of the present and forecast future biodiversity value of a site.

3.4 Habitat Scoring

The Biodiversity Metric 3.1 supplies reference documents and user guides to accurately evaluate and assess the different habitats on site. The methodology for the baseline and post development calculations are demonstrated in the following sections.

3.4.1 Minimum Mapping Units (MMU)

The UKHab classification system can be applied at various levels – fine scale, suitable for smaller sites, and large scale, used for broader landscapes. The fine scale level, which acknowledges areas of minimum 25m^2 and lengths of 5m, is considered appropriate for this site.

3.4.2 Baseline Units

To assess the quality of a habitat, and therefore calculate the units scored, the Biodiversity Metric 3.1 utilises three scoring factors detailed as follows:

Condition

The condition of a habitat is assessed utilising the Condition Sheets provided for each habitat type. These list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition. These condition sheets can be found in Biodiversity Metric 3.1 Technical Supplement Part 1a (Natural England, 2022). Condition sheets used within this assessment for pre- and post-development habitats are **Grassland (Low), Grassland (Medium, High, Very High), Scrub, Woodland and forest, Pond, Urban, Hedgerows, Line of trees and Other rivers and streams (MoRPh assessment)** (Table 4).

Nun Brook, which is categorised as 'other rivers and streams', was assessed using the MoRPH River Survey method (Section 3.5).

Table 4 – Conditions Sheets for Habitat Assessment

Condition Sheet	Habitats Assessed
Area Habitats	
Grassland (Medium, High, Very High)	Other neutral grassland
Grassland (Low)	Modified grassland
Pond	Pond (Non-Priority)
Scrub	Mixed Scrub
Woodland and forest	Other woodland; broadleaved
Pond	Ponds (Non-priority habitat)
Urban Tree	Urban trees
Linear Habitats	

Condition Sheet	Habitats Assessed
Line of trees	Line of trees
MoRPh River Survey	Other rivers and streams

Distinctiveness

The distinctiveness of each habitat is automatically assigned by the tool, based upon national records of the occurrence and rarity of each habitat. Table 5 provides the basis of the distinctiveness assessment for area habitats.

Table 5 – Distinctiveness Assessment

Distinctiveness Categories		
Category	**Scores**	**Description**
Very High	8	Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act that are highly threatened, internationally scarce and require conservation action e.g. blanket bog.
High	6	Priority habitats as defined in Section 41 of the NERC Act requiring conservation action e.g. lowland fens.
Medium	4	Semi-natural habitats not classed as a Priority Habitat.
Low	2	Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub.
Very Low	0	Little or no biodiversity value e.g. hard standing or sealed surface.

Strategic Significance

The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are in preferred locations for biodiversity and other environmental objectives. Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such Nature Recovery Areas, local biodiversity plans, National Character Area 14 objectives and green infrastructure strategies (see Table 6).

The Railway Land Hogshaw Local Wildlife Site (LWS) is considered High Strategic Significance as it is a non-statutory designated site.

Table 6 – Strategic Significance Assessment

Strategic Significance Categories	
Category	**Score**
High strategic significance High potential & within area formally identified in local policy	1.15
Medium strategic significance Good potential but not in area defined in local policy	1.1

Strategic Significance Categories	
Category	**Score**
Low Strategic Significance Low potential and not in area defined in local policy	1

3.4.3 Post-Development

Post-development habitats are subject to the same condition assessments as baseline habitats, based on information provided by the proposed landscape layout and planting proposals (Appendix 3). Two additional factors are considered within post-development landscapes which are detailed below.

Temporal Multiplier

For post development habitat creation or enhancement, a risk multiplier will be automatically applied by the tool to account for the period of diminished ecological value while the habitat reaches the targeted post development condition. This time and therefore risk multiplier differs between habitat types, if the habitat is being created or enhanced and how the habitat is to be managed. The predetermined multiplier is based on the average time to meet targeted condition assuming good practice principles and appropriate management strategies are applied.

Difficulty Multipliers

A risk multiplier will be automatically applied by the tool to account the 'difficulty' of habitat-specific enhancement or creation. There are two separate difficulty multipliers assigned to each habitat, one for creation and one for enhancement/restoration, recognising that the technical challenges will not necessarily be the same for both.

3.5 MoRPH River Survey

Condition of the linear river habitat present on site was assessed by a Modular River Physical Survey (MoRPh Survey) undertaken by a certified ecologist. Assessment of linear river habitats condition is based on the extent and diversity of a number of physical features within in both the river channel and riparian as well as the extent and type of any human modifications. This assessment is implemented in two parts:

- A field based sub-reach scale assessment that captures channel dimensions, physical features / habitats, vegetation structural features, and human interventions to assess the condition of the river at the development site, taking into account the type of river.
- A desk-based reach-scale assessment to define river type of the homogenous reach of the river to be affected by development.

The field element of the assessment included five MoRPh field surveys conducted on contiguous lengths (modules) of river. Each MoRPh module covers a river length that is approximately twice the river width (10m). These five contiguous modules covered a sub reach of the river 50m in length. Due to the small length of the river present within the redline boundary, (approximately 61m) it was not necessary to survey more than one subreach to assess the condition of the river. The subreach sampled extended outside of the red line boundary as, due to a portion of the stream being culverted, there was an

insufficient length within the boundary to produce a condition score via the MoRPh survey method. Despite this, the allocated condition score is still considered to be accurate as the physical and hydrological characteristics of the stream outside of the site boundary remained consistent with the habitat within the boundary.

The River Condition Assessment captures information on sediments, vegetation, morphological and water-related features; and the extent and severity of physical modification within the channel, channel margins, banks, and riparian zone (to 10m from the bank tops).

3.6 Constraints to the Survey

Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

Best possible effort was made during the mapping process to ensure that the habitat map accurately represents the area of habitats present on site. Some margin of error is possible due to the continuous and difficult to define nature of habitat boundaries, however this margin of error has been minimised using professional opinion of two experienced ecologists and up to date aerial imagery. As such this is not expected to be a significant constraint and affect the overall Biodiversity Net Gain Calculation provided within this report.

4 Baseline Habitat Assessment

Baseline habitat condition was assessed following the methodology outlined in Section 3.4. Habitat descriptions and the results of this assessment are provided below. The habitats have been given reference numbers for clarity regarding in-text and the metric calculation (Urban Green, 2024c) illustrates the numerical data. Full habitat descriptions can be found in the PEA (Urban Green, 2023).

4.1 Area Habitats

4.1.1 1) Grassland – Modified grassland (P1)

The majority of the site comprised various areas of modified grassland in use as agricultural grazing land separated by a number of fence lines. There were five parcels of modified grassland on site.

Parcel 1 comprised land grazed by sheep with short sward heights and contained perennial rye grass (*Lolium perenne*), with occasional cock's foot (*Dactylis glomerata*), dandelion (*Taraxacum agg.*), creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*), common sorrel (*Rumex acetosa*), and creeping thistle (*Cirsium arvense*). Unmanaged areas at the edges of the fields included common nettle (*Urtica dioica*), curly dock (*Rumex crispus*), Yorkshire fog (*Holcus lanatus*) and occasional broad-leaved dock (*Rumex obtusifolius*). Stands of Japanese knotweed (*Reynoutria japonica*) and Himalayan balsam (*Impatiens glandulifera*) were also present within this parcel along its southern periphery.

Photograph 1 – Modified grassland parcel 1, grazed area

Table 7 – Condition Assessment for Modified Grassland

UK Hab Classification	Modified Grassland				
Condition Sheet	Grassland (Low)				
Condition Criteria 1.	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type.	Fail	Condition Criteria 5.	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Pass
Condition Criteria 2.	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects,	Fail	Condition Criteria 6.	Cover of bracken less than 20%.	Pass

	birds and small mammals to live and breed.				
Condition Criteria 3.	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.	Pass	Condition Criteria 7.	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Fail
Condition Criteria 4.	Physical damage is evident in less than 5% of total grassland area.	Pass			
Condition	Poor	Passes 4 of 7 criteria and fails essential criterion 1.			
Distinctiveness		Low			

4.1.2 2 & 3) Grassland – Modified grassland (P2 and 3)

The second and third parcels are located in the centre of the site and the south of the site and are similar to the grazed section in Parcel 1, exhibiting a short sward height with a similar species composition. These parcels had a large presence of rabbit burrows and droppings.

Photograph 2 – Modified grassland parcel 2

Photograph 3 -Modified grassland parcel 3

Table 8 – Condition Assessment for Modified Grassland

UK Hab Classification	Modified Grassland				
Condition Sheet	Grassland (Low)				
Condition Criteria 1.	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type.	Fail	Condition Criteria 5.	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Pass
Condition Criteria 2.	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small	Fail	Condition Criteria 6.	Cover of bracken less than 20%.	Pass

	mammals to live and breed.				
Condition Criteria 3.	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.	Pass	Condition Criteria 7.	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Pass
Condition Criteria 4.	Physical damage is evident in less than 5% of total grassland area.	Pass			
Condition	Poor	Passes 5 of 7 criteria and fails essential criterion 1.			
Distinctiveness		Low			

4.1.3 4) Grassland – Modified grassland (P4)

Parcel 4 was unmanaged with a tall sward height and contained cock's foot, creeping thistle, and Yorkshire fog were also present with occasional creeping buttercup, bramble (*Rubus fruticosus agg.*), greater plantain (*Plantago major*), and cow parsley (*Anthriscus sylvestris*). Scattered trees were also present within the parcel comprising occasional cherry (*Prunus avium*), horse chestnut (*Aesculus hippocastanum*), and spruce (*Picea* spp.). Large stands of Japanese knotweed were also present. This area of grassland also fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.

Photograph 4 – Modified grassland parcel 4

Table 9 – Condition Assessment for Modified Grassland

UK Hab Classification	Modified Grassland				
Condition Sheet	Grassland (Low)				
Condition Criteria 1.	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type.	Fail	Condition Criteria 5.	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Pass
Condition Criteria 2.	Sward height is varied (at least 20% of the sward is	Fail	Condition Criteria 6.	Cover of bracken less than 20%.	Pass

	less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.				
Condition Criteria 3.	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.	Pass	Condition Criteria 7.	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Fail
Condition Criteria 4.	Physical damage is evident in less than 5% of total grassland area.	Pass			
Condition	Poor	Passes 4 of 7 criteria and fails essential criterion 1.			
Distinctiveness	Low				

4.1.4 5) Grassland – Modified grassland (P5)

Parcel 5 contained an abundance of rosebay willowherb (*Chamaenerion angustifolium*), common nettle and creeping thistle, with occasional Yorkshire fog, perennial rye grass, bramble, and ribwort plantain.

Photograph 5 – Modified grassland parcel 5

Table 10 – Condition Assessment for Modified Grassland

UK Hab Classification	Modified Grassland				
Condition Sheet	Grassland (Low)				
Condition Criteria 1.	There must be 6-8 species per m2. If a grassland has 9 or more species per m2 it should be classified as a medium distinctiveness grassland habitat type.	Fail	Condition Criteria 5.	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Pass
Condition Criteria 2.	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities	Pass	Condition Criteria 6.	Cover of bracken less than 20%.	Pass

	for insects, birds and small mammals to live and breed.				
Condition Criteria 3.	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.	Fail	Condition Criteria 7.	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Pass
Condition Criteria 4.	Physical damage is evident in less than 5% of total grassland area.	Pass			
Condition Poor	Passes 5 of 7 criteria and fails essential criterion 1.				
Distinctiveness	Low				

4.1.5 6) Woodland - Other Woodland; Broadleaved

The north-western corner of the site comprised successional broadleaved woodland, which was an extension of an established area of woodland to the south. Species composition includes occasional ash (*Fraxinus excelsior*), goat willow (*Salix caprea*), wych elm (*Ulmus glabra*), cherry, sycamore (*Acer pseudoplatanus*), crack willow (*Salix fragilis*), and silver birch (*Betula pendula*). The ground layer included frequent bramble and rosebay willowherb and rare Japanese knotweed. This area of woodland was also within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.

Photograph 6 – Other woodland, broadleaved

Table 11 – Condition Assessment for other woodland, broadleaved

UK Hab Classification	Other woodland; Broadleaved		
Condition Sheet	Woodland		
Indicator 1. Age distribution of trees	One age class present (Poor – 1 Point)	Indicator 8. Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback (Good – 3 Points)
Indicator 2. Wild, domestic, and feral herbivore damage	No significant browsing damage evident in woodland (Good – 3 Points)	Indicator 9. Vegetation and ground flora	No recognisable NVC community (Poor – 1 Point)
Indicator 3. Invasive plant species	Rhodendron or laurel not present, rosebay willowherb and Japanese knotweed covers <10% (Moderate – 2 Points)	Indicator 10. Woodland vertical structure	One or less storey across all survey plots (Poor - 1 Point)

Indicator 4. Number of native tree species	Five or more native tree or shrub species across woodland parcel (Good – 3 Points)	Indicator 11. Veteran trees	No veteran trees present in woodland (Poor - 1 Point)
Indicator 5. Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native (Good – 3 Points)	Indicator 12. Amount of deadwood	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps (Moderate - 2 Points)
Indicator 6. Open space within woodland	More than 40% of woodland has areas of temporary open space (Poor – 1 Point)	Indicator 13. Woodland disturbance	No nutrient enrichment or damaged ground evident (Good – 3 Points)
Indicator 7. Woodland regeneration	No classes or coppice regrowth present in woodland (Poor – 1 Point)		
Condition Poor	Scores 25 (<26 = Poor)		
Distinctiveness	Medium		

4.1.6 7) Urban – Urban Trees

Four urban trees were present on the site along the western boundary. Three were early-mature goat willow and one was an early-mature silver birch. All four trees were within the Railway Land Hogshaw LWS, therefore they have been allocated a high strategic significance.

Table 12 – Condition Assessment for Urban Trees

UK Hab Classification	Urban tree				
Condition Sheet	Urban tree				
Condition Criteria 1.	The tree is a native species (or more than 70% within the block are native species).	Pass	Condition Criteria 4.	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Pass
Condition Criteria 2.	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Pass	Condition Criteria 5.	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark	Pass
Condition Criteria 3.	The tree is mature or veteran (or more than 50% within the block are mature or veteran).	Fail	Condition Criteria 6.	More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass
Condition Good	Passes 5 of 6 criteria				
Distinctiveness	Medium				

4.1.7 8) Urban - Artificial Unvegetated, Unsealed Surface

A single footpath runs through parcel 5 of the modified grassland and is comprised of compact gravel substrate that classes as artificial unvegetated, unsealed surface. This is classified as artificial unvegetated, unsealed surface, which has a predetermined condition of **N/A** within the metric.

Photograph 8 – Footpath

4.1.8 9) Urban - Buildings (Developed land; sealed surface)

Two sheds used as chicken coops (photograph 9) were present to the east of the site. Buildings are classified as developed land; sealed surface which has a predetermined condition score of **N/A** within the metric.

Photograph 9 – Buildings used as chicken coops

4.2 Linear Hedgerow Habitats

Four lines of trees are present on site associated with the areas of modified grassland and generally confined to field boundaries.

4.2.1 L1) Line of Trees 1

The first line of trees is present within the north of the site adjacent to the eastern boundary, located in Parcel 1 of the modified grassland. It runs north to south for approximately 120m and is comprised of dominant sycamore with occasional ash and hawthorn (*Crataegus monogyna*). The majority of specimens are mature with some young mature trees also present.

Photograph 10 – Line of Trees 1

Table 13 – Condition Assessment for Line of Trees

UK Hab Classification	Line of Trees				
Condition Sheet	Line of Trees				
Condition Criteria 1.	More than 70% of trees are native species.	Pass	Condition Criteria 4.	There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.	Fail
Condition Criteria 2.	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Fail	Condition Criteria 5.	At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass
Condition Criteria 3.	Includes one or more mature or veteran tree.	Pass			
Condition	Moderate	Passes 3 of 5 criteria.			
Distinctiveness	Low				

4.2.2 L2) Line of Trees 2

The second of line of trees is located in the south-western extent of the site adjacent the field boundary between parcel 2 and parcel 4 of modified grassland. It runs north to south for approximately 35m and is comprised of dominant silver birch and occasional cherry. This line of trees fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.

Photograph 11 – Line of Trees 2

Table 14 – Condition Assessment for Line of Trees

UK Hab Classification		Line of Trees				
Condition Sheet		Line of Trees				
Condition Criteria 1.		More than 70% of trees are native species.	Pass	Condition Criteria 4.	There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.	Fail
Condition Criteria 2.		Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass	Condition Criteria 5.	At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass
Condition Criteria 3.		Includes one or more mature or veteran tree.	Pass			
Condition	Moderate	Passes 4 of 5 criteria.				
Distinctiveness		Low				

4.2.3 L3) Line of Trees 3

The third line of trees is located just south of the second line of trees on site and is approximately 20m in length. This line of trees is exclusively comprised of sycamore. This line of trees fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.

Photograph 12 – Line of Trees 3

Table 15 – Condition Assessment for Line of Trees

UK Hab Classification		Line of Trees				
Condition Sheet		Line of Trees				
Condition Criteria 1.		More than 70% of trees are native species.	Pass	Condition Criteria 4.	There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.	Fail
Condition Criteria 2.		Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass	Condition Criteria 5.	At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass
Condition Criteria 3.		Includes one or more mature or veteran tree.	Pass			
Condition	Moderate	Passes 4 of 5 criteria.				
Distinctiveness		Low				

4.2.4 L4) Line of Trees 4

The fourth line of trees is located in the central extent of the site adjacent the eastern boundary. It runs north to south for approximately 50m and is comprised exclusively of sycamore.

Photograph 13 – Line of Trees 4

Table 16 – Condition Assessment for Line of Trees

UK Hab Classification		Line of Trees				
Condition Sheet		Line of Trees				
Condition Criteria 1.		More than 70% of trees are native species.	Pass	Condition Criteria 4.	There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.	Fail
Condition Criteria 2.		Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Fail	Condition Criteria 5.	At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass
Condition Criteria 3.		Includes one or more mature or veteran tree.	Pass			
Condition	Moderate	Passes 3 of 5 criteria.				
Distinctiveness		Low				

4.2.5 5) Built linear features

Various built linear features were present on site that form the site boundary and separate the different parcels on site. The features comprise fence lines and dry-stone walls. These features are classified as built linear features, which have a predetermined condition of **N/A** within the metric.

Photograph 14 – Dry-stone wall

Photograph 15 – Fence line

4.3 Linear River Habitats

4.3.1 1) Other rivers and streams (Nun Brook)

Nun Brook is present on site within the south-western extent and the woodland detailed in Section 4.1.6. The brook is culverted through the majority of the woodland and comes to the surface in its southern extent and extends further to the south of the site.

At the time of survey, the water levels within the brook were high and lots of silt was being carried within the brook. Vegetation was present on the embankments either side and within the brook itself comprising occasional pendulous sedge (*Carex pendula*), cock's foot, Yorkshire fog, creeping buttercup, and curly dock. Nun Brook also fell within the Railway Land Hogshaw LWS, therefore it has been allocated a high strategic significance.

Photograph 16 – Nun Brook, culvert

Photograph 17 – Nun Brook

Table 17 – Condition Assessment for Other Rivers and Streams

Name	Nun Brook		
UK Hab Classification	Other Rivers and Streams Type		
Condition Assessment	River MoRPH Survey		
River Category	Other	Reach Valley Gradient	0.011
Braiding Index	1	Bedrock Reach	No
Sinuosity Index	1.04	Coarsest Bed Material	Gravel-Pebble

Anabranching Index	1	Average Bed Material	Cobble
Level of Confinement	Unconfined	Condition Score	Moderate

Condition Score	Fairly Poor
Distinctiveness	High
Extent of watercourse encroachment	Minor
Extent of riparian encroachment	No encroachment

5 Retained Habitats

Using the Biodiversity Metric 3.1, the habitat units of the pre-development habitats to be retained were calculated.

5.1 Linear Hedgerow Habitats

All of the existing lines of trees will be retained. Table 18 shows a summary of the linear hedgerow habitats to be retained on site, their corresponding length (km) and unit score to be retained on site.

Table 18 – Retained Linear Hedgerow Habitat Units

Habitat	Total Length (km)	Total Units	Length Retained (km)	Units Retained
L1) Line of Trees 1	0.11	0.44	0.11	0.44
L2) Line of Trees 2	0.039	0.18	0.039	0.18
L3) Line of Trees 3	0.023	0.11	0.023	0.11
L4) Line of Trees 4	0.046	0.18	0.046	0.18
Total	**0.22**	**0.91**	**0.22**	**0.91**

5.2 Linear River Habitats

The section of stream that is within 10m of the red line boundary, in the Hogshaw Railway Land LWS, will remain untouched. Table 19 shows a summary of the linear river habitats to be retained on site, their corresponding length (km) and unit score to be retained.

Table 19 – Linear River Habitat

Habitat Parcel Reference	Total Length (km)	Total Units	Length Retained (km)	Units Retained
Other Rivers and Streams	0.061	0.51	0.061	0.51

6 Lost Habitats

Using the Biodiversity Metric 3.1, the habitat units of the pre-development habitats to be lost were calculated.

6.1 Area Habitats

Under the current landscape proposals, all habitats present will be lost. Table 20 shows a summary of the area habitats and their corresponding area (ha) and unit score to be lost on site, along with planned mitigation.

Table 20 – Lost Area Habitats

Habitat Parcel Reference	Total Area (ha)	Total Units	Area lost (ha)	Units lost	Planned Mitigation
1–5) Grassland – Modified Grassland	5.28	10.70	5.28	10.70	Overall, this habitat offers limited ecological provision. New areas of wildflower meadow will be created around the periphery of the site and within the public open space which will be more ecologically beneficial.
6) Other woodland; broadleaved	0.29	1.33	0.29	1.33	New areas of woodland will be created within the LWS and additional urban trees will be planted on site, however the loss of this habitat will not be fully compensated for.
7) Urban – Urban Trees	0.049	0.67	0.049	0.67	All four urban trees currently present on site will be lost, however an additional 217 urban trees will be planted to mitigate for those lost.
8) Artificial Unvegetated, Unsealed Surface	0.027	0	0.027	0	This habitat provides no ecological value, therefore no mitigation is necessary.
9) Urban – Developed Land; Sealed Surface (buildings)	0.003	0	0.003	0	This habitat provides no ecological value, therefore no mitigation is necessary.
Total	5.65	12.71	5.65	12.71	

7 Pre-Development Unit Summary

Using the Biodiversity Metric 3.1, the habitat units of the existing site habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

The results of these calculations are presented in Table 21.

Table 22 – Pre-Development Unit Summary

	On-site baseline	Retained	Lost
Area Habitat Units	12.71	-	12.71
Linear Hedgerow Units	0.91	0.91	-
Linear River Units	0.67	0.67	-

8 Habitat Creation

8.1 Area Habitats

8.1.1 1 & 2) Urban – Urban Trees

A total of 275 (123 small and 152 medium) trees will be planted across the site. However, 147 trees are classified within separate new habitats. Thirteen urban trees will be plated within the mixed scrub, 56 trees will form new woodland habitats, 12 trees will become part of a new line of trees (see Sections 8.1.3, 8.1.5, 8.1.6 and 8.2 respectively), and 55 trees are within front gardens and do not contribute to the metric as they are at the homeowner's responsibility (see Section 8.1.10).

The remaining 108 (47 small, 61 medium) urban trees will be planted within the public open space. The mix incorporates both native and non-native species, such as silver birch, bird cherry (*Prunus padus*), pedunculate oak, hornbeam 'Frans Fontaine' (*Carpinus betulus* 'Frans Fontaine'), and field maple 'Streetwise' (*Acer campestre* 'Streetwise').

Twenty (10 small, 10 medium) of the proposed urban trees will be planted within the Railway Land Hogshaw LWS, therefore these trees have been allocated a high strategic significance.

Table 23 – Condition Assessment for Urban Trees

Classification within Landscape Designs	Proposed Tree Planting and Proposed Specimen Shrub Planting				
UK Hab Classification	Urban tree				
Condition Sheet	Urban tree				
Condition Criteria 1.	The tree is a native species (or more than 70% within the block are native species).	Fail	Condition Criteria 4.	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Pass
Condition Criteria 2.	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Pass	Condition Criteria 5.	Micro-habitats for birds, mammals and insects are present e.g. presence of deadwood, cavities, ivy or loose bark	Fail
Condition Criteria 3.	The tree is mature or veteran (or more than 50% within the block are mature or veteran).	Fail	Condition Criteria 6.	More than 20% of the tree canopy area is oversailing vegetation beneath.	Pass
Condition / Moderate	Passes 3 of 6 criteria				
Distinctiveness	Medium				
Time to Target Condition	27 years				
Difficulty of Creation	Low				

8.1.2 3) Urban – Introduced Shrub

Areas of introduced shrub containing different species mixes will be created within the public space to improve the visual amenity of the area. Within the landscape proposals, the introduced shrub mixes are classified as 'Proposed Ornamental Shrub and Herbaceous Planting' and 'Proposed Semi-native Shrub Planting,' and include species such as Japanese quince (*Chaenomeles japonica*), creeping willow (*Salix repens*), and spurge-laurel (*Daphne laureola*). Introduced shrub is automatically allocated a condition score of **N/A** by the metric.

8.1.3 4) Heathland and Shrub – Mixed Scrub

Blocks of native mixed scrub habitat will be planted within the areas of wildflower meadows, to the east and west of the site, adding diversity to these habitats. This mix is classified as 'Proposed Native Shrub Planting' in the landscape proposals. Species such as dog wood (*Cornus sanguinea*), elder (*Sambucus nigra*), guelder rose (*Viburnum opulus*) and hazel (*Corylus avellana*) will be planted in mixed groups to create these habitats. As mentioned in section 8.1.1, some of the proposed urban trees will be planted within this habitat. Species will include silver birch, bird cherry and rowan (*Sorbus aucuparia*).

Table 24 - Condition Assessment for Mixed Scrub

Classification within Landscape Designs		Proposed Native Shrub Planting				
UK Hab Classification		Mixed scrub				
Condition Sheet		Scrub				
Condition Criteria 1.		Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).	Pass	Condition Criteria 4.	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	Fail
Condition Criteria 2.		There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.	Fail	Condition Criteria 5.	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail
Condition Criteria 3.		There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Pass			
Condition	Poor	Passes 2 of 5 criteria				
Distinctiveness		Medium				
Time to Target Condition		1 year				
Difficulty of Creation		Low				

8.1.4 5) Heathland and Shrub – Mixed Scrub

A block of native scrub will be planted around the existing line of trees (L4) to the east of the site. The scrub will be comprised of elder, wild privet (*Ligustrum vulgare*), guelder-rose, hazel and dogwood (*Cornus sanguinea*).

Table 25 - Condition Assessment for Mixed Scrub

Classification within Landscape Designs		Proposed Woodland Understory Planting				
UK Hab Classification		Mixed scrub				
Condition Sheet		Scrub				
Condition Criteria 1.		Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).	Pass	Condition Criteria 4.	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	Fail
Condition Criteria 2.		There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.	Fail	Condition Criteria 5.	There are clearings, glades or rides present within the scrub, providing sheltered edges.	Fail
Condition Criteria 3.		There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and species indicative of sub-optimal condition make up less than 5% of ground cover.	Pass			
Condition	Poor	Passes 2 of 5 criteria				
Distinctiveness		Medium				
Time to Target Condition		1 year				
Difficulty of Creation		Low				

8.1.5 6) Woodland - Other Woodland; Broadleaved

A small area of woodland will be created in the south-western corner of the site, comprising the existing line of trees L3, and with additional native tree specimens being added such as silver birch (*Betula pendula*), pedunculate oak and rowan. The understory of this habitat will be planted with scrub species such as elder, dog wood, hazel and wild privet. This habitat is classified as 'Proposed Woodland Understory Planting' within the landscape plans.

This area of proposed woodland will fall within the Railway Land Hogshaw LWS, therefore this habitat has been allocated a high strategic significance.

Table 26 – Condition Assessment for other woodland, broadleaved

Classification within Landscape Designs	Proposed Tree Planting and Proposed Woodland Understory Species		
UK Hab Classification	Other woodland; Broadleaved		
Condition Sheet	Woodland		
Indicator 1. Age distribution of trees	Two age classes present (Moderate – 2 Points)	Indicator 8. Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback (Good – 3 Points)
Indicator 2. Wild, domestic, and feral herbivore damage	No significant browsing damage evident in woodland (Good – 3 Points)	Indicator 9. Vegetation and ground flora	No recognisable NVC community (Poor – 1 Point)
Indicator 3. Invasive plant species	No invasive species present in woodland (Good – 3 Points)	Indicator 10. Woodland vertical structure	Two storeys across all survey plots (Moderate - 2 Points)
Indicator 4. Number of native tree species	Five or more native tree or shrub species across woodland parcel (Good - 3 Points)	Indicator 11. Veteran trees	No veteran trees present in woodland (Poor - 1 Point)
Indicator 5. Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native (Good – 3 Points)	Indicator 12. Amount of deadwood	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps (Moderate - 2 Points)
Indicator 6. Open space within woodland	21- 40% of woodland has areas of temporary open space (Moderate - 2 Points)	Indicator 13. Woodland disturbance	No nutrient enrichment or damaged ground evident (Good – 3 Points)
Indicator 7. Woodland regeneration	No classes or coppice regrowth present in woodland (Poor – 1 Point)		
Condition: Moderate	Scores = 29 points		
Distinctiveness	Medium		
Time to Target Condition	15 years		
Difficulty of Creation	Low		

8.1.6 7 & 8) Woodland - Other Woodland; Broadleaved

A second area of woodland will be created along the northern and upper eastern boundaries, which will contain native tree species such as silver birch, rowan, oak and goat willow, and an understory of scrub species, including elder, hazel, beech, and hawthorn.

A 1164m^2 section of proposed woodland will fall within the Railway Land Hogshaw LWS, and has been allocated a high strategic significance.

Table 27 – Condition Assessment for other woodland, broadleaved

Classification within Landscape Designs	Proposed Tree Planting, Proposed Woodland Understory Planting, and Proposed Woodland Mix Planting		
UK Hab Classification	Other Woodland; Broadleaved		
Condition Sheet	Woodland		
Indicator 1. Age distribution of trees	Two age classes present (Moderate – 2 Points)	Indicator 8. Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback (Good – 3 Points)
Indicator 2. Wild, domestic, and feral herbivore damage	No significant browsing damage evident in woodland (Good – 3 Points)	Indicator 9. Vegetation and ground flora	No recognisable NVC community (Poor – 1 Point)
Indicator 3. Invasive plant species	No invasive species present in woodland (Good – 3 Points)	Indicator 10. Woodland vertical structure	Two storeys across all survey plots (Moderate - 2 Points)
Indicator 4. Number of native tree species	Five or more shrub species across woodland parcel (Good – 3 Points)	Indicator 11. Veteran trees	No veteran trees present in woodland (Poor - 1 Point)
Indicator 5. Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native (Good – 3 Points)	Indicator 12. Amount of deadwood	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps (Moderate - 2 Points)
Indicator 6. Open space within woodland	21- 40% of woodland has areas of temporary open space (Moderate - 2 Points)	Indicator 13. Woodland disturbance	No nutrient enrichment or damaged ground evident (Good – 3 Points)
Indicator 7. Woodland regeneration	No classes or coppice regrowth present in woodland (Poor – 1 Point)		
Condition / Moderate	Scores = 29 points		
Distinctiveness	Medium		
Time to Target Condition	15 years		
Difficulty of Creation	Low		

8.1.7 9 & 10) Grassland – Other Neutral Grassland (Wildflower meadow)

Areas of wildflower meadow will be created in public areas along all boundaries of the site, buffering the site from the adjacent woodland and arable land. Meadow habitat will be created by firstly removing all current vegetation, digging over the earth (to at least 15cm), and raking to produce a tilth over 2.5cm deep which is left for 2-3 weeks to allow all weeds in the seed bank to germinate. After 2-3 weeks, any additional weeds will be removed and then ground raked again. Seed sowing must be undertaken immediately with the EM2 standard general purpose meadow mixture (from Emorsgate Seeds) which contains a mix of 85% slow growing grasses and 15% wildflowers. Species within the mix include musk mallow (*Malva moschata*), black medic (*Medicago lupulina*), ribwort plantain (*Plantago lanceolata*), common bent (*Agriostis capillaris*) and crested dogs-tail (*Cynosurus cristatus*).

A 4519m² section of proposed wildflower meadow to the west of the site will fall within the Railway Land Hogshaw LWS, therefore this area has been allocated a high strategic significance.

Table 28 - Condition Assessment for Other Neutral Grassland

Classification within Landscape Designs	Proposed Seeded Species Rich Wildflower Meadow				
UK Hab Classification	Other Neutral Grassland				
Condition Sheet	Grassland (Medium, High & Very High)				
Condition Criteria 1.	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. NB - This criterion is essential for achieving moderate condition for non-acid grassland types only.	Pass	Condition Criteria 4.	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	Pass
Condition Criteria 2.	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Condition Criteria 5.	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of species indicative of sub-optimal condition1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	Pass
Condition Criteria 3.	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Fail	Condition Criteria 6.	There are greater than 9 species per metre squared. NB - This criterion is essential for achieving good condition (non-acid grassland types only).	Pass
Condition Moderate	Passes 4 of 6 criteria				
Distinctiveness	Medium				
Time to Target Condition	10 years				
Difficulty of Creation	Low				

8.1.8 11) Grassland – Modified Grassland

Germinal grade A19 grass seed containing 5 grass species, including perennial ryegrass (*Lolium perenne*) and strong creeping red fescue (*Festuca rubra rubra*), will be sown within the residential areas, adjacent

to roads and driveways, forming verges. This grassland is expected to contain a low species richness and be heavily managed by mowing, resulting in a low sward height. It will also buffer the wildflower meadow habitat from the roads.

Table 29 - Condition Assessment for Modified Grassland

Classification within Landscape Designs		Proposed Seeded Amenity Grass				
UK Hab Classification		Modified Grassland				
Condition Sheet		Grassland (Low)				
Condition Criteria 1.		There must be 6-8 species per m². If a grassland has 9 or more species per m² it should be classified as a medium distinctiveness grassland habitat type. NB - Essential for achieving moderate condition.	Fail	Condition Criteria 5.	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	Pass
Condition Criteria 2.		Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Fail	Condition Criteria 6.	Cover of bracken less than 20%.	Pass
Condition Criteria 3.		Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Fail	Condition Criteria 7.	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981).	Pass
Condition Criteria 4.		Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Pass			
Condition	Poor	Passes 4 of 7 criteria but fails essential criteria 1				
Distinctiveness		Low				
Time to Target Condition		1 year				
Difficulty of Creation		Low				

8.1.9 12) Lakes – Ponds (Non-Priority Habitat)

A non-priority pond will be created to the west of the site and will act as a drainage feature. Native reeds will be planted within this habitat, including species such as lesser pond sedge (*Carex acutiformis*), yellow

iris (*Iris pseudacorus*), and branched bur reed (*Sparganium erectum*). There will also be an area of wet meadow surrounding the pond which is classified within the pond habitat. The wet meadow will be seeded using the Wet Wildflower Meadow Seed mix from Habitat Aid, which contains a mix of 30% native wildflower species and 70% grasses. Wildflower species include yellow rattle (*Rhinanthus minor*), meadow buttercup (*Ranunculus acris*), and red campion (*Silene dioica*), and grass species include meadow foxtail (*Alopecurus pratensis*) and creeping red fescue (*Festuca rubra*).

The pond falls within the Railway Land Hogshaw LWS, therefore this habitat has been allocated a high strategic significance.

Table 30 – Condition Assessment for Pond

Classification within Landscape Designs	Pond Water, Native Reeds Mix, and Proposed Wet Meadow				
UK Hab Classification	Pond (Non-Priority Habitat)				
Condition Sheet	Pond				
Condition Criteria 1.	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Pass	Condition Criteria 6.	There is an absence of non-native plant and animal species	Pass
Condition Criteria 2.	There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge.	Pass	Condition Criteria 7.	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities	Pass
Condition Criteria 3.	Less than 10% of the pond is covered with duckweed or filamentous algae.	Pass	Condition Criteria 8.	In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds), should cover at least 50% of the pond area that is less than 3 m deep.	Pass
Condition Criteria 4.	The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	Fail	Condition Criteria 9.	The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.	Pass
Condition Criteria 5.	Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework.	Pass			
Condition Moderate	Passes 8 of 9 criteria				
Distinctiveness	Medium				
Time to Target Condition	3 years				
Difficulty of Creation	Low				

8.1.10 13 & 14) Urban – Developed Land; Sealed Surface & Vegetated Gardens

Areas of hard surfacing will be created across the development as new access roads, driveways for houses and footpaths. Buildings are also categorised within this habitat. Hard surfacing and buildings are categorised as developed land; sealed surface and has a predetermined condition of **N/A** within the metric.

The areas of 'Proposed Turf Grass', 'Proposed Groundcover Planting' 'Proposed Hedge Planting' and 'Proposed Ornamental Shrub & Herbaceous Planting' are all within the front and back gardens of houses.

As there are no areas included within the landscape designs (CAD file) for the hard landscaping or areas, the developed residential area of the site, including houses, roads and gardens, has been classified as 70% developed land; sealed surface and 30% vegetated garden, following guidance in the Biodiversity Metric 3.1 Technical Supplement (Natural England, 2022).

8.2 Linear Hedgerow Habitats

8.2.1 1) Line of trees

An 80m line of trees will be created in the north-western area of the site next to the pond, comprised of alder, silver birch, goat willow, and small-leaved lime (*Tilia cordata*). This line of trees will be within the Railway Land Hogshaw LWS, therefore, it has been allocated a high strategic significance.

Table 31 – Condition Assessment for Line of Trees

Classification within Landscape Designs	Proposed Tree Planting				
UK Hab Classification	Line of Trees				
Condition Sheet	Line of Trees				
Condition Criteria 1.	More than 70% of trees are native species.	Pass	Condition Criteria 4.	There is an undisturbed naturally vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other anthropogenic operations.	Pass
Condition Criteria 2.	Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide.	Pass	Condition Criteria 5.	At least 95% of the trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	Pass
Condition Criteria 3.	Includes one or more mature or veteran tree.	Fail			
Condition	Moderate	Passes 4 of 5 criteria.			
Distinctiveness	Low				
Time to Target Condition	20 years				
Difficulty of Creation	Low				

9 Post-Development Summary and Conclusion

Using the Biodiversity Metric 3.1, the habitat units of the proposed and created habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

The results of these calculations are presented in the Table 32.

Table 32 – Post Development Biodiversity Net Gain Calculation

		Habitat Unit Change					Net change in Biodiversity	
	On-site baseline	Retained	Lost	Enhanced	Created	On-site post development	Habitat units	%
Area Habitat Units	12.71	-	-12.71	-	+23.73	23.73	+11.03	**+86.76**
Linear Hedgerow Units	0.91	0.91	-	-	+0.18	1.09	+0.18	**+19.85**
Linear River Units	0.51	0.51	-	-	-	0.52	0	**0**

As illustrated in Table 32, the current landscape proposals for the development of the site produce an 86.76% net gain in area habitat units, a 19.85% net gain in linear hedgerow units, and no net change in river units. Overall, it demonstrates that the post-development habitats on site will provide more ecological benefit to wildlife than the habitats currently found on site and the development is in line with the relevant National Planning Policy Framework and Local Planning Policies. The proposed development also satisfies the trading rules.

To ensure that the habitats proposed as part of the post-development design of this site reach the condition detailed within this report and the full gain in value to the environment is achieved by this site, a long-term management plan (usually 30 years) is required. This length of management plan is required due to the complex nature of the habitats to be enhanced/created on site and the high value they will provide to the environment. This management plan is provided by Urban Green (2024a) as a separate document and covers the recommended management practices for the proposed habitats discussed in this report.

10 References

Baker, J., Hoskin, R. and Butterworth, T. (2019). Biodiversity net gain. Good practice principles for development: A practical guide.

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *UK Habitat Classification – Habitat Definitions V1.1*

CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.

High Peak Borough Council (2016). The High Peak Local Plan Adopted April 2016 [online]. Available at: https://www.highpeak.gov.uk/media/160/The-High-Peak-Local-Plan-Adopted-April-2016/pdf/The_High_Peak_Local_Plan_Adopted_April_2016.pdf?m=1514473710280 [Accessed January 2023].

Natural England (2022). The Biodiversity Metric 3.1 - Calculation Tool.

Natural England (2022). The Biodiversity Metric 3.1 - Technical Supplement.

Natural England (2022). The Biodiversity Metric 3.1 - User Guide.

eCountability Ltd. (2018). UK Habitat Classification (Professional Edition).

JNCC (2010). Handbook for Phase One Habitat Survey – 2010 Edition. England Field Unit, Nature Conservancy Council. Reprinted JNCC.

Stace, C. (2010). New Flora of the British Isles. 3rd ed. Cambridge: Cambridge University Press.

Urban Green (2023). UG_1795_ECO_PEA_05.

Urban Green (2024a). UG_1795_ECO_BEMP_05.

Urban Green (2024b). UG_1795_LAN_GA_DRW_01 P08.

Urban Green (2024c). UG_1795_ECO_BNG_CALC_05.

Urban Green (2024d). UG_1795_ARB_AIA_01_REV_05_FINAL.

APPENDIX 1 – PRE-DEVELOPMENT HABITAT MAP

URBAN GREEN

Do not scale this drawing (printed or electronic version).
This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.
Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Tree Bat Roost Suitability

N

- High
- Moderate
- Low
- Red Line Boundary
- Fence
- Line of trees
- Other rivers and streams
- Local Wilflide Site
- Dry Stone Wall
- Artificial unvegetated, unsealed surface
- Buildings
- Modified grassland
- Other woodland; broadleaved
- Urban Tree
- Target Note

TN1- Japanese Knotweed
TN2 - Himalayan Balsam
TN3 - Bird Box

0 0.01 0.03 0.05 Kilometers

U R B A N G R E E N

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: **Barratt Homes**

Project: **Hogshaw Farm**

Title: **UKHAB Habitat Map**

Issue: **02**

Drawn:	Checked:	Approved:
CL	MG	JH
Project: UG1795	**Scale @ A3:** 1:1250	**Date:** 31/03/2023
Dwg No: UG_1795_ECO_HM_02		**Revision:** 01

APPENDIX 2 – PRIMARY AND SECONDARY CODES

Hierarchical code	Code	Definition
Primary Code	g4	Modified grassland
	r2b	Other rivers and streams
	u1b5	Buildings
	u1c	Artificial unvegetated, unsealed surface
	u1e	Built linear features
	w1g6	Line of trees
Secondary Code	11	Scattered Trees
	16	Tall herb
	47	Native
	58	Grazed
	60	Sheep grazed
	75	Active management
	80	Unmanaged
	86	Accessible natural greenspace

APPENDIX 3 – PROPOSED LANDSCAPE PLAN

URBAN GREEN

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Drainage pond as a draft indicative layout and subject to a full basin design by engineers

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

Buxton FP 2

Buxton FP 1

Nestle Water Main 5m

Nestle Water

connection to remain open

remain open

PLAY AREA (LAP) (Refer to drawing 2402.)

KEY

Site Red Line Boundary

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

SCALE m 0 5 10 15 20 25 30 35 40 45 50
1:500

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P10	09/07/24	UPDATED LAYOUT	TH	SA
P09	01/07/24	UPDATED LAYOUT	TH	SA
P08	26/02/24	UPDATED LAYOUT	IG	SA
P07	14/02/24	UPDATED LAYOUT	RS	SA
P06	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P05	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA
P04	31/01/23	HARD LANDSCAPE OMITTED	RS	SA
P03	25/01/23	UPDATED LAYOUT	RS	SA

Client:	Project:	Drawn:	Checked:	Approved:	Date:
BARRATT HOMES	HOGSHAW FARM, BUXTON	RS	SA	ME	29/11/22

Issue:	Title:	Dwg No:	Scale @ A0:	Revision:
PLANNING	GENERAL ARRANGEMENT PLAN	UG_1795_LAN_GA_DRW_01	1:500	P10

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Plant Schedule

QTY	UNIT	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT
Trees						
23	No.	ACE STR xhs18	Acer campestre "Streetwise"	RB	STD	18-20cm
22	No.	ACE PB XHS18	Acer pseudoplatanus "Brilliantissimum"	RB	STD	18-20cm
18	No.	ALN GLU hs	Alnus glutinosa	RB	STD	12-14cm
17	No.	AME RbH hs	Amelanchier 'Robin Hill'	RB	STD	12-14cm
48	No.	BET PEN hs12	Betula pendula	RB	STD	12-14cm
14	No.	BET PEN xhs18	Betula pendula	RB	STD	18-20cm
21	No.	CAR FRA hs	Carpinus betulus "Frans Fontaine"	RB	STD	12-14cm
5	No.	Ile Nel	Ilex aquipernyi 'Nellie Stevens'	C 45L	STD	12-14cm
6	No.	Lig jap	Ligustrum japonicum	C 45L	STD	12-14cm
6	No.	PHO Red	Photinia fraserii 'Red Robin'	C 45L	STD	14-14cm
17	No.	Pru pad hs	Prunus padus	RB	STD	12-14cm
10	No.	PRU Ros hs	Prunus subhirtella 'Autumnalis Rosea'	RB	STD	12-14cm
4	No.	PYR CHA xhs18	Pyrus calleryana "Chanticleer"	RB	STD	18-20cm
15	No.	QUE ROB12	Quercus robur	RB	STD	12-14cm
9	No.	SAL CAP hs	Salix caprea	RB	STD	12-14cm
22	No.	SOR AUC hs	Sorbus aucuparia	RB	STD	12-14cm
18	No.	TIL COR hs	Tilia cordata	RB	STD	12-14cm

QTY	UNIT	CODE	PLANT NAME	STOCK	SIZE
Hedges					
	m	Laurel hedge	Prunus lusitanica	7.5L	100-120cm
	No.	Plants spaced @ 3/m in a Single Row		To spine road gardens	
	m	Choisya hedge	Choisya ternata 'Sundance'	7.5L	80-100cm
	No.	Plants spaced @ 4/m in a Single Row		To street gardens	
	m	Euonymus hedge	Euonymus japonicus 'Green Rocket'	7.5L	80-100cm
	No.	Plants spaced @ 4/m in a Single Row		To street gardens	

PERCENT	QTY	UNIT	PLANT NAME	STOCK	SIZE
Plant Mixes					
GROUNDCOVER MIX planted @ 5/m2					
20%	No.		Skimmia 'Magic Marlot'	C 5L	30-40cm
20%	No.		Pachysandra terminalis 'Green Carpet'	C 5L	30-40cm
20%	No.		Liriope muscari	C 5L	Full pot
20%	No.		Heuchera 'Palace Purple'	C 5L	Full pot
20%	No.		Carex oshimensis 'Evergold'	C 5L	Full pot
Individual varieties to be planted in groups of approximately 3 or 5.					
SUN SHRUB/HERB. MIX planted @ 4/m2					
10%	No.		Potentilla fruticosa 'Abbotswood'	C 5L	30-40cm
10%	No.		Skimmia confusa 'Kew Green'	C 5L	30-40cm
10%	No.		Pinus mugo 'Mops'	C 5L	30-40cm
10%	No.		Lavandula angustifolia 'Grosso'	C 5L	30-40cm
10%	No.		Hypericum 'Hidcote'	C 5L	30-40cm
10%	No.		Hebe 'Mrs Winder'	C 5L	30-40cm
15%	No.		Carex oshimensis 'Evergold'	C 5L	Full pot
15%	No.		Erysimum 'Bowles' Mauve'	C 5L	Full pot
10%	No.		Cornus alba 'Aurea'	C 5L	30-40cm
Individual varieties to be planted in groups of 3.					
SHADE SHRUB/HERB. MIX planted @ 4/m2					
20%	No.		Sarcococca humilis	C 5L	30-40cm
10%	No.		Viburnum davidii	C 5L	30-40cm
10%	No.		Euonymus fortunei 'Emerald Gaiety'	C 5L	30-40cm
10%	No.		Skimmia japonica 'Rubella'	C 5L	30-40cm
20%	No.		Helleborus x hybridus 'White Lady'	C 5L	Full pot
10%	No.		Carex oshimensis 'Evergold'	C 5L	Full pot
10%	No.		Polystichum munitum	C 5L	Full pot
10%	No.		Polystichum polyblepharum	C 5L	Full pot
Individual varieties to be planted in groups of 3.					
NATIVE SHRUB MIX 6 planted @ 1m centres					
20%	No.		Corylus avellana	B Trans	60-80cm
20%	No.		Viburnum opulus	B Trans	60-80cm
15%	No.		Cornus sanguinea	B Trans	60-80cm
15%	No.		Prunus padus	B Trans	60-80cm
10%	No.		Crataegus monogyna	B Trans	60-80cm
10%	No.		Malus sylvestris	B Trans	60-80cm
10%	No.		Sambucus nigra	B Trans	60-80cm
Individual varieties to be planted in groups of approximately 3-7					
NATIVE UNDERSTORY SHRUB MIX planted @ 3/m2					
20%	No.		Viburnum opulus	B Trans	60-80cm
20%	No.		Sambucus nigra	B Trans	60-80cm
20%	No.		Cornus sanguinea	B Trans	60-80cm
20%	No.		Corylus avellana	B Trans	60-80cm
20%	No.		Ligustrum vulgare	C 3L	40-60cm
MEDIUM SEMI-NATIVE SHRUB MIX planted @ 4/m2					
5%	No.		Chaenomeles japonica	C 3L	40-60cm
5%	No.		Chaenomeles speciosa	C 3L	40-60cm
15%	No.		Hebe 'Midsummer Beauty'	C 3L	30-40cm
15%	No.		Skimmia japonica 'Rubella'	C 2L	30-40cm
10%	No.		Daphne laureola	C 3L	20-30cm
10%	No.		Hypericum androsaemum	C 3L	30-40cm
10%	No.		Salix repens	C 3L	40-60cm
10%	No.		Cornus sanguinea	B Trans	60-80cm
10%	No.		Rosa canina	B Trans	60-80cm
10%	No.		Ligustrum vulgare	B Trans	60-80cm
Individual varieties to be planted in groups of approximately 3-5. Chaenomeles and Rosa canina to be positioned furthest from pathways.					
NATIVE WOODLAND MIX 1 planted @ 1.5m centres					
20%	No.		Crataegus monogyna	B TRANS	60-80cm
20%	No.		Viburnum opulus	B TRANS	60-80cm
20%	No.		Corylus avellana	B TRANS	60-80cm
10%	No.		Viburnum lantana	C 3L	40-60cm
10%	No.		Betula pendula	B TRANS	60-80cm
5%	No.		Sorbus aucuparia	B TRANS	60-80cm
10%	No.		Fagus Sylvatica	B FTH	125-150cm
5%	No.		Quercus robur	B FTH	125-150cm
Individual varieties to be planted in groups of approximately 5. Feathers to be planted at 4.5m centres with in the mix.					
GENERAL WILDFLOWER MEADOW MIX seeded @ 4g/m2					
100%	No.		No. EM2 Standard General Purpose Meadow Mixture	Seed	
Seeded at 4g m2 over prepared ground					
WET MEADOW MIX seeded @ 4g/m2					
100%	No.		No. Wet Wildflower Meadow Seed Mix	Seed	
Seeded at 4g m2 over prepared ground from Habitat Aid					
NATIVE REEDS MIX planted @ 3/m2					
15%	No.		Carex acutiformis	C 1L	
15%	No.		Iris pseudacorus	C 1L	
15%	No.		Sparganium erectum	C 1L	
15%	No.		Scirpoides holoschoenus	C 1L	
10%	No.		Juncus articulatus	C 1L	
10%	No.		Lythrum salicaria	C 1L	
10%	No.		Ranunculus lingua	C 1L	
5%	No.		Phragmites australis	C 1L	
5%	No.		Typha latifolia	C 1L	
Individual varieties to be planted in groups of approximately 5-7.					

Notes and Abbreviations

B	=	Bare root (bagged).
C	=	Container (or pot) grown, followed by size of the container (or pot).
FORM	=	Shape of tree as supplied by the nursery.
QTY	=	Quantity
RB	=	Rootballed (balled and wrapped).
SIZE	=	Height or Spread of juvenile plant.
Std	=	(clear stem) Standard.
STOCK	=	Root condition/protection method eg Bare root.
Trans	=	Transplant (or undercut seedling).

- Refer to specification for further information.
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect.

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P06	09/07/24	UPDATED LAYOUT	TH	SA
P05	01/07/24	UPDATED LAYOUT	TH	SA
P04	14/02/24	UPDATED LAYOUT	RS	SA
P03	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P02	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: BARRATT HOMES

Project: HOGSHAW FARM, BUXTON

Title: SOFT LANDSCAPE PLAN 2/4

Issue: PLANNING

Drawn:	Checked:	Approved:
RS	SA	ME
Project: UG1795	**Scale @ A0:** 1:250	**Date:** 25/01/23
Dwg No: UG_1795_LAN_SL_DRW_03		**Revision:** P06

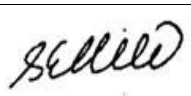
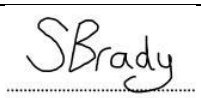
BIODIVERSITY ENHANCEMENT MANAGEMENT PLAN

JULY 2024

Hogshaw Farm,
Fairfield,
Buxton,
SK17 7HN

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1795				
Project:	Hogshaw Farm				
Location:	Fairfield, Buxton, SK17 7HN				
Title:	Biodiversity Enhancement Management Plan				
Document Type:	BEMP	**Issue No.:**	01		
Date:	27/01/2023				
Prepared By:	Sarah Child	**Signature:**		**Qualifications:**	Biodiversity Net Gain Consultant
Checked By:	Shannon Brady	**Signature:**		**Qualifications:**	Biodiversity Net Gain Consultant

Revision Status:

Rev:	Date:	Issue/Purpose/ Comment:	Prepared:	Checked:
02	21/03/2023	Updates to habitat classifications	SC	SB
03	06/04/2023	Updated to reflect changes to landscape plans	SC	SB
04	29/02/2024	Updated to reflect consultee comments and amended landscape plans	SC	SB
05	19/07/2024	Updates to reflect changes to landscape plans	SC	TM

CONTENTS

1 Introduction 1

1.1 Background to the Scheme 1

1.2 Site Context 1

1.3 Purpose of this Management Plan 2

1.4 Aims of this Management Plan 2

2 Development Proposals 3

3 Management Considerations 4

3.1 Management Responsibilities 4

3.2 Controlling Authority 4

3.3 Health and Safety 4

3.4 Monitoring and Review 4

3.5 General Measures 5

4 Ecological Baseline 6

5 Biodiversity Enhancements 10

5.1 Bat Boxes 10

5.2 Bird Boxes 11

5.3 Hedgehog 13

5.4 Work Schedule 15

6 Ecological Strategy 16

6.1 Retained Linear Hedgerow Habitats 16

6.2 Created Area Habitats 17

6.3 Linear Habitats 29

6.4 Five Year Work Programme 30

7 References 39

APPENDIX 1 - BIODIVERSITY ENHANCEMENTS LOCATION PLAN 41

APPENDIX 2 - SCHEDULE 9 INVASIVE SPECIES 42

1 Introduction

1.1 Background to the Scheme

Barratt Homes are proposing to develop land at Hogshaw Farm in Fairfield, Buxton (hereafter referred to as 'the site'). The proposals include the development of the site into a residential estate with associated hard and soft landscaping.

Urban Green have been appointed to provide a Biodiversity Enhancement Management Plan (BEMP) for the site which has been written to accompany the Biodiversity Net Gain Assessment of this site.

The author of the report is Biodiversity Net Gain Consultant, Sarah Child. Sarah has experience providing consulting services in Biodiversity Net Gain for a range of development schemes, both residential and commercial, across the UK.

1.2 Site Context

The site is located at National Grid Reference SK 06584 74409 and comprises a total area of approximately 5.6ha (see Figure 1).

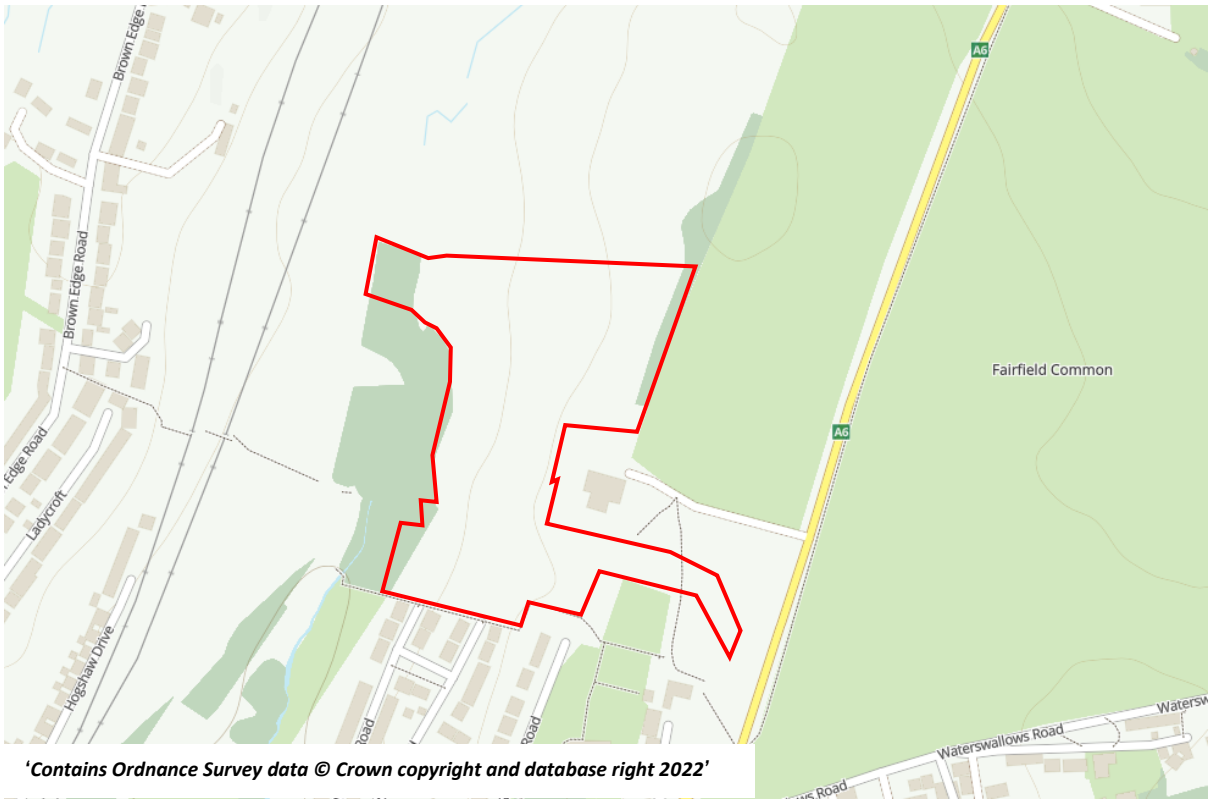


Figure 1 – Site Extent

The site is located in the rural-urban fringe of Buxton, approximately 1.5km north-east of the town centre. The A6 lies approximately 50m east of the site, with Nun Brook approximately 20m west of the site. Residential housing lies immediately south of the site, with areas of recreational green space to the east and west and agricultural land to the north. An industrial unit is present along the central aspect of the eastern boundary of the site.

1.3 Purpose of this Management Plan

The purpose of this management plan is to provide a schedule for the long-term management of habitats on site, ensure that existing and proposed habitats are suitably maintained and ensure good establishment and continued improvement of habitat condition. This allows those responsible for the management and maintenance of the site to understand the existing habitats, the development and ongoing management requirements of the site. Habitats should be maintained under a formal management regime for a minimum of 30 years, in accordance with the Environment Act 2021, with regular assessments during this period to assess the development and condition of habitats.

1.4 Aims of this Management Plan

This management plan covers the habitat creation and enhancement on site, as detailed within the Biodiversity Net Gain (BNG) Assessment (Urban Green, 2024a & 2024b). This report assessed the development as scoring an 86.76% net gain in area habitat units, a 19.85% net gain in linear hedgerow units, and no net change in river units utilising the Biodiversity Metric 3.1.

Appropriate management practices are essential to ensuring that the proposed habitats reach the condition outlined within the Biodiversity Net Gain assessment and that the development achieves the predicted gain in value to the environment. The aim of this management plan is to provide a habitat management plan that:

- Maintains and enhances site biodiversity, through the sustainable management of on-site habitats;
- Promotes the successful establishment and growth of newly created habitats;
- Ensures the health and safety of all site user's post development is protected;
- Outlines a process for the regular monitoring and review of management practices and site habitats; and
- Provide measurable and achievable targets appropriate to each habitat to ensure condition targets are met as set out in Section 6 in accordance with Biodiversity Metric 3.1 habitat condition sheets.

2 Development Proposals

The current landscape proposals for the development of the site produce an 86.76% net gain in area habitat units, a 19.85% net gain in linear hedgerow units, and no net change in river units. Overall, it demonstrates that the post-development habitats on site will provide more ecological benefit to wildlife than the habitats currently found on site and the development is in line with the relevant National Planning Policy Framework and Local Planning Policies. The proposed development also satisfies the trading rules.

3 Management Considerations

3.1 Management Responsibilities

The implementation of this management plan will be the responsibility of the landowner for a minimum of 30 years, based on requirements within the Environment Act (2021). Any transference of responsibility of this plan should be undertaken with the appropriate appointment of a competent organisation capable of delivering the management detailed within the document.

The organisation implementing this plan will be a management company with the necessary certificates of competence to implement landscape management operation on site. The managing organisation will ensure that all site management complies with good practice standards and all relevant health and safety procedures. The managing organisation will also ensure that measures outlined to avoid pollution incidents, comply with protected species and habitats legislation, and ensure overall environmental protection are enforced.

A maintenance specification is provided in Section 6. This sets out the detailed maintenance requirements for the habitats onsite, which must be followed at all times. Any deviations from the management plan must be highlighted to the site owners or management company.

3.2 Controlling Authority

The controlling authority, High Peak Borough Council, should be consulted on any matters relating to the approved landscape proposals for the scheme.

3.3 Health and Safety

The site will be managed to comply with all relevant health and safety legislation, approved codes of practice (ACOP) and Health and Safety Executive (HSE) guidance.

As the managing organisation will be the main company involved in on site works, the managing organisation will fulfil the landowner's role and the work manager's role. This places an obligation on the managing company to ensure that any contractor understands and fulfils their health and safety role and any work undertaken on the site will follow the guidelines of the HSE.

3.4 Monitoring and Review

Regular monitoring of the development against measurable targets (as detailed within Section 6) will be undertaken across all habitats detailed within this management plan during the 30-year period. The outcome of this monitoring will form part of a Monitoring and Audit Report to be submitted to the site owner annually to inform the forthcoming year's work. The report will include management operations undertaken, any unexpected changes or declines in habitat condition and any actions required that fall outside those detailed within this report.

A more in-depth habitat assessment of the created habitats on site should also be undertaken between April and September annually by an experienced ecologist. Results should be reported back and feed into a five-year management plan review, to enable assessment of the management prescriptions against the defined objectives for each habitat. Where objectives are not being adequately met, appropriate action will be put in place, with any refinements incorporated into the updated management plan and annual work programme. This review will enable maintenance operations to evolve in accordance with habitat requirements as they establish, and mature and targeted conditions are met.

3.5 General Measures

Habitat creation on site will follow details set out in the Detailed Planting Plan (Urban Green, 2024c). The following general measures shall be met to ensure successful habitat creation and succession on site.

- All planting is to follow guidance set out in the relevant British Standard or Horticultural Trades Association documents and carried out by a competent person.
- Planting is to remain undamaged, with healthy and vigorous growth, and is to be planted upright and well balanced. Trees and shrubs are to be of good shape and without elongated shoots, grown in a suitable environment and hardened off before being delivered to the site.
- All planting is to be true to name and free from pests, diseases, discoloration, weeds, fungus, and physiological disorders upon planting.
- If plants/trees are unobtainable alternatives are to be agreed with the Ecologist/Landscape Architect in writing prior to ordering.
- After planting ensure that the full depth of topsoil is wetted. Apply water evenly and without damaging or displacing plants or soil. Continue to water as necessary to ensure the successful establishment and continued thriving of planting.
- All tree/shrub/hedgerow works shall be completed outside of nesting bird season (i.e. between October and February inclusive). If works are required within the nesting bird season, a check must be undertaken of all affected trees by a suitably qualified ecologist.
- All tree works shall be carried out by a skilled, qualified and approved Arboricultural Contractor in accordance with BS3998: 2010 'Tree Work – Recommendations'.

4 Ecological Baseline

The ecological baseline for the site was assessed within the Preliminary Ecological Assessment (PEA) (Urban Green, 2023) informed by an extended phase one habitat survey. A summary of designated sites, notable and/or protected species and habitats identified is provided below, with full descriptions of each feature available within the PEA. The baseline habitat map for the site can be found in the Biodiversity Net Gain Report (Urban Green, 2024a).

Table 1 – Identified designated sites relevant to the site.

Designated Site	Considered within Assessment	Rationale for Consideration
Statutory Designated Sites		
Peak District Dales Special Area of Conservation (SAC)	No	Site falls outside of the 1km radius (1.3km south-east of site)
South Pennine Moors SAC / Peak District Moors Special Protection Area (SPA)	No	Site falls outside of the 1km radius (2.6km west of site)
Waterswallows Quarry (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
The Wye Valley (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Topley Pike and Deep Dale (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Poole's Cavern and Grin Low Wood (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Goyt Valley (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Leek Moors (SSSI)	Yes	Site falls within the Impact Risk Zone for the SSSI
Non-statutory Designated Sites		
Railway Land Hogshaw Local Wildlife Site (LWS)	Yes	The area of woodland to the west of the site lies within the Railway Land Hogshaw LWS.

Table 2 – Identified species relevant to the site.

Species / Species Group	Evidence	Considered within Assessment	Rationale for Consideration
Fauna			
Invertebrates	Limited quality habitats for invertebrates	No	One record of notable invertebrates was found during the data search, but there is limited habitat provision.
Common Amphibians	Suitable linear habitat present	Yes	No records of common amphibian were found, however the habitats present on site have potential to support amphibians.
Great crested newt (*Triturus cristatus*)	None	No	Three records of GCN were returned within the data search, however there is limited habitat provision on site.
Reptiles	None	No	No records returned in the data search and the habitats present on site have potential to support amphibians.
Birds	Suitable habitat present	Yes	11 records of protected/notable bird species were returned from the data search. There is suitable nesting potential for passerine birds and foraging for birds of prey.
Bats (all species)	Suitable habitat present	Yes	24 records of bats and two records of roosts were returned. The site was assessed to have moderate value for roosting, foraging and commuting bats.
Hedgehog (*Erinaceus europaeus*)	Suitable habitat present	Yes	Four records of hedgehog were returned. The hedgerow habitats have potential to support hedgehog and there is connectivity with other suitable habitats.
Badger (*Meles meles*)	Suitable habitat present	Yes	Six records of badger were returned through the data search. No evidence of badger was found, however there is suitable habitat present.
Brown hare (*Lepus europaeusî*)	Suitable habitat present	Yes	One record of brown hare was returned. No evidence of brown hare was found, however there is suitable habitat present.
Water vole (*Arvicola amphibius*)	None	No	On record returned for water vole, however, there is limited suitable habitat on site.
White-clawed crayfish (*Austropotamobius pallipes*)	Suitable habitat present	Yes	No previous records of white-clawed crayfish, however Nun Brook may provide suitable habitat (surveys not yet completed).

Species / Species Group	Evidence	Considered within Assessment	Rationale for Consideration
Fish	None	No	Three records of brown trout (*Salmo trutta*) were returned, however Nun Brook was not considered suitable for fish.
Flora			
Vascular plants	None	No	Seven records for vascular plants were found during the data search, but the site lacks the characteristics to support notable plant species
Invasive Plant Species	Observed on site	Yes	31 records for invasive plant species were returned, and Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*) were observed on site.

Table 3 – Pre-development Habitats Identified

UK Hab Classification	Dominant Species / Description	Development Actions and Mitigation
Area Habitats		
Grassland – Modified Grassland	Five parcels of modified grassland were present on site, with varied levels of management and species compositions. Species present included perennial rye grass (*Lolium perenne*), with occasional cock's foot (*Dactylis glomerata*), dandelion (*Taraxacum agg.*), and creeping buttercup (*Ranunculus repens*). Some parcels also contained Japanese knotweed.	All parcels of grassland were in poor condition and offer limited habitat provision. New areas of wildflower meadow will be created around the periphery of the site and within the public open space which will be more ecologically beneficial.
Woodland – Other Woodland; Broadleaved	An area of woodland was present along the western site border, which included ash (*Fraxinus excelsior*), goat willow (*Salix caprea*), wych elm (*Ulmus glabra*), and cherry, sycamore (*Acer pseudoplatanus*). This area of woodland forms part of the Railway Land Hogshaw LWS.	While this area of woodland was poor condition, it still provides ecological value, however it will be lost to accommodate for the development. New areas of woodland will be created within the LWS and additional urban trees will be planted on site, however the loss of this habitat will not be fully compensated for.
Urban – Urban Trees	Four urban trees were present on the site along the western boundary – three goat willow and one silver birch (*Betula pendula*). These trees were inside the Railway Land Hogshaw LWS.	All four urban trees will be lost, however an additional 217 urban trees will be planted to mitigate for those lost
Urban – Artificial Unvegetated, Unsealed Surface	A footpath comprised of compact gravel substrate. No species present.	The metric allocates this habitat a condition score of N/A as it has low ecological value.

UK Hab Classification	Dominant Species / Description	Development Actions and Mitigation
Urban – Developed Land; Sealed Surface	Three buildings present on site, with some roosting potential for bats.	The metric allocates this habitat a condition score of N/A as it has low ecological value.
Linear Hedgerow Habitats		
Line of Trees	There are four lines of trees present on site, which predominantly form boundaries between fields and adjacent properties. Species present include ash, hawthorn (*Crataegus monogyna*), silver birch, sycamore, and willow (*Salix spp.*).	All four lines of trees present on the site are in moderate condition. Sections of two lines of trees (L1 and L2) will be lost as part of the development, however an additional eight lines of trees will be created across the site to compensate for this.
Built Linear Features	Dry-stone walls and fence lines were present on site, forming the site boundary and separating different parcels of land.	The metric allocates this habitat a condition score of N/A as it has low ecological value.
Linear River Habitats		
Other Rivers and Streams (Nun Brook)	Nun Brook was culverted through most of the woodland. Vegetation was present on the embankments either side and within the brook itself comprising occasional pendulous sedge (*Carex pendula*), cock's foot, Yorkshire fog (*Holcus lanatus*), and creeping buttercup.	The river was in fairly poor condition and will be retained in the development.

5 Biodiversity Enhancements

5.1 Bat Boxes

A total of 12 bat boxes are to be installed across the site. The bat boxes selected will provide a range of suitable conditions and target pipistrelle species that were confirmed present within the area during the data search for the PEA (Urban Green, 2023).

Externally mounted bat boxes are to be positioned on mature trees or newly constructed houses. Please refer to Table 4 for the bat box specifications examples. A bat box design of similar specification can be selected for the site.

Table 4 - Bat box specification

Bat Box Type	Image	Total Number of Boxes
Greenwoods Ecohabitats Two Crevice Bat Box Dimensions: External: 43 high x 21.5 wide x6.8 deep Internal: 41 x 16.5 x1.8 Weight: 6.75 kg		6
Greenwoods Ecohabitats Medium Hollow Bat Box Dimensions: External: 43 x 21.5 x 13.5 Internal: 41 x 16.5 x 8.5 Weight: 6.75		6

5.1.1 Positioning of Bat Boxes

Bat boxes must be positioned between 4–6m high and are most effective when located on a south-east to south-western facing aspect, as this will provide additional heat throughout the day. Bats prefer to change roosts to benefit from varying ambient temperatures, as such, bat boxes are to be clustered on trees in groups of two, with one box located on the south-western aspect and another on the south-eastern. Please refer to Appendix 1 for the Biodiversity Enhancements Location Plan.

5.1.2 Timing of Installation

As some trees and buildings assessed as having low to moderate potential for roosting bats will be lost as part of the development, it is recommended that bat boxes are to be installed prior to construction commencing, on existing trees.

5.1.3 Maintenance of Bat Boxes

Bat boxes are considered self-cleaning and require minimal maintenance once installed. The boxes are made of hard-wearing material that is generally long-lasting. Bat boxes should be checked periodically (e.g., every two years) to assess their use and the condition of the boxes. Section 2.4 includes the maintenance schedule.

If any boxes are identified as damaged or missing, they are to be replaced with a box of similar specification.

Note only those holding the appropriate Natural England Class 2 bat licence may open and inspect these boxes. It is an offence for anyone without this licence to open a bat box. If a bat box becomes occupied by a bird the nest must be left *in situ* until after the bird nesting season (March to September inclusive).

5.2 Bird Boxes

The development has the potential to enhance bird nesting opportunities through the provision of bird nest boxes. A total of 12 bird boxes are to be installed across the site.

Bird boxes come in several types and sizes, which vary in their suitability from species to species. Table 5 provides details of bird nest box types and the likely species they attract. Bird species that are known to inhabit the local area and readily utilise artificial nest boxes have been selected. Boxes of similar specifications as those detailed in Table 6 can be selected, in the case the example boxes are not available.

Table 5 - Bird nest box hole sizes and associated species

Box entrance hole size	Associated species
28mm	Great tit (*Parus major*), tree sparrow (*Passer montanus*), pied flycatchers (*Ficedula hypoleuca*)
32mm	House sparrow (*Passer domesticus*)
45mm	Starling (*Sturnus vulgaris*)
13cm high x 12cm wide	Barn owl (*Tyto alba*)

Table 6 – Bird nest boxes that can be bought from websites such as nhbs.com, habibat.co.uk or other online retailers

Bird box type	Image	Target Species	Number of boxes
BilBao Woodstone Nest Box Specification Height:210mm Width: 305mm Depth:120mm Entrance Hole Diameter: 28mm Weight: 6kg Material: Woodstone		Coal tit, blue tit, great tit	4
BilBao Woodstone Nest Box Specification Height: 210mm Width: 305mm Depth: 120mm Entrance Hole diameter: Oval 32mm Weight: 6kg Material: Woodstone		House sparrow, tree sparrow, great tit, blue tit, nuthatch	4
Vivara Pro Woodstone Starling Nest Box Specification Height: 385mm Width: 220mm Depth: 215mm Entrance hole diameter: 45mm Weight 7.4kg Material: Woodstone		Starling	2
Barn Owl Nest Box Specification Height: 74cm Width: 59cm Depth: 50cm Depth of enclosed box: 34cm Entrance hole: 13cm high x 12cm width Weight: 8kg approx. Material: FSC certified exterior grade plywood		Barn owl	2

5.2.1 Positioning of Bird Boxes

Bird boxes are most effective when positioned on a north-east to north-west facing aspect to prevent overheating during the summer nesting season. Care should be taken to make sure boxes are not angled in such a manner to allow rain to enter them. Nest boxes are to be affixed to vertical surfaces on retained

trees at a minimum height of 3m. Please refer to Appendix 1 for the Biodiversity Enhancements Location Plan.

5.2.2 Timing of Installation

The bird boxes must be installed at the earliest opportunity in order to compensate for the disturbance of the on-site nesting habitat. Bird boxes can be installed at any time of the year. However, they must remain undisturbed throughout the bird nesting season (March to September inclusive) to avoid disturbing nesting birds and committing an offence under the Wildlife and Countryside Act 1981 (as amended). Section 2.4 includes the Schedule of Works.

5.2.3 Maintenance of Bird Boxes

The boxes are made of Woodstone, which have been selected due to their durability compared traditional softwood boxes.

The following maintenance measures are to be completed, following the installation of the boxes:

- Bird boxes will require periodic checking and cleaning, (e.g., once every two years).
- Unhatched eggs may be removed legally between September and January and must then be disposed of.
- Disused nests must be removed and cleaned using boiling water to remove parasites. Boxes should be left to dry before replacing the lid. Insecticides and flea powders must not be used.
- If any boxes are identified as damaged or missing, they are to be replaced with a box of similar specification.

Note bird boxes must only be opened and cleaned outside the bird nesting season (which is between March to September inclusive).

5.3 Hedgehog

The site is considered to have potential to support hedgehogs, therefore, hedgehog highways are to be installed across the site to improve connectivity. Additionally, hedgehog homes are to be installed within suitable areas for hedgehogs within the site to provide additional hibernation features.

Appendix 1 details the location of the proposed hedgehog homes to be installed within the site. If hedgehog homes are not available, brash/wood piles can be used instead in similar locations.

Specifications for hedgehog enhancements are detailed in Table 7.

Table 7 – Hedgehog enhancements that can be bought from websites such as britishhedgehogs.org.uk, arkwildlife.co.uk or other online retailers

Specification	Image	Number of homes
Hedgehog Home Approximately 23 x 52 x 40cm (9" x 20½ " x 16").		6
Hedgehog Highway Height: 13cm Width: 15cm Image for illustrative purposes only, sign not required		Within garden fences

5.3.1 Hedgehog Homes Locations

A hedgehog house contains a narrow or tunnel-like entrance, which is essential to prevent predators such as foxes and badgers gaining access to the hedgehog house. In addition, camouflaging the top and sides of house with soil and leaves can also help to reduce the chance of predation, ensuring that the entrance remains clear at all times for hedgehog access.

Hedgehog homes are to be placed out of direct sunlight and must not face the north or north-east aspects (to avoid cold winter winds) and where it will not be disturbed, such as against a wall, bank or fence (British Hedgehog Preservation Society, 2018).

To prolong the longevity, hedgehog homes must be emptied (if absent from hedgehog presence) annually in April or October, to reduce the infestation of fleas and ticks that can be transferred through nest use. If hedgehog presence is confirmed within hedgehog homes from initial inspection (upon gently removing the lid), then this hedgehog home must be exempt from the annual clean until the following year (subject to presence of a hedgehog).

If possible, the addition of hay or straw must be added to each hedgehog home for insulation and replaced after an annual clean has been completed. Further information is available on the Hedgehog Street website (https://www.hedgehogstreet.org/cleaning-out-boxes/), and within the Work Schedule located in Section 5.4.

5.3.2 Hedgehog Highway Locations

Hedgehog highways comprise small gaps within fences, approximately 13cm x 13cm. They are to be installed across the site creating a corridor for hedgehogs to commute across the site and into residential gardens. It is recommended that every fence within the development has a hedgehog highway gap included to facilitate full movement of hedgehog across the site.

5.4 Work Schedule

Key

	Recommended times when works can be conducted
	Times to avoid work

5.4.1 During Construction

Works	J	F	M	A	M	J	J	A	S	O	N	D
Erect boxes / Deploy hedgehog houses	Any time of year. All bird/bat/hedgehog boxes to be erected prior to the completion of the scheme.											

5.4.2 Post-Construction

Works	J	F	M	A	M	J	J	A	S	O	N	D
Bird box check and cleaning			Avoid bird nesting season									
Bat box checks												
Annual hedgehog house clean and replacement of bedding (if absent from hedgehog presence)												

Bird and bat box checks should be conducted in October of every other year to ensure that there is sufficient time for any repairs or replacements to be conducted.

6 Ecological Strategy

This section summarises the management strategy for each habitat proposed to be introduced within the final design of the scheme and the recommended management practices for habitats to be retained within the development. Each objective includes a target time for positive assessment provided to enable identification of failing management and trigger early intervention. Management plans have been included detailing management objectives for an initial 5-year period. Regular monitoring of the site against the management objectives will be conducted during the first five years of the project, and a review of the management strategies will be undertaken, with any updates or changes to the program incorporated for the next five years of the management plan.

The proposed landscape layout (Urban Green, 2024c), found in the Biodiversity Net Gain Report (Urban Green, 2024a), displays the final proposed habitats and their location on site. Areas which are classified as 'developed land, sealed surface' offer no ecological benefit and the ecological value of 'vegetated gardens' is highly dependent on how they are used by homeowners. Therefore, both habitats are automatically allocated condition scores of N/A and require no ecologically driven management.

6.1 Retained Linear Hedgerow Habitats

6.1.1 Line of Trees

There were four lines of trees present on the site which will all be retained in their entirety. Detailed management techniques for lines of trees are described within Table 8 along with the corresponding condition criteria. All of these lines of trees are in **moderate** condition; in order to maintain this condition, at least 3 of the condition criteria detailed in Table 8 are expected to be achieved. An annual schedule of works for the first 5 years post-development is detailed in Table 15 in Section 6.5.

Table 8 – Management Objectives for Line of Trees

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. More than 70% of trees are native species	• Replace failed trees with new tree planting • Native species should be preferred for replacement planting. Chosen species should be consistent with the local species composition	Native trees are associated with higher overall species diversity and provide resources suited to native wildlife	From year 1
2. Tree canopy is predominantly continuous	• Where gaps in the canopy arise, new trees of appropriate size should be planted to fill these gaps • Only undertake pruning within the canopy, particularly where the crown would be reduced, where necessary	Continuous canopy cover forms an unbroken, linear corridor which facilitates the movement of wildlife between habitats and across landscapes	From year 1
3. Includes one or more mature	• Limit the use of damaging management practices e.g., herbicide use	Promotes healthy growth of trees to mature or veteran status. Mature	From year 1

	or veteran trees	• When trees reach maturity, appropriate corrective surgery may be necessary to sustain good health • Removal of diseased trees to prevent spread • Undertake regular arboricultural assessments based on recommendations in the AIA	and veteran trees offer more ecological niches and ecosystem services than younger trees	
4.	There is an undisturbed, naturally vegetated strip 6m either side	• Leave 6m strips adjacent to the line of trees unmanaged to allow a natural vegetated community to develop • In these areas, avoid activities which would cause disturbance, such as mowing, weeding, applying fertiliser, high levels of footfall • This is not achievable for all lines of trees on site due to location and so some lines of trees will automatically fail this criterion	An additional, natural habitat around the line of trees will act as a buffer between the trees and wider development and as a transition habitat for fauna	From year 1
5.	At least 95% of trees are in healthy condition	• Only undertake management activities where necessary • Limit use of herbicides around trees • Tree works/pruning should be undertaken by a qualified professional • Avoid cutting all specimens across the plot in a single period, particularly where this is likely to remove all flower/fruit interest for wildlife. • Removal of diseased trees to prevent spread • Ensure tree canopy is balanced and consistent with the natural structure for the species	Promotes healthy growth and supports growth to maturity or veteran status	From year 1

6.2 Created Area Habitats

6.2.1 Urban - Urban trees – Proposed Trees

A total of 275 (123 small and 152 medium) trees will be planted across the site, however 147 have been classified within separate habitats. The remaining 108 urban trees will be planted in the public open space, with twenty being within the Railway Land Hogshaw LWS. The mix incorporates both native and non-native species, such as silver birch, bird cherry (*Prunus padus*), pedunculate oak, hornbeam 'Frans Fontaine' (*Carpinus betulus* 'Frans Fontaine'), and field maple 'Streetwise' (*Acer campestre* 'Streetwise').

Detailed management techniques for new urban trees are described within Table 9 along with the corresponding condition criteria. The targeted condition for the new urban trees is **moderate**, with an expected target condition time of 27 years. In order to reach the expected targeted condition, at least 3

of the condition criteria must be achieved. As individual trees automatically pass criterion 2, this is not assessed. An annual schedule of works for the first 5 years post-development is detailed in Table 16 in Section 6.4.

Table 9 – Management Objectives for Urban Trees

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The tree is a native species	Replace failed trees like for like (according to planting scheme and landscapes)	Trees provide biodiverse habitats, with native trees supporting more native species	From year 1
2. The tree canopy is predominantly continuous	N/A	N/A	N/A
3. The tree is mature or veteran	• Limit the use of damaging management practices e.g., herbicide use • After 10-20 years, trees will reach semi-maturity and appropriate corrective surgery may be necessary. • Undertake regular arboricultural assessments based on formal recommendations (Urban Green, 2024d)	Mature and veteran trees are more effective than young trees at providing air filtration services and sequester carbon. Veteran trees provide additional niches for wildlife.	10 years
4. There is little or no evidence of an adverse impact on tree health by anthropogenic activities and no current regular pruning regime so the trees retain >75% of expected canopy	• Only undertake management activities where necessary • Limit use of herbicides around trees • Tree works/pruning should be undertaken by a qualified professional • Avoid cutting all specimens across the plot in a single period, particularly where this is likely to removes all flower/fruit interest for wildlife. • Ensure tree canopy is balanced and consistent with the natural structure for the species	Promotes healthy growth and supports growth to maturity.	From year 1
5. Micro-habitats for birds, mammals and insects are present	• Leave any micro-habitat features, such as ivy and loose bark, in place	Ensures diversity is maintained throughout by allowing the creation of additional habitat niches	By year 5

	• Where it is safe and appropriate, retain areas of dead wood • No management activities to take place during nesting season (February to August) • Avoid undertaking management activities on all trees in a single month period to retain important resources for wildlife. • Installation of bird and bat boxes in suitable locations on trees	which can be exploited by wildlife.	
6. More than 20% of the tree canopy area is oversailing vegetation beneath	• Leave a 2m unmown buffer zone around each tree to allow natural succession of surrounding vegetation • No use of herbicides within this zone • Periodic removal of non-native invasive species (Appendix 2)	Creates a buffer habitat around trees to allow movement of wildlife and increases diversity of flora	From year 1

6.2.2 Urban - Introduced Shrub

Areas of introduced shrub containing different species mixes will be created within the public space to improve the visual amenity of the area. Within the landscape proposals, the introduced shrub mixes are classified as 'Proposed Ornamental Shrub and Herbaceous Planting' and 'Proposed Semi-native Shrub Planting,' and include species such as Japanese quince (*Chaenomeles japonica*), creeping willow (Salix repens), and spurge-laurel (*Daphne laureola*).

Planting will provide a positive visual impact but has limited value as a habitat. Introduced shrub is automatically assigned a condition score of **N/A** within the metric and, due to the ornamental nature and limited ecological value that this habitat type provides, only basic aesthetic management is required.

6.2.3 Heathland and Shrub - Mixed Scrub

Blocks of native mixed scrub habitat will be planted within the areas of wildflower meadows, to the east and west of the site, adding diversity to these habitats. These mixes are classified as 'Proposed Native Shrub Planting' and 'Proposed Woodland Understory Planting' in the landscape proposals. Species such as dog wood (*Cornus sanguinea*), elder (*Sambucus nigra*), guelder rose (*Viburnum opulus*), hazel (*Corylus avellana*), silver birch, bird cherry and rowan (*Sorbus aucuparia*) will be planted in mixed groups to create this habitat.

Detailed management techniques for new mixed scrub are described within Table 11 along with the corresponding condition criteria. The expected condition for all areas of mixed scrub is **poor**, with an expected target condition time of 1 year. Management practices should aim to produce a habitat which

reaches a better condition score of moderate (meets 3 condition criteria) or good (meets all criteria) by following the guidance laid out in Table 10. An annual schedule of works for the first 5 years post-development is detailed in Table 17 in Section 6.4.

Table 10 – Management Objectives for Mixed Scrub

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. Habitat is representative of UKHab description and there are at least three woody species	• As many native, shrubby species as possible to be incorporated at design stage • Replace lost plants with another of the same species, size and quality to ensure diversity is maintained and one species cannot dominate.	A wide range of species provides varied foraging, commuting nesting opportunities to birds, invertebrates and small mammals	From year 1
2. There is a good age range	• Allow natural seeding of new shrubs • Appropriate pruning of shrubs to promote health and reach full growth • Replace lost shrubs with young plants, according to the landscape plan	Different life stages provide different foraging and habitat opportunities	From year 4
3. There is an absence of invasive non-native species	• Identification and removal of invasive non-native species as soon as possible. • Where possible, do this by hand. If necessary, application of herbicide should be carried out by an experienced contractor.	Ensure native assemblage of species throughout mixed scrub habitat. Prevents competition from aggressive non-native species.	From year 1
4. The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	• Limit mowing in the immediate habitat surrounding the areas of mixed scrub to allow succession of natural vegetation • Avoid using fertiliser on site to prevent a small number of species dominating	Creates a gentle habitat gradient to allow movement of fauna and increases diversity around the mixed scrub habitat.	From year 1
5. There are clearings, glades or rides present within the scrub, providing sheltered edges.	• Hand removal of woody species in clearings/rides/glades which would close the open spaces within this habitat • Retain pruned wood on site as hibernacula	Creates edge habitat which provides additional foraging and commuting benefits for birds, invertebrates and small mammals	By year 5

6.2.4 Woodland - Other Woodland; Broadleaved

Two areas of woodland will be created on the site; one will be to the south-west of the site, within the Railway Land Hogshaw LWS, and one will be along the north-eastern boundary of the site, with the north-western section of it falling within the LWS. Both new areas of woodland will include predominantly native tree species, such as silver birch, pedunculate oak, alder (*Alnus glutinosa*), goat willow, and rowan, and an understory of scrub species such as elder, dog wood and hazel.

The targeted condition for the three new woodland habitats are **moderate**, with an expected target condition time of 15 years. Detailed management techniques are described within Table 11 along with the corresponding condition criteria. In order to reach the expected targeted condition of **moderate**, this habitat must achieve a condition score of at least 26 points. An annual schedule of works for the first 5 years post-development is detailed in Table 18 in Section 6.4.

Table 11 – Management objectives for broadleaved woodland

Condition assessment criteria	Management and enhancement activities	Benefit to environment	Target time for positive assessment
1. Age distribution of trees	• Annual visual inspection of trees in high priority areas and undertake arboricultural works where necessary • Supplementary planting of young, native trees in large gaps in canopy • Select species appropriate for the region and existing woodland structure, for example, birch (*Betula* spp.), cherry (*Prunus* spp.) and oak (*Quercus* spp.) • Thinning of poor quality and dense saplings	Provides diverse vertical structure, increase foraging and nesting opportunities, and ensures continuous cover of trees in good health	From year 5
2. Wild, domestic, and feral herbivore damage	• Install fencing or tree guards to protect from grazing if damage is observed • Undertake pruning where excess damage may impact the health of trees	Ensures trees reach full maturity, are free from damage and are in good health	From year 1
3. Invasive plant species	• Identify and remove invasive non-native species as soon as possible (Appendix 11) • Where possible, remove invasive species by hand. If necessary, application of herbicide should be carried out by an experienced contractor	Ensure native assemblage of species throughout habitat. Prevents competition from aggressive non-native species	From year 1
4. Number of native tree species	• Introduction of new, native species where large gaps in the canopy and understory are present or develop • New planting should be native and suitable for the region	Native species within a habitat provide more niches and foraging resources for native wildlife	From year 3

	• Removal of natural regeneration of non-native tree species		
5. Cover of native tree and shrub species	• Supplementary planting of shrub species in the understory to produce minimum 80% cover of native species • Ensure all planting is of native species appropriate for the wider landscape	Native species within a habitat provide more niches and foraging resources for native wildlife and a balance of shrubs and trees provides a diverse vertical structure within woodland	From year 3
6. Open space within woodland	• Human disturbance should be managed to allow natural regeneration in open spaces. This could include creating path networks or restricting access to sensitive spaces • Where cover of open space exceeds 20%, gaps in canopy can be planted with medium to large, native tree species	Ensures continuous tree cover which is important for commuting and nesting wildlife	From year 5
7. Woodland regeneration	• Undertake arboricultural work where required to promote good health of individual trees and encourage growth to maturity • Selective thinning of dense existing growth (no more than 2m spacing) to increase light, water, and nutrient availability for the progression of new generations • Manage anthropogenic influence so areas of natural regeneration are undisturbed	Encourages growth of different age classes which provides varied vertical structure and foraging opportunities	From year 5
8. Tree health	• Continuous monitoring for signs of disease • Implement biosecurity measures if works are taking place within the woodland and there is a risk of cross contamination with other sites • Remove diseased trees when possible • Removal of regeneration of species which are susceptible to disease e.g. ash and elm (*Ulmus* spp.)	Promotes healthy growth and prevents regional and national spread of disease	From year 1
9. Vegetation ground flora	• Selective thinning of dense existing growth to increase water and nutrient levels in soil and light levels reaching the ground	A diverse ground flora layer provides additional habitat opportunities for wildlife and promotes overall floral diversity of the woodland	From year 2

	• Manage anthropogenic influence so areas suitable for regeneration are undisturbed • Create a diverse ground flora community by introducing a seed mix or plugs • Introduced ground flora species should be native and suited to woodland and shade habitats, for example, bluebell (*Hyacinthoides non-scripta*) and foxglove (*Digitalis purpurea*)		
10. Woodland vertical structure	• Supplementary planting of shrub species in the understory, including species such as hazel (*Corylus avellana*) and hawthorn • Appropriate management of trees to promote good health and encourage growth to maturity	Varied vertical structure offers broader nesting, commuting and foraging opportunities to a wider range of birds, invertebrates and small mammals	From year 10
11. Veteran trees	• Continuous monitoring of tree health and undertake appropriate arboricultural work when necessary to promote good health and encourage growth to maturity • Removal of non-native invasive species which could negatively impact growth • Select individual tree specimens to retain and thin surrounding competing stems	Veteran trees provide habitat niches to native wildlife which younger trees lack	From year 10
12. Amount of deadwood	• Retain non-diseased standing deadwood, including branches and trees, where safe and possible • If dead wood is pruned, leave removed limbs in the woodland as hibernacula	Deadwood is a habitat and foraging resource for bird and invertebrate species	From year 1
13. Woodland disturbance	• No use of fertilisers within the woodland • Manage anthropogenic activity within the woodland to limit damage and disturbance e.g. installation of paths	Limiting nutrient enrichment and disturbance prevents a handful of species dominating and ensures healthy growth of natural regeneration	From year 1

6.2.5 Grassland - Other Neutral Grassland – Proposed Wildflower Meadow

Areas of wildflower meadow will be created in public areas along all boundaries of the site, buffering the site from the adjacent woodland and arable land. These areas will be prepared and sown with EM2 standard general purpose meadow mixture which contains a mix of 85% slow growing grasses and 15% wildflowers, including species such as common bent (*Agrostis capillaris*) and black medic (*Medicago lupulina*).

Detailed management techniques for new wildflower meadows are described within Table 12 along with the corresponding condition criteria. The expected condition for this habitat is **good**, with an expected target condition time of 10 years. In order to reach the expected targeted condition, all of the condition criteria detailed in Table 12 must be achieved. An annual schedule of works for the first 5 years post-development is detailed in Table 19 in Section 6.4.

Table 12 – Management Objectives for Other Neutral Grassland

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type. Indicator species are clearly visible throughout sward	• Remove arisings after mowing to prevent nutrient enrichment of soils and the likelihood of a handful of species dominating • Re-seed areas of bare ground using the same seed mix	Ensures the grassland remains as a medium distinctiveness habitat and contains a high species richness	From year 1
2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm)	• Once established, mow wildflower meadows to 50-75mm in spring and autumn to encourage seasonal growth. • Remove arisings to keep nutrient levels low • Stagger mowing of different sections of meadow/groundcover planting to encourage maximum diversity	Varied sward heights provide increased opportunities for commuting and foraging for birds, invertebrates and small mammals	From year 1
3. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	• Ensure adequate seeding of bare ground at 4g/m^2 • Monitor growth and seed areas of bare ground when seasonally appropriate.	Ensures widespread cover of wildflower assemblages and reduces space for more dominant species to colonise	From year 2
4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	• Regular inspection of meadow area for bracken and scrub growth • Hand removal of bracken and scrub species where cover is approaching 20%	Removing bracken at an early stage prevents species from dominating the habitat and outcompeting other desired species	From year 2
5. There is an absence of invasive non-native species (as listed on	• Identification and removal of invasive non-native species as soon as possible. • Where possible, do this by hand. If necessary,	Ensure native assemblage of species throughout grassland habitat. Prevents competition	From year 1

Schedule 9 of WCA, 1981).	application of herbicide should be carried out by an experienced contractor.	from aggressive non-native species.	
6. There are greater than 9 species per metre squared	• No fertiliser to be used on wildflower areas • Reduce mowing to twice yearly to allow flowers to set seed • Monitoring and removal of non-native invasive species • Monitoring and removal of more dominant shrub species	Ensures high floristic diversity and a wide range of habitat and foraging provisions for pollinator and bird species	From year 1

6.2.6 Grassland – Modified Grassland – Proposed Seeded Amenity Grass

Germinal grade A19 grass seed containing 5 grass species, including perennial ryegrass (*Lolium perenne*) and corail strong creeping red fescue (*Fescuta rubra rubra*), will be sown within the residential areas, adjacent to roads and driveways, forming verges. This grassland is expected to contain a low species richness and be heavily managed by mowing, resulting in a low sward height. It will also buffer the wildflower meadow habitat from the roads.

Detailed management techniques for modified grassland are described within Table 13, along with the corresponding condition criteria. The expected condition of the grassland is **poor**, with an expected target condition time of 1 year, and, due to the low species richness, these areas of modified grassland cannot achieve moderate or good condition. For this reason, criteria 1 has not been assessed. Regardless, consideration should be given to implementing management practices which promote the development of a habitat which still offers value to local wildlife.

Table 13 – Management Objectives for Modified Grassland

Condition Assessment Criteria / objective	Management Activities	Benefit to environment	Target time for Positive Assessment
1. There must be 6-8 species per m^2. If a grassland has 9 or more species per m^2 it should be classified as a medium distinctiveness grassland habitat type.	N/A	N/A	N/A
2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for	• Observe periods where mowing is avoided e.g. No Mow May • Leave 1m unmown buffer strips around areas of grassland • Avoid cutting all areas of grass at once to	Varied sward heights provide increased opportunities for commuting and foraging for birds, invertebrates and small mammals	From year 1

	insects, birds and small mammals to live and breed.	provide structural diversity across the site		
3.	Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	• Consistent monitoring of habitat for growth of shrub species • Hand removal of any growth of woody species	Maintains the characteristic of the habitat and prevents overgrowth by shrub species	From year 2
4.	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	• Ensure areas of bare ground are kept to a minimum to reduce erosion by re-seeding bare ground • Only carry out necessary maintenance activities when specified and at the appropriate time of year • Management activities to be carried out by a suitably qualified person using the correct equipment	Preventing physical damage promotes healthy growth of vegetation and uniformity within the habitat	From year 1
5.	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	• Seed any bare areas with a suitable seed mix	Ensures widespread cover of desired species and reduces space for non-desirable species to colonise	From year 1
6.	Cover of bracken less than 20%.	• Consistent monitoring of the habitat for bracken growth • Hand removal of bracken upon discovery	Removing bracken at an early stage prevents species from dominating the habitat and outcompeting other desired species	From year 2

6.2.7 Lakes – Ponds (Non-Priority Habitat)

A non-priority pond will be created to the west of the site and will act as a drainage feature. Native reeds will be planted within this habitat, including species such as lesser pond sedge (*Carex acutiformis*), yellow iris (*Iris pseudacorus*), and branched bur reed (*Sparganium erectum*). There will also be an area of wet

meadow surrounding the pond which will also be classified within the pond habitat, containing species such as yellow rattle (*Rhinanthus minor*), meadow buttercup (*Ranunculus acris*), and red campion (*Silene dioica*), and grass species include meadow foxtail (*Alopecurus pratensis*) and creeping red fescue (*Festuca rubra*).

Detailed management techniques for the new pond are described within Table 14 along with the corresponding condition criteria. The expected condition for the pond habitat is **moderate**, with an expected target condition time of 3 years. In order to reach the expected targeted condition, at least five of the condition criteria must be achieved. Criteria 4, 5 and 7 are fixed during the installation of the pond, therefore cannot be assessed. An annual schedule of works for the first 5 years post-development is detailed in Table 20 in Section 6.4.

Table 14 – Management objectives for Pond (Non-priority Habitat)

Condition assessment criteria	Management and enhancement activities	Benefit to environment	Target time for positive assessment
1. The pond is of good water quality, with clear water (low turbidity)	• Ensure marginal habitats are suitably maintained to reduce run-off of sediment into the pond • Avoid intensive management activities or excessive human disturbance around the pond edge • Remove large litter regularly	Ensures aquatic vegetation receives adequate light levels	From year 1
2. There is semi-natural habitat for at least 10 m from the pond edge.	• Maintain marginal habitats and re-seed any areas of bare ground within the other neutral grassland habitat • Encourage colonisation of bare ground by managing disturbance by anthropogenic activity around the pond edge i.e. designated walkways/paths, restricted areas	Marginal semi-natural habitat provides a transitional habitat between the pond and other site areas. Valuable area for refuge for amphibious species.	From year 1
3. Less than 10% of the pond is covered with duckweed or filamentous algae.	• Remove duckweed and filamentous algae by hand using a pond net or a rake	Ensures aquatic vegetation receives adequate light levels	From year 1
4. The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework.	N/A	N/A	N/A
5. Pond water levels should be able to fluctuate naturally	N/A	N/A	N/A

throughout the year. No obvious dams, pumps or pipework.			
6. There is an absence of non-native plant and animal species.	• Regular monitoring (monthly) of habitat for invasive species • Identify and remove invasive, non-native species as soon as possible • Where possible, remove invasive species by hand. If more intensive removal is required, this should be carried out by an experienced contractor	Ensure native assemblage of species. Prevents competition from aggressive non-native species.	From year 1
7. The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	N/A	N/A	N/A
8. In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds), should cover at least 50% of the pond area that is less than 3 m deep.	• Ensure duckweed is removed to prevent dominant cover • Monitor health of aquatic plants throughout the year and remove dead plant material when necessary • Supplementary introduction of aquatic vegetation, incorporating species reflective of the existing community	Aquatic plants provide foraging and resting opportunities for aquatic and amphibious species	From year 1
9. The surface of non-woodland ponds is no more than 50% shaded by woody bankside species.	• Selective removal of shrub/tree regeneration to thin areas of growth • Prune excess (>50% cover) growth around the periphery of the pond	Allows maximum light levels to reach the pond surface to encourage growth of aquatic vegetation	From year 2

6.2.8 Urban – Vegetated Gardens

The areas of 'Proposed Turf Grass', 'Proposed Groundcover Planting' 'Proposed Hedge Planting' and 'Proposed Ornamental Shrub & Herbaceous Planting' are all within the front and back gardens of houses. Gardens will be the homeowners responsibility, therefore a management plan is not necessary for these habitats.

6.3 Linear Habitats

6.3.1 Line of Trees

An 80m line of trees will be created in the north-western area of the site next to the pond and within the LWS. The line of trees will be comprised of alder, silver birch, goat willow, and small-leaved lime (*Tilia cordata*).

Detailed management techniques are the same as those described for existing lines of trees in Table 8, Section 6.1.1. The targeted condition for the lines of trees is **moderate**, with an expected time to target condition of 20 years. In order to reach the expected targeted condition of **moderate**, at least 3 of the condition criteria must be met. An annual schedule of works for the first 5 years post-development is detailed in Table 15 in Section 6.4.

Appropriate for management

Not appropriate for management

6.4 Five Year Work Programme

Table 15 - Five Year Work Programme for Lines of Trees

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Lines of Trees	Initial and replacement planting – Bare root and root ball	Year 1 then as required to year 5												
	Initial and replacement planting – Containerised	Year 1 then as required to year 5												
	Control and removal of non-native species surrounding trees	As required year 1 to 5												
	Mulching using organic mulch, forming 1m radius around tree, to control weeds • Use organic mulches (leaf litter, rotted hay or grass clippings, manure, wood chips)	Annually years 1 to 3												
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5												
	Any required pruning to damaged or diseased trees	As required year 1 to 5												

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
	Water twice a month during warmer months	Annually during warmer months or as needed in periods of hot weather												
	Visual inspection of tree health	Based on recommendations made in the tree survey report (Urban Green, 2024d)												

Table 16 – Five Year Work Programme for Urban Trees

Habitat	Action	Frequency Notes	Indicative timing of operation										
			J	F	M	A	M	J	J	A	S	O	N	D
Urban trees	Initial and replacement planting – Bare root and root ball	Year 1 then as required to year 5												
	Initial and replacement planting – Containerised	Year 1 then as required to year 5												
	Control and removal of non-native species surrounding trees	As required year 1 to 5												
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5												
	Any required pruning to damaged or diseased trees	As required year 1 to 5												

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
	Water twice a month during warmer months	Annually during warmer months or as needed in periods of hot weather												
	Visual inspection of tree health	Based on recommendations made in the tree survey report (Urban Green, 2024d)												

Table 17 – Five Year Work Programme for Mixed Scrub

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Mixed scrub	Initial and replacement planting	As required year 1 to 5												
	Visual inspection to assess plant health	Bi-monthly every year												
	Control and removal of invasive non-native species	As required year 1 to 5												
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5												
	Pruning of plants using appropriate methods.	As required year 1 to 5												

Table 18 – Five Year Work Programme for Broadleaved Woodland

Habitat	Action	Frequency Notes	Indicative timing of operation										
			J	F	M	A	M	J	J	A	S	O	N	D
Other Broadleaved Woodland	Initial and replacement planting for failed whips, using the same species – Bare root and root ball	Year 1 then as required to year 5												
	Monitoring of health and viability every 3 years. Visual inspection of trees in high priority areas	Annually and following strong winds												
	Control and removal of non-native, invasive species	As required year 1 to 5. Removal should be carried out as swiftly as possible after identification												
	Pruning of dead and damaged limbs and retention of wood within woodland	Every three months years 1 to 5												
	Thinning of dense woodland growth to 2m spacing	Year 5												
	Thinning of young growth around mature trees	Year 5												

Table 19 – Five Year Work Programme for Other Neutral Grassland/Wildflower Meadow

Habitat	Action	Frequency Notes	Indicative timing of operation										
			J	F	M	A	M	J	J	A	S	O	N	D
Other Neutral Grassland/Wildflower Meadow	Initial and replacement seeding	Year 1 then as required to year 5												
	Control and removal of non-native species	As required year 1 to 5												
	Monitoring throughout growing and dormant period to ensure successful establishment and control browsing and other damage	Every three months years 1 to 5												
	Removal of dense bracken and shrub growth	Annually years 1 to 5, outside of nesting season												
	Mowing of meadow areas	Spring and autumn cut and removal of arisings, annually years 1 to 5												

Table 20 – Five Year Work Programme for Pond (Non-priority Habitat)

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
Pond	Re-seeding of other neutral grassland habitat within 10m of pond edge	As required years 1 to 5												
	Cut back excess woody growth around pond edge which is encroaching into pond or shading areas of the pond	Annually years 1 to 5												
	Undertake reed cutting to thin reed beds out	On a 4-year rotation and cut different patches in different years												
	Removal of large litter and debris	Monthly years 1 to 5												
	Control and removal of non-native, invasive species	As required. Removal should be carried out as swiftly as possible after identification												

Habitat	Action	Frequency Notes	Indicative timing of operation											
			J	F	M	A	M	J	J	A	S	O	N	D
	Manual removal of duckweed and extensive algal growth	As required years 1 to 5												

7 References

Basingstoke and Deane (2010). Hedgerows – A Guide to their Management.

Baker, J., Hoskin, R. and Butterworth, T. (2019). Biodiversity net gain. Good practice principles for development: A practical guide.

Boissery, M (2016). The Creation and Management of Meadows. Available URL: https://www.umdsmartgrowth.org/wp-content/uploads/2018/09/plsc.480.1.the_creation_and_management_of_meadows.pdf. [Last accessed: 17/03/2023].

British Hedgehog Preservation Society. *Hedgehog Homes - Know your Hedgehog.* Available URL: https://www.britishhedgehogs.org.uk/leaflets/L5-Hedgehog-Homes.pdf [Last accessed 17/03/2023].

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *UK Habitat Classification – Habitat Definitions V1.1*

CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.

Day, J., Symes, N., Robertson, P. & Bacon, J. (eds) (2003) The Scrub Management Handbook: Guidance on the management of scrub on nature conservation sites (IN124). The Forum for the Application of Conservation Techniques (FACT), with the assistance of English Nature, Peterborough.

Forestry Commission (2003). The Management of Semi-natural Woodlands - Lowland Mixed Broadleaved Woods. Available URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1037796/Managing_semi-natural_woodland_in_England.pdf. [Last accessed: 17/03/2023].

GOV.UK. 2022. Manage scrub and scrub mosaics. [online] Available URL: https://www.gov.uk/guidance/manage-scrub-and-scrub-mosaics#:~:text=Managing%20scrub%20edges&text=Avoid%20topping%20dense%20patches%20of,to%20avoid%20destroying%20seeding%20herbs. [Last accessed: 17/03/2023].

Greenwood's Ecohabitats. Shop. Available URL: https://www.greenwoodsecohabitats.co.uk/shop [Last accessed: 17/03/2023].

Jarvis, D (2014). *WILDFLOWER MEADOW Creation and management in land regeneration.* The Land Regeneration and Urban Greenspace Research Group. Available URL: https://cdn.forestresearch.gov.uk/2022/02/bpg_15.pdf [Last accessed 17/03/2023].

Lowe, S., Repper, L. and Wallace, S.G. (2012) Notes on Tree Planting and the Use of Native Species in North East England.

Natural England (2022). Habitat Condition Assessment Sheets.

Natural England (2011). Illustrated guide to ponds and scrapes - Natural England Technical Information Note TIN079. Available URL: http://publications.naturalengland.org.uk/file/101001 [Last accessed: 17/03/2023].

NHBS. *Barn Owl Nest Box.* Available URL: https://www.nhbs.com/barn-owl-nest-box [Last accessed: 17/03/2023].

NHBS. *Vivara Pro Seville 28mm WoodStone Nest Box*. Available URL: https://www.nhbs.com/vivara-pro-seville-28mm-woodstone-nest-box [Last accessed: 17/03/2023].

NHBS. *Vivara Pro Seville 32mm WoodStone Nest Box*. Available URL: https://www.nhbs.com/vivara-pro-seville-32mm-woodstone-nest-box [Last accessed: 17/03/2023].

NHBS. *Vivara Pro WoodStone Starling Nest Box*. Available URL: https://www.nhbs.com/vivara-pro-woodstone-starling-nest-box [Last accessed: 17/03/2023].

Oertli, B. & Parris K.M. (2019). Review: Toward management of urban ponds for freshwater biodiversity. *Ecosphere* 10(7):e02810. 10.1002/ecs2.2810.

Scott, R (2008). Wildflower Landscapes in the Urban Environment. In Hitchmough, J & Fieldhouse, K (ed.) *Plant User Handbook: A Guide to Effective Specifying*. John Wiley & Sons, pp. 258–266.

Stace, C. (2010). New Flora of the British Isles. 3rd ed. Cambridge: Cambridge University Press.

The Tree Council (2007). Managing and Caring for Trees.

Urban Green (2023). UG_1795_ECO_PEA_05.

Urban Green (2024a). UG_1795_ECO_BNG_05.

Urban Green (2024b). UG_1795_ECO_BNG_CALC_05.

Urban Green (2024c). UG_1795_LAN_GA_DRW_01 P08.

Urban Green (20234d). UG_1795_ARB_AIA_REV_05_FINAL.

Wildlife and Countryside Act (1981).

APPENDIX 1 – BIODIVERSITY ENHANCEMENTS LOCATION PLAN

URBAN GREEN

KEY

Site Red Line Boundary

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Pla
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

Two Crevice Bat Box (in groups of 2)

Medium Hollow Bat Box (in groups of 2)

BilBao Woodstone Nest Box (28mm)

BilBao Woodstone Nest Box (32mm)

Vivara Pro Woodstone starling Nest Box

Barn Owl Nest Box

Hedgehog House

Do not scale this drawing (printed or electronic version)

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings andspecifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

URBAN GREEN

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF
T: +44 (0) 161 312 3131

Client
Barratt Homes

Project:
Hogshaw Farm

Title:
Biodiversity Enhancements Location Plan

Issue:
05

Drawn:	Checked:	Approved:
SC	SB	MG

Project:	Scale @ A:3:	Date:
UG1795	1:5,000	19/07/2024

Dwg No:
UG_1795_ECO_BEMP_05 — **05**

APPENDIX 2 – SCHEDULE 9 INVASIVE SPECIES

An invasive, non-native species is a species that is present outside of its native range but has established populations after accidental or intentional introduction to a geographical region. These species have negative ecological impacts on the environments in which they are present by outcompeting native flora and fauna for resources, facilitating the spread of disease, and interrupting natural food webs.

Schedule 9 of the Wildlife and Countryside Act 1981 lists the species within the UK which are considered invasive and are damaging to biodiversity. It is the legal responsibility of the landowner to control populations of invasive species and prevent their growth and spread.

The table below details common invasive, non-native species listed on Schedule 9 and the recommended management practices.

Common name (*scientific name*)	Identification		Management
Himalayan balsam (*Impatiens glandulifera*)	• Green or red stems • Serrated oval leaves growing in a whorl round the stem • Bright pink flowers		• Spraying of glyphosate-based herbicides • Application to be carried out by a qualified individual • Herbicide to be applied in spring, before the flowering period but after germination of seeds • Approved herbicides only to be used • Balsam bashing – pulling plants up by the root before seeds are set (before July/August)

Japanese knotweed (*Fallopia japonica*)	• Bamboo like stems with purple flecks • Large, shovel shaped leaved • Cream/white clustered flowers		• Stem injection or spraying with glyphosate in late summer/early autumn (September/October) • Approved herbicides only to be used • Application to be carried out by a qualified individual • Application of herbicide annually (can take 3+ years to effectively combat) • Inform relevant authorities prior to disposal of plant material or use an authorised disposal site/company (GOV.UK, 2022)

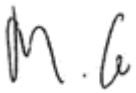
HABITAT REGULATIONS ASSESSMENT REPORT

JULY 2024

Hogshaw Farm
Fairfield,
Buxton,
SK17 7HN

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1795				
Project:	Hogshaw Farm				
Location:	Fairfield, Buxton, SK17 7HN				
Title:	Habitat Regulations Assessment Report				
Document Type:	HRA	**Issue No.:**	01		
Date:	March 2023				
Checked By:	Jake Healy	**Signature:**		**Qualifications:**	Ecologist, MSc, Qualifying CIEEM
Checked By:	Max Grindle	**Signature:**		**Qualifications:**	Assistant Ecologist, BSc, Qualifying CIEEM

Revision Status

Rev	Date	Comment	Prepared	Checked
02	31/03/2023	Reflecting amendments to the site RLB.	Max Grindle	Jake Healy
03	13/02/2024	Review against updated plans	Jake Healy	Barnaby Gardner
04	23/07/2024	Review against updated plans	Toby Mills	Oliver Silver

CONTENTS

1 Introduction 4

1.1 Background to the Scheme 4

1.2 Site Context 4

1.3 Project Description 5

1.4 Purpose and Scope of the report 5

2 Legislative and Policy Context 6

2.1 National Policy and Legislation 6

2.2 Local Policy 7

3 Methodology and Scope 9

3.1 HRA Process Stages 9

3.2 Potential Zone of Influence 9

3.3 Method for Determining Likely Significant Effects 10

4 Ecological Baseline 12

4.1 Data Sources 12

4.2 European Sites within the UK 12

5 Stage 1A - Potential Risks and Threats to Designated Sites 21

5.1 Changes in species distribution 21

5.2 Increased Water pollution 21

5.3 Public access / Disturbance / Increased recreational pressure 22

6 Stage 1B - Combined Effects 23

6.1 Assessment of In-Combination Effects 23

7 Stage Two - Appropriate Assessment 24

7.1 Water Pollution 24

7.2 Increased public access / disturbance / recreational pressure 25

8 Conclusion 26

9 References 27

1 Introduction

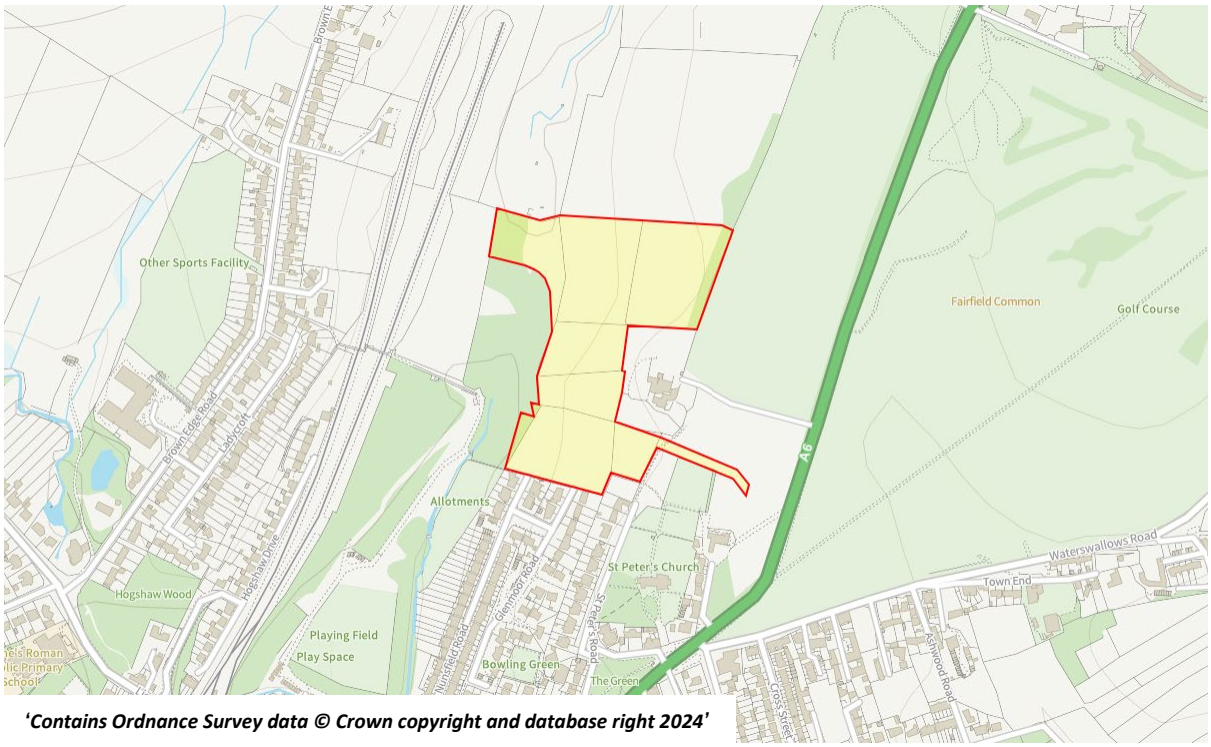
1.1 Background to the Scheme

Urban Green have been appointed to produce a Habitat Regulations Assessment (HRA) report in consideration of the proposed residential development at Hogshaw Farm.

This document provides information to assist the Local Planning Authority (LPA), High Peak Borough Council, the 'Competent Authority'), in carrying out a Habitats Regulations Assessment ('HRA') in accordance with Article 6(3) and 6(4) of the EU Habitats Directive (92/43/EEC). The primary aim is to provide information to assist the Competent Authority to determine whether or not the proposed development of the site would have a likely significant effect on those European conservation sites and Ramsar sites that fall within a 10 km radius of the site, either alone or in combination with other plans or projects. Once these likely significant effects have been identified, an assessment of the impact of these effects will be carried out and any mitigation that is to be required will be detailed. This is equivalent to the requirements of Stage 1 and Stage 2 of the HRA process, following the procedures set out in European and current national guidance (European Commission, 2001; ODPM, 2005).

1.2 Site Context

The site is located at National Grid Reference SK 06584 74409 and comprises a total area of approximately 5.6ha (see Figure 1).



'Contains Ordnance Survey data © Crown copyright and database right 2024'

Figure 1 – Site Extent

The site is located in the rural-urban fringe of Buxton, approximately 1.5km north-east of the town centre. The A6 lies approximately 50m east of the site, with Nun Brook adjacent to the north of the site. Residential housing lies immediately south of the site, with areas of recreational green space to the east and west and agricultural land to the north. An industrial unit is present along the central aspect of the eastern boundary of the site.

1.3 Project Description

The proposed plans for the site include the construction of a new residential development, with associated hard and soft landscaping.

1.4 Purpose and Scope of the report

The scope and approach taken in preparing the report to inform the HRA is summarised as follows:

- Set out the conservation objectives of the national site network sites;
- Describe the elements of the project that are likely to give rise to significant effects on the national site network sites;
- Describe how the project will affect the key species and key habitats of the national site network sites;
- Describe how the integrity of national site network sites is likely to be affected by the project;
- Identify likely significant affects that will require an appropriate assessment to be conducted.
- Conduct an appropriate assessment of the impact of the identified likely significant effects on the integrity of the national site network sites
- Detail any mitigation requirements that may be necessary to minimise these effects.

The approach taken in preparing this document is based on standard methods and current good practice guidance.

2 Legislative and Policy Context

2.1 National Policy and Legislation

Article 6 (3) of the Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna) states:

'*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*'

Article 6 (4) states: '*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*'

The Conservation of Habitats and Species Regulations 2017 (as amended), hereafter referred to as the 'Habitats Regulations', implement the provisions of the Habitat Directive in UK law. The Habitats Regulations consolidate the Conservation (Natural Habitats &c.) Regulations 1994, and Offshore

Marine Conservation (Natural Habitats &c.) Regulations 2007. The Habitats Regulations were amended by the Conservation of Habitats and Species (Amendment) Regulations 2012. This provides for clearer transposition of the provisions of the Birds Directive into UK law, and revokes two Regulations (20 & 22) which duplicate measures to control potentially damaging activities on SSSIs. Regulation 9A sets out the duties of appropriate authorities and nature conservation bodies with respect to the Birds Directive. Regulation 9A (8) provides the legislative basis for considering pollution or deterioration of habitats inside or outside a designated site, transposing Article 4 (4) of the 2009 Birds Directive.

Regulation 61 (1) of the Habitats Regulations states:

'*A competent authority, before deciding to undertake, or give any consent, permission, or other authorisation for, a plan or project which-*

(*a*) *is likely to have a significant effect on a European site or a European offshore marine site* (*either alone or in combination with other plans or projects*), *and*

(*b*) *is not directly connected with or necessary to the management of the site, must make an appropriate assessment of the implications for the site in view of that site's conservation objectives.*'

The 'competent authority' in this case is High Peak Borough Council as the LPA.

Following the exit of the UK from the European Union on January 1st, 2021, the Habitats Regulations were amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 to transfer the role of the European Commission to the appropriate Authorities in England. The 2017 Regulations (Regulation 9(1)), as amended by the 2019 Regulations, require the Secretary of State to secure compliance with the requirements of the Nature Directives. Any new powers in the 2019

Regulations must be exercised in line with the Directives and retained EU case law up to 1st January 2021.

European Sites in the UK

The National Site Network comprises Special Areas of Conservation (SAC) designated under the EU Habitats Directive (Council Directive 92/43/EEC), and Special Protection Areas (SPA) designated under the EU Birds Directive (Council Directive 2009/147/EC) within the UK.

Ramsar sites are wetland sites of international importance designated under the 1971 Ramsar Convention on Wetlands. Although not part of the National Site Network, the UK government has chosen to apply the same assessment procedures to plans and projects affecting Ramsar sites (ODPM, 2005 paragraph 6), and they therefore need to be considered in the HRA process.

2.2 Local Policy

The local plan Habitats Regulations Assessment report has identified the potential for adverse effects from development on the integrity of the Peak District Moors (South Pennine Moors phase 1) SPA, South Pennine Moors SAC, and Peak District Dales SAC. These have been considered within this report.

Policy EQ5 – Biodiversity of the adopted Local Plan states:

The biodiversity and geological resources of the Plan Area and its surroundings will be conserved and where possible enhanced by ensuring that development proposals will not result in significant harm to biodiversity or geodiversity interests. This will be achieved by:

- Conserving and enhancing sites of international, European, and national importance. On these sites the Council will not permit any development proposal that has an adverse effect on the integrity of a European site (or wildlife site given the same protection as European sites under the NPPF) either alone or in combination with other plans or projects.
- Conserving and enhancing any Sites of Special Scientific Interest. On these sites the Council will not permit any development proposal which would directly or indirectly (either individually or in combination with other developments) have an adverse effect on a Site of Special Scientific Interest.
- Conserving and enhancing regionally and locally designated sites. On these sites the Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests, unless it can be demonstrated that:
    - there is no appropriate alternative site available; and
    - all statutory and regulatory requirements relating to any such proposal have been satisfied; and
    - appropriate conservation and mitigation measures are provided, such mitigation measures should ensure as a minimum no net loss and wherever possible net gain for biodiversity;
    - or if it is demonstrated that this is not possible;
    - the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented

- Encouraging development to include measures to contribute positively to the overall biodiversity of the Plan Area.
- Working with partners to help meet the objectives and targets in the Peak District Biodiversity Action Plan or its successor.
- Working with partners to protect and enhance watercourses.
- Identifying local ecological networks and supporting their establishment and protection in accordance with Local Plan Policy EQ8, preferentially creating biodiversity sites where they have the potential to develop corridors between habitats (both terrestrial and freshwater).
- Working with partners in the public, private and voluntary sectors to develop and secure the implementation of projects to enhance the landscape and create or restore habitats of nature conservation value, and to secure the more effective management of land in the Plan Area and its surroundings.

3 Methodology and Scope

3.1 HRA Process Stages

Guidance on the Habitats Directive (European Commission, 2000). Managing NSN Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/CEE) sets out the step wise approach which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4). The process used is usually summarised in four distinct stages of assessment:

- Stage 1: Screening: the process which identifies whether effects upon a NSN site of a plan or project are possible, either alone or in combination with other plans or projects; and considers whether these effects are likely to be significant.
- Stage 2: Appropriate Assessment (AA): the detailed consideration of the effect on the integrity of the NSN site of the plan or project, either alone or in combination with other plans or projects, with respect to the site's conservation objectives and its structure and function.
- Stage 3: Assessment of alternative solutions: the process which examines alternative ways of achieving the objectives of the plan or project that avoid adverse effects on the integrity of the NSN site.
- Stage 4: Assessment where no alternative solutions exist and where adverse effects remain: an assessment of whether the development is necessary for IROPI and, if so, of the compensatory measures needed to maintain the overall coherence of the NSN network. 1.4.2.

3.2 Potential Zone of Influence

3.2.1 Background

The 'Zone of Influence' (ZoI) for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The potential ZoI will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018). The following has been taken into account for the ZoI:

- European sites within the UK that could potentially be affected within 10km of the development site (or further afield where there is a direct hydrological connection or where qualifying species could move between the European sites within the UK and the development site (e.g., birds);
- The characteristics of these European sites within the UK;
- Their conservation objectives; and
- Other relevant plans and projects.

3.2.2 Application to Stage One - Screening Report

It is the purpose of the HRA Screening Stage to determine, on a precautionary basis, whether a plan or project has the potential to cause a likely significant effect on one or more European designated sites. If a likely significant effect is identified, an appropriate assessment is required to determine whether it can be concluded that the plan alone, or in combination with other plans and projects, will not result in an adverse effect on the integrity of one or more European sites.

The HRA screening stage has been characterised by the European Commission in the guidance documents "Assessment of plans and projects significantly affecting Natura 2000 sites: methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC" (the European Commission Guidance) as a four-step process. These steps are relevant within the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 as follows:

- Determining whether the project or plan is directly connected with or necessary to the management of the national site network site;
- Describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the national site network site.
- Identifying the potential effects on the national site network site.
- Assessing the significance of any effects on the national site network site.

When each of these steps has been worked through there are two potential outcomes:

- One or more likely significant effects on designated features of national site network sites are identified and the project requires an appropriate assessment (Stage 2).
- No likely significant effects on designated features of national site network sites are identified as there is no pathway by which such effects could occur and therefore there is no requirement for an appropriate assessment. This is also known as 'screening out' the need for further assessment.

3.2.3 Application to Stage Two - Appropriate Assessment (AA)

If effects from the Screening Report are judged likely or uncertainty exists, an AA will be conducted. The approach to Stage Two of the HRA Report (if required), based off the information within the potential ZoI is summarised as follows:

- Complete additional scoping work including the collation of further information on sites as necessary to evaluate impact in light of conservation objectives.
- Develop mitigation measures (including timescale and mechanisms).

3.3 Method for Determining Likely Significant Effects

The HRA screening process uses the threshold of likely significant effects to determine whether effects on European sites should be the subject of further assessment. The Habitats Regulations do not define the term 'likely significant effect.' However, in the Waddenzee case (Case C-127/02) the European Court of Justice found that a likely significant effect exists if it cannot be excluded on the basis of objective information that the plan or project will have significant effects on the conservation objectives of the site concerned, whether alone or in combination with any other project. The Advocate General's opinion of the Sweetman case (Case C-258/11) further clarifies the position by noting that for a conclusion of a likely significant effect to be made "there is no need to establish such an effect…it is merely necessary to determine that there may be such an effect".

For the purposes of this report, a likely significant effect is defined as any identified effect that is capable of resulting in a change in the conservation status of one or more designated features of a European site after all aspects of the plan or project have been considered alone and in combination with other plans and projects.

A precautionary approach has been taken to the screening process (Stage 1). Only those designated features and European sites where it can be demonstrated that there is no likelihood of a significant effect occurring (based on the criteria and approach outlined above) have been screened out. This screening assessment does not consider any mitigation measures that are necessary to reduce or avoid likely significant effects on European sites. This follows the judgement of the Court of Justice of the European Union[7] (CJEU) where it was concluded that the need for measures to avoid or reduce harmful effects presupposes that there is a likely significant effect, and consequently consideration at Stage 2 is required.

Where a potential effect has been identified but no likely significant effect is predicted the evidence and reason for reaching this conclusion is provided.

4 Ecological Baseline

4.1 Data Sources

The following documentation has been utilised in preparing the results section:

1. SAC/SPA Citation Documents (Natural England);
2. SAC/SPA Conservation Objectives Documents;
3. NATURA 2000 – Standard Data Form 2015, Joint Nature Conservation Committee.
4. High Peak Local Plan Revised Preferred Option – Habitats Regulations Assessment (March 2014).
5. Site Improvement Plans (SIP) – Natural England

4.2 European Sites within the UK

There are three European designated Sites located within a 10 km radius (ZoI) of the site, which are described in greater detail within this section and in Tables' 1 and 2.

4.2.1 Peak District Dales Special Area of Conservation (SAC)

Peak District Dales is one of the most extensive surviving areas in England of CG2 Festuca ovina–Avenula pratensis grassland. Grasslands at this site range from hard-grazed short turf through to tall herb-rich vegetation, with transitions through to calcareous scrub and 9180 Tilio-Acerion forests– a diversity of structural types unparalleled in the UK. There is also a great physical diversity due to rock outcrops, cliffs, screes and a variety of slope gradients and aspects. In contrast to examples of Festuca–Avenula grassland on chalk to the south, these grasslands are less at risk from the threat of invasion by upright brome (*Bromopsis erecta*) and tor-grass (*Brachypodium pinnatum*), which are at the edge of their range here and have limited vigour. The relatively cold oceanic nature of the climate means that there is enrichment with northern floristic elements, such as limestone bedstraw (*Galium sterneri*) and globeflower (*Trollius europaeus*).

The River Dove represents white-clawed crayfish (*Austropotamobius pallipes*) in a high-quality, upland limestone river, in the north-east of the species' UK range.

Annex I habitats present as a qualifying feature, but not as a primary reason for selection of this site:

- European Dry heaths
- Calaminarian grassland of the Violetalia calaminariae
- Alkaline fens
- Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolia*)
- Calcareous rocky slopes with chasmophytic vegetation.

Annex II species present as a qualifying feature, but not a primary reason for site selection

- Brook lamprey (*Lampetra planeri*)
- Bullhead (*Cottus gobio*)

4.2.2 South Pennine Moors SAC

The site is representative of upland dry heath at the southern end of the Pennine range, the habitat's most south-easterly upland location in the UK. Dry heath covers extensive areas, occupies the lower slopes of the moors on mineral soils or where peat is thin, and occurs in transitions to acid grassland, wet heath and 7130 blanket bogs. The upland heath of the South Pennines is strongly dominated by heather *Calluna vulgaris*. Its main NVC types are H9 Calluna vulgaris – *Deschampsia flexuosa* heath and H12 *Calluna vulgaris – Vaccinium myrtillus* heath. More rarely H8 *Calluna vulgaris – Ulex gallii* heath and H10 *Calluna vulgaris – Erica cinerea* heath are found. On the higher, more exposed ground H18 *Vaccinium myrtillus – Deschampsia flexuosa* heath becomes more prominent. In the cloughs, or valleys, which extend into the heather moorlands, a greater mix of dwarf shrubs can be found together with more lichens and mosses. The moors support a rich invertebrate fauna, especially moths, and important bird assemblages.

This site represents blanket bog in the south Pennines, the most south-easterly occurrence of the habitat in Europe. The bog vegetation communities are botanically poor. Hare's-tail cottongrass *Eriophorum vaginatum* is often overwhelmingly dominant and the usual bog-building Sphagnum mosses are scarce. Where the blanket peats are slightly drier, heather *Calluna vulgaris*, crowberry *Empetrum nigrum* and bilberry *Vaccinium myrtillus* become more prominent. The uncommon cloudberry *Rubus chamaemorus* is locally abundant in bog vegetation. Bog pools provide diversity and are often characterised by common cottongrass *E. angustifolium*. Substantial areas of the bog surface are eroding, and there are extensive areas of bare peat. In some areas erosion may be a natural process reflecting the great age (9000 years) of the south Pennine peats.

Around the fringes of the upland heath and bog of the south Pennines are blocks of old sessile oak woods, usually on slopes. These tend to be dryer than those further north and west, such that the bryophyte communities are less developed (although this lowered diversity may in some instances have been exaggerated by the effects of 19th century air pollution). Other components of the ground flora such as grasses, dwarf shrubs and ferns are common. Small areas of alder woodland along stream-sides add to the overall richness of the woods.

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site.

- Northern Atlantic wet heaths with Erica tetralix
- Transition mires and quaking bogs

Table 1 – Special Areas of Conservation (SAC) present within 10km of the site, their qualifying features, conservation objectives, pressures, and threats.

Site	Distance and direction from Site	Conservation Objectives	Pressures and threats (from relevant SIP)
Peak District Dales (REF: UK0019859	1.8km south east	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and • The distribution of qualifying species within the site.	• Inappropriate scrub control • Fertiliser use • Water pollution • Inappropriate weirs, dams, and other structures • Over grazing • Undergrazing • Inappropriate water levels • Disease • Invasive species • Climate change • Air pollution: impact of atmospheric nitrogen deposition • Vehicles • Forestry and Woodland management • Direct impact from 3rd party • Public access/ disturbance
South Pennine Moors (REF: UK0030280)	3km west	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and • The distribution of qualifying species within the site	• Hydrological changes • Managed rotational burning • Low breeding success/ poor recruitment • Inappropriate management practices • Public access / disturbance • Air pollution: impact of atmospheric nitrogen deposition • Wildfire/arson • Vehicles • Over grazing • Forestry and woodland management • Changes in species distribution • Disease • Undergrazing • Invasive species • Planning permission, general

4.2.3 Peak District Moors (South Pennine Moors Phase 1) Special Protection Area

The site is an extensive tract of moorland and moorland-fringe habitat. It includes most of the unenclosed moorland areas of the north, eastern and south-western Peak District, where it also extends into enclosed farmland of wet rushy pasture, hay meadows and small wetlands in the valley bottoms. The moorland habitats include extensive tracts of blanket bog and dry heath, which together with wet heath, acid grassland, small flushes, gritstone edges and boulder slopes, streams and moorland reservoirs, fringing semi-natural woodland and enclosed farmland, represents the full range of upland vegetation characteristic of the South Pennines. The site supports several important species assemblages, including higher plants, lower plants and insects, as well as breeding birds. Many physical features are of geological interest.

This site qualifies under Article 4.1 of the Directive (79/409/EEC) as it is regularly used for breeding by 1% or more of the GB population of a species listed in Annex I, comprising:

- Merlin (*Falco columbarius*) – 30-36 pairs (2.3-2.8% 1998 est.)
- Golden Plover (*Pluvialis apricaria*) – 435-445 pairs (1.9-2.0% 1998 est.)
- Short-eared owl (*Asio flammeus*) – 22-25 pairs (2.2-2.5% 1998 est.)

Table 2 – Special Protection Areas (SPA) present within 10km of the site, their qualifying features, conservation objectives, pressures, and threats.

Site	Distance and direction from Site	Conservation Objectives	Pressures and threats (from relevant SIP)
Peak District Moors (South Pennine Moors Phase 1) REF: UK9007021	3km west	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributed to achieving the aims of the Wild Birds Directive, by maintaining or restoring: • The extent and distribution of the habitats of the qualifying features. • The structure and function of the habitats of the qualifying features. • The supporting processes on which the habitats of the qualifying features rely. • The population of each of the qualifying features, and • The distribution of the qualifying features within the site.	• Hydrological changes • Managed rotational burning • Low breeding success/ poor recruitment • Inappropriate management practices • Public access / disturbance • Air pollution: impact of atmospheric nitrogen deposition • Wildfire/arson • Vehicles • Over grazing • Forestry and woodland management • Changes in species distribution • Disease • Undergrazing • Invasive species • Planning permission, general

The SIP provides more detail on the relevant pressures and threats facing the SACs and SPA; these are summarised below in Table 3.

Table 3: Pressures and Threats facing the identified European designated sites

Pressure/Threat	Effects
Inappropriate scrub control	Peak District Dales SAC: The issue of scrub encroachment is related to inappropriate stock on the dales and under grazing/uneven grazing pressure. Dales are marginal to the farm holding and the sheep and cattle (often dairy) are unable to move across steep and scrubby slopes to graze it evenly or adequately. This can result in areas of inadequate grazing of scrub regrowth and saplings. Ideal grazing to maintain grassland interest and restrict scrub encroachment is thus not always achievable and maintaining the balance between woodland, scrub and grassland (and other habitats) relies on direct management (scrub clearance).
Fertiliser Use	Peak District Dales SAC: The main threat from fertilizer use is from application to land adjacent to the SAC and subsequent runoff into the site, resulting in nutrient enrichment. Other inputs such as application of paper pulp as a soil improver are used. Although overseen by the Environment Agency, as exempt activities there is little control for the SAC when applied to adjacent land. It can potentially impact all features but especially grassland and river species.
Water Pollution	Peak District Dales SAC: Phosphate levels in the River Wye exceed the target set during the Review of Consents process as well as a more stringent revised CSM target, despite a restriction on Buxton sewage treatment works designed to resolve the issue (STW is operating well within the tighter limits). Agreement has been reached with EA over revised long term targets and interim goals which can be realistically achieved in the short to medium term, as well as actions to ensure compliance within agreed timescales. Although modelling suggests 70% of the phosphate comes from Buxton STW, as there are few surface water inputs it is difficult to assess the contribution from farm / diffuse sources via the limestone aquifer
Inappropriate weirs, dams, and other structures	Peak District Dales SAC: The impact of artificial structures is particularly relevant to the River Dove and to a lesser extent the Lathkill. Artificial structures such as weirs impede the natural flow regime and ability of the river to "self-cleanse", resulting in reduced natural habitat variability, potential silt accumulations, slow flows and reductions in suitable areas for fish spawning and reduced species diversity (invertebrates, fish, macrophytes etc). Increased siltation results in increased potential for retention of pollutants, impacts on gravel beds, reduction in spawning grounds for fish and impacts upon invertebrate diversity.
Overgrazing	Peak District Dales SAC: Overgrazing directly impacts SAC vegetation and also has indirect impacts via nutrient enrichment. Where it occurs, it tends to be a serious issue and impacted habitats are difficult to restore due to the legacy of high nutrient input from increased stocking and supplementary feeding over a long period of time. An associated issue is weed control within these areas. Nutrient input and inappropriate grazing can also be due to stock feeding on land adjacent to, but grazed with, the dales (linked to inappropriate stock, see action 6C). Overgrazing is not exclusively caused by stock grazing with rabbit grazing also an issue on some sites. South Pennine Moors SAC/Peak District Moors SPA: Overgrazing has adversely affected blanket bog, wet heath, dry heath and oak woodland habitats. In some instances, this continues in others it is necessary to safeguard recovery when grazing is returned to the site. Areas of the site are suffering from overgrazing, affecting the habitats of the breeding birds and causing water run-off and erosion. Increased stocking levels are affecting the mosaic of dwarf-shrubs and are replacing them with grassland. Overgrazing has a likely long term impact leading to unfavourable condition for bog and heath communities.

Undergrazing	**Peak District Dales SAC:** Although associated with the issue of inappropriate scrub control, undergrazing is not confined to it. Many dales that are not under grazed still have a scrub control issue, and some dales which do not have a scrub issue are under grazed. This issue is strongly linked to inappropriate stock. **South Pennine Moors SAC/Peak District Moors SPA:** Areas of the site are suffering from undergrazing, affecting both the habitats of the breeding birds and the notified feature habitats; this is principally a by-product of stock removal for habitat restoration.
Inappropriate water levels	**Peak District Dales SAC:** There is a lack of flow on the Lathkill due to historic mining activities and artificial soughs diverting water flow out of Lathkill catchment. The River Lathkill is dry for several months each year, resulting in the need for fish rescue and impacts upon SAC species.
Disease	**Peak District Dales SAC:** Crayfish plague has all but wiped out the known native population of white clawed crayfish. It is possible that there may be isolated pockets unaffected by plague which could act as the starting points for any natural recolonisation, however attempts at reintroductions have so far failed. Chalara (ash dieback) disease poses a major threat to ash woodland in the dales in the longer term, with the potential to wipe out the majority of ash trees. It is predicted to impact severely within the next 20 years, based on European experience. **South Pennine Moors SAC/Peak District Moors SPA:** The fungus-like pathogen Phytophthora spp. is known to be killing various species within the SAC. Species known to have affected the site are P. pseudosyringae, P. cactorum, P. syringae and P. ramorum. Few control mechanisms exist for the disease so early detection and proper disposal of infected plant material are essential. Plant species known to be affected or that have been affected or may require future monitoring are: Hybrid Bilberry Vaccinium x intermedium, Bilberry Vaccinium myrtillus, Common alder Alnus glutinosa, Common ash Fraxinus excelsior, English oak Quercus robur, Sessile oak Quercus petraea, Moor birch Betula pubescens, and Rhododendrons.
Invasive species	**Peak District Dales SAC:** As far as it is known, native crayfish have been all but lost from the site due to plague carried by Signal crayfish. Signal crayfish are not in the vicinity of the Dove catchment, so there is some hope for refugia sites, although reports of white clawed crayfish are still subject to confirmation through site survey to be done during 2014. Signal crayfish are present in the River Wye downstream of Buxton and the population of white clawed crayfish has been lost from the Lathkill despite attempts at reintroduction. Signal crayfish also have the potential to threaten brook lamprey and bullhead via predation of eggs and fry. **South Pennine Moors SAC/Peak District Moors SPA:** Bracken and rhododendron need to be controlled on a wider scale across the site to avoid the suppression of the SAC heath, blanket bog and mire communities. This work will need to bring together various land owners, occupiers and organisations. Management can be difficult and expensive; plans need to be cost-effective and practical with a view to control rather than eradication. Given the decades elapsed to arrive at the current levels of coverage, slowing or reversing the process will be long term with consistency and persistence from all parties being key.
Climate change	**Peak District Dales SAC:** The location of the SAC is such that changes in species distribution through climate change are expected to be pronounced (many species are at the edge of their range). Additionally, dales habitats are fragmented and surrounded by agriculturally productive land which cannot usually act as a buffer or corridor for species, which makes populations more vulnerable.
Air pollution: impact of atmospheric nitrogen deposition	**Peak District Dales SAC/ South Pennine Moors SAC/Peak District Moors SPA:** Nitrogen deposition exceeds site relevant critical loads.
Vehicles	**Peak District Dales SAC:** A number of threats from vehicles exist, including issues with Byways open to all traffic (BOAT), the use of tracks and threats of illegal vehicle use. There is a push to open up new cycling routes which pass through SAC dales. **South Pennine Moors SAC/Peak District Moors SPA:** Damaging vehicle use is an issue across the site, damaging notified features and affecting bird nesting activity. This can be motorbikes, quad bikes, 4x4s and pedal cycles. Wet peat habitats are most sensitive.

Forestry and woodland management	**Peak District Dales SAC:** 1. Management of sycamore and other non-natives and fencing to exclude stock grazing were addressed at most locations through the WoodLIFE project, however some outstanding sites still require management. Additionally, HLS agreements are currently not achieving the follow up management required due to high annual management payments but low capital works payments. Felling sycamore, or fencing, on steep dale terrain is not cost effective. 2. The threat of Chalara overshadows all other woodland threats and will result in additional management, based on diversifying the woodland. Currently, a strategy to deal with Chalara is in its early stages. **South Pennine Moors SAC/Peak District Moors SPA:** H91A0 Western acidic oak woodland is a feature of the site, and the conservation and enhancement of this feature requires active management. Inappropriate tree planting may result in introduction of infected species. Planting can affect blanket bog or increase predation risks for breeding waders on adjacent moorland, for example inappropriate planting on in-bye land which is used by breeding birds for feeding.
Direct impact from 3rd party	**Peak District Dales SAC:** Localised incidents of fly tipping can impact SAC interest features.
Feature location/ extent/ condition unknown	**Peak District Dales SAC:** There is a need for an improved evidence base for certain interest features. Chasmophytic vegetation requires specialist survey and monitoring, as it is found in rock crevices and often requires surveyors with specialist climbing as well as lower plant identification skills. Furthermore, the National Vegetation Classification (NVC) classification for scree and chasmophytic vegetation was developed post-designation and re-survey is required in the light of this.
Public access / disturbance	**Peak District Dales SAC:** Localised inappropriate recreational use (scree running, rock climbing etc) can affect SAC interest features. There are occasional public access issues with litter and camp fires accusing fires. Landowners can be reluctant to shut stock on dales where dogs may be an issue, meaning appropriate grazing is difficult to achieve. **South Pennine Moors SAC/Peak District Moors SPA:** Disturbances/activities located in sensitive site areas or at sensitive times of the year (e.g., bird breeding season or during heavily waterlogged periods) can have a negative impact upon notified features. Particular activities which impact include rock climbing, walking (incl. dog walkers), legal activities (byway usage), hang-gliding and the flying of model aircrafts.
Hydrological Changes	**South Pennine Moors SAC/Peak District Moors SPA:** The hydrological integrity of the blanket bog habitat (H7140) has been adversely affected across the site by a range of external factors, principally historic air pollution and wild fires which in some areas has been added to by historical and continuing land use management practices. Leading to areas of bare and eroding peat, surface gullying and sub-surface peat pipes, loss of peat forming species, lowered water tables and altered hydrology. Certain elements of current restoration work have a clear link to recovery of some or all of these listed factors and estimates for restoration costs assume this work is undertaken across the site, however for some aspects of the challenge (surface vegetation, macropores, erosion gullies and subsurface peat pipes) there is insufficient understanding of the issue, and this has led to trialling new restoration methods and monitoring the impacts. Consequently, the extent of restoration to deliver favourable condition cannot be fully quantified.
Managed rotational burning	**South Pennine Moors SAC/Peak District Moors SPA:** A significant number of landowners across the sites currently have burning plans, as part of their existing agreements, which are used for moorland management. There is strong evidence that managed rotational burning results in changes to plant species composition, peat properties, Dissolved Organic Carbon, peat chemistry, peat water table and peat flow-paths of blanket bog and upland wet heath habitats. Although managed burning is acceptable on upland dry heath, burn rotation length needs to be appropriate to avoid deterioration. Managed burning can have both positive and negative impacts on the habitat for SPA birds through changes to vegetation.
Low breeding success / poor recruitment	**South Pennine Moors SAC/Peak District Moors SPA:** Suitable habitat exists on site to support successful breeding by a larger number of pairs than are currently recorded, of in particular, peregrine, but also merlin and short eared owl. Analysis of the distribution reveals a strong correlation between actively keepered moorland and the lower than expected numbers of raptors for which the site is classified.

Inappropriate management practices	South Pennine Moors SAC/Peak District Moors SPA: The condition of blanket bog habitat in particular is under pressure from changes in: recreational use, land management (commercial grouse moor management, farming and restoration practices availability of agreement packages) and some illegal activity.
Wildfire / arson	South Pennine Moors SAC/Peak District Moors SPA: Wildfires are a periodic threat across the site and directly impact on upland habitats including SAC features; blanket bog, wet heath and dry heath. The ecosystem services delivered by these habitats are adversely affected through direct damage caused to the vegetation, peat and soils, which results in loss of valuable habitat quality and associated wildlife alongside carbon release to atmosphere and to watercourses. Peat exposed by wildfire is at increased risk to wind and water erosion, with water run-off from uplands potentially resulting in downstream flooding, sedimentation of water courses and discolouration of drinking water. Wildfire will vary year to year depending on the condition of the vegetation (drier etc.) and this will result in varying levels of impact (e.g., rapid grass fire in March has less impact than a summer fire on heather over peat). The cause of ignition is generally accepted to be of human origin with deliberate intent a pattern on some parts of the site and elsewhere careless behaviour near to footpaths and car parks appear to be the chief cause of ignition.
Changes in species distribution	South Pennine Moors SAC/Peak District Moors SPA: Changes in species distribution are occurring across the site, caused by varying factors such as air pollution, current land management, erosion and the effects of climate change. These changes are currently not fully understood and therefore cannot inform future management. The most significant changes are to bird populations leading to an obvious decline in breeding numbers or shifts to new breeding areas.
Planning permission general	South Pennine Moors SAC/Peak District Moors SPA: Local development frameworks, infrastructure programs and planning permissions need to be evaluated on a whole site basis, for example wind turbines and housing developments. The 'in combination' and cumulative effects of numerous applications are, potentially, fragmenting the site and slowing the chances of a joined up landscape scale delivery resilient site.

Given the location and type of development no likely significant effects on the protected sites are expected as a result of:

- Inappropriate scrub control
- Fertiliser Use
- Inappropriate weirs, dams, and other structures
- Overgrazing
- Undergrazing
- Inappropriate water levels
- Disease
- Invasive species
- Climate change
- Air pollution
- Vehicles
- Forestry and woodland management
- Direct impact from 3rd party
- Hydrological changes
- Managed rotational burning
- Low breeding success / poor recruitment
- Inappropriate management practices
- Wildfire/arson

5 Stage 1A – Potential Risks and Threats to Designated Sites

The following section outlines the potential risks that could be posed to the designated sites identified in Section 4.2 as consequences of construction or operational phase actions of the proposed development.

5.1 Changes in species distribution

Risks

Increased levels of disturbance to mobile qualifying species attributed to the designation of the qualifying species of the European designated sites present within the Zone of Influence of the site.

Impact Risk Assessment

The site was assessed for its suitability to provide roosting and foraging opportunities for the qualifying species of the European designated sites present within the Zone of Influence of the site, specifically the Peak District Moors SPA (as detailed in Section 4.2.3).

During the site survey undertaken in October 2022, none of the qualifying habitats of the Peak District Dales SAC or South Pennine Moors SAC were identified on site.

The site is adjacent to a main road connecting Buxton to Manchester (A6) on the urban fringe of Buxton. The grassland and hedgerow present on site will provide limited shelter to support over wintering bird species, with the current grazing regime present on site providing a significant level of disturbance that will deter over-wintering birds from using the site. The site does not have large areas of open grassland, neither does it contain clear lines of sight that would make this site visible and suitable to commuting birds.

Therefore, there **is no potential for a likely significant adverse effect on the qualifying features of the European sites as a result of this development.**

5.2 Increased Water pollution

Risks

A potential impact pathway exists through a net increase in level of water pollution entering ground water supplies / the Nun Brook which is present adjacent to the northern site boundary.

Impact Risk Assessment

The Nun Brook is located immediately adjacent to the northern site boundary and connects to the River Wye approximately 700m south of the site. The River Wye flows through both the Peak District Dales SAC and South Pennine Moors SAC.

The construction phase of this project could see an increase in dust during construction and vehicle movements. The use of machinery and vehicle movement can generate suspended solids in any site runoff, which can also include hydrocarbons, leading them to be discharged into the water environment. Inadequate hardstanding drainage can also increase the risk of surface water flooding within the site.

There is potential for a likely significant effect on the European sites as a result of increased water pollution levels as a result of this development.

5.3 Public access / Disturbance / Increased recreational pressure

Risks

A potential impact pathway exists through a net increase in human population as a result of the development which may result in increased recreational pressure on the European designated sites present within the zone of influence of the site, through increasing the frequency and duration of disturbance events on the sensitive habitats present at these sites.

Impact Risk Assessment

The population of Buxton is estimated to be approximately 22,400 (2020). Based on the size of the current development of 99 dwellings and applying the national average household size of 2.4, if we follow the precautionary principal and assume that 100% of the occupants are new to the area as opposed to relocating from within the surrounding area, then this equates to a population increase of 238 people. This translates to a potential increase in disturbance of 1.2%. Application of the precautionary principle may suggest that any increase in disturbance could potentially have a significant effect, particularly when habitat utilisation is already believed to be affected by current disturbance levels. A 1% threshold is frequently applied in other contexts to define significance thresholds, for example when determining air quality impacts on European designated sites for environmental permitting purposes, or in assessing significant population levels in ornithological assessment. Using these criteria, an increase of 1.2% would be considered significant and may lead to a further increase in disturbance on sensitive habitats within the European designated sites.

The location of the development is likely to be attractive to people who want to utilize the surrounding area for recreation, including dog walking, given its semi-rural location. With national household dog ownership at 24%, an anticipated increase in dog owning homes of 23 is expected.

Extensive guidance has been produced on the effects of dogs and designated sites for conservation (English Nature, 2005). This report showed that 25-50% of walkers in lowland areas are accompanied by dogs, with 50-90% of these dogs being off lead whilst on site. The report also found that a dog-walker has a larger sphere of influence with regard to wildlife than a walker without a dog, with groups of dogs exerting a stronger influence than a single dog. Effects of dogs is greatest on ground-nesting birds, with the presence of dogs being found to provoke a disturbance response at greater distances and for longer periods than other recreational activities (including people without dogs) during the breeding season. This response to dogs has an energy cost and can be significant in the winter.

There is potential for a likely significant effect on the European sites as a result of increased recreational pressure.

6 Stage 1B – Combined Effects

6.1 Assessment of In-Combination Effects

In addition to assessing the likely significant effect of the proposed development on European sites within the UK, as part of stage 1B of the HRA assessment it is also necessary to assess potential for the development to have a likely significant effect in combination with other plans and projects. This also addresses the identified pressure/threat in relation to planning permission (as detailed in Table 2).

There is a planning application in place for 147 new dwellings, including the provision of two vehicular access points, the construction of roads, footways, and a pedestrian link with Tongue Lane, drainage infrastructure, public open space, landscaping, and other associated works at Land at Granby Road (REF: HPK/2022/0352). This application is located approximately 1.3km south east of the site.

An HRA was not included within the documents submitted to support the planning application. The submitted ecological survey report did not identify the presence of any qualifying habitats or species of the identified European designated sites within the surrounding area. The site was assessed as containing common and widespread habitats with limited ecological value. The site does not offer suitable habitat to support over wintering bird species due to the presence of regular disturbance from dogwalkers and the proximity of the site to urban areas, including the presence of a railway line approximately 200m south of the site. The habitats present on site had a limited structure which will not provide suitable shelter for ground nesting birds or foraging habitat for birds of prey.

Applying the precautionary principle as within Section 5, it is likely that the increase in residents to the area, combined with the construction related impacts will result in likely significant effects

Therefore, it is likely that there will be additional impacts to the designated sites as a result of this development when considered in combination with other proposed developments.

7 Stage Two - Appropriate Assessment

The competent authority will be required to carry out an appropriate assessment to determine whether the development would adversely affect the integrity of the identified designated sites. The precautionary principle has been applied when considering the potential implications of the development.

7.1 Water Pollution

The site is located within agricultural land on the outskirts of Buxton, with Nun Brook present immediately adjacent to the northern site boundary, which is connected to the River Wye approximately 700m south of the site. Although the river itself is not a qualifying feature of the European designated sites within the ZoI of the site, the habitats that are qualifying features are dependent on a watersource. Therefore, a risk to the water quality within the River Wye is present, and it is recommended that the following measures are implemented during the construction phase and adopted with a CEMP:

- During construction there will be heavy plant and machinery required on site and as a result it is appropriate to adopt best working practices and measures to protect the water environment, including those set out in Pollution Prevention Guidance (PPG1);
- In accordance with PPG1 any above ground on-site fuel and chemical storage will be bunded;
- An emergency spill response kit will be maintained during the construction works (GPP21);
- A vehicle management system / road marking will be put in place wherever possible to reduce the potential conflicts between vehicles and thereby reduce the risk of collision (GPP21);
- A speed limit will be used to reduce the likelihood and significance of any collisions;
- Drip trays will be placed under vehicles which could potentially leak fuel/oils;
- Stockpiling of soils/made ground will only occur in demarked areas which have drainage to intercept, control and manage runoff shed from stockpiles;
- The use and deployment of cut-off ditches and silt fences;
- Protective fences, exclusion barriers and warning signs will be used to minimise debris and dust from entering Nun Brook.
- Silt control devices to catch sediment/water run-off will be installed within the site where appropriate.
- Monthly checks of the silt mitigation devices will be conducted to check they are still working effectively.
- Road cleaning;
- Any water contaminated with silt or chemicals will not be discharged directly or indirectly to the water environment without prior treatment; and
- The use and placement of concrete will be carefully controlled so as not to cause a direct or indirect impact on the water environment.

The above measures will significantly reduce the likelihood of pollutants, including suspended solids, being discharged and would safeguard water quality.

7.1.1 Conclusion

It is therefore considered that no significant effects will occur to the identified designated sites due to reduced water quality and increased siltation from the proposed development, providing that the proposed mitigation measures are implemented.

7.2 Increased public access / disturbance / recreational pressure

7.2.1 Construction

It is not anticipated that the construction of this scheme will lead to an increase in public access to the European designated sites within close proximity to the proposed development.

7.2.2 Operation

The increase in population within Buxton due to the proposed development is likely to lead to a significant effect on the integrity of the European designated sites identified.

The proposed development will lead to an increase in population within Buxton of approximately 1.2%/238 people, assuming all residents are new to the area. It is also assumed that 23 new homes will also own a dog. To minimise the impacts of the increased number of people potentially accessing the European designated sites, the following mitigation is recommended:

- Provision of homeowner packs to every new resident and future resident of each dwelling within the site. These will inform the public about biodiversity interest features and how to protect them, including adhering to footpaths, and keeping dogs on leads.
- Developer contributions should be made for the erection of signage, information boards, and dog waste bins within the Peak District Dales SAC, South Pennine Moors SAC, and Peak District Moors (South Pennine Moors Phase 1) SPA and the ongoing maintenance of these. This shall be undertaken in liaison with Natural England and the Peak District National Park.

7.2.3 Conclusion

It is therefore considered that no significant effects will occur to the identified European designated sites due to increased public access / disturbance/ increased recreational pressure, providing that the proposed mitigation measures are implemented.

8 Conclusion

This report is to inform an HRA Appropriate Assessment, based on ecological information and project details provided, it indicates that the proposed development has no significant risk of having a negative effect on the qualifying features of Peak District Dales SAC, South Pennine Moors SAC, and Peak District Moors (South Pennine Moors Phase 1) SPA.

It was identified that without mitigation there was a risk of decreased water quality and increased siltation levels, and an increase in recreational pressure on the European designated sites as a result of the proposed development.

Section 7 of this report has shown that the described mitigation for these impacts are recognised industry standard practices and are therefore deliverable, recognised to be effective and are considered to reduce any effects on the integrity of the identified designated sites.

No other likely significant effects have been identified as a result of the proposals, either alone or in combination with other plans or projects.

9 References

Bagmoor Wind: UK courts Bagmoor Wind v The Scottish Ministers, Court of Session [2012] CSIH 93

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

European Communities (2000). Managing Natura 2000 (MN2000) Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/CEE.

Habitat's regulations assessments: protecting a European site. Defra and Natural England. 24 February 2021. https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site [Last accessed 15th February 2023]

JNCC. Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance, and designated SACs). Morecambe Bay. Available URL: https://jncc.gov.uk/jncc-assets/SAC-N2K/UK0030131.pdf [Last accessed: 16th February 2023].

JNCC. Special Protection Areas (SPAs) classified under Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version), also known as the 'Birds Directive' and Special Areas of Conservation under the EC Habitats Directive (includes candidate SACs, Sites of Community Importance, and designated SACs). Morecambe Bay and Duddon Estuary. Available URL: https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9020294.pdf [Last accessed: 16th February 2023].

Sweetman: European Court C – 258/11 Sweetman 11th April 2013, reference for a preliminary ruling from the Supreme Court of Ireland

Tyldesley, D. and Chapman, C., (2013) The Habitats Regulations Assessment Handbook, 2013 edition UK: DTA Publications Limited.

Waddenzee: European Courts C-127/02 Waddenzee 7th September 2004, reference for a preliminary ruling from the Raad van State.

Appendix 1 – Illustrative Masterplan

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Drainage pond as a draft indicative layout and subject to a full basin design by engineers

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

Buxton FP 2

Buxton FP 1

Nestle Water Main 5m

Nestle Water

connection to remain open

remain open

PLAY AREA (LAP) (Refer to drawing 2402.)

KEY

Site Red Line Boundary

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

SCALE m 0 5 10 15 20 25 30 35 40 45 50
1:500

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P10	09/07/24	UPDATED LAYOUT	TH	SA
P09	01/07/24	UPDATED LAYOUT	TH	SA
P08	26/02/24	UPDATED LAYOUT	IG	SA
P07	14/02/24	UPDATED LAYOUT	RS	SA
P06	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P05	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA
P04	31/01/23	HARD LANDSCAPE OMITTED	RS	SA
P03	25/01/23	UPDATED LAYOUT	RS	SA

Client:	Project:	Drawn:	Checked:	Approved:	Date:
BARRATT HOMES	HOGSHAW FARM, BUXTON	RS	SA	ME	29/11/22

Issue:	Title:	Dwg No:	Scale @ A0:	Revision:
PLANNING	GENERAL ARRANGEMENT PLAN	UG_1795_LAN_GA_DRW_01	1:500	P10

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

ECOLOGICAL ENHANCEMENT STRATEGY

MARCH 2024

Hogshaw Farm
Fairfield,
Buxton,
SK17 7HN

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1795				
Project:	Hogshaw Farm				
Location:	Fairfield, Buxton, SK17 7HN				
Title:	Ecological Enhancement Strategy				
Document Type:	EES				
Date:	27/02/2024				
Prepared By:	Olivia Jones	Signature		Qualifications	Assistant Ecologist, MSc, BSc (Hons)
Checked By:	Jake Healy	Signature		Qualifications	Ecologist, MSc, BSc
Checked By:	Barnaby Indio Gardner	Signature		Qualifications	Assistant Ecologist, MEnv, BSc

Revision Status:

Rev:	Date:	Issue/Purpose/ Comment:	Prepared:	Checked:
02	23/07/2024	Update to landscape layout	TAM	OJ

CONTENTS

1 Introduction 4

1.1 Background to the Scheme 4

1.2 Site Context 4

1.3 Purpose of this Report 5

2 Previous Reports 6

2.1 Preliminary Ecological Assessment (PEA) (Urban Green, 2022) 6

2.2 Bat Survey Report (BSR) (Urban Green, 2024) 6

3 Bat Boxes 7

3.2 Positioning of Bat Boxes 7

3.3 Timing of Installation 8

3.4 Maintenance of Bat Boxes 8

4 Bird Boxes 8

4.2 Positioning of Bird Boxes 10

4.3 Timing of Installation 10

4.4 Maintenance of Bird Boxes 10

5 Hedgehog 11

6 Native Planting 13

7 Conclusion 14

8 References 15

Appendix 1 - Relevant Legislation 16

Appendix 2 - Timings of Works 17

Appendix 3 - Bird, Bat Box and Hedgehog Home Location Plan 18

1 Introduction

1.1 Background to the Scheme

1.1.1 Barratt Homes are proposing to develop land at Hogshaw Farm in Fairfield, Buxton (hereafter referred to as 'the site'). The proposals include the development of the site into a residential estate with associated hard and soft landscaping.

1.1.2 Urban Green have been appointed to provide an Ecological Enhancement Strategy (EES) for the site.

1.1.3 The author of the report is Olivia Jones MSc, BSc (Hons), Assistant Ecologist at Urban Green.

1.2 Site Context

1.2.1 The site is located at National Grid Reference SK 06584 74409 and comprises a total area of approximately 5.6ha (see Figure 1).

Figure 1 – Site Extent

1.2.2 The site is located in the rural-urban fringe of Buxton, approximately 1.5km north-east of the town centre. The A6 lies approximately 50m east of the site, with Nun Brook approximately 20m west of the site. Residential housing lies immediately south of the site, with areas of recreational green space to the east and west and agricultural land to the north. An industrial unit is present along the central aspect of the eastern boundary of the site.

1.3 Purpose of this Report

1.3.1 Urban Green have been appointed to complete an EES in accordance with the completed PEA. This report has been produced to detail the quantity, specification, and locations of ecological enhancements for protected and notable species identified on site listed in the PEA and other survey work.

1.3.2 Derbyshire Wildlife Trust has specifically requested the implementation of integrated swift boxes to be included in the development following the newly published British Standard (BS 42021:2022 Integral best boxes), which has been considered within this report.

1.3.3 Appendix 1 includes the relevant legislation.

1.3.4 A map of suitable locations for these products to be installed is located In Appendix 2.

2 Previous Reports

2.1 Preliminary Ecological Assessment (PEA) (Urban Green, 2022)

2.1.1 Urban Green were commissioned by Barratt Homes to produce a PEA in 2022. The report identified records of notable bird, bat, and small mammals within 1km of the site in the data search.

2.1.2 In summary, the assessment identified the following notable species potentially using the site:

- Eleven records of protected or notable birds were returned, including Bullfinch (*Pyrrhula pyrrhula*), Dunnock (*Prunella modularis*), House Sparrow (*Passer domesticus*), Song Thrush (*Turdus philomelos*), Starling (*Sturnus vulgaris*) and Swift (*Apus apus*).
- Twenty-four records of bat, comprising two roost records and twenty sightings of species comprising an unidentified bat species (*Chiroptera sp.*), an unidentified pipistrelle species (*Pipistrellus sp.*), an unidentified myotis species (*Myotis sp.*), noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*) and common pipistrelle (*Pipistrellus pipistrellus*).
- Four hedgehog (*Erinaceus europaeus*) records were also returned.

2.1.3 The PRA was undertaken according the Bat Conservation Trust Guidelines, third edition - the most up to date at the time of survey. All trees and structures underwent a Preliminary Roost Assessment (PRA) during the survey. Two trees (T1 and T2) were assessed as having "low" roost suitability and one tree (T3) was assessed as having "moderate" roost suitability.

2.1.4 The PEA also details the site may be useful for commuting and foraging bats and nesting birds. The site was also found to provide suitable foraging habitat for birds of prey such as Buzzard (*Buteo buteo*) and Barn Owl (*Tyto alba*). The main habitats on site consisted of modified grassland and broadleaved woodland with blackthorn scrub, artificial unvegetated; unsealed surface, buildings, multiple lines of trees and built linear features such as dry-stone walls and fencing. Nun brook is offsite but was considered during the PEA due to the close proximity to the site.

2.2 Bat Survey Report (BSR) (Urban Green, 2024)

2.2.1 A Bat Survey Report was produced by Urban Green (2024), in relation to a suite of bat surveys which were carried out between May-September 2023 in response to the recommendations of the relevant PEA (Urban Green, 2022). An aerial tree assessment was undertaken on T3 and found that the tree had shallow knots, therefore was deemed as having "negligible" roost potential. The other trees onsite were not individually surveyed for bat presence/absence as they are not to be impacted by the proposed development, and so roosting cannot be discounted sitewide.

2.2.2 Across the entire suite of surveys, including both transect and statics, 1,974 bat calls were recorded. Common pipistrelle were the dominant species, with some records of soprano pipistrelle, myotis sp., Brown Long-eared (*Plecotus auritus*), noctule and Nyctalus sp. (*Nyctalus sp.*). The results found that the site was regularly used by a small population of bats for foraging and commuting, with activity being noticeably concentrated at the site's western perimeter (comprising woodland and adjacent scattered trees). Overall, foraging, and commuting activity were recorded site-wide with varying concentrations throughout.

3 Bat Boxes

3.1.1 A total of **eighteen** bat boxes are to be installed across the site, comprising twelve external boxes and six integrated bat boxes. The bat boxes selected will provide a range of suitable conditions and target pipistrelle species, brown long-eared bats, records of which were returned in the data search.

3.1.2 Externally mounted bat boxes are to be positioned on retained mature trees and newly constructed buildings. Please refer to Table 1 for the bat box specifications example. A bat box design of similar specification can be selected for the site.

Table 1 - Bat box specification

Bird Box Type	Image	Total Number of Boxes
Low Profile WoodStone Bat Box NHBS.com Dimensions: • Height 440mm • Width 290mm • Depth 90mm • Weight: 4.7 kg		6
Small Hollow Bat Box Greenwoods EcoHabitats Dimensions: Height 430mm Width 215mm Depth 68mm Weight: 6kg		6
Ibstock Enclosed Bat Box 'C' Large Box: • Height: 29cm • Width: 21.5cm • Depth: 10.5cm • Weight: 9.2kg Small Box: • Height: 21.5cm • Width: 21.5cm • Depth: 10.5cm • Weight: 6.7kg		6

3.2 Positioning of Bat Boxes

3.2.1 Bat boxes must be positioned between 4–6m high and are most effective when located on a south-east to south-western facing aspect, as this will provide additional heat throughout the day. Please refer to Appendix 3 for the Location Plan.

3.3 Timing of Installation

3.3.1 Bat boxes are to be installed prior to the operational phase of the site post-construction.

3.4 Maintenance of Bat Boxes

3.4.1 Bat boxes are considered self-cleaning and require minimal maintenance once installed. The boxes are made of hard-wearing material that is generally long-lasting. Bat boxes should be checked periodically (e.g. every two years) to assess their use and the condition of the boxes. Appendix 2 includes the maintenance schedule.

3.4.2 If any boxes are identified as damaged or missing, they are to be replaced with a box of similar specification.

3.4.3 **Note only those holding the appropriate Natural England Class 2 bat licence may open and inspect these boxes. It is an offence for anyone without this licence to open a bat box. If a bat box becomes occupied by a bird the nest must be left *in situ* until after the bird nesting season (March to September inclusive).**

4 Bird Boxes

4.1.1 The development has the potential to enhance bird nesting opportunities through the provision of bird nest boxes. The number of integral nest boxes on new residential developments shall at least equal the number of dwellings, i.e the ratio of integral boxes to dwellings is 1:1. It has been considered suitable that a total of **111** bird boxes are to be installed across the site, comprising twelve external bird boxes and 99 integrated bird boxes.

4.1.2 The Derbyshire Wildlife Trust has specifically requested the implementation of integrated bird boxes following the newly published British Standard (BS 42021:2022 Integral nest boxes – Selection and installation for new developments). This publication provides specifications on the number of and type of integral boxes that should be sought within new developments.

4.1.3 Bird boxes come in various types and sizes, which vary in their suitability from species to species. Table 2 provides details of bird nest box types and the likely species they attract. Bird species that are known to inhabit the local area and readily utilise artificial nest boxes have been selected. Boxes of similar specifications as those detailed in table 3 can be selected, in the case the example boxes are not available.

Table 2 - Bird nest box hole sizes and associated species

Box entrance hole size	Associated species
28mm	Common passerines such as Great tit (*Parus major*), bullfinch, Tree Sparrow (*Passer montanus*), song thrush and dunnock.
32mm	House sparrow
45mm	Starling
50mm	Swift
13cm high x 12 cm wide	Barn owl

Table 3 – Bird nest boxes that can be bought from websites such as nhbs.com, habibat.co.uk or other online retailers

Bird box type	Image	Number of boxes
Woodstone® Seville Nest Box 28mm Dimensions: • Entrance hole diameter: 28mm • Width: 20cm • Height: 31cm Length: 20cm • Weight: 5.9kg • Material: WoodStone®		4
Vivara Pro Woodstone starling nest box (externally mounted) Dimensions: • Height: 385mm • Width: 220mm • Depth: 215mm • Weight: 7.4 kg • Entrance hole diameter: 45mm • Material: WoodStone®		2
Vivara Pro Woodstone 32mm nest box (externally mounted) Dimensions: • Entrance hole diameter: 32mm • Width: 20cm • Height: 31cm • Length: 20cm • Weight: 6.9kg • Material: WoodStone®		4
Barn Owl Nest Box Dimensions: • Height: 74cm • Width: 59cm • Depth: 50cm • Depth of enclosed box: 34cm • Entrance hole: 13cm high x 12cm width • Weight: 8kg approx. • Material: FSC certified exterior grade plywood		1
Integrated Brick Slip Facing 50mm Cavity S Brick Dimensions: • Length: 347.5mm • Diameter: 130mm • Height: 85mm • Brickslip: 18mm • Weight <2kg		99 (one per building)

4.2 Positioning of Bird Boxes

4.2.1 Bird boxes are most effective when positioned on a north-east to north-west facing aspect to prevent overheating during the summer nesting season. Care should be taken to make sure boxes are not angled in such a manner to allow rain to enter them. Nest boxes are to be affixed to vertical surfaces on retained trees at a minimum height of 3m. Boxes of similar specifications should not be placed in close proximity to one another, as to avoid conflict between territorial species.

4.2.2 Owl boxes must be installed onto large retained mature trees or pole mounted. The associated map recommends the owl box be placed on the western woodland border, away from urban disturbance.

4.2.3 Please refer to Appendix 3 for the Location Plan.

4.3 Timing of Installation

4.3.1 Bird boxes are to be installed prior to the occupation of the selected dwellings the boxes are to be situated upon. Appendix 2 includes the Schedule of Works.

4.4 Maintenance of Bird Boxes

4.4.1 The following maintenance measures are to be completed, following the installation of the boxes:

- Bird boxes will require periodic checking and cleaning, (e.g. once every two years).
- Unhatched eggs may be removed legally between September and January and must then be disposed of.
- Disused nests must be removed and cleaned using boiling water to remove parasites. Boxes should be left to dry before replacing the lid. Insecticides and flea powders must not be used.
- If any boxes are identified as damaged or missing, they are to be replaced with a box of similar specification.

4.4.2 **Note bird boxes must only be opened and cleaned outside the bird nesting season (which is between March to September inclusive). Owl boxes must only be opened and inspected by suitably licensed individuals.**

5 Hedgehog

5.1.1 The site is considered to have potential to support hedgehogs, therefore, hedgehog highways are to be installed across the site to improve connectivity. Additionally, hedgehog homes are to be installed within suitable areas for hedgehogs within the site to provide additional hibernation features.

5.1.2 Appendix 3 details the location of the proposed hedgehog homes to be installed within the site. If hedgehog homes are not available, brash/wood piles can be used instead in similar locations.

5.1.3 Specifications for hedgehog enhancements are detailed in Table 4.

5.2 Hedgehog Highways

5.2.1 The inclusion of 'hedgehog highways' to facilitate movement across the site should be installed within all garden fencing. This includes holes of 13 x 13cm at the bases of fence panels, leaving a sufficient gap beneath gates and/or leaving brick spaces at the bases of brick walls to prevent habitat fragmentation occurring. A variety of fence suppliers stock specific hedgehog-friendly fencing options, which can be easily incorporated at little or no additional cost. Hedgehog holes should be positioned to connect as much of the landscape as possible and can be mapped prior to construction.

5.2.2 Similarly, where essential ground level changes may create barriers to movement (e.g. high kerbs, steps, terracing, sunken patios, gullies and drains), the landscaping should ensure sloped access/escape routes for ground dwelling species.

Table 4- Hedgehog houses and highways; more information can be found from websites such as britishhedgehogs.org.uk, arkwildlife.co.uk and other online retailers.

Specification	Image	Number of homes
Hoglio Hedgehog Home Approximately 23 x 52 x 40cm (9" x 20½ " x 16").		6
Hedgehog Highway Height: 13cm Width: 15cm Image for illustrative purposes only, sign not required		Within all garden fences

5.3 Hedgehog Home Locations

5.3.1 A hedgehog house contains a narrow or tunnel-like entrance, which is essential to prevent predators such as foxes and badgers gaining access to the hedgehog house. In addition, camouflaging the top and sides of house with soil and leaves can also help to reduce the chance of predation, ensuring that the entrance remains clear at all times for hedgehog access.

5.3.2 Hedgehog homes are to be placed out of direct sunlight and must not face the north or north-east aspects (to avoid cold winter winds) and where it will not be disturbed, such as against a wall, bank, or fence (British Hedgehog Preservation Society, 2018).

5.3.3 To prolong the longevity, hedgehog homes must be emptied (if absent from hedgehog presence) annually in April or October, to reduce the infestation of fleas and ticks that can be transferred through nest use. If hedgehog presence is confirmed within hedgehog homes from initial inspection (upon gently removing the lid), then this hedgehog home must be exempt from the annual clean until the following year (subject to presence of a hedgehog).

5.3.4 If possible, the addition of hay or straw must be added to each hedgehog home for insulation and replaced after an annual clean has been completed. Further information is available on the Hedgehog Street website (https://www.hedgehogstreet.org/cleaning-out-boxes/), and within the Work Schedule located in Appendix 2.

6 Native Planting

6.1.1 The post-development landscape proposals should include native species planting where possible. The planting of native species provides more ecological value to site and wider landscape than non-native/introduced shrubs. Native plants co-evolved alongside native fauna such as birds, insects, and mammals and as such provide specific benefits to such species that are not necessarily offered by non-native/introduced shrubs, for example many of our invertebrate species depend on specific native plant species. Benefits include:

- Nectar for pollinators
- Promotes invertebrate use of the site (which could also benefit local bat and bird species)
- Shelter for mammals
- Food source (nuts, seeds and fruits) for all wildlife

6.1.2 Native plant species are adapted to local environmental conditions and therefore require less water to remain healthy than many of the non-native counterparts.

6.1.3 As the proposals for the site include the development of several industrial units there is limited space that may be used for landscaping. However, the landscape designs should seek to implement the following:

- Planting of native tree species within Public Open Space (POS), i.e., field maple (*Acer campestre*), hawthorn (*Crataegus monogyna*), oak (*Quercus* sp.), cherry (*Prunus* sp.), birch (*Betula* sp.), and rowan (*Sorbus aucuparia*).
- The planting of native mixed scrub within POS, i.e., hazel (*Corylus avellana*), willow (*Salix* sp.), guelder rose (*Viburnum opulus*), birch, and dog rose (*Rosa canina*).
- Areas of grassland should be created that include native seed mixes, targeting wildflowers and grasses.
- Planting of linear features such as hedgerows and trees between garden plots where possible.

7 Conclusion

7.1.1 This plan has demonstrated that the requirements of the relevant application, have been met by demonstrating the following:

- A specification concerning the type of features to be used, as detailed in Section 3, 4 and 5. Specifically targeting species identified on site during previous ecological surveys (detailed in Section 2) and associated with residential areas.
- Recommendations of native planting to be included within the landscape plan, detailed in Section 6.
- Implementation programme as detailed in Appendix 2.
- A layout plan detailing where the nesting/roost/hedgehog features to be positioned, detailed in Appendix 3.

8 References

Action for Swifts Brick Slip Facing 50mm Cavity S Brick. Available at: Galvanised Steel S Brick — S Brick (actionforswifts.com)

Barrat Homes Manchester (2023). Planning Layout. Drawing reference 499-P-PL01_Hogshaw Nunsfield

British Trust for Ornithology (n.d.). Plants for fruits and seeds [Online]. Available from: http://www.bto.org/our-science/projects/gbw/gardens-wildlife/gardening/plants-fruits-seeds

Greenwoods EcoHabitats. Small Hollow Bat Box. Available at: https://www.greenwoodsecohabitats.co.uk/shop

NHBS. *Barn Owl Nest Box.* Available URL: https://www.nhbs.com/barn-owl-nest-box

NHBS. Low Profile Woodstone Bat Box. Available at: https://www.nhbs.com/low-profile-woodstone-bat-box

NHBS. Vivara Pro Woodstone 32mm Nest Box. Available at: https://www.nhbs.com/vivara-pro-seville-32mm-woodstone-nest-box

NHBS. *Vivara Pro WoodStone Starling Nest Box*. Available URL: https://www.nhbs.com/vivara-pro-woodstone-starling-nest-box

NHBS. Woodstone Seville Nest Box 28mm. Available at: https://www.nhbs.com/vivara-pro-seville-28mm-woodstone-nest-box

The British Hedgehog Preservation Society (britishhedgehogs.org.uk)

Urban Green (2022). Preliminary Ecological Assessment. UG_1795_ECO_PEA_04

Urban Green (2024). Arboriculture Impact Assessment. UG_1795_ARB_AIA_REV_04_FINAL.

Urban Green (2024). Bat Survey Report. UG_1795_ECO_BSR_01

Appendix 1 – Relevant Legislation

Breeding Birds

With certain exceptions[1], all wild birds, their nests and eggs are protected by Section 1 of the *Wildlife and Countryside Act 1981* (as amended). Therefore, it is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; or
- intentionally take or destroy the egg of any wild bird.

These offences do not apply to hunting of birds listed in Schedule 2 subject to various controls.

Bird species listed on Schedule 1 of the Act receive further protection, thus for these species it is also an offence to:

- intentionally or recklessly disturb any bird while it is nest building, or is at a nest containing eggs or young; or
- intentionally or recklessly disturb the dependent young of any such bird.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

- Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:
- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
- to impair their ability:
    - to survive, to breed or reproduce, or to rear or nurture their young, or;
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
- to affect significantly the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

[1] Some species, such as game birds, are exempt in certain circumstances.

Appendix 2 – Timings of Works

Box Positioning

During construction works	J	F	M	A	M	J	J	A	S	O	N	D
Erect boxes / Install swift bricks/ Deploy hedgehog houses	Prior to the occupation of the buildings the boxes are to be situated upon.											

Box Maintenance

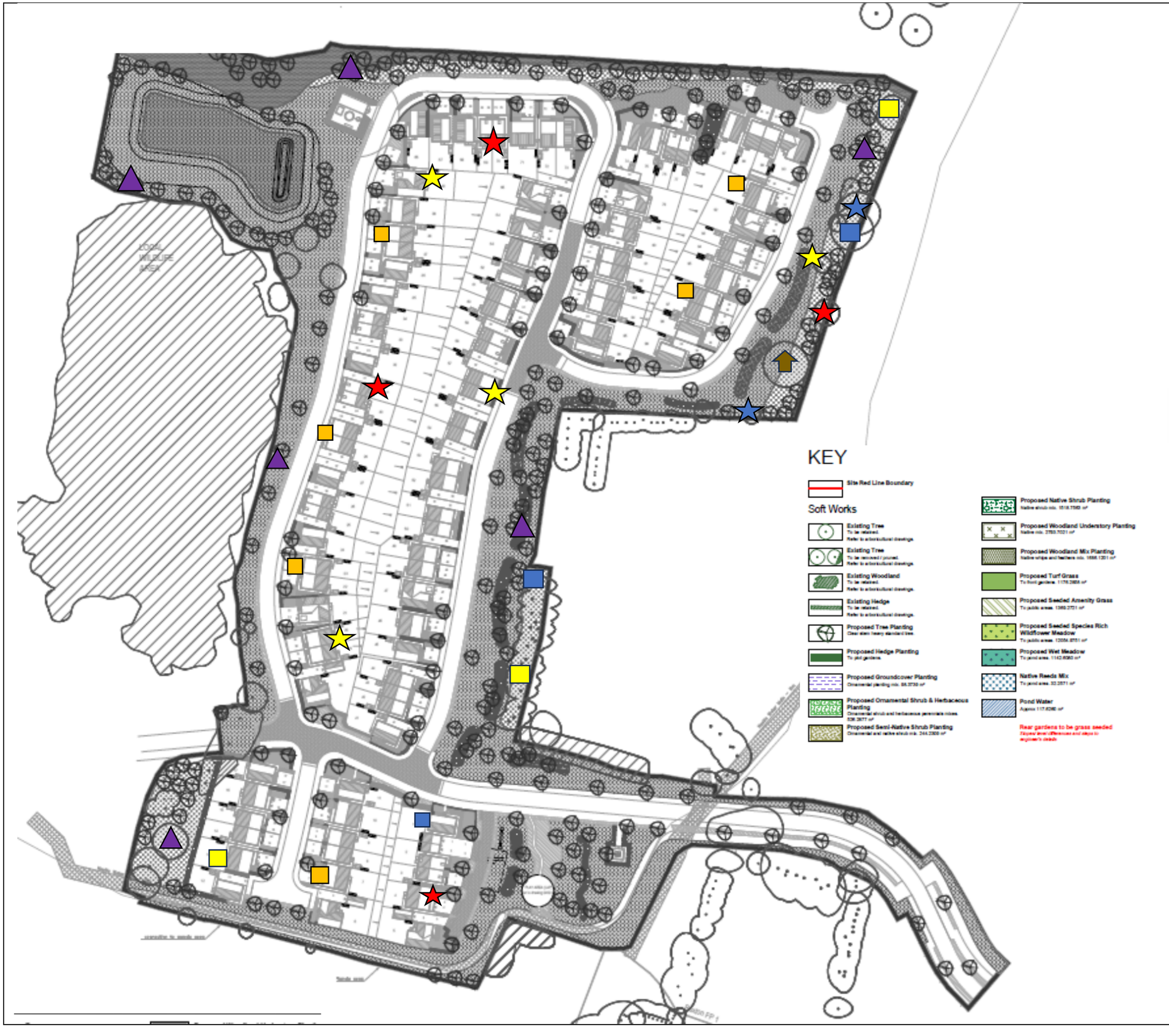
Habitat box maintenance	Year 1	Year 2	Year 3	Year 4
Box checks to see if boxes are in good condition and working appropriately		Operational phase Sept - Oct		Operational phase Sept - Oct
Bird box cleaning		Operational phase Sept - Oct		Operational phase Sept - Oct

Post construction maintenance for hedgehog homes.	J	F	M	A	M	J	J	A	S	O	N	D
Annual hedgehog house clean and replacement of bedding (if absent from hedgehog presence)												

Key

	Recommended times when works can be conducted
	Times to avoid work either through recommendation or under licence

Appendix 3 – Bird, Bat Box and Hedgehog Home Location Plan



Do not scale this drawing (printed or electronic version)

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings andspecifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

- Low Profile Woostone Bat Box (Placed in pairs)
- Small Hollow Bat Box (Placed in pairs)
- Ibstock Enclosed Bat Box 'C'
- Woodstone Seville Nest Box (28mm)
- Vivara Pro Woodstone Nest Box (32mm)
- Vivara Pro Woodstone starling Nest Box
- Barn Owl Nest Box
- Hedgehog House

Note:
Integrated Swift bricks are to be implemented into every proposed building.
Hedgehog Highways are to be implemented into all fences.

U R B A N G R E E N

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF
T: +44 (0) 161 312 3131

Client
Barratt Homes

Project:
Hogshaw Farm

Title:
Ecological Enhancement Plan

Issue:
01

Drawn:	Checked:	Approved:
OJ	JH	BIG
Project: UG1795	Scale @ A:3: 1:5,000	Date: 07/03/2024
Dwg No: Drawing reference 499-P-PL01_Hogshaw		01

LANDSCAPE & VISUAL IMPACT ASSESSMENT

JULY 2024

Hogshaw Farm
Buxton

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG1795		
Project:	Hogshaw Farm		
Location:	Buxton		
Title	Landscape & Visual Impact Assessment		
Document Type:	LVIA	**Issue No.:**	P06
Date:	July 2024		
Prepared By:	ME	**Signature:**	
Checked By:	SA	**Signature:**	

Revision Status:

Rev:	Date:	Issue/Purpose/ Comment:	Prepared:	Checked:
P01	31/01/23	Planning	ME	SA
P02	30/03/23	Planning	ME	SA
P03	05/04/23	Planning	ME	SA
P04	20/02/24	Planning	ME	SA
P05	18/03/24	Planning	ME	SA
P06	23/07/24	Planning	ME	SA

CONTENTS

1.0	Introduction & Scope of Assessment	**04**
2.0	Planning Policy Context	**05**
3.0	Landscape Baseline	**19**
4.0	Visual Baseline	**33**
5.0	Landscape Strategy	**54**
6.0	Assessment of Landscape Effects	**55**
7.0	Assessment of Visual Effects	**58**
8.0	Conclusions	**60**
9.0	Appendix 1: Landscape and Visual Assessment Methodology	**61**

1.0 INTRODUCTION & SCOPE OF ASSESSMENT

This document has been prepared by Urban Green and provides a Landscape and Visual Impact Assessment of the Site at Hogshaw Farm, Buxton.

The proposals comprise of the residential development of the Site, incorporating associated access, new estate roads, parking, landscape works and public open space.

The aim of this document is to identify the key landscape and visual sensitivities of the Assessment Site, and provide recommendations to support the appropriate development of the Site.

This document considers changes to:

- The character of the landscape, vegetation, landscape features and designations within and surrounding the Site; and
- The composition of selected views from identified visual receptors as a result of the proposed development.

The landscape and visual analysis was prepared following Site visits in November 2022. Following liaison with High Peak Borough Council, further Site visits were undertaken in February and March 2024 to assess three additional viewpoints. This assessment describes and evaluates the anticipated change to landscape and visual amenity, and the extent to which these changes will affect the perception and views of the landscape.

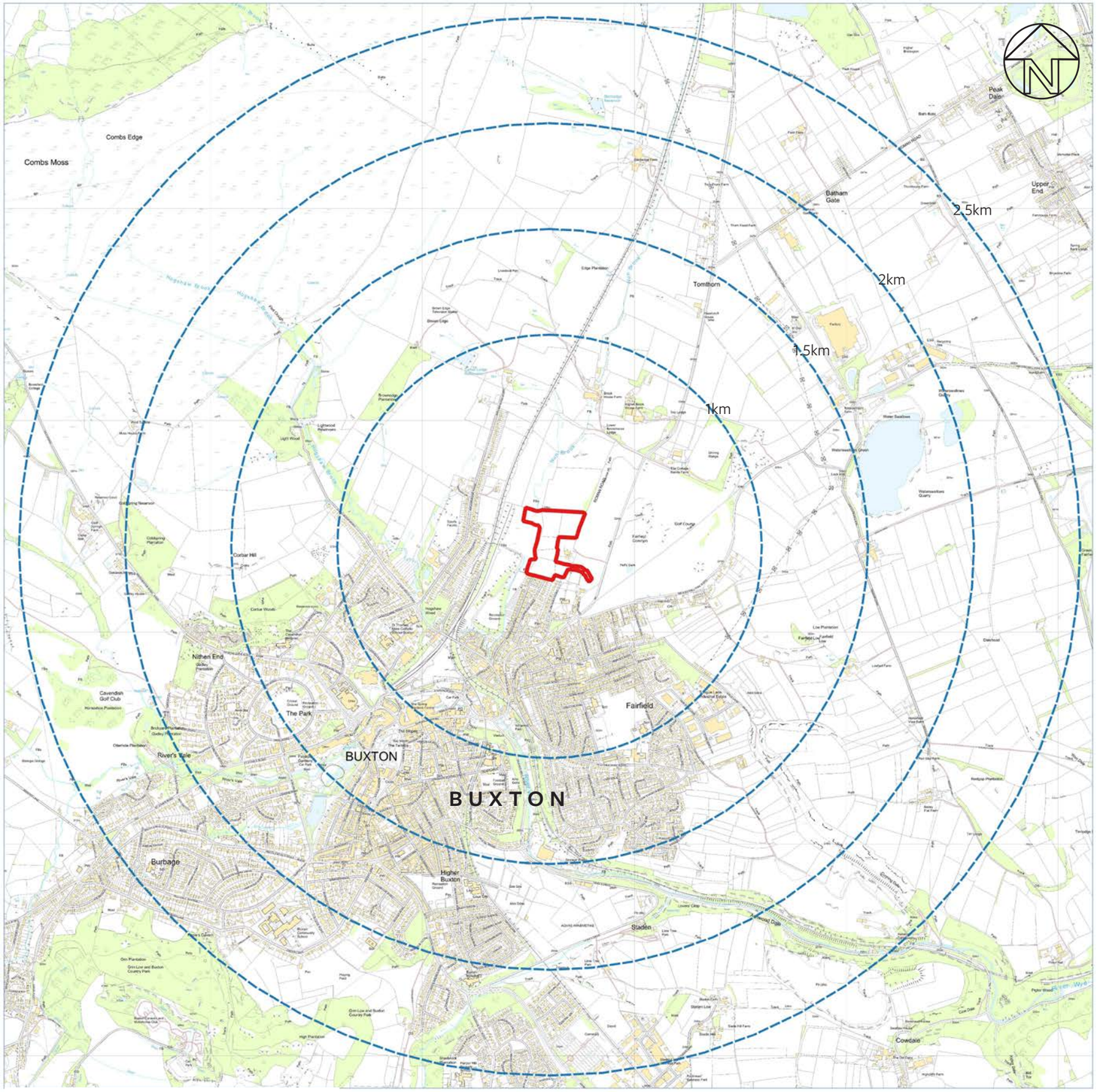


Figure 1.1 - Site Location

2.0 PLANNING POLICY CONTEXT

National Planning Policy Framework

The National planning policy for England is defined within the National Planning Policy Framework (herein referred to as the NPPF) that has distilled the content of previous Planning Policy Statements into one comprehensive document. The NPPF is the relevant national planning policy document against which to test the proposals. A revised NPPF was issued by the Ministry of Levelling Up, Housing and Communities on 20 December 2023.

General Considerations

As a central theme, the NPPF has a presumption in favour of sustainable development (para. 11) for which it defines three mutually interdependent objectives of sustainability (para. 8) to be jointly sought (economic, social and environmental). With relevance to landscape and visual matters the third objective states:

"an environmental objective – to protect and enhance our natural, built and historic environment; (...)"

The planning system is identified as the vehicle for guiding development to sustainable solutions but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

Strategic Policies

Paragraph 20 discusses the role of strategic policies within the plan-making framework. It suggests that sufficient provision should be made for the:

d. *"conservation and enhancement of the natural, built and historic environment, including landscapes and green infrastructure, and planning measures to address climate change mitigation and adaptation."*

Section 12 Achieving well-designed places

This section of the NPPF identifies that the creation of high-quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve (para. 131) it states that policy should ensure that developments (para. 135):

b. *"(...) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*

c. *are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);*

d. *establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;*

e. *optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; (...)"*

In regards to trees in new developments, paragraph 136 states:

"Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined53, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users."

Section 15 Conserving and Enhancing the Natural Environment

This section of the NPPF identifies a requirement in favour of (para. 180):

a. *"protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*

b. *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; (...)"*

As listed in the NPPF, these valued landscapes include:

- National Parks;
- The Broads; and

Areas of Outstanding Natural Beauty (National Landscapes).The Assessment Site is not located within any of the above mentioned valued landscapes, however it is noted that the Peak District National Park is located approximately 1780m south east of the Assessment Site at the closest point .

Section 16 Conserving and Enhancing the Historic Environment

For proposals affecting heritage assets, the NPPF places a requirement on applicants to (para. 200):

"describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance."

Para. 201 also states:

"Local planning authorities should identify and assess the particular significance

2.0 PLANNING POLICY CONTEXT

of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal."

Para. 197 states:

"In determining applications, local planning authorities should take account of:

a. *the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*

b. *the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*

c. *the desirability of new development making a positive contribution to local character and distinctiveness."*

It is also considered that (Para. 213):

"Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance."

Local Planning Policy

The Assessment Site and study area predominately lies within the jurisdiction of High Peak Borough Council. Although the Site falls entirely within the authority area of High Peaks Borough Council, there are parts of the north west and the south east portions of the study area that are located within the Peak District National Park and therefore are administered by the Peak District National Park Authority. Policy sections relating to this area have been included for reference, however it must be noted that the application decision will sit with High Peak Borough Council.

Key local policies relating to landscape and visual matters are briefly outlined below.

Adopted Policy

Section 38(6) of the Planning and Compulsory Purchase Act 2004 places a requirement upon local authorities when determining planning applications to do so in accordance with the adopted development plan unless material considerations indicate otherwise.

The current development plan compromises of the:

- High Peak Local Plan (2016);
- Peak District National Park Local Development Framework - Core Strategy (2011);
- Development Management Policies - Part 2 of the Local Plan for the Peak District National Park (2019)

The relevant policies, pertinent to the Assessment Site and to the study area within the above noted document are as follows:

High Peak Local Plan (2016)

Policy EQ 2 is concerned with Landscape Character and states that:

" The Council will seek to protect, enhance and restore the landscape character of the Plan Area for its own intrinsic beauty and for its benefit to the economic, environmental and social well-being of the Plan Area.

This will be achieved by:

- *Requiring that development has particular regard to maintaining the aesthetic and biodiversity qualities of natural and man-made features within the landscape, such as trees and woodlands, hedgerows, walls, streams, ponds, rivers, ecological networks or other topographical features*
- *Requiring that development proposals are informed by, and are sympathetic to the distinctive landscape character areas as identified in the Landscape Character Supplementary Planning Document and also take into account other evidence of historic landscape characterisation, landscape sensitivity, landscape impact and the setting of the Peak District National Park and where appropriate incorporate landscape mitigation measures.*
- *Requiring that development proposals protect and/or enhance the character, appearance and local distinctiveness of the landscape and landscape setting of the Peak District National Park*
- *Resisting development which would harm or be detrimental to the character of the local and wider landscape or the setting of a settlement as identified in the Landscape Impact Assessment."*

Policy EQ 3 considers Rural Development and states that:

"Outside the settlement boundaries and sites allocated for development as defined on the Policies Map, including the Green Belt, the Council will seek to ensure that new development is strictly controlled in order to protect the landscape's intrinsic character and distinctiveness, including the character, appearance and integrity of the historic and cultural environment and the setting of the Peak District National Park whilst also facilitating sustainable rural community needs, tourism and economic development.

This will be achieved by:

- *Supporting the redevelopment of a previously developed site and/or the conversion of existing buildings for employment use provided it does not have an adverse impact on the character and appearance of the rural area*
- *Supporting the provision and expansion of tourist and visitor facilities in sustainable locations where identified needs are not met by existing facilities*

2.0 PLANNING POLICY CONTEXT

- *Supporting rural employment in the form of home working, commercial enterprises and live-work units where a rural location can be justified*
- *Supporting equestrian development where it does not have an adverse impact upon the character and appearance of the area*
- *Supporting development associated with recreational and open space uses in accessible and least environmentally sensitive locations*
- *Supporting proposals for agriculture and related development which help sustain existing agricultural enterprises, including small scale farm shops selling local produce, complementary farm diversification and new agricultural buildings that maintain the landscape quality and character of the countryside*
- *Ensuring that all development is of a high quality design and protects or enhances landscape character and the setting of the Peak District National Park*

Allowing the following forms of new residential development:

- *A replacement dwelling provided it does not have a significantly greater impact on the existing character of the rural area than the original dwelling nor result in the loss of a building which is intrinsic to the character of the area*
- *Affordable housing in accordance with Local Plan Policy H5*
- *To meet an essential local need, such as a farm worker's or rural enterprise dwelling, where the need for such accommodation has been satisfactorily demonstrated and that need cannot be met elsewhere*
- *Re use of redundant and disused buildings and/or the redevelopment of a previously developed site, where it does not have an adverse impact on the character and appearance of the countryside. Where the existing building is in an isolated location the development should lead to an enhancement of the immediate setting.*
- *Limited infilling of a small gap capable of accommodating no more than 2 dwellings of a similar size and scale to the surrounding dwellings in an otherwise continuously built frontage*
- *Extensions to existing dwellings provided they are subsidiary to the building and do not have an adverse impact on the character of the landscape*
- *A gypsy and traveller site in accordance with Policy H6*
- *Development in accordance with Policy H1"*

Policy EQ 5 promotes the protection of Biodiversity and states that:

" The biodiversity and geological resources of the Plan Area and its surroundings will be conserved and where possible enhanced by ensuring that development proposals will not result in significant harm to biodiversity or geodiversity interests.

This will be achieved by:

- *Conserving and enhancing sites of international, European, and national importance. On these sites the Council will not permit any development proposal that has an adverse effect on the integrity of a European site (or wildlife site given the same protection as European sites under the NPPF) either alone or in combination with other plans or projects.*
- *Conserving and enhancing any Sites of Special Scientific Interest. On these sites the Council will not permit any development proposal which would directly or indirectly (either individually or in combination with other developments) have an adverse effect on a Site of Special Scientific Interest*
- *Conserving and enhancing regionally and locally designated sites. On these sites the Council will not permit any development proposal which would directly or indirectly result in significant harm to geological and biodiversity conservation interests, unless it can be demonstrated that:*
  - *there is no appropriate alternative site available; and*
  - *all statutory and regulatory requirements relating to any such proposal have been satisfied; and*
  - *appropriate conservation and mitigation measures are provided, such mitigation measures should ensure as a minimum no net loss and wherever possible net gain for biodiversity;*
  - *or if it is demonstrated that this is not possible;*
  - *the need for, and benefit of, the development is demonstrated to clearly outweigh the need to safeguard the intrinsic nature conservation value of the site and compensatory measures are implemented*
- *Encouraging development to include measures to contribute positively to the overall biodiversity of the Plan Area*
- *Working with partners to help meet the objectives and targets in the Peak District Biodiversity Action Plan or its successor*
- *Working with partners to protect and enhance watercourses*
- *Identifying local ecological networks and supporting their establishment and protection in accordance with Local Plan Policy EQ8, preferentially creating biodiversity sites where they have the potential to develop corridors between habitats (both terrestrial and freshwater)*
- *Working with partners in the public, private and voluntary sectors to develop and secure the implementation of projects to enhance the landscape and create or restore habitats of nature conservation value, and to secure the more effective management of land in the Plan Area and its surroundings."*

Policy EQ 6 introduces Design and Place Making and states that:

" All development should be well designed and of a high quality that responds positively to both its environment and the challenge of climate change, whilst also contributing to local distinctiveness and sense of place.

This will be achieved by:

- *Requiring development to be well designed to respect the character, identity and context of High Peak's townscapes and landscapes*
- *Requiring that development on the edge of settlement is of high quality design that protects, enhances and / or restores landscape character, particularly in relation to the setting and character of the Peak District National Park*

2.0 PLANNING POLICY CONTEXT

- *Requiring that development contributes positively to an area's character, history and identity in terms of scale, height, density, layout, appearance, materials, and the relationship to adjacent buildings and landscape features*

- *Requiring that development achieves a satisfactory relationship to adjacent development and does not cause unacceptable effects by reason of visual intrusion, overlooking, shadowing, overbearing effect, noise, light pollution or other adverse impacts on local character and amenity*

- *Requiring that public and private spaces are well-designed, safe, attractive, complement the built form and provide for the retention of significant landscape features such as mature trees*

- *Requiring that developments are easy to move through and around, incorporating well integrated car parking, pedestrian routes and, where appropriate, cycle routes and facilities*

- *Requiring that developments are designed to minimise opportunities for anti-social or criminal behaviour and promote safe living environments*

- *Requiring the inclusive design of development, including buildings and the surrounding spaces, to ensure development can be accessed and used by everyone, including disabled people*

- *Requiring new homes in residential developments meet environmental performance standards in accordance with Local Plan Policy EQ1;*

- *Requiring that commercial developments, meet environmental performance standards in accordance with Local Plan Policy EQ1*

- *Ensuring that development takes account of national design guidance and Supplementary Planning Documents."*

Policy EQ 7 is concerned with the Built and Historic Environment and states that:

" The Council will conserve heritage assets in a manner appropriate to their significance. This will take into account the desirability of sustaining and enhancing their significance and will ensure that development proposals contribute positively to the character of the built and historic environment in accordance with sub area strategies S5, S6 and S7.

Particular protection will be given to designated and non-designated heritage assets and their settings including: Listed Buildings Conservation Areas Historic Parks and Gardens Scheduled Monuments Archaeological Sites or heritage features Heritage trees and woodlands Locally listed heritage assets

This will be achieved by:

- *Requiring all works that could impact on a heritage asset or its setting or sites with the potential to include assets, to be informed by a level of historical, architectural and archaeological evidence proportionate to their significance and sufficient to understand the potential impact of a proposal. Where appropriate, the Council may also require historical research and archaeological recording to be undertaken before works to a heritage asset commence*

- *Preventing the loss of buildings and features which make a positive contribution to the character or heritage of an area through preservation or appropriate reuse and sensitive development, including enabling development, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss or other relevant provisions of the NPPF apply.*

- *Ensuring that development within the Area of Archaeological Interest as identified on the Policies Map does not have a significant adverse impact on any known or yet to be discovered heritage assets. Planning conditions and/or obligations will be agreed to ensure that archaeological or heritage features and recorded and retained intact in situ. Where this is impractical, such features will be appropriately excavated and recorded prior to destruction. Within the Buxton Area of Archaeological Interest development proposals should be informed by desk-based assessment / field evaluation as appropriate to assess the potential for impacts on Roman archaeology. Where proposals are likely to affect other known important sites, sites of significant archaeological potential, or those that become known through the development process, an archaeological evaluation will be required prior to their determination*

- *Requiring proposed developments that affect a heritage asset and / or its setting, including alterations and extensions to existing buildings, to demonstrate how the proposal has taken account of design, form, scale, mass, use of traditional materials and detailing, siting and views away from and towards the heritage asset in order to ensure that the design is sympathetic and minimises harm to the asset.*

- *Requiring proposals for the change of use of heritage assets, including listed buildings and buildings in Conservation Areas to demonstrate that the proposal is considered to be the optimum sustainable and viable use that involves the least change to the fabric, interior and setting of the building*

- *Requiring development proposals in Conservation Areas to demonstrate how the proposal has taken account of the distinctive character and setting of individual Conservation Areas including open spaces and natural features and how this has been reflected in the layout, design, form, scale, mass, use of traditional materials and detailing, in accordance with Character Appraisals where available*

- *Requiring the retention of shop-fronts of high architectural or historical value wherever possible. Proposals for replacement shop-fronts and signage, or alterations to shop-fronts affecting heritage assets should respect the character, scale, proportion and special interest of the host building and its setting*

- *Continuing the programme of Conservation Area Character Appraisals*

- *Ensuring that appropriate heritage assets are added to the local list of buildings of architectural or historic interest*

- *Using Article 4 Directions to control permitted development in the Central, College, Hardwick, and Buxton Park Conservation Areas in Buxton and the Old Glossop, Higher Chisworth and New Mills Conservation Areas*

- *Providing occasional grant funding as resources permit to allow owners or occupiers of historic commercial buildings to improve and enhance their shop-fronts, windows, doors and signage in a traditional and sympathetic manner."*

Policy EQ 8 considers the provision of Green Infrastructure and states that:

"The Council will, through partnership working, develop, protect and enhance networks of Biodiversity and Green Infrastructure.

2.0 PLANNING POLICY CONTEXT

KEY

- Site Boundary
- 1km
- 1.5km
- 2km
- 2.5km

Policy

- Peak District National Park
- Protected Major Park
- Wildlife Site
- Green Wedges
- Countryside

0 200 400 600 800 1,000 m

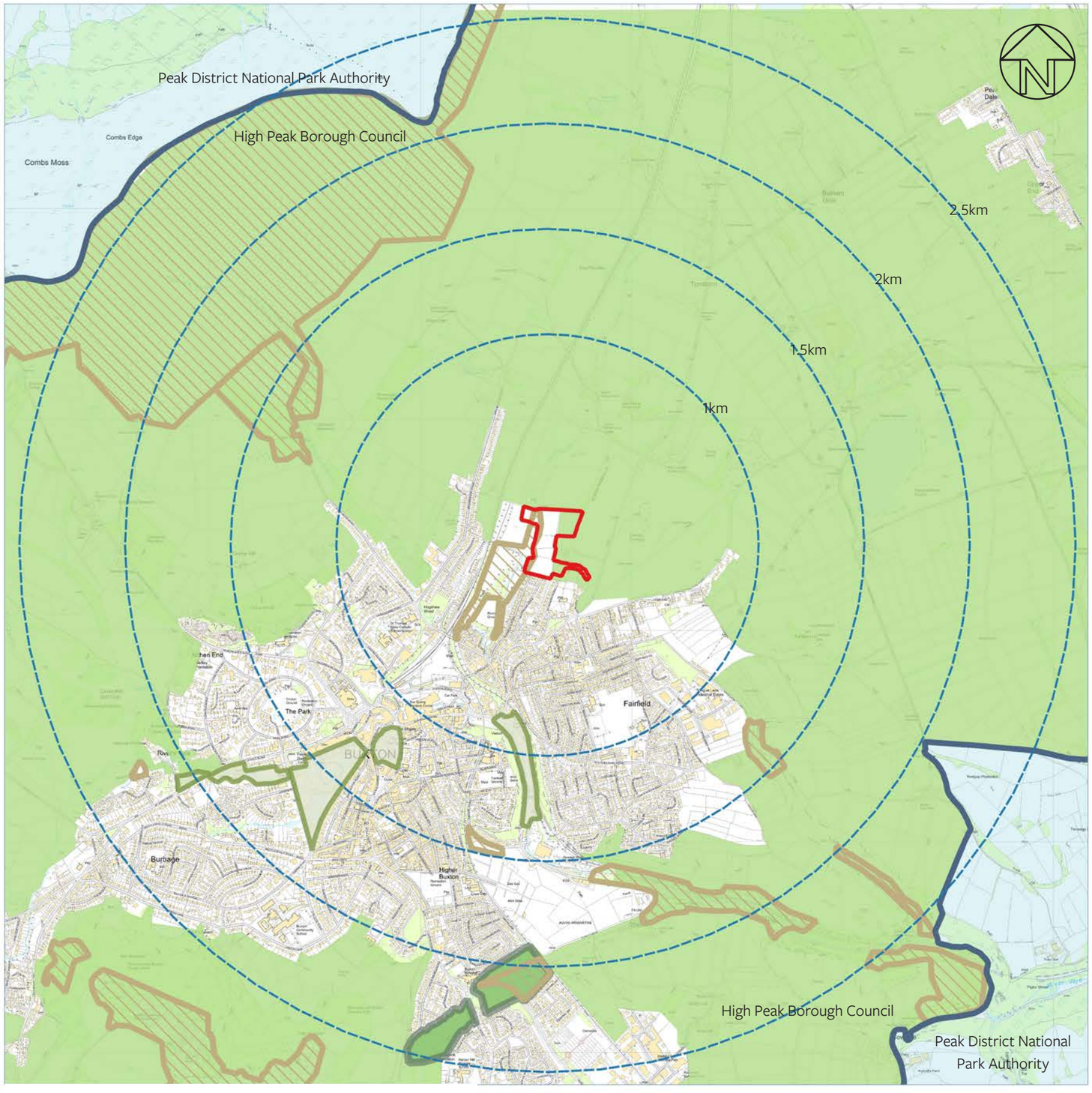


Figure 2.1 - Local Planning Policy - Planning Policy Designations

2.0 PLANNING POLICY CONTEXT

This will be achieved by:

- *Requiring that development will not have a detrimental effect on the amount or function of existing green infrastructure unless replacement provision is made that is considered to be of equal or greater value than that lost through development; taking particular account of appropriate levels of mitigation where development would result in habitat fragmentation*

- *Requiring that any green infrastructure development project that could result in adverse effects to a European site is subject to project-level HRA*

- *Requiring that development proposals, where appropriate, contribute towards the creation of new or enhancement of existing green infrastructure, including public and private open space, recreation areas, parks and formal outdoor sports facilities, local nature reserves, wildlife sites, woodlands, allotments, bridleways, cycle ways and local green spaces*

- *Requiring that through its layout and design, new development responds to the location of existing green infrastructure and ecological networks, supporting their appropriate uses and functions*

- *Where appropriate, ensuring that green infrastructure helps mitigate the effects of climate change including through management of flood risk and waterways*

- *The protection and extension of existing long distance trails and development of a network of Greenways in accordance with the West Derbyshire and High Peak Greenway Strategy*

- *Working with the Dark Peak Nature Improvement Area and other partners to help create better access routes linking High Peak settlements into the surrounding countryside for tourism and recreation*

- *Identifying and protecting key wildlife corridors and stepping stones that connect sites of importance for biodiversity, including creating or restoring habitats of nature conservation value, in accordance with Local Plan Policy EQ5."*

Policy EQ 9 is concerned with trees, woodland and hedgerows and states that:

"The Council will protect existing trees, woodlands and hedgerows, in particular, ancient woodland, veteran trees and ancient or species-rich hedgerows from loss or deterioration.

This will be achieved by:

- *Requiring that existing woodlands, healthy, mature trees and hedgerows are retained and integrated within a proposed development unless the need for, and benefits of, the development clearly outweigh their loss*

- *Requiring new developments where appropriate to provide tree planting and soft landscaping, including where possible the replacement of any trees that are removed at a ratio of 2:1*

- *Resisting development that would directly or indirectly damage existing ancient woodland, veteran trees and ancient or species-rich hedgerows."*

Policy H 1 deals with the Location of Housing Development and states that:

"The Council will ensure provision is made for housing taking into account all other policies in this Local Plan by:

- *Supporting the development of specific sites through new site allocations in the Local Plan or a Neighbourhood Plan*

- *Promoting the effective reuse of land by encouraging housing development including redevelopment, infill, conversion of existing dwellings and the change of use of existing buildings to housing, on all sites suitable for that purpose*

- *Supporting housing development on unallocated sites within defined built up area boundaries of the towns and larger villages*

- *Encouraging the inclusion of housing in mixed use schemes where housing can be accommodated in an acceptable manner without compromising other planning objectives*

- *Supporting development identified through a Community Right to Build Order*

- *Supporting self build housing schemes*

The Council will monitor actual and forecast provision, including windfall sites, through the Monitoring Report and its housing trajectory to identify a 5 year supply of deliverable housing sites against the housing requirement in the Local Plan. The Council will give consideration to approving sustainable sites outside the defined built up area boundaries, taking into account other policies in this Local Plan, provided that

- *The development would adjoin the built up area boundary and be well related with the existing pattern of development and surrounding land uses and of an appropriate scale for the settlement; and*

- *the development would not lead to prominent intrusion into the countryside or have a significant adverse impact on the character of the countryside; and*

- *it would have reasonable access by foot, cycle or public transport to schools medical services, shops and other community facilities; and*

- *the local and strategic infrastructure can meet the additional requirements arising from the development*

If necessary the Council will review the Local Plan to bring forward additional sites for housing."

Policy H 2 looks at Housing Allocations and states that:

"The following sites will be allocated for housing or mixed use development. The Council will work with developers and the local community to bring forward sustainable developments in accordance with the other policies in the Local Plan.

(...) Land at Hogshaw Buxton (B3, B4) [Policy DS17] (...)."

Policy H 3 considers new housing development and states that:

"The Council will require all new residential development to address the housing needs of local people by:

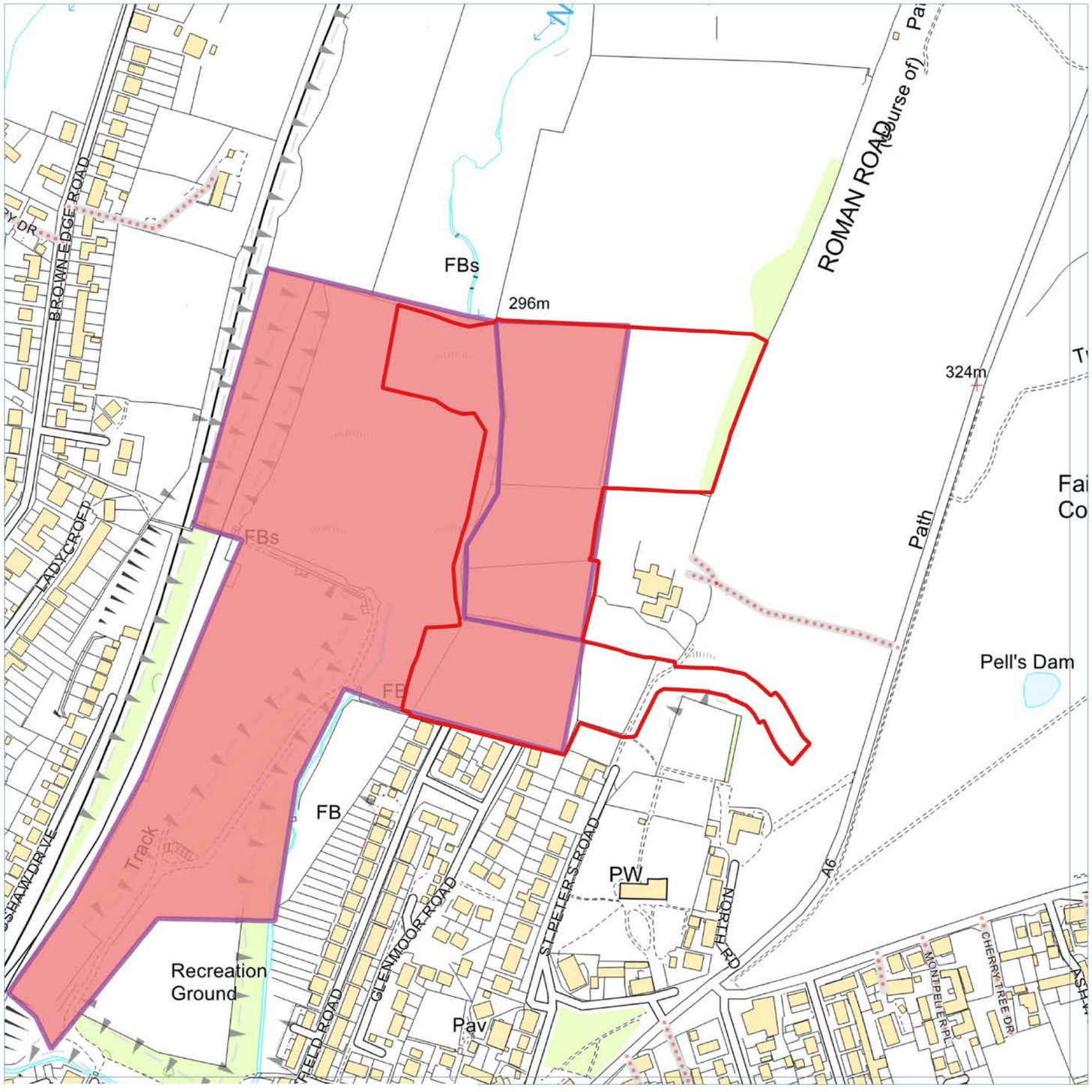
a. *Meeting the requirements for affordable housing within the overall provision of new residential development as set out in Policy H4*

b. *Providing a range of market and affordable housing types and sizes that*

2.0 PLANNING POLICY CONTEXT

KEY

- Site Boundary
- Housing Allocation



0 50 100 150 200 250 m

Figure 2.2 - Local Plan - Housing Allocation

2.0 PLANNING POLICY CONTEXT

can reasonably meet the requirements and future needs of a wide range of household types including for the elderly and people with specialist housing needs, based on evidence from the Strategic Housing Market Assessment or successor documents

c. *Providing a mix of housing that contributes positively to the promotion of a sustainable and inclusive community taking into account the characteristics of the existing housing stock in the surrounding locality*

d. *Ensuring new residential development includes a proportion of housing suitable for newly forming local households*

e. *Supporting dwellings designed to provide flexible accommodation which is capable of future adaptation by seeking to achieve adequate internal space for the intended number of occupants in accordance with the Nationally Described Space Standard and delivered to meet accessibility standards set out in the Optional Requirement M4(2) of Part M of the Building Regulations."*

Policy CF 4 introduces the provision of open space, sports and recreation facilities and states that:

" The Council will seek to protect, maintain and where possible enhance existing open spaces,sport and recreational buildings and land including playing fields in order to ensure their continued contribution to the health and well being of local communities.

This will be achieved by:

- *Resisting any development that involves the loss of a sport, recreation, play facility or amenity green-space except where it can be demonstrated that alternative facilities of equal or better quality will be provided in an equally accessible location as part of the development or the loss is associated with an alternative sports provision that would deliver benefits that would clearly outweigh the loss, or an assessment has been undertaken to demonstrate the facility is surplus to requirements*

- *Encouraging improvements to existing recreation, play and sports facilities within communities and providing new opportunities that shall be informed by the Peak Sub Region Open Space, Sport and Recreation Study 2012 and successor documents*

- *Improving the quantity, quality and value of play, sports and other amenity green-space provision through requiring qualifying new residential developments to provide or contribute towards public open space and sports facilities in line with the High Peak local open space and recreation provision standards set out in the study report. Further guidance will be provided in the forthcoming Developer Contributions SPD.*

- *Requiring all major residential developments to design into schemes growing areas for residents and where this is not feasible, requiring a contribution to allotment provision off-site, in accordance with the local provision standards*

- *Collecting financial contributions towards the delivery, improvement and management of off-site provision of open space and recreation facilities through Section 106 agreement or via the Community Infrastructure Levy if this is adopted*

- *Exploring options for the management of new areas of open space to be undertaken by community owned and run trusts*

- *Designating land as Local Green Space in accordance with the Local Plan sub-area strategies, Policies S5 to S7. Development that would harm the openness and/or special character of a Local Green Space or its significance and value to the local community will not be permitted unless there are very special circumstances which outweigh the harm to the Local Green Space."*

Policy DS 17 deals directly with the housing allocation relating to portions of the Assessment Site at Land at Hogshaw, Buxton and states that:

" Land amounting to 13.7ha is allocated for residential development of approximately 124 dwellings including public open space, and for recreation and amenity space. Development will be subject to compliance with other relevant Local Plan policies, and subject to:

- *Full investigation and remediation of existing contamination and ground conditions;*

- *Agreement with the Council of a full phasing programme covering the entire site, such a programme to ensure completion of all remediation works before the completion of the residential development of the greenfield part of the site, or other phasing as agreed;*

- *Provision of a new vehicular access from the A6 at Fairfield Common and highway improvements as identified by a Transport Assessment,*

- *Provision of emergency access via Nunsfield Road and/or Glenmoor Road*

- *Provision of cycle and pedestrian routes to the town centre and schools;*

- *Ecological survey and management plan to conserve and enhance the ecological interest of the site, including the provision of open space along the river valley and within the allocated recreational land to the north if required to compensate for the loss of the nature conservation interest;*

- *Provision of an agreed landscaping scheme, including retention of protected trees and existing landscape features where appropriate. Existing vegetation and woodland in the north of the site should be retained and enhanced and additional native tree and shrub blocks should be planted at an early phase on the northern and eastern boundaries in order to screen future development and strengthen the settlement boundary; Approval of a scheme to mitigate flooding;*

- *Archaeological desk-based assessment and field evaluation pre-application;*

- *Buildings appraisal and assessment of non-designated heritage assets*

Land adjoining the housing allocation as identified on the Policies Map will be reserved for railway infrastructure development. Housing proposals should not prejudice the delivery of railway infrastructure or vice versa."

Peak District National Park Local Development Framework - Core Strategy (2011)

Policy L1 discusses landscape character and valued characteristics and states that:

A. *"Development must conserve and enhance valued landscape character, as identified in the Landscape Strategy and Action Plan, and other valued characteristics.*

B. *Other than in exceptional circumstances, proposals for development in the*

2.0 PLANNING POLICY CONTEXT

KEY

- Site Boundary
- 1km
- 1.5km
- 2km
- 2.5km

Heritage

- Listed Buildings
- Registered Parks and Gardens
- Scheduled Ancient Monuments
- Conservation Areas

0 200 400 600 800 1,000 m

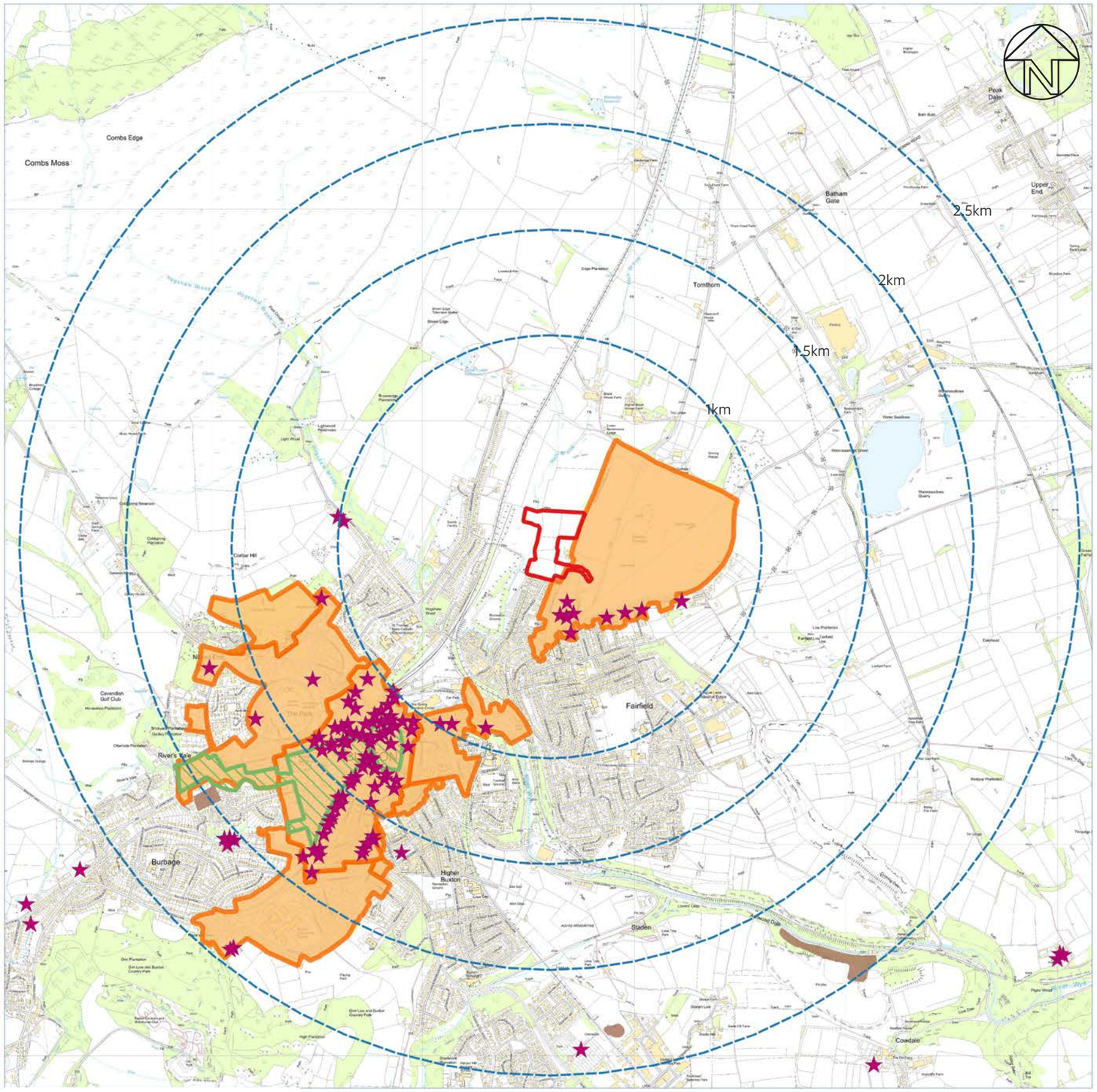


Figure 2.3 - Heritage Designations

2.0 PLANNING POLICY CONTEXT

Natural Zone will not be permitted."

Policy L2 introduces sites of biodiversity or geo-diversity importance and states that:

A. *"Development must conserve and enhance any sites, features or species of biodiversity importance and where appropriate their setting.*

B. *Other than in exceptional circumstances development will not be permitted where it is likely to have an adverse impact on any sites, features or species of biodiversity importance or their setting that have statutory designation or are of international or national importance for their biodiversity.*

C. *Development must conserve and enhance any sites or features of geodiversity importance and where appropriate their setting.*

D. *Other than in exceptional circumstances, development will not be permitted where it is likely to have an adverse impact on any sites or features of geodiversity importance or their setting that have statutory designation or are of international or national importance for their geodiversity."*

Policy L3 considers cultural heritage assets of archaeological, architectural, artistic or historic significance and states that:

A. *"Development must conserve and where appropriate enhance or reveal the significance of archaeological, architectural, artistic or historic assets and their settings, including statutory designations and other heritage assets of international, national, regional or local importance or special interest;*

B. *Other than in exceptional circumstances development will not be permitted where it is likely to cause harm to the significance of any cultural heritage asset of archaeological, architectural, artistic or historic significance or its setting, including statutory designations or other heritage assets of international, national, regional or local importance or special interest;*

C. *Proposals for development will be expected to meet the objectives of any strategy, wholly or partly covering the National Park, that has, as an objective, the conservation and where possible the enhancement of cultural heritage assets. This includes, but is not exclusive to, the Cultural Heritage Strategy for the Peak District National Park and any successor strategy."*

Development Management Policies - Part 2 of the Local Plan for the Peak District National Park (2019)

Policy DMC1 considers conservation and enhancement of nationally significant landscapes and states that:

A. *"In countryside beyond the edge of settlements listed in Core Strategy policy DS1, any development proposal with a wide scale landscape impact must provide a landscape assessment with reference to the Landscape Strategy and Action Plan. The assessment must be proportionate to the proposed development and clearly demonstrate how valued landscape character, including natural beauty, biodiversity, cultural heritage features and other valued characteristics will be conserved and, where possible, enhanced taking into account:*

   i. *the respective overall strategy for the following Landscape Strategy and Action Plan character areas:*

      - *White Peak;*
      - *Dark Peak;*
      - *Dark Peak Western Fringe;*
      - *Dark Peak Yorkshire Fringe;*
      - *Derbyshire Peak Fringe;*
      - *Derwent Valley;*
      - *Eastern Moors;*
      - *South West Peak; and*

   ii. *any cumulative impact of existing or proposed development including outside the National Park boundary; and*

   iii. *the effect of the proposal on the landscape and, if necessary, the scope to modify it to ensure a positive contribution to landscape character.*

B. *Where a development has potential to have significant adverse impact on the purposes for which the area has been designated (e.g. by reason of its nature, scale and setting) the Authority will consider the proposal in accordance with major development tests set out in national policy.*

C. *Where a building or structure is no longer needed or being used for the purposes for which it was approved and its continued presence or use is considered by the Authority, on the evidence available to it, to be harmful to the valued character of the landscape, its removal will be required by use of planning condition or obligation where appropriate and in accordance with the tests in national policy and legislation."*

Policy DMC2 deals with the protection and management of the Natural Zone and states that:

A. *"The exceptional circumstances in which development is permissible in the Natural Zone are those in which a suitable, more acceptable location cannot be found elsewhere and the development is essential:*

   i. *for the management of the Natural Zone; or*

   ii. *for the conservation and/or enhancement of the National Park's valued characteristics.*

B. *Development that would serve only to make land management or access easier will not be regarded as essential.*

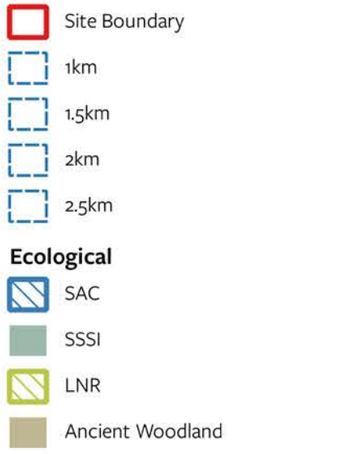
C. *Where development is permitted it must be in accordance with policy DMC3 and where necessary and appropriate:*

   i. *permitted development rights will be excluded; and*

   ii. *permission will initially be restricted to a period of (usually) 2 years to enable the impact of the development to be assessed, and further permission will not be granted if the impact of the development has proved to be unacceptable in practice; and*

   iii. *permission will initially be restricted to a personal consent solely for the benefit of the appropriate person."*

2.0 PLANNING POLICY CONTEXT



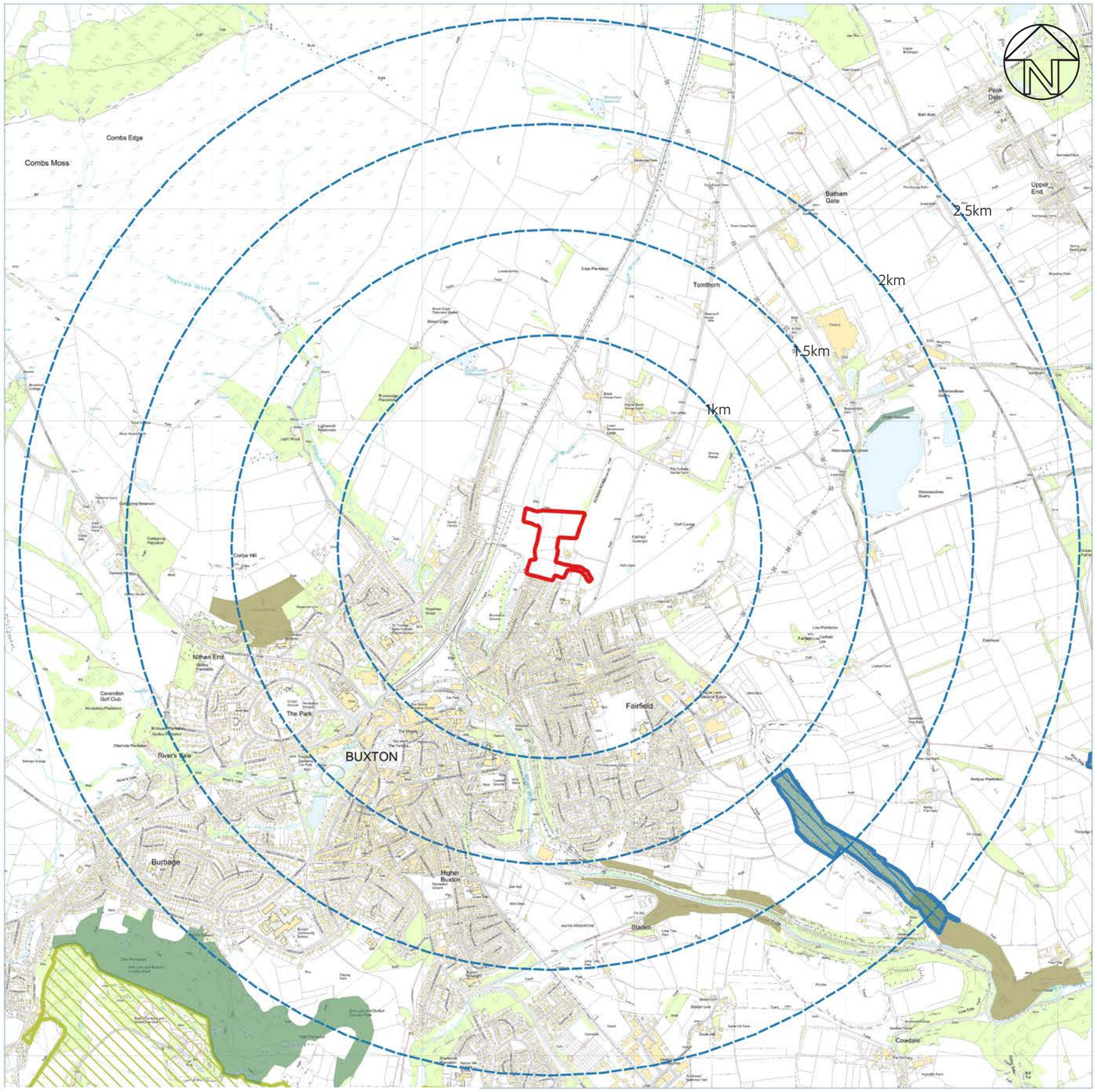


Figure 2.4 - Ecological Designations

2.0 PLANNING POLICY CONTEXT

Policy DMC3 discusses the siting, design, layout and landscaping and states that:

A. *"Where development is acceptable in principle, it will be permitted provided that its detailed treatment is of a high standard that respects, protects and where possible enhances the natural beauty, quality and visual amenity of the landscape, including the wildlife and cultural heritage that contribute to the distinctive sense of place.*

B. *Particular attention will be paid to:*

   i. *siting, scale, form, mass, levels, height and orientation in relation to existing buildings, settlement form and character, including impact on open spaces, landscape features and the wider landscape setting which contribute to the valued character and appearance of the area; and*

   ii. *the degree to which buildings and their design, details, materials and finishes reflect or complement the style and traditions of the locality as well as other valued characteristics of the area such as the character of the historic landscape and varied biodiversity assets; and*

   iii. *the use and maintenance of landscaping to enhance new development, and the degree to which this makes use of local features, colours, and boundary treatments and an appropriate mix of species suited to both the landscape and biodiversity interests of the locality; and*

   iv. *access, utility services, vehicle parking, siting of services, refuse bins and cycle storage; and*

   v. *flood risk, water conservation and sustainable drainage; and*

   vi. *the detailed design of existing buildings, where ancillary buildings, extensions or alterations are proposed; and*

   vii. *amenity, privacy and security of the development and other properties that the development affects; and*

   viii. *the accessibility or the impact on accessibility of the development; and*

   ix. *visual context provided by the Landscape Strategy and Action Plan, strategic, local and other specific views including skylines; and*

   x. *the principles embedded in the design related Supplementary Planning Documents and related technical guides."*

DMC5 clarifies the assessment of the impact of development on designated and non-designated heritage assets and their settings and states that:

A. *"Planning applications for development affecting a heritage asset, including its setting must clearly demonstrate:*

   i. *its significance including how any identified features of value will be conserved and where possible enhanced; and*

   ii. *why the proposed development and related works are desirable or necessary.*

B. *The supporting evidence must be proportionate to the significance of the asset. It may be included as part of a Heritage Statement or Design and Access Statement where relevant.*

C. *Proposals likely to affect heritage assets with archaeological and potential archaeological interest should be supported by appropriate information that identifies the impacts or a programme of archaeological works to a methodology approved by the Authority.*

D. *Non-designated heritage assets of archaeological interest demonstrably of equivalent significance to Scheduled Monuments will be considered in accordance with policies for designated heritage assets.*

E. *If applicants fail to provide adequate or accurate detailed information to show the effect of the development on the significance, character and appearance of the heritage asset and its setting, the application will be refused.*

F. *Development of a designated or non-designated heritage asset will not be permitted if it would result in any harm to, or loss of, the significance, character and appearance of a heritage asset (from its alteration or destruction, or from development within its setting), unless:*

   i. *for designated heritage assets, clear and convincing justification is provided, to the satisfaction of the Authority, that the:*

      a. *substantial harm or loss of significance is necessary to achieve substantial public benefits that outweigh that harm or loss; or*

      b. *in the case of less than substantial harm to its significance, the harm is weighed against the public benefits of the proposal, including securing its optimum viable use.*

   ii. *for non-designated heritage assets, the development is considered by the Authority to be acceptable following a balanced judgement that takes into account the significance of the heritage asset."*

Policy DMC6 is concerned with scheduled monuments and states that:

"Planning applications involving a Scheduled Monument and/or its setting will be determined in accordance with policy DMC5."

Policy DMC7 considers Listed Buildings and states that:

A. *"Planning applications for development affecting a Listed Building and/or its setting should be determined in accordance with policy DMC5 and clearly demonstrate:*

   i. *how their significance will be preserved; and*

   ii. *why the proposed development and related works are desirable or necessary.*

B. *Development will not be permitted if applicants fail to provide adequate or accurate detailed information to show the effect on the significance and architectural and historic interest of the Listed Building and its setting and any curtilage listed features.*

C. *Development will not be permitted if it would:*

   i. *adversely affect the character, scale, proportion, design, detailing of, or materials used in the Listed Building; or*

   ii. *result in the loss of or irreversible change to original features or other features of importance or interest.*

D. *In particular, development will not be permitted if it would directly,*

2.0 PLANNING POLICY CONTEXT

indirectly or cumulatively lead to:

i. removal of original walls, stairs, or entrances, or subdivision of large interior spaces;

ii. removal, alteration or unnecessary replacement of structural elements including walls, roof structures, beams and floors;

iii. the unnecessary removal, alteration or replacement of features such as windows, doors, fireplaces and plasterwork;

iv. the loss of curtilage features which complement the character and appearance of the Listed Building (e.g. boundary walls, railings or gates);

v. repairs or alterations involving materials, techniques and detailing inappropriate to a Listed Building;

vi. the replacement of traditional features other than with like for like, authentic or original materials and using appropriate techniques;

vii. extensions to the front of Listed Buildings;

viii. extensions of more than one storey to the rear of listed small houses or terraced properties;

ix. inappropriate impact on the setting of the Listed Building.

unless justified to the satisfaction of the Authority, that the proposed changes, loss or irreversible damage, and/or addition of new features to the Listed Building and its setting are:

a. less than substantial in terms of impact on the character and significance of the Listed Building and its setting; and

b. off-set by the public benefit from making the changes, including enabling optimum viable use, and net enhancement to the Listed Building and its setting.

E. Where change to a Listed Building is acceptable, an appropriate record of the building will be required to a methodology approved in writing by the Authority prior to any works commencing."

Policy DMC11 involves the safeguarding, recording and enhancing nature conservation interests and states that:

A. "Proposals should aim to achieve net gains to biodiversity or geodiversity as a result of development. In considering whether a proposal conserves and enhances sites, features or species of wildlife, geological or geomorphological importance all reasonable measures must be taken to avoid net loss by demonstrating that in the below order of priority the following matters have been taken into consideration:

i. enhancement proportionate to the development;

ii. adverse effects have been avoided;

iii. the 'do nothing' option and alternative sites that cause less harm;

iv. appropriate mitigation; and

v. in rare cases, as a last resort, compensation measures to offset loss.

B. Details of appropriate safeguards and enhancement measures for a site, feature or species of nature conservation importance which could be affected by the development must be provided, in line with the Biodiversity Action Plan and any action plan for geodiversity sites, including provision for the beneficial future management of the interests. Development will not be permitted if applicants fail to provide adequate or accurate detailed information to show the impact of a development proposal on a site, feature or species including:

i. an assessment of the nature conservation importance of the site; and

ii. adequate information about the special interests of the site; and

iii. an assessment of the direct and indirect effects of the development; and

iv. details of any mitigating and/or compensatory measures and details setting out the degree to which net gain in biodiversity has been sought; and

v. details of provisions made for the beneficial future management of the nature conservation interests of the site. Where the likely success of these measures is uncertain, development will not be permitted.

C. For all sites, features and species development proposals must also consider:

i. cumulative impacts of other developments or proposals; and

ii. the setting of the development in relation to other features of importance, taking into account historical, cultural and landscape context."

Policy DMC12 introduces sites, features or species of wildlife, geological or geomorphological importance and states that:

A. "For Internationally designated or candidate sites, or European Protected Species, the exceptional circumstances where development may be permitted are those where it can be demonstrated that the legislative provisions to protect such sites or species can be fully met.

B. For sites, features or species of national importance, exceptional circumstances are those where development is essential:

i. for the management of those sites, features or species; or

ii. for the conservation and enhancement of the National Park's valued characteristics; or

iii. where the benefits of the development at a site clearly outweigh the impacts on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs.

C. For all other sites, features and species, development will only be permitted where:

i. significant harm can be avoided and the conservation status of the population of the species or habitat concerned is maintained; and

ii. the need for, and the benefits of, the development in that location clearly outweigh any adverse effect."

2.0 PLANNING POLICY CONTEXT

Policy DMC13 is concerned with the protection of trees, woodland or other landscape features put at risk by development and states that:

A. *"Planning applications should provide sufficient information to enable their impact on trees, woodlands and other landscape features to be properly considered in accordance with 'BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations' or equivalent.*

B. *Trees and hedgerows, including ancient woodland and ancient and veteran trees, which positively contribute, either as individual specimens or as part of a wider group, to the visual amenity or biodiversity of the location will be protected. Other than in exceptional circumstances development involving loss of these features will not be permitted.*

C. *Development should incorporate existing trees, hedgerows or other landscape features within the site layout. Where this cannot be achieved the onus is on the applicant to justify the loss of trees and/or other features as part of the development proposal.*

D. *Trees, woodlands and other landscape features should be protected during the course of the development."*

The High Peak Borough Council Design Guide was adopted by the borough as a Supplementary Planning Document in February 2018. The document makes the following recommendations in with regards to the design of new housing development within the borough:

- *"Consider views into and out of the site.*
- *In towns and villages be guided by the existing context, pattern and grain of development and building heights.*
- *Respect the existing roofscape in term of pitch, materials and details.*
- *New development should be guided by the existing character and context. Consider both contemporary and traditional forms that are high quality and functional.*
- *Respect surrounding scale but jumps in scale may be acceptable at key locations.*
- *Reflect the proportions of neighbouring buildings. Respect the solid to wall ratio and arrangement of windows.*
- *Modern materials allow for larger glazed openings. This is a desirable feature but care needs to be taken over their insertion in traditional forms of development.*
- *Respecting distinctive patterns of development and density create attractive and lively places.*
- *Limit and integrate highway improvements, signs and street clutter.*
- *Areas of high amenity are attractive and must not be sacrificed for density.*
- *Create physical environments that promote safe living and minimise anti-social behaviour.*
- *Public spaces should be well overlooked without loss of privacy.*
- *The right landscaping can promote pedestrian and cyclist priority over vehicles.*
- *Design public spaces to allow dignified access for all.*
- *Plan for good landscaping at the outset.*
- *Incorporate boundary and paving features that are locally distinctive.*
- *The retention of existing landscaping can help assimilate a building into its setting.*
- *Local species of planting can engage the building into the landscape.*
- *New development should conserve or create new opportunities for wildlife.*
- *Stone and slate are the predominant materials for roofs and walls in High Peak.*
- *Welsh blue slate is the predominate roofing material but stone still exists on older buildings.*
- *High quality modern materials may be acceptable in certain circumstances."*

3.0 LANDSCAPE BASELINE

Landscape Baseline – Landscape Character

The assessment of landscape character is a method of understanding the particular attributes or factors that have influenced the historic development, current and future features of an area, and what makes that area distinctive from other areas. Natural England describes landscape character assessment as a:

"...systematic way of analysing and describing landscape identifying areas of distinctive character, classifying and mapping them. The process involves identifying the patterns, elements and features that give landscapes homogeneity and make them different from each other.""

Landscape characterisation is a process which has been developed extensively by local authorities to assist them in the planning process. Published studies of landscape character provide a source of information to enable the fuller understanding of landscape character – whether at a regional or national scale or at a local district scale; it is of course possible to carry through the process of analysis to individual sites or parts of sites. Typically, the published assessments provide character descriptions of specific areas and consider factors likely to influence future character and / or set out prescriptions for change.

There is a range of published assessments at national, regional, and local levels relevant to the Assessment Site. Each is considered below. That at a national level pre-dated the guidance set out in the 'Landscape Character Assessment; Guidance for England and Scotland (2002)' – widely regarded as the definitive guidance on the subject. That said, it is important to recognise that these assessments are purely assessments of landscape character; they are not, and are not intended to be, the development plan, and thus what the documents may say about the potential effects of development in any location cannot of itself be considered determinative as a matter of policy.

National Landscape Character Assessment

The Assessment Site and the majority of the study area is located within National Character Area (NCA) 52 White Peak. The key characteristics of this area pertinent to the Assessment Site and study area are:

- *"Elevated, gently undulating limestone plateau with occasional knolls and crags, dissected by steeply cut dales and gorges with rock outcrops, screes and caves.*
- *Clear rivers, streams and springs in some dales; others are dry or run water only in winter.*
- *Steep dale sides with a mosaic of flower-rich limestone grassland, ash woodland and wildlife-rich scrub.*
- *Improved grassland for dairy and livestock farming dominates the plateau, punctuated by occasional dew ponds, narrow shelterbelts of broadleaved trees and small patches of rough grassland, meadow and heath.*
- *Grassland enclosed by limestone walls, with small narrow strip fields often of medieval origin around villages, and larger rectangular fields away from the villages.*
- *Nucleated villages and small towns connected by crest and valley roads.*
- *A mix of limestone and gritstone used as building materials and stone and Welsh slate for roofs. Widespread features of special archaeological and historical interest including Neolithic and bronze-age ritual monuments.*
- *Many visible reminders of early industry, including historic limestone and lead workings, lime kilns and dramatic water mills from the 18th-century textile industry."*

A portion of the north west corner of the study area lies within NCA 53 - South West Peak, key characteristics pertinent to this portion of the study area include:

- *" An upland landscape characterised by Carboniferous age Millstone Grit with isolated basins of Coal Measures, deeply dissected by streams and rivers, resulting in a ridge-and-valley landscape of distinctive pattern and character.*
- *Isolated gritstone ridges and tors provide a dramatic contrast to the upland landscape, such as at Ramshaw Rocks, The Roaches and Windgather Rocks.*
- *Moorland core with a mosaic of landform, vegetation and wooded cloughs.*
- *Enclosed farmed landscape with a pastoral character created by semi-improved grassland, hay meadows, rushy pastures which are also marshy with springs and flushes, more productive farmland and small woodlands.*
- *Rivers Bollin, Churnet, Dane, Dean, Dove, Hamps, Goyt and Manifold, all with their sources in the upland core and some feeding reservoirs as they flow downstream.*
- *Extensive livestock farming (sheep and beef) and grouse shooting on the moorlands with some dairy farming in the valleys.*
- *Intricate and distinctive field boundary patterns often with historic associations; gritstone walls at higher elevations and hedgerows at lower elevations.*
- *Heritage assets from prehistory to the present, with features particularly from the medieval period and later.*
- *Robust architectural style built predominantly of local stone with stone slate or Staffordshire blue clay tiled roofs, reflecting local geology and history.*
- *Predominantly dispersed settlement across the NCA.*
- *Moorland area to the north of Leek used for military training; Ministry of Defence management and restricted access add to the isolated character.*
- *Tourism industry and outdoor recreation centred on honeypot sites including Tittesworth and Goyt Valley reservoirs, The Roaches, Ramshaw Rocks and the National Trust's Lyme Park.*

3.0 LANDSCAPE BASELINE

KEY

- Site Boundary
- 1km
- 1.5km
- 2km
- 2.5km

NCA

- South West Peak
- White Peak

0 200 400 600 800 1,000 m

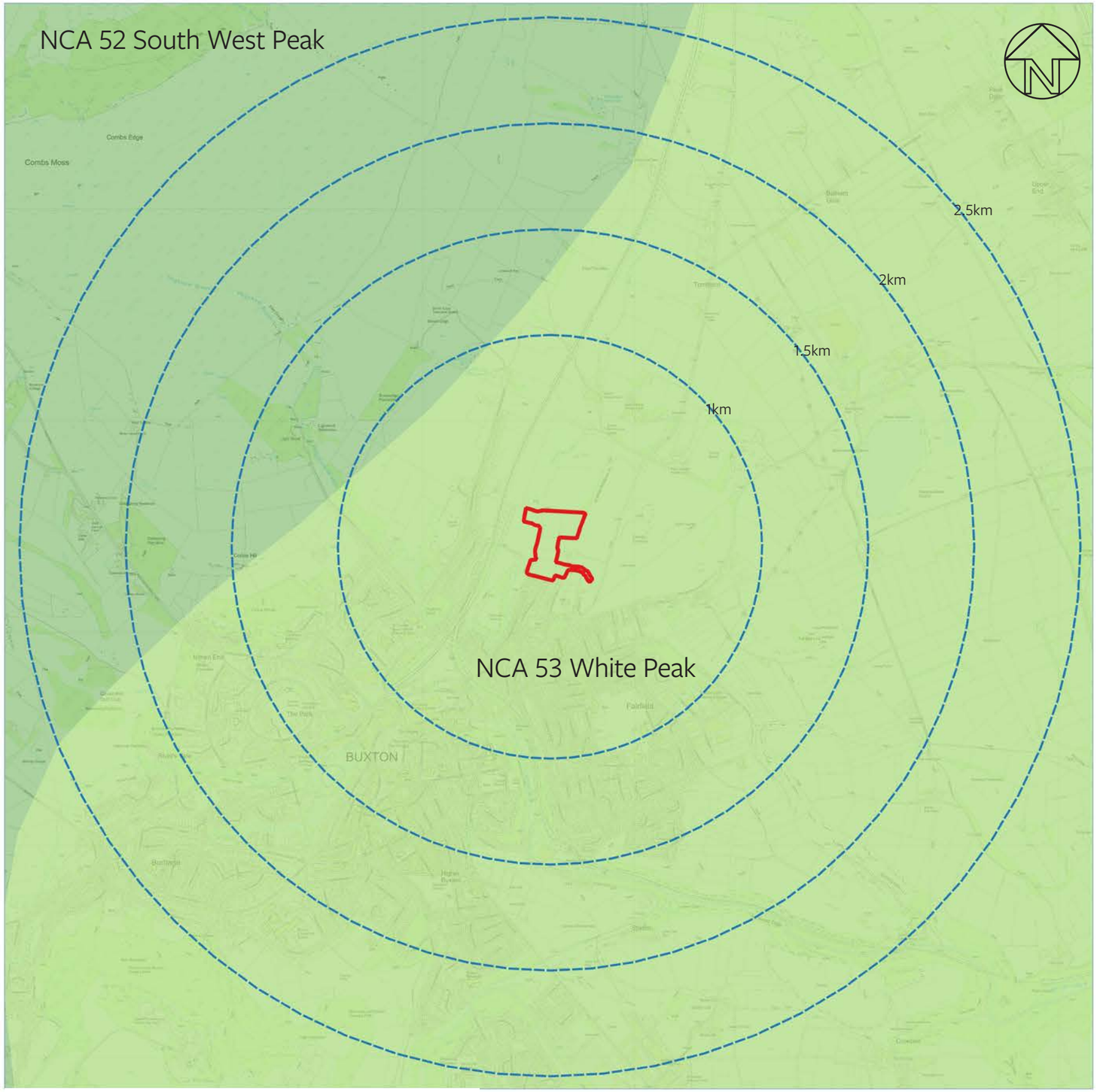


Figure 3.1 - National Character Areas

3.0 LANDSCAPE BASELINE

- *Dramatic series of gritstone edges and tors exposed by a combination of glacial and fluvial action provide distinctive landscape features and are a major focus for rock climbing.*
- *Remote moorlands criss-crossed by historic pack-horse routes.*
- *Remains of former stone quarries and coal mining activities, particularly around Flash and Goyt's Moss.*
- *Long, uninterrupted views from margins to upland areas and vice versa, with contained and intimate views around the foothills and within the valleys. Views into Manchester, Wales, Shropshire, Staffordshire and over the Cheshire Plain are possible from the upland core, tors and ridges."*

Local Landscape Character Assessment

At a county level, The Landscape Character of Derbyshire (2013 review) published by Derbyshire County Council describes that the majority of the Site and the surrounding study area to the east is located within Landscape Character Type (LCT)- Plateau Pastures. This areas is described as:

- *"A gently rolling upland plateau*
- *Limestone outcrops on hill summits and steeper slopes*
- *Fine, silty brown soils over Carboniferous Limestone*
- *Stock rearing on improved pasture*
- *Small shelter blocks of plantation woodland and tree groups around villages and farmsteads*
- *Medium to large regular fields enclosed by dry-stone walls with narrow strip fields around settlements*
- *Straight roads with uniform verges*
- *Nucleated limestone villages and isolated limestone farmsteads with slate roofs*
- *Small isolated field barns*
- *Small pits and hummocks in areas of historic lead mining*
- *Open landscape with expansive views*

The Plateau Pastures is a simple yet distinctive pastoral landscape strongly influenced by the underlying geology. The Carboniferous Limestone has given rise to an elevated and, for the most part, gently rolling upland plateau. This elevation, allied to the general lack of tree cover, allows for long distance and panoramic views. The soils are inherently thin over the limestone and regularly leached by the highway rainfall. As a result, the predominant land-use is stock rearing associated with dairying and many of the fields are down to improved permanent pasture. The cultural patterns of this landscape are strong and very distinctive. The whole of the plateau is divided into regular shaped fields enclosed by dry-stone walls. There are discrete limestone villages scattered across the plateau. Very distinctive small and narrow strip fields, again enclosed by walls, suggesting the extent of former open fields, surround the villages. Tree cover is also a distinctive feature, although it is rarely visually prominent. It occurs primarily as small plantation blocks and shelter belts sparsely scattered throughout the landscape with localised trees and tree groups associated with villages and isolated farmsteads. The unifying influence of the limestone as a locally distinctive building material, together with strong pastoral traditions and lack of modern development, ensures that the landscape retains its rural character."

The western fringe of the Site is within the Moorland Fringe LCT. This area is described as:

- *"Moderate to steep upland slopes fringing the open moors*
- *Exposed rock and scree slopes associated with gritstone edges*
- *Shallow peaty soils*
- *Moorland slopes grazed by sheep*
- *Extensive semi-natural habitat of heather with rushes in damp hollows*
- *Distinct absence of trees*
- *Open, exposed landscape with expansive views*

A landscape associated with the upper slopes and edges of broad upland valleys defined by an underlying gritstone geology. The hard bedrock and steep slopes ensure that the soils are thin, freely draining and acidic in character. In some areas, the gritstone becomes so resistant to weathering that it forms distinct rocky edges and outcrops.

The altitude allied to the agriculturally poor soils ensure that this is a marginal landscape, grazed extensively by livestock, predominantly sheep. Enclosure tends to be on a large scale, creating a landscape of regular fields bounded by drystone walls. Farmsteads established at the time of enclosure are sparsely scattered through the landscape and are constructed in the local gritstone, sometimes retaining a roof covering of stone slates.

extensive grazing by sheep, the thin soils and hostile climate have resulted in a largely treeless landscape apart from the occasional tree group planted as shelter for the scattered farmsteads. This is an open landscape with panoramic views."

The High Peak Landscape Character Supplementary Planning Document (SPD) was adopted in March 2006. The Assessment Site and the central proportion of the study area is similarly located within the Landscape Character Type (LCT) Plateau Pastures. This is area is described as:

"A gently rolling, upland limestone plateau characterised by nucleated limestone villages, dry stone walls, a pastoral land-use and open and expansive views. The landscape is settled, with small hamlets and villages historically evolved from agriculture and quarrying. There are also scattered individual buildings with trees around dwellings, separating them from work buildings. The dominant building material is limestone with gritstone detailing. Properties are enclosed by low drystone walls which are valuable in connecting the built form with the wider landscape which is characterised by stone wall field boundaries. In some parts of the area there are non-traditional buildings in the form of rural workers cottages and small scale industry, these are not sympathetic to the landscape or traditional building style. There is a network of roads, usually straight, throughout the landscape.

3.0 LANDSCAPE BASELINE

Key Landscape Characteristics to Consider

- *Gently rolling upland plateau that are free draining due to the permeable nature of the limestone*
- *Small shelter blocks of woodland and tree groups around farms and villages*
- *Semi-natural habitats confined to dry stone walls and trees due to the dominant pastoral land use*
- *Fields enclosed by a regular pattern of dry stone walls constructed from rough rubble, with some isolated field barns*
- *Straight roads with wide verges, main routes dating back to Roman times*
- *A settled landscape with villages, hamlets and isolated farmsteads*
- *Simple and functional buildings with little detailing or ornamentation*
- *Buildings have a distinctive form with a narrow frontage creating deep rectangular shaped properties*
- *Rough rubble limestone walls with detailing limited to dressed gritstone lintels and sills*
- *Roofs are generally dark slate with very shallow eaves and substantial chimneys*
- *Some individual farmhouses are larger than other properties with more dressed stone and some modest detailing such as gable finials. These properties have a wide frontage and a shallow depth*
- *Farm outbuildings are generally sited lower than the ridge of adjacent farmhouses*

Development Principles
High Peak Borough Council Planning Policy OC4 requires that new development must contribute to and not erode landscape character and sense of place. The most appropriate way to achieved this is to ensure that buildings respond to the landscape character following the design principles below. In areas where the landscape character has been eroded by previous activity the design approach should aim to improve / restore landscape character. Habitat creation is appropriate wherever possible. These design principles are intended to help applicants and their advisers to think about how new development can be made to fit in with its surroundings. This does not mean trying to replicate the traditional style but to promote buildings that fit in with it in order to maintain the strong local character and identity of this part of the High Peak. This does not rule out appropriate contemporary design that demonstrates a response to the landscape.

Planting and Biodiversity Guidance

Where possible new development should include appropriate tree planting and creation of wildlife habitats. Derbyshire County Council has identified priorities for this Landscape Character Type, which are summarised below. For full details, including tree species mixes, please refer to 'The Landscape Character of Derbyshire' (Derbyshire County Council, 2003). Derbyshire County Council has identified the following priorities for tree cover.

- *Conserve and enhance the tree groups that occur within and around rural settlements and isolated farmsteads*
- *Conserve and enhance the small plantation woodlands Habitat Creation and Enhancement The following habitat types would be appropriate for creation and enhancement:*

Primary habitat type:

- *Lowland calcareous grassland*

Secondary habitat type:

- *Neutral grassland*
- *Ancient and semi-natural broadleaved woodland."*

As part of the evidence base prepared for the Local Plan, High Peak Borough Council commissioned a study of the potential sites identified in the Local Plan Preferred Options and assessed the suitability of the land on the edge of settlements for development in landscape terms. Part of the Assessment Site is considered High Peak Local Plan Landscape Impact Assessment (January 2014) and the study states that:

"Land at Hogshaw, Buxton (Policy DS12) B3/B4

Semi-enclosed/open site with varied topography comprising improved and ruderal grassland, scrub and woodland. The south-west of the site is at a low elevation and extremely undulating. The north and east of the site is flat and at a higher elevation but partially screened by topography and existing development. Development within the north-east of the site (B3) would have significant landscape impacts and an adverse impact on the setting of the National Park as this area has high visual prominence. The following recommendation is made for inclusion in Policy DS12:

- *Existing vegetation and woodland in the north of the site should be retained and enhanced and additional native tree and shrub blocks should be planted at an early phase on the northern and eastern boundaries in order to screen future development and strengthen the settlement boundary.*

North-east of site has significant landscape impacts and detailed and extensive landscape masterplanning as set out above would be required to address the issues of visibility and the impact on the National Park."

The Study makes the following conclusions regarding the Site:

"Five of the Preferred Options in the Buxton Sub-Area were found to have significant landscape impacts. Development of B8, B11, Hogshaw (B3/4), Foxlow Farm (B20/21/22) and Cavendish Golf Club would have high visual prominence and would impact the setting of The National Park. B8 and Cavendish Golf Club are outside of the settlement and would have an adverse impact on the current settlement edge. B11 is heavily wooded and prevents coalescence between the settlements of Buxton and Harpur Hill. It is also located within the proposed Green Wedge. The Foxlow Farm and Hogshaw sites have high visual prominence and development would impact on the setting of The National Park. Thus if the above sites were to be developed the formulation of detailed mitigation measures to address the landscape issues raised would be required. This will need to include detailed and extensive landscape masterplanning."

3.0 LANDSCAPE BASELINE

KEY

- Site Boundary
- 1km
- 1.5km
- 2km

LCA

- Plateau Pastures
- Moorland Fringe
- Urban
- Limestone Dales
- Upper Limestone Pasture
- Enclosed Moorland
- Open Moors
- Settled Valley Pastures
- Limestone Village Farmlands
- Limestone Dales NP

0 200 400 600 800 1,000 m

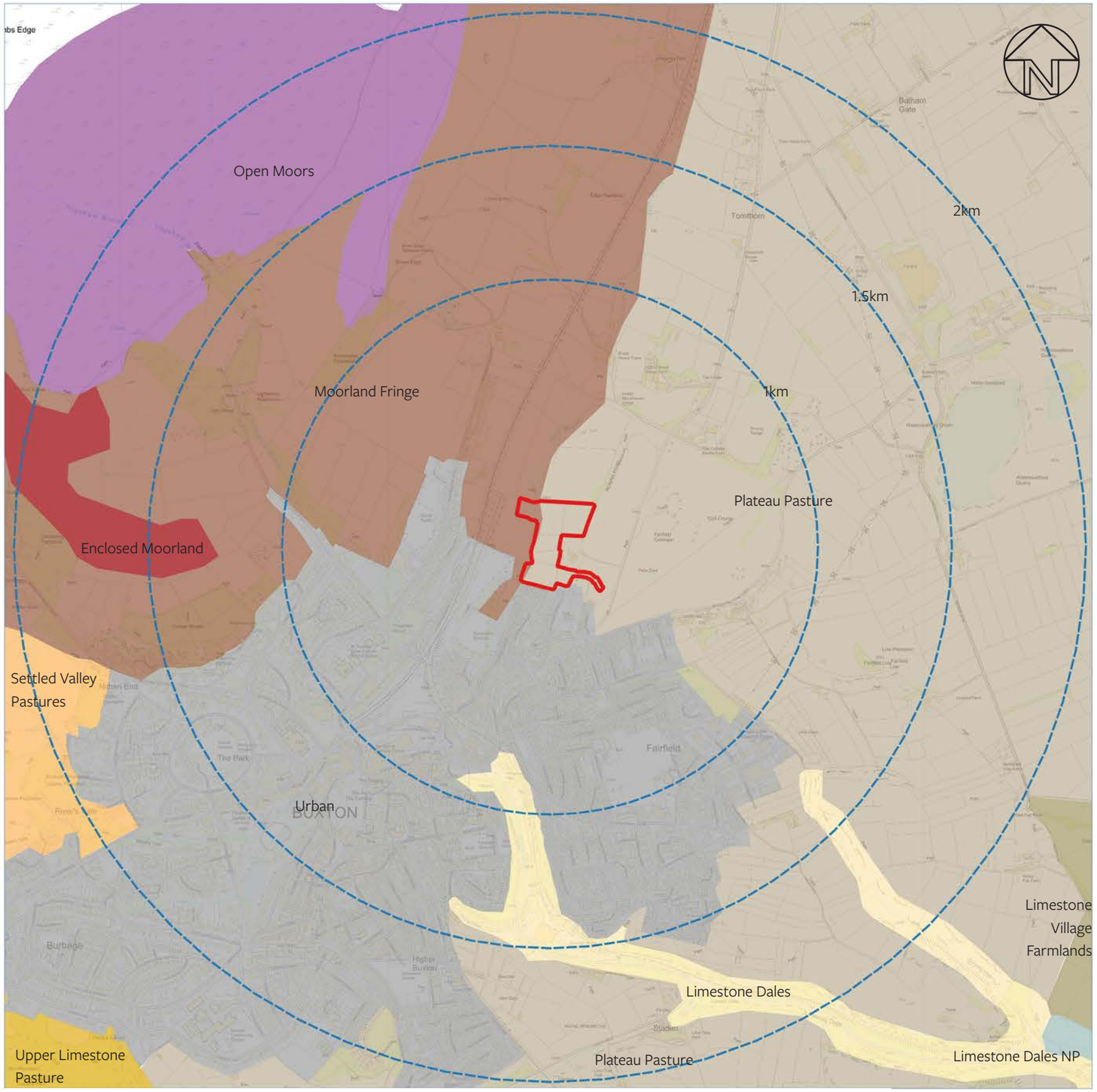


Figure 3.2 - Landscape Character Areas - High Peak Borough Council / Peak District National Park Authority

3.0 LANDSCAPE BASELINE

KEY

- Site Boundary
- 1km
- 1.5km
- 2km
- 2.5km

PRoWs

- Footpaths
- Bridleways
- BOAT
- Access Land

0 200 400 600 800 1,000 m

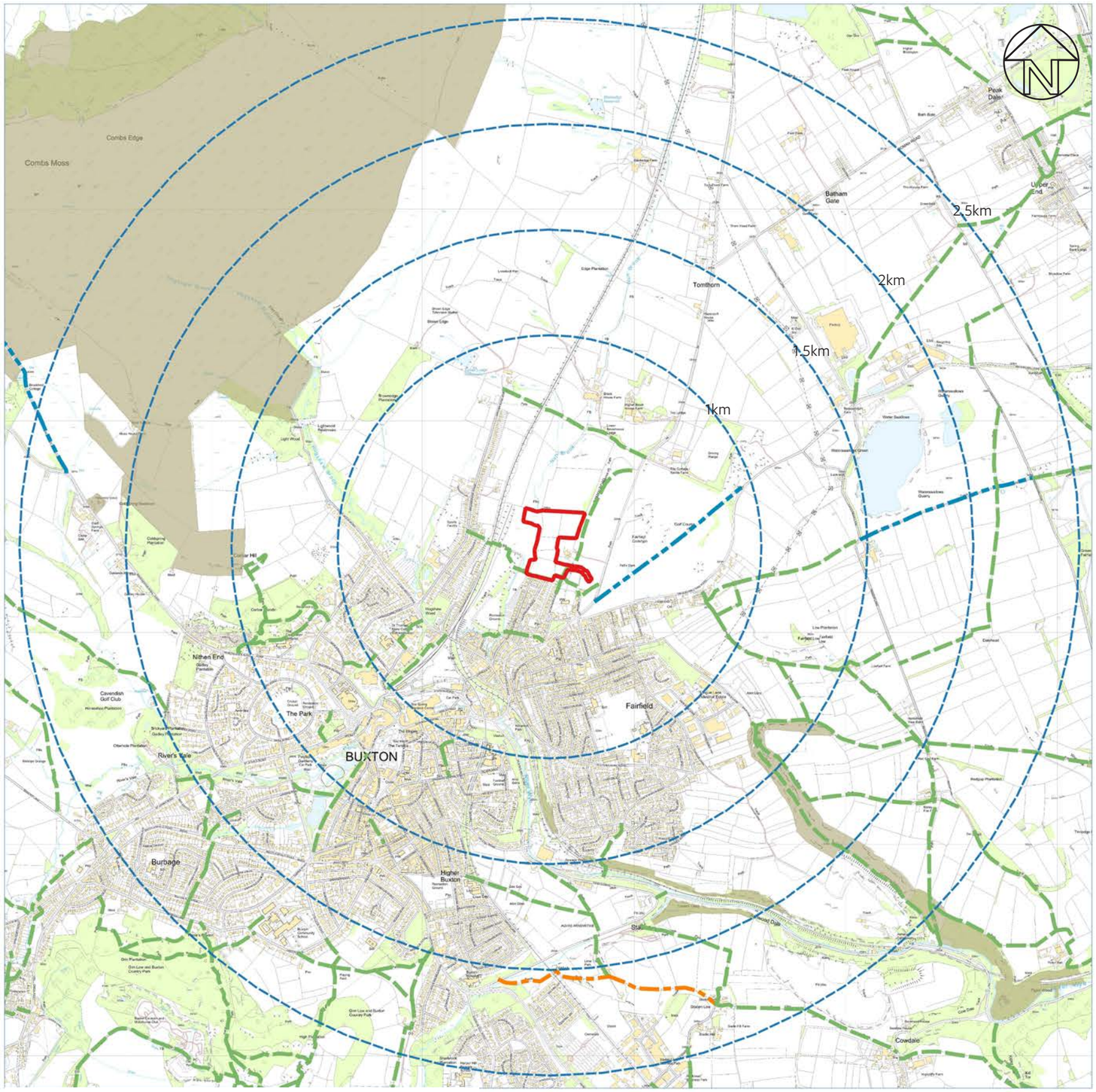


Figure 3.3 - Public Rights of Way

3.0 LANDSCAPE BASELINE

KEY

- Site Boundary
- 1km
- 1.5km
- 2km
- 2.5km

10m contours

- 250
- 260
- 270
- 280
- 290
- 300
- 310
- 320
- 330
- 340
- 350
- 360
- 370
- 380
- 390
- 400
- 410
- 420
- 430
- 440
- 450
- 460
- 470
- 480
- 490
- 500

0 200 400 600 800 1,000 m

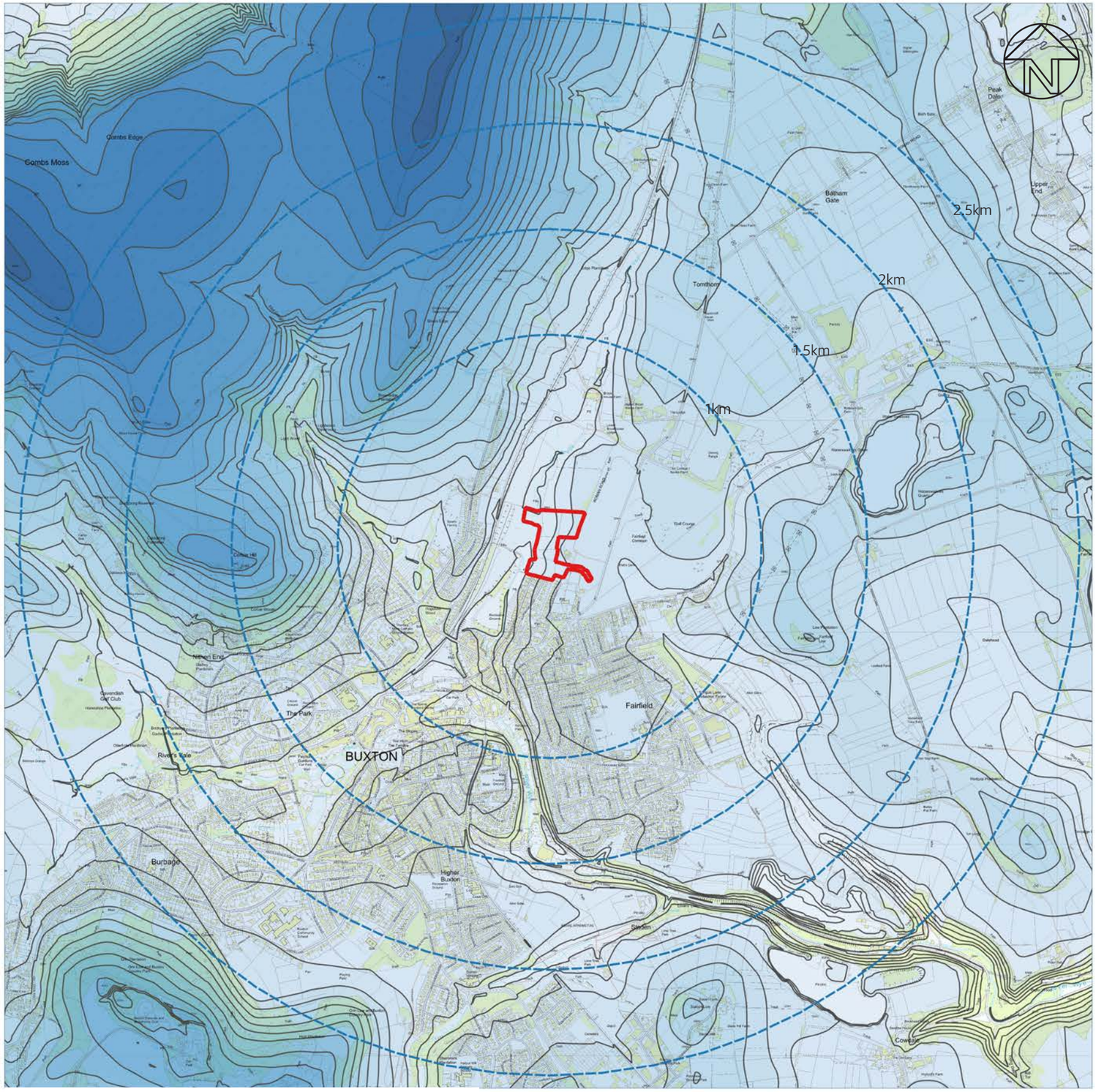


Figure 3.4 - Landform

3.0 LANDSCAPE BASELINE

Characteristics of the Assessment Site

Land Use

The Assessment Site is currently formed from five improved pastoral field parcels on the urban fringe of Buxton. The field parcel in the west portion of the Site adjacent to Nun Brook is partially wooded and there are also trees lining portions of the eastern boundary. The Site is bound by pastoral farmland to the north, Fairfield Common including Buxton & High Peak Golf Course, the construction of a new roundabout junction on the A6 Fairfield Road and the Nunsfield Farm complex to the east, St Peter's Church and a residential estate of one and two storey dwellings to the south and the well treed water course of Nun Brook to the west.

Buxton is the primary settlement within the study area, which is surrounded by pastoral farmland and limestone quarries to the north and east and rising moorland to the north west.

Topography

The Site lies on a west facing slope of a ridgeline associated with the raised area of Fairfield Common to the east, falling towards the Nun Brook valley. Landform within the Site falls relatively steeply from east to west from a high point of approximately 323.80m AOD near the north east corner of the Site to a low point of approximately 303.0m AOD in the south west of the Site.

The principal topographical features in the study area are the River Wye valley which flow broadly west to east in the southern portion of the study area and the upland areas of Combs Moss to the north west, Grin Low to the south west and Staden Low to the south.

Vegetation

A tree survey of the Site has been carried out in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction' by Urban Green, in August 2022. The report revealed the Site contains a total of 21 individual trees, 22 groups, 1 hedgerow and 1 woodland. Of these there were:

Individual Trees:

- 2 category 'A' trees;
- 12 category 'B' trees;
- 6 category 'C' trees;
- 1 category 'U' trees.

Groups:

- 4 category 'A';
- 13 category 'B';
- 4 category 'C';
- 1 category 'U'.

Hedgerows:

- 1 category 'B'.

Woodland:

- 1 category 'B'.

There are mix of tree species; those typically characteristic of an upland agricultural/urban fringe landscape. Species include; Ash, Grey Alder, Goat Willow, Beech, Lime, Willow, Black Pine, Elm, Horse Chestnut, Sycamore, Cherry, Poplar Thuja, Lawson Cypress, Blue Cedar, Whitebeam, Hawthorn, Rowan, Silver Birch, Dogwood, Elder and Privet.

The principal arboricultural features of good to fair health are formed by the individual trees and the boundary groups i.e. those of A and B grade categories. These trees are prominent within the Site and form a strong green infrastructure to the Site boundaries. Off Site trees have been considered during this survey and the development of the proposals.

Water Bodies

There are no permanent waterbodies within the Site, a portion of Nun Brook is within the west portion of the Site and forms part of the Site's western boundary.

Built Elements

There are no built elements within the Site aside from a small single storey brick built stable building in the east of the Site, boundary treatments which include post and wire fencing, dry stone walls, timber rail fencing, metal gates and associated gateposts, and a section of hardstanding associated with Footpaths DY|Buxton-HP4|1/1, DY|Buxton-HP4|2/1 and DY|Buxton-HP4|2/2. The Site wraps around the Nunsfield Farm complex to the east and residential dwellings line a portion of the Site's southern boundary.

Public Rights of Way

Portions of Footpaths DY|Buxton-HP4|1/1, DY|Buxton-HP4|2/1 and DY|Buxton-HP4|2/2 converge and cross the south east corner of the Site. Footpath DY|Buxton-HP4|1/3 follows a portion of the Site's southern boundary, connecting St Peter's Road with Brown Edge Road to the west.

Heritage

The east portion of the Site extending towards the new roundabout that is currently under construction on the A6 Fairfield Road is within Fairfield Conservation Area. The closest Listed Building to the Site is the grade II Church of St Peter, approximately 75m to the south. There are a number of Listed Buildings in close proximity to the church including the grade II Elm House and attached outbuildings, 5-11, St Peters Road and Fairfield Vicarage.

Within the wider study area there are a large number of heritage assets within Buxton and especially within the central area of Buxton where there are 10 Conservation Areas, the Grade II* Pavilion Gardens Registered Park and Garden and numerous Listed Buildings.

3.0 LANDSCAPE BASELINE

Ecology

There are no designated ecological sites within the Site. There is a local wildlife site associated with Nun Brook within the west of the Site and to the west of the Site and the closest designated Site is the Ancient Woodland of Corbar Woods approximately 1055m west of the Site.

Landscape Designations

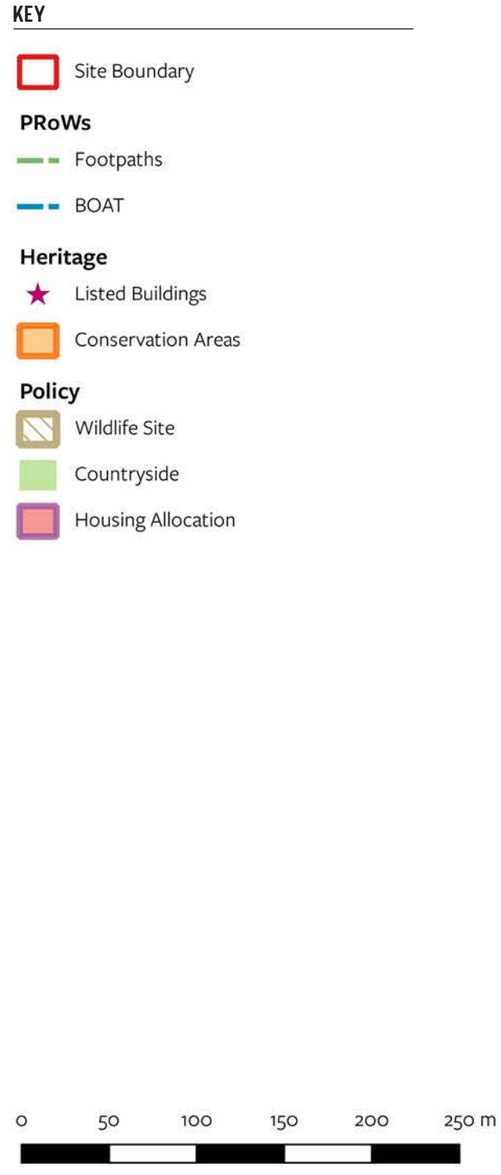
The eastern portion of the Site is designated as an Area of Countryside within the High Peak Local Plan. The Peak District National Park covers the part of the north west and south east parts of the study area approximately 1775m to the Site at its closest point.

Landscape Baseline – Landscape Receptors

From the above analysis of the Landscape Baseline, it is concluded that the Landscape Receptors relevant to the Assessment Site that need to be assessed in the following section on Landscape Effects are:

- Landscape Character Areas both on Site and within the study area;
- Setting of heritage assets within the study area;
- The setting of the Peak District National Park;
- Public Right of Way within the Site and study area; and
- Vegetation and landscape features within the Site and along its boundaries.

3.0 LANDSCAPE BASELINE



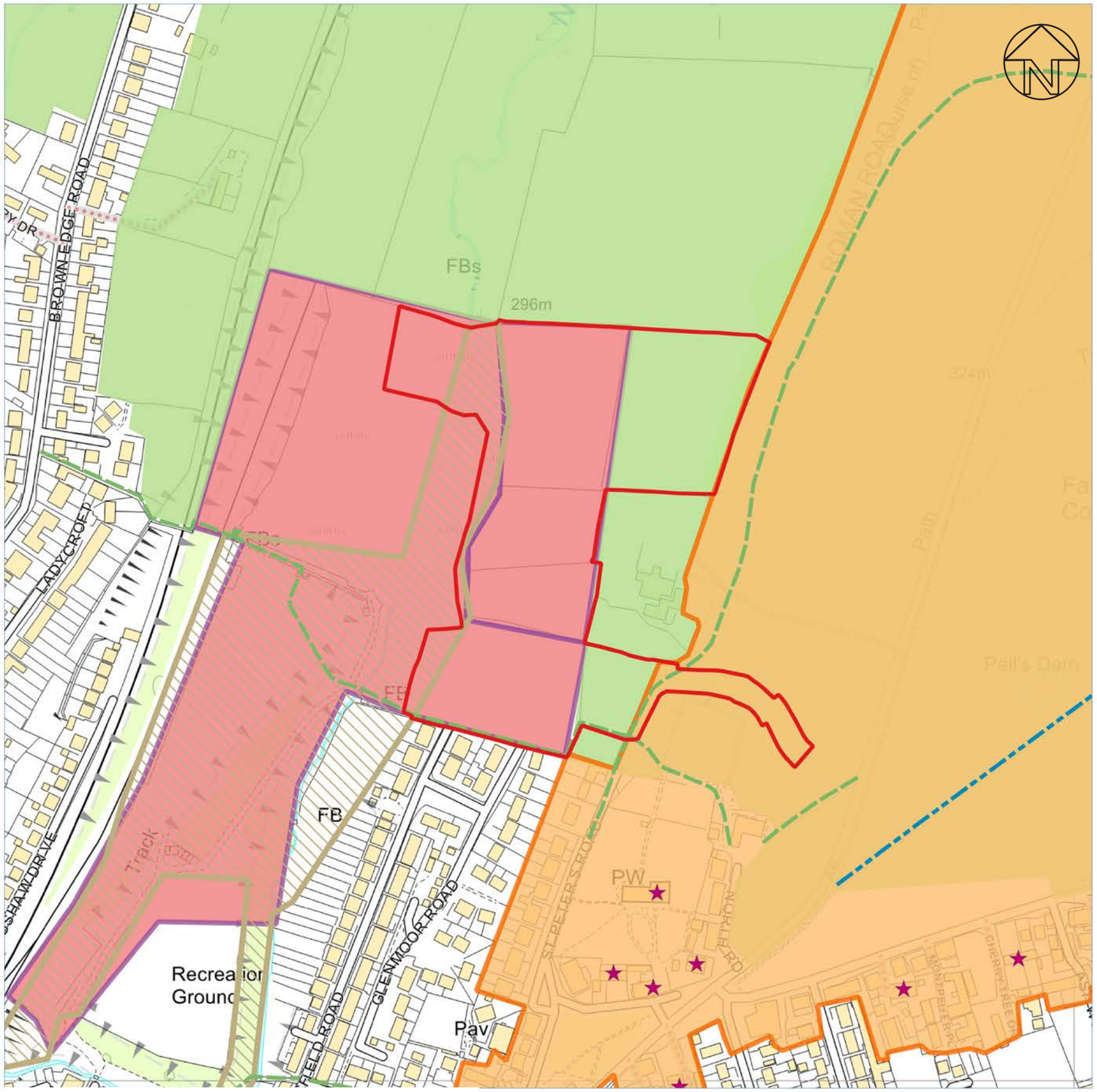
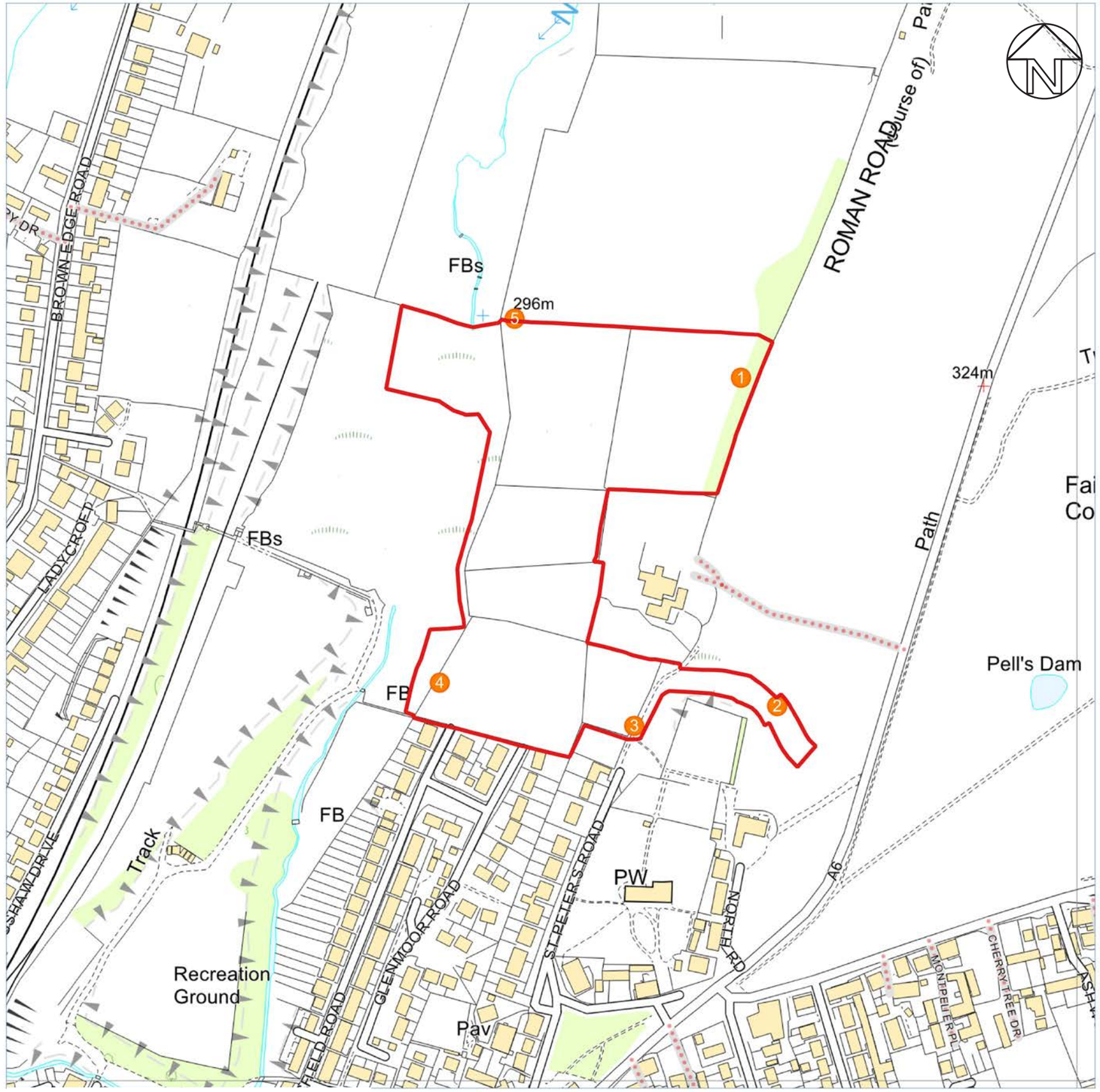


Figure 3.5 - Site Level Designations

3.0 LANDSCAPE BASELINE

A visual inspection of the Assessment Site was conducted on 16th November 2022.



KEY

- Site Boundary
- Site Context Photography

0 50 100 150 200 250 m

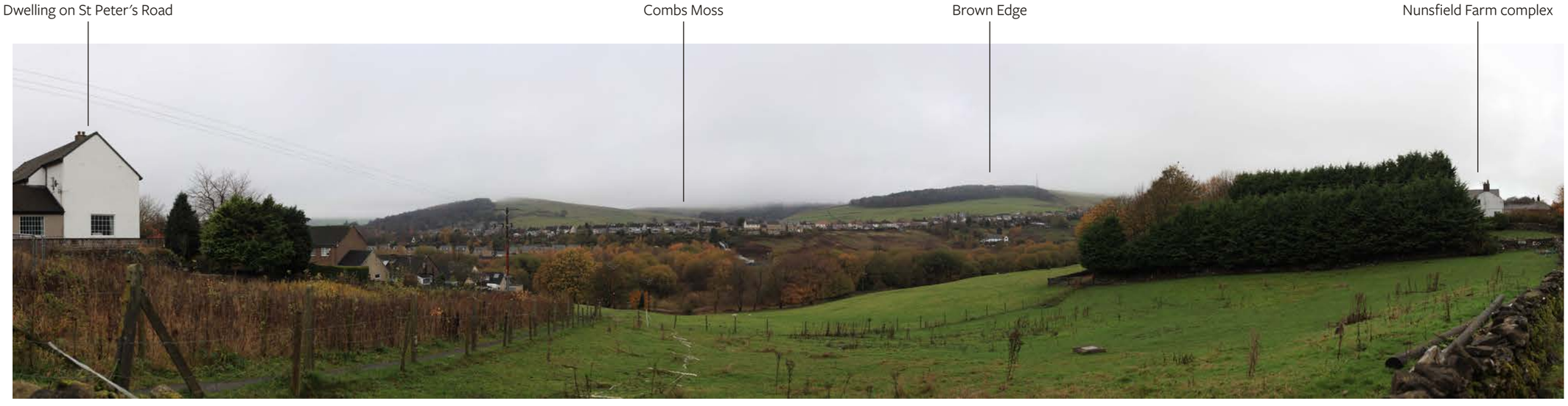
Figure 3.6 - Site Context Photographs

3.0 LANDSCAPE BASELINE

Internal Site Context Viewpoint 1 - View looking west across the northern portion of the Assessment Site towards Brown Edge Road. The view includes the improved grassland, dry stone walls within the Site, the Nunsfield Farm complex to the south and the tree lined Nun Brook. The upland area of Combs Moss and Brown Edge are prominent beyond the Site to the north west, above the dwellings on Brown Edge Road.

Internal Site Context Viewpoint 2 - View looking west across the eastern portion of the Assessment Site towards Brown Edge Road. Mature vegetation within the Site and surrounding the Nunsfield Farm complex and the Church of St Peter's graveyard is visible centrally and to the left within this view, with elements of Combs Moss, Brown Edge and Black Edge beyond. Buxton & High Peak Golf Course is visible on Fairfield Common to the right of the view.

3.0 LANDSCAPE BASELINE



Internal Site Context Viewpoint 3 - View looking west across the southern portion of the Assessment Site towards Brown Edge Road. The view includes the improved grassland, dry stone walls within the Site, the Nunsfield Farm complex to the north, the tree lined Nun Brook and dwellings on St Peter's Road, Glenmoor Road and Nunsfield Road to the south of the Site. Again, the upland area of Combs Moss and Brown Edge are prominent beyond the Site to the north west.

Internal Site Context Viewpoint 4 - View looking north east across the southern portion of the Assessment Site towards the A6 Fairfield Road. The landform of the Assessment Site rises away from the viewer from this location. The view includes the improved grassland, the Nunsfield Farm complex to the east and dwellings on St Peter's Road, Glenmoor Road and Nunsfield Road to the south of the Site.

3.0 LANDSCAPE BASELINE

Internal Site Context Viewpoint 5 - View looking south east across the northern portion of the Assessment Site towards the A6 Fairfield Road. The landform of the Assessment Site rises away from the viewer from this location. The view includes the improved grassland, dry stone walls within the Assessment Site, the tree lined Nun Brook, the Nunsfield Farm complex to the south east, the upper portions of St Pater's Church and dwellings on St Peter's Road, Glenmoor Road and Nunsfield Road to the south of the Site.

4.0 VISUAL BASELINE

This Landscape & Visual Impact Assessment considers a study area of approximately 2.5 to 4km radius from the Site boundary, in order to establish the spatial parameters of the Site and identify the potential landscape and visual effects of the developments. The study area incorporates portions of the Peak District National Park to the west, north west and south east of the Site.

A field survey was undertaken in November 2022 which identified a range of views offering a wide coverage of the Site from a number of representative viewing locations, ranging from close proximity to the Assessment Site to longer distance views. Following liaison with High Peak District Council, a further three viewpoints were identified for assessment, Black Edge (Viewpoint 28) was visited in February 2024, the A6 Buxton Road (Viewpoint 29) was visited in March 2024 and Burbage Edge (Viewpoint 30) was also visited in March 2024.

Residents of Dwellings

There are open, partial and oblique views of the Assessment Site for the residents of dwellings on portions of St Peter's Road, Glenmoor Road, Nunsfield Road and Barms Way in close proximity to the Southern boundary of the Site (refer to Viewpoints 3, 4 and 5). There are more distant and elevated views across the Site from the rear elevation of dwellings on Brown Edge Road (refer to Viewpoints 6 and 12). There are partial glimpsed views to the eastern portion of the Site from sections of Waterswallows Road and to the southern portion of the Site from the A53 Station Road near the Station. Further views to the Site for residents in dwellings are truncated due to a combination of mature vegetation, landform and built form.

Road Users

There are open and partial views to the Site for transient users of the local road network from portions of St Peter's Road, Glenmoor Road, Nunsfield Road and Barms Way in close proximity to the Southern boundary of the Site (refer to Viewpoints 3, 4 and 5) and from the A6 to the east of the Site (refer to Viewpoints 15 and 29). There are partial glimpsed views to the eastern portion of the Site from sections of Waterswallows Road and to the southern portion of the Site from the A53 Station Road near the Station. Further views to the Site for road users are truncated due to a combination of mature vegetation, landform and built form.

Public Rights of Way

There are open and partial views across the Assessment Site from portions of Footpaths DY|Buxton-HP4|2/1, DY|Buxton-HP4|2/2 and DY|Buxton-HP4|1/3 within and in close proximity to the Site. There are open and partial views across the Assessment Site from portions of Footpath DY|Buxton-HP4|4/1 Footpath DY|Buxton-HP4|1/3 at greater distances and partial and partial glimpsed views to the eastern portions of the Site from portions of BOAT DY|Buxton-HP4|10. There are also distant partial glimpsed views from elevated locations including Grin Low, Access Land on Combs Moss and Corbar Cross near Footpath DY|Buxton-HP4|69/4 and Access Land on Black Edge and Burbage Edge. Further views to the Site for users of Public Rights of Way are anticipated to be truncated due to a combination of mature vegetation, landform and built form.

Peak District National Park

There are distant partial glimpsed views from limited elevated locations on Black Edge and Burbage Edge within the Peak District National Park. Further views to the Site for visitors of the National Park are anticipated to be truncated due to a combination of mature vegetation, landform, built form and distance.

Heritage Assets

There are potential partial views for visitors to St Peter's Church to the south of the Site and open and partial views from portions of Fairfield Conservation Area. Further views to the Site from heritage assets are anticipated to be extremely limited or truncated due to a combination of mature vegetation, landform and built form.

Open Space Users

There are open and partial views and partial glimpsed views to the eastern portions of the Site from portions of Buxton & High Peak Golf Course to the east of the Site. Further views to the Site for open space users are truncated due to a combination of mature vegetation, landform and built form.

Employees at Work

There are potential open and partial views of the Assessment Site from employees at work places in the Nunsfield Farm Complex in close proximity to the Site and from the Brown Edge Service Centre to the north of the Site.

4.0 VISUAL BASELINE

KEY

- Site Boundary
- Viewpoints

0 50 100 150 200 250 m

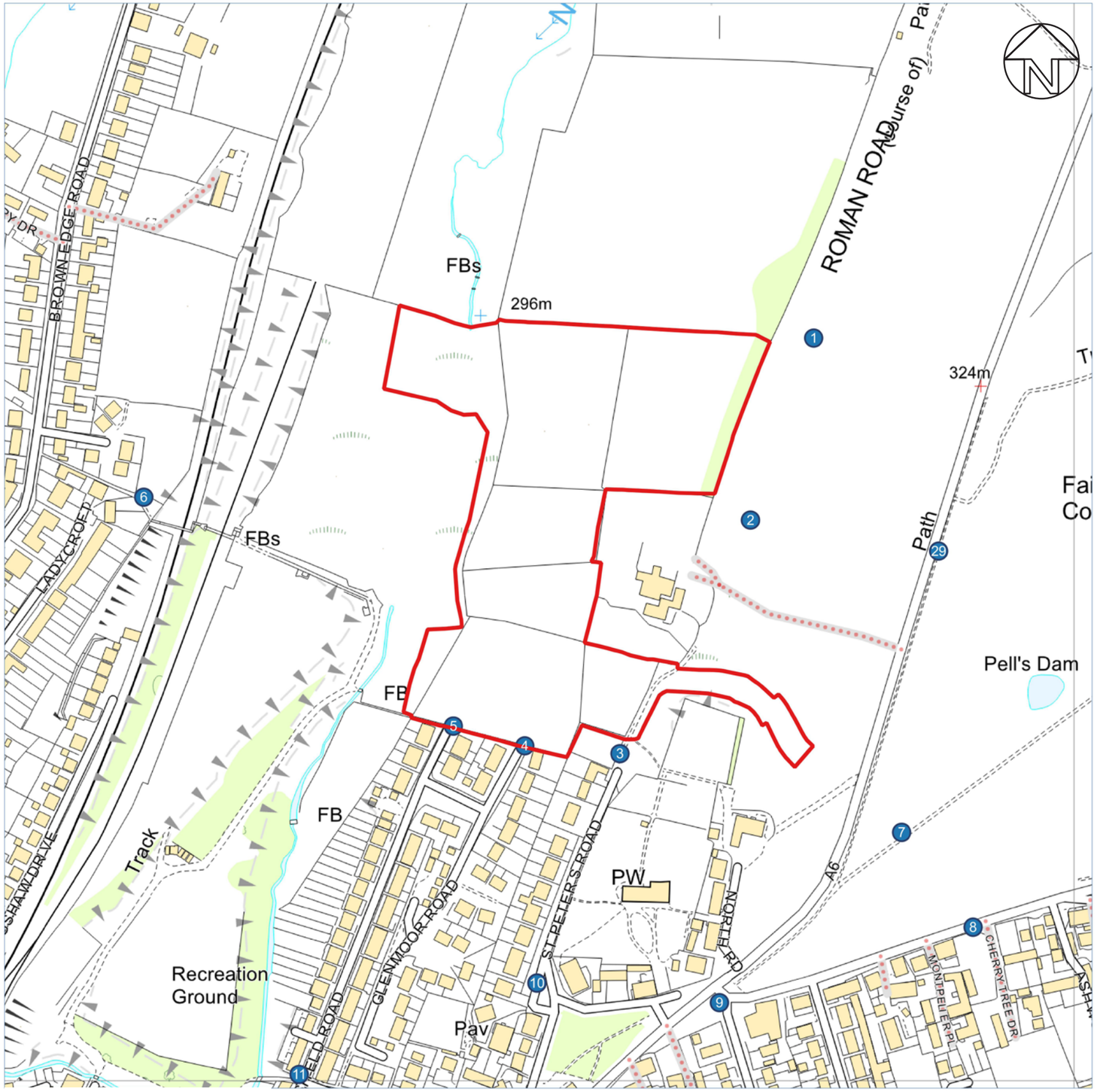


Figure 4.1 - Viewpoints - Close

4.0 VISUAL BASELINE

KEY

- Site Boundary
- 1km
- 1.5km
- 2km
- 2.5km
- Viewpoints

0 200 400 600 800 1,000 m

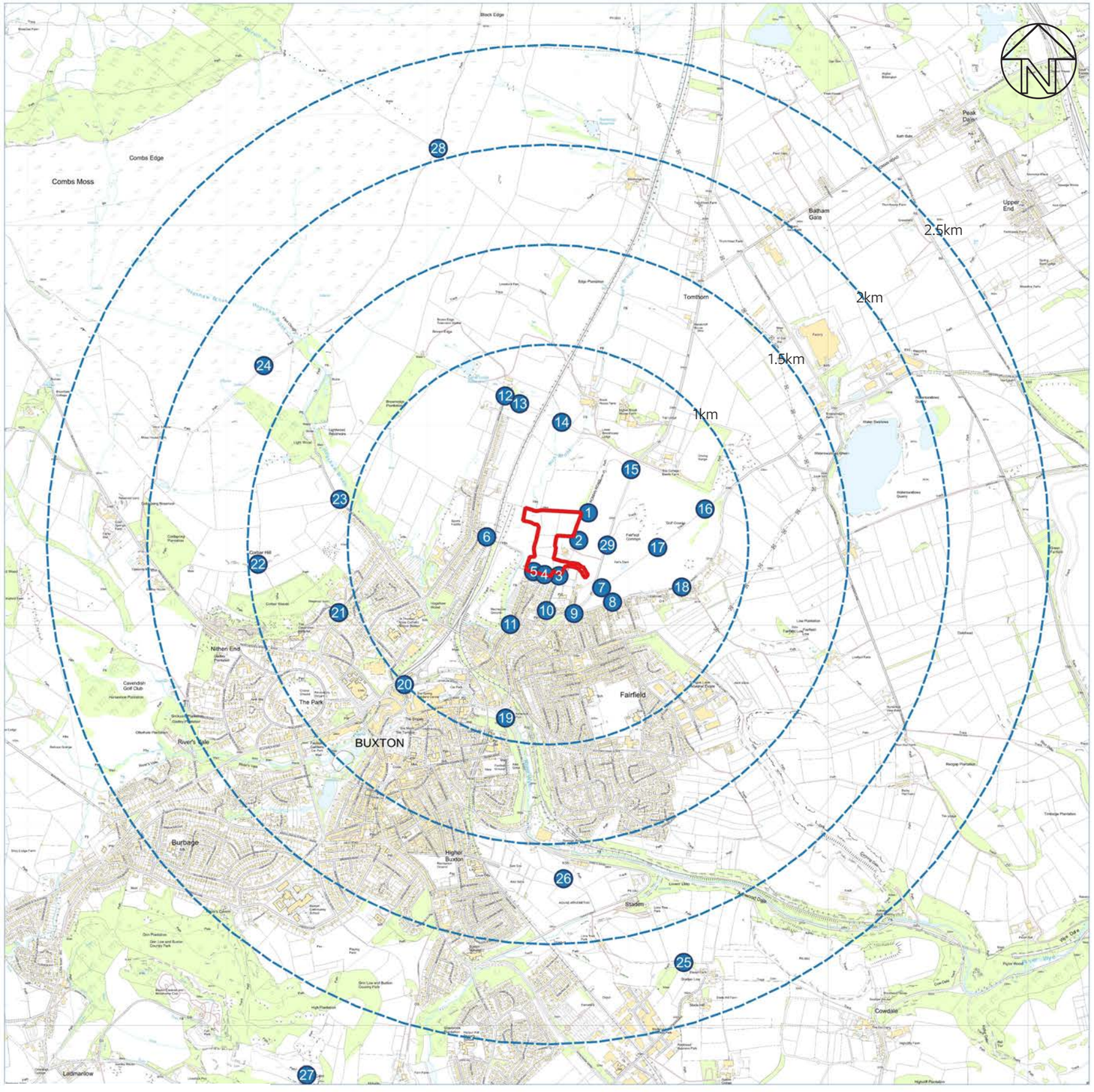


Figure 4.2 - Viewpoints

4.0 VISUAL BASELINE

KEY

- Site Boundary
- 1km
- 2km
- 3km
- 4km
- Viewpoints

0 500 1,000 1,500 2,000 2,500 m

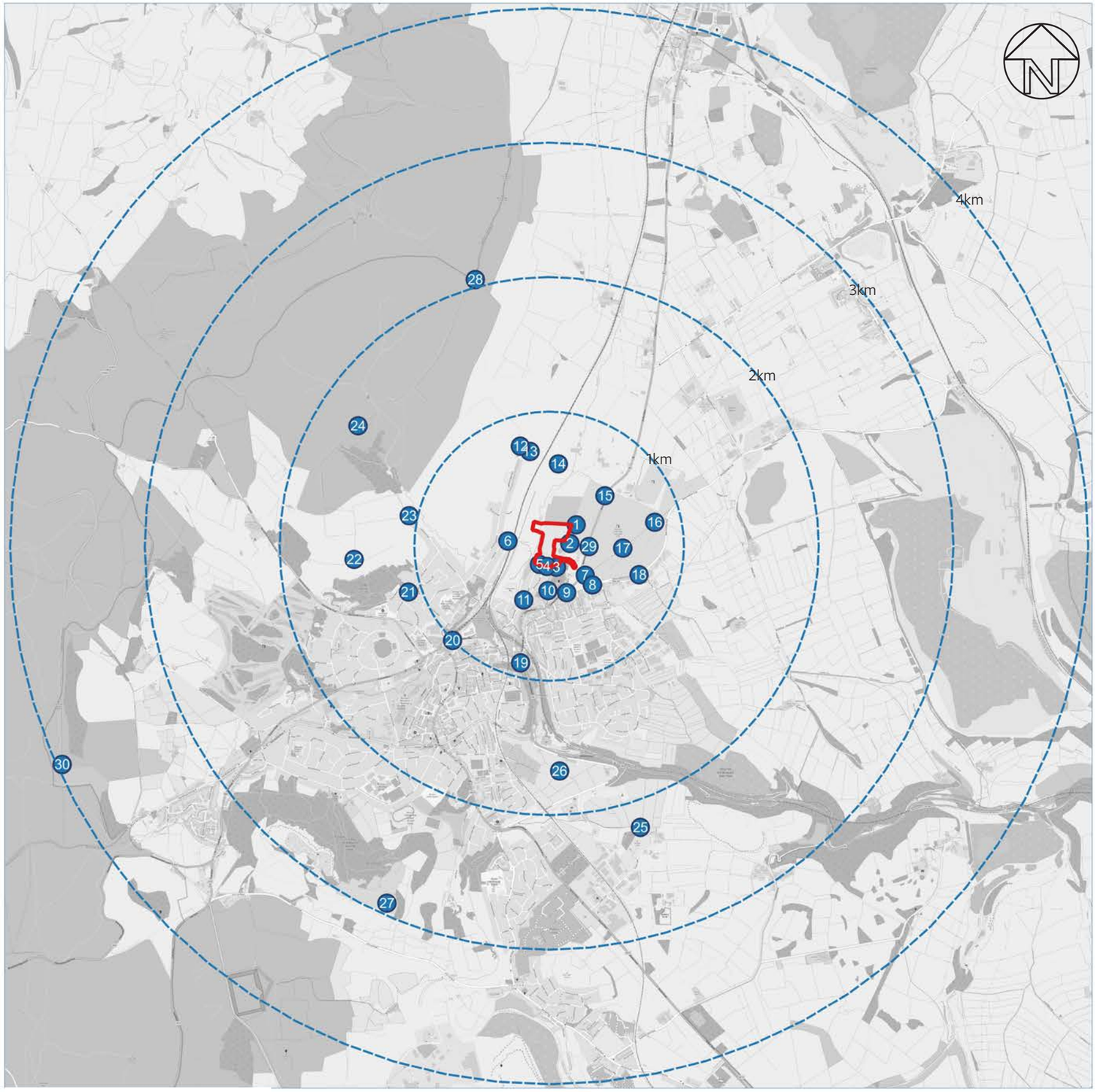


Figure 4.3 - Viewpoints - Distant

4.0 VISUAL BASELINE

Table 4.1 - Visual Receptors

Viewpoint No.	Location	Viewing Direction	Distance to Site	Visual Receptor(s)	Visibility of Site
1	Footpath DY|Buxton-HP4|2/1	South west	~35m	Footpath users, setting of heritage asset	Open and partial views
2	Footpath DY|Buxton-HP4|2/1	South west	~35m	Footpath users, setting of heritage asset	Open and partial views
3	Footpath DY|Buxton-HP4|2/2 near St Peter's Road	North west	Within	Road and footpath users, residents of dwellings, setting of heritage asset	Open and partial views
4	Footpath DY|Buxton-HP4|1/3 / Glenmoor Road	North	~5m	Road and footpath users, residents of dwellings	Open and partial views
5	Footpath DY|Buxton-HP4|1/3 / Nunsfield Road	North	~5m	Road and footpath users, residents of dwellings	Open and partial views
6	Footpath DY|Buxton-HP4|1/3	East	~205m	Footpath users, residents of dwellings	Open and partial views
7	BOAT DY|Buxton-HP4|10/1	North west	~95m	BOAT users, setting of heritage asset, visitors to golf course	Partial views
8	Waterswallows Road near Cherry Tree Drive	North west	~180m	Road users, residents of dwellings, setting of heritage asset	Partial glimpsed views
9	Junction of Waterswallows Road and Dakin Avenue	North west	~175m	Road users, residents of dwellings, setting of heritage asset	Views are truncated
10	St Peter's Road	North	~175m	Road users, residents of dwellings, setting of heritage asset	Partial glimpsed views
11	Junction of Footpath DY|Buxton-HP4|3/1 and Nunsfield Road	North east	~285m	Road and footpath users, residents of dwellings	Views are truncated
12	Brown Edge Road	South east	~590m	Road and footpath users, residents of dwellings, employees at their place of work	Open and partial views
13	Footpath DY|Buxton-HP4|4/1	South east	~535m	Footpath users	Open and partial views
14	Footpath DY|Buxton-HP4|4/1	South	~445m	Footpath users, residents of dwellings	Open and partial views
15	Junction of Footpath DY|Buxton-HP4|2/1 and A6	South west	~330m	Road and footpath users, setting of heritage asset	Open and partial views

4.0 VISUAL BASELINE

Table 4.1 - Visual Receptors (continued)

Viewpoint No.	Location	Viewing Direction	Distance to Site	Visual Receptor(s)	Visibility of Site
16	BOAT DY|Buxton-HP4|10/1	West	~620m	BOAT users, setting of heritage asset, visitors to golf course	Views are truncated
17	BOAT DY|Buxton-HP4|10/1	West	~420m	BOAT users, setting of heritage asset, visitors to golf course	Partial glimpsed views
18	Waterswallows Road near Footpath DY|Buxton-HP4|12/4	North west	~475m	Road and footpath users, residents of dwellings, setting of heritage asset	Views are truncated
19	Ashwood Park	North	~740m	Road and park users, setting of heritage asset	Views are truncated
20	A53 Station Road near the Station	North east	~835m	Road users, residents of dwellings, setting of heritage asset	Partial glimpsed views
21	Junction of Footpath DY|Buxton-HP4|67/1 and Corbar Road	East	~960m	Road users, residents of dwellings, setting of heritage asset	Views are truncated
22	Corbar Cross near Footpath DY|Buxton-HP4|69/4	East	~1330m	Footpath users	Distant partial views
23	Lightwood Road	East	~960m	Road users, residents of dwellings, setting of heritage asset	Views are truncated
24	Combs Moss	South east	~1545m	Access land users	Distant partial glimpsed views
25	Bridleway DY|Buxton-HP4|25/1 near Sladen Low	North west	~2010m	Bridleway users	Views are truncated
26	Footpath DY|Buxton-HP4|23/2	North	~1505m	Footpath users	Views are truncated
27	Grin Low	North east	~2765m	Footpath users, visitors to country park, setting of heritage asset	Distant partial glimpsed views
28	Black Edge within the Peak District National Park	South east	~1850m	Access land users, visitors to Peak District National Park	Distant partial glimpsed views
29	A6 Buxton Road	West	~180m	Road users, setting of heritage asset	Open and partial views
30	Burbage Edge, in close proximity to the Peak District National Park boundary	North east	~3820m	Access land users, visitors to Peak District National Park	Distant partial glimpsed views

4.0 VISUAL BASELINE

Approximate extent of Assessment Site

Viewpoint 1 - View looking south west towards the Assessment Site from Footpath DY|Buxton-HP4|2/1. There are open and partial views of the Site from this location.

Approximate extent of Assessment Site

Viewpoint 2 - View looking west towards the Assessment Site from Footpath DY|Buxton-HP4|2/1. There are open and partial views of the Site from this location.

4.0 VISUAL BASELINE

Approximate extent of Assessment Site

Viewpoint 3 - View looking north west towards the Assessment Site from Footpath DY|Buxton-HP4|2/2 near St Peter's Road. There are open and partial views of the Site from this location.

Approximate location of Assessment Site

Viewpoint 4 - View looking north towards the Assessment Site from Footpath DY|Buxton-HP4|1/3 near Glenmoor Road. There are open and partial views of the Site from this location.

4.0 VISUAL BASELINE

Approximate extent of Assessment Site

Viewpoint 5 - View looking north towards the Assessment Site from Footpath DY|Buxton-HP4|1/3 near Nunsfield Road. There are open and partial views of the Site from this location.

Approximate extent of Assessment Site

Viewpoint 6 - View looking east towards the Assessment Site from Footpath DY|Buxton-HP4|1/3. There are open and partial views of the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 7 - View looking north west towards the Assessment Site from Byway Open to All Traffic DY|Buxton-HP4|10/1 within Buxton & High Peak Golf Course. There are partial views to the upper portions of mature vegetation within the Site from this location.

Viewpoint 8 - View looking north west towards the Assessment Site from Waterswallows Road near Cherry Tree Drive. There are partial glimpsed views to the upper portions of mature vegetation within the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 9 - View looking north west towards the Assessment Site from the junction of Waterswallows Road and Dakin Avenue. Views of the Site are truncated from this location due to the intervening built form and mature vegetation.

Viewpoint 10 - View looking north towards the Assessment Site from St Peter's Road. There are partial glimpsed views to the upper portions of mature vegetation within the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 11 - View looking north east towards the Assessment Site from the junction of Nunsfield Road and Footpath DY|Buxton-HP4|3/1. Views of the Site are truncated from this location due to the intervening built form and mature vegetation.

Viewpoint 12 - View looking south east towards the Assessment Site from Brown Edge Road. There are open and partial views of the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 13 - View looking south east towards the Assessment Site from Footpath DY|Buxton-HP4|4/1. There are open and partial views of the Site from this location.

Viewpoint 14 - View looking south towards the Assessment Site from Footpath DY|Buxton-HP4|4/1. There are open and partial views of the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 15 - View looking south east towards the Assessment Site from Footpath DY|Buxton-HP4|2/1 near the A6. There are open and partial views of the Site from this location.

Viewpoint 16 - View looking west towards the Assessment Site from Byway Open to All Traffic DY|Buxton-HP4|10/1 within Buxton & High Peak Golf Course. Views of the Site are truncated from this location due to the intervening landform and mature vegetation.

4.0 VISUAL BASELINE

Viewpoint 17 - View looking west towards the Assessment Site from Byway Open to All Traffic DY|Buxton-HP4|10/1 within Buxton & High Peak Golf Course. There are partial glimpsed views to the upper portions of mature vegetation within the Site from this location.

Viewpoint 18 - View looking north west towards the Assessment Site from Waterswallows Road near Footpath DY|Buxton-HP4|12/4. Views of the Site are truncated from this location due to the intervening landform and mature vegetation.

4.0 VISUAL BASELINE

Viewpoint 19 - View looking north towards the Assessment Site from Ashwood Park. Views of the Site are truncated from this location due to the intervening built form, landform and mature vegetation.

Viewpoint 20 - View looking north east towards the Assessment Site from Station Road near Buxton Station. There are partial glimpsed views to the upper portions of mature vegetation within the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 21 - View looking north west towards the Assessment Site from the junction of Corbar Road near Footpath DY|Buxton-HP4|67/1. Views of the Site are truncated from this location due to the intervening built form and mature vegetation.

Viewpoint 22 - View looking east towards the Assessment Site from Corbar Cross near Footpath DY|Buxton-HP4|69/4. There are distant partial views of the assessment Site from this location.

4.0 VISUAL BASELINE

Viewpoint 23 - View looking east towards the Assessment Site from Lightwood Road. Views of the Site are truncated from this location due to the intervening landform and mature vegetation.

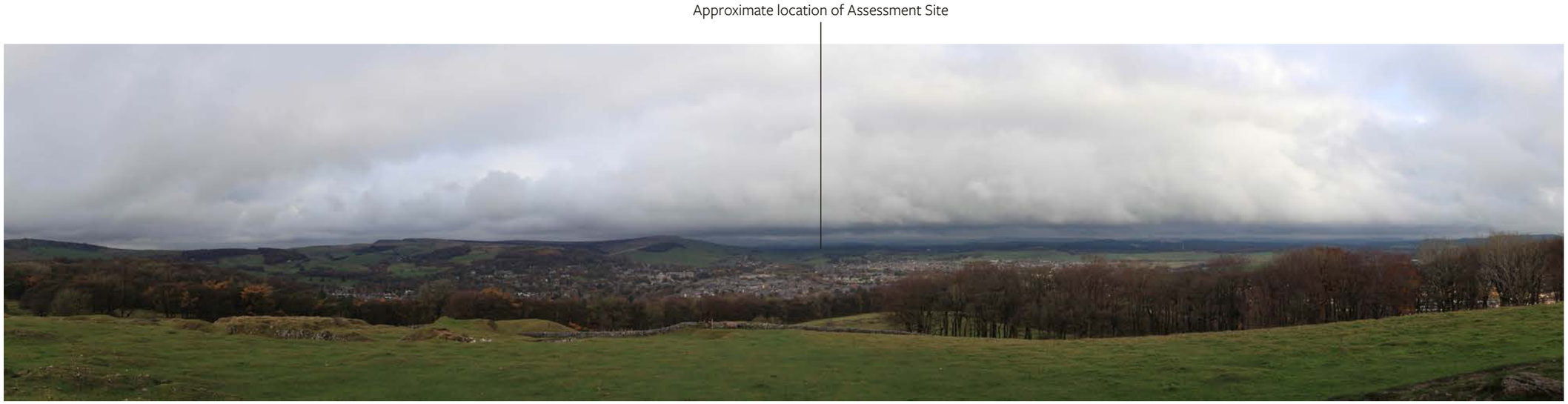
Viewpoint 24 - View looking south east towards the Assessment Site from Access Land on Combs Moss. There are distant partial glimpsed views of the Site from this location.

4.0 VISUAL BASELINE

Viewpoint 25 - View looking north west towards the Assessment Site from Bridleway DY|Buxton-HP4|25/1. Views of the Site are truncated from this location due to the intervening built form, landform and mature vegetation.

Viewpoint 26 - View looking north west towards the Assessment Site from near Footpath DY|Buxton-HP4|22/2. Views of the Site are truncated from this location due to the intervening mature vegetation.

4.0 VISUAL BASELINE



Viewpoint 27 - View looking north west towards the Assessment Site from Grin Low near Footpath DY|Buxton-HP4|58/1. There are distant partial glimpsed views of the assessment Site from this location.

Viewpoint 28 (taken February 2024) - View looking south east towards the Assessment Site from Access Land on Black Edge within the Peak District National Park. There are distant partial glimpsed views of the Site from this location.

4.0 VISUAL BASELINE

Approximate extent of Assessment Site

Viewpoint 29 (taken March 2024) - View looking west towards the Assessment Site from A6 Buxton Road. There are open and partial views of the Site from this location.

Approximate location of Assessment Site

Viewpoint 30 (taken March 2024) - View looking north east towards the Assessment Site from Access Land on Burbage Edge in close proximity to the Peak District National Park boundary. There are distant partial glimpsed views of the Site from this elevated location which is just discerned in the context of the existing built form of the surrounding residential areas within the northern portion of Buxton. From this distance, the Site is perceived through an understanding of the Site's location relative to the existing built form and landscape elements in the view and may not be as apparent therefore to the casual observer.

5.0 LANDSCAPE STRATEGY

The physical assessment of the Site, subsequent review of its constraints and opportunities and the requirements identified in the both the NPPF and local planning policies has led to the development of a landscape masterplan. The following principles have been incorporated into the scheme to reflect the Sites potential to support the residential development of the Site:

- New tree planting, areas of native shrub and hedge planting and wildflower meadow are incorporated to reinforce the existing landscape structure and soften the development's appearance, creating areas of native landscape buffer to sensitive boundaries including the north and north east and filtering views in these directions in accordance with the recommendations within the High Peak Local Plan Landscape Impact Assessment;

- The new dwellings are located sensitively within the Site, set back and avoiding the sensitive more elevated boundary to the east, adjacent to the golf course and will relate to the existing built form to the south and west Site;

- Generous areas of open space containing green and blue infrastructure and a local area for play, are located throughout the Site and particularly to Site boundaries and the new access road off the A6, setting the development into a robust landscape framework;

- A new retention pond is proposed to the north of the Local Wildlife Area. New native tree and shrub planting is proposed to the areas bounding the water feature and native species rich wetland meadow and marginal planting are proposed to the pond margins;

- Existing features such as dry stone walls and mature vegetation are retained wherever possible to minimise landscape and visual effects;

- New and safe pedestrian links are proposed throughout the Site and the area of public open space;

- Promotion of ecological diversity and habitat creation through the incorporation of wildlife ponds, the planting of native and wildlife-friendly trees, shrubs and wildflower meadow, hibernacular, and bat and bird boxes.

The Site organisation has been developed to respond to the landscape constraints and consider the Site's relationship with the existing landscape in order to minimise landscape and visual effects.

Figure 5.1 - Landscape Masterplan

6.0 ASSESSMENT OF LANDSCAPE EFFECTS

Table 6.1 - Impact on Landscape Character Areas

Character area / feature / designation	Approx. distance to Assessment Site	Description / rationale for judgement	Sensitivity of receptor to change	Magnitude of effect		Overall significance of effect
				Size/ scale, geographic extent and duration	Overall magnitude	
NCA 53 White Peak	Within	The Site forms a small part of the wider character area; however, there will be a reduction in the pastoral land, arising from the development of the Site giving a localised change to the NCA 53 White Peak at the national level.	Medium	Minor, Localised, Long Term	Small	Minor Adverse
NCA 52 South West Peak	~700m	The development of the Site is not anticipated to have an effect on this NCA.	Medium	Negligible, Restricted, Long term	Negligible	Negligible
LCT Plateau Pasture	Within	The Site forms a small part of the wider character area; however, there will be a reduction in the pastoral land, arising from the development of the Site giving a localised change to the LCT at the regional level.	Medium	Minor, Localised, Long Term	Small	Minor Adverse
LCT Moorland Fringe	Within	The development of the Site is not anticipated to have an effect on this LCA.	Medium	Negligible, Restricted, Long term	Negligible	Negligible
Site Landscape Character	Within	Change to the character of the Site, introducing built elements, open spaces to be used for recreation, and new tree planting. Development enables opportunity to manage existing elements of importance such as mature vegetation and supplement with new planting to integrate built areas of the Site in to its local environs.	Medium	Moderate, Major, Long Term	Medium	Moderate Adverse

6.0 ASSESSMENT OF LANDSCAPE EFFECTS

Table 6.2 - Impact on Landscape Character and Features

Character area / feature / designation	Description / rationale for judgement	Sensitivity of receptor to change	Magnitude of effect		Overall significance of effect
			Size/ scale, geographic extent and duration	Overall magnitude	
Existing Land Use	Change to the use of the Site, introducing new residential development, open spaces to be used and a landscape scheme.	Medium	Moderate, Moderate, Long Term	Medium	Moderate Adverse
Adjoining Land Use	As a result of the development proposals built form will extend north into the Site but the built form and land uses within the surrounding area will remain unchanged.	Medium	Negligible, Restricted, Long term	Negligible	Negligible
Topography	Due to the sloping nature of the Site there will be necessary changes to the landform. These changes will be locally significant in order set out the access road network and form level plots for the residential properties. Private gardens will be sloped or terraced to allow for variation in the landform. The effects on topography are anticipated to be localised but long term.	Medium	Moderate, Localised, Long Term	Medium	Minor Adverse
Vegetation	Removal of limited existing trees and mature vegetation to enable development. Retained Mature trees and hedges adjacent to Site boundaries would be protected during construction and retained. New tree, shrub and other planting proposed throughout the built area and open spaces will supplement and complement existing tree resource and create a new structure of vegetation to open and built elements.	Medium	Negligible, Localised, Long Term	Negligible	Negligible
Water Features	There are no direct changes to the existing water course. A new retention pond is proposed in the west portion of the Site.	Medium	Minor, Restricted, Long term	Small	Minor Beneficial

6.0 ASSESSMENT OF LANDSCAPE EFFECTS

Table 6.2 - Impact on Landscape Character and Features

Character area / feature / designation	Description / rationale for judgement	Sensitivity of receptor to change	Magnitude of effect		Overall significance of effect
			Size/ scale, geographic extent and duration	Overall magnitude	
Built Elements	Change from pastoral farmland to low density residential development with built form and recreational open space land uses, similar to nearby settlement land uses.	Low	Moderate, Major, Long Term	Medium	Minor beneficial
Public Rights of Way	The proposed development will retain the existing footpaths through the Site, maintaining and enhancing the connections with the wider landscape. The footpaths which cross the Site in the south east will remain in their current position within the proposed green infrastructure. New paths and routes will be provided across the Site to supplement the existing routes and link the existing residential area with the wider landscape.	High	Minor, Localised, Long Term	Small	Negligible
Setting of Heritage Assets	There is anticipated to be a small change to the setting of the northern elevation of St Peter's Church due to the construction of the access road and the new development within the southern portion of the Site. The elevation is already influenced by the existing residential area to the west. The majority of the existing vegetation is to be retained in the south east of the Site and new boundary planting adjacent to Site boundary is proposed to limit the potential for adverse effects. The listed Elm House and attached outbuildings, 5-11, St Peters Road and Fairfield Vicarage are visually and physically divorced from the Site and notable effects on their landscape context are not predicted. The new access road from the A6 will be constructed within the Fairfield Conservation Area. The route of which has been aligned to minimise tree and vegetation loss and will be set within a generous area of green infrastructure which incorporates new tree and native shrub planting. The existing further Historic Parks, Gardens ,Conservation Areas and Listed Buildings within the Study Area are physically and visually separated from the Assessment Site and are not anticipated to be effected by the development proposals.	High	Minor, Localised, Long Term	Small	Minor Adverse
Open Space	In terms of open space, the proposed green infrastructure meets and exceeds the open space policy requirement to serve the proposed development.	Medium	Minor, Localised, Long Term	Small	Minor beneficial
Area of Countryside designation	At the Site level, the development of the Site would see a direct and permanent alteration to the Countryside designation through the removal of trees, grassland and other vegetation and the creation of new built development within the Site. The development of the Site would be in keeping with local land uses and would relate well to the existing settlement form to the south. The Site is well contained and does not form an integral part of the wider swathe of open countryside.	Medium	Minor, Localised, Long Term	Small	Minor Adverse

7.0 ASSESSMENT OF VISUAL EFFECTS

Table 7.1 - Assessment of Visual Receptors

Visual Receptor(s)	Description of visual effect	Sensitivity of receptor to change	Magnitude of effect		Overall significance of effect
			Size/ scale, geographic extent and duration	Overall magnitude	
Residents of Dwellings	There are anticipated to be open and partial, obtuse views to the development for residents of dwellings in close proximity to the southern boundary of the Site on portions of St Peter's Road, Glenmoor Road, Barms Way and Nunsfield Road. Any Moderate visual effects on these adjoining properties will be mitigated through the implementation of the Landscape Strategy, which are proposed to help further reduce these visual effects to only limited and restricted change. There are also more distant elevated views from the rear elevation of dwellings on the east side Brown Edge Road across the Assessment Site which are seen in the context of the existing residential edge of Buxton. Further views of the Site for residents of dwellings are not anticipated or are considered Negligible.	Medium-high	Moderate, Localised, Long Term	Moderate to Minor	Moderate to Minor Adverse
Road Users	As above there are anticipated to be open and partial views of the development from portions of St Peter's Road, Glenmoor Road, Barms Way and Nunsfield Road in close proximity to the Site. There are also open and partial views to the new access road and the northern portion of the Site from portions of the A6 Fairfield Road and Waterswallows Road. Significant areas of green infrastructure are proposed to the access road and northern and north eastern boundaries to supplement the existing landscape structure and mitigate views.	Low	Moderate, Localised, Long Term	Moderate to Negligible	Minor adverse to Negligible
Users of Public Rights of Way	There are open and partial views to the development from Footpaths DY|Buxton-HP4|2/1, DY|Buxton-HP4|2/2, Footpath DY|Buxton-HP4|1/3 within and in close proximity to the Site. There are also more distant views to the development from sections of Footpaths DY|Buxton-HP4|1/3 , DY|Buxton-HP4|4/1 and partial and partial glimpsed views to the new access road from portions of BOAT DY|Buxton-HP4|10/1. There also glimpsed distant views to the Site from a number of elevated locations accessed by PRoW including Corbar Cross, Combs Moss, Grin Low, an area of Access Land on the ridge of Black Edge and an area of Access Land on Burbage Edge. Views are generally seen in the context of the existing residential edges of Buxton. Proposed green infrastructure to Site boundaries will assist in ameliorating the effects on these receptors.	Medium-high	Moderate, Localised, Long Term	Moderate to Minor	Moderate to Minor Adverse

7.0 ASSESSMENT OF VISUAL EFFECTS

Table 7.1 - Assessment of Visual Receptors

Visual Receptor(s)	Description of visual effect	Sensitivity of receptor to change	Magnitude of effect		Overall significance of effect
			Size/ scale, geographic extent and duration	Overall magnitude	
Visitors to Peak District National Park	There are partial glimpsed distant views to the Site from an elevated location on the ridge of Black Edge on the boundary of the National Park. Views are seen in the context of the existing residential edges of Buxton which are apparent in the view to the south and east of the Site, with the Site forming a small part of the wider view. Built form within the Site is set back away from the most elevated eastern edge of the Site and the proposed buffer planting to the northern boundary of the Site will further reduce views of the built development. There is also a partial glimpsed, distant and elevated view to the Site from Burbage Edge to the west of the Site. The Assessment Site is distinguish through an understanding of the local landscape and is seen in the context of the built form within Buxton forming a limited part of the wider view. There are not anticipated to be any further views to the development proposals from local or distant receptors within the Peak District National Park.	High	Negligible to None, Restricted, Long Term	Negligible to None	Minor adverse to Negligible
Users of open space / golf course	There are open, partial and partial glimpsed views to the new access road and the north east portion of the development from parts of Buxton & High Peak Golf Course to the east of the Site. Views are seen in the context of the developed edge of Buxton and will be ameliorated to a degree with the new landscape structure.	Medium-high	Minor, Localised, Long Term	Minor to Negligible	Minor adverse to Negligible
Employees at their place of work	There are potential open and partial views to the development from the Nunsfield Farm complex in close proximity to the Site and more distant views from the Brown Edge Service Centre to the north of the Site.	Low	Minor, Localised, Long Term	Minor to Negligible	Negligible

8.0 CONCLUSIONS

This Landscape and Visual Impact Assessment (LVIA) has been prepared on the Third Edition of the Guidelines for Landscape and Visual Impact Assessment by the Landscape Institute and the Institute of Environmental Management and Assessment (Routledge, 2013). The assessment of the Site at Hogshaw Farm, Buxton has been carried out to inform the landscape design response to the outline development proposals in consideration of the landscape and visual issues, current planning policy and emerging guidance.

The Assessment Site lies on the northern developed edge of Buxton. The eastern portion of the Site is defined as an Area of Countryside and portion of the Fairfield Conservation Area extends in to the eastern portion of the Site. There are no further national or local landscape or heritage designations within or in the immediate setting of the Assessment Site, however, there is a Local Wildlife Site lining the Site's western boundary with Nun Brook and the boundary of the Peak District National Park lies approximately 1780m to the south east of the Site at its closest point.

The Assessment Site is bound by pastoral farmland to the north, Fairfield Common including Buxton & High Peak Golf Course, the construction of a new roundabout junction on the A6 Fairfield Road and the Nunsfield Farm complex to the east, St Peter's Church and a residential estate of one and two storey dwellings to the south and the well treed water course of Nun Brook to the west. The Site currently comprises five field parcels of improved pastoral farmland separated by post wire fencing and some dry stone walls. Landform with the Site falls steeply from east to west.

Currently, views in to the Assessment Site are generally limited due to a combination of intervening built form, mature vegetation and the nature of the local landform. There are open and partial views of St Peter's Road, Glenmoor Road, Nunsfield Road and Barms Way in close proximity to the southern boundary of the Site (refer to Viewpoints 3, 4 and 5) and from the A6 Buxton Road to the east of the Site (refer to Viewpoints 15 and 29). There are more distant and elevated views across the Site from the rear elevation of dwellings on Brown Edge Road (refer to Viewpoints 6 and 12). Partial glimpsed views to the eastern portion of the Site are available from sections of Waterswallows Road and to the southern portion of the Site from the A53 Station Road near the Station. There are also open and partial views across the Assessment Site from portions of Footpaths DY|Buxton-HP4|2/1, DY|Buxton-HP4|2/2 and DY|Buxton-HP4|1/3, Footpath DY|Buxton-HP4|4/1, partial and partial glimpsed views to the eastern portions of the Site from portions of BOAT DY|Buxton-HP4|10 and distant partial glimpsed views from elevated locations including Grin Low, Access Land on Combs Moss, Corbar Cross near Footpath DY|Buxton-HP4|69/4, from Access Land on Black Edge within the Peak District National Park (refer to Viewpoint 28) and from Burbage Edge within the Peak District National Park (refer to Viewpoint 30). There are potential partial views for visitors to St Peter's Church to the south of the Site and open and partial views from portions of Fairfield Conservation Area in close proximity to the Site. There are open and partial views and partial glimpsed views to the eastern portions of the Site from portions of Buxton & High Peak Golf Course to the east of the Site. There are also potential open and partial views of the Assessment Site from employees at work places in the Nunsfield Farm Complex in close proximity to the Site and from the Brown Edge Service Centre to the north of the Site. Views are largely seen in the context of the adjacent built form of Buxton. Views from the wider landscape are truncated, primarily due to the intervening layers of vegetation, built form and landform.

The proposed development comprises new residential dwellings, access and estate road, new landscape works and public open space. The layout and design of the proposed development has been subject to a systematic design process and has considered the physical Site constraints and opportunities; the landscape and visual sensitivities; the retention of the inherent local landscape characteristics; and to comply with local planning policy and guidance.

There will be a limited change in the character and amenity of the views from a few visual receptors to the Assessment Site, where the new development will bring development forward in the view, but would not increase the existing visual envelope associated with this edge of Buxton. It is considered that this will result in Moderate to Negligible adverse effects, on a limited number of receptors, which are generally limited to the those in close proximity to the Site. In the long term, views of the proposed development will diminish as planting matures.

As with any development, a number of impacts will arise from the proposed development. These range from Moderate adverse to Minor Beneficial on the Assessment Site and Contextual landscape receptors; and Neutral through to Moderate adverse on a limited number of visual receptors as a result of the change in the character and amenity of the view. There are anticipated to be Minor adverse to Negligible effects on visitors in a limited, elevated portion of the Peak District National Park.

The proposed development has been laid out to largely retain the existing landscape features to the Site boundaries, including the occasional boundary trees and the dry stone walls, and to avoid new built form in the most sensitive parts of the Site, addressing the current local policy. Boundary vegetation, particularly to the northern and north east boundaries, will be enhanced with additional tree planting, native shrubs and hedging in accordance with recommendations within the High Peak Local Plan Landscape Impact Assessment relating to the Site. The layout has developed to locate the built form within the largely well contained and low lying west portions of the Site, relating well to the existing urban edge adjacent to the Site in order to reduce the potential visual effects.

In summary, it is considered that the Assessment Site has an existing relationship with the built form of the surrounding residential areas of Buxton to the south and west of the Site and will not extend the existing visual envelope of Buxton or change the urban edge relationship with the wider countryside to the north and east. On balance the proposed development will, whilst wholly replacing portions of the landscape character, sit within the existing retained landscape character elements at the Site level and the landscape character at the regional and district level. Whilst some negative adverse landscape and visual effects will arise from the proposed development, landscape and visual effects are largely limited to the Assessment Site and local level receptors only, as identified in this Assessment. Any effects will reduce overtime as planting matures. A new tree planting and vegetation strategy will seek to ensure the long term replacement and reinforcement of the existing green infrastructure networks, ensuring that the longevity and vigour of the existing vegetation is maintained on Site. It is therefore considered that the development of the Assessment Site forms a logical extension to Buxton.

APPENDIX 1 – LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Guidance and Publications

This assessment has been carried out in light of the latest relevant guidance as set out in 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA3), published by the Landscape Institute and the Institute of Environmental Management and Assessment (2013), and 'Landscape Character Assessment: Guidance for England and Scotland' published by the Countryside Agency and Scottish National Heritage (2002). These documents do not set out a prescriptive approach to how assessments or assessments should be undertaken, but rather identify key principles and good practice.

Whilst this methodology refers to landscape assessments, the same general principles are also applicable in townscape settings. Further guidance on townscape assessment is given at page 74 of GLVIA3 (2013).

The following guidelines and publications have also been considered when producing this assessment:

- 'Seeing the History in the View: A Method for Assessing Heritage Significance within Views' (English Heritage; 2011);
- 'The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)' (Historic England; 2017);
- 'Visual Representation of Development Proposals - Technical Guidance Note 06/19' (Landscape Institute; 2019);

The assessment comprises the following stages:

- A summary of the relevant aspects of extant and emergent landscape planning policies;
- A definition the scope of the assessment, Site reconnaissance and desktop background research;
- A description of the existing conditions in respect of the landscape baseline (dealing with matters of current landscape character and existing landscape resources), and the visual baseline (dealing with matters relating to the visibility of the Assessment Site);
- Summary of key landscape and visual sensitivities relating to the Assessment Site and surrounding land;
- A description of the development proposed on the Assessment Site;
- An assessment of landscape effects; and
- An assessment of visual effects.

Baseline Assessment Methodology

The following specific desk-based tasks have been undertaken:

- A review of the planning policy relevant to the Assessment Site;
- A review of any existing landscape character assessments relating to the study area;
- A review of landscape designations from the English Heritage database and local authority sources; and
- Identification of landscape character and key landscape elements.

The baseline description in this assessment comprises two separate elements:

a. Landscape Baseline; and

b. Visual Baseline.

In this assessment, a distinction has been drawn between the study area and the Assessment Site. The Assessment Site is the area proposed for development whilst the study area takes in the wider surrounds of the Assessment Site. The determination of the study area has been informed by desk top studies of maps and aerial photographs to assess how topography, vegetation and built form in the area surrounding the Site were likely to control views towards the Assessment Site.

This work was followed by Site visits to determine the potential visibility of the Assessment Site. The study area boundaries were then set to ensure that all relevant areas of potential visibility were assessed. In general terms, it is assumed that the extent of visibility of the Assessment Site (and ultimately of proposed development upon it) will not exceed a 2km radius.

The Landscape Baseline

The Landscape Baseline comprises two elements; the existing Landscape Character and the existing Landscape Resource.

Landscape Character is defined in GLVIA3 as *"a distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse."* As such, character is influenced by the physical constituent components of the landscape including geology, soils, topography, vegetation, water features, land utilisation and built elements. Landscape Character Assessment is the process of identifying variation and change in the landscape and using that information to assist in managing future landscape change (arising from development or other factors). Landscape Character Assessments – at differing scales – have typically been prepared by, or on behalf of, national and local government or agencies, and provide a starting point for the consideration of landscape character. As a generality, the more detailed the existing Landscape Character Assessment, the more relevant it will be to the specific Assessment Site and/ or the development proposal. There are four main levels at which landscape character assessment has been, or may be carried out, as follows:

a. National Level (the National Character Area Profiles prepared by Natural England);

b. Regional Level (typically produced for Natural England or a regional grouping of local authorities);

c. Local Authority Level (normally at a County, or District level, or for a number of Districts (or specific parts thereof)); and

d. Local Level (typically of a settlement or a group of settlements within a local authority).

APPENDIX 1 – LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

In addition to referencing these published documents, a local level character assessment of the Assessment Site and its surrounding has been undertaken which describes, in summary, the following elements:

a. Existing Land Use;

b. Adjoining Land Uses;

c. Topography;

d. Vegetation;

e. Water Features; and

f. Public Rights of Way.

The Landscape Resource baseline considers two separate aspects; landscape condition – the physical state of the landscape – and landscape value – how different areas of landscape are valued by society. The following criteria have been used to categorize landscape condition, which is described in the assessment text. The typical examples given provide an indication of the likely landscape condition but it does not necessarily follow that because a Site is within a specific designated area that the categorisation of landscape condition will automatically follow; much will depend on specific Site conditions.

Table 1: Landscape Condition

Category	Criteria	Typical Example
Exceptional	i. Strong landscape structure, characteristic patterns, balanced combination of landform and landcover; ii. Appropriate management for land use and landcover; iii. Distinct features worthy of conservation; iv. Sense of place; v. No/ negligible detracting features.	Internationally or Nationally recognised e.g. all or the great majority of which would be World Heritage Site, National Park or AONB.
High	i. Strong landscape structure, characteristic patterns, balanced combination of landform and landcover; ii. Appropriate management for land use and landcover but potentially scope to improve; iii. Distinct features worthy of conservation; iv. Sense of place; v. Occasional detracting features.	Nationally or Regionally recognised e.g. parts of National Park or AONB, all or the great majority of AGLV.
Good	i. Recognisable landscape structure, characteristic patterns and combinations of landform and cover are still evident; ii. Scope to improve management for land use and landcover; iii. Some features worthy of conservation; iv. Sense of place; v. Some detracting features.	
Ordinary	i. Distinguishable landscape structure, characteristic ii. Patterns of landform and landcover often masked by land use; iii. Scope to improve management of vegetation; iv. Some features worthy of conservation; v. Some detracting features.	
Poor	i. Weak landscape structure, characteristic patterns of landform and landcover are often masked by land use; ii. Lack of management and intervention has resulted in degradation; iii. Frequent detracting features.	
Very poor	i. Degraded landscape structure, characteristic patterns and combinations of landform and landcover are masked by land use; ii. Lack of management / intervention has resulted in degradation; iii. Extensive detracting features.	
Damaged	i. Damaged landscape structure; ii. Disturbed or derelict land requires treatment; iii. Detracting features dominate.	
Derelict	i. Land so damaged by industrial or other development that it is incapable of beneficial use without treatment.	

The following criteria have been used to categorise the landscape value of the Site. The categories of Exceptional and High are informed directly by reference to development plan documents; the other categories entail a judgement in respect of the attributes of the area / locality or may be informed by published landscape character assessments.

Table 2: Landscape Value

Value	Typical Criteria	Typical Scale	Typical Example
Exceptional	Very high importance (or Quality) and Rarity. No or extremely limited potential for substitution.	International, National.	World Heritage Site, National Park or AONB.
High	High Importance (or Quality) and Rarity. Limited potential for substitution.	National, Regional, Local	National Park, AONB, AGLV, ALLI
Good	Medium Importance (or Quality) and Rarity. Limited potential for substitution.	Regional, Local	Undesignated but value perhaps expressed through non-official publications or demonstrable use.
Ordinary	Low Importance (or Quality) and Rarity.	Local	Areas identified as having some redeeming feature or features and possibly identified for improvement.
Poor	Low Importance (or Quality) and Rarity.	Local	Areas identified as having few redeeming features and lots of scope for improvement.
Very poor	Low Importance (or Quality) and Rarity.	Local	Areas identified for recovery.

From these separate assessments of landscape character and the landscape resource, the overall sensitivity of landscape receptors – defined as those aspects of the landscape that have the potential to be affected by the proposed development - is determined.

The Visual Baseline

The extent of visibility of the Assessment Site, and of the proposed development, is determined by the buildings/development surrounding the Site, as well as by existing vegetation and topography. An initial assessment was made, using OS mapping and aerial photographs of potential locations from where the Assessment Site might be seen by visual receptors - defined as individuals or groups who have the potential to be affected by the proposal. Potential locations that are identified include residential and commercial properties, roads, PRoW, and areas of public open space/ recreational land.

APPENDIX 1 - LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Field visits were carried out in November 2022 and February 2024. The Site was viewed from the surrounding area from a range of locations, including those identified through the desk study and other locations that became apparent from the field assessment. In the assessment the potential visual receptors are identified on plan and described in tabular form, which categorizes the receptor by type (i.e. residential property etc.) and distance from the edge of the Assessment Site (using the terms set out in Table 3).

Table 3: Distance of Views

Distance of Views	Definition
Adjoining	On the edge of the Assessment Site
Close	Less than 250m from the edge of the Assessment Site
Middle	From 250m to 500m from the edge of the Assessment Site
Long	500m or greater from the edge of the Assessment Site

From the field assessment, a number of viewpoints have been identified which are representative of visual receptors in proximity. The viewpoints selected essentially cover three types of views:

- Representative viewpoints: typical of a particular type of visual receptor, e.g. certain points along a PRoW;
- Specific Viewpoints: a key or promoted viewpoint within the landscape possibly related to local visitor attractions or associated with a designated landscape or a cultural landscape; and
- Illustrative Viewpoints: where a particular effect may only be available from certain locations.

Not all of these types of viewpoints will necessarily be present or need to be considered in all assessments. Generally, but not exclusively, the majority of viewpoints identified will be representative viewpoints. All of the viewpoints identified are public viewpoints. Whilst private locations, such as houses, were not visited during the field assessment, an assessment of the likely views from these properties and their visual context was made from nearby locations.

Viewpoint locations are shown in plan form and the views available from the selected viewpoints shown as photographs in the assessment.

Assessment of Landscape and Visual Effects – General Approach

As defined in GLVIA3, landscape effects are those effects on the landscape as a resource in its own right, and visual effects are those effects on specific views and on the general amenity as experienced by people. The judgement made in respect of both landscape and visual effects is a combination of an assessment of the sensitivity of the receptor against the magnitude of the landscape or visual effect.

The judgement to be made in respect of sensitivity is a combination of the susceptibility of those receptors to the specific change occasioned by the proposed development (for both landscape and visual receptors) along with the value attached to that receptor (again for both landscape and visual receptors). Similarly, the judgement to be made in respect of the magnitude of landscape and / or visual effects is derived from a combination of the size or scale of the effect(s); the duration of the effect(s); and whether such effect(s) is / are reversible (or not). The assessment of landscape and visual effects give rise to separate considerations and these are set out in more detail below.

Assessment of Landscape Effects

In respect of the judgment to be made of the sensitivity of landscape receptors, the susceptibility to specific change for each landscape receptor is categorized as set out in the following tables.

Table 4: Susceptibility of Landscape Receptors to Change

Receptor	Susceptibility of Receptor to Change		
	High	Medium	Low
Landscape Character	A highly distinctive and coherent landscape character, with an absence of detracting or intrusive elements. Low or no capacity to accept change.	Distinctive character, with a general consistency, notwithstanding the presence of some detracting or intrusive elements. Some capacity to accept change.	Mixed character, where there is a lack of coherence and detracting or intrusive elements have become dominant or have eclipsed original character. Significant capacity to accept change.
Designated Areas	National designated Landscape such as National Park and AONB	Local landscape designations (e.g. AGLV/Areas of Local Landscape Importance (ALLI) (or similar)	Not designated
Landscape Features	Largely or completely intact, in good condition	Largely in moderate condition – may be in process of improvement	Undesignated but value perhaps expressed through non-official publications or demonstrable use.
Aesthetic / Perceptual Aspects	Recognised formally as a coherent area/ feature of aesthetic attraction	Some areas/ features of aesthetic attraction	Not noted for aesthetic qualities

The value for each landscape receptor is taken from Table 2 above. The overall sensitivity of each receptor is then categorised on a High/ Medium / Low/ Negligible basis. In respect of the magnitude of landscape effects, Table 5 sets out the judgements to be made, and the categories adopted in respect of the separate considerations of scale, geographic extent, duration.

APPENDIX 1 – LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Table 5: Magnitude of Landscape Effects

Type of Effect	Magnitude of Effects			
Size/Scale	**Major**	**Moderate**	**Minor**	**Negligible / None**
	Total loss of, or major alteration to key elements/ features/ characteristics of the Site and/ or the introduction of elements totally uncharacteristic to the receiving landscape	Partial loss of or alteration to one or more key elements/ features/ characteristics of the Site and/or introduction of elements that would be evident, but not necessarily uncharacteristic to the receiving landscape	Limited loss of or alteration to one or more key elements/ features/ characteristics of the Site and/ or introduction of elements characteristic with the receiving landscape.	Very minor or no loss or alteration to one or more key elements/ features / characteristics of the Site and/ or introduction of elements characteristic within the surrounding landscape – approximating to a "no change" situation.
Geographic Extent	Extensive	Major	Localised	Restricted
	Effects would be experienced over many landscape character types or area	Effects would extend over the major part of the landscape character type or area	Effects would be confined to the immediate setting of the Assessment Site	Effects would not extend beyond the Assessment Site
Duration	Long	Medium	Short	Construction Stage
	Over 15 years after completion of construction works	5-15 years after completion of construction works	0-5 years after completion of construction works	Restricted to construction stage (explain likely length of construction and any key stages)

The overall magnitude of landscape effects is then described on the basis of professional judgement on a Large / Medium / Small / Negligible basis. The separate assessments in respect of sensitivity and magnitude have been drawn together in the assessment in a single tabular form. An overall conclusion in respect of landscape change – the likely significant landscape effects - is set out in the assessment text. That overall conclusion is expressed by reference to the terms set out in the matrix at Table 6, showing the interrelationship between sensitivity of the landscape receptor and the magnitude of landscape effect. The principal conclusions deriving from the tabular presentation are then summarised in the assessment text.

Table 6: Landscape Effects

		Sensitivity of Receptor		
		High	**Medium**	**Low**
Magnitude of Effect	**Large**	MAJOR	MAJOR/ MODERATE	MODERATE
	Medium	MAJOR/ MODERATE	MODERATE	MINOR
	Small	MODERATE	MINOR	NEGLIGIBLE
	Negligible	MINOR	NEGLIGIBLE	NEGLIGIBLE
	None	NEUTRAL	NEUTRAL	NEUTRAL

In Table 6 the terms used to describe overall landscape effects are taken to have the following meanings, particularly in respect of the purpose of the Assessment to identify likely significant environmental effects:

- Major: Would fundamentally change the existing landscape and would thus constitute a significant environmental effect.
- Major / Moderate: Would substantially change the existing landscape and would thus constitute a significant environmental effect.
- Moderate: Would bring about some change to the existing landscape but would not constitute a significant environmental effect.
- Minor: Would entail only limited change to the existing landscape and would not constitute a significant environmental effect.
- Negligible: Would entail negligible change to the existing landscape and would not constitute a significant environmental effect.
- Neutral: Would be approximate to a no-change situation.

APPENDIX 1 – LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Assessment of Visual Effects

In respect of the judgment to be made of the sensitivity of visual receptors, the susceptibility to specific change for each landscape receptor is categorised as set out below.

Table 7: Susceptibility of Visual Receptors to Change

Type of Visual Receptor	Susceptibility of Specific Change	Notes
Residential Property	High	Residential properties are considered the most sensitive of potential visual receptors and are thus accorded a High susceptibility. It is an established tenet that the planning system does not serve to protect private interests; the issue is not whether owners and occupiers of neighbouring properties would experience financial or other loss (including visual effect) from a particular development but whether such development would unacceptably affect amenities and the existing use of land and buildings which ought to be protected in the public interest. Thus, in seeking to assess the visual effects of development account should be taken of the effects on residential property, but it is pertinent to note that purely private interests may carry less weight than public interests.
Commercial Property / Places of Employment	Low to Medium	Indoor workers are likely to have a Low susceptibility; outdoor workers (e.g. in agriculture) a Medium susceptibility.
Public Roads	Low to Medium	The degree of susceptibility will vary according to the nature of the road and its primary purpose for users. Motorways and trunk roads are taken to have a Low susceptibility; A class roads a Low to Medium susceptibility, and all other roads a medium susceptibility.
Public Rights of Way / Cycleways	High	The degree of susceptibility will vary according to the nature of the PRoW and its primary purpose for users. Bridleways and PRoW designated locally as specific routes are taken to have a High susceptibility.
Informal Paths	Medium to High	Informal paths have been taken to have a Medium to High susceptibility.
public open space	High	Users of areas of POS are likely to be at leisure, and thus such areas are taken to have a High susceptibility.
Cultural Heritage Sites	High	Users of areas of cultural heritage sites are likely to be at leisure, and thus such areas are taken to have a High susceptibility.
Recreational Land	Medium	Users of recreational land are likely to be at leisure but are taken to be focussed primarily on the recreational activity, and thus such areas are taken to have a Medium susceptibility.

The value of views is categorized as set out below:

Table 8: Criteria for Value of Views

Magnitude	Criteria
High	A unique or identified view (e.g. shown as such on OS map or marked on a tourist map) or one noted in literature
Medium	A typical and/ or representative view from a particular receptor type
Low	Undistinguished or unprepossessing view

In respect of the magnitude of visual effects, Table 9 below sets out the judgements to be made, and the categories adopted in respect of the separate considerations of scale, geographic extent, duration, and reversibility.

APPENDIX 1 – LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Table 9: Criteria for Determination of Visual Effect

Type of Effect	Magnitude of Effects			
Size/Scale	**Major**	**Moderate**	**Minor**	**Negligible / None**
	The proposals form a significant and immediately apparent part of the view that will change its overall character.	The proposals will form a visible and recognisable new element within the overall view and will be readily noticed by the observer.	The proposals constitute only a minor component of the wider view, which might be overlooked by the casual observer. Awareness of the proposals will not have a marked effect on the overall quality of the view.	Only a very small Part (or no part) of the proposal will be discernible and / or it will be at such a distance that it will be scarcely appreciated, and consequently it will have very little/ no effect on the view.
Geographic Extent	Extensive	Major	Localised	Restricted
	Effects would affect all the visual receptor/ and/ or would be seen at close distance.	Effects would extend over the major parts of the visual receptor and/ or would be seen at medium distance.	Effects would be confined to part/s of the visual receptor and/ or would be seen at long distance.	Effects would be confined to edges of/ glimpse views from the visual receptor and/ or would be seen at long distance.
Duration	Long	Medium	Short	Construction Stage
	The visual effect, even considering mitigation works, will still obtain 15 years after completion of construction works	The visual effect, taking into account mitigation works, will obtain for between 5-15 years after completion of construction works	The visual effect, taking into account mitigation works, will obtain for up to 5 years after completion of construction works	Restricted to construction stage (explain likely length of construction and any key stages)

The overall magnitude of visual effects is then described on the basis of professional judgement on a Large / Medium / Small / Negligible basis. The separate assessments in respect of visual sensitivity and magnitude have been drawn together in the assessment in a single tabular form. An overall conclusion in respect of visual change – the likely significant visual effects - is set out in the assessment text. That overall conclusion is expressed by reference to the terms set out in the matrix at Table 10, showing the interrelationship between sensitivity of the visual receptor and the magnitude of visual effect. The principal conclusions deriving from the tabular presentation are then summarised in the assessment text.

Table 10: Visual Effects

Magnitude of Effect	Sensitivity of Receptor: High	Medium	Low
Large	MAJOR	MAJOR/ MODERATE	MODERATE
Medium	MAJOR/ MODERATE	MODERATE	MINOR
Small	MODERATE	MINOR	NEGLIGIBLE
Negligible	MINOR	NEGLIGIBLE	NEGLIGIBLE
None	NEUTRAL	NEUTRAL	NEUTRAL

In Table 10 the terms used to describe overall visual effects are taken to have the following meanings, particularly in respect of the purpose of the Assessment to identify likely significant environmental effects:

- Major: Would fundamentally change the existing view and would thus constitute a significant environmental effect.
- Major/ Moderate: Would substantially change the existing view and would thus constitute a significant environmental effect.
- Moderate: Would bring about some change to the existing view but would not constitute a significant environmental effect.
- Minor: Would entail only limited change to the existing view and would not constitute a significant environmental effect.
- Negligible: Would entail negligible change to the existing view and would not constitute a significant environmental effect.
- Neutral: Would be approximate to a no-change situation.

APPENDIX 1 - LANDSCAPE AND VISUAL ASSESSMENT METHODOLOGY

Overall Assessment of Landscape and Visual Effects

The separate conclusions in respect of likely significant landscape and visual (as described above) are set out in the assessment text.

Visual Baseline Conditions

The following specific desk-based tasks have been undertaken:

- Identification and field assessment of potential receptors within the visual envelope and an assessment of their sensitivity.

- Appreciation of the nature and importance of existing views experienced by the identified receptors.

The visual assessment involved an initial desk-based review of OS mapping to establish the wider context within which views initially appear to be set, followed by Site surveys to establish the form and nature of specific views and the role of the proposed development area in such views.

Methodology for Preparation of Photographs

The Site survey includes a photographic record of the viewpoints. At each of the viewpoints the following details are recorded;

- The grid reference (of the viewpoint);

- The viewer height (measured to the lens of the camera);

- The date (of survey);

- The distance to the development (from the viewpoint).

The photographs have been taken using a digital SLR camera with a 50mm fixed focal length lens, giving a focal length equivalent to 75mm on a 35mm film camera. The photographs were taken in accordance with guidance outlined in the document 'Visual Representation of Development Proposals - Technical Guidance Note 06/19' (Landscape Institute; 2019).

GET IN TOUCH

Call our team
0161 312 3131

Or email us
hello@weareurbangreen.co.uk

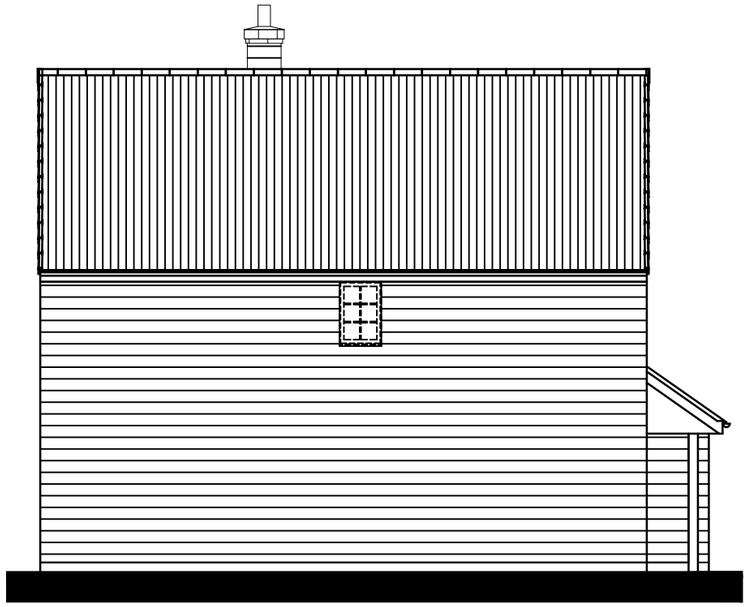
Visit us
Ground Floor, The Tower
Deva City Office Park, Trinity Way
Manchester, M3 7BF

URBAN GREEN

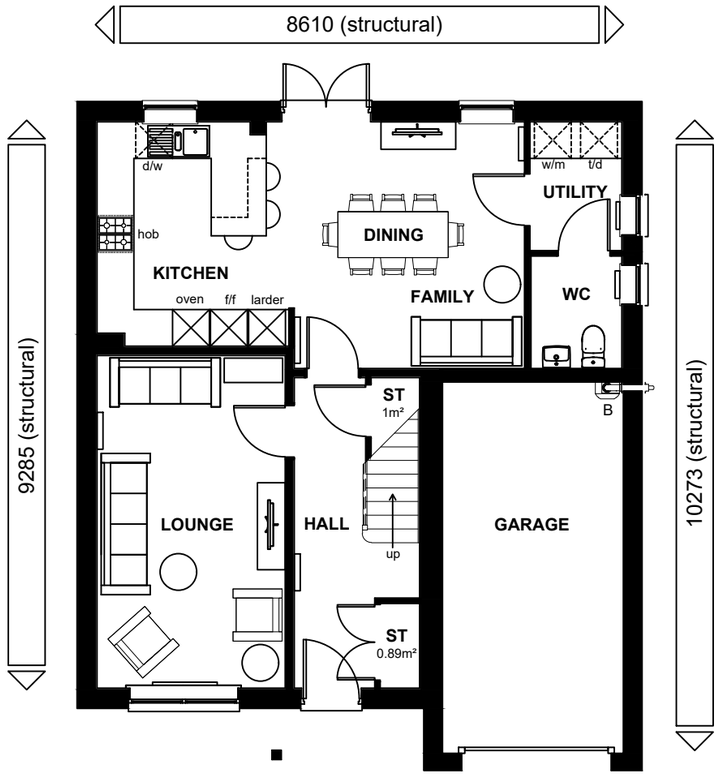
All content copyright © 2024 Urban Green Space Ltd.

FRONT ELEVATION

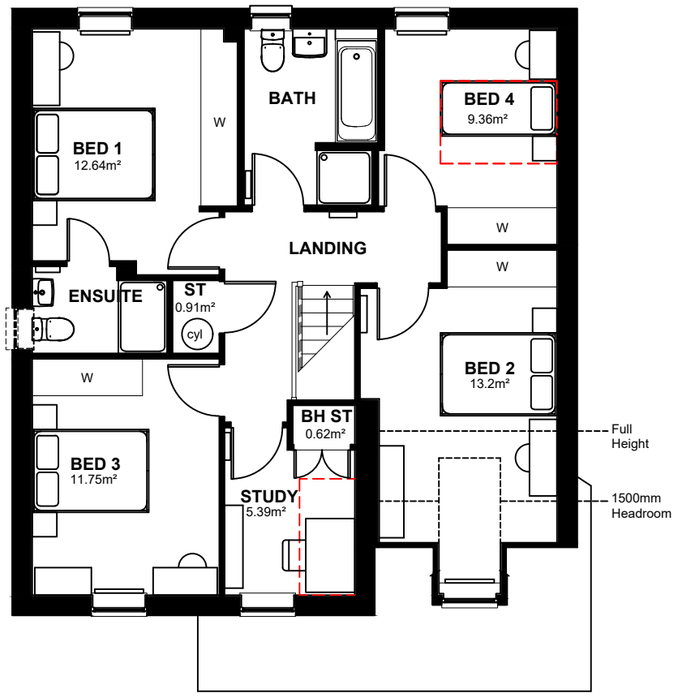
REAR ELEVATION



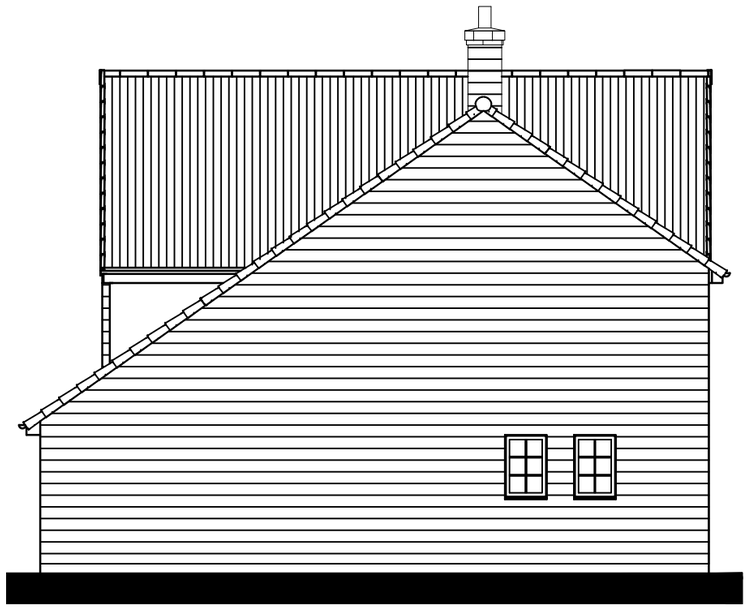
SIDE ELEVATION



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SIDE ELEVATION

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
4B / 7P	115m²	137.21m²	3.0m²	3.42m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 1495 Sq ft / 138.95m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: HAWESWATER (ASHBURTON)

House Type Code: YHWR XOGD

Spec: EMBASSY Drawing No: 01 Date: JAN 23

Drawn: GDT Checked: GDT Scale: 1: 100

BARRATT HOMES

HOGSHAW FARM

Land at Hogshaw, SK17 7HN

Addendum to Design and Access Statement 499-DAS01 Rev B

Full application HPK/2023/0192

Contents

- 1.00 Introduction
- 2.00 Unit Numbers & Distribution
- 3.00 Layout
- 4.00 Design Updates
- 5.00 Landscaping
- 6.00 Appearance
- 7.00 Access

1.00 Introduction

1.01 Planning application HPK/2023/0192 was submitted to the LPA on 15/05/2023. It comprised of a full application for 116 dwellings on land at Hogshaw Farm in Buxton. It presented detail material in relation to access and perimeter landscaping, with matter of layout, scale, appearance and internal landscaping for subsequent approval. A layout accompanied the application, as referenced to in the original Design & Access Statement (DAS)

1.02 The purpose of this DAS addendum is to discuss the changes within the design to accommodate comments that were received from the Local Planning Authority on our original scheme and application.

1.03 This revised proposal seeks full consent for 99 dwellings which represents a reduction of 17 units.

2.00 Unit Numbers and Distribution

2.01 This planning permission seeks consent for the development of 10.4 acres of land for 107 dwellings comprising:

- 11 – 2 bedroom houses
- 48 – 3 bedroom houses
- 40 – 4 bedroom houses

2.02 Due to the existing topography, the development will consist of a series of development platforms which work with the hillside location.

2.03 Public open space surrounds development which provides amenity as well as doubling up as a natural buffer to the wider area. A SUDS pond is located to the north west whilst a LAP is proposed to the south adjacent to the public right of way, as requested by the LPA.

3.00 Layout

3.01 The design concept for this scheme follows the original submission but incorporates the LPA's comments and recommendations into the layout.

3.02 The DAS described the context of the area, and local character of surrounding buildings and landscape. In summary, these are as follows:

- A mix of housing types featuring mews, semi detached and detached dwellings.
- A strong presence of design features to ensure the development reflects the existing vernacular.
- A materials palette to help the development blend into the local environment.
- Predominately Dwellings with front and rear gardens.
- Boundary treatments to street frontages to separate private and public areas.
- A well designed open space that both offers recreation for residents as well as enhancing sustainability.

3.03 The same principals have been followed as per the original submission, and are followed through as part of this addendum.

3.04 The amended design sits entirely within the footprint of the previous layout and incorporates the original POS allocation.

4.00 Development & Layout updates

- The layout has been amended to retain a number of trees designated in Tree Preservation Order ref: 2023No311. The road design has been amended in the north eastern area of the site with dwellings fronting onto the boundary with the existing golf course. This allows the development to better respect the adjacent Conservation Area and to retain the existing trees on the boundary.
- We have proposed additional landscaping to enhance the retained flora to the northern boundaries to reduce the impact of development on the adjacent Conservation Area. In addition, chimneys have been introduced to plots where the development impacts the Conservation Area and adjacent residential development.
- Additional house types have been introduced to the scheme, as requested by the LPA, to reduce the amount of frontage parking and add impact to focal areas.
- A play area (LAP) has been proposed which will add further recreational benefit to the residents.

5.00 Landscaping

- The landscaping scheme is drawn from a selection of native species which reinforces the biodiversity of the development.
- The design has been updated to enhance the natural buffers to the northern and eastern boundaries by using a mixture of shrubs, trees and hedges.
- Soft landscaping has been used to break up hard surfaces in the street scene where possible.

Proposed Layout

- Appendix A.

Proposed Street Scenes.

- Appendix B.

6.00 Appearance

6.01 The chosen materials are as per the original submission and follows the same principals established in the original DAS.

6.02 All proposed units will be finished with white front doors and garage doors with black rainwater goods.

6.03 The arrangement of the boundary treatments follows the principals established in the original submission.

6.04 The arrangement of the hard landscaping follows the principals established in the original submission.

7.00 Access

7.01 No alterations to the main point of access are proposed as part of this DAS addendum.

8.00 Conclusion

The proposed development will provide 99 new homes in a range of types and sizes to meet the local area need.

Well informed design and material choice will give the development longevity, contribute to the townscape and raise aspirations of the area.

Accordingly, we hope that the planning permission will be granted for the proposed development.

BARRATT HOMES

Appendix A;

SCHEDULE OF ACCOMMODATION

Barratt Type	House Type	Sqft	No	Total Sqft
Private Units				
Rowan - End	2 Bed Terraced House	866	10	8660
Rowan - Mid	2 Bed Terraced House	866	1	866
Oakmoor - End	3 Bed Bed Semi / Mews House Duel Aspect End Unit	1049	1	1049
Birchmoor - End	3 Bed Terraced House	1025	3	3075
Rathlin	3 Bed Detached House	990	11	10890
Matlock - End	3 Bed Semi / Mews House	970	23	22310
Hopton	3 Bed Detached / Semi Detached Dual Aspect House	1017	9	9153
Hopton - End	3 Bed Detached / Semi Detached Dual Aspect House	1017	1	1017
Knightwood - End	4 Bed Townhouse	1122	18	20196
Ashtead	4 Bed Dual Aspect Detached House	1265	4	5060
Wallasea	4 Bedroom Int. Garage Detached House	1206	11	13266
Haweswater	4 Bedroom Int. Garage Detached House	1495	7	10465
Total number of units and square footage			**99**	**106007**
Gross Site Area in Acres				**10.39**
Open Space & Undevelopable Area in Acres				**3.18**
Net Site Area in Acres				**7.21**
Density (Units per Acre)				**14**
Density (Units per Hectare)				**34**
Square Foot / Acre				**14,703**

North

AGRICULTURAL LAND

PUMPING STATION

SUDS

LOCAL WILDLIFE AREA

GOLF COURSE

Nunsfield Farm

Fairfield Commc

Potential Future Link Road

ENTRANCE STATEMENT

SUBSTATION

TEMP SALES PARKING

PLAY AREA (LAP) Refer to drawing 2402.41929

St Peter's Church

The Devonshire Coach House

Northlands

Links View

NORTH ROAD

GLENMOOR ROAD

BARMS WAY

Nestle Water

Existing connection to remain open

Buxton FP 2

Buxton FP 1

Buxton FP 77

B.O.A.T

ARM 3

ARM 4

RKS

Sub Sta

Legend:

- Proposed dwelling and house type code.
- Proposed garage to be built.
- Grass, refer to detailed landscpaing plans for details.
- Wall (Refer to BTL01/BTD01&02 for details)
- Timber gates to be erected to rear gardens. (as indicated on site layout).
- Existing trees to be retained & protected during works.
- Trees to be removed, refer to 1795_ARB_AIA & 1795_ARB_AMS for details.
- Root Protection Zone
- Indicates a tree with a TPO.
- Water main easement, 5m wide as confirmed by Ward Hadaway.
- AS OPP — Dwelling handing - as / opposite see the construction dwg.
- Refuse collection area
- EV — Car charging point, refer to EVCP info pack for specs & positioning details.
- PROW.
- GRP Chimney
- Indicative Landscaping, refer to UG_1795_Lan_SI_01-05 for details.

HOGSHAW FARM BUXTON

Revision	Description	Date	Design By
03	Flipped plot 16, pulled 16&17 south 1m, revised multi use footpath position, various minor tweaks to suit ENG comments.	28/06/24	GB
02	Layout updated to various internal comments.	18/06/24	GB

Project: HOGSHAW FARM

Description: PLANNING LAYOUT

Design By:	Date:	Scale at A0:	Revision:
GB	11/06/2024	1:500	3

Project	Originator	Functional	Spatial	Form	Discipline	Number
H8797	- BAH -	XX	- XX -	DR -	UD -	203001

Do not scale from this drawing. Work to given dimensions only. Any discrepancies are to be reported to Originator.

© Barratt Homes Ltd.

Appendix B;

SECTION A-A

Scale 1:200

SECTION A-A CONTINUED

Scale 1:200

SECTION B-B

Scale 1:200

SECTION C-C

Scale 1:200

Scale 1:500

WARNING TO HOUSE PURCHASERS
Property Misdescriptions Act 1991

Buyers are warned that this is a working drawing and is not intended to be treated as descriptive material describing, in relation to any particular property or development, any of the specified matters prescribed by any Order made under the above act. The contents of this drawing may be subject to change at any time, and alterations and variations can occur during the progress of the works without revisions of the drawing. Consequently the layout, form, content and dimensions of the finished construction may differ materially from those shown. Nor do the contents of this drawing constitute a contract, part of any contract, or warranty.

Rev	Description	Date	Drawn	Chk'd

BARRATT
HOMES
MANCHESTER

Barratt Homes Manchester
(A division of BDW Trading Ltd)
4 Brindley Road
City Park
Manchester
M16 9HQ
Tel: 0161 872 0161
Fax: 0161 855 2828

Job	HOGSHAW FARM, BUXTON
Title	PROPOSED STREET SCENES

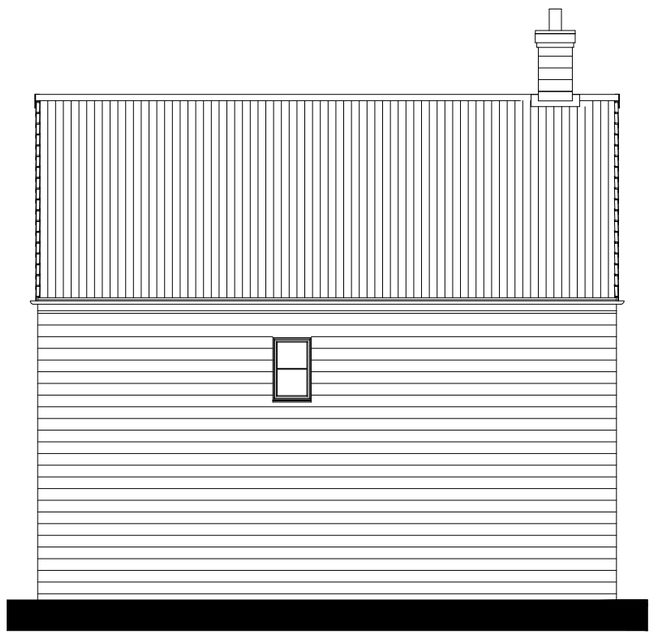
Design By	Date	Drawing Number	Rev
GB	JULY 2024	499-P-SS02	-
Drawn By	Scale @ A1		
GB	VARIOUS		

PROTOTYPE 100 CAVITY

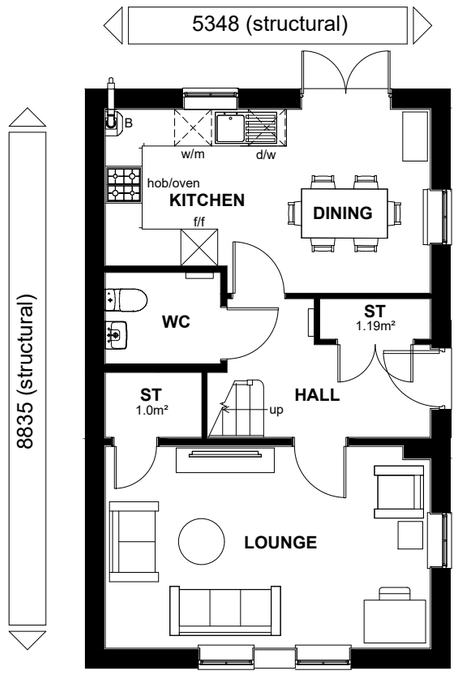
BARRATT DEVELOPMENTS PLC

FRONT ELEVATION 1

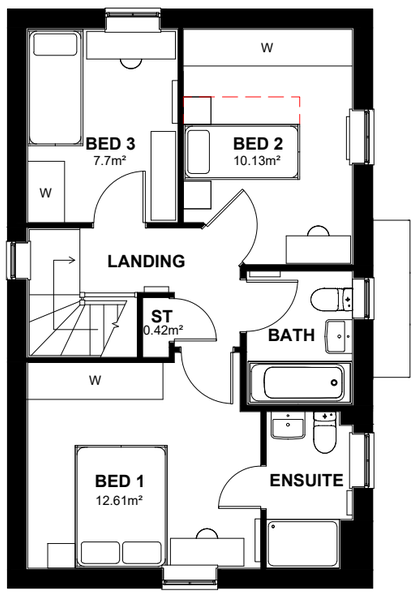
FRONT ELEVATION 2



SIDE ELEVATION / SECTION



GROUND FLOOR PLAN



FIRST FLOOR PLAN

REAR ELEVATION

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ,D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ,D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 4P	84m²	93.08m²	2.5m²	2.61m²

NON-FUNCTIONAL CHIMNEY TO PLOTS: 11, 40, 41 & 74

CAT 2 + NDSS

TOTAL FLOOR AREA : 1017Sq ft / 94.49m2

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: HOPTON (MORESBY)

House Type Code: YHOP X0GD

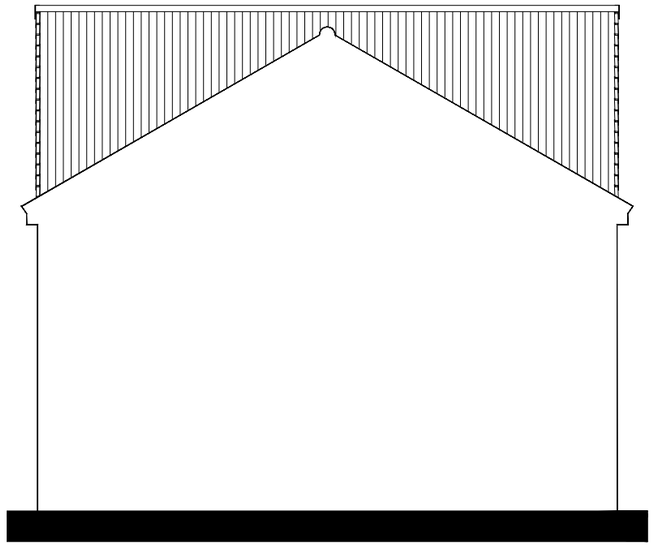
Spec: AMBASSADOR Drawing No: 01 Date: JAN 23

Drawn: GDT Checked: GDT Scale: 1: 100

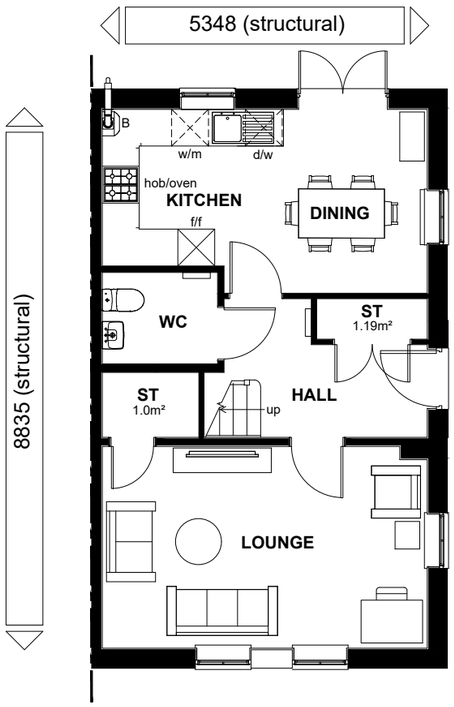
PROTOTYPE 100 CAVITY

FRONT ELEVATION 1

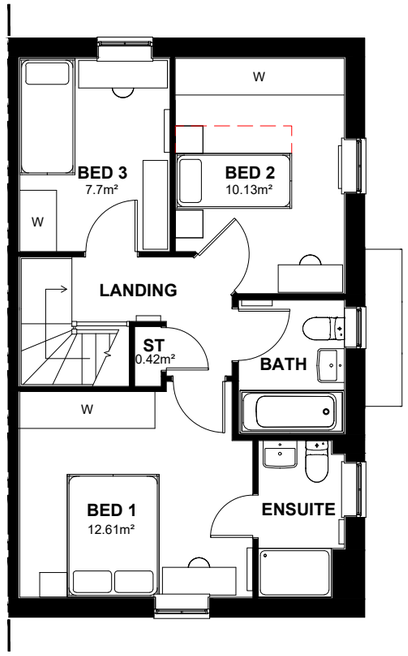
FRONT ELEVATION 2



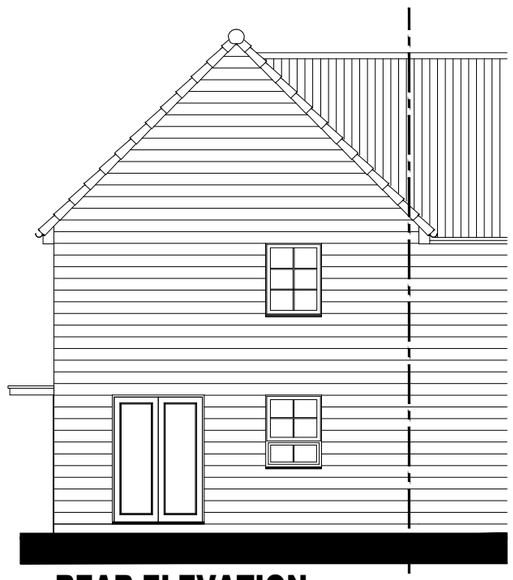
SIDE ELEVATION / SECTION



GROUND FLOOR PLAN



FIRST FLOOR PLAN



REAR ELEVATION

NON-FUNCTIONAL CHIMNEY TO PLOTS: 11, 40, 41 & 74

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ,D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ,D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 4P	84m²	93.08m²	2.5m²	2.61m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 1017Sq ft / 94.49m2

BARRATT DEVELOPMENTS PLC

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

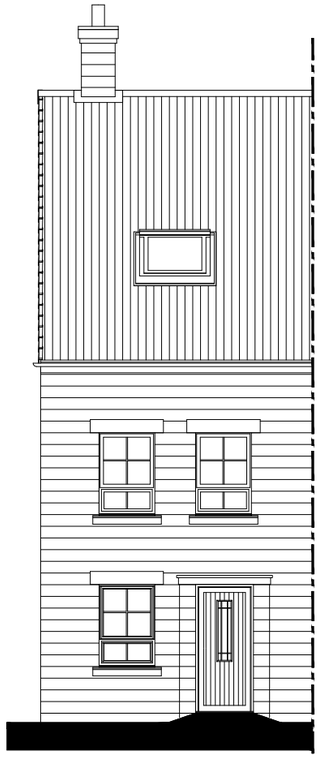
Sales Name: HOPTON END (MORESBY)

House Type Code: YHOP X0GE

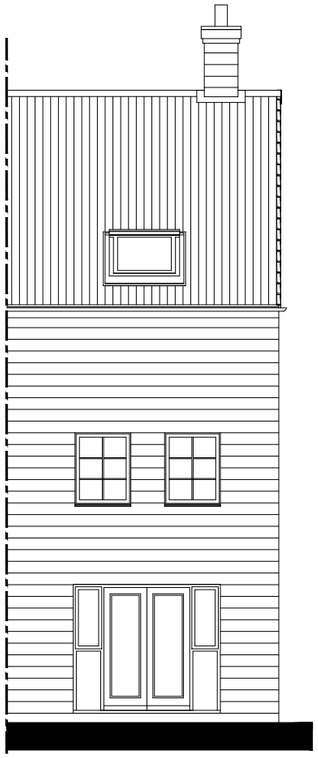
Spec: AMBASSADOR Drawing No: 01 Date: JAN 23

Drawn: GDT Checked: GDT Scale: 1: 100

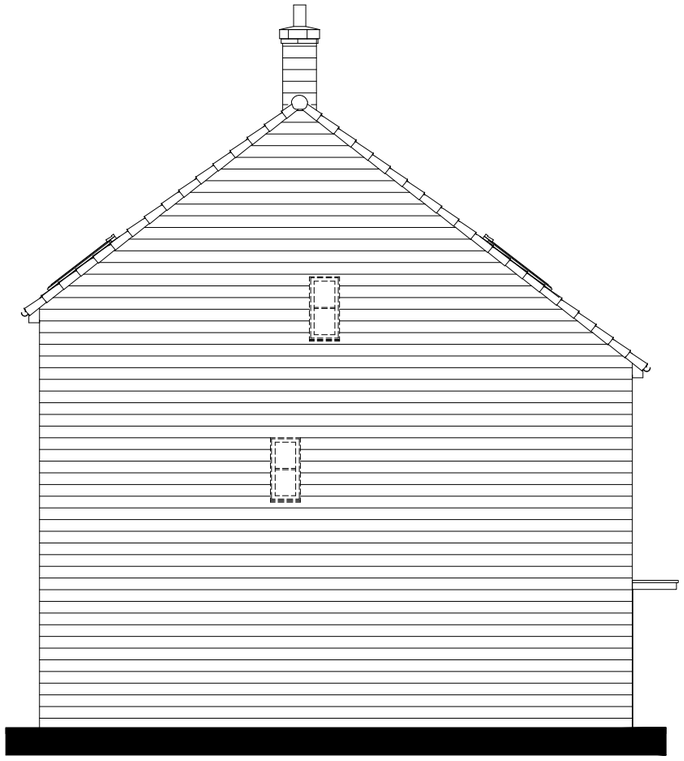
PROTOTYPE 100 CAVITY



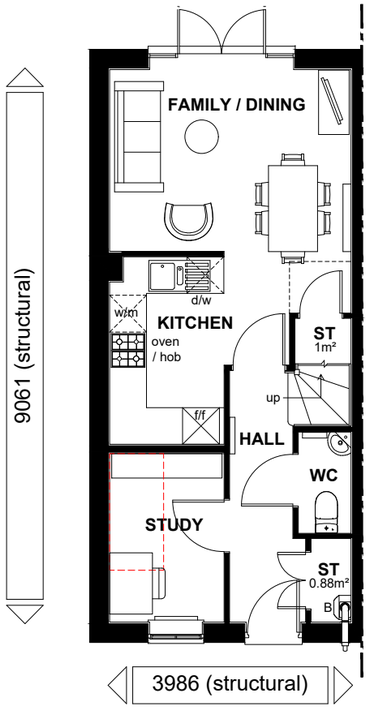
FRONT ELEVATION



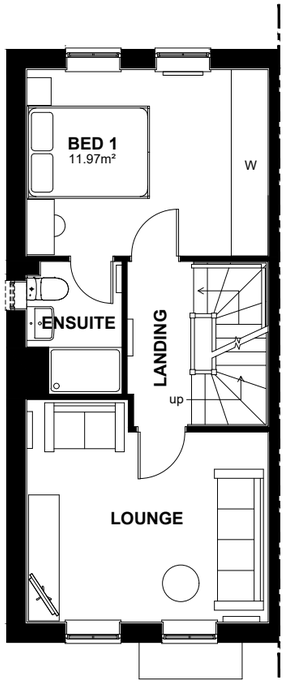
REAR ELEVATION



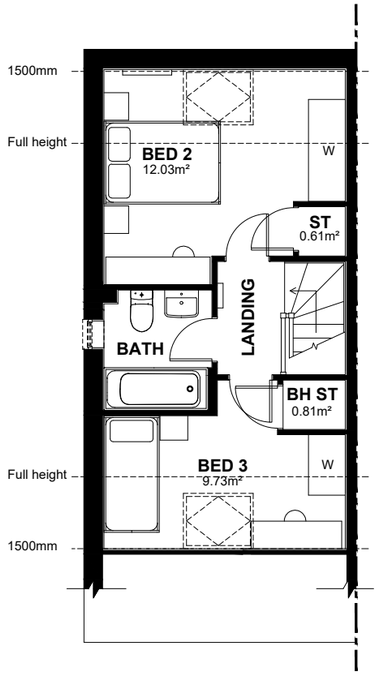
SIDE ELEVATION



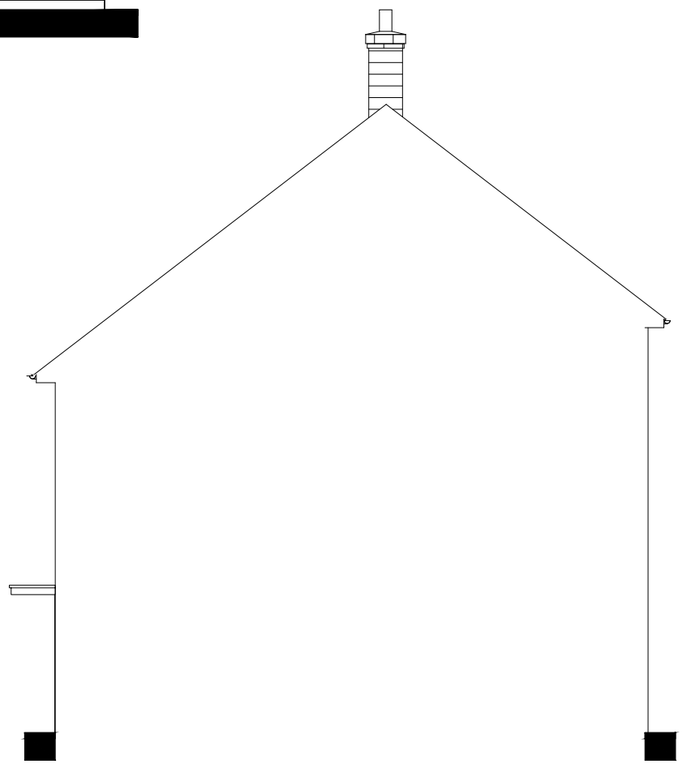
GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



SIDE ELEVATION / SECTION

NON-FUNCTIONAL CHIMNEY TO PLOTS: 2, 3, 78, 79, 83, 84

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 5P	99m²	102.5m²	3m²	3.3m²

CAT 1 + NDSS

TOTAL FLOOR AREA : 1122 Sq ft / 104.26m2

BARRATT DEVELOPMENTS PLC

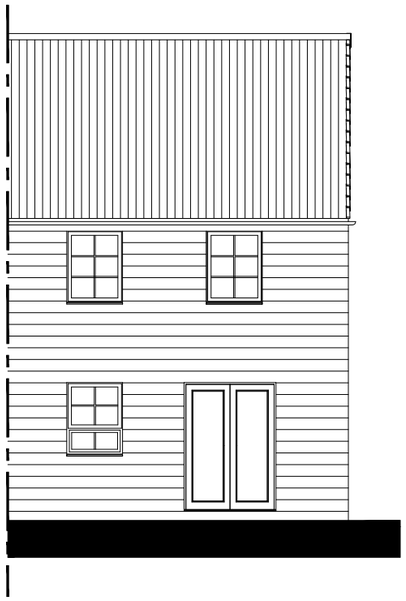
Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

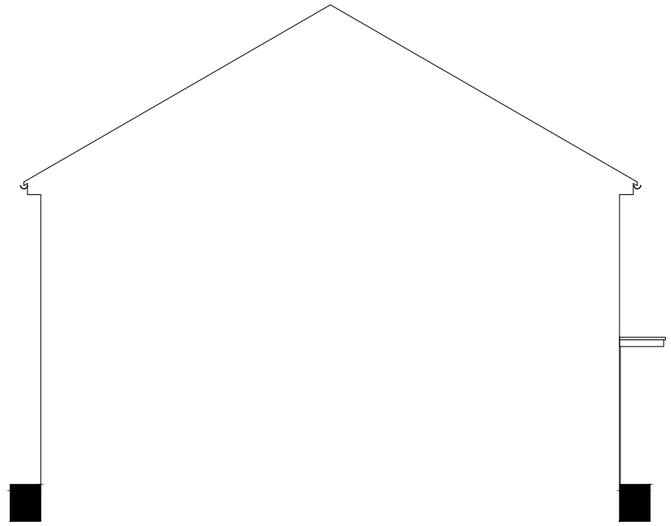
WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The Developer reserves the right to change any detail prior to construction. Whilst we make every effort to ensure our drawings are up to date they may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: KNIGHTWOOD (KINGSVILLE)
House Type Code: NKNI X0GE
Spec: EMBASSY Drawing No: 01 Date: JAN 23
Drawn: GDT Checked: GDT Scale: 1: 100

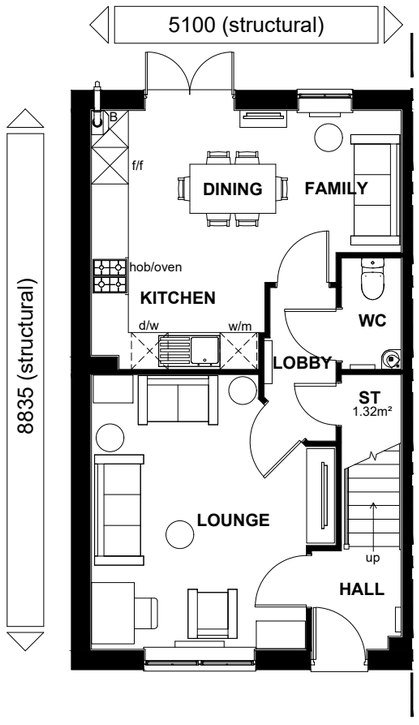
FRONT ELEVATION



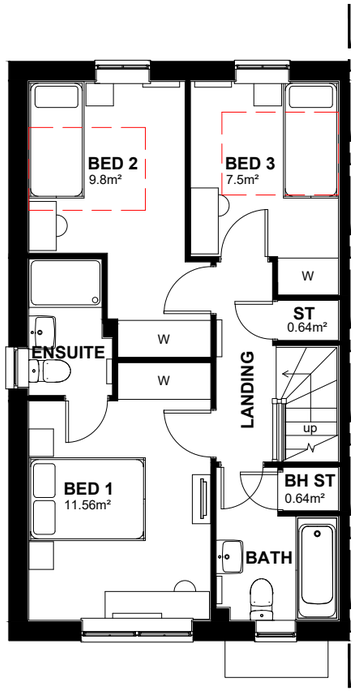
REAR ELEVATION



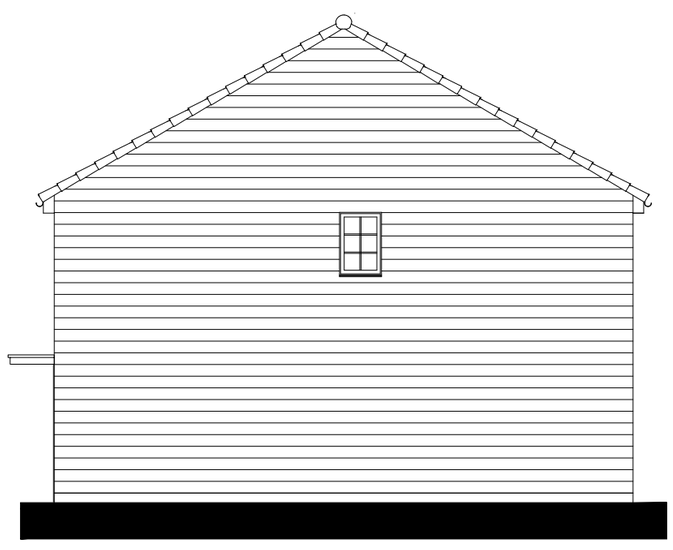
SIDE ELEVATION / SECTION



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SIDE ELEVATION

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 4P	84m²	88.72m²	2.5m²	2.6m²

CAT 1 + NDSS

TOTAL FLOOR AREA : 970 Sq ft / 90.12m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE-PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract part of a contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

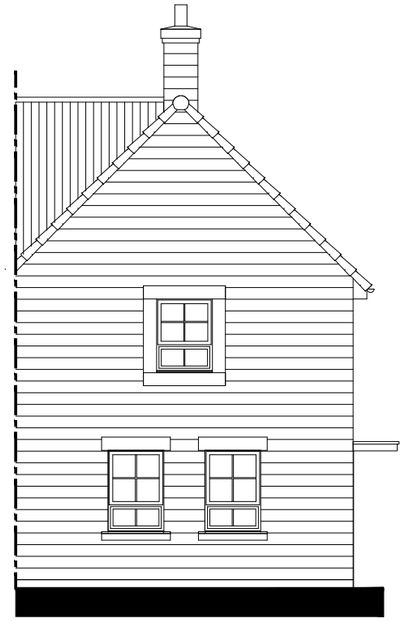
Sales Name: MATLOCK (MAIDSTONE)

House Type Code: NMAT X0HE

Spec: AMBASSADOR Drawing No: 01 Date:JAN 23

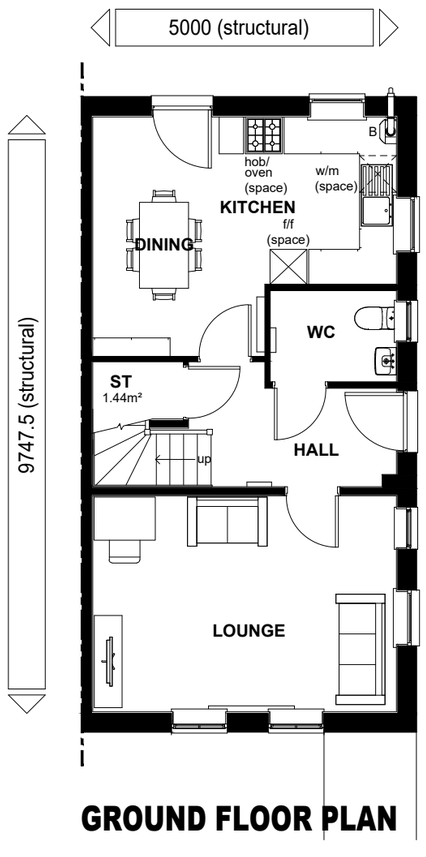
Drawn: GDT Checked: GDT Scale: 1: 100

FRONT ELEVATION 1

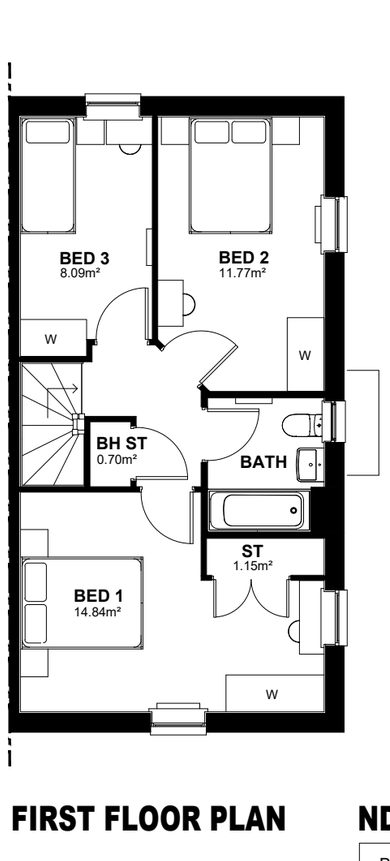


FRONT ELEVATION 2

REAR ELEVATION



GROUND FLOOR PLAN



FIRST FLOOR PLAN

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 5P	93m²	96.0m²	2.5m²	3.29m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 1049 Sq ft / 97.46 m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

WARNING TO HOUSE-PURCHASERS:
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: Oakmoor

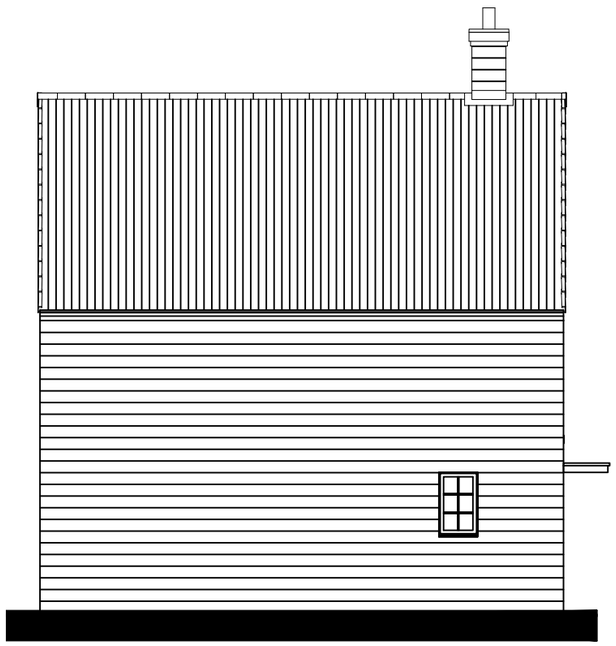
House Type Code: BOAK X0GE

Spec: AFF | Drawing No: 01 | Date:JAN 23

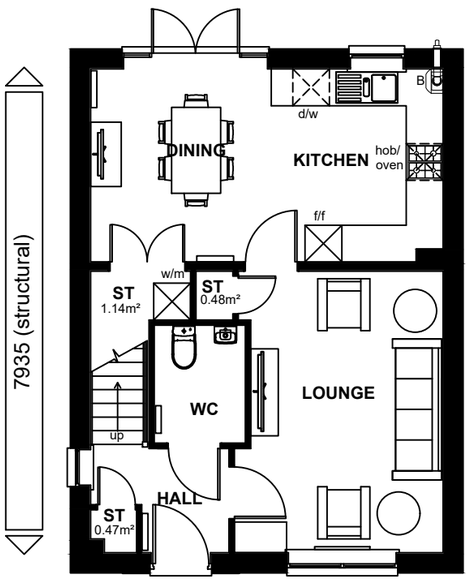
Drawn: GDT | Checked: GDT | Scale: 1: 100

FRONT ELEVATION

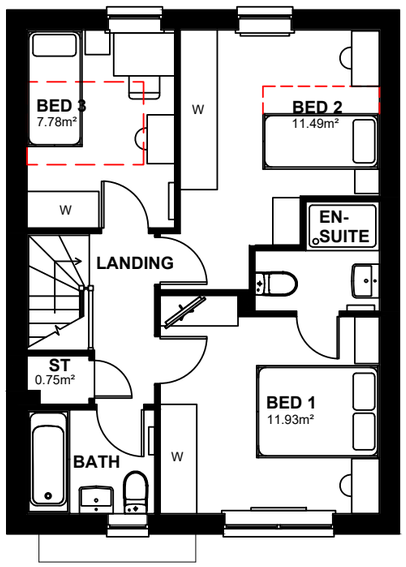
FRONT ELEVATION



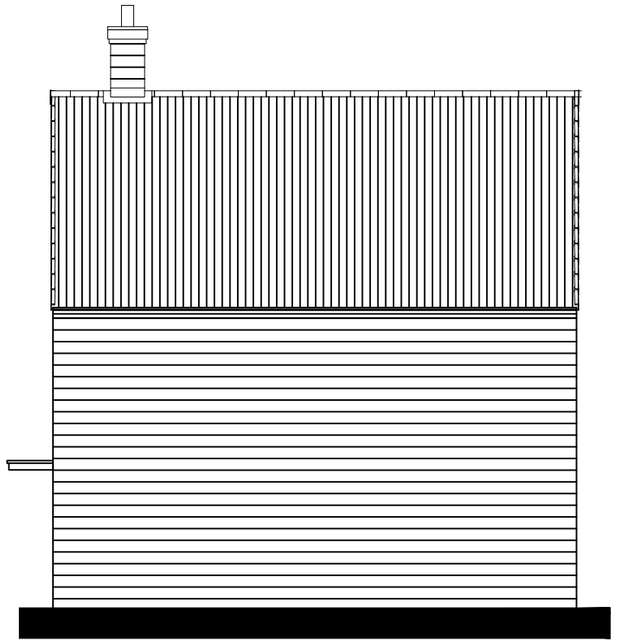
SIDE ELEVATION



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SIDE ELEVATION

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
3B / 4P	84m²	190.66m²	2.5m²	2.84m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 990ft² / 92.02m² (Structural)

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE PURCHASERS.
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be a variation between our drawings and the actual dwelling due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: RATHLIN (COLLATON)

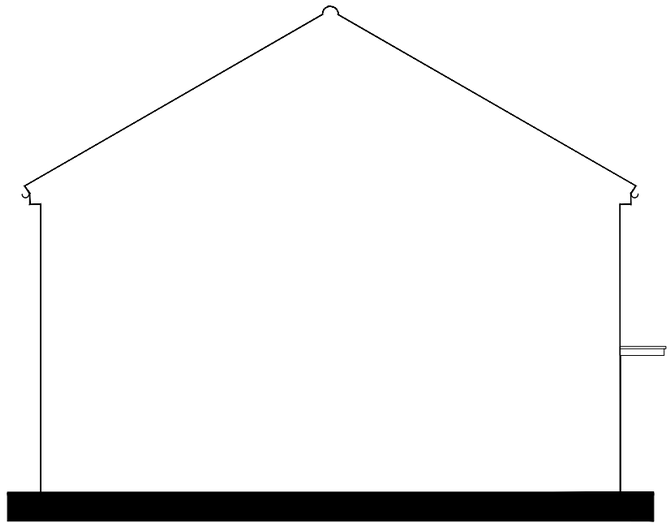
House Type Code:YRLN X0FD

Spec:AMBASSADOR Drawing No:01 Date: JAN 23

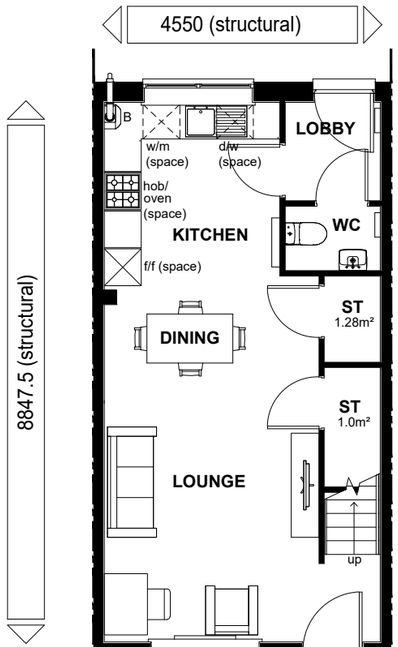
Drawn: GDT Checked: GDT Scale: 1: 100

FRONT ELEVATION

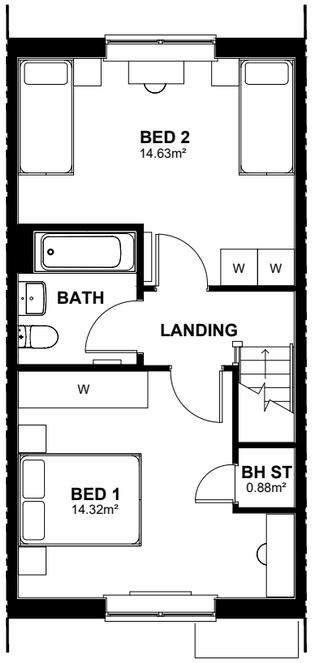
REAR ELEVATION



SIDE ELEVATION / SECTION



GROUND FLOOR PLAN



FIRST FLOOR PLAN

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
2B / 4P	79m²	79.16m²	2.0m²	3.16m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 866 Sq ft / 80.50m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

WARNING TO HOUSE-PURCHASERS:
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: ROWAN MID

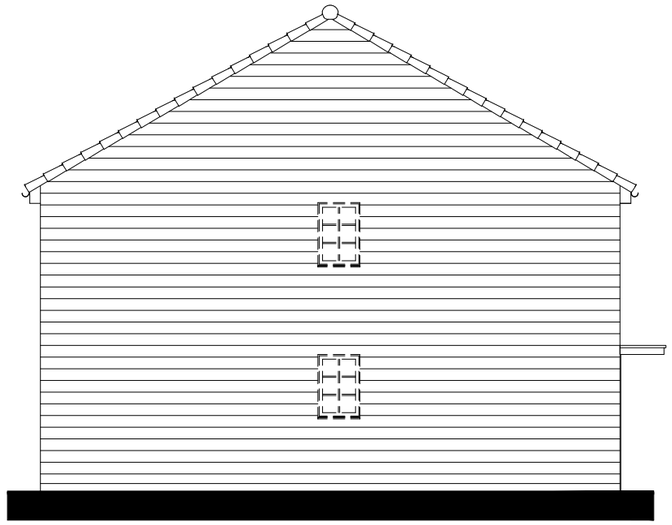
House Type Code: BROW X0CI

Spec: AFF | Drawing No: 01 | Date: JAN 23

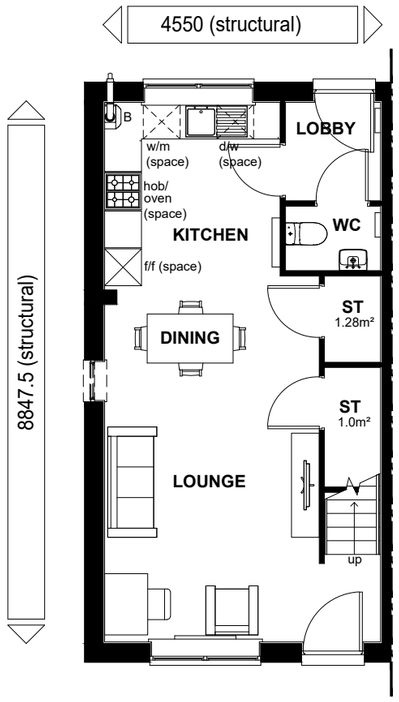
Drawn: GDT | Checked: GDT | Scale: 1: 100

FRONT ELEVATION

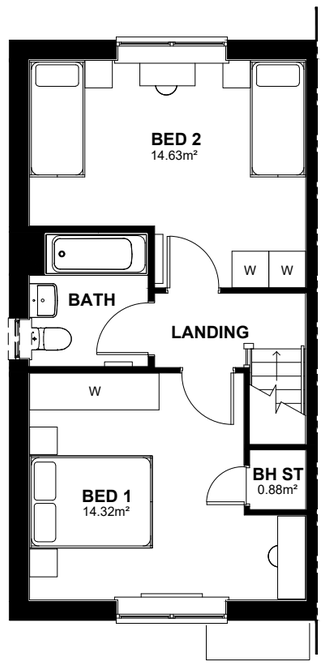
REAR ELEVATION



SIDE ELEVATION / SECTION



GROUND FLOOR PLAN



FIRST FLOOR PLAN

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ'D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ'D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
2B / 4P	79m²	79.16m²	2.0m²	3.16m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 866 Sq ft / 80.50m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

WARNING TO HOUSE-PURCHASERS:
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: ROWAN

House Type Code: BROW X0HE

Spec: AFF | Drawing No: 01 | Date: JAN 23

Drawn: GDT | Checked: GDT | Scale: 1: 100

emery PLANNING

1-4 South Park Court, Hobson Street
Macclesfield, Cheshire, SK11 8BS
+44 (0) 1625 433 881

Regus House, Herons Way,
Chester Business Park, CH4 9QP
+44 (0) 1244 732 447

Ms Rachael Simpkin
High Peak Borough Council - Planning
Buxton Town Hall
Market Place
Buxton
Derbyshire
SK17 6EL

26 July 2024
EP ref: 21-270

Dear Rachael,

Re: Application ref. HPK/2023/0192 – Land at Hogshaw, Fairfield, Buxton, Derbyshire

We are writing in relation to application ref. HPK/2023/0192 at Land at Hogshaw. As discussed, we have revised the scheme and now submit the following documents:

- Planning Layout (H8797-BAH-XX-XX-DR-UD-203001 Rev. P03)
- Hard Landscaping Plan (H8797-BAH-XX-XX-DR-UD-203200)
- Refuse Plan (H8797-BAH-XX-XX-DR-UD-203500)
- Storey Heights (H8797-BAH-XX-XX-DR-UD-203025)
- Materials Layout (H8797-BAH-XX-XX-DR-UD-203150)
- Boundary Treatments Layout (H8797-BAH-XX-XX-DR-UD-203250)
- Proposed Street Scene (499-P-SS02)
- Site Sections (499-P-SSE02)
- Response to Urban Design Comments, prepared by eSCAPE Urbanists (July 2024)
- Noise Impact Assessment, prepared by e3p (June 2024)
- Preliminary Drainage Design (H8797-BAH-XX-XX-DR-CE-300001)
- Preliminary External Levels Sheet 1 (H8797-BAH-XX-XX-DR-GE-313100)
- Preliminary External Levels Sheet 2 (H8797-BAH-XX-XX-DR-GE-313101)
- Preliminary External Levels Sheet 3 (H8797-BAH-XX-XX-DR-GE-313102)
- Transport Assessment, prepared by SCP (July 2024)
- Travel Plan, prepared by SCP (July 2024)

- Air Quality Assessment, prepared by Smith Grant LLP (15/07/2024)
- Arboricultural Method Statement, prepared by Urban Green (UG_1795_ARB_AMS_05)
- Arboricultural Impact Assessment (AIA), prepared by Urban Green (July 2024)
- Report on Drainage Strategy, prepared by Barratt Manchester (July 2024)
- Flood Risk Assessment and Drainage Strategy, prepared by JPP (Revision F: July 2024)
- General Arrangement Plan, prepared by Urban Green (UG_1795_LAN_SL_DRW_01 Rev. P10)
- Soft Landscape Plan 1/4, prepared by Urban Green (UG_1795_LAN_SL_DRW_02 Rev. P06)
- Soft Landscape Plan 2/4, prepared by Urban Green (UG_1795_LAN_SL_DRW_03 Rev. P06)
- Soft Landscape Plan 3/4, prepared by Urban Green (UG_1795_LAN_SL_DRW_04 Rev. P06)
- Soft Landscape Plan 4/4, prepared by Urban Green (UG_1795_LAN_SL_DRW_05 Rev. P06)
- Housing types:
    - Wallasea (Kennford)
    - Ashtead (Alderney)
    - Birchmoor
    - Haweswater (Ashburton)
    - Hopton (Moresby)
    - Hopton End (Moresby)
    - Knightwood (Kingsville)
    - Matlock (Maidstone)
    - Oakmoor
    - Rathlin (Collaton)
    - Rowan Mid
    - Rowan
- Biodiversity Net Gain Design Stage Assessment, prepared by Urban Green (July 2024);
- The Biodiversity Metric 3.1 – Calculation Tool (19/07/2024);
- Biodiversity Enhancement Management Plan, prepared by Urban Green (July 2024);
- Habitat Regulations Assessment Report, prepared by Urban Green (July 2024);
- Ecological Enhancement Strategy, prepared by Urban Green (July 2024);
- Landscape and Visual Impact Assessment, prepared by Urban Green (July 2024);
- Addendum to Design and Access Statement, prepared by Barratt Homes (499-DAS01 Rev. B);
- Supplementary Housing Mix Statement, prepared by Emery Planning (July 2024); and
- Planning Statement Addendum, prepared by Emery Planning (July 2024).

We trust that the submission provides you with the necessary information to re-consult and progress the application. However, please do not hesitate to contact me or Emily Sykes if you have any questions or require any further information.

Yours sincerely
Emery Planning

John Coxon

John Coxon BSc (Hons), MRTPI
Director

01625 442 785
johncoxon@emeryplanning.com

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Drainage pond as a draft indicative layout and subject to a full basin design by engineers

AGRICULTURAL LAND

LOCAL WILDLIFE AREA

Buxton FP 2

Buxton FP 1

Nestle Water Main 5m

Nestle Water

connection to remain open

remain open

PLAY AREA (LAP) (Refer to drawing 2402.)

KEY

Site Red Line Boundary

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

SCALE m 0 5 10 15 20 25 30 35 40 45 50
1:500

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P10	09/07/24	UPDATED LAYOUT	TH	SA
P09	01/07/24	UPDATED LAYOUT	TH	SA
P08	26/02/24	UPDATED LAYOUT	IG	SA
P07	14/02/24	UPDATED LAYOUT	RS	SA
P06	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P05	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA
P04	31/01/23	HARD LANDSCAPE OMITTED	RS	SA
P03	25/01/23	UPDATED LAYOUT	RS	SA

Client:	Project:	Drawn:	Checked:	Approved:	Date:
BARRATT HOMES	HOGSHAW FARM, BUXTON	RS	SA	ME	29/11/22

Issue:	Title:	Dwg No:	Scale @ A0:	Revision:
PLANNING	GENERAL ARRANGEMENT PLAN	UG_1795_LAN_GA_DRW_01	1:500	P10

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

LAND

SCALE m 0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0
1:250

For plant schedule, refer to UG_1795_LAN_SL_DRW_03

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P06	09/07/24	UPDATED LAYOUT	TH	SA
P05	01/07/24	UPDATED LAYOUT	TH	SA
P04	14/02/24	UPDATED LAYOUT	RS	SA
P03	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P02	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: BARRATT HOMES

Project: HOGSHAW FARM, BUXTON

Title: SOFT LANDSCAPE PLAN 1/4

Issue: PLANNING

Drawn:	Checked:	Approved:
RS	SA	ME
Project: UG1795	**Scale @ A0:** 1:250	**Date:** 25/01/23
Dwg No: UG_1795_LAN_SL_DRW_02		**Revision:** P06

Plant Schedule

QTY	UNIT	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT
Trees						
23	No.	ACE STR xhs18	Acer campestre "Streetwise"	RB	STD	18-20cm
22	No.	ACE PB XHS18	Acer pseudoplatanus "Brilliantissimum"	RB	STD	18-20cm
18	No.	ALN GLU hs	Alnus glutinosa	RB	STD	12-14cm
17	No.	AME RbH hs	Amelanchier 'Robin Hill'	RB	STD	12-14cm
48	No.	BET PEN hs12	Betula pendula	RB	STD	12-14cm
14	No.	BET PEN xhs18	Betula pendula	RB	STD	18-20cm
21	No.	CAR FRA hs	Carpinus betulus "Frans Fontaine"	RB	STD	12-14cm
5	No.	Ile Nel	Ilex aquipernyi 'Nellie Stevens'	C 45L	STD	12-14cm
6	No.	Lig jap	Ligustrum japonicum	C 45L	STD	12-14cm
6	No.	PHO Red	Photinia fraserii 'Red Robin'	C 45L	STD	14-14cm
17	No.	Pru pad hs	Prunus padus	RB	STD	12-14cm
10	No.	PRU Ros hs	Prunus subhirtella 'Autumnalis Rosea'	RB	STD	12-14cm
4	No.	PYR CHA xhs18	Pyrus calleryana "Chanticleer"	RB	STD	18-20cm
15	No.	QUE ROB12	Quercus robur	RB	STD	12-14cm
9	No.	SAL CAP hs	Salix caprea	RB	STD	12-14cm
22	No.	SOR AUC hs	Sorbus aucuparia	RB	STD	12-14cm
18	No.	TIL COR hs	Tilia cordata	RB	STD	12-14cm

QTY	UNIT	CODE	PLANT NAME	STOCK	SIZE
Hedges					
	m	Laurel hedge	Prunus lusitanica	7.5L	100-120cm
	No.	Plants spaced @ 3/m in a Single Row		To spine road gardens	
	m	Choisya hedge	Choisya ternata 'Sundance'	7.5L	80-100cm
	No.	Plants spaced @ 4/m in a Single Row		To street gardens	
	m	Euonymus hedge	Euonymus japonicus 'Green Rocket'	7.5L	80-100cm
	No.	Plants spaced @ 4/m in a Single Row		To street gardens	

PERCENT	QTY	UNIT	PLANT NAME	STOCK	SIZE
Plant Mixes					
GROUNDCOVER MIX planted @ 5/m2					
20%	No.		Skimmia 'Magic Marlot'	C 5L	30-40cm
20%	No.		Pachysandra terminalis 'Green Carpet'	C 5L	30-40cm
20%	No.		Liriope muscari	C 5L	Full pot
20%	No.		Heuchera 'Palace Purple'	C 5L	Full pot
20%	No.		Carex oshimensis 'Evergold'	C 5L	Full pot
Individual varieties to be planted in groups of approximately 3 or 5.					
SUN SHRUB/HERB. MIX planted @ 4/m2					
10%	No.		Potentilla fruticosa 'Abbotswood'	C 5L	30-40cm
10%	No.		Skimmia confusa 'Kew Green'	C 5L	30-40cm
10%	No.		Pinus mugo 'Mops'	C 5L	30-40cm
10%	No.		Lavandula angustifolia 'Grosso'	C 5L	30-40cm
10%	No.		Hypericum 'Hidcote'	C 5L	30-40cm
10%	No.		Hebe 'Mrs Winder'	C 5L	30-40cm
15%	No.		Carex oshimensis 'Evergold'	C 5L	Full pot
15%	No.		Erysimum 'Bowles' Mauve'	C 5L	Full pot
10%	No.		Cornus alba 'Aurea'	C 5L	30-40cm
Individual varieties to be planted in groups of 3.					
SHADE SHRUB/HERB. MIX planted @ 4/m2					
20%	No.		Sarcococca humilis	C 5L	30-40cm
10%	No.		Viburnum davidii	C 5L	30-40cm
10%	No.		Euonymus fortunei 'Emerald Gaiety'	C 5L	30-40cm
10%	No.		Skimmia japonica 'Rubella'	C 5L	30-40cm
20%	No.		Helleborus x hybridus 'White Lady'	C 5L	Full pot
10%	No.		Carex oshimensis 'Evergold'	C 5L	Full pot
10%	No.		Polystichum munitum	C 5L	Full pot
10%	No.		Polystichum polyblepharum	C 5L	Full pot
Individual varieties to be planted in groups of 3.					
NATIVE SHRUB MIX 6 planted @ 1m centres					
20%	No.		Corylus avellana	B Trans	60-80cm
20%	No.		Viburnum opulus	B Trans	60-80cm
15%	No.		Cornus sanguinea	B Trans	60-80cm
15%	No.		Prunus padus	B Trans	60-80cm
10%	No.		Crataegus monogyna	B Trans	60-80cm
10%	No.		Malus sylvestris	B Trans	60-80cm
10%	No.		Sambucus nigra	B Trans	60-80cm
Individual varieties to be planted in groups of approximately 3-7					
NATIVE UNDERSTORY SHRUB MIX planted @ 3/m2					
20%	No.		Viburnum opulus	B Trans	60-80cm
20%	No.		Sambucus nigra	B Trans	60-80cm
20%	No.		Cornus sanguinea	B Trans	60-80cm
20%	No.		Corylus avellana	B Trans	60-80cm
20%	No.		Ligustrum vulgare	C 3L	40-60cm
MEDIUM SEMI-NATIVE SHRUB MIX planted @ 4/m2					
5%	No.		Chaenomeles japonica	C 3L	40-60cm
5%	No.		Chaenomeles speciosa	C 3L	40-60cm
15%	No.		Hebe 'Midsummer Beauty'	C 3L	30-40cm
15%	No.		Skimmia japonica 'Rubella'	C 2L	30-40cm
10%	No.		Daphne laureola	C 3L	20-30cm
10%	No.		Hypericum androsaemum	C 3L	30-40cm
10%	No.		Salix repens	C 3L	40-60cm
10%	No.		Cornus sanguinea	B Trans	60-80cm
10%	No.		Rosa canina	B Trans	60-80cm
10%	No.		Ligustrum vulgare	B Trans	60-80cm
Individual varieties to be planted in groups of approximately 3-5. Chaenomeles and Rosa canina to be positioned furthest from pathways.					
NATIVE WOODLAND MIX 1 planted @ 1.5m centres					
20%	No.		Crataegus monogyna	B TRANS	60-80cm
20%	No.		Viburnum opulus	B TRANS	60-80cm
20%	No.		Corylus avellana	B TRANS	60-80cm
10%	No.		Viburnum lantana	C 3L	40-60cm
10%	No.		Betula pendula	B TRANS	60-80cm
5%	No.		Sorbus aucuparia	B TRANS	60-80cm
10%	No.		Fagus Sylvatica	B FTH	125-150cm
5%	No.		Quercus robur	B FTH	125-150cm
Individual varieties to be planted in groups of approximately 5. Feathers to be planted at 4.5m centres with in the mix.					
GENERAL WILDFLOWER MEADOW MIX seeded @ 4g/m2					
100%	No.		No. EM2 Standard General Purpose Meadow Mixture	Seed	
Seeded at 4g m2 over prepared ground					
WET MEADOW MIX seeded @ 4g/m2					
100%	No.		No. Wet Wildflower Meadow Seed Mix	Seed	
Seeded at 4g m2 over prepared ground from Habitat Aid					
NATIVE REEDS MIX planted @ 3/m2					
15%	No.		Carex acutiformis	C 1L	
15%	No.		Iris pseudacorus	C 1L	
15%	No.		Sparganium erectum	C 1L	
15%	No.		Scirpoides holoschoenus	C 1L	
10%	No.		Juncus articulatus	C 1L	
10%	No.		Lythrum salicaria	C 1L	
10%	No.		Ranunculus lingua	C 1L	
5%	No.		Phragmites australis	C 1L	
5%	No.		Typha latifolia	C 1L	
Individual varieties to be planted in groups of approximately 5-7.					

Notes and Abbreviations

B	=	Bare root (bagged).
C	=	Container (or pot) grown, followed by size of the container (or pot).
FORM	=	Shape of tree as supplied by the nursery.
QTY	=	Quantity
RB	=	Rootballed (balled and wrapped).
SIZE	=	Height or Spread of juvenile plant.
Std	=	(clear stem) Standard.
STOCK	=	Root condition/protection method eg Bare root.
Trans	=	Transplant (or undercut seedling).

- Refer to specification for further information.
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect.

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P06	09/07/24	UPDATED LAYOUT	TH	SA
P05	01/07/24	UPDATED LAYOUT	TH	SA
P04	14/02/24	UPDATED LAYOUT	RS	SA
P03	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P02	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: BARRATT HOMES

Project: HOGSHAW FARM, BUXTON

Title: SOFT LANDSCAPE PLAN 2/4

Issue: PLANNING

Drawn:	Checked:	Approved:
RS	SA	ME
Project: UG1795	**Scale @ A0:** 1:250	**Date:** 25/01/23
Dwg No: UG_1795_LAN_SL_DRW_03		**Revision:** P06

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes/ level differences and steps to engineer's details

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P06	09/07/24	UPDATED LAYOUT	TH	SA
P05	01/07/24	UPDATED LAYOUT	TH	SA
P04	14/02/24	UPDATED LAYOUT	RS	SA
P03	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P02	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client: **BARRATT HOMES**

Project: **HOGSHAW FARM, BUXTON**

Title: **SOFT LANDSCAPE PLAN 3/4**

Issue: **PLANNING**

Drawn:	Checked:	Approved:
RS	SA	ME

Project:	Scale @ A0:	Date:
UG1795	1:250	25/01/23

Dwg No: UG_1795_LAN_SL_DRW_04 — Revision: P06

SCALE 1:250 — m 0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0

For plant schedule, refer to UG_1795_LAN_SL_DRW_03

SCALE m 0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0
1:250

For plant schedule, refer to UG_1795_LAN_SL_DRW_03

Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site

This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when comparedto the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-

Soft Works

Existing Tree
To be retained.
Refer to arboricultural drawings.

Existing Tree
To be removed / pruned.
Refer to arboricultural drawings.

Existing Woodland
To be retained.
Refer to arboricultural drawings.

Existing Hedge
To be retained.
Refer to arboricultural drawings.

Proposed Tree Planting
Clear stem heavy standard tree.

Proposed Hedge Planting
To plot gardens.

Proposed Groundcover Planting
Ornamental planting mix. 98.3739 m²

Proposed Ornamental Shrub & Herbaceous Planting
Ornamental shrub and herbaceous perennials mixes. 526.2877 m²

Proposed Semi-Native Shrub Planting
Ornamental and native shrub mix. 244.2309 m²

Proposed Native Shrub Planting
Native shrub mix. 1518.7563 m²

Proposed Woodland Understory Planting
Native mix. 2793.7021 m²

Proposed Woodland Mix Planting
Native whips and feathers mix. 1686.1201 m²

Proposed Turf Grass
To front gardens. 1176.2858 m²

Proposed Seeded Amenity Grass
To public areas. 1369.2721 m²

Proposed Seeded Species Rich Wildflower Meadow
To public areas. 12054.9751 m²

Proposed Wet Meadow
To pond area. 1142.6080 m²

Native Reeds Mix
To pond area. 32.2571 m²

Pond Water
Approx 117.6260 m²

Rear gardens to be grass seeded
Slopes' level differences and steps to engineer's details

REV.	DATE	DESCRIPTION	DRAWN	CHK'D
P06	09/07/24	UPDATED LAYOUT	TH	SA
P05	01/07/24	UPDATED LAYOUT	TH	SA
P04	14/02/24	UPDATED LAYOUT	RS	SA
P03	05/04/23	UPDATED LAYOUT - SUB STATION	RS	SA
P02	21/03/23	UPDATED POND LAYOUT AND RED LINE BOUNDARY	RS	SA

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:
BARRATT HOMES

Project:
HOGSHAW FARM, BUXTON

Title:
SOFT LANDSCAPE PLAN 4/4

Issue:
PLANNING

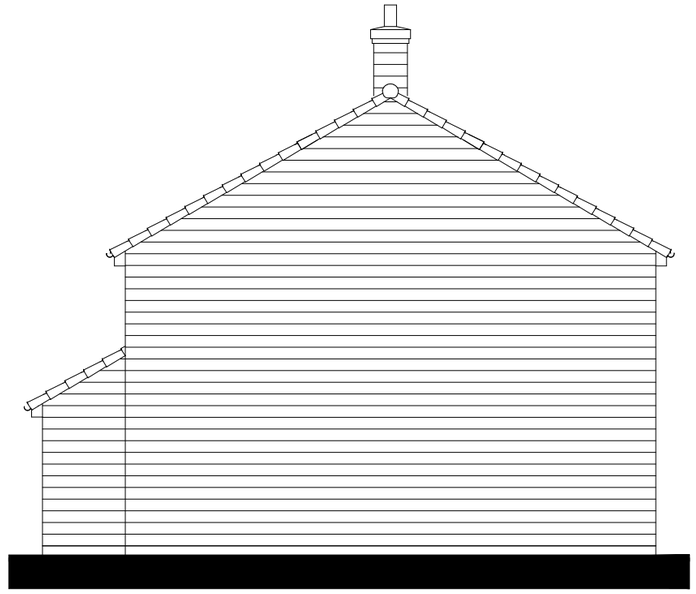
Drawn:	Checked:	Approved:
RS	SA	ME

Project:	Scale @ A0:	Date:
UG1795	1:250	25/01/23

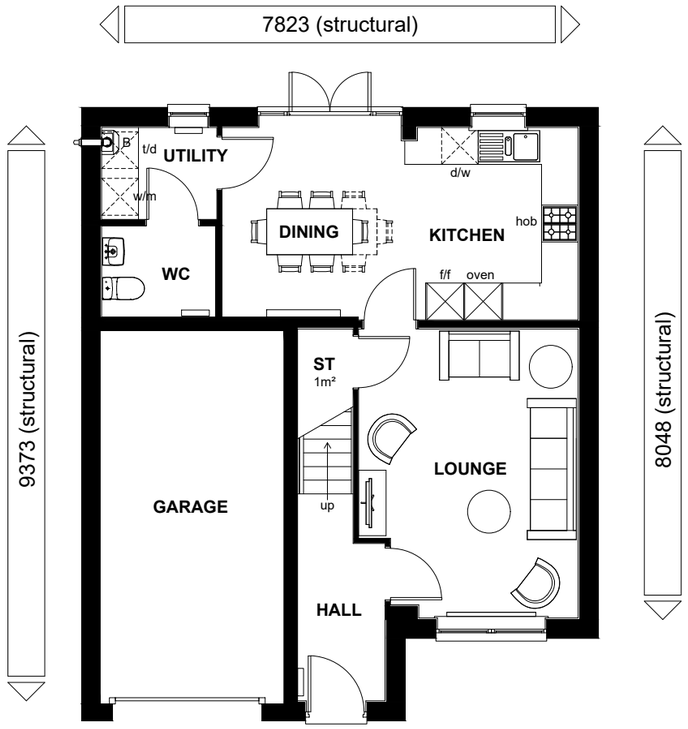
Dwg No:	Revision:
UG_1795_LAN_SL_DRW_05	P06

FRONT ELEVATION

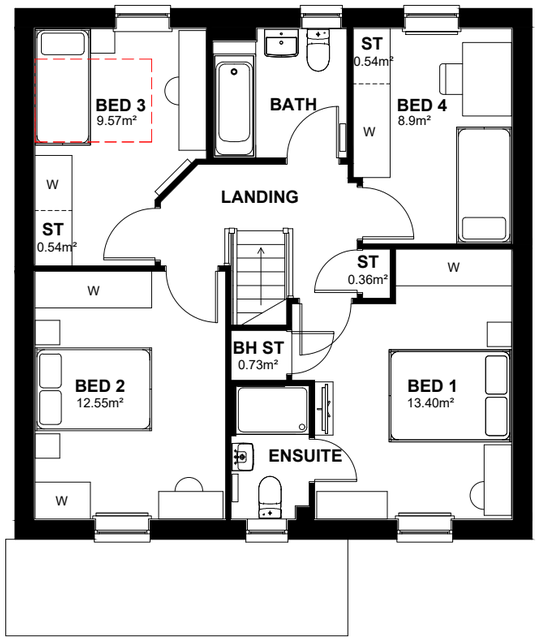
REAR ELEVATION



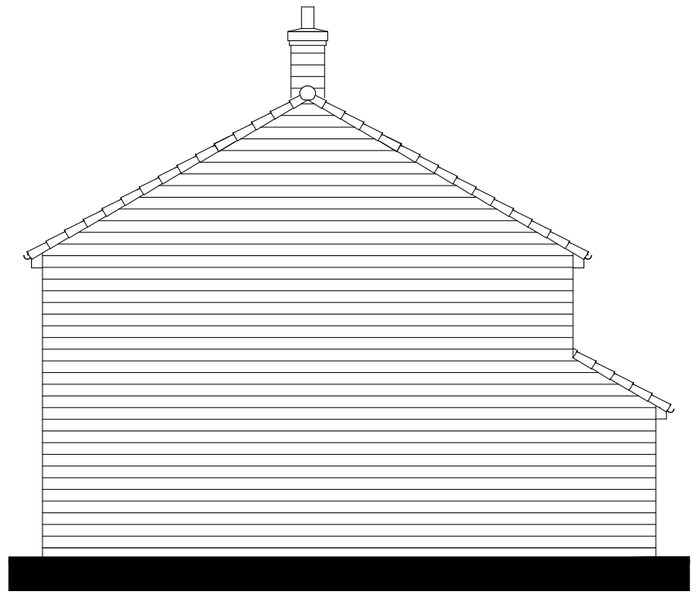
SIDE ELEVATION



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SIDE ELEVATION

NON-FUNCTIONAL CHIMNEY TO PLOTS: 80

NDSS AREA REQUIREMENTS

BEDS / PEOPLE	REQ,D FLOOR AREA (FINISHED)	FLOOR AREA ACHIEVED (FINISHED)	REQ,D STORAGE AREA (FINISHED)	STORAGE AREA ACHIEVED (FINISHED)
4B / 6P	106m²	110.57m²	3m²	3.17m²

CAT 2 + NDSS

TOTAL FLOOR AREA : 1206 Sq ft / 112.07m2

PROTOTYPE 100 CAVITY

BARRATT DEVELOPMENTS PLC

Planning

* Denotes double bed/single could be placed within the room, but this will not comply with NDSS requirements.

WARNING TO HOUSE-PURCHASERS:
Buyers are warned that this is a working drawing and the contents of this drawing may be subject to change during the progress of the build process. The layout, form, content and dimensions specified are included for general guidance only. The finishes or features shown may alter in respect of individual properties. Whilst we make every effort to ensure our drawings are up to date there may from time to time be an unavoidable delay in updating these due to changes in regulations and/or re-planning. Purchasers are advised to check with the Sales Adviser whether any alterations have been made to this drawing. The contents of this drawing do not constitute a contract, part of any contract or warranty unless specifically incorporated into the contract. They should not be relied upon for the purposes of entering into a contract to purchase any property.

Sales Name: WALLASEA (KENNFORD)

House Type Code: YWSE X0HD

Spec: EMBASSY Drawing No: 01 Date: JAN 23

Drawn: GDT Checked: GDT Scale: 1: 100