



WREN School, Southcote Lane, Reading

Ecological Management Plan

March 2018

Kier Construction





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Version	Date	Author	Checked	Approved
Final	23/03/2018	L Robinson	C Cartwright	S Bracken

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RT Ecological Appraisal V6.0 01/02/2016

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Plans

Drawing Number: 162559/20/dwg1 Mitigation and Enhancement Plan

Appendices

Appendix 1 Proposed Landscaping Plan
Appendix 2 Management Timetables

Contact details can be found at the end of this document.

1.0 Introduction

Background

- 1.1 Keystone Ecology was instructed by Kier Construction to produce an Ecological Management Plan (EMP) for the newly constructed WREN School located off Southcote Lane, in Southcote, Reading. The site is centred at national grid reference SU 695 724.
- 1.2 This EMP has been produced in support of a detailed BREEAM assessment and, in particular, credits associated with LE05: Long Term Impact on Biodiversity. The production of an EMP, covering a period of at least 5 years, contributes positively to this assessment.
- 1.3 In the absence of a more recently published Biodiversity Action Plan (BAP) for Reading, the priority habitats and species targeted within this report are made with reference to the original BAP extending between 2006 and 2015. Habitats at WREN School most closely fall within target habitats/species stated in Urban I and Urban II Habitat Action Plans.
- 1.4 Refer to *Appendix 1* for the proposed site layout/landscaping plan.

Aims and Objectives

- 1.5 The purpose of this document is to provide details and specifications for the management of habitats and other features of biodiversity interest on site.
- 1.6 The Ecological Management Plan (EMP) will demonstrate in detail how all ecological mitigation, compensation and enhancement measures will be implemented.
- 1.7 The EMP will provide details of the long term ecological objectives, maintenance schedules and management responsibilities.
- 1.8 The report follows the general guidance set out in Section 5 of CIEEM (2017) and the recommendations for appropriate ecological content of a LEMP specified in the British Standard (Biodiversity: Code of Practice for Planning and Development, BS42020: 2013).

Site Context

- 1.9 WREN School has been constructed on a 3.07 hectare site previously characterised by vacant school buildings surrounded by areas of hardstanding, gardens and playing field. The site is located to the south of Reading City centre in the suburb of Southcote. All buildings have been removed to facilitate re-development and the western part of the site currently supports temporary school structures which will be removed upon handover and replaced with tennis courts and an all weather pitch. The eastern part of the site now supports 2 new school structures, car parking and hard and soft amenity space. The plantation woodland and grassland associated with the sunken garden and all boundary hedgerows have been retained.
- 1.10 The wider landscape is characterised by residential and commercial buildings, with associated gardens and hardstanding. Schools and parks are also frequent in the locality. To the south of the site, beyond residential properties, the landscape opens onto large

expanses of grazing pasture, bisected by hedgerows, woodland corridors, drains and small tributaries including the Holy Brook. The Kennet and Avon Canal runs west-east approximately 850 metres south of the site and there is an extensive system of lakes approximately 1.5 kilometres to the south-west.

2.0 Description and Evaluation of Features to be Managed

2.1 The following features of ecological interest are present on site:

- Buildings
- Grassland – Amenity and Meadow
- Hedgerows
- Fencing
- Shrubs and Plants
- Woodland and Individual Trees

2.2 Refer to *Drawing Number: 162559/20/dwg1* for the locations of mitigation/enhancements proposed on site.

2.3 The locations of bird and bat units are designed to maximise the probability of uptake. The installation of bird and bat boxes should follow advice stated in this EMP as well as any specifics stated in manufacturers guidelines.

Buildings

2.4 Buildings will become habitat for nesting birds and roosting bats through the creation of appropriate external habitat options. Provision for birds and bats will include:

- 4 x House Martin nests with a double entrance – these units will be fitted > 2 metres from the ground. Units should be installed on north and east facing aspects oriented towards landscaped areas wherever possible.
- 4 x Woodstone Swift nest boxes – these units will be positioned > 5 metres from ground level, on north and east facing elevations, facing towards landscaped areas wherever possible.
- 1 x Schwegler 1FQ wall mounted bat unit – this unit will be positioned > 6 metres from the ground on a south-west or south-east facing corner, facing towards vegetation if possible.

2.5 The bird mitigation is designed to attract target species included in the Reading BAP (Urban Habitat Action Plan II). Bats are priority species in the Reading BAP and the inclusion of a unit appropriate for year round use will encourage uptake by roosting bats.

2.6 The creation of habitat for birds and bats within the built environment will maximise biodiversity potential on site and encourage uptake by target BAP species. These features

have the potential to be of **Local Biodiversity Value**, or higher in respect of features for bats, in the event that they are utilised.

Grassland

- 2.7 Small pockets of amenity grassland will be present within the sunken garden and around the school buildings and all-weather sports pitches. Amenity grassland will be of limited value to wildlife. Keeping amenity grassland short mown and well maintained will encourage pupils, parents and staff to use this habitat for recreation rather than stray into habitat of higher value i.e. woodland.
- 2.8 A band of meadow grassland is proposed around the margins of the retained woodland in the sunken garden, flanking soft pathways and seating areas. Unmanaged meadow grassland has the potential to support a range of invertebrates which in turn will provide a food source for foraging birds and bats. The creation of meadow grassland, high in herbaceous species, will create a small area of semi-natural grassland which is a priority habitat on the Reading BAP. Created meadow grassland habitat will be of **Local Biodiversity Value**.

Hedgerows

- 2.9 All existing hedgerows on site have been retained. Species rich hedgerows are a BAP habitat and are of **Local Biodiversity Value**. Hedgerows provide connectivity throughout the site and into the wider area and can be used as ecological corridors for bats and refuge for small birds and invertebrates. The hedgerow networks will continue to be used as a commuting corridor between the various Badger setts which exist on and adjacent to the site.
- 2.10 Flood lighting around the multi sports pitches has been designed to avoid direct illumination of boundary hedgerows at any time of year. Flood lighting has been designed to be directional and down lit. This will allow bats to commute and forage along hedgerows when they are active without alteration to their current behaviour.
- 2.11 A single hedgerow, comprising Cherry Laurel which is a non-native beneficial to wildlife species, will be planted on site. This hedgerow will extend from the south-west corner of the site and extent to the centre where shrub beds and amenity grassland are proposed. The hedgerow will improve connectivity within the site and could act as an ecological stepping stone or as a refuge for small birds and invertebrates. The hedgerow may also provide an additional foraging corridor to Badger.
- 2.12 The retention of habitat used by wildlife is encouraged in the Reading BAP. Retained and created hedgerows will be of **Local Biodiversity Value**.

Fences

- 2.13 Fencing is proposed on site namely around the site boundaries, edge habitats and the multi-use sports pitches. The fencing itself has no ecological value, however, it has the potential to obstruct free movement of Badger between on and off-site setts, favoured commuting routes and foraging grounds. To ensure Badger can continue to use on site habitats in a similar capacity to currently seen, provision for them will include:

- 11 x Badger gates measuring 400 mm by 360 mm in specified locations across the site. Locations are designed to allow Badger access to edge habitats and favoured commuting routes without access to the multi-use sports pitches.
- 2.14 The fencing modifications will ensure the ecological functionality of Badger is maintained on and around the site. The created features will be of **Site Biodiversity Value**.

Shrubs

- 2.15 Planting of native and non-native species is proposed across the site, namely around the new school buildings and car parking areas. Wide and linear bands of native shrubs are proposed around the north, east and west boundaries and smaller pockets of non-native beneficial varieties are proposed elsewhere. The planting of a combination of native and ornamental varieties, which are fruiting and nectar rich species, will increase the natural food resources on site. The denser native shrub beds are likely to offer valuable refuge and, once established, nesting opportunities to a range of small bird species. The increased invertebrate potential within this habitat can in turn serve to increase the overall biodiversity value of the site as increased food resources can attract foraging bats and birds.
- 2.16 Habitat of value to wildlife, which provides foraging and breeding opportunities as well as shelter, is recognised as valuable within the urban environment. The mosaic of shrub beds created, therefore, contributes positively to the Reading BAP focussed namely on habitats created in gardens, parks and similar urban sites. The created shrub habitats will be of **Local Biodiversity Value**.

Woodland and Individual Trees

- 2.17 Plantation woodland and the majority of scattered trees are being retained. A small number of additional trees are also being planted. The retention of woodland and well established trees maintains the distinctive leafy character of the site and green infrastructure resource. The woodland is actively used by Badger and is also of value to invertebrates, bats and birds.
- 2.18 The careful location of soft footpaths and seating areas, at least 5 metres away from the known Badger sett entrances, will ensure Badgers can co-exist with recreational use of the site by people. The presence of Badger in the school grounds can, therefore, be enjoyed and used as an educational resource.
- 2.19 Flood lighting around the multi-sports pitches has been designed to avoid direct illumination of woodland at any time of year. Flood lighting has been designed to be directional and down lit. This will allow bats to commute and forage within the woodland and tree lines when they are active without alteration to their current behaviour.
- 2.20 A selection of trees will become a habitat for nesting birds and bats through the installation of external habitat options. Provision for birds and bats will include:
- 6 x Schwegler 1B Next Boxes (2 with oval entrances, 2 with 32mm entrances and 2 with 26mm entrances) – to be installed > 2 metres from the ground on a range of aspects.
 - 2 x CedarPlus Triple Sparrow Houses – to be installed > 2 metres from the ground.

- 4 x Robin and Wren Nest Boxes – to be installed at 2 metres from the ground or lower. Units must be installed where dense shrub cover exists nearby.
- 3 x Schwegler 1FF bat boxes – to be installed > 4 metres from the ground on differing aspects and where branches do not clutter the access point.
- 6 x Schwegler 2F with double fronted panel Bat Boxes – to be installed > 4 metres from the ground on differing aspects and where branches do not clutter the access point.
- 3 x Schwegler 1FD bat boxes – to be installed > 4 metres from the ground on differing aspects and where branches do not clutter the access point.

2.21 Retained woodland and trees positively contribute to local green infrastructure and allow Badger setts on site to be retained. The retention and enhancement of habitat used by wildlife is encouraged in the Reading BAP and, therefore, retained woodland and the inclusion of external nesting/roosting opportunities, targeted at priority species, contributes positively to the local BAP. Retained woodland and trees are of **Local Biodiversity Value** or higher, should there be uptake of the created bat roosting opportunities.

3.0 Ecological Trends and Constraints that Might Affect Management

3.1 The following ecological trends and constraints on site might affect management:

- Presence of Badger setts within woodland and commuting/foraging habitat across the site and adjacent to it;
- Presence of nesting birds within bird boxes and vegetation; and
- Presence of bats within bat boxes.

3.2 Refer to *Table 1* below for the protection afforded to species that could potentially be affected by the ongoing management on site.

Table 1: Relevant Protection Legislation

Species	Legal Status
<i>European Protected</i>	
Bats	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; Deliberately disturb¹ such an animal; Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments

¹ Under the Conservation Regulations, disturbance of protected animals includes in particular any disturbance which is likely to: (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young or to hibernate or migrate; (ii) significantly affect the local distribution or abundance of the species in question.

Species	Legal Status
	likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.
<i>Nationally Protected</i>	
Badgers	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also make it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive.
Nesting Birds (general)	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: Intentionally kill, injure or take any wild bird; Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

4.0 Management of Features

Buildings

Aims and Objectives

4.1 These are as follows:

- Maintain bird nesting and bat roosting opportunities on the building in the long term;
- Avoid impacts to protected species that may be utilising this habitat.

4.2 Refer to *Appendix 2* for the annual timetable for managing this habitat.

Prescriptions of Management Actions

4.3 Wall mounted bird boxes should be inspected and cleaned out annually outside the nesting bird season i.e. between November and February. Any lost or damaged units should be replaced. Any replacements required must be installed prior to the next breeding season i.e. by February each year.

4.4 The wall mounted bat unit requires no specific maintenance and will remain in-situ for perpetuity. Annual visual inspection of this unit is required to ensure the entrance has not become blocked or covered as this could entomb bats or prevent them from returning to their roost. Inspection should take place outside the bat activity season i.e. between November and February.

4.5 No changes in lighting regime will be permitted until a suitably qualified ecologist (with experience of bats) has been consulted.

4.6 Any lighting designed to deflect/minimise lighting away from the buildings must be checked each year in October to ensure shields/cowls are not damaged or missing. Damaged or missing shields must be replaced immediately to ensure bats have a dark environment between their roost and surrounding commuting/foraging habitat. Necessary repair work must be complete prior to the start of the bat activity season the following year i.e. by March.

Grassland

Aims and Objectives

4.7 These are as follows:

- Improve grassland habitat for long-term use as a commute corridor or refuge opportunity to wildlife;
- Restrict footfall in woodland; and
- Maintain foraging opportunities for birds and bats in the long term by maximising invertebrate provision on site.

- 4.8 Refer to *Appendix 2* for the annual timetable for managing this habitat.

Prescriptions of Management Actions

- 4.9 The amenity grassland/turf will be subject to a regular mowing regime with no restrictions to the frequency or timing of these works.
- 4.10 The meadow grassland will be cut regularly during the first year to maintain good balance between establishing grassland floral species. After the first year the meadow grassland will be subject to a single annual cut in the summer. The cutting month should be varied between August and September to maintain a diverse balance in the sward and also maximise the length of time flowering plants can be enjoyed.
- 4.11 The meadow grassland cutting regime will create a long sward throughout the majority of the year and will provide long-term refuge to invertebrates. The long sward is also designed to restrict the use of this habitat as amenity space and minimise the risk of prolonged use of grassland in close proximity to the known Badger setts.
- 4.12 Grassland areas with any bare patches will be re-seeded as necessary, and any invasive weeds controlled with a weed suppressant such as Glyphosate or similar chemical.

Hedgerows

Aims and Objectives

- 4.13 These are as follows:
- Maintain or improve the biodiversity interest of hedgerows and connectivity both on and off site; and
 - Avoid impacts to protected species that may be utilising this habitat.
- 4.14 Refer to *Appendix 2* for the annual timetable for managing this habitat.

Prescriptions of Management Actions

- 4.15 Boundary hedgerows should be managed every third year on rotation, where practicable, using traditional methods such as hand-trimming and coppicing. General hedgerow management practise will aim to benefit hedgerow biodiversity. This will be achieved using some, and where appropriate, all of the following techniques (adapted from English Nature, 2002):
- A proportion of the hedgerows throughout the site will be left to grow for at least 5 to 10 years;
 - Where practicable, coppicing or laying will be used to manage hedgerows that become gappy or lack dense branches at their base. Where this is not possible, reciprocating bar cutters or flailing would be undertaken on a rotational basis so that some heavily fruiting structures are always present. Where possible, only a small proportion of the total length of a hedge would be managed at any one time;

- If the size of a hedgerow needs to be restricted, one side will be cut, leaving the other side and the top of the hedgerow uncut; and
 - Hedges will be trimmed to 'A shaped' or 'topped A shaped', which improves hedge viability and potential for wildlife.
- 4.16 The longer the period between management, the more dramatic the management may have to be, but the greater the range of niches supported by wildlife in the meantime. Lengthening the time between hedge cutting can enhance the foraging resource by increasing the production of hard and soft mast.
- 4.17 The first growth of a hedge should be layed where possible, and then allowed to grow freely so that flowers and fruit are produced and not removed by trimming.
- 4.18 The use of chemicals near to hedgerows and adjacent areas of vegetation will be avoided where possible to prevent loss of species richness of the hedgerows.
- 4.19 Any understory can be cut (as required) on a longer cutting regime at the same time as unmanaged meadow grassland habitat once per year to maximise refuge opportunities along linear features on site.
- 4.20 Hedgerow management must be undertaken outside of the nesting bird season which runs from March to August inclusive.
- 4.21 The condition of flood lighting around the multi sports pitches must not result in the illumination of hedgerows at any time of year. Flood lighting has been designed to be directional and down lit. The flood lights must be checked each year in October to ensure shields/cowls are not damaged or missing which would cause light spillage and prevent the nearby habitat from being used at night. Damaged or missing shields must be replaced to ensure bats have a dark environment between their roost and surrounding commuting/foraging habitat. Necessary repair work must be complete prior to the start of the bat activity season the following year i.e. by March.

Fencing

Aims and Objectives

- 4.22 These are as follows:
- Avoid impacts to protected species that may be utilising this habitat; and
 - Maintain commuting opportunities for Badger in the long term.
- 4.23 Refer to *Appendix 2* for the annual timetable for managing this habitat.

Prescriptions of Management Actions

- 4.24 The condition of Badger gates must be undertaken annually to ensure they are in good working order. Broken or obstructed gates that do not freely open/close could result in Badger causing damage elsewhere on site when trying to excavate new exit routes.

Alternatively, Badger mortality could occur if broken/obstructed gates force them to use roads for commuting rather than on site green infrastructure.

4.25 Obstructions must be removed immediately.

4.26 Broken gates must be replaced immediately.

Shrubs

Aims and Objectives

4.27 These are as follows:

- Maintain or improve the biodiversity interest of shrubs;
- Avoid impacts to protected species that may be utilising this habitat; and
- Maintain foraging opportunities for birds and bats in the long term.

4.28 Refer to *Appendix 2* for the annual timetable for managing this habitat.

Prescriptions of Management Actions

4.29 Shrub management must be undertaken annually outside of the nesting bird season which runs from March to August inclusive.

4.30 The wide, linear bands of native shrubs proposed around the north, east and west boundaries should be planted to ensure gaps do not occur. Shrubs should be managed to encourage them to grow into dense, tall bands of continuous vegetation.

4.31 Any failed plants must be replaced. If conditions on site will not allow any plant species to thrive on site the plant should be replaced with a similar variety or an alternative native or beneficial plant more tolerant to site conditions.

Woodland and Individual Trees

Aims and Objectives

4.32 These are as follows:

- Maintain or improve the biodiversity interest of woodland and trees;
- Avoid impacts to protected species that may be utilising these habitats; and
- Maintain foraging opportunities for birds and bats in the long term.

Prescriptions of Management Actions

4.33 Management of trees will be minimal and the crown allowed to spread naturally to maximise leaf cover which can be used as a navigational aid by commuting bats.

- 4.34 Pruning, if required must be undertaken outside of the nesting bird season which runs from March to August inclusive. Dead/dying/damaged limbs shall only be removed if they pose a danger to public health and safety.
- 4.35 Any removed branches should be left on site for their invertebrate value e.g. small piles can be stacked within the understory habitat or boundary hedgerows.
- 4.36 Bird boxes fitted to trees should be inspected and cleaned out annually outside the nesting bird season which runs from March to August inclusive. Any lost or damaged units should be replaced. Any replacements required must be installed prior to the next breeding season i.e. by February each year.
- 4.37 Bat boxes fitted to trees should be subject to a visual inspection from the ground to ensure they are in good working order. Internal inspection is not permitted. Any lost or damaged units should be replaced. Any replacements required must be installed prior to the next activity season i.e. by March each year.
- 4.38 Bat boxes should not be cluttered by branches. Trimming of branches causing clutter below or around tree mounted units should be removed. Removed branches should be left on site for their invertebrate value.
- 4.39 Significant tree works must not be undertaken until a suitably qualified ecologist has been consulted to ensure bats that may be roosting in tree features are not impacted and Badgers are not subject to disturbance.
- 4.40 The condition of flood lighting around the multi-sports pitches must not result in the illumination of woodland at any time of year. Flood lighting has been designed to be directional and down lit. The flood lights must be checked each year in October to ensure shields/cowls are not damaged or missing which would cause light spillage and prevent the nearby habitat from being used at night. Damaged or missing shields must be replaced to ensure bats have a dark environment between their roost and surrounding commuting/foraging habitat. Necessary repair work must be complete prior to the start of the bat activity season the following year i.e. by March.

5.0 Management Responsibility and Monitoring

Organisation Responsible for Management

- 5.1 Details outlined within this EMP will be the responsibility of the school.
- 5.2 A hard copy of the EMP must be kept at the school office. It is the responsibility of the gardener/site manager to ensure all personnel understand all ecological and landscaping obligations before attending site.
- 5.3 Advice can be sought from Keystone Ecology, if required.

Ongoing Monitoring and Remedial Measures

- 5.4 The success and establishment of all habitats created will be ensured through adherence to this EMP. The appointed gardener or site manager is responsible for the successful implementation of recommendations made in this document.
- 5.5 Advice can be sought from Keystone Ecology, if required.

6.0 References

BSI (2013). BS 42020:2013 Biodiversity — *Code of Practice for Planning and Development*. British Standards Institute: London.

Chartered Institute of Ecology and Environmental Management (2017). *Guidelines for Ecological Report Writing 2nd edition*. Available at: <https://www.cieem.net/guidelines-for-ecological-report-writing> [Accessed on 18th January 2018].

English Nature (2002). Hedgerow Management, Dormice and Biodiversity Report Number 454.

Reading Borough Council. Reading Biodiversity Action Plan 2005 – 2015. [Accessed on 23rd February 2018]. Available at: http://www.reading.gov.uk/media/5972/Reading-Biodiversity-Action-Plan/pdf/Reading_BAP_February_062.pdf.

The British Standards Institute (2013). Biodiversity – Code of practice for planning and development. BSI Standards Limited.

Web addresses for access to full legislation and policy text:

Conservation of Habitats and Species Regulations 20120 (as amended)
<http://www.legislation.gov.uk/ukxi/2012/1927/contents/made>

Habitats Directive:
http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

Natural Environment and Rural Communities Act 2006:
<http://www.legislation.gov.uk/ukpga/2006/16/contents>

Wildlife and Countryside Act 1981:
<http://www.legislation.gov.uk/ukpga/1981/69>

Plans

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- Badger gate (400mmx360mm) (11No. total)
 - 1B bird nest box (32mm entrance) (2No. total)
 - ▲ 1B bird nest box (26mm entrance) (2No. total)
 - ✚ 1 FD wall mounted bat box (1No. total)
 - ✚ Woodstone swift nest box 4No. total)
 - Double house martin nest (4No. total)
 - ◆ CedarPlus triple sparrow house (2No. total)
 - 1FD bat box (3No. total)
 - ▲ 2F-DFP bat box (6No. total)
 - 1B bird nest box (oval entrance) (2No. total)
 - 1FF bat box (3 No. total)
 - ★ Robin & Wren FSC nest box (4No. total)
 - Re-route footpath must be >5 from Badger sett

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Kier Group plc

WREN School, Reading

Drawing Number: 162559/20/dwg1

Ecological Mitigation & Enhancement

Revision	Date	Drawn	Approved
rev0	16/03/2018	RF	LR

0 5 10 15
Meters

Central grid ref: SU695724

No locations/dimensions to be scaled from this drawing

All locations/dimensions are to be checked on site

Locations/measurements displayed are for indicative purposes only

Head/Southern Office T+44 (0) 1666 503687

Northern Office T+44 (0) 1484 540533

Welsh Office T+44(0) 2920 504024

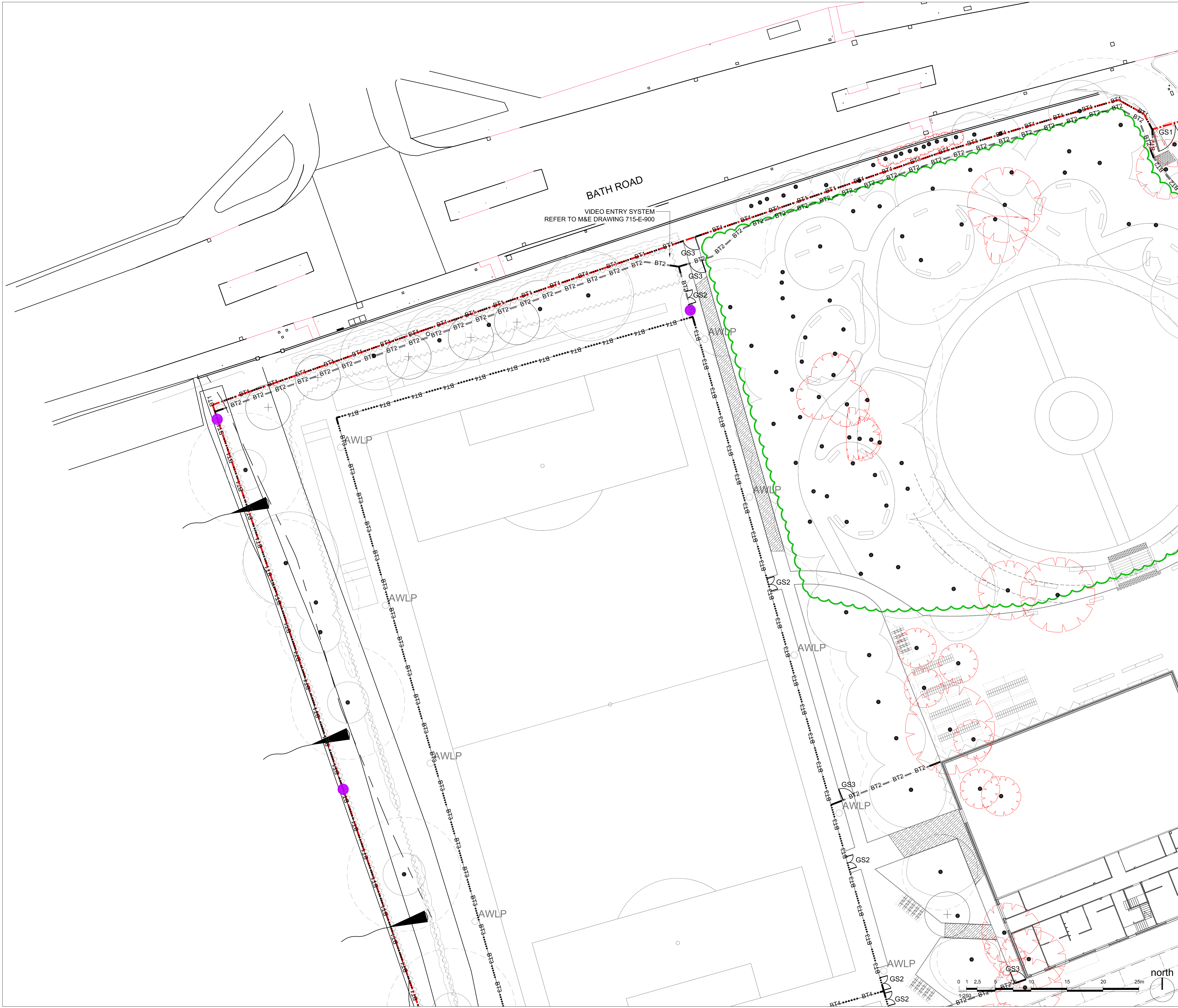
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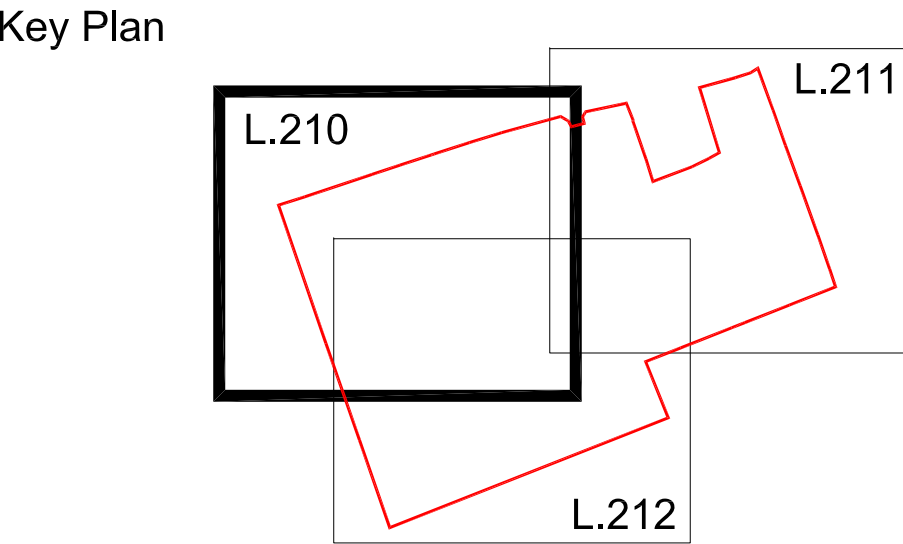
Appendices

Appendix 1

Proposed Landscaping Plan



- Notes
- This drawing is the property of fabrik ltd. It must not be copied or reproduced without written consent.
 - Only figured dimensions are to be taken from this drawing. All contractors must visit site and be responsible for taking and checking all dimensions related to the works shown on the drawing.
 - The original of this drawing has coloured lines. Do not rely on a monochrome copy.



- LEGEND
- SITE BOUNDARY
 - SUNKEN GARDEN AREA
DETAILED DESIGN SUBJECT TO DETAILED LEVELS SURVEY
 - EXISTING TREES RETAINED DASHED INDICATES ROOT PROTECTION AREA (RPA)
REFER TO ARBORICULTURALISTS REPORT
 - EXISTING TREES TO BE REMOVED
REFER TO ARBORICULTURALISTS REPORT
 - BT1 EXISTING FENCING / BOUNDARY TREATMENT RETAINED
PENDING CORRECTION SURVEY FOR REPAIR/REPLACEMENT
 - BT2 METAL WELD MESH FENCING
1.8m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
MES - Q40 / Q5A
 - BT3 METAL WELD MESH FENCING
1.0m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
MES - Q40 / Q5B
 - BT4 METAL WELD MESH FENCING
1.8m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
MES - Q40 / Q5C
 - BT5 TIMBER POST AND RAIL FENCING
1.2m HIGH TIMBER POST AND RAIL FENCING OR SIMILAR APPROVED
MES - Q40 / Q5A
 - BT6 TIMBER FENCING
2.4m HIGH HT AND MES TIMBER FENCING
MES - Q40 / Q5A
 - GATE STYLE 1 DOUBLE LEAF SWING VEHICULAR GATE
METAL VERTICAL BAR GATE
TO MATCH FENCING
 - GATE STYLE 2 DOUBLE LEAF SWING PEDESTRIAN GATES
TO MATCH FENCING
 - GATE STYLE 3 SINGLE LEAF SWING PEDESTRIAN GATES
TO MATCH FENCING
 - MAMMAL GAPS
150mm PIPE DIAMETER AS PER ECOLOGISTS GUIDANCE

NOTE:
FOR GATE ACCESS REQUIREMENTS REFER TO DRAWINGS 715-600-004

C1	31.07.17	Issued for Construction	trb	vh
P6	13.01.17	Stage 3 Issue - minor amendments to AWP fencing	th	vh
P5	12.01.17	Stage 3 Issue - minor amendments as revision clouded	th	vh
P4	11.01.17	Stage 3 Issue - minor amendments as revision clouded	th	vh
P3	15.12.16	Issued for Planning - Mammal Gap locations added	th	vh
P2	23.11.16	Stage 3 Issue	th	vh
P1	29.09.16	Issued for Planning	th	vh
No.	Date	Reason	Drawn	Checked

- External References:
- Drawings\fabrik\Working\AutoCAD\2342 Working.dwg
 - Drawings\Architect\Recvd-17-06-07 Site Plan\WREN-ECE-00-ZZ-DR-A-00 003 - Copy.dwg
 - Drawings\fabrik\Working\AutoCAD\XREFS\2342 XR Existing Trees_FABEDIT.dwg
 - Drawings\fabrik\Working\AutoCAD\XREFS\XR_Topo Info.dwg
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WREN School, Reading
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Drawing

Proposed Boundary Plan
Sheet 1 of 3

Scale	Date	Checked	Drawn
1:250 @ A1	Nov '16	vh	mc

Drawing No.	Revision
D2342 L.210	C1

☐ Preliminary
☐ Issued for Planning Approval
☒ Issued for Construction

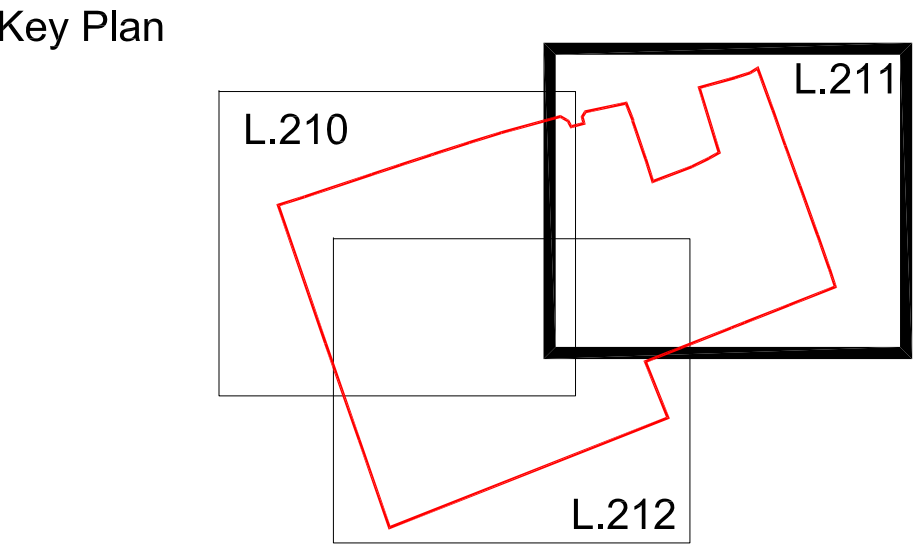
☐ Issued for Design/Information
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☐ As Built

Drawing sheet size - A1

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LEGEND

- SITE BOUNDARY
- SUNKEN GARDEN AREA
DETAILED DESIGN SUBJECT TO DETAILED LEVELS SURVEY
- EXISTING TREES RETAINED DASHED INDICATES ROOT PROTECTION AREA (RPA)
REFER TO ARBORCULTURALISTS REPORT
- EXISTING TREES TO BE REMOVED
REFER TO ARBORCULTURALISTS REPORT
- BT1 EXISTING FENCING / BOUNDARY TREATMENT RETAINED
FENCING CORRECTION SURVEY FOR REPAIR/REPLACEMENT
- BT2 METAL WELD MESH FENCING
1.8m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
WES - Q401125A
- BT3 METAL WELD MESH FENCING
1.8m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
WES - Q40125B
- BT4 METAL WELD MESH FENCING
1.8m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
WES - Q40125C
- BT5 TIMBER POST AND RAIL FENCING
1.2m HIGH TIMBER POST AND RAIL FENCING OR SIMILAR APPROVED
WES - Q40210A
- BT6 TIMBER FENCING
2.4m HIGH HT AND MESH TIMBER FENCING
WES - Q40210A
- GATE STYLE 1 DOUBLE LEAF SWING VEHICULAR GATE
METAL VERTICAL BAR GATE
TO MATCH FENCING
- GATE STYLE 2 DOUBLE LEAF SWING PEDESTRIAN GATES
TO MATCH FENCING
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C1	31.07.17	Issued for Construction	trb	vh
P5	20.01.17	Stage 3 Issue - minor amendments as revision clouded	th	vh
P4	11.01.17	Stage 3 Issue - minor amendments as revision clouded	th	vh
P3	15.12.16	Issued for Planning - Mammal Gap locations added	th	vh
P2	23.11.16	Stage 3 Issue	th	vh
P1	28.09.16	Issued for Planning	th	vh
No.	Date	Reason	Drawn	Checked
Revisions				
External References:				
• Drawings\fabrik\Working\AutoCAD\ID2342 Working.dwg				
• Drawings\Architect\Recvd-17-06-07 Site Plan\WREN-ECE-00-ZZ-DR-A-00 003 - Copy.dwg				
• Drawings\fabrik\Working\AutoCAD\XREFS\ID2342 XR-Existing Trees_FABEDIT.dwg				
• Drawings\fabrik\Working\AutoCAD\XREFS\XR_Topo Info.dwg				
• Drawings\fabrik\Working\AutoCAD\XREFS\XR_Context.dwg				

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Drawing

Proposed Boundary Plan
Sheet 2 of 3

Scale	Date	Checked	Drawn
1:250 @ A1	Nov '16	vh	mc

Drawing No.

D2342 L.211

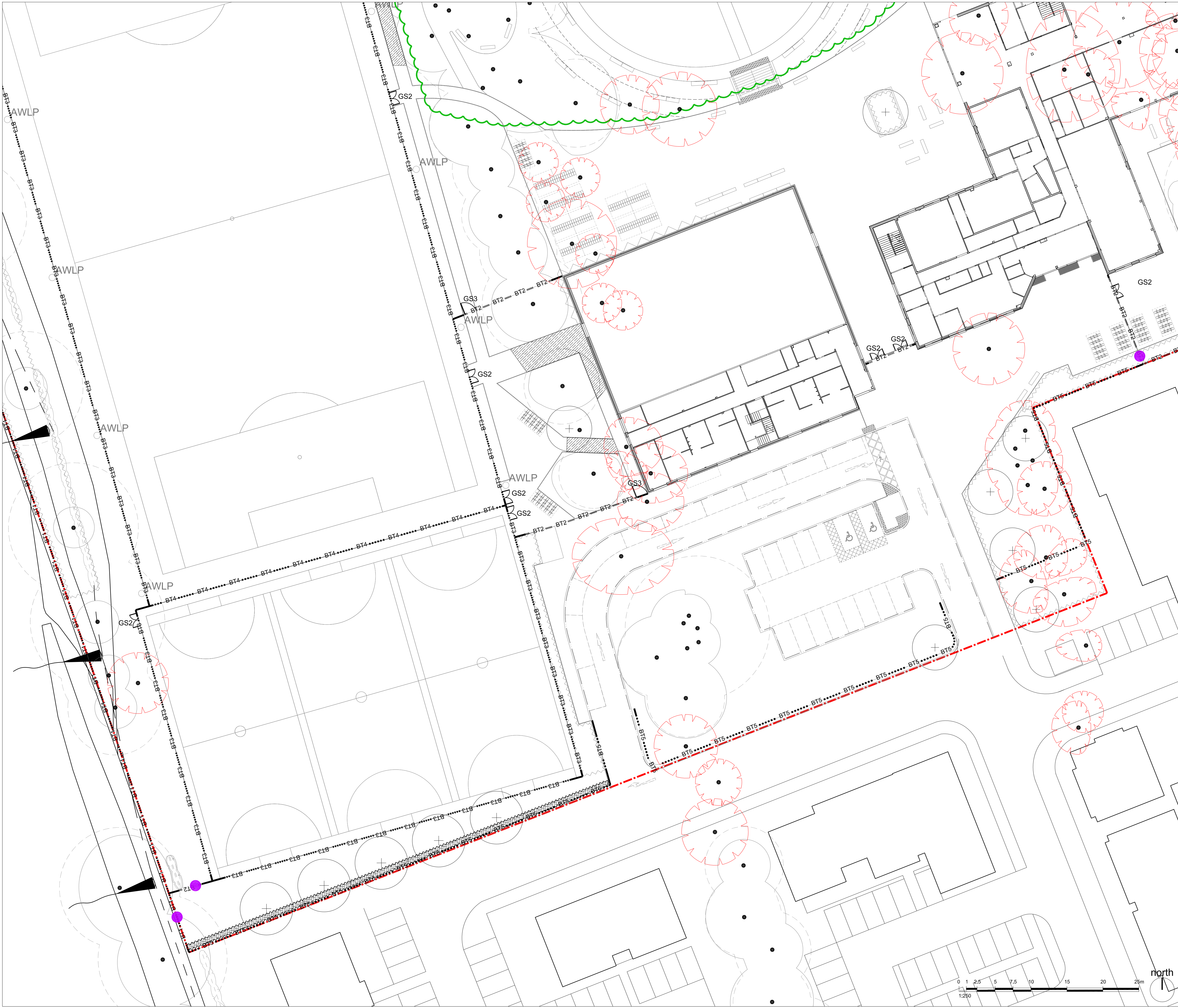
Revision

C1

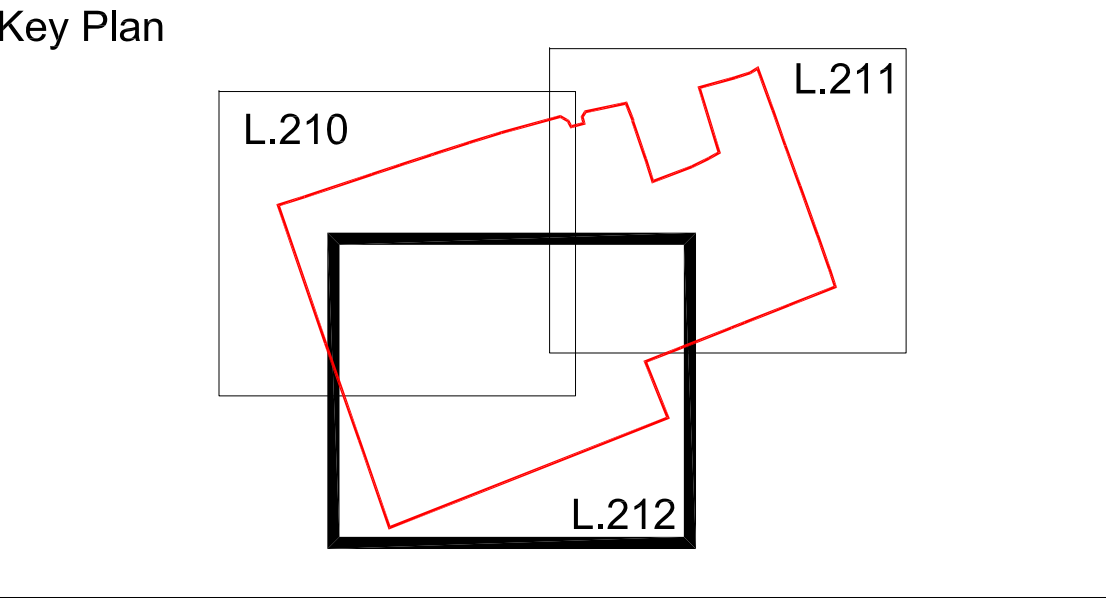
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- LEGEND
- SITE BOUNDARY
 - SUNKEN GARDEN AREA
DETAILED DESIGN SUBJECT TO DETAILED LEVELS SURVEY
 - EXISTING TREES RETAINED DASHED INDICATES ROOT PROTECTION AREA (RPA)
REFER TO ARBORCULTURALISTS REPORT
 - EXISTING TREES TO BE REMOVED
REFER TO ARBORCULTURALISTS REPORT
 - BT1 EXISTING FENCING / BOUNDARY TREATMENT RETAINED
FENCING CORRECTION SURVEY FOR REPAIR/REPLACEMENT
 - BT2 METAL WELD MESH FENCING
1.8m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
MES - Q40 1125A
 - BT3 METAL WELD MESH FENCING
1.0m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
MES - Q40 125B
 - BT4 METAL WELD MESH FENCING
1.5m HIGH WELD MESH FENCING DUO SPORTS FENCING OR SIMILAR APPROVED
MES - Q40 125C
 - BT5 TIMBER POST AND RAIL FENCING
1.2m HIGH TIMBER POST AND RAIL FENCING OR SIMILAR APPROVED
MES - Q40 210A
 - BT6 TIMBER FENCING
2.4m HIGH HT AND MES TIMBER FENCING
MES - Q40 210A
 - GATE STYLE 1 DOUBLE LEAF SWING VEHICULAR GATE
METAL VERTICAL BAR GATE
TO MATCH FENCING
 - GATE STYLE 2 DOUBLE LEAF SWING PEDESTRIAN GATES
TO MATCH FENCING
 - GATE STYLE 3 SINGLE LEAF SWING PEDESTRIAN GATES
TO MATCH FENCING
 - MAMMAL GAPS
150mm PIPE DIAMETER AS PER ECOLOGISTS GUIDANCE
- NOTE:
FOR GATE ACCESS REQUIREMENTS REFER TO DRAWINGS 7154-600-004

C1	31.07.17	Issued for Construction	trb	vh
P5	13.01.17	Stage 3 Issue - minor amendments to AWP fencing	th	vh
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Drawing
**Proposed Boundary Plan
Sheet 3 of 3**

Scale	Date	Checked	Drawn
1:250 @ A1	Nov '16	vh	mc

Drawing No.	Revision
D2342 L.212	C1

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