Construction Environmental Management Plan (CEMP): Biodiversity (Condition3)

Project Name:	Woodley School	**Contract No:**	10009738
Completed by:	Neil Hickingbottom	**Date:**	June 26

Revision Number	Description of changes made	Updated by	Date of Update
00	1st Issue	NH	July 26

This document forms part of Appendix B.9 of the Construction Phase Plan.

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1. Introduction

This CEMP has been prepared in accordance with the Kier SHEMS Environmental Management Standards and Guidance. It identifies specific environmental issues associated with Condition 3 - Construction Environmental Management Plan: Biodiversity for Woodley School and stipulates the procedures that will be used to manage them. Relevant environmental information will be communicated as required and this document should be read in conjunction with Condition 11 Construction Environmental Management Plan which covers general construction activities for the project.

All amendments to this CEMP must be made and documented by project management in consultation with the Safety, Health and Environmental Manager or Environmental Manager / Adviser.

2. Planning Condition 3 CEMP: Biodiversity

Condition 3 is a Prior to Commencement Condition and is listed in full below. Each point is responded to in section 4.0.

Condition Ref	Condition
	No works shall take place until a Construction Environmental Management Plan (CEMP: Biodiversity) has been submitted to and approved in writing by the Local Planning Authority. The CEMP (Biodiversity) shall include the following:
a)	Summary of potentially damaging activities
b)	Identification of "biodiversity protection zones"
c)	Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (these may be provided as a set of method statements)
d)	The location and timing of sensitive works to avoid harm to biodiversity features
e)	The times during construction when specialist ecologists need to be present on site to oversee works
f)	Responsible persons and lines of communication
g)	The role and responsibilities on site of an ecological clerk of works (ECoW) or similarly competent person
h)	Use of protective fences, exclusion barriers and warning signs
	The approved CEMP: Biodiversity shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.

3. Existing Site Environmental Conditions

A review of the Pre-Construction Information pack (Section 3.0, Environmental Restrictions and Existing On-Site Risks) issued by Kirklees Council has not identified any significant environmental concerns for the site.

Summarised below are the relevant environmental items extracted from the Pre-Construction Information pack:

- Deliveries, collections and storage restrictions – Deliveries, collections and material storage will be managed to avoid the adjacent primary school drop-off and pick-up periods, between 08:30–09:15 and 15:00–15:30. Roads will be kept clear of spoil and rubble, and delivery-time restrictions will be included within subcontract orders.

- Storage of hazardous materials – Only minor quantities of materials, such as glues and solvents, are expected to be classed as hazardous. These materials will be placed in secure containers on delivery, stored appropriately on site, and transferred into sealed drums before removal from site.

- Ground conditions – The GEO-Environmental Exploratory Investigation, undertaken prior to demolition, ground remediation and bulk excavation works, identified a moderate to low contamination risk, as noted in the extract below. Since then, the site has been demolished, and the client has completed extensive earthworks and ground remediation to improve the site's bearing capacity. A further site investigation report, relating to Condition 6, has been prepared by the demolition contractor for submission.

Contamination Risk Assessment

The table below shows a summary of the risk assessments undertaken for each pollutant linkage, the revised conceptual model and recommendation for either remediation and / or further investigation.

	Pollutant Linkage	Risk	Recommendations
1	Contaminants posing a risk to future site users via dermal contact, ingestion and inhalation (of soil, dust and fibres).	**Moderate (localised)**	- ACM (chrysotile) identified in made ground localised to the west of site. - Elevated PAHs in the made ground localised to the centre of site. - **Recommendations:** Remediation may be required in soft landscaping areas.
		Low	- No elevated heavy metals, PCBs and petroleum hydrocarbons identified across the site. - **Recommendations:** No remediation required.
2	Volatile contaminants posing a risk to future site users via the inhalation of vapours.	**Low**	- No elevated volatile contaminants across the site. - **Recommendation:** No remediation required.
3	Gas posing a risk to buildings and future site users via the migration of gas into building causing explosion and asphyxiation.	**Low**	- No significant made ground identified on site. Low TOC/SOM. - **Recommendation:** No remediation required.
4	Mobile contamination posing a risk to controlled waters via the migration through permeable strata.	**Low**	- No elevated contaminants identified in groundwater. - **Recommendations:** No remediation required.
5	Organic contaminants posing a risk to water pipes.	**Low**	- Elevated hydrocarbons identified but not at pipeline depth. - **Recommendations:** Water pipeline risk assessment to be completed.

- Asbestos – All materials found during the demolition of the site buildings has been removed. Small area identified in made ground is to be remediated during the demolition works.
- The Arboricultural Survey/Summary (for Kirklees) has indicated four areas (post demolition) that will require tree protection, however only two of these areas are in the new school boundary (site boundary). Tree protection measure will be introduced in these areas. Other trees identified in the report and been removed by the demolition contractor as part of their works.
- Ecological Impact Assessment residual effects – The Ecological Impact Assessment for Woodley School summarises the residual effect significance as follows:
  - Habitats – Minor beneficial effect from the creation of new habitat to achieve biodiversity net gain; not significant.
  - Bats – Minor beneficial effect through the provision of bat boxes as part of the new scheme; not significant.
  - Birds – Minor beneficial effect through the provision of bird boxes as part of the new scheme; not significant.
  - Badgers and hedgehogs – Negligible neutral effect.
  - Invasive species – Negligible neutral effect.
- Flood risk and water environment – The site-specific Flood Risk Assessment confirms that the site is located within Flood Zone 1, which represents a very low probability of flooding of less than 0.1%. No nearby watercourses or wells have been identified.
- Standing heritage and archaeology – The site has been cleared, and demolition works have been completed by the client. No standing heritage assets or archaeological features are present on site.
- Sensitive neighbours – The site is located within a residential area. Residential properties border the northern boundary, while Almondbury Cricket Club is located to the west. To the south and east are playing fields associated with the former school site, which has now been demolished. Hill View Academy primary school is located approximately 70m from the construction area.

4. Condition 3 Detailed Responses

General - Existing site conditions

The site has been remediated following demolition of the existing school. This included the ground being, excavated/compacted and capped, green area in Figure 1 below, with clean stone to provide a working prior to new build activities starting. Photographs 1 and 2 below show site following completion of the remediation works taken from the blue arrow's location noted on Figure 1

Areas that have generally been left untouched are:

- The existing fenced tarmac sports pitches on the southern boundary that are to be repaired and resurfaced as part of the permeant works
- There are small strips of grass around most of the site boundaries adjacent to the timber hoarding and a small borrow pit created to the west boundary which has had the existing topsoil stripped and removed from site to expose the virgin ground for use as general fill across the site area. These areas will be filled with selected back fill or imported fill before the topsoil and soft landscaping is installed.
- The tree protection zones will be established (as noted in the arboricultural report) to the north/east of the site adjacent to the proposed site compound, see Figure 2 plan. There should be no potentially damaging activities in or close to the tree protection zones and will generally be shielded from the project works by the site establishment.

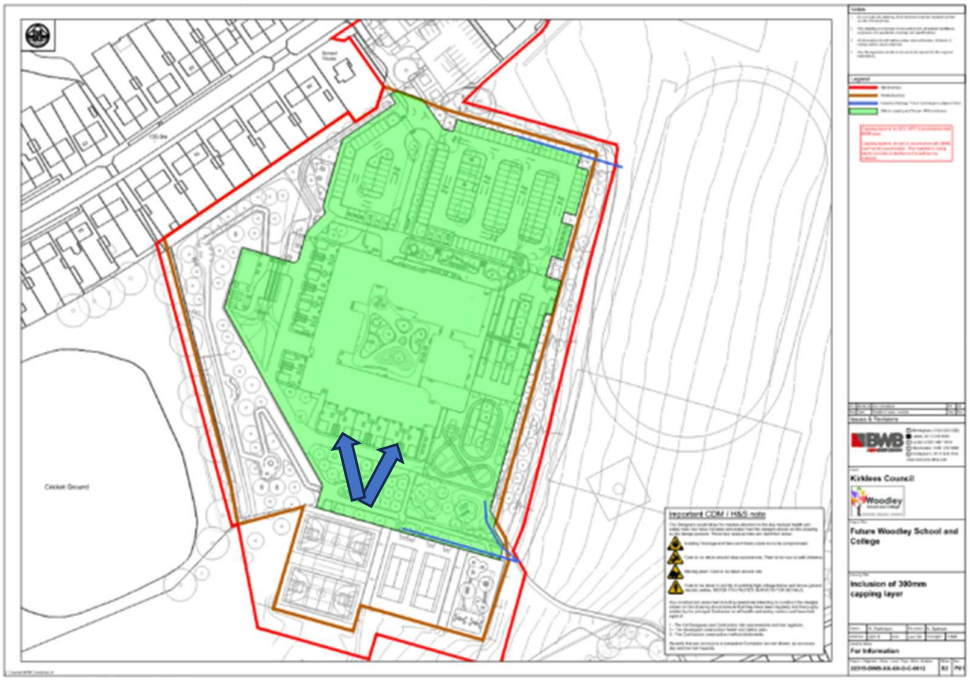


Figure 1 Site plan showing remediated area highlighted in green





Photographs 1-2 Showing remediated site area (July 26) (see Figure 1 for location)

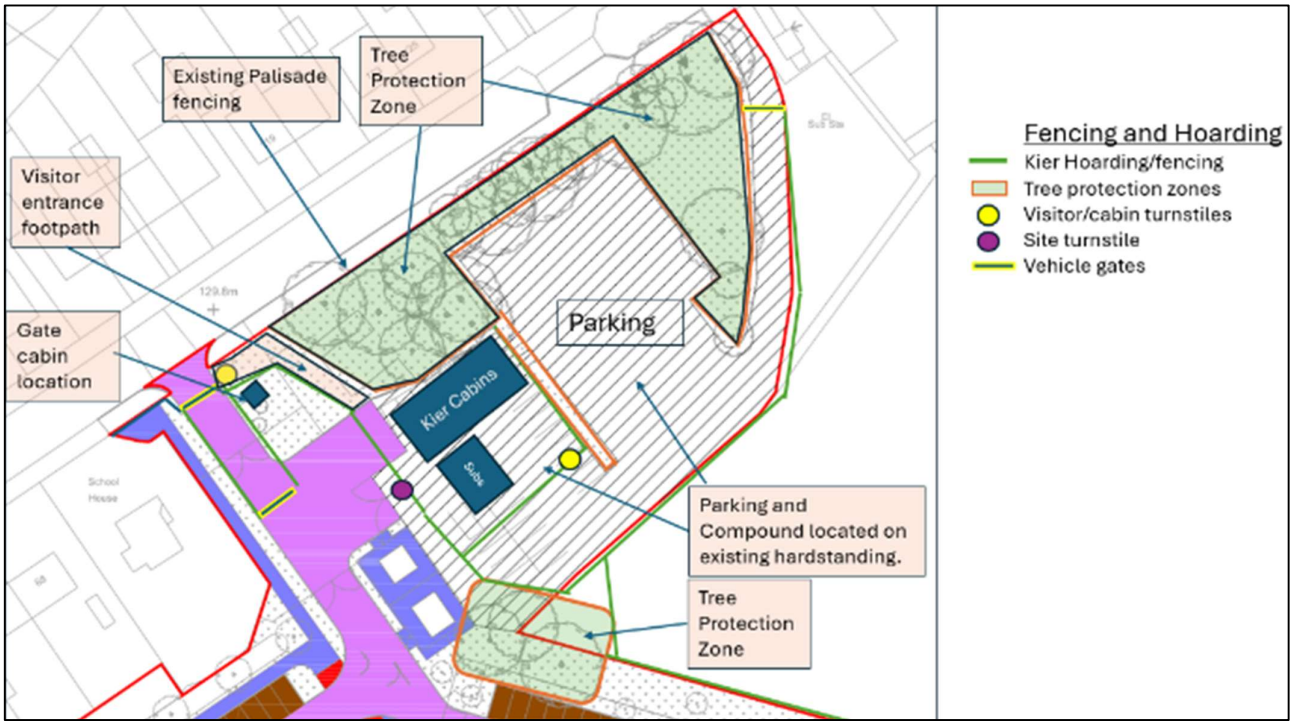


Figure 2 Entrance area tree protection locations

Planning Conditions

a) Summary of potentially damaging activities

Most activities with the potential to cause damage are associated with the movement and operation of construction plant, vehicles and lifting equipment. These activities will be concentrated around the new building footprint, which is located centrally within the stoned-up working area, away from the tree protection zones.

Groundworks and concrete works

i. Mass concrete foundations will be installed using excavators. Excavated spoil will be moved using 2-tonne dumpers, and concrete will be placed from concrete wagons using excavators.
ii. Ground floor slab pours will be placed using a concrete pump, supplied by concrete wagons.
iii. First floor and roof construction will comprise precast concrete slabs with a concrete/screed topping. Concrete /Screed will be placed using a Concrete/screed pump.

Structural frame, precast and façade works

iv. The steel frame and precast concrete units will be installed using mobile cranes, with MEWPs used to provide access where required.
v. Façade works will include SFS and brickwork. SFS will be installed from scissor lifts, while brickwork will be carried out from scaffold.

Drainage, utilities and external works

vi. Drainage works, including the attenuation tank and petrol interceptor, together with utilities such as power and water, and external hard landscaping, will be installed using excavators and dumpers.

Deliveries and unloading

vii. Deliveries will be made using articulated lorries for items such as the steel frame, precast units and bricks, and rigid wagons for materials such as drainage products, plasterboard, timber and finished items including doors and windows. Deliveries will generally be offloaded using a telehandler or forklift within the new car park area adjacent to the new building.

b) Identification of biodiversity protection zones

The Ecological Impact Assessment, prepared by Delta-Simons in March 2025, identifies the mature trees on site as the habitat of highest ecological value. These trees must therefore be protected throughout the demolition and construction phases.

The mature trees identified in the Arboricultural Method Statement, prepared by Frank Shaw Associates in March 2025, will be protected by tree protection fencing. This fencing will be installed at the start of the project and maintained throughout the works. Further details are provided in section h) Use of protective fences.

c) Practical measures to avoid or reduce impacts during construction

In addition to the protection of mature trees within the designated tree protection zones, a range of wider environmental control measures will be implemented to reduce the potential impact of the works. These measures include the following:

Noise and vibration

Temporary acoustic barriers or screens will be used, where required, around noisy plant or activities to help reduce noise transfer to surrounding receptors. Plant will not be started on site before 08:00, and large deliveries will be scheduled after 09:15 where practicable to avoid peak activity associated with the adjacent primary school and local road network. Higher-noise activities, such as concrete breaking, will be planned for the middle of the working day where practicable. Modern, well-maintained and appropriate plant will be selected to minimise noise and vibration.

Dust and air quality

Exposed ground and trafficked areas will be dampened down using hoses or sprinklers during dry or dusty conditions, particularly where plant movements may generate dust. Plant and vehicle exhaust systems, filters and associated equipment will be maintained in good working order through planned maintenance and regular checks. Wagons carrying excavated or loose material will be sheeted or otherwise covered before leaving site.

Traffic and access

Large delivery vehicles have greater potential to generate noise and vibration than smaller vehicles. Large deliveries will therefore be prohibited between 08:30 and 09:15 and between 15:00 and 15:30, which correspond with the adjacent school drop-off and pick-up periods. This restriction will help reduce congestion, minimise disruption on the local road network and support safer pedestrian access during peak periods.

Communication

Regular newsletters will be issued to the local neighbourhood to provide updates on project progress and upcoming activities. These communications will identify any works that may generate noticeable noise or disruption and will include contact details for raising questions or concerns with the project team.

Waste management

Waste streams from both the temporary accommodation and construction activities will be segregated where practicable. Anticipated waste streams include domestic canteen waste, cardboard, paper, packaging, timber, metal, plasterboard and mixed waste. Skips will be covered where required and stored within a fenced compound to prevent windblown materials. Regular site-wide clean-ups will also be undertaken to maintain good housekeeping standards.

d) Location and timing of works to avoid harm to biodiversity features

As noted in b), the most sensitive biodiversity features on site are the mature trees. These trees will be enclosed within the tree protection zones identified in the Arboricultural Method Statement. The protection zones will be established during the site set-up period and maintained throughout the construction phase

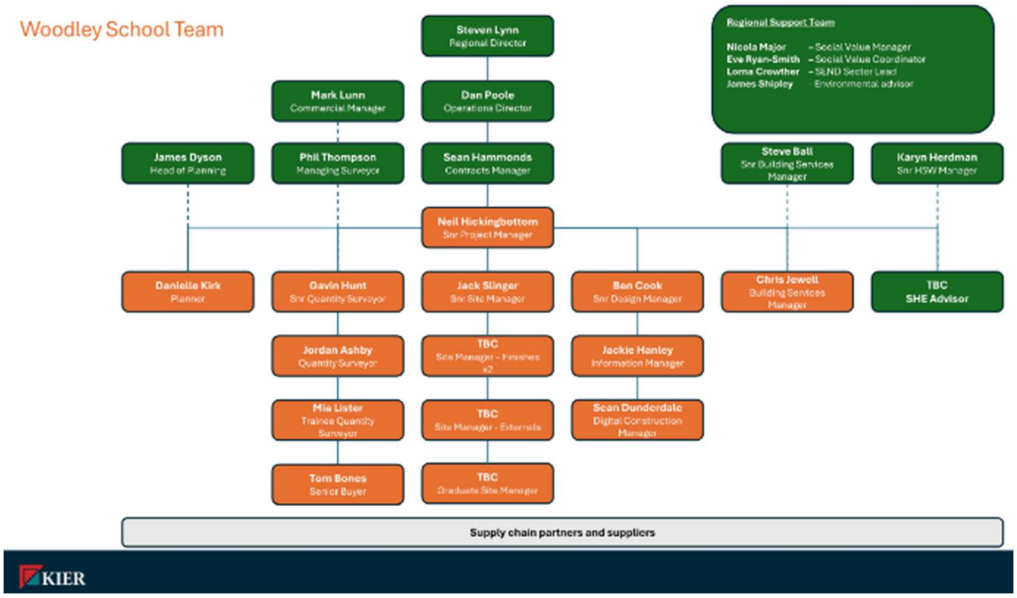
e) The times during construction when Specialist Ecologists need to be present on site to oversee works

The Arboricultural Method Statement for the demolition works states that any tree removal must be supervised by an Arboricultural Clerk of Works (ACoW). Where works take place during the bird breeding season, typically March to September, an ecologist must also check for the presence of nesting birds before works proceed.
All tree removal and site clearance activities were completed as part of the demolition works. No further site clearance is currently required during the construction phase. However, if any activity arises that requires ecological oversight, a suitably qualified ecologist will be appointed to attend site and oversee the relevant works.

f) Responsible persons and lines of communication

The current site organogram, shown below, identifies the proposed project staff and their on-site and off-site roles. A project directory will also be maintained, containing contact details for the client (Kirklees), contractor (Kier) and project design team. This directory will be reviewed and updated as required as the project progresses.
A site-based Project Environmental Co-ordinator will be appointed once the project commences. The Environmental Co-ordinator's responsibilities will include:

- Check that the site is set up correctly, including arrangements for waste, materials, pollution prevention, tree protection and species protection.
- Prepare, communicate and regularly review the constraints plan with the Environment Team.
- Display current environmental, sustainability and engine idling policies on site.
- Include site-specific environmental requirements in the site induction.
- Ensure environmental matters are included in weekly SHE site inspections.
- Nominate a suitable deputy to provide absence cover.
- Oversee environmental reporting for energy, water, timber and waste, and provide the required information to the Environment Team.
- Manage waste in accordance with legal and IMS requirements, including obtaining and checking waste carrier registrations, environmental permits and waste transfer notes.
- Implement pollution prevention measures and emergency response arrangements, including regular spill drills.
- Ensure wildlife and tree protection measures are installed and maintained.



g) The role and responsibilities on site of an ecological clerk of works (ECoW) or similar competent person.

The Ecological Clerk of Works (ECoW), or similarly competent person, may be required to provide ecological monitoring and supervision during activities with the potential to affect biodiversity features. This may include:

- Providing an ecological watching brief during higher-risk activities, such as vegetation clearance, topsoil stripping or building demolition.
- Supervising the capture, handling and lawful translocation of protected flora or fauna, where required under the relevant wildlife licences.
- Monitoring pollution controls, protective buffer zones and exclusion fencing to help prevent environmental damage.

Site clearance and remediation works were completed during the demolition phase. as a result, ECoW attendance is only expected to be required, during the establishment of the tree protection zones at the commencement of the works. The site-based Project Environmental Co-ordinator will then be responsible for maintaining the tree protection measures throughout the project, together with overseeing waste and pollution management controls.
If any future activity arises that requires ECoW oversight, arrangements will be made for a suitably competent person to attend site and supervise the relevant works.

h) Protective fences, exclusion barriers and signs

As noted in b) Identification of biodiversity protection zones and as indicated on Figure 2 the tree protection will be installed in line with section 7 of the Arboricultural Method Statement. Typical details of the fencing, including signage are indicated below.

Other solid hoarding will also be installed to the site perimeter, primarily for site security but also to form the site compound adjacent to the tree protection which will provide addition protection to the zone.

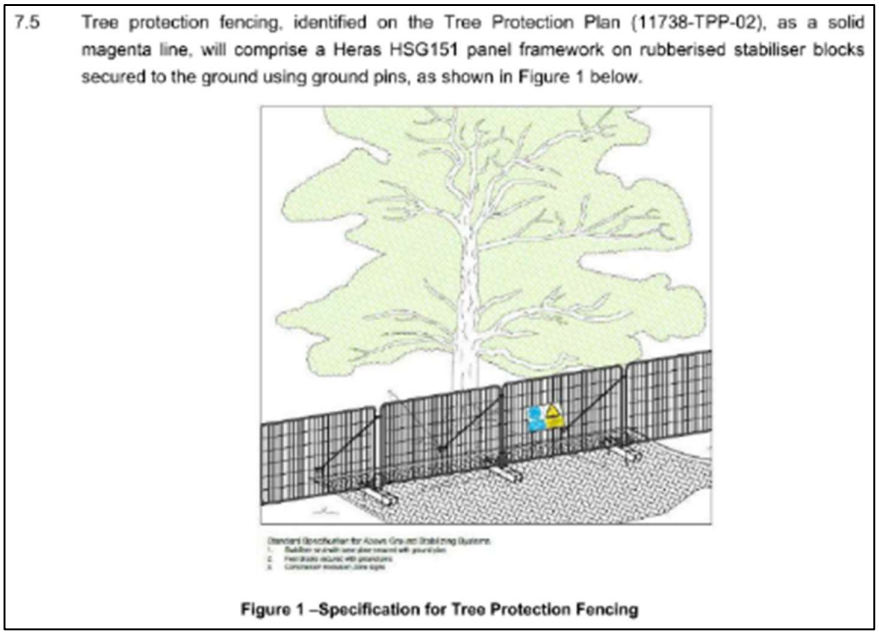


Figure 3 Typical tree protection fencing details

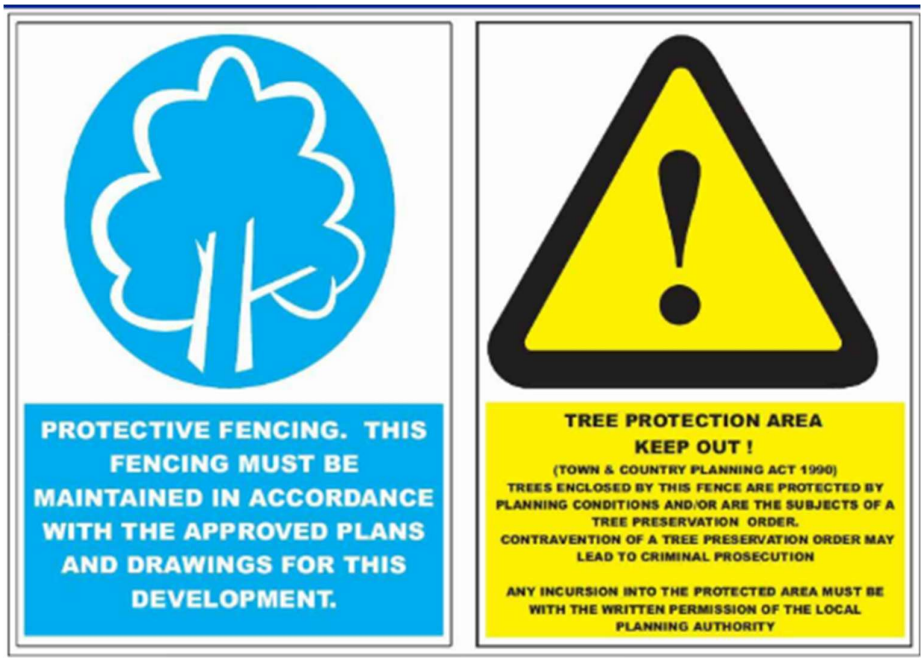


Figure 4 Typical tree protection fencing signage

5. Biodiversity Gain Plan – Results

The Biodiversity Gain Plan has been issued separately (Condition No: BNG Condition). This assessment has been carried out in tandem with the Preliminary Ecological Assessment and has identified a 24.46% net gain. The results/conclusion from the BD net Gain Plan are reproduced below for information along with the proposed landscaping plan (NWSC-ONE-ZZ-D-L00002)

4.0 Results

4.1 Baseline

Baseline habitats are shown in Figure 1 and consist of predominantly developed land, including footpaths, playgrounds, carparks and the existing buildings, the boundaries of the Site were defined by modified grassland, with scattered trees of varying species, ages and conditions, in addition to areas of ornamental shrubs. Overall, the baseline for the Site is calculated to provide 9.63 area BUs.

Table 1, below, provides a summary of the baseline habitats, areas and biodiversity units for the Site.

Table 1 - On-Site Area Habitat Baseline Score

Existing Habitats (Area)	Condition	Area (ha)	Biodiversity Units
Grassland - Modified grassland	Poor	1.62	3.24
Urban - Introduced shrub	Condition Assessment N/A	0.07	0.14
Urban - Developed land; sealed surface	N/A - Other	1.30	0.00
Urban - Developed land; sealed surface	N/A - Other	0.82	0.00
Individual tree - Urban tree	Moderate	0.684*	5.47
Individual tree - Urban tree	Moderate	0.0814*	0.65
Individual tree - Urban tree	Moderate	0.0163*	0.13
Total		**3.81**	**9.63**

*As trees do not provide a groundcover area, their areas are not included in the total within this table, meaning that the total areas presented remain the same as the area of the Site. Within the calculator, however, they are included in addition to the ground vegetation areas.

4.2 Proposed Scheme

Post-development habitat compositions are shown in Drawing 1 and detailed in Table 2, below. The majority of the Site post-development will include the new school building, with associate hard landscaping, in addition to the retention of some of the trees. Newly planted habitats will include ornamental planting, with modified and neutral grasslands, swale planting, and new tree planting across the Site. Woodland whip barrier planting will define the boundaries of the Site, providing a visual buffer to the Site.

Table 2, below, provides a summary of the post-development habitats, areas and baseline biodiversity units for the Site.

Table 2 - Post-Development Area Habitat Score

Proposed Habitats (Area)	Target Condition	Area (ha) Retained	Area (ha) Created	Biodiversity Units Delivered
Urban - Modified grassland	Moderate	0.07	0.22	0.56

Proposed Habitats (Area)	Target Condition	Area (ha) Retained	Area (ha) Created	Biodiversity Units Delivered
Urban - Developed land; sealed surface	N/A - Other	0.54	1.95	0.00
Grassland - Other neutral grassland	Poor	-	0.23	0.86
Urban - Introduced shrub	Condition Assessment N/A	-	0.07	0.14
Urban - Modified grassland	Poor	-	0.15	0.29
Heathland and Shrub - Mixed scrub	Moderate	-	0.58	3.88
Individual tree - Rural tree	Moderate	0.5212*	0.684*	6.26
Total		**0.61**	**3.20**	**11.99**

*As trees do not provide a groundcover area, their areas are not included in the total within this table, meaning that the total areas presented remain the same as the area of the Site. Within the calculator, however, they are included in addition to the ground vegetation areas.

Table 3, below, provides a summary of the proposed linear habitats on Site (i.e. hedgerows).

Table 3 - Post-Development Linear Habitat Score

Proposed Habitats (Linear)	Target Condition	Length (km) Created	Linear Units Delivered
Native hedgerow	Poor	0.431	0.83
Total		**0.431**	**0.83**

All of the hedgerows to be delivered on-Site have been combined to provide the above length measurement.

Biodiversity Net Gain Assessment
Almondbury School Site, Huddersfield
Lucion Delta-Simons Project Number 90653.625993

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5.0 Conclusions

The above assessment results in a total net unit change of:

Area Units = +2.36 **Total net % change = +24.46%**

Linear Units = +0.83 **Total net % change = N/A**

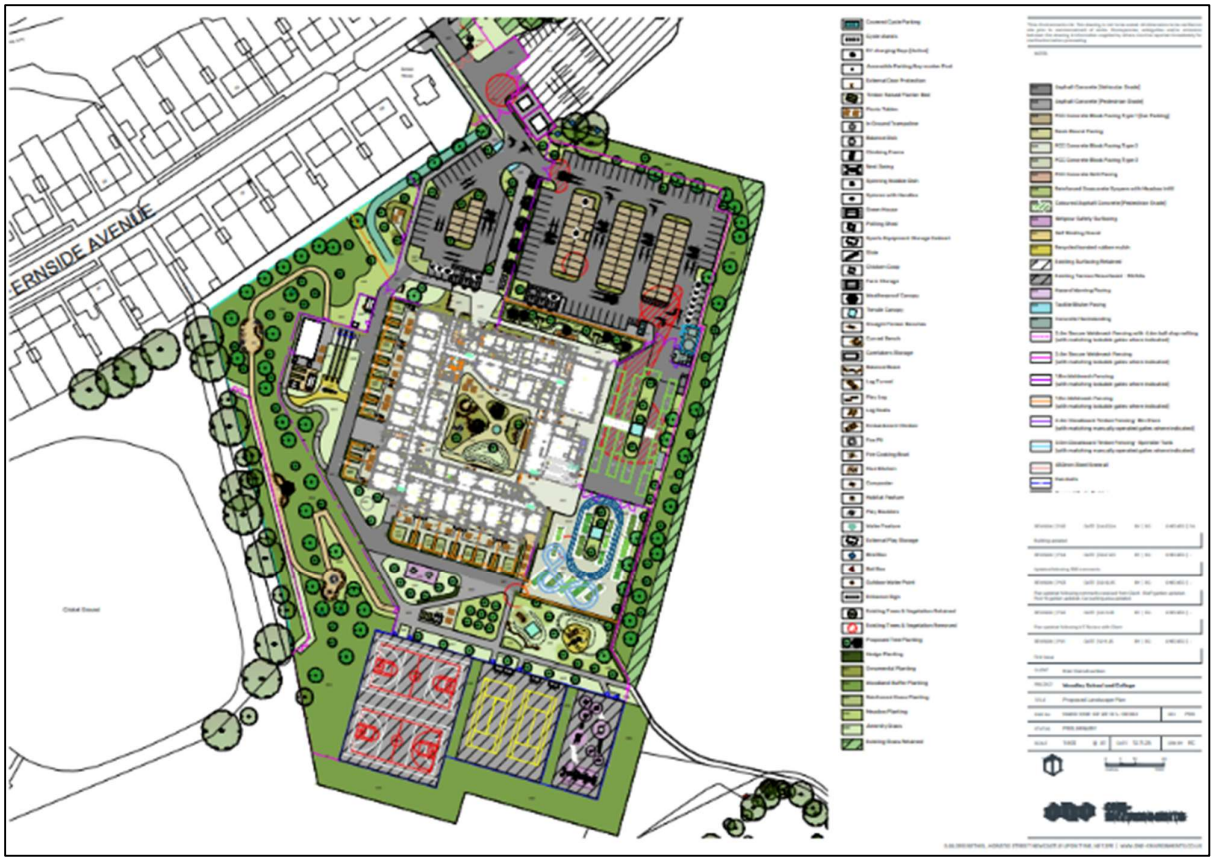
See the attached completed Defra Metric for detailed results (Appendix A).

Based on the information currently available, this assessment indicates that the development will achieve a net gain in biodiversity over 10%. The main contributor to this is the retention of trees, in addition of new scrub planting, additional tree planting and grassland planting and the creation of new areas of hedgerow.

The trading rules for the development have been satisfied.

It should be noted that any habitat creation is required to be managed in perpetuity to ensure habitats meet the target conditions (which for the purposes of BNG is considered to be 30 years). Monitoring of this should be implemented through an appropriate LEMMP.

The requirement for further consideration of Biodiversity Net Gain will depend on the current approach and requirements of the LPA.



Proposed Landscaping Plan - NWSC-ONE-ZZ-D-L00002