



Plots E & F, Station Hill, Reading

Ecological Management Plan

October 2020

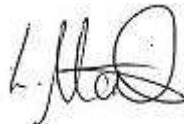
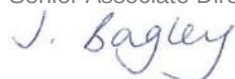
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This document has been prepared and checked in accordance with
 Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001:2018)

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This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

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1. Introduction

- 1.1. Waterman Infrastructure & Environment Ltd (Waterman) was commissioned by SH Reading Master LLP (hereafter referred to as the 'Applicant') to prepare an Ecological Management Plan (EMP) for Plots E and F of the Station Hill Development located in Reading City Centre (hereafter referred to as the 'Site').

Site History and Development Proposals

- 1.2. An Outline Planning Application for the redevelopment of the Site was submitted by Sackville Developments Reading Ltd (SDRL) to Reading Borough Council (RBC) in March 2013 (Planning Reference: 130436). The development, known as SH3, included the demolition of all existing buildings and structures at the Site, excluding the existing multi-storey NCP car park, and replacement with four new commercial buildings (referred to as Building Plots A - D) and two new primarily residential buildings (referred to as Building Plots E and F). The existing NCP car park would be reconfigured and refurbished. The planning application was granted permission in January 2015 and is hereafter referred to as the '2015 Consented Scheme'.
- 1.3. Subsequent to submission of the application for SH3, SDRL acquired an area of land adjacent to the SH3 Site, known as the Telecom House site. An application to extend and amend Plot E of the 2015 Consented Scheme to incorporate the Telecom House site was submitted in August 2015 (Planning References: 151426 and 151427). These applications were granted permission July 2016 and are hereafter referred to as the '2016 Consented Scheme'.
- 1.4. A reserved matters application was also submitted for Plot B in 2015 and granted permission in August 2016 (Planning Reference: 151543).
- 1.5. Following acquisition of the SH3 Site from SDRL in 2018, SH Reading Master LLP (the Applicant) made changes to the 2016 Consented Scheme in respect of Plots E and F (referred to collectively as Phase 1 or the South Site) to respond to a series of design alterations. This was undertaken by way of applications pursuant to section 73 of the Town and Country Planning Act 1990 (hereafter referred to as 'the 2019 Section 73 Applications', planning application references 190441 and 190442). At the same time, reserved matters applications and applications for condition discharge were submitted for approval for Plots E and F (reserved matters application references 190465 and 190466). These applications were granted planning consent in December 2019 and are hereafter referred to as the '2019 Consented Scheme'.
- 1.6. In December 2019, the Applicant submitted a new hybrid application (the '2019 Hybrid Application') for the area of the Site to the north of Garrard Street, known as Phases 2 and 3 or the North Site (planning application reference: 192032). Changes to the 2019 Hybrid Application were submitted in June 2020 during the determination period. Once approved, the 2019 Hybrid Application would replace the 2019 Consented Scheme for the North Site.
- 1.7. The Applicant is now seeking to make further changes to Phase 1 (Plots E and F) of the Station Hill Development by means of applications pursuant to section 73 of the Town and Country Planning Act 1990. At the same time, reserved matters applications for Plots E and F will be submitted.
- 1.8. Since receiving planning consent, the buildings located within the curtilage of Plots B, C, D were demolished in 2016. The buildings located within the curtilage of Plots E and F have also recently been demolished (2019 /2020). A temporary events space was constructed in the location of Plot C



although this has now been enclosed behind construction hoarding to enable construction of the 2019 Hybrid Application. The remainder of the Site, other than the NCP car park is also enclosed in construction Hoarding.

Aims and Objectives

- 1.9. This EMP has been prepared to support the revised RMAs for Plots E and F to provide information to discharge Condition 22 of the Outline Planning Consents in respect of Plots E and F which is assumed will be consistent with that of the existing Outline Planning Consents (190441 and 190442). This states:

“In respect of each Plot, each application for the approval of Reserved Matters shall be accompanied by details of habitat mitigation works for that Plot (if and to the extent relevant to the subject matter of the Reserved Matters application). This shall include a report detailing the following habitat mitigation works which shall be submitted to and approved in writing by the Local Planning Authority:

- A. locations and specification for bird nesting habitats for Black Redstarts, Swifts and Peregrine Falcons;*
- B. specifications for green roofs and brown roofs (to be a minimum area of 25% of each Plot's roof area in the development), including their method of construction and landscaping on-going management for five years; and*
- C. details of the ground level planting scheme (demonstrating how it has been designed to maximise its benefit to wildlife within the context of the scheme).*

These approved habitat mitigation works shall be in place prior to completion of the relevant building / Plot and retained thereafter. Reason: to ensure that a habitat which would be designed specifically for these birds is created / re-provided for within the development, in the interests of biodiversity”

- 1.10. It has also been prepared to allow for credits under LE05 to be awarded as part of a BREEAM 2018 New Construction Ecology Assessment. To this end, the EMP has been developed in accordance with the BREEAM 2018 New Construction Guidance and BS 42020:2013 Section 11.1 and covers:
- At least the first five years after project completion;
 - Actions and responsibilities, prior to handover, to give to relevant individuals;
 - The ecological value and condition of the Site over the development life;
 - Identification of opportunities for ongoing alignment with activities external to the development project and which supports the aims of BREEAM's Strategic Ecology Framework;
 - Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts;
 - Clearly defined and allocated roles and responsibilities.

2. Relevant Planning Policy and BAPs

Planning Policy

Reading Borough Local Plan

- 2.1. For the purposes of this report, only local planning policy has been referenced given the planning condition being addressed in this report.
- 2.2. The Reading Borough Local Plan¹ was adopted in November 2019 and guides development in Reading up to 2036. It identifies the amount of development that will take place, the areas and sites where development is expected to be accommodated, and where it will be restricted, and sets out policies for how planning applications will be decided. The following policies are of relevance to this report:
- 2.3. EN12: Biodiversity and The Green Network states:

“a) The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:

- Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and*
- Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.*

New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.

b) On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should:

- Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and*
- Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.*

In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is “no net loss” of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.”

¹ Reading Borough Council (2019). Reading Borough Council Local Plan.

2.4. EN14: Trees, Hedges and Woodland states:

“Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal where they are of importance, and Reading’s vegetation cover will be extended. The quality of waterside vegetation will be maintained or enhanced.

New development shall make provision for tree retention and planting within the application site, particularly on the street frontage, or off-site in appropriate situations, to improve the level of tree coverage within the Borough, to maintain and enhance the character and appearance of the area in which a site is located, to provide for biodiversity and to contribute to measures to reduce carbon and adapt to climate change. Measures must be in place to ensure that these trees are adequately maintained.”

2.5. CR11: Station / River Major Opportunity Area states:

“Development in the Station/River Major Opportunity Area will:

- i) Contribute towards providing a high-density mix of uses to create a destination in itself and capitalise on its role as one of the most accessible locations in the south east. Development for education will be an acceptable part of the mix;*
- ii) Help facilitate greater pedestrian and cycle permeability, particularly on the key movement corridors. North-south links through the area centred on the new station, including across the IDR, are of particular importance;*
- iii) Provide developments that front onto and provide visual interest to existing and future pedestrian routes and open spaces;*
- iv) Safeguard land which is needed for mass rapid transit routes and stops;*
- v) Provide additional areas of open space where possible, with green infrastructure, including a direct landscaped link between the station and the River Thames;*
- vi) Give careful consideration to the areas of transition to low and medium density residential and conserve and, where possible, enhance listed buildings, conservation areas and historic gardens and their settings;*
- vii) Give careful consideration to the archaeological potential of the area and be supported by appropriate archaeological assessment which should inform the development;*
- viii) Demonstrate that it is part of a comprehensive approach to its sub-area, which does not prevent neighbouring sites from fulfilling the aspirations of this policy, and which contributes towards the provision of policy requirements that benefit the whole area, such as open space; and*
- ix) Give early consideration to the potential impact on water and wastewater infrastructure in conjunction with Thames Water, and make provision for upgrades where required.”*

Station Hill South Planning and Urban Design Brief

2.6. The Station Hill Planning and Urban Design Brief² acknowledges that the ecology of the area is mainly limited to black redstarts *Phoenicurus ochruros*, which are known to nest in the area. Design principle 8 states:

“Developments should demonstrate positive yield in terms of environmental and ecological benefits...”;

“Development should meet the requirements of the local Biodiversity Action Plan (BAP)”; and

² Reading Borough Council (2007). *Station Hill South Planning and Urban Design Brief*.

“Building tall buildings can also yield potential ecological and environmental benefits by integrating vertical landscaping, roof gardens or vegetation within the architecture. Further consideration will be expected as part of any application for taller buildings.”

Biodiversity Action Plans

UK Post-2010 Biodiversity Framework

- 2.7. The Environment Departments of all four governments in the UK work together through the Four Countries Biodiversity Group. Together they have agreed, and Ministers have signed, a framework of priorities for UK-level work for the Convention on Biological Diversity. Published on 17th July 2012, the 'UK Post-2010 Biodiversity Framework'³ covers the period from 2011 to 2020. This now supersedes the UK Biodiversity Action Plan (UK BAP)⁴. However, many of the tools developed under UK BAP remain of use, for example, background information about the lists of priority habitats and species. The lists of priority species and habitats agreed under UK BAP still form the basis of much biodiversity work in the countries.
- 2.8. Although the UK Post-2010 Biodiversity Framework does not confer any statutory legal protection, in practice many of the species listed already receive statutory legal protection under UK and / or European legislation. In addition, the majority of Priority national (English) BAP habitats and species are now those listed as Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) in England listed under S41 of the NERC Act 2006. For the purpose of this report, HoPI and SoPI listed under S41 of the NERC Act are referred to as having superseded the UK BAP. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under Section 41.
- 2.9. The following SoPI listed under S41 of the NERC Act 2006 are considered to be of relevance to this report due to the Site's location, baseline conditions (refer to Section 3 below) and the proposed mitigation and enhancement measures:
- Soprano pipistrelle *Pipistrellus pygmaeus*;
 - Noctule *Nyctalus noctule*;
 - House sparrow *Passer domesticus*; and
 - Starling *Sturnus vulgaris*.

Local Biodiversity Action Plan

- 2.10. At a local level, the Site is covered by The Reading Biodiversity Action Plan (RBAP)⁵. The RBAP sets out a methodology to protect, conserve and enhance Reading's diversity of wildlife. Based on the results of the PEA, the following Habitat Action Plans (HAPs) and Species Action Plans (SAPs) listed on the RBAP are considered to be of potential value on and/or immediately adjacent to the Site:
- 2.11. The following LBAP HAP and SAPs are considered of relevance to this report:
- Urban 1 (Man-made site and structures);
 - Bats;

³ JNCC and DEFRA (on behalf of the Four Countries' Biodiversity Group). 2012. UK Post-2010 Biodiversity Framework. July 2012. Available from: <http://jncc.defra.gov.uk/page-6189>.

⁴ HMSO (1994) Biodiversity The UK Action Plan

⁵ The Reading Biodiversity Action Plan. http://www.reading.gov.uk/media/5972/Reading-Biodiversity-Action-Plan/pdf/Reading_BAP_February_062.pdf Accessed in September 2020.



- House sparrow; and
- Black redstart.

3. Baseline and Future Site Conditions

Baseline Conditions

- 3.1. A Preliminary Ecological Appraisal (PEA)⁶ was undertaken at the Site (including Plots E and F) in August 2018. As part of the PEA the following ecological assessments were undertaken:
- Ecological data search;
 - 'Extended' Phase 1 Habitat Survey;
 - Preliminary bat roost inspections;
 - Invasive plant species assessment; and
 - Black redstart survey.
- 3.2. An update black redstart survey was also undertaken in 2019⁷.
- 3.3. Plot E is located at Ordnance Survey Grid Reference SU 71327 73638 and until the recent demolition works comprised buildings (B3 and B4, refer to PEA) and hard standing. The site currently comprises bare ground, hardstanding and stockpiles of material behind construction hoardings. As part of the preliminary bat roost inspections, Building B3 was assessed as having low potential to support roosting bats and B4 was assessed as having negligible potential to support roosting bats. A subsequent bat survey⁸ confirmed the likely absence of roosting bats within B3, however a small number (1-3 individuals) of common pipistrelle bat passes were recorded during the survey in the wider environment.
- 3.4. Plot F is located at Ordnance Survey Grid Reference SU 71393 73680. Until the recent demolition works, Plot F comprised buildings (B3, refer to PEA) and hard standing. The site currently comprises bare ground, hardstanding and stockpiles of material behind construction hoardings. B3 and an adjoining adjacent building (B7) were assessed as having low potential to support roosting bats in the PEA, however a subsequent bat survey¹² confirmed the likely absence of roosting bats within these buildings.
- 3.5. Overall Plots E and F were assessed to be of limited ecological value owing to the habitat types present. However, it was noted that the buildings within Plots E and F have potential to support breeding birds including black redstarts.

Future Conditions

- 3.6. The proposed soft landscaping (both at ground and roof level) will provide east-west and north-south green links of varying growth heights which will provide texture and a contoured topography across Plots E and F.
- 3.7. Once fully established, this planting will provide nesting habitat for birds and create a range of micro-habitats for invertebrates which utilise different sward heights at different stages during their life-cycle. In addition, the plant species composition comprises species which have varying flowering periods, which span from early Spring to Autumn. This is particularly beneficial to invertebrate species because it will provide an extended pollen and nectar source throughout the year. Once the soft landscaping is fully established, it will support an invertebrate community which will provide foraging opportunities for birds, bats and other wildlife.

⁶ Waterman IE (2018) *Preliminary Ecological Appraisal: Station Hill, Reading*. Ref: WIE14788-100-R-1-2-1-PEA.

⁷ Waterman IE (2019) *Black Redstart Survey: Station Hill, Reading, Berkshire*. Ref: WIE14788-100-R-17-1-2-LM.

⁸ Waterman IE (2018) *Bat Survey Report: Station Hill, Reading*. Ref: WIE14788-100-R-2-2-1-BAT.

- 3.8. The landscape proposals for the Site incorporate both native and non-native species. Given the Site's highly urbanised surroundings and those habitats previously present, it is considered that in addition to the planting of native species, the non-native species to be planted would also be of benefit to biodiversity and contribute to enhancing the ecological value of the Site. Non-native plant species would provide nesting and foraging habitat for birds, whilst nectar producing species would provide foraging habitat for invertebrates which in turn would become a foraging resource for birds and bats in the local area.
- 3.9. Notwithstanding the above, given that the areas of semi-natural habitats at the Site will be newly created as part of the development, the ecological value and condition of the Site will change over the development life. As the areas of semi-natural habitats become established and those management and maintenance prescriptions detailed within this EMP are implemented, the ecological value and condition of the Site will gradually increase over time until they reach their 'target condition', at which point the ecological value and condition will be maintained (or increase further as the habitats become more mature) through continued implementation of the management and maintenance prescriptions and any required remediation measures.
- 3.10. Whilst it is assessed that the soft landscaping and provision of artificial bird, bat and insect boxes will enhance Plots E and F for biodiversity, there also exists the potential to enhance the ecological value of Plots E and F further through appropriate management. This will provide opportunities for a range of S41 and LBAP species such as those listed within Section 2 above.
- 3.11. The Site itself is situated within a highly urbanised environment with no existing ecological connectivity to habitats of value to the local area. Sites in the local area include: Forbury Gardens, approximately 450m east; the River Thames, approximately 530m north-east, with Christchurch and Hills Meadows beyond this; King's Meadow, approximately 625m north-east; Kennet and Avon Canal and River Kennet Local Wildlife Site (LWS), approximately 480m south-east; Holy Brook LWS, approximately 760m south; and Cow Lane Depot LWS, approximately 650m west of the Site.
- 3.12. The semi-natural habitats to be created on Site, especially at podium and roof level will provide a 'stepping stone' to allow for an enhancement of faunal species movement. This 'stepping stone' effect will be enhanced further through the development of the remaining phases of the Wider Station Hill Development, as well as any other future development which may occur within the local area. This is considered to meet the aims of the BREEAM Strategic Ecological Framework.
- 3.13. Specific management and monitoring prescriptions are as set out within Sections 4 – 10 below. However, the following general requirements should also be implemented at the Site:
- All landscape maintenance work is to be carried out to a high and consistent standard and undertaken by an experienced Landscape Contractor;
 - Maintenance visits shall typically be undertaken once monthly between November and March and twice monthly between April and October, or as required to fulfil the objectives of this schedule, with the requirements for additional maintenance visits determined by the suitably experienced landscape contractor following regular on-Site inspections. The Contractor shall:
 - Keep planting areas neat and clean in appearance at all times, weed and litter free, and allow specified species to develop free from unnecessary competition;
 - Prevent damage to and protect as necessary existing paving, buildings, fitments, and utilities;
 - Ensure all areas of hard surfacing are left in a clean condition, free from any soil, mud, leaves, cuttings and plant prunings; and

- Ensure that the works themselves do not cause inconvenience or danger to users/visitors.
- The use of any pesticides (insecticides, fungicides and slug pellets) is discouraged and herbicides should be avoided as far as practicable. Any pesticides used shall be non-residual contact pesticides and chemical applications shall only be undertaken in suitable weather conditions as described by the manufacturers. No chemicals shall be used in close proximity to water or drains;
- Peat free composts, biodegradable mulches and soil conditioners shall be used;
- Should fertiliser be required to maintain the health of particular plant species, fertiliser application will be kept to a minimum and will be in accordance with the advice of the supplier.

4. Roles and Responsibilities

- 4.1. Roles and responsibilities for implementation of those management and maintenance prescriptions detailed within this EMP are set out within **Table 1** below:

Table 1: Roles and Responsibilities

Role	Responsibility
Securing of funding to ensure long-term delivery of management	Client
Implementation of management and maintenance prescriptions	Landscape Contractor
Monitoring and Reporting	Landscape Contractor
Design of any required remediation measures (including different planting and/or management operations)	Agreed between Landscape Contractor; Landscape Architect and Ecologist
Implementation of required remediation measures	Landscape Contractor

5. Bird Nesting Habitat

- 5.1. This section relates to Part A of Condition 22, which requests “*locations and specification for bird nesting habitats for Black Redstart, Swift and Peregrine Falcon*”, and follows consultation with Giles Sutton at GS Ecology on behalf of Reading Borough Council (RBC) in May 2019. The location of the bird boxes to be incorporated into the scheme are provided within **Appendix A**.

Plot E

- 5.2. The following artificial nesting sites will be provided at Plot E (precise locations are presented in **Appendix A**):
- **lbstock eco-habitat / Schwegler 16S, or similar for swifts** - Thirty swift boxes will be incorporated into the fabric of the buildings within Plot E with a clear adjacent airspace for the swifts to fly into. The boxes will be located on the northerly façades at the following levels:
 - 6 boxes on Level 11 fronting Gerrard Street;
 - 12 boxes on Level 12 fronting Gerrard Street;
 - 6 boxes on Level 10 fronting Level 1 north roof terrace;
 - 6 boxes on Level 5 fronting Level 1 south roof terrace;
 - **Schwegler 1HE, or similar bird box for black redstarts** - Four bird boxes for black redstarts will be incorporated into the fabric of the buildings within Plot E. The boxes will be located on the northerly façade and be in proximity to vegetated roof areas at the following levels:
 - 2 boxes on Level 10 fronting Level 0 northern courtyard;
 - 2 boxes on Level 5 fronting Level 1 south roof terrace.
- 5.3. Whilst Condition 22 makes reference to the provision of peregrine falcon *Falco peregrinus* nest boxes, no artificial nest sites for peregrine falcon are proposed within Plot E. This is because at least one peregrine falcon box will be provided within a more suitable area of the Site upon the building within Plot B and / or taller buildings proposed within other plots as documented in the Plot B EMP⁹. As such, the provision of a peregrine box within Plot E is not considered to be required in this instance and has been agreed with GS Ecology working on behalf of Reading Borough Council, as detailed within comments received on 30th April 2019 (ref. 190465 included in Appendix B).

Plot F

- 5.4. The following artificial nesting sites will be provided at Plot F (precise locations presented in **Appendix A**):
- **lbstock eco-habitat / Schwegler 16S, or similar for swifts** - Twelve swift boxes will be incorporated into the fabric of the buildings within Plot F. The boxes will be located on the northerly façade on Level 12 fronting Gerrard Street with a clear adjacent airspace for the swifts to fly into;
 - **Schwegler 1HE, or similar bird box for black redstarts** - Two bird boxes for black redstarts will be incorporated into the fabric of the buildings within Plot F. The boxes will be located on the easterly façade on Level 11; and
- 5.5. As with Plot E, no artificial nest sites for peregrine falcon are considered to be required in this instance for Plot F, because at least one peregrine falcon box will be provided within a more suitable area of the Site upon the building within Plot B and / or taller buildings proposed within other plots as

⁹ Waterman (2016) *Ecological Management Plan: Building B, Station Hill, Reading* (Ref: WIB12350-111-R-6.6.3-SD).

documented in the Plot B EMP¹⁰. As with Plot E this has also previously been agreed with GS Ecology, as detailed within comments received on 30th April 2019 (ref. 190466, Appendix B).

Installation and Maintenance

- 5.6. The instructions for bird box instalment will be followed as provided by the product supplier. The CDM Regulations 2015 have been considered for the installation of the bird boxes as outlined in risk assessment in **Table 2** below.
- 5.7. No regular maintenance will be required, however damaged boxes will be repaired or replaced as necessary over the five-year EMP period. The boxes will be replaced in their original positions.

Table 2: CDM Risk Assessment – Provision of Bird Boxes

CDM Design Rationale	Hazard Control Mechanism	Residual Risk Level
Location for instalment	The locations of the bird boxes are detailed in Appendix A . The locations have been selected for ecological reasons to increase the likelihood of nesting birds utilising the features provided (located on an aspect of the building to ensure the features receive the desired optimal levels of solar radiation; as close to green infrastructure as possible; and in an area where artificial lighting will not shine directly upon the feature). The locations have however also been selected to avoid potential hazards to personnel undertaking future maintenance and monitoring (see sections below). The bird boxes are to be installed on buildings and are therefore highly unlikely to be dislodged from their position given they will be incorporated into the fabric of the building.	Negligible
Maintenance	The bird boxes selected are maintenance free in terms of their usage. However, should the boxes need to be replaced due to damage, safe and appropriate access to the boxes should be set out within the contractor's own risk assessment.	Negligible
Manual handling	The weight of the Ibstock eco-habitat for swifts is 4.5kg. The weight of the Schwegler 16S box is 12kg, and the Schwegler 1HE brick bird box is 2.6kg. These boxes have been selected to minimise manual handling risks during installation and replacement (if required).	Negligible

¹⁰ Waterman (2016) *Ecological Management Plan: Building B, Station Hill, Reading* (Ref: WIB12350-111-R-6.6.3-SD).

6. Bat Roosting Habitat

- 6.1. Whilst the provision of bat boxes was not specified within Condition 22, given that bats have been recorded roosting within Reading Town Centre, bat boxes are to be provided within Plots E and F to provide enhanced roosting opportunities for the local area. The location of the bat boxes to be incorporated into the scheme are provided within **Appendix A**.

Plot E

- 6.2. The following artificial roosting sites will be provided at Plot E (precise locations are presented in **Appendix A**):
- **Schwegler 1FR Bat Tube, Ibstock Bat Box 'B' or similar** - Four bat boxes are to be incorporated into the fabric of the buildings within Plot E. Two boxes will be located on a southern wall at Level 12 with adjacent sedum green roof areas on the same level, with two boxes also located on a south-west wall at Level 7 with an adjacent sedum green roof on the same level.

Plot F

- 6.3. The following artificial roosting sites will be provided at Plot F (precise locations are presented in **Appendix A**):
- **Schwegler 1FR Bat Tube, Ibstock Bat Box 'B' or similar** - Two bat boxes are to be incorporated into the fabric of the buildings within Plot F. The boxes will be located on a southern wall at Level 4 within close vicinity to the linear planter along Friars Walk.

Installation and Maintenance

- 6.4. The instructions for bat box instalment will be followed as provided by the product supplier. The CDM Regulations 2015 have been considered for the installation of the bird boxes as outlined in risk assessment in **Table 3** below.
- 6.5. No regular maintenance will be required, however damaged boxes will be repaired or replaced as necessary over the five-year EMP period. The boxes will be replaced in their original positions.

Table 3: CDM Risk Assessment – Provision of Bat Boxes

CDM Design Rationale	Hazard Control Mechanism	Residual Risk Level
Location for instalment	The locations of the bat boxes are detailed in Appendix A . The locations have been selected for ecological reasons to increase the likelihood of roosting bats utilising the features provided (located on an aspect of the building to ensure the features receive the desired optimal levels of solar radiation; as close to green infrastructure as possible; and in an area where artificial lighting will not shine directly upon the feature). The locations have however also been selected to avoid potential hazards to personnel undertaking future maintenance and monitoring (see sections below). The bat boxes are to be installed on buildings and are therefore highly unlikely to be dislodged from their position given they will be incorporated into the fabric of the building.	Negligible
Maintenance	The bat boxes selected are maintenance free in terms of their usage. However, should the boxes need to be replaced due to damage, safe and	Negligible

CDM Design Rationale	Hazard Control Mechanism	Residual Risk Level
	appropriate access to the boxes should be set out within the contractor's own risk assessment.	
Manual handling	The weight of the Schwegler 1FR Bat Tube is 9.8kg, and the weight of the Ibstock Bat Box 'B' is 8kg. These boxes have been selected to minimise manual handling risks during installation and replacement (if required).	Negligible

7. Invertebrate Habitat

- 7.1. Two 'bug hotels' will be included within the Plot E soft landscaping, one in the ground floor (Level 0) northern courtyard and one on the Level 7 terrace. The bug hotels will be installed between 0 and 1m above ground level in a position that receives a combination of sun and shade. These features will provide foraging and sheltering habitat for invertebrates which in turn will create a foraging resource for bats and birds. The location of the 'bug hotels' to be incorporated into the scheme are provided within **Appendix A**.
- 7.2. The bug hotels should not require any specific management or maintenance other than periodic checks to confirm that they remain undamaged and fit for purpose. Damaged bug hotels will be repaired or replaced as necessary over the five-year EMP period.

Table 4: CDM Risk Assessment – Provision of Bat Boxes

CDM Design Rationale	Hazard Control Mechanism	Residual Risk Level
Location for instalment	The locations of the bug hotels are detailed in Appendix A . The locations have been selected for ecological reasons to increase the likelihood of invertebrates utilising the features provided (set amongst areas of soft landscaping). The bug hotels are to be installed at ground level within the centre of the selected area of soft landscaping and therefore would not pose any risks to the public, including falling from height.	Negligible
Maintenance	The bug hotels are maintenance free in terms of their usage. However, should the boxes need to be replaced due to damage, safe and appropriate access to the boxes should be set out within the contractor's own risk assessment.	Negligible
Manual handling	The bug hotels will either be built in situ or provided pre-built. The contractor will need take to incorporate suitable manual handling measures and considerations as part of their own risk assessment.	Negligible

8. Green Roofs

- 8.1. This section relates to Part B of Condition 22, which requests “specifications for green roofs and brown roofs (to be a minimum area of 25% of each Building’s roof area in the development), including their method of construction and landscaping on-going management for five years”.
- 8.2. Green roofs are a tool in providing habitats for invertebrates and birds located in areas which would otherwise have been devoid of green space¹¹. Green roofs provided at the Site comprise sedum roofs and podiums/terraces with herbaceous/shrub/tree planting. The location; indicative specification; and method of construction for the sedum roofs is provided within **Appendix C**.

Plot E

- 8.3. The total roof area of Plot E is 3,832m² and will include the following areas of green roofs and podium/terrace planting:
- 94m² of herbaceous/shrub/tree planting on Level 1 (North Terrace);
 - 41m² of herbaceous/shrub/tree planting on Level 1 (South Terrace);
 - 19m² of herbaceous/shrub planting on Level 7 (Terrace);
 - 79m² of sedum roof on Level 7;
 - 84m², 36m² and 358m² of sedum roof on Level 12; and
 - 103m² of sedum roof on Level 13.
- 8.4. Soft landscaping upon roofs therefore totals 814m² which represents approximately 21.2% of the roof area. Whilst this is 3.8% less than the minimum required area of 25% stated in Condition 22, in consultation with GS Ecology on behalf of RBC, this area is considered sufficient in this case since a number of other biodiversity enhancements are to be provided and a greater provision of green roofs is proposed on Plot F.

Plot F

- 8.5. The total roof area of Plot F is 1,149m² and will include the following areas of sedum roof and podium/terrace planting:
- 21m² of herbaceous/shrub planting and lawn on Level 11 (Terrace);
 - 43m² of herbaceous/shrub planting and lawn on Level 12;
 - 25m² of sedum roof on Level 12; and
 - 394m² of sedum roof on Level 13.
- 8.6. Soft landscaping upon roofs therefore totals 483m² which represents approximately 42% of the roof area which exceeds the minimum required area of 25% stated in Condition 22.
- 8.7. Management prescriptions for the areas of green roofs are set out below. These are designed to ensure the suitable maintenance of the green roofs at the Plots E and F Site in the long-term.

Management

Aims and Objectives

- 8.8. To provide a species rich habitat in an urban area for invertebrates in the long term, therefore supplying a long-term food source for birds and bats in the local area.

¹¹ Johnston, J and Newton, J (2004) *Building Green: A Guide to Using Plants on Roofs, Walls and Pavements*.

Prescriptions for Sedum Roof

- 8.9. Whilst the green roof will be designed to minimise maintenance, where possible, it is considered that some maintenance (if access to the roof is possible) will be required.
- 8.10. For the first five years, two maintenance visits per year will be undertaken, ideally in spring and autumn.
- 8.11. Maintenance of the green roof will include:
 - Removal of debris and dead vegetation from the roof surface, drainage outlets, guttering and inspection chambers (if required);
 - Ensure the drainage outlets are all free draining. Any issues affecting the drainage systems of the roof should be addressed;
 - Weeding and removal of any undesirable vegetation by hand. If weeding is required, this should be done in late winter or early spring; and
 - Clear and clean all perimeters and detailing surrounds.
- 8.12. Additional maintenance works may be required in accordance with the manufacturer's specification.
- 8.13. If a significant number of plants/seeds fail to establish these will be replaced following consultation and review of the suitability of the seed mix.
- 8.14. The green roof will also be watered during periods of drought to aid establishment as well as prevent loss in very dry conditions.
- 8.15. If breeding birds are found to be present on the green roof, maintenance works outlined above will be undertaken outside the breeding bird season (March to August inclusive).

Success Indicators

- 8.16. The green roofs would be healthy and species rich, providing suitable habitat for invertebrates and in turn, other species in the local area.

Prescriptions for Roof Terraces / Podiums

- 8.17. The prescriptions; success indicators; and monitoring of the roofs terraces and podiums shall follow those set out for the ground level planting provided below.

9. Ground Level Planting

- 9.1. This section relates to Part C of Condition 22, which requests “details of the ground level planting scheme (demonstrating how it has been designed to maximise its benefit to wildlife within the context of the scheme)”.
- 9.2. The ground level planting included within the landscape scheme for Plots E and F is summarised below. The location and specification of the ground level planting is provided within **Appendix D**:
- Block E ground floor (Level 0) northern courtyard comprising shrub and herbaceous woodland planting including three juneberry *Amelanchier lamarckii*, two silver birch *Betula pendula*, one downy birch *Betula pubescens* and three kousa dogwood *Cornus kousa* trees;
 - Block E ground floor (Level 0) southern courtyard comprising shrub and herbaceous woodland planting including two juneberry, one bottlebrush buckeye *Aesculus parviflora*, two Japanese witch hazel *Hamamelis japonica* 'Arborea' and one kousa dogwood trees;
 - Herbaceous and tree planting between Plots E and F. Tree planting comprises nine silver birch, one sweet gum *Liquidambar styraciflua*; three juneberry, three Japanese white pine *Pinus parviflora* 'Glauca', ten downy birch and one honey locust *Gleditsia triacanthos* 'Sunburst';
 - Two herbaceous planting beds (one with climbers) and one hornbeam *Carpinus betulus* tree to the north of Block E along Garrard Street;
 - Herbaceous planting and five whitebeam *Sorbus incana* trees to the north of Block F along Garrard Street;
 - One crab apple *Malus* 'Evereste' tree within an herbaceous planting bed to the south-east of Block F;
 - Three juneberry trees to the south-east of Block F; and
 - Four callery pear trees alongside herbaceous planting to the south of Block E along Friar Street.
- 9.3. Management objectives and prescriptions for individual habitat types are set out below. These are designed to ensure the suitable maintenance of the Site is undertaken to retain ecological value, whilst ensuring minimal damage and disturbance to the habitats and species they support.

Management

Herbaceous and Shrub Planting

Aims and Objectives

- 9.4. Herbaceous planting using both native and non-native species will be used. Although this habitat will primarily be for aesthetic purposes and management will focus on maintaining continuous shrub/plant cover with a neat and tidy appearance, it will still be of benefit to the Site's ecology. The planting will provide cover and a resource for pollinators in the long term, therefore supplying a long-term food source for birds and bats in the local area.

Prescriptions

- 9.5. The Landscape Contractor shall maintain the shrub beds (including ornamental grasses) and hedgerows, ensuring that:

- At the end of each growing season all plant failures are to be replaced;
- Dead wood, damaged branches and snags are to be removed from the plants and soil to be firmed around the base of the plants;
- Ornamental shrub beds shall be kept entirely free of weeds for the duration of the maintenance period, using hand weeding. Any perennial weeds shall be controlled by spot herbicide treatment, using appropriate herbicide;
- Shrubs should be pruned appropriate to the species and the design intention;
- Removal of spent flowers from perennial plants should be removed through 'deadheading';
- The biodegradable mulch to the ornamental shrub beds and hedgerows shall be maintained at a depth of 75mm;
- Any plants that have been stolen or maliciously damaged shall be identified and listed by the Landscape Contractor for replacement by the company occupying the Site; and
- All shrub beds shall be watered as required during dry weather until established (3 years from planting).

Success Indicators

- 9.6. Areas of herbaceous planting will be dense and have aesthetic value with no evidence of disease or other impairment. Fruiting and flowering bodies should be present after a few years. Areas of perennial planting will establish quickly and show longevity. Self-seeding may also occur, evidence of foraging birds and invertebrates may also be present.

Scattered Trees

Aims and Objectives

- 9.7. Management will focus on maintaining a neat and tidy appearance, which will encourage tree growth whilst also providing habitats for species such as birds and invertebrates as well as any bats in the local area.

Prescriptions

- 9.8. The following management and monitoring prescriptions are proposed for the trees planted within Plots E and F:
- Where trees with 35cm - 40cm girth and 6m in height are newly planted and staked, the stakes and ties will be checked regularly and adjusted at least twice annually or as required. Broken or damaged stakes will be replaced and ties re-fixed. Stakes will be removed as necessary when the tree is suitably established, but will remain in place for at least the first year;
 - Should new trees planted fail to establish these will be replaced and watering may be required during periods of prolonged drought;
 - To reduce excessive competition, mulching will be laid to a diameter of 0.5m around the base of planted trees to suppress weed growth and will be maintained to a depth of c.75mm;
 - Between April and September inspections will be undertaken with weeds removed by hand;
 - An appropriately qualified arboriculturalist or tree surgeon will be consulted prior to undertaking any major tree works on Site with annual inspections of all trees on Site or adjacent to areas of

public access carried out by a trained arboriculturalist according to British Standards. Checks will be made for damage and disease, and pruning will be undertaken to maintain appropriate height clearances for safe pedestrian access (once established) as well as maintaining the health and structural stability of the trees; and

- Formative tree works such as pruning will be undertaken during the winter months (September – February) outside of the breeding bird season. If this is not possible then a nesting bird check will be undertaken by a suitably qualified ecologist prior to works being undertaken to avoid disturbance to breeding birds. Should an active nest be found, works on the tree will be suspended until the young have fledged and left the nest.

Success Indicators

- 9.9. Trees should show good growth structure and form with no evidence of disease or other impairment.

Lawn

Aims and Objectives

- 9.10. Management will focus on maintaining a neat and tidy appearance, however, although limited, foraging opportunities for species such as birds and invertebrates as well as any bats in the local area would be provided.

Prescriptions

- 9.11. The Landscape Contractor shall maintain the amenity grass areas and carry out the following operations:
- During establishment, when the grass has first grown to 50mm high and before the first cut, it shall be rolled in two directions with a light roller;
 - When the grass has grown to a height of 75mm it shall be cut, avoiding root pulling, to half the original height and removed from Site;
 - Further cuts shall be carried out at suitable intervals throughout the growing season to maintain the grass height at approximately 35mm and ensure that it does not exceed 50mm. Mowers shall have their height of cut so adjusted that at no time does 'scalping' take place;
 - A full cut of all grassed areas over the entire Site shall be undertaken during each visit;
 - All arisings shall be collected, removed and disposed of off-Site;
 - During appropriate weather conditions, each spring apply an approved spring / summer fertiliser in accordance with the manufacturer's instructions. The spring fertiliser dressing may be alternated with an autumn dressing with a low nitrogen and higher phosphorus ratio;
 - Any turf/ground shrinkage below finished approved levels during the period shall be made good with turf dressing compost;
 - Any areas of poor germination of grass from the first sowing, shall be lightly scarified and oversown using grass seeds from the same mix, during April – May or September – October, depending on the timing of the first sowing;
 - No damage is to be caused to the stem of any tree or shrub by nylon filament rotary cutters or trimmers;

- All grassed areas shall be watered during dry weather until established (18 months from seeding);
- Any areas of trampling, abrasion or scalping are to be repaired when required; and
- Grass is not to be mown in wet or frosty conditions.

Success Indicators

- 9.12. The lawn will show good growth structure and form with no areas of bare ground, scalping or wash boarding present. Evidence of invertebrates and foraging birds utilising this habitat may also be present.

Climbers

Aims and Objectives

- 9.13. To create formal urban plantings that will create strong focal point, create visual, aid habitat creation and biodiversity and provide screening qualities, whilst providing a resource for pollinators and therefore birds and bats in the long-term.

Prescriptions

- Galvanised steel wire to be placed on buildings / erection material in approved locations. Wires should be placed in horizontal lines c.300mm apart, from c.600mm off the ground. The wire would be attached as appropriate to securely fix the wire at c.400mm centres along each length;
- In subsequent years remove and replace any plant to be found to be dead, dying, and diseased or affected by vandalism;
- Yearly assess the guying wires and repair if damaged. Any insecure growth should be attached to supporting wires using plastic clips;
- Replace bark/ stone mulch around the base of plants yearly as required to ensure the base remains weed free and the soil retains moisture;
- Watering should be carried out as required to ensure successful establishment and continued thriving of plants. Watering to be carried out to all plants throughout this period. All plants in soft landscape to be watered for a minimum period of 24 months;
- Prune to achieve desired shape and structure. At the same time cut out any damaged wood along with any dead or diseased branches.

Success Indicators

- 9.14. The climbing species will show good growth structure and form with no evidence of disease or other impairment. Evidence of invertebrates and birds utilising this habitat may also be present.

10. Monitoring and Remediation

Monitoring

- 10.1. General condition monitoring of the areas of soft landscaping shall be undertaken and recorded by the Landscape Contractor appointed to undertake the management and maintenance operations. Periodic (quarterly), or as required, condition monitoring will be assessed against the success indicators stated within Sections 8 and 9 above, as well as the Landscape Contractor's professional judgement.
- 10.2. To aid in monitoring and reporting a Site inspection form should also be completed following each maintenance visit. An example Site inspection form for use by the Landscape Contractor is provided in **Appendix E**.
- 10.3. No ecological monitoring of the bird, bat or insect boxes is required. However, the general condition of the boxes should be monitored by the Landscape Contractor. Should any boxes need to be replaced due to damage, this should be done by an appropriate individual in consultation with a suitably qualified ecologist.

Remediation

- 10.4. Specific remediation measures cannot be provided until the findings of on-going monitoring are reviewed.
- 10.5. However, following the above monitoring visits, should a review of their findings show that the conservation aims and objectives of this EMP are not being met, remediation measures shall be set in place to overcome any such deviations.

11. Lighting

11.1. The following strategies are proposed for Plots E and F to minimise the impacts of artificial lighting:

- All exterior lighting will be carefully positioned and aimed, integrated with the architecture where appropriate, and specified with suitable optics and accessories to ensure that light is delivered to the point where it is required, thereby avoiding light pollution and light trespass;
- Where up-lighting of features is used it will be very carefully detailed and aimed to ensure minimal (or elimination of) light spill. Any upward light spill will be kept within the limits for the relevant environmental zone as outlined in the ILP Guidance Notes for the Reduction of Obtrusive Light GN01:2011;
- Lighting will be carefully adjusted to ensure that no light from the development falls on the locations of bird boxes;
- The decorative feature elements of the scheme (including the majority of the up-lighting elements) will be switched off at curfew, limiting the timing of this lit effect to that when it can be appreciated by residents and visitors;
- The use of lighting controls will ensure that lighting is only operational when it is required during the hours of darkness, and adjusting to suit changing times of sunrise and sunset; and
- To reduce the attractiveness of light sources to invertebrates, warm white (2700 K to 3000 K CCT) LED light sources with little to no output in the UV / extreme blue end of the spectrum will be utilised.

11.2. Full details of the lighting strategy for Plots E and F are provided by DPA Lighting Consultants.

12. Conclusions

- 12.1. This EMP produced by Waterman IE sets out the ecological enhancement measures provided within Plots E and F of the Station Hill Development. It is assessed that the information provided within this EMP is sufficient to discharge Condition 22 of the Outline Planning Consents for Plots E and F.
- 12.2. This EMP is based on the current bird, bat and insect box location plans (**Appendix A**) and landscape plans (**Appendices C and D**) submitted to accompany the Reserved Matters Application. Should revisions be made to the landscape proposals, then this EMP should also be reviewed and updated as necessary.



APPENDICES

Appendices

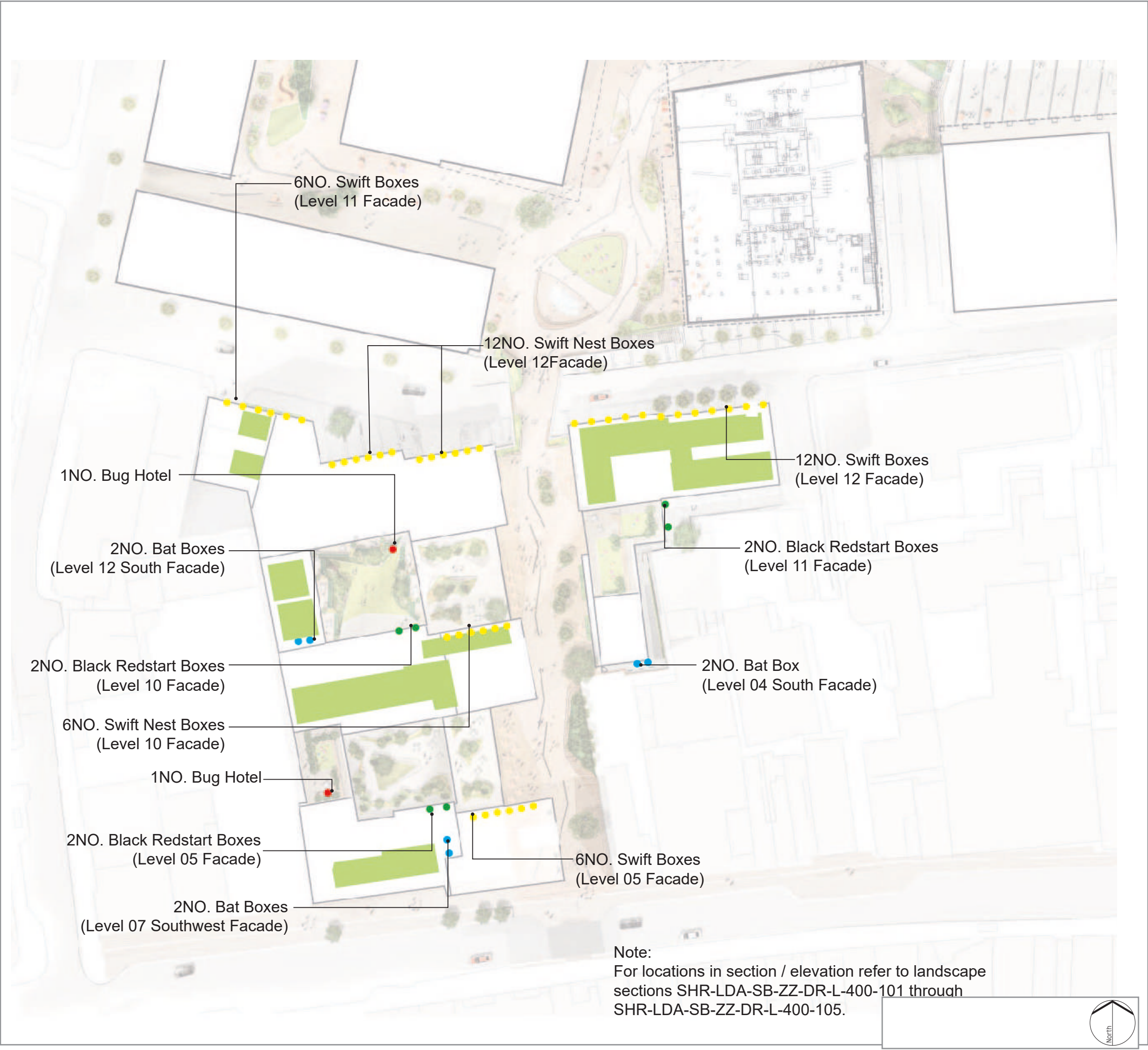
Plots E & F, Station Hill, Reading
WIE14788-100-R-7-6-1-EMP



A. Bird, Bat and Insect Box Location Plans

Appendices

Plots E & F, Station Hill, Reading
WIE14788-100-R-7-6-1-EMP



Note:
For locations in section / elevation refer to landscape
sections SHR-LDA-SB-ZZ-DR-L-400-101 through
SHR-LDA-SB-ZZ-DR-L-400-105.



LEGEND

- Bug Hotel
- Swift Box, Ibstock Eco-Habitat, Schwegler 16S, or similar
- Bat Box, Schwegler 1FR Bat Tube, IB Stock Bat Box'B' or Similar
- Black Redstart Box, Schwegler 1 HE or similar
- Sedum Green Roof, Radmat SedumPlus

P06	Re-issued for planning	CI	23/09/20
REV.	DESCRIPTION	APP.	DATE

LDĀDESIGN

PROJECT TITLE
STATIONHILL READING

DRAWING TITLE
WILDLIFE INSTALLATION PLAN

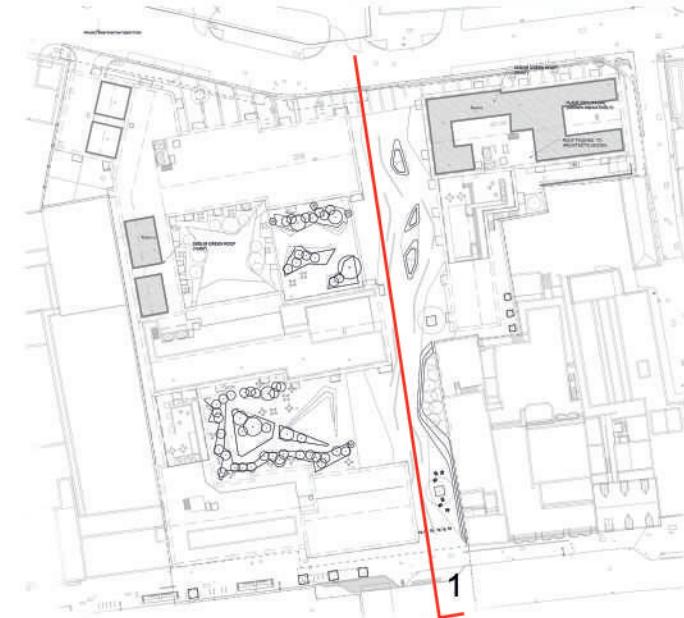
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DATE	Sept 2019	DRAWN SZ
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DWG. NO. SHR-LDA-SB-ZZ-DR-L-100-110

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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Sources: Ordnance Survey...



- BAT BOXES;
SPEC. REF. Q50 350
- SWIFT NEST BOXES;
SPEC.REF.Q50 351

NOTE:
FOR LOCATION OF BAT AND BIRD
BOXES IN PLAN, REFER TO WILDLIFE
INSTALLATION PLAN
SHR-LDA-SB-ZZ-DR-L-100-110

P08	Re-issued for planning	CI	22/05/20
REV.	DESCRIPTION		APP. DATE

LDĀDESIGN

PROJECT TITLE
STATION HILL READING PLOT E&F

DRAWING TITLE
PLOT E&F SITE SECTION FRIARS
WALK LOOKING EAST

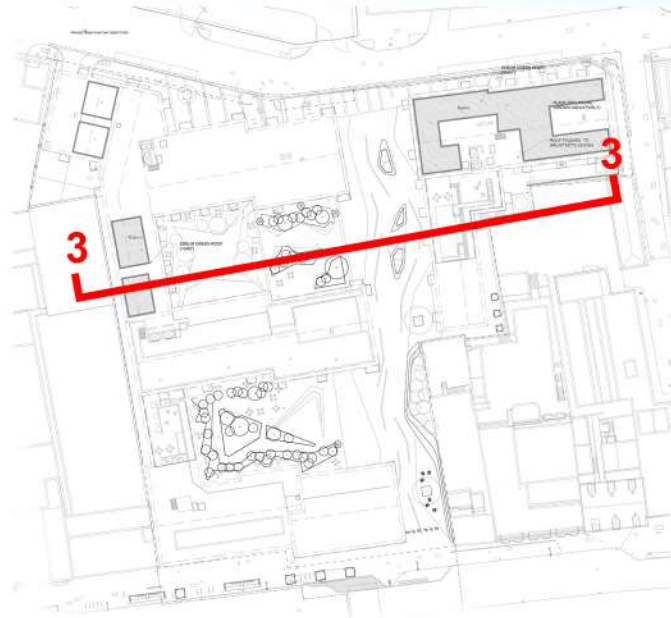
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DATE	Jan 2019	DRAWN SZ
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STATUS	Planning	APPROVED CI

DWG. NO SHR-LDA-SB-ZZ-DR-L-400-101

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Sources Ordnance Survey







- BUG HOTEL;
- BLACK REDSTART NEST BOX;

NOTE:
FOR LOCATION OF BAT AND BIRD
BOXES IN PLAN, REFER TO
WILDLIFE INSTALLATION PLAN
SHR-LDA-SB-ZZ-DR-L-100-110



P08	Re-issued for planning	CI	22/09/20
REV.	DESCRIPTION	APP.	DATE

LD&A DESIGN
STATION HILL READING PLOT E&F
PROJECT TITLE

PLOT E&F SITE SECTION THROUGH
BLOCK E, FRIARS WALK AND BLOCK
F LOOKING NORTH

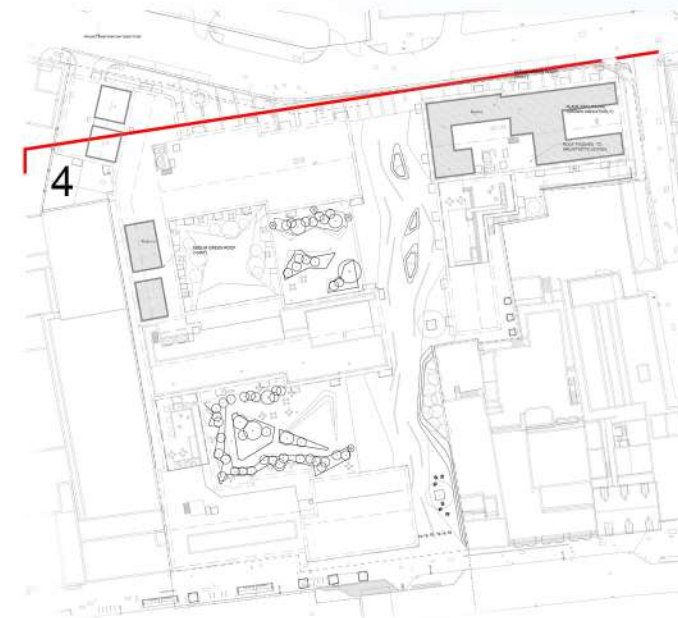
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4

SWIFT NEST BOXES;



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CI 22/09/20
APP. DATE

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PROJECT TITLE
STATION HILL READING PLOT E&F

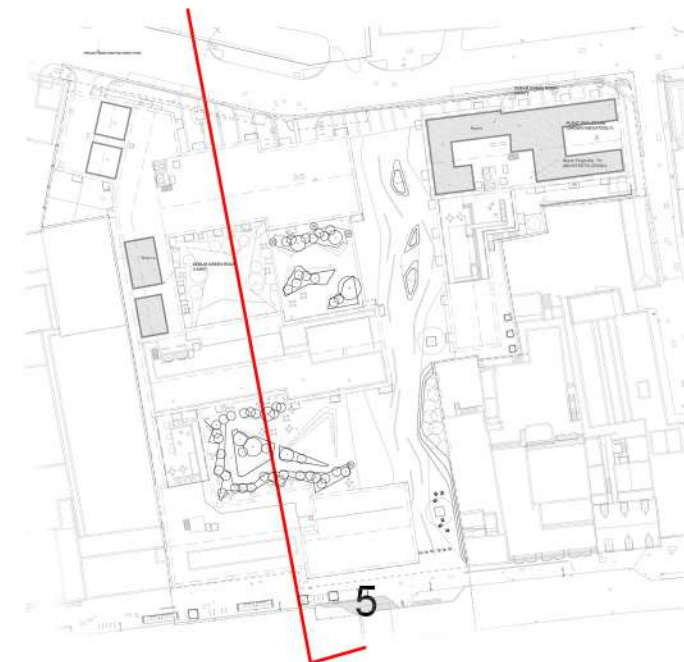
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PLOT E&F SITE SECTION
THROUGH GARRARD STREET
LOOKING SOUTH

ISSUED BY	London	T: 020 7467 1470
DATE	Jan 2019	DRAWN SZ
SCALE@A1	1:250	CHECKED BW
STATUS	Planning	APPROVED CI

DWG. NO SHR-LDA-SB-ZZ-DR-L-400-104

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Sources: Ordnance Survey





- SWIFT BOXES;
- BLACK REDSTART BOXES;
- BUG HOTEL
- BAT BOXES

P08	Re-issued for planning	CI	22/08/20
REV.	DESCRIPTION	APP.	DATE

LDĀDESIGN

PROJECT TITLE
STATION HILL READING PLOT E&F

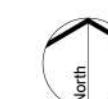
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PLOT E&F SITE SECTION
THROUGH BLOCK E LOOKING WEST

ISSUED BY	London	T: 020 7467 1470
DATE	Jan 2019	DRAWN SZ
SCALE@A1	1:250	CHECKED BW
STATUS	Planning	APPROVED CI

DWG. NO SHR-LDA-SB-ZZ-DR-L-400-105

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Sources: Ordnance Survey



B. Consultation with Reading Borough Council's Ecologist (GS Ecology)

Appendices

Plots E & F, Station Hill, Reading
WIE14788-100-R-7-6-1-EMP

Memo

To: Stephen Vigar
From: Abi Gazzard (RBC Ecology Consultations)
CC:
Date: 30 April 2019
Re: 190465 - Plot E Friar Street & Garrard Street Reading RG1 1DX

This application is for the approval of reserved matters (access, scale, appearance, layout and landscaping) and multiple conditions of 151426 (Station Hill development). This application concerns Plot E of the development, which will comprise a 12-storey building with retail and residential space.

Reserved matters – landscaping

Some landscaping notes have been included within the Design and Access Statement and the general planting layout is shown in the Ecological Management Plan Appendices. However, a detailed landscaping plan is required, to include full planting specifications and tree pit requirements as outlined in Sarah Hanson's comments.

Condition 22 – habitat management

This application also seeks to discharge Condition 22, which reads as follows:

"Each application for the approval of Reserved Matters shall be accompanied by details of habitat mitigation works for that Plot (if and to the extent relevant to the subject matter of the Reserved Matters application). This shall include a report detailing the following habitat mitigation works which shall be submitted to and approved in writing by the Local Planning Authority:

A. Locations and specification for bird nesting habitats for Black Redstarts, Swifts and Peregrine Falcons

B. Specifications for green roofs and brown roofs (to be a minimum area of 25% of each Plot's roof area in the development), including their method of construction and landscaping on-going management for five years; and

C. Details of the ground level planting scheme (demonstrating how it has been designed to maximise its benefit to wildlife within the context of the scheme).

These approved habitat mitigation works shall be in place prior to completion of the relevant building/Plot and retained thereafter."

An Ecological Management Plan (Waterman Infrastructure & Environment Limited, February 2019) for Plots E & F has been submitted. The management plan includes the specifications and maintenance details of multiple bird boxes that will be installed, with their locations shown in accompanying elevation plans. It is noted that nesting opportunities for peregrine falcons will not be offered within

Plot E, but the report confirms that a peregrine falcon nest box will be provided on a building in Plot B instead (Plot B is not part of this application).

It is not clear whether any bat boxes / bricks will be provided within the development. Bats have been recorded roosting in Reading town centre and would benefit from enhanced roosting opportunities in the area.

Condition 22 requires that 25% of the roof space comprises green and brown roofs. Section 5.3 states that in total, 25.42% of the roof space of Plot E will be covered by sedum green roof, shrub and tree planting. The ground floor courtyard has been included within this calculation, making up approximately 20% of the estimated 'green roof' coverage. Although the ground floor courtyard cannot be considered to constitute a green roof, the green roof coverage is sufficient in this case since (a) a number of other biodiversity enhancements have been proposed and (b) there is an opportunity to create more green roofs on other plots. For example, Plot F will include sedum green roofs on floors 11 and 12.

Details of the method of green and brown roof construction, and species that will be incorporated, have not been provided (as per Condition 22) – the applicant should submit an amended Ecological Management Plan to include this information.

Finally, a detailed ground-level planting scheme, showing species to be planted and their locations, has not been provided (as per point C of Condition 22 and the reserved matters landscaping requirements). The applicant should submit further landscaping information to address these points.

Memo

To: Stephen Vigar
From: Abi Gazzard (RBC Ecology Consultations)
CC:
Date: 30 April 2019
Re: 190466 - Station Hill Reading RG1 1NF

This application is for the approval of reserved matters (access, scale, appearance, layout and landscaping) and multiple conditions of 151427 (Station Hill development). This application concerns Plot F of the development, which will comprise a 12-storey building with retail and residential space.

Reserved matters – landscaping

Some landscaping notes have been included within the Design and Access Statement and the general planting layout is shown in the Ecological Management Plan Appendices. However, a detailed landscaping plan is required, to include full planting specifications and tree pit requirements as outlined in Sarah Hanson's comments.

Condition 22 – habitat management

This application also seeks to discharge Condition 22, which reads as follows:

"In respect of each Plot, each application for the approval of Reserved Matters shall be accompanied by details of habitat mitigation works for that Plot (if and to the extent relevant to the subject matter of the Reserved Matters application). This shall include a report detailing the following habitat mitigation works which shall be submitted to and approved in writing by the Local Planning Authority:

A. Locations and specification for bird nesting habitats for Black Redstarts, Swifts and Peregrine Falcons

B. Specifications for green roofs and brown roofs (to be a minimum area of 25% of each Plot's roof area in the development), including their method of construction and landscaping on-going management for five years; and

C. Details of the ground level planting scheme (demonstrating how it has been designed to maximise its benefit to wildlife within the context of the scheme).

These approved habitat mitigation works shall be in place prior to completion of the relevant building/Plot and retained thereafter."

An Ecological Management Plan (Waterman Infrastructure & Environment Limited, February 2019) for Plots E & F has been submitted. The management plan includes the specifications and maintenance details of multiple bird boxes that will be installed, with their locations shown in accompanying elevation plans. It is noted that nesting opportunities for peregrine falcons will not be offered within Plot F, but the report confirms that a peregrine falcon nest box will be provided on a building in Plot B instead (Plot B is not part of this application).

Condition 22 requires that 25% of the roof space comprises green and brown roofs. Section 5.5 states that, in total, 27.72 % of the roof space of Plot F will be covered by sedum green roof and shrub planting. Details of the method of green and brown roof construction, and species that will be incorporated, have not been provided (as per Condition 22) – the applicant should submit an amended Ecological Management Plan to include this information.

Finally, a detailed ground-level planting scheme, showing species to be planted and their locations, has not been provided (as per point C of Condition 22 and the reserved matters landscaping requirements). The applicant should submit some further landscaping information to address these points.



C. Green Roof Plans

Appendices

Plots E & F, Station Hill, Reading
WIE14788-100-R-7-6-1-EMP

Med0 **SedumPlus**

Product Data Sheet



A low maintenance, drought resistant, ready to lay sedum vegetation blanket (Mat).

Product Data Sheet

General Information

Radmat SedumPlus sedum blanket is a low maintenance, drought resistant, ready to lay sedum vegetation blanket (Mat). Grown in the UK SedumPlus comprises sixteen varieties of sedum pre-grown in a strong biodegradable 450g/m² felt mat made from recycled British textiles.

Providing a variety of colour and interest, Radmat SedumPlus has been specially developed to provide a variety of different leaf types and flowers throughout the year whilst enhancing biodiversity. Colours range from greens through to vibrant reds, oranges, purples and browns at appropriate times of the Spring and Summer.

Installation instructions

Unroll over a suitably prepared and irrigated Radmat growing medium. Loosely butt sides and ends. Once installed irrigate for the prescribed period based on season.

Directions of applications

Delivery Form

Rolls

Storage and transport

48m² Delivered on a pallet. Store flat.

Product Dimensions		
Subject	Performance	Unit
Vegetative Coverage	80	%
Length	2.0	m
Width	0.6 or 1.2	m
Thickness	25	mm
m ² / roll	1.2 or 2.4	m ²
Weight / m ² (saturated)	25	kg
Species mix		
Variety	Common name	Description
Sedum Stoloniferum	Stolon Stonecrop	20cm, pink, starshaped flowers, red stems
Sedum Pulchellum	Widow's-cross	10cm, brilliant pink, rich flowering, lush green foliage
Sedum Oreganum	Oregon stonecrop	5cm, yellow, forms cushions, red-brown in sunlight.
Sedum Montanum	Jenny	20cm, golden, dark green needle-like foliage.
Sedum hybridum	Czars Gold	15cm, golden, rich flowering, reddish stems, ever green carpet
Sedum hispanicum	Spanish Stonecrop	10cm, cushion plant, whitish-pink, grey-green cushions.
Sedum Floriferum	Bailey's Gold	10cm, golden, evergreen, crenate foliage.
Sedum Ellacombianum	Selskianum hort	10cm, yellow, unbranched stems and scalloped leaves.
Sedum aizoon	Euphorbioides	40cm, abundant yellow star shaped flowers.
Sedum acre	Oktoberfest	6cm, bright cream-white starflowers, fresh green cushions.
Sedum acre	Yellow	6cm, yellow, mat-forming.
Sedum album	White	10cm, white umbel panicles.
Sedum Spurius	Coccineum	15cm, dark pink flowers.
Sedum Sexangulare	Tasteless Stonecrop	8cm, lemon yellow, dense sweet smelling foliage.
Sedum Reflexum	Crooked Yellow Stonecrop	30cm, yellow flowers with grey leaves.
Sedum telephium	Fabaria	40cm, dense purple-red umbels, dark stemmed, strong blue-green foliage. Attracts bees.

This information given in good faith and is based on the latest knowledge available to Radmat Building products Ltd. Whilst every effort has been made to ensure that the contents of the publication are current while going to press, customers are advised that products, techniques and codes of practice are under constant review and liable to change without notice.

For further information on Radmat products and services please call 01858 410372, email techenquiries@radmat.com or visit our website www.radmat.com

Radmat Building Products Ltd

Holland House, Valley Way, Rockingham Road
Market Harborough, Leicestershire, LE16 7PS
T : 01858 410 372 E : techenquiries@radmat.com

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PROJECT BASE POINT N471300E173700

- GENERAL**
- SITE BOUNDARY
 - EXTENT OF S278 WORKS (TBC)
 - BASEMENT LINE
 - LEVELS
 - GRADE BREAK
- HARDWORKS**
- TYPICAL PAVING TYPES PODIUM GARDEN LEVEL 01**
- PAVING TYPE 12: 400MM X 800MM X 50MM RECONSTITUTED STONE SLABS ON PEDESTAL SYSTEM; MODAL INDIAN GRANITE SMOOTH
 - PAVING TYPE 13: 24-28MM PERMEABLE RESIN BOUND GRAVEL; 6-10MM AGGREGATE; COLOUR: SAFARI
 - PAVING TYPE 14: 24-28MM PERMEABLE RESIN BOUND GRAVEL; 6-10MM AGGREGATE; COLOUR: APOLLO RED
- TYPICAL EDGE TYPES PODIUM GARDEN LEVEL 01**
- RAISED PLANTER EDGE TYPE 01: 375MM HIGH (VISIBLE); HI GRADE
 - RAISED PLANTER EDGE TYPE 02: 450-700MM HIGH (VISIBLE); HI GRADE
 - FLUSH METAL EDGE ALUMINIUM 'L' EDGE; ALUEXCEL EDGE
- TYPICAL FURNITURE TYPES PODIUM GARDEN LEVEL 01**
- TIMBER BENCH TO RAISED PLANTERS COURTYARDS & LEVEL 01 TYPE 01
 - TIMBER BENCH TO RAISED PLANTERS COURTYARDS & LEVEL 01 TYPE 02
 - TIMBER BENCH TO RAISED PLANTERS COURTYARDS & LEVEL 01 TYPE 03
 - MOVABLE PLANTERS, 450MM HIGH, 600MM DIAMETER
- DRAINAGE & UTILITIES**
- DRAINAGE OUTLET LOCATION
- SOFTWORKS**
- PROPOSED TREES/SHRUBS
 - LAWN
 - PROPOSED HERBACEOUS PLANTING

P07	RE-ISSUE FOR PLANNING	CI	22/09/20
P08	RE-ISSUED FOR PLANNING - NMA 2	CI	17/02/20
REV.	DESCRIPTION	APP.	DATE

LDA DESIGN

PROJECT TITLE
STATION HILL READING

DRAWING TITLE
PLOT E&F LEVEL 01
GENERAL ARRANGEMENT
PODIUM TERRACES

ISSUED BY	London	T: 020 7467 1470	
DATE	SEPT 2019	DRAWN	ER
SCALE	1/250	CHECKED	BE
STATUS	Planning	APPROVED	CI

DWG. NO SHR-LDA-SB-01-DR-L-110-103

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All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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Sources: Ordnance Survey

- NOTES**
- Information outside of red line boundary is shown for contextual purposes only and subject to a S278 agreement.
 - Proposed levels and drainage are shown indicatively for concept coordination. Refer to engineers' drawings for all levels, drainage, build ups and services.
 - Refer to Architect's drawings for balustrades and wall claddings.

- GENERAL NOTES**
- Do not scale drawing.
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 - All setting out, levels and dimensions and sequence of construction to be agreed on site prior to ordering/manufacturing of materials.

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NOTES

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LEGEND

SOFTWORKS

PROPOSED HERBACEOUS PLANTING

PROPOSED TREES/SHRUBS

Level 01 Sheet 01

Trees						
Number	Pot Size	Girth	Height	Species	Specification	Density
3 -			1.5-2.0m	Amelanchier lamarkii	Multistem; 3 x tr.; 3 or 4 stem	Counted
1 -			2.5-3.0m	Cornus kousa		Counted
1 -	75-80L		2.5-3.0m	Hamamelis japonica 'Arborea'	Branched	Counted
1 -	90L		2.5-3.0m	Magnolia lilliflora 'Susan'	Branched; Max height 4m	Counted

Shrubs						
Number	Pot Size	Girth	Height	Species	Specification	Density
46 -	3L			Pachysandra terminalis		9/m²
11 -	10L		80-100cm	Sarcococca confusa		Counted

Herbaceous						
Number	Pot Size	Girth	Height	Species	Specification	Density
45 -	3L			Ajuga reptans 'Alba'		9/m²
87 -	3L			Anemone hybrida 'Honorine Jobert'		9/m²
46 -	3L			Asarum europaeum		9/m²
44 -	3L			Astrantia major 'Roma'		9/m²
44 -	3L			Bergenia 'Bressingham White'		9/m²
46 -	3L			Brunnera macrophylla 'Jack Frost'		9/m²
23 -	3L			Digitalis lutea		9/m²
22 -	3L			Epimedium youngianum 'Niveum'		9/m²
45 -	3L			Galium odoratum		9/m²
90 -	3L			Helleborus foetidus		9/m²
68 -	3L			Hosta 'Devon Green'		9/m²
23 -	3L			Hosta 'Hadspen Blue'		9/m²
67 -	3L			Liriope muscari		9/m²
22 -	3L			Ophiopogon 'Black Beard'		9/m²
90 -	3L			Primula vulgaris		9/m²
23 -	3L			Tiarella 'Spring Symphony'		9/m²
22 -	3L			Zantedeschia aethiopica 'Crowborough'		9/m²

Ferns						
Number	Pot Size	Height	Species	Specification	Density	
46 -	3L		Asplenium scolopendrium		9/m²	



P03	RE-ISSUE FOR PLANNING	CI	22/08/20
P02	RE-ISSUED FOR PLANNING - NMA 2	CI	17/02/20
REV.	DESCRIPTION	APP.	DATE

LD&A DESIGN

PROJECT TITLE
STATION HILL READING

DRAWING TITLE
BLOCK E LEVEL 01 DETAIL
SOFTWORKS GA -NORTHERN
TERRACE

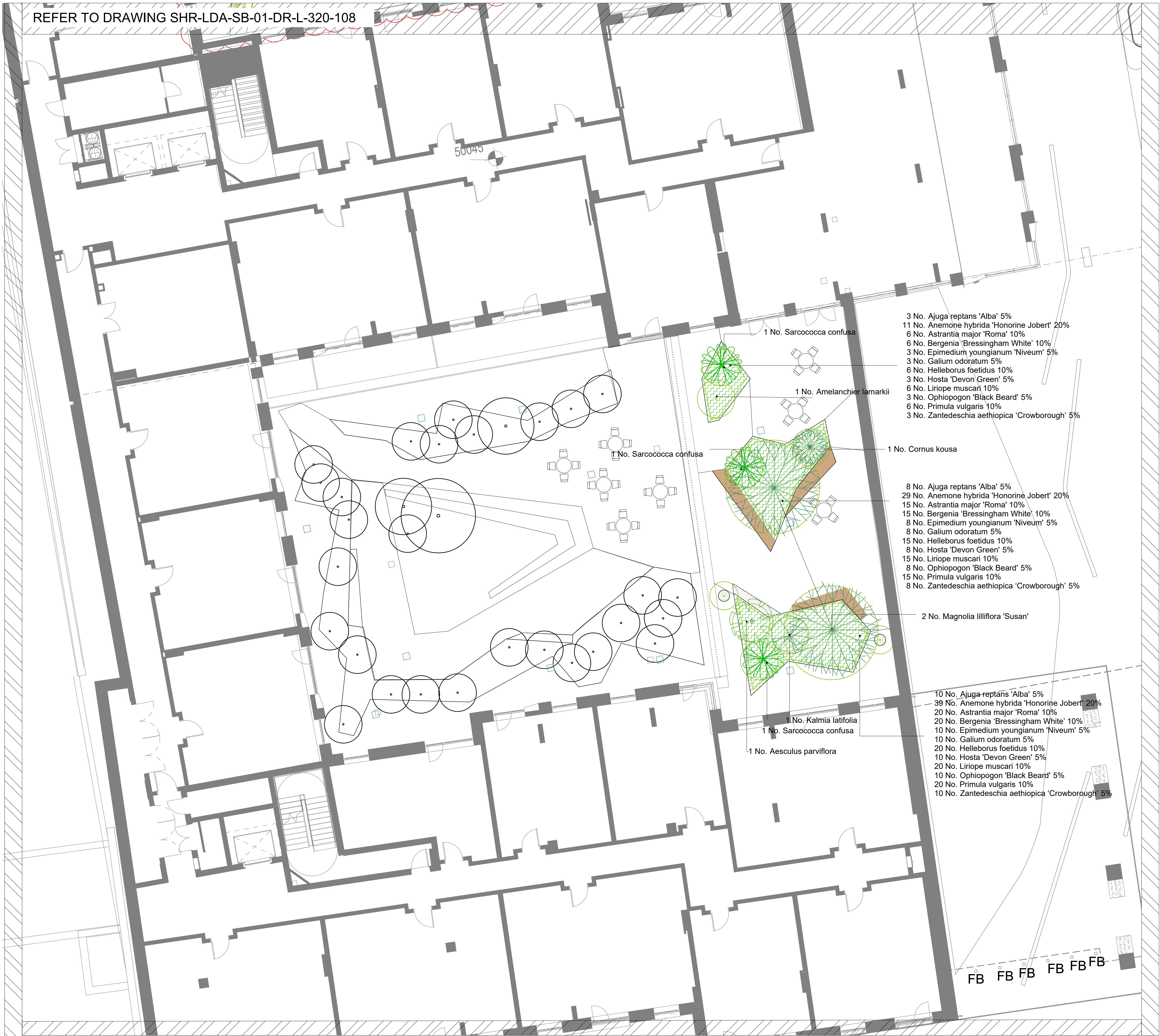
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DATE	Sept 2019	DRAWN
SCALE	1:100	CHECKED
STATUS	Planning	APPROVED

DWG. NO SHR-LDA-SB-01-DR-L-320-108

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Sources Ordnance Survey





NOTES

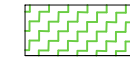
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LEGEND

SOFTWARES



(•) PROPOSED TREES/SHRUBS

Level 01 Sheet 02

Trees						
Number	Pot Size	Girth	Height	Species	Specification	Density
1 -			1.5-2.0m	<i>Aesculus parviflora</i>	5 x tr. Branched	Counted
1 -			1.5-2.0m	<i>Amelanchier lamarkii</i>	Multistem; 3 x tr.; 3 or 4 stem	Counted
1 -			2.5-3.0m	<i>Cornus kousa</i>		Counted
2 -	90L		2.5-3.0m	<i>Magnolia lilliflora</i> 'Susan'	Branched; Max height 4m	Counted

Shrubs						
Number	Pot Size	Girth	Height	Species	Specification	Density
1 -			80-100cm	Kalmia latifolia	Bushy	Counted
3 -	10L		80-100cm	Sarcococca confusa		Counted

Herbaceous						
Number	Pot Size	Girth	Height	Species	Specification	Density
21 -	3L			<i>Ajuga reptans</i> 'Alba'		9/m ²
79 -	3L			<i>Anemone hybrida</i> 'Honorable Jobert'		9/m ²
41 -	3L			<i>Astrantia major</i> 'Roma'		9/m ²
41 -	3L			<i>Bergenia</i> 'Bressingham White'		9/m ²
21 -	3L			<i>Epimedium youngianum</i> 'Niveum'		9/m ²
21 -	3L			<i>Galium odoratum</i>		9/m ²
41 -	3L			<i>Helleborus foetidus</i>		9/m ²
21 -	3L			<i>Hosta</i> 'Devon Green'		9/m ²
41 -	3L			<i>Liriope muscari</i>		9/m ²
21 -	3L			<i>Ophiopogon</i> 'Black Beard'		9/m ²
41 -	3L			<i>Primula vulgaris</i>		9/m ²
21 -	3L			<i>Zantedeschia aethiopica</i> 'Crownborough'		9/m ²



P03	RE-ISSUE FOR PLANNING	CI	22/09/20
P02	RE-ISSUED FOR PLANNING - NMA 2	CI	17/02/20
REV.	DESCRIPTION	APP.	DATE

LDĀ DESIGN

PROJECT TITLE
STATION HILL READING

DRAWING TITLE
BLOCK E LEVEL 01 DETAIL
SOFTWORKS GA -SOUTHERN
TERRACE

ISSUED BY	London	T: 020 7467 1470
DATE	SEPT 2019	DRAWN
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STATUS	Planning	APPROVED

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PROJECT BASE POINT N471300E173700

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- GENERAL
- SITE BOUNDARY
 - EXTENT OF \$278 WORKS (TBC)
 - BASEMENT LINE
 - LEVELS
 - GRADE BREAK

- TYPICAL PAVING TYPES: ROOF TERRACES 06 AND 11
- PAVING TYPE 15: COMPOSITE DECKING, 20MM DEPTH X 140 MM WIDTH X 4000MM TYPICAL LENGTH, 4.5 MM SPACING TYPICAL BETWEEN DECKING BOARDS; ALL FIXINGS TO BE CONCEALED; ORIENTATION AS SHOWN IN PLAN; BARK BROWN

- PAVING TYPE 16: ARTIFICIAL TURF - EASI CHELSEA

- TYPICAL EDGE TYPES: ROOF TERRACES 06 AND 11
- RAISED PLANTER EDGE TO ROOF TERRACES TYPE 01; 450MM HIGH (VISIBLE); HI GRADE
 - RAISED PLANTER EDGE TO ROOF TERRACES TYPE 02; HI GRADE
 - RAISED EDGE TO ROOF TERRACES - TYPE 03; 150-600MM HIGH COMPOSITE TIMBER EDGE TO MATCH DECKING

- TYPICAL FURNITURE TYPES: ROOF TERRACES 06 AND 11
- RAISED PLANTER EDGES/SEATWALLS TO ROOF TERRACES; COMPOSITE TIMBER CLAD

- MOVABLE TABLE AND CHAIRS TO ROOF TERRACES
- MOVABLE LOUNGE FURNITURE - BEAN BAGS

- DRAINAGE & UTILITIES
- DRAINAGE OUTLET LOCATION

- SOFTWORKS
- PROPOSED HERBACEOUS PLANTING
 - PAVING TYPE 16: ARTIFICIAL TURF
 - PROPOSED TREES/SHRUBS
 - SEDUM GREEN ROOF
 - 300MM GRAVEL BORDER TO SEDUM GREEN ROOF
 - ROOT BARRIER
 - PROPOSED MOVEABLE PLANTER

- P01 RE-ISSUE FOR PLANNING CI 22/09/20
- REV. DESCRIPTION APP. DATE

LDA DESIGN

PROJECT TITLE
STATION HILL READING

DRAWING TITLE
PLOT E&F LEVEL 07
GENERAL ARRANGEMENT
ROOF TERRACE AND GREEN ROOF

ISSUED BY London T: 020 7467 1470
DATE NOV 2018 DRAWN ER
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STATUS Planning APPROVED CI

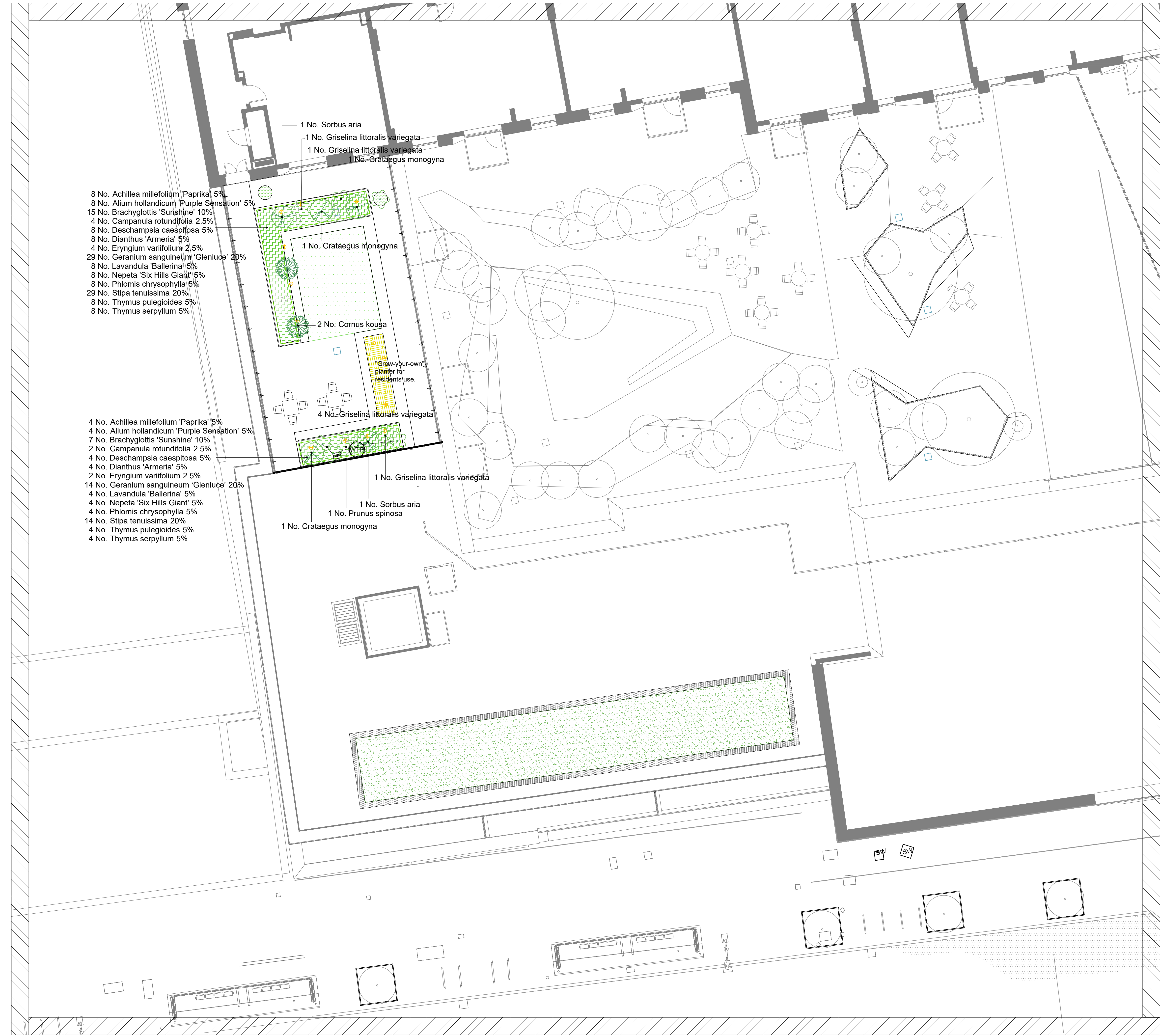
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Sources Ordnance Survey



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- 8 No. Achillea millefolium 'Paprika' 5%
- 8 No. Alium hollandicum 'Purple Sensation' 5%
- 15 No. Brachyglottis 'Sunshine' 10%
- 4 No. Campanula rotundifolia 2.5%
- 8 No. Deschampsia caespitosa 5%
- 8 No. Dianthus 'Armeria' 5%
- 4 No. Eryngium varifolium 2.5%
- 29 No. Geranium sanguineum 'Glenluce' 20%
- 8 No. Lavandula 'Ballerina' 5%
- 8 No. Nepeta 'Six Hills Giant' 5%
- 8 No. Phlomis chrysophylla 5%
- 29 No. Stipa tenuissima 20%
- 8 No. Thymus pulegioides 5%
- 8 No. Thymus serpyllum 5%

- 4 No. Achillea millefolium 'Paprika' 5%
- 4 No. Alium hollandicum 'Purple Sensation' 5%
- 7 No. Brachyglottis 'Sunshine' 10%
- 2 No. Campanula rotundifolia 2.5%
- 4 No. Deschampsia caespitosa 5%
- 4 No. Dianthus 'Armeria' 5%
- 2 No. Eryngium varifolium 2.5%
- 14 No. Geranium sanguineum 'Glenluce' 20%
- 4 No. Lavandula 'Ballerina' 5%
- 4 No. Nepeta 'Six Hills Giant' 5%
- 4 No. Phlomis chrysophylla 5%
- 14 No. Stipa tenuissima 20%
- 4 No. Thymus pulegioides 5%
- 4 No. Thymus serpyllum 5%

- 1 No. Sorbus aria
- 1 No. Griselinia littoralis variegata
- 1 No. Griselinia littoralis variegata
- 1 No. Crataegus monogyna

- 1 No. Crataegus monogyna

- 2 No. Cornus kousa

"Grow-your-own"
planter for
residents use.

- 4 No. Griselinia littoralis variegata

- 1 No. Griselinia littoralis variegata

- 1 No. Sorbus aria
- 1 No. Prunus spinosa
- 1 No. Crataegus monogyna

NOTES

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LEGEND

SOFTWORKS

PAVING TYPE 16: ARTIFICIAL TURF

PROPOSED TREES/SHRUBS

Roof Terraces Level 06 Schedule

Trees						
Number	Pot Size	Girth	Height	Species	Specification	Density
3 -	18L		1.5-2.0m	Crataegus monogyna		Counted
7 -	25-45L		1.2-1.5 m	Griselinia littoralis variegata	Bushy	Counted
2 -	10L	6-8cm	1.2-1.5 m	Sorbus aria		Counted

Shrubs						
Number	Pot Size	Girth	Height	Species	Specification	Density
22 -	3L			Brachyglottis 'Sunshine'	Bushy	9/m ²
2 -			175-200cm	Cornus kousa	4 x tr. ; Branched	Counted
12 -	3L			Phlomis chrysophylla		9/m ²
1 -			150-175cm	Prunus spinosa	3 x tr.	Counted

Herbaceous						
Number	Pot Size	Girth	Height	Species	Specification	Density
12 -	3L			Achillea millefolium 'Paprika'		9/m ²
12 -	3L			Dianthus 'Armeria'		9/m ²
6 -	3L			Eryngium varifolium		9/m ²
43 -	3L			Geranium sanguineum 'Glenluce'		9/m ²
12 -				Lavandula 'Ballerina'		9/m ²
12 -	3L			Nepeta 'Six Hills Giant'		9/m ²
12 -	3L			Thymus pulegioides		9/m ²
12 -	3L			Thymus serpyllum		9/m ²

Wildflowers						
Number	Pot Size	Girth	Height	Species	Specification	Density
6 -	3L			Campanula rotundifolia		9/m ²

Bulbs			
Number	Species	Specification	Density
12 -	Alium hollandicum 'Purple Sensation'		9/m ²

Grasses					
Number	Pot Size	Height	Species	Specification	Density
12 -	3L		Deschampsia caespitosa		9/m ²
43 -	3L		Stipa tenuissima		9/m ²



P01 PLANNING RESUBMISSION
REV. DESCRIPTION
CI 22/09/20
APP. DATE

LDA DESIGN

PROJECT TITLE
STATION HILL READING

DRAWING TITLE
BLOCK E LEVEL 07 DETAIL SOFTWORKS GA -
ROOF TERRACE

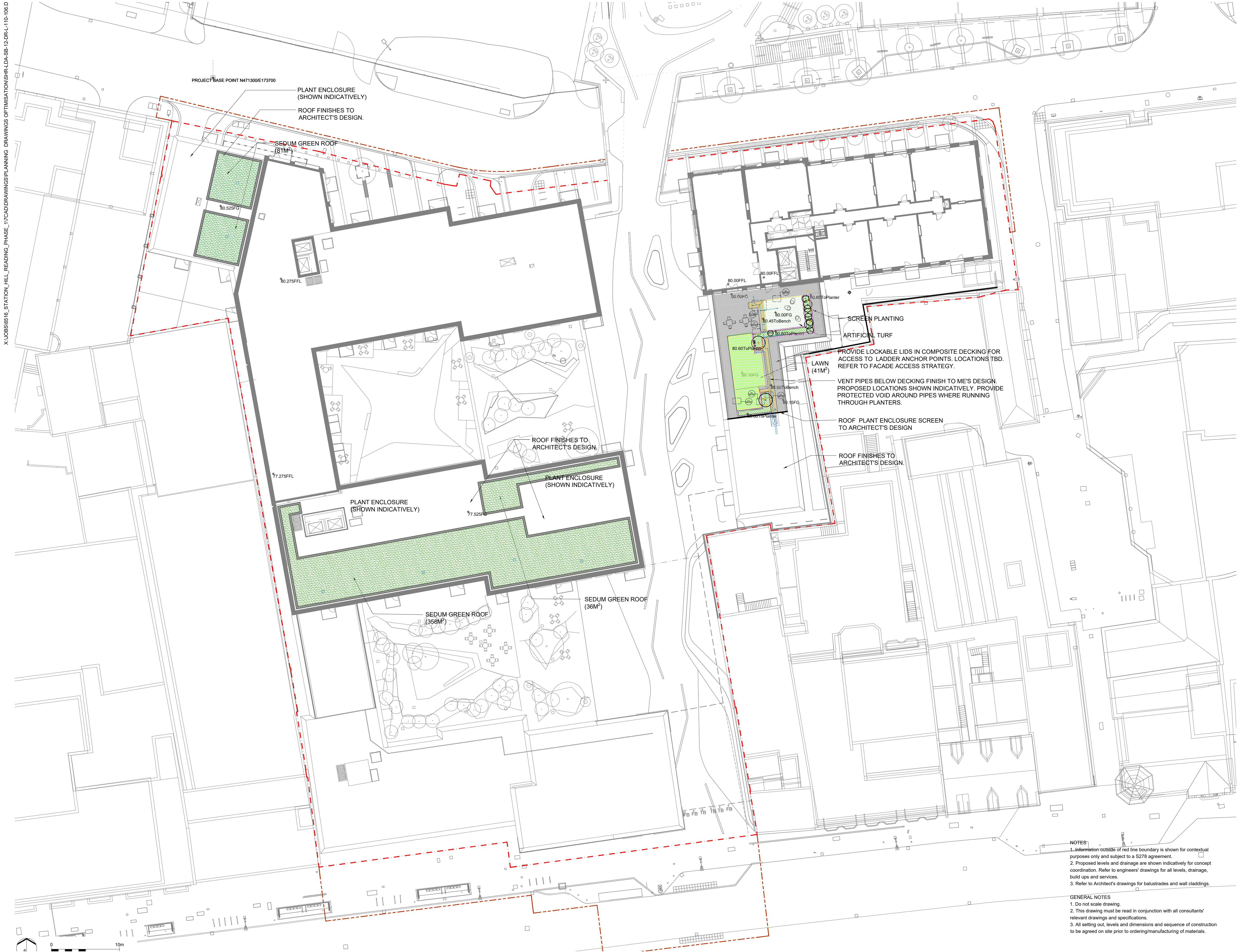
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DATE SEPT 2019 DRAWN ER
SCALE@A1 1:100 CHECKED BE
STATUS Planning APPROVED CI

DWG. NO SHR-LDA-SB-07-DR-L-320-110

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- GENERAL
- SITE BOUNDARY
 - EXTENT OF S278 WORKS (TBC)
 - BASEMENT LINE
 - LEVELS
 - GRADE BREAK
- TYPICAL PAVING TYPES: ROOF TERRACES 06 AND 11
- PAVING TYPE 15: COMPOSITE DECKING, 20MM DEPTH X 140 MM WIDTH X 4000MM TYPICAL LENGTH, 4.5 MM SPACING TYPICAL BETWEEN DECKING BOARDS; ALL FIXINGS TO BE CONCEALED; ORIENTATION AS SHOWN IN PLAN; BARK BROWN
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 - MOVABLE LOUNGE FURNITURE - BEAN BAGS
- DRAINAGE & UTILITIES
- DRAINAGE OUTLET LOCATION
- SOFTWORKS
- PROPOSED HERBACEOUS PLANTING
 - PAVING TYPE 16: ARTIFICIAL TURF
 - PROPOSED TREES/SHRUBS
 - SEDUM GREEN ROOF
 - LAWN
 - 300MM GRAVEL BORDER TO SEDUM GREEN ROOF
 - ROOT BARRIER

P01 RE-ISSUED FOR PLANNING CI 22/09/20

REV. DESCRIPTION APP. DATE

LDA DESIGN

PROJECT TITLE
STATION HILL READING

DRAWING TITLE
PLOT E&F LEVEL 12
GENERAL ARRANGEMENT
ROOF TERRACE AND GREEN ROOFS

ISSUED BY	London	T: 020 7467 1470
DATE	SEPT 2019	DRAWN ER
SCALE@A1	1:250	CHECKED BE
STATUS	Planning	APPROVED CI

DWG. NO SHR-LDA-SB-12-DR-L-110-106

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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Sources: Ordnance Survey

- NOTES
- Information outside of red line boundary is shown for contextual purposes only and subject to a S278 agreement.
 - Proposed levels and drainage are shown indicatively for concept coordination. Refer to engineers' drawings for all levels, drainage, build ups and services.
 - Refer to Architect's drawings for balustrades and wall claddings.

- GENERAL NOTES
- Do not scale drawing.
 - This drawing must be read in conjunction with all consultants' relevant drawings and specifications.
 - All setting out, levels and dimensions and sequence of construction to be agreed on site prior to ordering/manufacturing of materials.