

**BIODIVERSITY ACCOUNTING
ASSESSMENT REPORT**

at

**Walkway Over St Andrews Road
Cummins Turbo Technologies Ltd
Huddersfield
HD1 6RA**

Client:

Farrar Bamforth Associates

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Date of Report:

08/05/2024



Quality Assurance

Version	Site Surveyed:		Report Completed:		Reviewed:	
	Date	Name	Date	Name	Date	Name
Planning	10/04/24	Eleanor Clark	24/04/24	Eleanor Clark	24/04/24	Alex Donovan
					25/04/24	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM’s Code of Professional Conduct*.

Risk Assessment Completed	Redacted
Bio-security Procedure Completed	
Lone Worker Procedure Completed	



Executive Summary

JCA Limited was instructed by **Farrar Bamforth Associates** to carry out a Biodiversity Accounting Assessment (BAA) of **Walkway Over St Andrews Road, Cummins Turbo Technologies Ltd** (hereafter referred to as the 'Site') to inform a planning application for the construction of a walkway over St Andrews Road ('the Proposed Development').

The purpose of the assessment is to determine the baseline biodiversity value of the Site and to assess if there are sufficient biodiversity enhancement opportunities available within the Site boundary to compensate for any residual biodiversity losses as a result of the Proposed Development.

To fulfil the brief, the Statutory Biodiversity Metric (February 2024) was used to calculate the baseline biodiversity value of all existing habitats on-Site. The metric was then used to provide a comparative measure of any habitat creation and enhancements associated with the Client's Proposed Development. The resulting balance determines the extent of Habitat Units generated through the proposed habitats post development.

On balance of impacts and habitat retention and creation, the report concludes that the Proposed Development will result in a net gain of **+0.03 Habitat Units**, equivalent to a **net gain of +16.25%**. In addition, the Proposed Development has satisfied the trading rules.

This executive summary is intended as a summary of the assessment of the Site based on information received by the client at the time of production. This executive summary should be read in conjunction with the full Report.



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1. Introduction

1.1 Purpose of the Report

1.1.1 JCA Limited have been instructed by **Farrar Bamforth Associates** to undertake a Biodiversity Accounting Assessment (BAA) of a site located at **Walkway Over St Andrews Road, Cummins Turbo Technologies Ltd** (hereafter referred to as the 'Site').

1.1.2 The purpose of this report is to:

- Assess the baseline biodiversity value of the Site through the total sum of the habitats within the Site, and their calculated biodiversity value.
- Assess if there are sufficient biodiversity enhancement and/or creation opportunities available within the Site boundary to compensate for any residual biodiversity losses as a result of the Proposed Development.
- To determine the level of overall residual biodiversity gains or losses associated with the Proposed Development.

1.1.3 The Site location and red line / survey area are shown in Appendix 1.

1.2 Terms of Reference

1.2.1 The principal source documents used to inform this BAA include:

- Concept Design (Drawing number: 24C07-FBA-ZZ-XX-DR-A-2000-P03)

1.3 Site Description

1.3.1 The site is located at Ordnance Survey (OS) National Grid Reference SE 15075 16970, with nearby postcode HD1 6RA. The site is bordered on all aspects by industrial buildings and roads, with St Andrew's Road dissecting the centre of the Site. Huddersfield Broad Canal and the River Colne are located further afield to the west and east of the Site, respectively.

1.4 Details of Proposed Development

1.4.1 The development proposed at the site is the constructed of a footbridge over St Andrews Road.



2. Biodiversity Accounting in Context

2.1 Background

- 2.1.1 Biodiversity is complex and so it is impossible to measure in its entirety. Therefore metrics, which incorporate measures of different biodiversity attributes, are used to provide surrogate measures of overall biodiversity. This report uses the 'Statutory Biodiversity Metric', which was designed by DEFRA (2023) to define the biodiversity impacts and compensation requirements associated with development proposals. The metric works by providing a comparative measure of each habitat on-Site in biodiversity units by multiplying its area (hectares), distinctiveness (habitat type) and current condition (quality). The relative impacts (habitat loss) of the development, taking into account any additional on-Site habitat creation or enhancement, can then be calculated to determine if a measurable biodiversity net gain will be achieved on-Site. If a measurable net gain is unable to be achieved on-Site, then the process of biodiversity offsetting must be undertaken.
- 2.1.2 Biodiversity offsets are conservation activities designed to deliver biodiversity benefits in compensation for residual losses, in a measurable way. Biodiversity offsetting is distinguished from other forms of compensation by the requirement for measurable outcomes. This is achieved by quantifying net biodiversity impacts caused by development; using the same metric to assess direct and indirect negative impacts to habitats and the value of any on-Site compensation, to set the framework of off-site compensation (offset) requirements and the biodiversity net gain generated by these offsets. Biodiversity offsetting ensures that off-site compensation proposed is both proportionate to the development concerned and that a measurable net gain for biodiversity can be achieved.
- 2.1.3 Biodiversity offsetting, like other forms of compensation, is the last step of the mitigation hierarchy (first avoid, then reduce, and finally, compensate) and is applied as a last resort to otherwise policy-compliant development proposals. 'Offsetting' – i.e. creating or restoring new wildlife habitat in a measurable way and in a different place to where it was lost.
- 2.1.4 In addition to providing a mechanism for quantifiable compensation and net gain, biodiversity offsets provide reliable biodiversity outcomes as they are long-term (30 years), monitored and enforceable with adaptable management plans for optimised success.



2.2 Biodiversity Net Gain Principles

2.2.1 Biodiversity Net Gain: Good Practice Principles for Development published by CIEEM et. al (2016) states that delivering biodiversity net gain goes beyond balancing relative gains and losses. It also involves doing everything to avoid biodiversity losses in the first instance. The application of the DEFRA metric detailed in this report supports developments to adopt this approach by:

- a) Providing a habitat balance sheet which can be used to identify those habitats with the greatest value and subsequently those with the greatest impacts if lost;
- b) Supporting and incentivising the mitigation hierarchy by quantifying the benefits of avoiding and mitigating impacts on high value features;
- c) Promoting the value of biodiversity enhancements and demonstrating the potential for additionality on retained habitats;
- d) Providing a balance of losses, enhancements or on-Site compensation to determine if a measure net gain contribution can be achieved;
- e) Providing transparent, robust and credible evidence to help inform the best possible Site options for biodiversity; and,
- f) Ensuring that any residual off-Site compensation required (e.g. through biodiversity offsetting) is proportionate to the impacts and can secure a measurable net gain contribution for biodiversity overall.

2.3 Biodiversity Offsetting Standards

2.3.1 Good practice standards for biodiversity offsetting are set out by the Business and Biodiversity Offsets Programme (BBOP, 2012). These standards inform the approach for selection and development of suitable Offset Sites and projects. Of these standards, the following provide the most relevant UK framework for the preliminary offset site search:

- The proposed offset site should be identified as suitable for the creation and/or enhancement of a target habitat within the vicinity of where the impact occurs;
- The site must be available and managed for a minimum specified term (typically 30 years).



- The landowner must agree to an enforceable delivery mechanism to secure the long-term management.
- The site must be available for monitoring to ensure appropriate management is being undertaken and to report biodiversity progress back to the local planning authority.

2.3.2 Further standards, with regards to offset site surveys and ensuring that appropriate target habitats and units can be achieved, will form part of the detailed site search that will precede the preliminary site search.

2.3.3 In addition to biodiversity net gains achieved on-Site, off-Site enhancements can also achieve positive outcomes for nature in the local area.



3. Policy and Legislation

3.1 Introduction

3.1.1 Planning guidelines, international commitments, legislation and planning policies relevant to the protection, conservation and enhancement of nature conservation interests are detailed below.

3.2 National Policy and Guidance

3.2.1 Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of policy and legislation, including:

- The Environment Act 2021 mandates that all planning applications will be required to demonstrate how a development will enhance biodiversity and protect habitats from November 2023. This is to be achieved through a measurable 10% Biodiversity Net Gain (BNG), in association with development through the use of the most up to date Defra Metric (currently Statutory Biodiversity Metric);
- National Planning Policy Framework ('NPPF', as revised 2023) sets out how planning policies and decisions should contribute to and enhance the natural and local environment through amongst other things, ensuring BNG through development and protect ecological important sites and networks;
- The Conservation of Habitats and Species Regulations 2017 (as amended) details the regulations for the protection of European Protected Habitat and Species. Such European Protected Species (EPS) include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others;
- The Wildlife and Countryside Act ('WCA') 1981 (as amended) covers the legislation for endangered species in England and the framework for the designation of Sites of Special Scientific Interest (SSSIs);
- The Countryside and Rights of Way ('CRoW') Act 2000 reinforces the wildlife legislation listed in the WCA and places a duty of government departments to consider biodiversity, and provides governmental department powers for the protection and maintenance of SSSIs;
- The Natural Environment and Rural Communities Act ('NERC') 2006 places a duty upon local authorities to promote and enhance biodiversity in all their functions. Specifically, habitats and species of principal importance to the conservation of biodiversity in regards to the planning process;



- The Hedgerow Regulations 1997 provides protection by prohibiting the destruction or damage to important countryside hedges; and
- The Protection of Badgers Act 1992 includes the protected of badgers under the act and that it is unlawful to wilfully kill, injure, take, possess or cruelly ill-treat badgers or attempt to do so.

3.2.2 Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species.

3.3 Local Policy and Guidance

3.3.1 Kirklees Local Plan – (Kirklees Council, Adopted February 2019)

Policy LP30 Biodiversity & Geodiversity

The council will seek to protect and enhance the biodiversity and geodiversity of Kirklees, including the range of international, national and locally designated wildlife and geological sites, Habitats and Species of Principal Importance and the Kirklees Wildlife Habitat Network.

South Pennine Moors

Proposals which may directly or indirectly compromise achieving the conservation objectives of a designated or candidate European protected site will not be permitted unless the proposal meets the conditions specified in Article 6 (3) - (4) of the Habitats Directive.

Statutory Designated Sites

Statutory designated sites, including the South Pennine Moors Special Protection Area (SPA) and Special Area for Conservation (SAC) and Sites of Special Scientific Interest, are already highly protected through existing laws and legislation. In accordance with legislation, the Council will seek to ensure that harmful impacts to these areas as a result of development proposals are avoided.

Development proposed within or outside a designated Site of Special Scientific Interest, likely to have an adverse effect on the site's special nature conservation features, will not normally be permitted. Exceptionally development will be allowed where the benefits of the development clearly outweigh the impacts on the site's special conservation features and measures are provided to mitigate harmful impacts.

The Dark Peak Nature Improvement Area



Proposals that contribute to the aims and objectives of the Dark Peak Nature Improvement Area will in principle be supported, subject to other policies in this plan. Development likely to have an adverse impact on the aims and objectives of the NIA will not be permitted.

Local Designated Sites & Important Local Ecological Features

Proposals having a direct or indirect adverse effect on a Local Wildlife Site or Local Geological Site, Ancient Woodland, Veteran Tree or other important tree, will not be permitted unless the benefits of the development can be clearly shown to outweigh the need to safeguard the local conservation value of the site or feature and there is no alternative means to deliver the proposal. In all cases, full compensatory measures would be required and secured in the long term.

Habitats and Species of Principal Importance

Proposals will be required to protect Habitats and Species of Principal Importance unless the benefits of the development clearly outweigh the importance of the biodiversity interest, in which case long term compensatory measures will need to be secured.

Biodiversity and Development

Development proposals will be required to:-

- (i) result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;
- (ii) minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;
- (iii) safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;
- (iv) establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and



- (v) incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone.

Policy LP33 Trees

The Council will not grant planning permission for developments which directly or indirectly threaten trees or woodlands of significant amenity.

Proposals should normally retain any valuable or important trees where they make a contribution to public amenity, the distinctiveness of a specific location or contribute to the environment, including the Wildlife Habitat Network and green infrastructure networks.

Proposals will need to comply with relevant national standards regarding the protection of trees in relation to design, demolition and construction. Where tree loss is deemed to be acceptable, developers will be required to submit a detailed mitigation scheme.



4. Methodology

4.1 Background

4.1.1 Biodiversity accounting of existing and post-development habitats and linear features on-Site was carried out using the Statutory Biodiversity Metric Calculator Tool, following guidance set out in the metric user guide (DEFRA 2023). The process for data collation and analysis associated with the assessment is detailed in Sections 4.2 – 4.3 below.

4.2 Baseline Data

4.2.1 A baseline analysis of the existing habitats on-Site was carried out from the information gathered during the Site's ecological assessment visit carried out by Eleanor Clark (Consultant Ecologist, JCA Limited) on 10/04/2024.

4.2.2 To undertake the Statutory Biodiversity Metric calculations, the following information was recorded for each habitat parcel and/or linear feature:

- Habitat type;
- Area/Length (ha/km);
- Habitat condition;
- Strategic significance; and
- Whether that habitat will be lost, retained, enhanced, succeeded and/or created, and at what scale.

4.2.3 The habitat map for the Site was digitised and interpreted using The Statutory Biodiversity Metric – QGIS Template produced by Natural England (November 2023) to calculate predevelopment and post-development habitat areas.

4.3 Impact Assessment

4.3.1 The existing baseline habitat plan for the Site was overlain with the Concept Design (Drawing number: 24C07-FBA-ZZ-XX-DR-A-2000-P03) of the Proposed Development using GIS software to provide an area (Ha) of temporary and permanent habitat loss.



4.3.2 The area of any retained/enhanced or created habitats proposed as part of the development was also mapped to provide an area (Ha) (or length (Km) for linear features) of the on-Site compensation proposals being provided. An estimate of future condition, time until establishment and the likelihood of success was then calculated using landscaping data provided by the client and professional judgement.

4.4 Habitat Creation and Enhancement

4.4.1 The area of any retained/enhanced or created habitats proposed on-Site as part of the Proposed Development was mapped using the Concept Design (Drawing number: 24C07-FBA-ZZ-XX-DR-A-2000-P03) of the final development, to provide an area (Ha) (or length (Km) for linear features) estimate of on-Site compensation provided. This includes areas of developed land, which are assigned a very low (or null) value, notably, areas of buildings and/or roads.

4.4.2 Condition and strategic significance for each habitat or linear feature were projected using available ecological data or professional opinion about the likely value.

4.5 Residual Effects

4.5.1 The residual effects of the Proposed Development scheme were calculated using the Statutory Biodiversity Metric Calculation Tool. This subtracts the pre-development baseline values from that of the post-development values to determine the change in overall habitat value for the Site, taking into account any habitat trading.

4.5.2 Habitat trading is where the loss of a habitat must be compensated for through the creation or restoration of areas of equivalent or greater distinctiveness value. Guidance by DEFRA is that the loss of high distinctiveness areas, such as Habitats of Principal Importance (HPI, NERC Act, S.41), require compensation in a like-for like manner (creation or restoration of habitat of the same habitat classification as that impacted). Within the Biodiversity Metric 'trading up' (where compensation through creation of a higher distinctiveness habitat) can occur, however, 'trading down' (compensation through creation of lower distinctiveness habitats) is not permitted. Therefore, if present, despite gains in lower distinctiveness habitats, these will not reduce the net gain requirement for the development. This also applies to the different habitat features i.e. habitats, hedgerows and rivers and streams. Hedgerow creation gains will not reduce net gain requirements for either rivers and streams or habitats.



4.5.3 Where the resulting biodiversity balance is negative, a residual net loss of biodiversity is recorded. Where the balance is positive a residual net gain of biodiversity is recorded.



5 Statutory Biodiversity Metric

5.1 Introduction

5.1.1 The assessment was carried out by JCA Limited using the ecological data gathered during the Site's ecological assessment survey carried out on 10/04/2024.

5.2 Existing Site Value

5.2.1 The existing biodiversity value for each habitat, together with the cumulative value of all habitats is provided in **Table 1**. Existing on-Site habitats can be found in **Appendix 1**.

Table 1: Baseline habitats on site and their ecological value as categorised by the Statutory Biodiversity Metric Calculation Tool.

Biodiversity Metric Reference Number	Statutory Biodiversity Metric Habitat Type	Total Area on Site (Ha)	Distinctiveness	Condition	Strategic Significance	Ecological Baseline Habitat Unit
1	Modified grassland	0.04	Low	Poor	Area/compensation not in local strategy/no local strategy	0.08
2	Bare ground	0.0019	Low	Poor	Area/compensation not in local strategy/no local strategy	0.00
3	Developed land; sealed surface	0.3041	V.Low	N/A – Other	Area/compensation not in local strategy/no local strategy	0.00
4	Introduced shrub	0.0261	Low	Condition Assessment N/A	Area/compensation not in local strategy/no local strategy	0.05
5	Urban tree	0.0041	Medium	Moderate	Area/compensation not in local strategy/no local strategy	0.03
	Total (area excl. trees)	0.37	-	-	-	0.17

5.2.2 The modified grassland (reference number 1) was classified as 'Poor' condition. The habitat parcel failed the following condition assessment criteria:

- Criteria A – There are 6-8 vascular species per m² present, including 2 forbs. **Note – this criterion is essential for achieving Moderate or Good condition.**



- Criteria B – Sward height is varied (at least 20% of the sward is less than 7cm and at least 20% is more than 7cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.

5.2.3 The bare ground (reference number 2) was classified as 'Poor' condition. The habitat parcel failed the following condition assessment criteria:

- Criteria A – Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.
- Criteria B – The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.

5.2.4 The urban tree (reference number 5) present on site was classified as 'Moderate' condition. The tree failed the following condition assessment criteria:

- Criteria C – The tree is mature (or more than 50% of the block are mature).
- Criteria E – Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy, or loose bark.

5.2.5 All habitats had a strategic significance of 'Area/compensation not in local strategy/ no local strategy' due to the Site and habitats on Site not being identified within the local strategy or Biodiversity Action Plan.

5.2.6 To ensure a 10% net gain in biodiversity is achieved as part of the Proposed Development the following measures can be employed:

- Habitat retention; and/or
- Habitat enhancement; and/or
- Habitat creation.



6 Proposed Development Impact Assessment

6.1 Description of the Proposed Development

6.1.1 The Proposed Development involves the construction of a walkover over St Andrew's Road.

6.1.2 The Proposed Development will see the partial removal of modified grassland and introduced shrub to facilitate the development. The loss, retention and enhancement of habitats as a result of the Proposed Development is quantified in **Table 2**. The existing on-site habitats can be found in **Appendix 1**.

6.1.3 The results of the Statutory Biodiversity Metric calculation indicates that a total of 0.01 Habitat Units lost as a result of the Proposed Development, with 0.15 habitat units retained and 0.00 habitat units generated through the enhancement of existing habitats (**Table 2**).

Table 2: Summary of baseline habitat biodiversity value through retention and enhancement.

Biodiversity Metric Reference Number	Statutory Biodiversity Metric Habitat Type	Retained		Enhanced		Lost	
		Area (ha)	Unit	Area (ha)	Unit	Area (ha)	Unit
1	Modified grassland	0.0288	0.06	0.00	0.00	0.01	0.02
2	Bare ground	0.0019	0.00	0.00	0.00	0.00	0.00
3	Developed land; sealed surface	0.3041	0.00	0.00	0.00	0.00	0.00
4	Introduced shrub	0.0261	0.05	0.00	0.00	0.00	0.00
5	Urban tree	0.0041	0.03	0.00	0.00	0.00	0.00
	Total	0.37	0.14	0.00	0.00	0.01	0.02

6.2 Habitats to be Retained

6.2.1 Any development should apply the Mitigation Hierarchy (British Standards Institution (BSI), 2013; shown below in Figure 1).



6.2.2 Development proposals should first seek to **avoid** impacts by retaining habitats. Second, development proposals should look to **minimise** the impact by producing plans that are designed to limit habitat disturbance, damage, and loss, thereby mitigating against any unavoidable impacts. Third, proposals should look to **restore** any damaged or degraded habitats. Then, only as a last resort should proposals **compensate** for unavoidable residual impacts to damaged or lost habitats that remain after avoidance and mitigation measures.

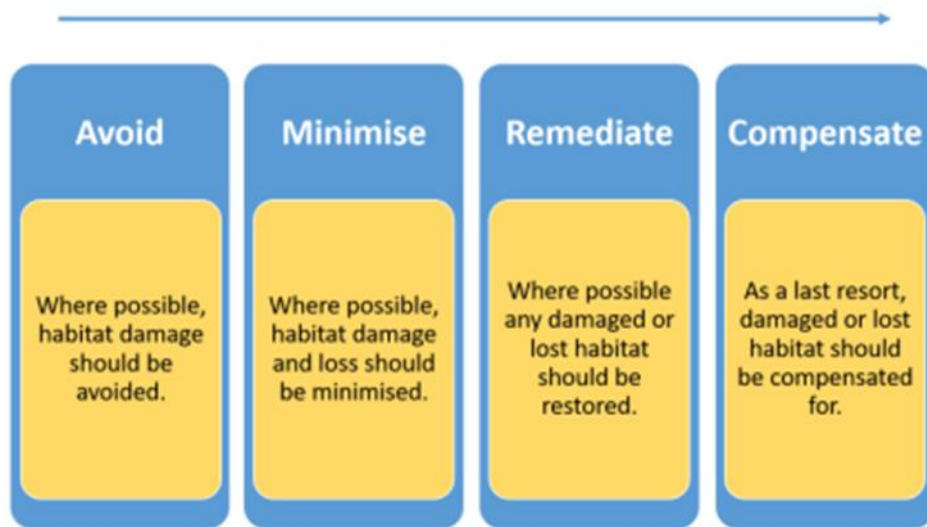


Figure 1: The mitigation hierarchy (BSI, 2013)

6.2.3 The Proposed Development will see the retention of modified grassland, introduced shrub, bare ground, and urban trees on-Site to facilitate the development. The retention of these habitats will avoid any direct impacts of loss of habitat.

6.3 Habitats to be Enhanced

6.3.1 The Proposed Development will see the enhancement of none of the habitats on-Site to facilitate the development.

6.4 Habitats to be Lost

6.4.1 The Proposed Development will see the partial loss of modified grassland habitats on-Site to facilitate the development.

6.4.2 The area and length of the habitats and hedgerow being lost to facilitate the development is small and they are of low and very low distinctiveness, respectively. Therefore, it is not considered a significant loss.



6.5 Proposed Habitat Creation

6.5.1 It is proposed that the following habitats be created as part of the Proposed Development:

- Urban tree planting of 3 small trees;
- Developed land; sealed surface.

6.5.2 The proposed habitats on-Site can be found within **Appendix 2**.

6.5.3 **Table 3** below summarises the value of all habitats that are to be created as part of the Proposed Development.

6.5.4 In total, +0.05 Habitat Units for habitats are to be created within the Proposed Development.

Table 3: Summary value of on-Site habitat proposals.

Biodiversity Metric Reference Number	Statutory Biodiversity Metric Habitat Type	Total Area on Site (ha)	Distinctiveness	Target Condition	Strategic Significance	Habitat Unit Value
3	Developed land; sealed surface	0.0091	V.Low	N'A – Other	Area/compensation not in local strategy/ no local strategy	0.00
5	Urban tree	0.0163	Medium	Moderate	Area/compensation not in local strategy/ no local strategy	0.05
	Total (area excl. trees)	0.01	-	-	-	0.05

6.5.5 All habitats were given strategic significance of 'Area/compensation not in local strategy/ no local strategy' due to the Site and habitats on Site not being identified within the local strategy or Biodiversity Action Plan.

6.6 Proposed Development Summary of Net Impacts

6.6.1 **Table 4** below summarises the BU value of the Proposed Development together with the unit value of any biodiversity impacts or on-Site habitat creation/enhancement proposals.

6.6.2 This shows that on balance, the Proposed Development would result in a net gain of **+0.03 Habitat Units**, equivalent to a **net gain of +16.25%**.

6.6.3 The Proposed Development satisfies the Trading Rules as unit deficits have not been generated across distinctive units.



Table 4: Summary of Biodiversity Metric results for habitats.

Habitat Units	
Existing Site habitat biodiversity value	0.17
Value of gross habitat biodiversity loss	0.01
Value of retained and proposed on-Site habitat creation and enhancement	0.20
On-site net change in Habitat Units	+0.03



7 Conclusion

- 7.1.1 In accordance with the NPPF, where a biodiversity impact cannot be avoided or mitigated then compensation measures must be provided. If this cannot be achieved on-Site through further avoidance, mitigation or compensatory habitat creation or enhancement measures, then off-Site compensation measures will be required.
- 7.1.2 The BAA identified that the Proposed Development would have a net gain of **+0.03 Habitat Units**, equivalent to a **net gain of +16.25%**. The Proposed Development satisfies Trading Rules.
- 7.1.3 The Proposed Development has achieved a biodiversity net gain in Habitat Units. Therefore, no off-Site compensatory habitat creation and/or enhancement measures are required.
- 7.1.4 Further details of the Statutory Biodiversity Metric calculations and associated condition assessments can be found within the Statutory Biodiversity Metric Calculation Tool excel spreadsheet and the Statutory Biodiversity Metric Condition Assessment Sheets accompanying this report.
- 7.1.5 Should the Proposed Development be subject to future change, the conclusions and recommendations in this report will need to be revised. This is to be undertaken via the recalculation of the impact assessment element through the most up-to-date biodiversity metric.



8 References

Biodiversity Metric Guidance:

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Appendices



Appendix 1: UKHab Baseline Habitat Map



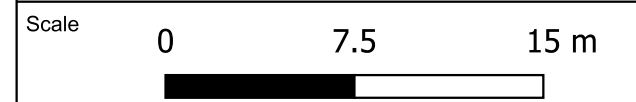


Site name & address

**Walkway Over St Andrew's Road
Cummins Turbo Technologies Ltd
St Andrews Road
Huddersfield
HD1 6RA**

Key

- Red Line Boundary
- Individual Tree - Baseline
- ◆ Existing Small Urban Tree
- Habitats - Baseline
- Bare ground
- Developed land; sealed surface
- Introduced shrub
- Modified grassland



Site Walkway Over St Andrew's Road	Client Farrar Bamforth Associates
Project 21925 Biodiversity Accounting Assessment	Author EIC
Plan ref 21925/EIC-B-002	Revision 002

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Appendix 2: UKHab Proposed Habitat Map



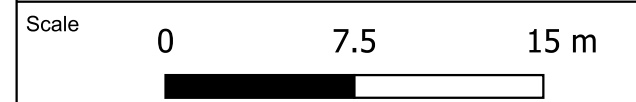


Site name & address

**Walkway Over St Andrew's Road
Cummins Turbo Technologies Ltd
St Andrews Road
Huddersfield
HD1 6RA**

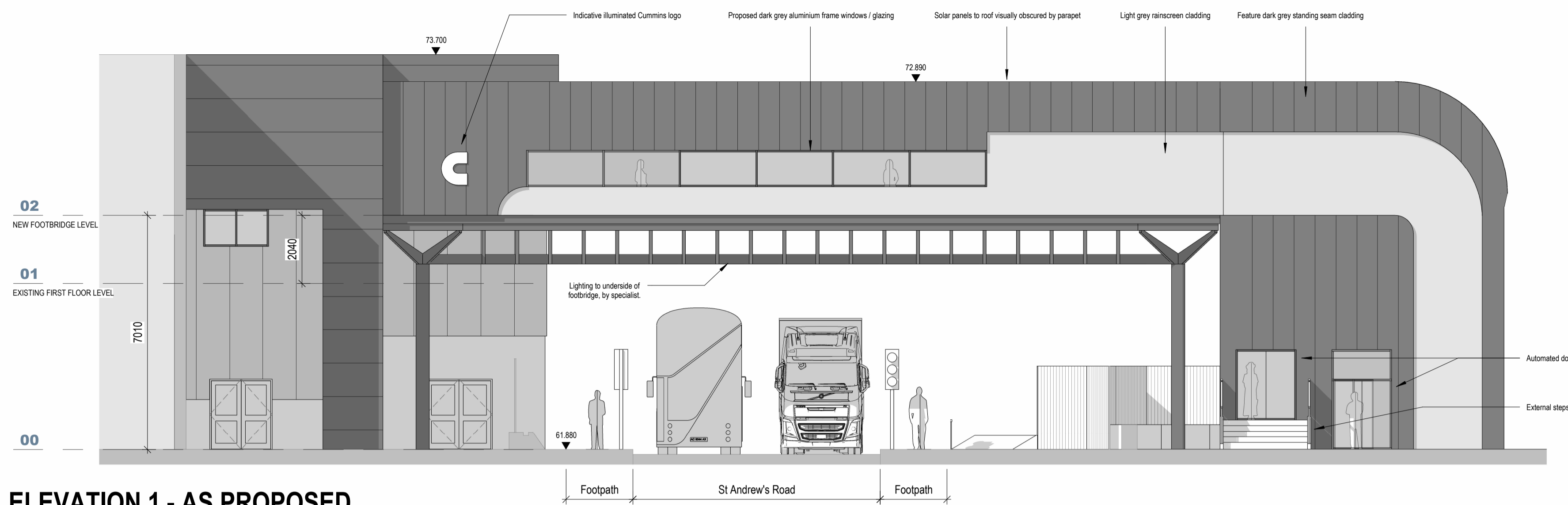
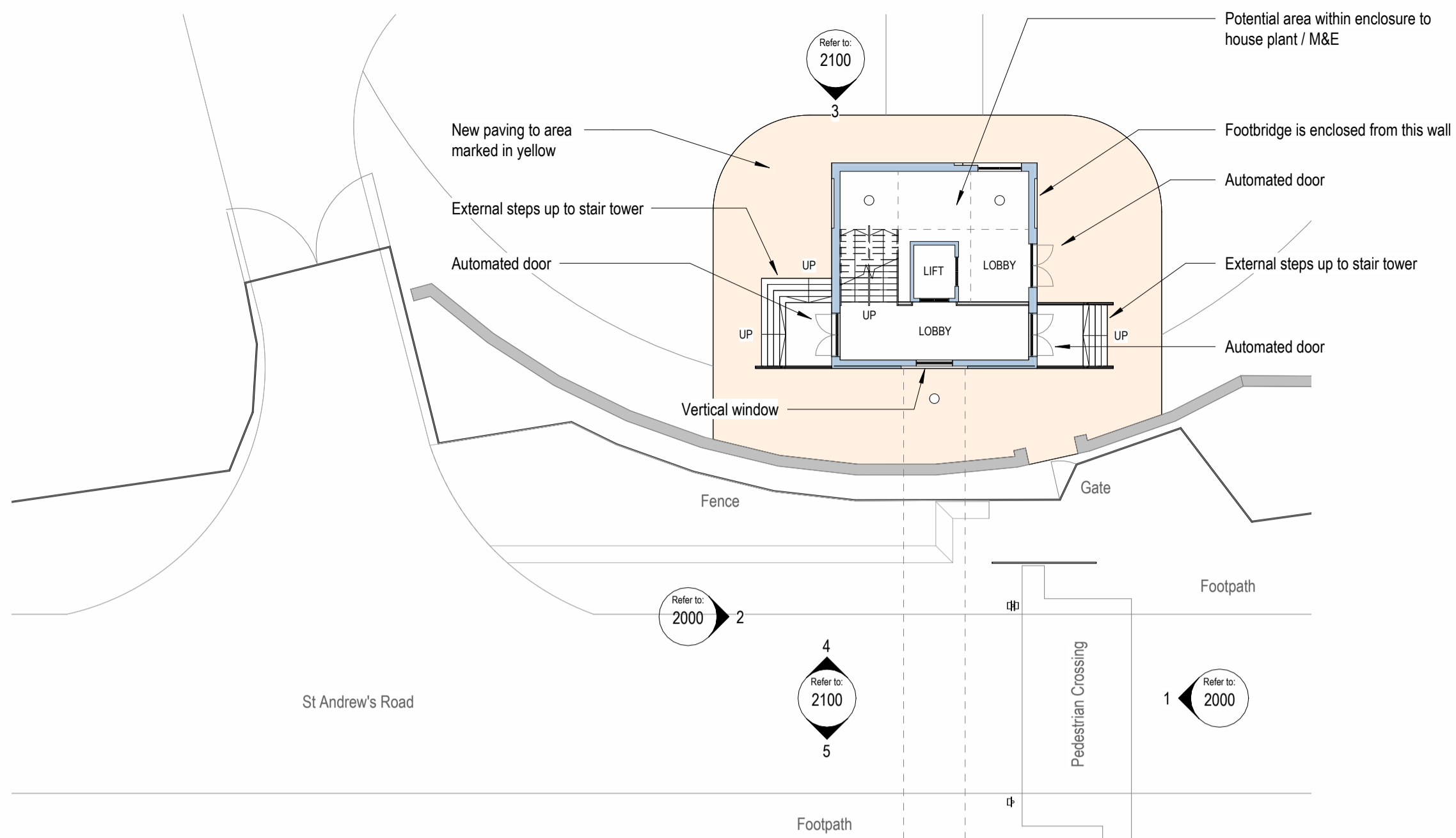
Key

- Red Line Boundary
- Individual Tree - Baseline
- Existing Small Urban Tree
- Individual Tree - Proposed
- Proposed Small Urban Tree
- Habitats - Baseline
- Bare ground
- Developed land; sealed surface
- Introduced shrub
- Modified grassland
- Habitats - Proposed
- Developed land; sealed surface

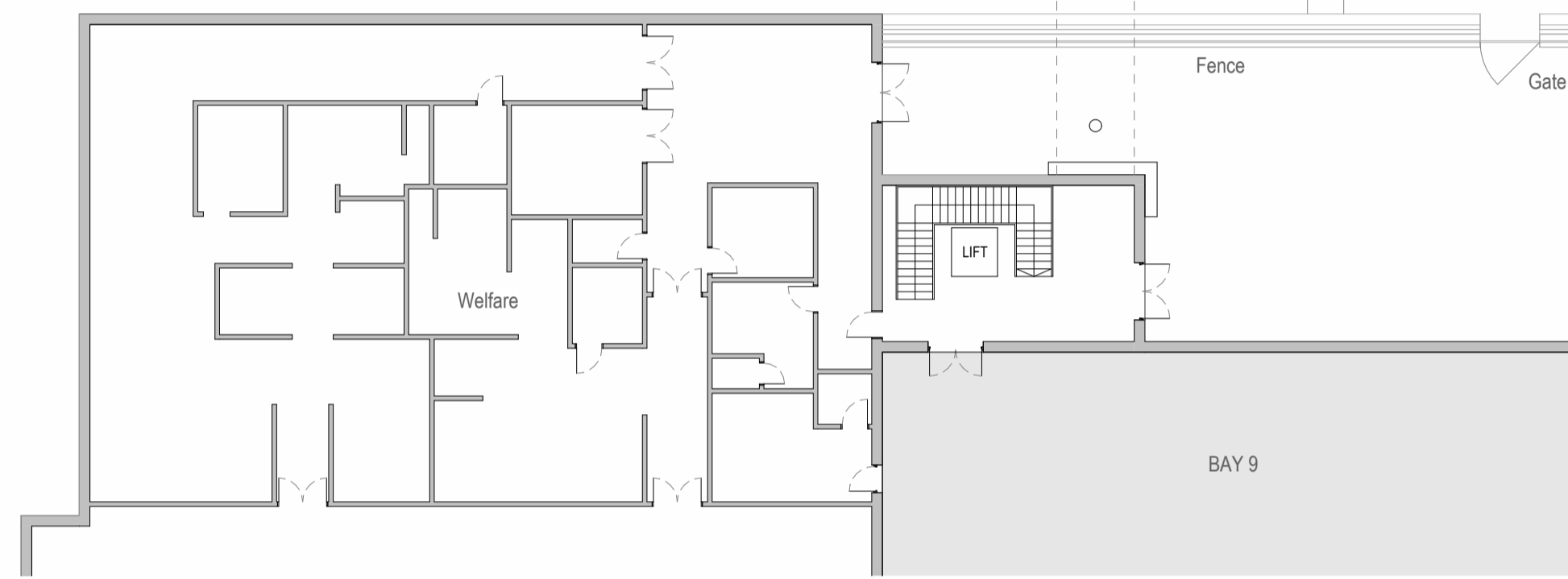


Site Walkway Over St Andrew's Road	Client Farrar Bamforth Associates
Project 21925 Biodiversity Accounting Assessment	Author EIC
Plan ref 21925/EIC-P-002	Revision 002

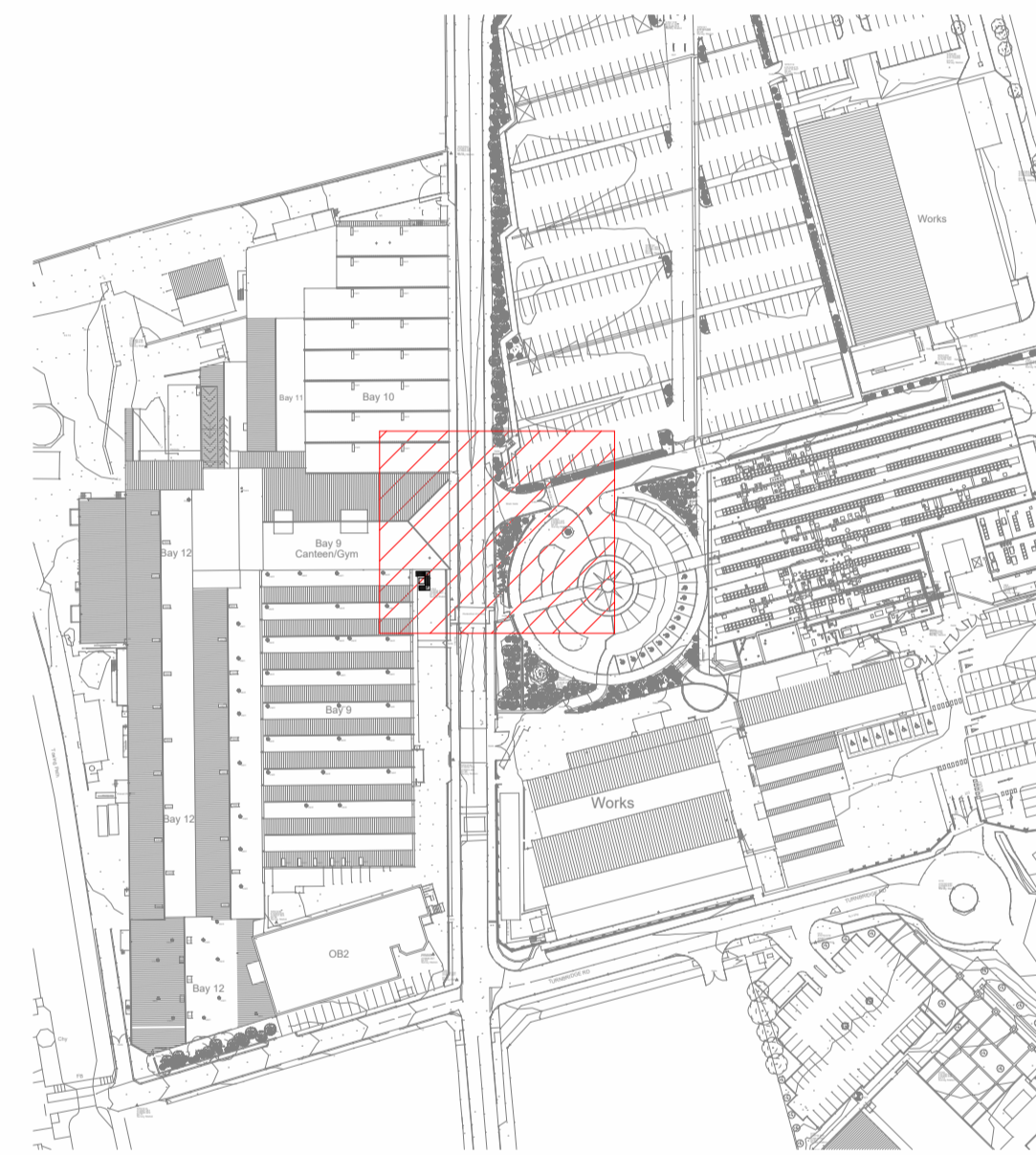
Contains Ordnance Survey data © Crown copyright and database right 2024



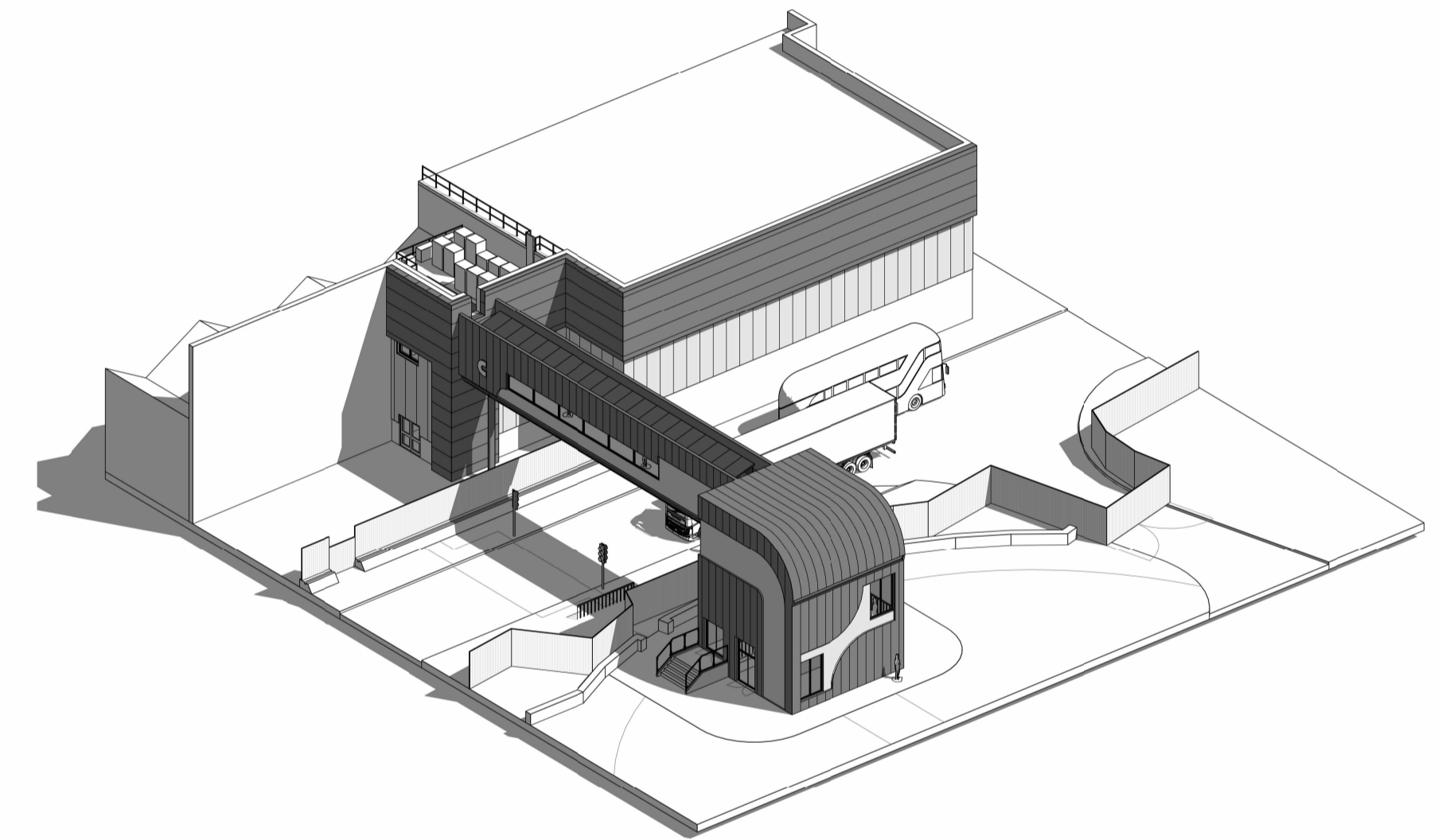
ELEVATION 1 - AS PROPOSED
1 : 100



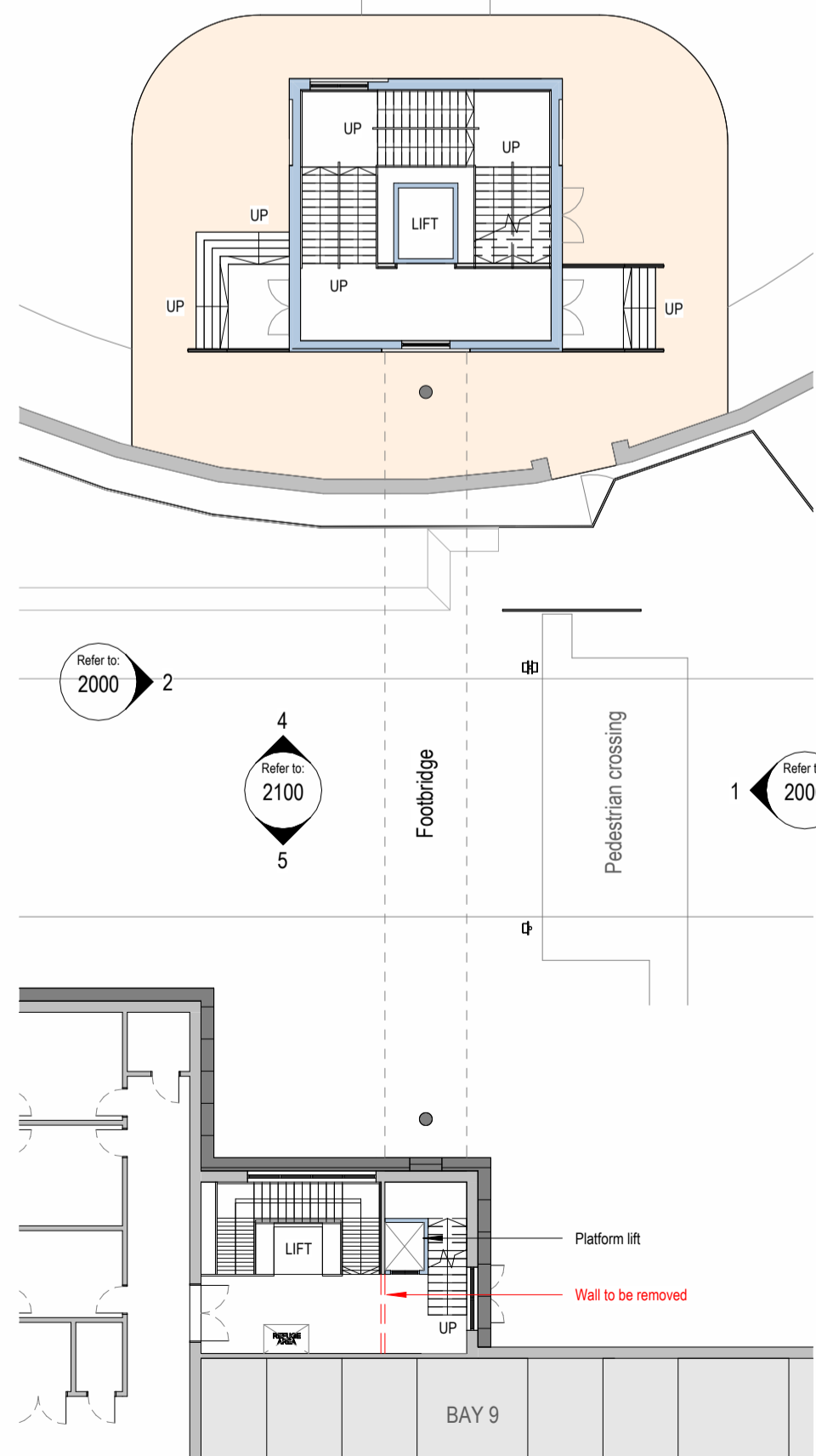
GROUND FLOOR - AS PROPOSED
1 : 200



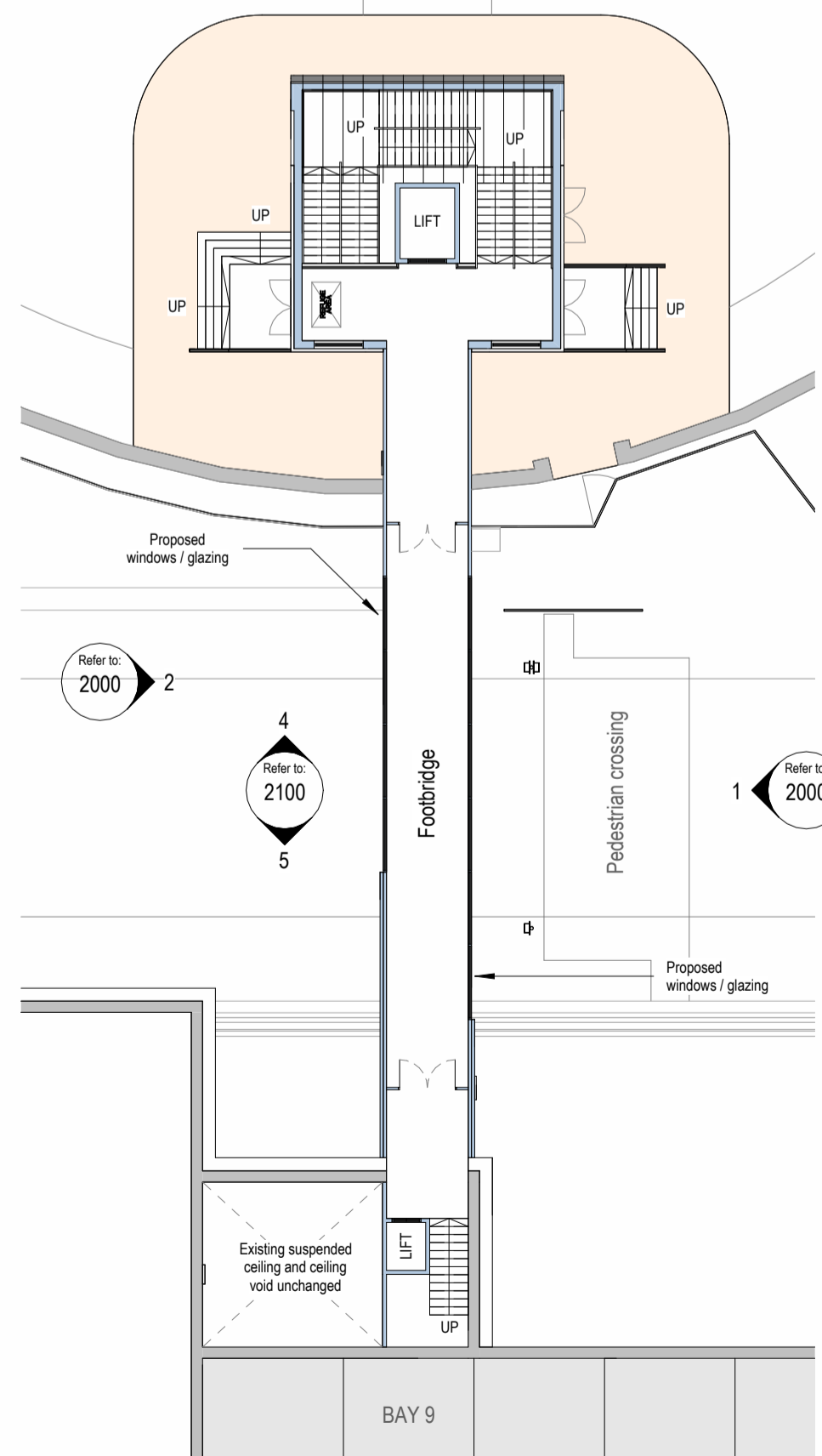
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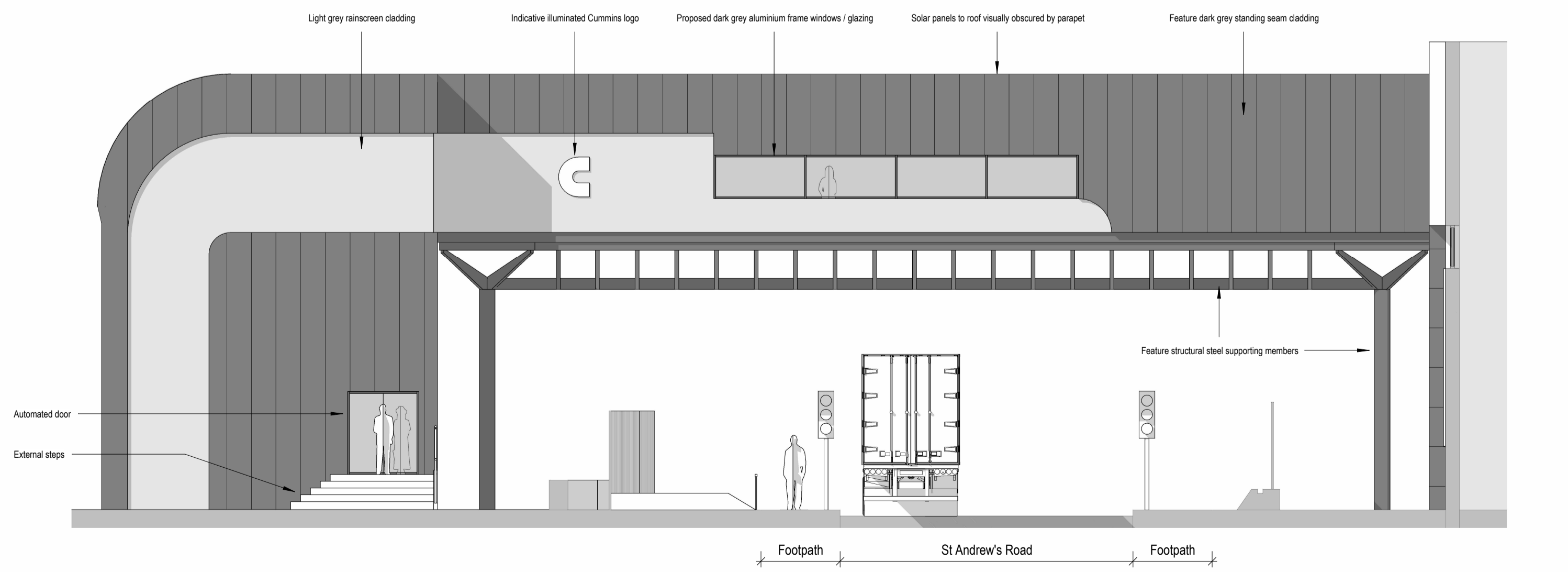
3D VIEW



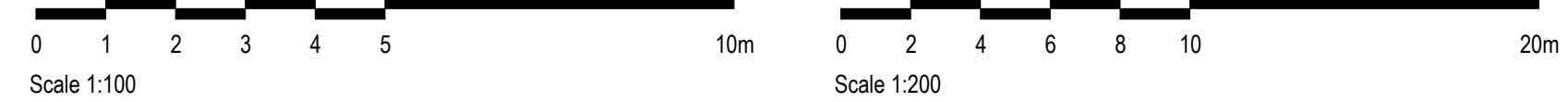
FIRST FLOOR - AS PROPOSED
1 : 200



FOOTBRIDGE LEVEL - AS PROPOSED
1 : 200



ELEVATION 2 - AS PROPOSED
1 : 100



Rev:	Date:	Description:	By:	Auth:
P03	30.04.2024	PLANNING ISSUE	RT	JH
P02	17.04.2024	AMENDED ISSUE	RT	JH
P01	21.03.2024	FIRST ISSUE	RT	JH

		A: Bates Mill Colne Road Huddersfield HD1 3AG T: 01484 424 008 E: design@farrarbamforth.co.uk W: www.farrarbamforth.co.uk														
Client:	CUMMINS TURBO TECHNOLOGIES LTD															
Project Name:	FOOTBRIDGE OVER ST ANDREWS ROAD															
Project Address:	ST ANDREWS ROAD, HUDDERSFIELD HD1 6RA															
Reference:	<table border="1"> <thead> <tr> <th>Project</th> <th>Originator</th> <th>Functional</th> <th>Spatial</th> <th>Form</th> <th>Discipline</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>24C07</td> <td>FBA</td> <td>ZZ</td> <td>XX</td> <td>DR</td> <td>A</td> <td>2000</td> </tr> </tbody> </table>		Project	Originator	Functional	Spatial	Form	Discipline	Number	24C07	FBA	ZZ	XX	DR	A	2000
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A2	CONCEPT DESIGN	P03														
Created By:	Authorised By:	Date:	Scale at A1:													
RT	JH	MARCH, 24	As indicated													

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Appendix 3: Good Practice Principles for Development

Taken from CIEEM (2016) Biodiversity Net Gain: Good practice principles for development.

Principal 1. Apply the Mitigation Hierarchy.

Principal 2. Avoid losing biodiversity that cannot be offset by gains elsewhere.

Principal 3. Be inclusive and equitable.

Principal 4. Address risks.

Principal 5. Make a measurable Net Gain contribution.

Principal 6. Achieve the best outcomes for biodiversity.

Principal 7. Be additional.

Principal 8. Create a Net Gain legacy.

Principal 9. Optimise sustainability.

Principal 10. Be transparent.



Appendix 4: Author Qualifications

Adam West, Principal Ecologist

BSc (Hons) Animal and Wildlife Management.

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Bachelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

Eleanor Clark, Consultant Ecologist

BSc (Hons) Biology, MSc Biodiversity, Ecology & Ecosystems, MRSB.

Eleanor gained her undergraduate degree in biology in 2017 from the University of Portsmouth before going on to complete an MSc in Biodiversity, Ecology & Ecosystems at the University of York in 2019. Eleanor has 3 years of experience in ecological consultancy working with experience surveying for a range of protected species. Eleanor has completed training courses in designing for Biodiversity Net Gain and UK Hab training courses in the UK Hab classification system and the use of UK Hab within the Biodiversity Metric.

Alex Donovan, Graduate Ecologist

MBIOL, BSc Biology (Industrial).

Alex joined JCA in 2023 after graduating from the University of Leeds with a First Class Honours Integrated Master's degree in Biology. As part of his degree programme, Alex spent an industrial placement year working in the Uplands Research Department of the Game and Wildlife Conservation Trust, assisting on various ecological surveys and projects. Alex is a registered Trainee Bird Ringer, licensed through the BTO, and has previously conducted seasonal bat emergence and transect surveys. Alex is currently working towards a level 1 bat licence, level 1 great crested newt licence, and a barn owl survey licence.



The Information and advice which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed

Redacted

.....
Eleanor Clark *BSc (Hons) MSc MRSB*

24/04/2024

Reviewed by

Redacted

.....
Alex Donovan *MBIOL BSc (Hons)*

24/04/2024

Approved by

Redacted

.....
Adam West *BSc (Hons) ACIEEM*

25/04/2024



For and on behalf of **JCA Ltd**

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ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

ARBORICULTURAL SERVICES

Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control



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