TIM MOYA ASSOCIATES

Ecological Enhancement Scheme

Barnard Park
Copenhagen Street
Islington
N1 0ER

June 2021

210260-ED-03

Limitations and Copyright

Project	210260 – Barnard Park
Report Type	Ecological Enhancement Scheme
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Updates	

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NON-TECHNICAL SUMMARY

This report details measures to maximise the biodiversity value of Barnard Park through ecological enhancement measures and habitat creation.

Key Enhancement Measures to be implemented:

- New area of Traditional Orchard planting
- Wildflower Meadow planting
- Green roof on new building
- New pond
- Diverse tree planting
- New hedgerow planting
- Community sensory/edible planting areas
- Bat boxes
- Sparrow terraces
- Bird boxes
- Log piles and loggeries

The locations of these features are shown on the Landscape Masterplan.

1 INTRODUCTION

Background

1.1 This report has been instructed by London Borough of Islington.

1.2 The proposed works involve the redevelopment of the park to improve its usability for sports and its biodiversity value.

1.3 The site is currently dominated by amenity grassland, trees, bare ground and hardstanding. The site itself is a Site of Importance for Nature Conservation (SINC) on account of its size and function in the landscape and ecology of the local area.

1.4 The site is a public park located within a busy London area. The area immediately surrounding the site comprises predominately residential streets. Small areas of parkland are present within the wider environment.

1.5 The central grid reference for the site is TQ 31032 83761. The site covers approximately 2.8 hectares.

Purpose of the report

1.6 TMA have been instructed to produce an Ecological Enhancement Scheme. These measures have been designed in collaboration with the landscape architect, arboriculturalist and wider design team.

1.7 This document provides details of the ecological enhancements and rationale for their relevance in the locality of the site. The ecological enhancement scheme will ensure that biodiversity value is enhanced and maintained in the long-term.

1.8 In addition to enhancing the site for biodiversity, some mitigation measures are required to prevent harm to legally protected species (such as nesting birds and roosting bats). Further information about mitigation measures required are included in the Preliminary Ecological Appraisal for this site (TMA, 2021).

2 PREVIOUS INFORMATION

Plans supplied

2.1 This Ecological Enhancement Scheme has been prepared with reference to the following documents, showing the layout and landscaping of the proposed development.

- Barnard Park Improvement Works, Landscape Masterplan, Ireland Albrecht Landscape Architects

Ecological Reports

2.2 This Enhancement Scheme has been compiled with reference to the findings and recommendations of previous ecological surveys and reports, as follows:

- Preliminary Ecological Appraisal, Tim Moya Associates, May 2021, ref. 210260-ED-01

2.3 Key results of the above Preliminary Ecological Appraisal report are as follows:

- The site is currently dominated by amenity grassland, trees, bare ground and hardstanding.
- The site contains potentially suitable habitat for the following protected species; reptiles, bats, nesting birds and hedgehogs.
- The site itself is designated a Site of Importance for Nature Conservation (SINC).
- The proposed development is due to result in the loss of a small number of trees and large amounts of bare ground. The majority of the on-site trees are due to be retained within the development. The retained habitats including grassland and introduced shrub within the site are due to be enhanced under the proposed development.

2.4 Key Recommendations of the report are as follows (see full report for details):

- Tree protection areas and methods are being advised by a suitably qualified arboricultural consultant.
- Habitat manipulation techniques will be appropriate to minimise the risk of harm to reptiles (see report for details).

- Features suitable for bats are present within the buildings on site. To confirm whether bat roosts are present, an emergence/re-entry survey should be undertaken on one occasion between May and August (inclusive).
- To avoid an impact on commuting and foraging bats, it is recommended that lighting is designed to minimise illumination of suitable habitats.
- Vegetation, including trees, suitable for nesting birds may only be removed during the nesting season if they have been checked by an ecologist and no nests are present.
- Care should be taken when removing brash or dense vegetation to avoid harm to hedgehogs which may be present.
- Three invasive plant species were recorded within the site - small-leaved cotoneaster *(Cotoneaster microphyllus)*, buddleia *(Buddleja davidii)* and cherry laurel *(Prunus laurocerasus)*. To avoid spreading these plants, they should be disposed of responsibly.

3 LOCAL BIODIVERSITY PRIORITIES

Islington Biodiversity Action Plan 2020

3.1 The Islington BAP includes action plans for 'Parks and Urban Green Spaces', Designated Sites' and 'Access to Nature', all of which are relevant to the improvement works at Barnard Park.

3.2 Priority actions within the Islington BAP include the following (amongst others):

- Enhance where possible those parks and estates which are SINCs (Sites of Importance for Nature Conservation) and where specific recommendations were made in the ecological survey of the borough in 2010.
- Protect and enhance features for London BAP priority species, e.g. house sparrows, bats, bees, swifts
- Create 250m^2 of new wildlife habitat per year in parks.
- Include biodiversity in all SLAs (Service Level Agreements) with groups managing parks and open spaces and assess the impact of this.
- Ensure that all new Park Improvement Projects take account of biodiversity.
- Support and encourage Friends of Groups and residents who want to undertake wildlife projects on sites e.g. Islington in Bloom.
- Seek CIL (Community Infrastructure Levy) funding through the planning system to fund new biodiversity projects.
- Map all biodiversity improvements on GIS (Geographical Information Systems).
- Identify sites where new ponds or wetland habitats could be created, given their scarcity in the borough and their high biodiversity value.
- To ensure resilience in the Islington street tree stock. To plant tree species that are appropriate for their location but also resilient to climate change and with consideration to incoming tree pests and diseases.
- To ensure adequate mitigation for trees lost to development and seek net gain and canopy cover increase where possible.
- Retain undisturbed dead wood on site wherever possible to benefit invertebrates, amphibians and reptiles.

- Install “bug hotels” and bird and bat boxes.
- Provide on the ground training for grounds maintenance staff and possibly caretakers on wildlife habitats and their importance.
- Encourage and support community action for wildlife projects such as groups who want to seek funding for projects which enhance biodiversity, e.g. planting for pollinators
- Aim to provide every child in Islington with the opportunity to experience high quality outdoor environmental education
- Enable people to derive the health and well-being benefits of contact with nature

Islington SINC Review 2018

3.3 Barnard Park is designated as a Local level Site of Importance for Nature Conservation (SINC) on account of its size and function in the landscape and ecology of the local area. In the Islington SINC review 2018, the park was identified as an opportunity site, which with minimal action (for example managing grassland areas) would warrant an upgrade in SINC status. The review noted that, although the site provides a sizable area of open space and variety of habitats, they are currently of low value for wildlife. The review recommended that meadow creation is undertaken, along with enhancement with bird and bat boxes, to bring the Site to a Borough Grade II (or possibly I) level. However, it was not currently of that value. The review also noted potential enhancements as: mowing regime, meadow creation, wetland creation, information/education and wildlife friendly planting.

Islington’s Core Strategy (February 2011)

3.4 Islington Open space and green infrastructure - Policy CS 15 states that the council will provide inclusive spaces for residents and visitors, and create a greener borough by protecting and enhancing biodiversity across the borough and addressing deficiencies in access to nature. Sites of Importance for Nature Conservation (SINCs) will be protected in line with their hierarchical importance and improvements to their biodiversity value will be supported. SINCs will be identified and designated in the Development Management Policies. Other key habitats, and priority species within them, will also be protected. Access to nature will be increased, including by improving the biodiversity value of parks and gardens. Further ways of increasing

access to nature, along with other priorities for the protection and enhancement of habitats will be set out in the Biodiversity Action Plan.

4 ECOLOGICAL ENHANCEMENTS

Traditional Orchard

4.1 Traditional orchard is a UK Priority Habitat and provides an excellent resource for pollinating invertebrates and food for birds. Orchards are hotspots for biodiversity, supporting a wide range of wildlife and containing UK Biodiversity Action Plan priority habitats and species, as well as an array of Nationally Rare species. Orchards provide seasonal interest in blossom and fruits, and educational opportunities for all ages.

4.2 A new orchard area of approximately 400 m2 will be created in the south-west corner of the park, at the Hemingford Road entrance. Nine trees are to be planted, including various apple species such as ‘Cox Orange Pippin’, ‘James Grieve’ and ‘Laxton Superb’.

4.3 Orchard creation and maintenance will be guided by sources including the People's Trust for Endangered Species ‘Traditional orchards - a guide to wildlife and management’ and Natural England’s Technical Information Note TIN014: Traditional orchards: planting and establishing fruit trees. The **Orchard Project** is dedicated to the creation, restoration and celebration of community orchards and provides advice on establishing and maintaining orchards, including community involvement.

4.4 A management plan for the maintenance of the new orchard will be produced at the appropriate time to detail the long-term management and monitoring of the orchard. As applicable, the plan will include details on pruning for fruit production, the cutting of the orchard’s understorey and measures to protect the new orchard.

4.5 To maximise its value for biodiversity, dead wood should be retained in piles nearby, rather than removing off-site. Where safe to do so, dying branches should be left on the tree rather than being removed. Grass beneath the orchard trees should be managed as meadow where appropriate, avoiding frequent mowing and nitrogen and phosphorous fertilisers. When mowing, grass cuttings will be removed.

Wildflower Meadow and Biodiverse Grassland

4.6 Wildflower meadow planting provides a source of nectar for pollinating insects listed on the UK Biodiversity Action Plan. Lowland Meadow is a UK Priority Habitat.

4.7 The Landscape Masterplan shows various different types of grassland throughout the site, in order to achieve a balance between biodiversity and recreation:

- Diverse wildflower meadow turf designed for maximum ecological benefits.
- Relaxed mowing of existing grass and supplementary bulb planting to increase biodiversity value.
- Newly seeded recreation-resistant biodiverse seed mix, subject to relaxed mowing.
- Close-mown amenity grassland (existing and new) – for intense recreational use

4.8 The locations for the different grassland types have been designed depending on the intended use of those areas. Mown strips can be used to define walking routes and enhance the appearance of wildflower areas. Plug planting and/or wildflower turf is to be considered to help establish this habitat successfully in the first few years. Recommended grassland species are included in the Royal Horticultural Society's 'Plants for Pollinators' lists.

4.9 The success of wildflower meadow and biodiverse grassland is dependent on its ongoing management. Grassland managed for invertebrates should be cut only once or twice per year, always allowing plants to set seed in the summer before cutting. If possible, some areas should remain uncut each year. A management plan for the maintenance of the grass areas will be produced at the appropriate time.

Biodiverse Green Roof

4.10 A biodiverse green roof will be created on the roof of the new community hub building in the west of the site.

4.11 Green roofs provide a range of benefits including wildlife habitat, insulation, softening appearance of buildings and water attenuation. Green roofs have the potential to improve London's resilience to the impacts of climate change by reducing storm water run-off velocity and volumes, and by increasing the cooling effect during London's hotter summers. Green roofs can be designed to recreate grassland, brownfield or wasteland habitats critical for many rare species, including bird species and invertebrates. Green roofs also have many additional benefits in terms of building insulation, drainage and roof lifespan.

4.12 The green roof will be designed following the principles of Buglife's 'Creating Green Roofs for Invertebrates' Best Practice Guide. A range of native plant species can be plug planted on the roof, as recommended by Buglife to provide a ready resource for invertebrates, particularly during the first few years whilst naturally colonised plants become fully established.

4.13 Crushed aggregate can be used to provide green roof substrate. Substrate depth should be between 80 and 150mm and vary across the roof. Reclaimed building material can be used but should be screened to ensure that it is not contaminated. Areas of bare ground can provide habitat for warmth-loving invertebrates and recreate an open mosaic habitat structure. Mounds and ridges can provide varying microclimates suitable for different species and create structurally diverse vegetation. A locally-sourced log pile can be installed on the green roof, to provide shelter and nesting sites for invertebrates that burrow into or shelter amongst dead wood.

4.14 A biodiverse green roof should receive at least two maintenance visits per year by a suitably qualified contractor.

Pond

4.15 A new pond will be created within the site. The exact location and size/specification is yet to be confirmed, but the design will be intended to maximise its biodiversity value.

4.16 Ponds represent one of the most diverse of all ecological habitats in London. Ponds are a London and UK Priority Habitat. It is an aim of the Islington Biodiversity Action Plan to identify sites where new ponds or wetland habitats could be created, given their scarcity in the borough and their high biodiversity value. In the urban landscape a pond provides a vital stepping-stone for species such as dragonflies and amphibians. It also provides a visual point of interest and an opportunity for wildlife interaction/education.

4.17 The pond will be planted with native marginal and aquatic vegetation of known benefit to invertebrates and other native wildlife. Care will need to be taken to design the pond so that it will consistently receive and retain water, ideally without filling from tap water which can unsettle the chemical balance of the pond. The level of water is expected to fluctuate to some extent with the seasons.

4.18 The pond will be planted with native submerged and marginal vegetation. The habitat surrounding the pond will be managed to increase the connection of the pond to other natural habitats. Grassland around the pond will be subject to relaxed mowing.

4.19 Decking will be installed over the pond to provide a vantage point for educational opportunities and the enjoyment of the public. The location of the pond within the existing play area will ensure that the pond is not negatively impacted by dogs entering it.

4.20 Wildfowl will not be encouraged within the pond as they can tend to remove vegetation and reduce biodiversity in small ponds.

4.21 Spoil arising from the pond creation can be mixed with other materials such as rubble to provide uncompacted mounds and banks for amphibian shelter and hibernation sites.

Tree Planting

4.22 Tree planting across the site has been designed in collaboration between arboriculturalists, landscape architects and ecologists. The tree species selected will provide a high diversity of native tree species to attract and support native wildlife, particularly invertebrates.

4.23 The tree planting proposals will include tree species that are appropriate for their location but also resilient to climate change and with consideration to incoming tree pests and diseases.

4.24 The tree species proposed will provide a range of flowering and fruiting periods throughout the year. Tree planting proposals are designed to complement other ecological enhancements throughout the site including wildflower meadows and the new pond.

Hedgerows

4.25 No hedgerows are currently present within the site. New native hedgerows will be planted around the south-western corner of the site, trimmed at 2 m height.

4.26 Hedgerows will provide feeding and nesting opportunities for birds and invertebrates and refuge habitat for amphibians. Hedgerows provide a continuous corridor of habitat for birds and other wildlife, connecting habitats together as well as providing

natural visual screening from surrounding ‘hard’ landscapes - roads, car parking and properties.

Community Sensory/Edible Planting

4.27 Provision will be made in the south-west of the site for community planting areas to be maintained by the Friends of Barnard Park group.

4.28 Sensory and edible planting has multiple important benefits: Plant species such as lavender, rosemary, thyme, jasmine and sage provide an excellent feeding resource for butterflies, bumblebees and other pollinators and are included on the Royal Horticultural Society’s ‘Plants for Pollinators’ list. This planting also provides visual and olfactory interest to the public and cultivation of edible planting provides an educational opportunity to people of all ages and backgrounds.

4.29 Species will be largely selected from the RHS ‘Plants for Pollinators’ list, which give many options of suitable species with varied flowering and fruiting seasons.

Bat Boxes

4.30 Bats are listed as Priority Species on the London Biodiversity Action Plan. Bat boxes are artificial roosts designed to provide bats with alternative roosting places or to encourage bats into areas where there are few existing suitable roost sites.

4.31 Two bat boxes will be inbuilt into the new Community Hub building and eight more will be installed on suitable mature trees throughout the site. Suggested models are shown in Appendix 2Appendix 1. Models have been chosen to accommodate different bat species which may be found in London, including pipistrelle species which roost in narrow crevices, and brown long-eared bat which roost in more open cavity features. Bat boxes to be installed on the building are designed to be in-built into the structure during construction rather than attached externally. Boxes will be orientated south when possible but can be placed in a variety of orientations in order to avoid artificial lighting. The boxes will be placed at least 3 m above the ground. Bat boxes are designed to require no annual cleaning or maintenance. Bats are legally protected from disturbance, and so, once installed, bat boxes should not be moved or inspected without the advice of a suitably qualified ecologist.

Sparrow Terraces

4.32 The House Sparrow is listed on the UK and London Biodiversity Action Plans as a priority species for conservation. Monitoring suggests a severe decline in the UK house sparrow population recently estimated as dropping by 71 per cent between 1977 and 2000 with substantial declines in both rural and urban populations (RSPB).

4.33 House Sparrows nest in colonies and sparrow terraces can be added to buildings to encourage nesting.

4.34 Two sparrow terraces will be inbuilt into the new Community Hub building. Suggested models are shown in Appendix 2. Sparrow terraces to be installed on the building are designed to be in-built into the structure during construction rather than attached externally. Sparrow terraces can be cleaned out annually during winter when nesting activity has finished.

Bird Boxes

4.35 To provide increased nesting opportunities for a range of bird species, eight bird boxes will be installed on suitable mature trees throughout the site.

4.36 Different bird box designs are available to accommodate the various bird species found in Islington, including starlings (*Sturnus vulgaris*), which is a London Biodiversity Action Plan Priority Species, as well as great tit (*Parus major*) and blue tit (*Cyanistes caeruleus*). Suggested models are shown in Appendix 2.

Log Piles and Loggeries

4.37 To enhance the park for invertebrates such as beetles, and amphibians, a number of log piles and partially-buried loggeries will be created in shaded and undisturbed locations, within the park. Log piles should make use of wood from any trees felled or pruned as part of the works, but should not make use of conifer wood or treated wood. Log features will be of most benefit when situated amongst longer grass, particularly close to the new pond, within the orchard and in sheltered locations on the northern boundary.

4.38 Three log piles and three loggeries will be created. Locations will be as follows:

4.39 Log piles:

- Northern boundary amongst shrubbery

- Close to new pond
- Southern boundary close to Copenhagen Street

4.40 Loggeries:

- South-west corner adjacent to new orchard
- Northern boundary amongst shrubbery
- Northern-eastern corner amongst shrubbery

4.41 Loggeries are created from large logs (10-50cm diameter) of hardwood (e.g. oak, beech, sycamore, ash) with bark still attached sunk c60cm into the ground, in partially shaded areas.

4.42 Log piles should be created in a similar fashion but as an above-ground pile. Tall log piles will be avoided to avoid any clambering hazard.

4.43 Alternatively, tree trunks or branches can be retained in their entirety, where safe do so. To maximise ecological value, these should also be located in semi-natural habitats such as long grass and close to vegetation.

Monitoring and Management

Management of landscaping

4.44 Management and maintenance of landscape features will be detailed within the Landscape Strategy, including watering, management of tree and shrub planting, leaf removal, disposal of arisings and removal of litter and other debris. The management and maintenance of the site will be carried out by London Borough of Islington. Formal agreements will be required to establish procedures and responsibilities to deliver comprehensive management and maintenance operations. The success of ecologically enhanced features such as wildflower meadow, orchard and biodiverse green roof (amongst others) depends on appropriate ongoing management.

Monitoring of ecological enhancements

4.45 Monitoring measure: All ecological enhancements detailed within this document will be checked annually by a suitably qualified ecologist for five years, starting one year after completion of the development, to ensure that they are still present, undamaged and that management has been effective. The ecologist will produce a brief report to detail the results of the inspection. Any damage, loss or degradation will be rectified by repair, replacement or changes to management.

5 REFERENCES

- Buglife (no date). Creating Green Roofs for Invertebrates' Best Practice Guide.
- Peoples Trust for Endangered Species (no date). Traditional Orchards – A guide to wildlife and management.
- Natural England (October 2019). Traditional orchards: planting and establishing fruit trees. Natural England Technical Information Note TIN014
- Royal Horticultural Society (no date). Plants for Pollinators – Garden Plants. rhs.org.uk/plantsforpollinators
- Royal Horticultural Society (no date). Plants for Pollinators – Wildflowers. rhs.org.uk/plantsforpollinators

6 APPENDICES

Appendix 1- - Draft Landscape Masterplan (subject to change)

Appendix 2- - Suggested bat and bird box models

Appendix 1 - Draft Landscape Masterplan (subject to change)

Barnard Park Improvement Proposals - Masterplan

KEY:
- Blue Ownership Line
- Red Planning Application Line
- Slope/ embankment

SURFACE MATERIALS:
- Tarmac
- Permeable open-graded tarmac
- Permeable resin bound shingle
- Paving slabs to cafe seating area
- Decking
- Reinforced grass for maintenance vehicle access

FURNITURE:
- Table tennis table
- Picnic bench
- Bench
- Outdoor Gym equipment
- Floodlight columns 8no.
- Cycle hoops

PLANTING: new and existing. Refer to Biodiversity Strategy
- Close mown amenity grass. New areas of grass will be sown with biodiverse mix which can be mown and used for recreation.
- 18a Biodiverse wildflower turf left un-mown - cut once per year
- 18b Relaxed mowing creating areas of long grass.
- Bold drifts of spring flowering bulbs.
- Planting
- Hedge:Native Hedge Planting. Trimmed to 2m height.
- Wildlife Pond/ Wetland. Fluctuating seasonal water level. Decking.
- Natural Play:Fallen trees for climbing.Stepping logs over swales.
- Swale to take surface water run-off. Biodiverse wildflower turf.
- Biodiversity Enhancements: Loggeries, Log Piles, Log Walls, Bird & Bat boxes

TREES:
- Existing trees retained in accordance with BS5837. See LBI tree report, Arboricultural Method Statement & Impact Assessment. Root Protection Area (RPA)
- Existing off site trees. Not surveyed. Shown for context
- Existing trees removed to enable development (13 no.)
- Proposed trees (51 no.) See Tree Strategy. Trees planted at the following sizes: Primary Trees - 30-35cm & 25-30cm girth Secondary Trees - 20-25cm girth Small Trees - 18-20cm & 12-14cm girth.

EXISTING FEATURES:
- Line of existing features to be removed

ISLINGTON

1. **1 New 9-a-side 3G football pitch:** 73x46m main pitch size, 84 x 56 Site footprint with run off and goal recess, Space for 3no. 5 a-side pitches. Fence to fence size 79x52m. Low level pitch lighting on timers.8no. Lighting columns outside of 3m run-off, inside fence. 4.5m high fence, including rebound fence to 1200 high. Shockpad. Pitch is shown with 9v9 line markings and 3 smaller than FA standard 5v5 pitch markings. 7v7 marking can be accommodated.
- 1a **Recessed areas for goals** using moveable weighted goals.
- 1b **Informal spectator areas**: grassy bank sloping towards South of pitch. Additional and relocated benches to North and South of pitch.
2. **Circular footpath route which can be used as an informal exercise track.** 260m distance. New avenue of trees. Thicket Boundary planting.
3. **Path down a slope from Barnsbury Rd entrance**.
4. **Existing park building removed. Replaced with green space**.
5. **Outdoor gym equipment** over permeable rubber mulch safety surface
6. **New retaining walls to corner of ball court.**
7. **Main entrance with clearer links to main paths**. Distinctive entrance meeting place. Raised D shaped seating wall with inlaid decorative text and inviting seating spaces. Retains semi-circle of existing trees. Resin bound gravel surface to secondary path route.
8. **Single new Community Hub building:** Building to accommodate: Park manager/office, Multi-use space with kitchen and toilets (to be used by One 0' Clock Club), Kiosk cafe, Sports changing room and accessible toilets for park users. See Sports Clubhouses drawings for layouts and elevations. Generous cafe seating areas to north and south.
9. **Central level green area.** Shape, size and footpath layout amended. Fence removed. Creating a flexible open space that can be managed & booked for formal & informal sport as well as general recreation and park events. New avenue of trees. Swales to take surface water run off from slope path. Includes space for single mini soccer / *5v5* pitch (for U7s and U8s) Space allows for a FA size: 37x27m + run-off (43x33m total). No pitch markings.
10. **Cafe Seating/ Sport viewing area.** Picnic tables. Table tennis tables. Permeable hard surface or reinforced grass. New avenue of Cherry trees.
11. **Tertiary new permeable surfaced paths:** 1.2m wide with passing places every 20-30m. To replace existing muddy tracks. Surface eg, resin bound rubber mulch. Accessible gradients.
12. **Existing N-S footpath realigned:** Adjusted path line leading to new Hub building and new Sheen Grove entrance.Existing lighting relocated.
13. **Signage & information boards:** Showing running routes and distances, health & fitness features, links to other green routes and trails. History of Alma Grove.
14. **One O' Clock Club Enclosed Area:** fence relocated to remove sloping grass from garden area and to align with proposed building. Sandpit, sensory planting in new deck area.
15. **Grove of Silver Birch trees**
16. **Community planting areas:** Existing bed reduced. Retained planting to be adjusted and maintained by FofBP.
17. **Existing fence boundary to One O' Clock club removed.** Attractive sloped area becomes public open space.
18. **Thicket planting. Native shrub and tree species.** Increased biodiversity
- 18a 18b **See grasses in key**
- 18c **Low native shrubs.**
19. **Improved Entrance to Hemingford Road.** Entrance realigned to provide central entrance and axial extension to existing path and avenue of trees with new seating , picnic tables, tree & shrub planting to encourage this area to be better used for passive recreation.
20. **Improved Primary Entrance to Charlotte Terrace.** Existing footpath layout rationalised to relate to new N-S footpath route and altered entrances. Existing brick banding extended to unify steps and entrance area. Existing muddy grass at entrance paved to create generous events space, respecting service access requirements to TW borehole. Avenue tree planting extended into site, relating to proposed boulevard planting to Charlotte Terrace South.
21. **Improved Entrances to Barnesbury Road**. Adding bespoke bold entrance signage
22. **Boxworth Grove**. Park entrance closed to public, New 2m high fence and maintenance gate. New railing to top of ramp in line with play area railing. Ramp tarmac surface removed, replaced with low fertility soil and wildlife beneficial planting.
23. **New Park Entrance from Sheen Grove**. New gates and levels graded to allow for step free access.
24. **Copenhagen Street.** Park entrance closed to public, new 2m high railing behind existing tree. Planted as a wildlife area, accessible from within the park only.
25. **Alma Grove.** Lower end of cobbled street removed to unite adjacent green spaces and encourage more use of the area. Traditional orchard trees planted.

Rev A: 09.03.16 - Red line adjusted to omit steps. Crushed stone path widened on running route (Note 22)
Rev B: 16.03.16 - Tree notes amended, mown grass path added
Rev C: 08.03.17 - Goal recesses's added to pitch, Estate railings & gates added to Central Green Area
Rev D: 08.11.17 - Replaced 7v7 with 9v9 sports pitch. Reduced size of Central level Green, Eastern path moved. New Community Hub building, old toilet block removed. Changes highlighted red in text above.
Rev E: 13.11.17 - Community Hub, entrance, red phasing line, signage updated.
Rev F: 14.11.17 - Community Hub cafe paving increased, Small tree added. Reg Phase line updated.
Rev G: 15.01.18 - Pitch sizes updated in line with S.E. letter 14.12.17. Surrounding layout adjusted. Updated notes: 1, 11, 15, 25 & 26.
Rev H: 19.04.18 - Pitch position amended to prevent the loss of trees T64 & T65 and increase the distance of pitch from boundary.
Rev I: 06.03.20 - Building layout updated. Proposals outside of redline omitted. Extra path to 3 on 3 court.
Rev J: 30.07.20 - Amends to pitch position, oval, paths and entrances following Pre-app meeting.
Rev K: 05.08.20 - Amends to pitch position to avoid RPAs of existing trees.
Rev L: 17.12.20- Amends to masterplan layout following comments from 3rd pre-app meeting on 10th Dec 2020.
Rev M: 15.01.21- Minor amends to masterplan, issued for costing
Rev N: 02.01.21- Hemingford Road entrance realigned. Biodiversity planting added and amended. Habitat enhancements including new wildlife pond. Updated canopies and RPAs from new tree survey. Proposed trees added. Trees removed from Sheen Grove entrance.

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IRELAND ALBRECHT LANDSCAPE ARCHITECTS

Barnard Park Improvement Works

Landscape Masterplan

For Comment

Scale	Drawn	Checked	Date
1:500 @ A1	LP	DI	29.01.16

Drawing No. IA-365-LMP-P01 Revision: N

All dimensions to be checked on site. Do not Scale. This drawing is copyright.

Appendix 2 - Suggested bat and bird box models

Suggested Bat and Bird Box Models – alternatives may be agreed with the ecologist.

All models are available on www.nhbs.com or direct from suppliers.

House sparrow terraces:	
Vivara Pro Woodstone House Sparrow Nest Box.	Schwegler 1SP Sparrow Terrace.
	

Bat boxs:	
Low Profile WoodStone Bat Box (trees and buildings)	Almodovar Wooden Bat Box (trees and buildings)
	

1FF Schwegler Bat Box With Built-in Wooden Rear Panel (trees and buildings)	Ibstock Enclosed Bat Box ‘C’ (buildings)
	
1FD Schwegler Bat Box (trees)	Vivara Pro WoodStone Bat Box (trees and buildings)
	

Bird box trees:	
Vivara Pro Seville 32mm WoodStone Nest Box	Vivara Pro Seville 28mm WoodStone Nest Box
	
1N Schwegler Deep Nest Box	3SV Schwegler Nest Box with Predator Protection
	

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