



River Itchen Waste Water Treatment Works (WWTW)

Preliminary Ecological Appraisal Report (PEAR)

Portsmouth Water Stores

Prepared by:

SLR Consulting Limited

Suite 5, Brindley Court, Gresley Road, Shire Business Park, Worcester, WR4 9FD

SLR Project No.: 433.000083.00003

Client Reference No: N/A

28 June 2024

Revision: V01

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
D01	28 June 2024	Giselle Hynes	Andy Law	Andy Law

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Portsmouth Water Stores (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.



Table of Contents

Basis of Report	i
1.0 Introduction	4
1.1 Details of the Proposed Development	4
1.2 Purpose of this Report.....	4
1.3 Evidence of Technical Competence and Experience	5
1.4 Relevant Legislation and Policy	5
2.0 Methodology	5
2.1 Baseline Data Collection	5
2.1.1 Desk Study	5
2.1.2 Field Survey	5
2.1.3 Limitations	6
3.0 Results	7
3.1 Designated Sites	7
3.1.1 Statutory Sites	7
3.1.2 Non-Statutory Sites	8
3.1.3 Priority Habitats	11
3.2 Habitats	11
3.3 Protected and Notable Species	13
3.3.1 Plants	14
3.3.2 Invasive Non-native Plant Species	14
3.3.3 Invertebrates	14
3.3.4 Amphibians	14
3.3.5 Reptiles	15
3.3.6 Birds	15
3.3.7 Mammals	15
4.0 Ecological Constraints and Opportunities	17
4.1 Designated Sites	17
4.1.1 Statutory Designated Sites	17
4.1.2 Non-statutory Designated Sites	17
4.2 Priority Habitats	17
4.3 Protected Species	17
4.3.1 Breeding Birds	17
4.3.2 Reptiles	18
4.3.3 Foraging Bats	18
4.3.4 Badger	18



4.4	Potential Opportunities for Biodiversity Enhancements.....	18
-----	--	----

Appendices

Appendix A Relevant Legislation and Planning Policy

A.1 Relevant Legislation and Policy

A.2 Planning Policy

Appendix B Proposed Development

Appendix C UKHab Classification Survey Plan

Appendix D Desk Study Records of Notable Bird Species



1.0 Introduction

In May 2024, SLR Consulting Limited (SLR) was commissioned by Portsmouth Water Stores to carry out a Preliminary Ecological Appraisal (PEA) of a site located off Allington Lane, Eastleigh, Hampshire and known as the River Itchen Waste Water Treatment Works (WWTW), hereafter it is termed the 'Site'.

A centrifugal processing plant is proposed at the Site.

The Site extends to approximately 0.6 hectares (ha) and is centred on National Grid Reference SU 45786 15668. The Site boundaries are shown on the plans enclosed as **Appendix B**.

The Site is currently operational as WWTW and comprises grassland, treatment buildings, hardstanding roads and car parking with vehicular access from Allington Lane. Within the grassland areas, there are mature and immature trees both within the red line boundary and beyond in the wider WWTW.

The Site is located within a rural area adjacent to the M27, to the north of Southampton and south of Eastleigh. The Site's environs to the north, east and west of the WWTW are dominated by grassland, equestrian fields, woodland and Itchen Valley Country Park.

To the south, is the M27 and beyond that is the urban area of Southampton.

The Site is within 2km of two statutory and twelve non-statutory designated ecological sites comprising one Site of Special Scientific Interest (SSSI), one Special Area of Conservation (SAC) and twelve Sites of Importance for Nature Conservation (SINCs).

1.1 Details of the Proposed Development

The proposed development comprises a new permanent building to house a centrifuge, alongside which would be a balancing tank, sludge cake skip and adjacent hard standing for temporary pallet storage. The centrifuge will deal with sludge from the water treatment process, which has previously been discharged to an adjacent sewer.

The Proposed Development will not operate continuously, and its use will be influenced by the WWTW throughput. Operating hours are however envisaged to be typically during the working day. Expected volume of sludge cake per week will be relatively limited, with typically less than one skip being produced per week. There will be no odorous component to the sludge cake. A liquid polymer is required for the process and this will be stored within a bunded area, with a spill area for it and deliveries. Spills are, however, very unlikely as the polymer will be delivered and stored in Intermediate Bulk Containers (IBCs) within the proposed building, rather than being transferred from tanker.

The Proposed Development will not lead to any material change in personnel numbers at the WTW or any material change in average daily vehicle movements to and from the WTW.

The Proposed Development is shown in the plans enclosed as **Appendix B**.

1.2 Purpose of this Report

This report presents the findings of the PEA. The report seeks to:

- describe the baseline data collection and assessment methodologies used;
- establish baseline conditions and determine the importance of ecological features present (or those that could be present), as far as possible;
- to identify potential ecological constraints to the proposed development and make initial recommendations to avoid potential significant effects on important ecological features, where possible;



- to identify potential requirements for mitigation, where possible, including mitigation measures that will be required and those that may be required (depending on results of further surveys or final scheme design);
- to establish any requirements for more detailed surveys; and,
- to identify opportunities for biodiversity enhancements as part of the project.

1.3 Evidence of Technical Competence and Experience

Giselle Hynes ACIEEM, who surveyed the Site and wrote this report, is a Senior Ecologist, with an MSc in Wildlife Management and Conservation. She has over five years of experience as a professional ecological consultant, during which time she has worked on many development projects.

This report has been reviewed by Andy Law, a Chartered Ecologist and Principal at SLR with over thirty years professional experience of ecological impact assessment.

1.4 Relevant Legislation and Policy

The key wildlife legislation underpinning the conservation of habitat and species and Local Planning Policies are presented in **Appendix A**.

2.0 Methodology

To establish the current baseline ecological conditions within the Site, a desk and field survey have been undertaken. The methods for each are described below.

2.1 Baseline Data Collection

2.1.1 Desk Study

An ecological data search was requested from Hampshire Biodiversity Information Centre (HBIC) to provide records of protected and otherwise notable species, statutory and non-statutory sites within 1km. Only records made within 10 years prior to the site visit were considered for this report. The terms of use of data prevent the publication of the raw data and therefore a copy of the data search has not been included within this PEA.

An internet-based desk study was also undertaken, whereby the Multi-Agency Geographic Information for the Countryside (MAGIC) website¹ was searched for European Protected Species (EPS) Licences granted within 2km (4km search radius for bats) of the Site.

2.1.2 Field Survey

2.1.2.1 Preliminary Ecological Appraisal

The Site habitats were mapped during an ecological walkover survey undertaken on 21st May 2024 by Giselle Hynes.

The survey recorded (mapped) the habitats present and followed the UK Habitat Survey (UKHab) methodology². The UK Habitat Classification (UKHab) is a comprehensive classification system for the UK that has been developed to benefit from changes in habitat categorisation and recording analysis in recent decades. The system comprises a principal

¹ <https://magic.defra.gov.uk/MagicMap.aspx>

² The UK Habitat Classification Working Group (May 2018) The UK Habitat Classification User Manual Version 1.0.



hierarchy (the Primary Habitats) which include broad habitats and priority habitats and non-hierarchical Secondary codes. Habitat nomenclature and definitions have been designed to remain as close to existing systems as possible in order that data can be collected, analysed, and translated without ambiguity.

The survey was extended to include the recording of field evidence indicating the presence or potential presence of species that could constitute a material consideration in planning terms, such as protected or notable plant or faunal species. Such species included (but were not limited to) badgers *Meles meles*, bats and breeding birds. For great crested newts *Triturus cristatus* off-site waterbodies were not inspected, and the scope was limited to assessing suitability of terrestrial habitats.

Trees and structures within the survey area were assessed for their potential to support roosting bats via an external assessment at ground-level, based on criteria within the third edition of the Bat Conservation Trust's Good Practice Guidelines³ (refer to **section 2.1.2.2** below).

Searches were also made for non-native invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such as Japanese knotweed *Fallopia japonica* and Himalayan balsam *Impatiens glandulifera*.

Whilst not a full botanical or protected species survey, the method of survey enables experienced ecologists to obtain an understanding of the ecology of a site such that it is possible either:

- to confirm the conservation significance of the site and assess the potential for impacts on habitats/species likely to represent a material consideration in planning terms; or
- to establish the scope and extent of any additional specialist ecological surveys that will be required before such confirmation can be made.

2.1.3 Limitations

2.1.3.1 Desk Study

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the site.

Interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field study area.

2.1.3.2 Field Survey

The Site was fully accessible during the survey. The survey was undertaken in May, which is considered to be an optimal time for conducting vegetation surveys.

The survey did not seek to identify all plant species within the study area and as such, this report does not provide an exhaustive list of flora found within the study area. However, it is considered that the survey results are representative of the habitats and flora of the Site and include the dominant and characteristic species.

Whilst it is felt unlikely that significant factors have been overlooked, due to the nature of the subjects of ecological surveys it is feasible that species that use the Site may not have been recorded by virtue of their seasonality, cryptic behaviour, habit or random chance. It should be noted that lack of evidence of any one protected species during survey visits does not

³ Collins, J. (2016) Bat Surveys for Professional Ecologists. Good Practice Guidelines. Third edition. Bat Conservation Trust, London.



necessarily preclude its presence at the Site either at this current time or in the future. It is considered that the survey was suitable for conducting protected species risk assessments based on habitat type, collected data and local knowledge.

An ecological study provides only a “snapshot” of the conditions prevailing at the time of survey. Lack of evidence of any one protected species does not necessarily preclude them from being present on site at a later date.

2.1.3.3 Longevity of Baseline Data

The evidence set out in this report describes the characteristics of the Site at the time at which the survey was undertaken. Many species of wildlife are highly mobile by nature and will routinely take advantage of new opportunities, which arise within their home ranges (CIEEM, 2019)⁴. Over time this will alter the baseline conditions present at the Site. Should there be delays in the delivery of this project, it is possible that the baseline ecology will change. In the event of a significant delay (24 months) between the baseline survey and commencement of works at the Site, advice on the implications of potential changes at the Site should be sought from a suitably experienced ecologist.

3.0 Results

The results of the desk and field surveys are reported below and describe the baseline conditions at the Site and within the surrounding area.

3.1 Designated Sites

Information on sites with statutory ecological designations have been drawn from the HBIC data search and from checks of DEFRA's Multi Agency Geographic Information in the Countryside (MAGIC) website resource.

3.1.1 Statutory Sites

There are no statutory designated sites within the Site itself. There are two statutory designated sites within 2km of the Site which are detailed further within Table 3.1 below:

⁴ CIEEM (2019). Advice note. On the lifespan of ecological reports and surveys. Chartered Institute of Ecology and Environmental Management, Winchester.



Table 3.1 Statutory Designated Sites within 2km

Stat site/ reference number	Designation	Description	Distance/ direction from site
River Itchen Ref: 1006614	SSSI	The site comprises a chalk stream and river, fen meadow, flood pasture and swamp habitats. The site is also notified for southern damselfly <i>Coenagrion mercuriale</i> and riparian invertebrates such as white-clawed crayfish <i>Austropotamobius pallipes</i> . The site is also notified for otter <i>Lutra lutra</i> , water vole <i>Arvicola terrestris</i> , freshwater fishes including bullhead <i>Cottius gobbo</i> , brook lamprey <i>Lampetra planeri</i> and Atlantic salmon <i>Salmo salar</i> . The assemblage of breeding birds includes tufted duck <i>Aythya fuligula</i> , pochard <i>A. farina</i> , shoveler <i>Anas clypeata</i> , lapwing <i>Vanellus vanellus</i> , redshank <i>Tringa totanus</i> , snipe <i>Gallinago gallinago</i> , sedge warbler <i>Acrocephalus schoenobaenus</i> , reed warbler, <i>A. scirpaceus</i> and Cetti's warbler <i>Cettia cettia</i> .	90m west
River Itchen Ref: UK0012599	SAC	This SAC is designated for the following features. Annex I habitats that are a primary reason for selection: • 3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-batrachion</i> vegetation. Annex II species that are a primary reason for selection: • 1044 Southern damselfly <i>Coenagrion mercuriale</i>; and, • 1163 Bullhead <i>Cottus gobio</i>. Annex II species present as a qualifying feature, but not a primary reason for site selection: • 1092 White-clawed crayfish <i>Austropotamobius pallipes</i>; • 11096 Brook lamprey <i>Lampetra planeri</i>; • 1106 Atlantic salmon <i>Salmo salar</i>; and, • 1355 Otter <i>Lutra lutra</i>.	130m west

3.1.2 Non-Statutory Sites

The Site itself is not designated as a non-statutory ecological site.

There are twelve Sites of Importance for Nature Conservation (SINCs) within 1km of the Site which are detailed within Table 3.2 below in order of proximity:



Table 3.2 Non-statutory Designated Sites within 2km

Non-stat site/ reference number	Designation	Description	Distance/ direction from site
Itchen Valley Country Park Ref: EA0035	SINC	A 64.12ha country park, designated for the following SINC criteria: • Semi-improved grasslands which retain a significant element of unimproved grassland; • Areas of open fresh water; and, • Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions. The site also supports species that meet Section 6 of the SINC Selection criteria: • Eurasian water shrew <i>Neomys fodiens</i>; • Slender-tufted sedge <i>Carex acuta</i>; • Marsh purslane <i>Ludwigia palustris</i>; • Shining pondweed <i>Potamogeton lucens</i>; • Otter <i>Lutra lutra</i>; and, Eurasian harvest mouse <i>Micromys minute</i>.	35m north
Portsmouth Water Company Lagoons and Woodland Ref: EA0024	SINC	A 3.94 ha site, designated for the following SINC criteria: • Ancient semi-natural woodlands; • Semi-improved grasslands which retain a significant element of unimproved grassland; • Areas of open freshwater; and, Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions.	40m north-west
Dummers Copse North Ref: EA0034	SINC	A 3.98ha site, designated for the following SINC criteria: • Ancient semi-natural woodlands; • Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland; and, Wet woodlands such as Alder or Willow Woods and Birch Bog Woods which support a good diversity of woodland and/or Marsh/Swamp/Mire species.	243m east
Dummers Copse South Ref: EA0032	SINC	A 0.84ha site, designated for the presence of ancient semi-natural woodland.	279m south-east
IVCP South Parkland East Ref: EA0135	SINC	A 0.60ha parkland, designated for the presence of semi-improved grasslands which retain a significant element of unimproved grassland.	369m north-east



Non-stat site/ reference number	Designation	Description	Distance/ direction from site
Itchen Valley Nature Reserve Ref: EA0022	SINC	Itchen Valley Nature Reserve is a 20.79ha site designated for the following SINC criteria: - Wet woodlands such as Alder or Willow Woods and Birch Bog Woods which support a good diversity of woodland and/or Marsh/Swamp/Mire species; - Agriculturally unimproved grasslands which are not of recent origin; - Semi-improved grasslands which retain a significant element of unimproved grassland; - Areas of open freshwater; - Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions; The site also supports species that meet Section 6 of the SINC Selection criteria: - Blunt-flowered rush <i>Juncus subnodulosus</i>; and, - Water rail <i>Rallus aquaticus</i>.	400m north-west
Marlhill Copse and Meadow Ref: SO0033	SINC	A 9.63ha site, designated for the following SINC criteria: - Ancient semi-natural woodlands; - Wet Woodlands such as Alder or Willow Woods and Birch Bog Woods which Support a Good Diversity of Woodland and/or Marsh/Swamp/Mire Species; and, - Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions.	407m south-west
Itchen Valley Field 27 (pt) Ref: SO0042	SINC	A 0.89ha site, designated for the following SINC criteria: Semi-improved grasslands which retain a significant element of unimproved grassland; and, Fens, flushes, seepages, springs and inundation grasslands of floodplains that support a flora and fauna of less-improved wet conditions (seasonal or permanent).	463 m north-west
Mansbridge Reservoir Ref: SO0029	SINC	A 4.32ha site, designated for the following SINC criteria: - Areas of open freshwater; and, - Sites of nature conservation interest which occur in areas otherwise deficient in such interest, and/or are known to be of particularly high value to local communities. The site also supports species that meet Section 6 of the SINC Selection criteria:	730m west



Non-stat site/ reference number	Designation	Description	Distance/ direction from site
		Green-flowered helleborine <i>Epipactis phyllanthes</i>; and, Hairlike pondweed <i>Potamogeton trichoides</i> .	
Hatch Grange Meadows Ref: EA0041	SINC	A 2.56ha site, designated for the following SINC criteria: Wet Woodlands such as Alder or Willow Woods and Birch Bog Woods which Support a Good Diversity of Woodland and/or Marsh/Swamp/Mire Species; Semi-improved grasslands which retain a significant element of unimproved grassland.	842m south-east
Withybed Covert/Ridgeway Copse Ref: EA0048	SINC	A 3.37ha site, designated for the presence of ancient semi-natural woodlands.	850m north-east
West End Copse Ref: EA0026	SINC	A 5.65ha site, designated for the following SINC criteria: - Ancient semi-natural woodlands; and, - Other woodland where there is a significant element of ancient semi-natural woodland surviving or supporting some characteristics of ancient woodland.	855m south

3.1.3 Priority Habitats

The MAGIC website indicated five areas of ancient woodland⁵ within 500m of the Site. There are also eleven areas of coastal and floodplain grazing marsh, five areas of lowland meadows and fourteen areas of deciduous woodland within 500m of the Site, all Priority Habitats⁶. The closest of these comprises an area of deciduous woodland which borders the Site to the south.

3.2 Habitats

The results of the UKHab Survey are illustrated in map form in **Appendix C** and are described in Table 3.2 below. The unique UK Habitat Classification survey codes (e.g., u1b6) for Site habitats are included in brackets within the text below. For the purposes of this report the habitats present within the site have been mapped using the fine scale minimum mapping unit MMU (i.e. 25m², 5m length), in accordance with the UK Habitat Classification User Manual⁷.

⁵ Ancient Woodland is not a formal designation as such, but is a term applied to sites in England and Wales whose documented history shows them to have been continuously wooded since approximately 1600, and which are by extension considered likely to have been continuously wooded since the last Ice Age. Ancient Woodland sites and their mature soils are considerably more complex and biodiverse ecosystems than secondarily wooded sites, and therefore represent environmental capital that should be considered to be a finite resource, as it is not renewable in a human timescale.

⁶ <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/>

⁷ UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (at <https://www.ukhab.org>)



Table 3.2 Site habitats identified from the UKHab survey

Photograph	UKHAB Classification and Description
	g3c Other neutral grassland Two areas of other neutral grassland were present on Site, located to the north and south of the existing road in the western extent of the Site. The sward was tussocky in nature and some patches of bare ground were present. Species were consistent between the two areas, comprising frequent false oat-grass <i>Arrhenatherum elatius</i>, creeping buttercup <i>Ranunculus repens</i>, dandelion <i>Taraxacum officinale</i>, white clover <i>Trifolium repens</i> and Yorkshire fog <i>Holcus lanatus</i>. There was also occasional bristly ox-tongue <i>Helminthotheca echinoides</i>, bird's foot trefoil <i>Lotus corniculatus</i>, prickly sow thistle <i>Sonchus asper</i>, field madder <i>Sherardia arvensis</i>, ragwort <i>Senecio jacobaea</i>, broad-leaved dock <i>Rumex obtusifolius</i>, common field speedwell <i>Veronica arvensis</i> and herb Robert <i>Geranium robertianum</i>.
	u1b6 Other developed land A small portion of a treatment pool associated with the existing water treatment works was included within the redline boundary.



Photograph	UKHAB Classification and Description
	u1e 800 Built linear features, roads A tarmac road formed the majority of the red line boundary, bisecting the site from east to west. Along the edges of the road was some encroaching starwort <i>Stellaria graminea</i>, red fescue <i>Festuca rubra</i> and yarrow <i>Achillea millefolium</i> from the adjacent off-site grassland.
	u1b5 Buildings A single building fell within the Site, associated with the existing water treatment works. The building was concrete in construction with a metal roof, single storey and well-sealed.

3.3 Protected and Notable Species

The following section considers the protected, rare and notable species/species groups that could potentially occur within the development footprint or zone of indirect impact, based on the following data:

- The presence of pre-existing biological records returned by the data search;
- Recent species records obtained as part of ecological studies for nearby development projects;
- The UKHab survey and protected species assessment conducted on 22nd May 2024 returning direct evidence or identifying suitable habitat; and
- The general geographic setting of the Site meaning the presence of any given species is possible.

Each section identifies whether field evidence exists, background records exists, or whether in the absence of existing records a species could potentially occur due to the site being within the range of the species and suitable habitat being present.



3.3.1 Plants

The HBIC data search returned records of several protected or notable plant species within a 2km search radius of the Site including within River Itchen Water Treatment Works itself. Records within the Site comprised shrubby cinquefoil *Potentilla fruticosa*, strawberry clover *Trifolium fragiferum* and pink water-speedwell *Veronica catenata*. The most recent of these records was of pink water-speedwell recorded in 2019. No such species were recorded during the site walkover.

Most of the species recorded during the site walkover (Table 3-2) are common and widespread.

No protected or notable plant species from Schedule 8 of the Wildlife and Countryside Act 1981 were found on Site during the survey and the habitats present do not offer the opportunity for these plant species to be present therefore, notable and protected plants will not be considered further in this report.

3.3.2 Invasive Non-native Plant Species

The HBIC data search returned several records of non-native, invasive plant species that are listed in Schedule 9 of the Wildlife and Countryside Act of 1981 within a 2km search radius of the site. These include records within Itchen Water Treatment Works itself comprising Italian alder *Alnus cordata*, cotoneaster *Cotoneaster* sp., Himalayan Balsam *Impatiens glandulifera* montbretia *Crocodymia x crocosmifolia*; nuttall's waterweed *Elodea nuttallii*; New Zealand pigmyweed *Crassula hemlmsii*; false-acacia *Robinia pseudoacacia*; Carolina water-shield *Cabomba caroliniana* and Himalayan balsam *Impatiens glandulifera*, lesser duckweed *Lemna minuta*, Wilson's honeysuckle *Lonicera nitida*, turkey oak *Quercus cerris*, stag's horn sumach *Rosa 'Hollandica'* and monkeyflower *Mimulus guttatus*.

No non-native, invasive plant species were recorded within the Site boundary or the survey area and they are not considered further in this report.

3.3.3 Invertebrates

The HBIC data search returned records of a total of 106 protected or notable invertebrate species located within the 2km search radius and within the last 10 years, comprising of species from the spider *Araneae*, beetle *Coleoptera*, mayfly *Ephemeroptera*, butterfly *Lepidoptera*, dragonfly *Odonata* and grasshopper *Orthoptera* orders.

Of these records, 22 species are listed as Section 41 species, comprising twenty butterfly species, one beetle species (stag beetle *Lucanus cervus*) and one dragonfly species (southern damselfly *Coenagrion mercurial*).

Stag beetles require rotting wood for their larvae to live on and feed on⁸, of which none was located within the proposed works area. It is therefore considered unlikely that the Site represents a resource for this species. The grassland on Site is highly managed, and although some flowering plants were recorded on Site, all of these were common and widespread plants unlikely to represent a significant resource for Section 41 butterfly species.

Invertebrates are not considered further in this report.

3.3.4 Amphibians

The HBIC data search recorded a total of four records of common toads *Bufo bufo* within a 1km search radius of the Site.

⁸ Wildlife Trusts (no date) Stag Beetle. Available at: <https://www.wildlifetrusts.org/wildlife-explorer/invertebrates/beetles/stag-beetle> (last accessed: 19/10/2023).



The MAGIC website was searched for European Protected Species Licenses (EPSs) located within 2km search radius of the Site. No EPSs were recorded within the search radius.

The Site does not have any permanent standing water suitable for amphibians, such as great crested newt to breed in. However, 45m west of the Site and within the WWTW are two waterbodies comprising large lagoons. These are surrounded by high quality habitat comprising scrub and woodland and it is considered unlikely that great crested newts would leave the high-quality habitat to use the highly managed grassland and hardstanding present within the works area.

The Site therefore has negligible potential to provide an important terrestrial habitat for amphibians and they are considered further in this report.

3.3.5 Reptiles

The HBIC data search recorded a total of eight records of reptiles within a 1km search radius of the Site. The records comprised of slow-worm *Anguis fragilis* and grass snake *Natrix Helvetica*.

Grass snake have a preference for “edge” habitat such as the borders of woodland or scrub and are often found near wetland habitats. Though such habitat is present in the wider water treatment works, the grassland on Site offers low value for grass snakes and it is thought likely that this species would only use the Site opportunistically. Similarly, slow worms also favour edge habitats or rough grassland. Given the active management of the grassland by mowing, it is unlikely that it provides a resource for slow worm. The Site does not contain any hibernacular suitable for slow worm or grass snake or other reptile species.

The Site therefore has low potential value for reptiles and they are considered further in this report.

3.3.6 Birds

The HBIC data search returned records for a range of notable bird species within the 2km search radius. The species records returned numerous notable bird species in the last 10 years which are listed in full in **Appendix D**. A high proportion of the desk study records were birds associated with wetland habitats (such as bittern *Botaurus stellarus*, common scoter *Melanitta nigra* and marsh harrier *Circus aeruginosus*) or with woodland and/or scrub habitat (such as Dartford warbler *Curruca undata*, spotted flycatcher *Muscicapa striata* and tree pipit *Anthus trivialis*). Of the remaining species, the most likely to be present on site would be house sparrow *Passer domesticus*, which favours manmade habitats. However, given the absence of suitable buildings for nesting, it is unlikely the Site represents a significant resource for this species.

The area of introduced shrub within the grassland, and the scattered trees on Site may offer some suitable nesting habitat for common breeding bird species. However, all such habitat is to be retained and as such nesting birds will not be impacted by the proposed development.

3.3.7 Mammals

3.3.7.1 Bats

Foraging & Commuting

The HBIC data search returned a total of 237 field records comprising nine confirmed bat species that have been recorded within a 1km radius of the application site within the last ten years.

In terms of foraging bats, the woodland and lines of trees located beyond the Site Boundary, but within the water treatment works, offer suitable foraging and commuting habitat, as would



the wider area of the River Itchen and Itchen Valley Country Park. There is limited foraging habitat within the Site itself, which lacks mature lines of trees, scrub, hedgerows or other commuting features. In addition, the buildings on Site have security lighting.

Overall, the Site is considered to have a low potential value for foraging bats.

Roosting

The HBIC data search returned a total of nine roost records that have been recorded within a 1km radius of the application site within the last ten years. Due to the sensitive nature of the roosts, locations were not provided, but the species comprises myotis *Myotis* sp., pipistrelle *Pipistrellus* sp., soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auratus*.

A search of MAGIC for bat licence applications returned records of six bat roosts within 2km of the Site. The closest of these records was a common pipistrelle and serotine *Eptesicus serotinus* roost, located 1.2km away but separated from the Site by the M27.

The building on Site was assessed as having negligible potential for roosting bats due to absence of suitable roosting features.

Ground level assessments of the trees within the Site found that no trees were suitable to support roosting bats. This was due to the trunks being too thin and any holes present were superficial and did not lead to a cavity.

Therefore, the Site is considered to have negligible potential to provide opportunities for roosting bats.

Badger

No records of badger were provided by the desk study. The Site offers limited foraging habitat (grassland), which may be used by badgers on occasion. However, no setts or field evidence of badger was observed on Site and therefore it is considered to be of likely low value to badgers for foraging/commuting.

Dormouse

The HBIC data search returned no records of dormice (*Muscardinus avellanarius*) within a 1km search radius of the Site. The nearest granted protected species licence for dormice is located 1.6km away. No scrub or woodland are to be removed to facilitate the development and given the built-up nature of the Site, it is considered to be unlikely that dormice are present on Site. Therefore, dormice are not considered further within this report.

Riparian mammals: Otter and Water Vole

The data search returned three records of otter *Lutra lutra* and three records of water vole *Arvicola amphibius* within 1km of the Site. The Site has no ditches, streams, rivers or any other aquatic habitats. The closest suitable habitat for these species comprises the River Itchen, which is located 130m to the north-west of the Site. Neither of these species are known to travel far from aquatic habitats and as such the Site is considered to have negligible potential to support, or be of importance for, riparian mammals.

Other protected, rare and notable species

During the extended habitat survey, no rare or notable species not otherwise described above were recorded or were considered likely to be present following appraisal of the identified habitats.

The Site and surrounding area are considered likely to support further populations of common and widespread species not recorded during the survey, but it is considered unlikely that the populations of any of the common species' present would be significant on a regional or



national scale, or that any local populations would be dependent on the site for maintenance of their local populations.

4.0 Ecological Constraints and Opportunities

4.1 Designated Sites

4.1.1 Statutory Designated Sites

There are two statutory sites within 1km of the Site comprising River Itchen SSSI (located 90m west) and River Itchen SAC (located 130m west). The process to be undertaken within the centrifuge is to be self contained, and will cease the discharge of sludge into the adjacent sewer. As such, pollution to the River Itchen SAC and SSSI will likely decrease as a result of the Proposed Development and no negative impacts are anticipated.

4.1.2 Non-statutory Designated Sites

There are twelve SINCs within 1km of the Site, the closest of these sites are Itchen Valley County Park SINC and Portsmouth Water Company Lagoons and Woodland SINC, located 35m north and 40m north-west, respectively. As with regards to Statutory Sites, the Proposed Development will be self contained in nature, and will reduce the potential for pollution. Given the small scale of the Proposed Development, and the nature of the works, it is considered to be unlikely that non-statutory sites will be impacted.

4.2 Priority Habitats

There are numerous areas of priority habitat located within 1km of the Site, the closest of which is an area of deciduous woodland which borders the Site to the south. The proposed centrifuge is to be located in grassland on Site and is in excess of 150m from the area of woodland. As such, indirect or direct impacts to priority habitats are considered to be unlikely.

4.3 Protected Species

Data received from the desk top study and the PEA Site walkover have confirmed that the Site has:

- Low potential to support reptile species;
- Low potential to support foraging bats; and,
- Low potential to support badger.

These species are discussed further in the below sections.

4.3.1 Breeding Birds

No follow-on surveys are recommended, however, the presence of nesting birds should be considered when planning the timing of vegetation removal as a direct impact on nesting birds could occur if vegetation clearance took place during nesting season (March to August inclusive).

Any clearance of vegetation on Site should therefore take place outside of the nesting bird season. If this is not possible then, as a last resort, the absence of nesting birds should be confirmed by an ecologist prior to commencement (within 48hours). Should any active nests be found the appropriate mitigation must be put in place to allow the successful fledging of the chicks before the area is cleared.



4.3.2 Reptiles

The grassland on Site may offer some limited habitat for reptiles, however, these habitats lack the rough structure and edge habitat preferred by reptiles, reducing the suitability.

Further surveys to establish the presence/likely absence of reptiles are therefore not considered to be necessary. It is however recommended that precautionary measures (i.e. habitat manipulation) are implemented if un-managed grassland habitats need to be cleared or managed. This would comprise of a staged sward reduction (in the active season for reptiles), involving an initial high cut 30cm (with cuttings removed), followed by the removal of vegetation to ground level the following day. In the unlikely event that reptiles are encountered, works must stop immediately, and an ecologist should be contacted. Details regarding the Precautionary Working Methods for reptiles should be provided in the proposed CEMP.

4.3.3 Foraging Bats

There are lines of trees off-site but adjacent to the redline boundary that may offer some suitable habitat for foraging bats. The proposed development plan seeks to retain all trees. However, increased light levels could affect how bats use the wider WTW for foraging, for example, by interrupting flight lines.

A sensitive lighting strategy should be implemented following best practice industry guidance produced by the Bat Conservation Trust and Institute of Lighting Professionals⁹ to ensure that hedgerows and mature trees are kept in the dark to retain dark feeding and commuting corridors for bats with no light spill to canopies of more than 4 lux. Bats are less disturbed by amber and red end of spectrum lighting over 550nm. LED lighting can be used as it is more directional with less light spill and timer switches can be incorporated to ensure lights are off when necessary.

In the event that impacts on foraging bats cannot be avoided through design then further landscape-scale bat surveys may be required.

4.3.4 Badger

The grassland which is present has some potential to support foraging badgers however no setts were recorded on Site.

No further surveys are required however it is recommended that a pre-commencement survey of the Site and within a 20m buffer is undertaken to ascertain whether the situation had changed in the intervening period. If setts are present, then appropriate avoidance and mitigation measures would be required.

4.4 Potential Opportunities for Biodiversity Enhancements

Recommendations are listed below for ecological and biodiversity enhancements that would assist the development to meet local and national planning policy requirements, and to adhere to best practice. The list below is not exhaustive and may change depending on the detailed design of the development and any protected or notable species confirmed to be present.

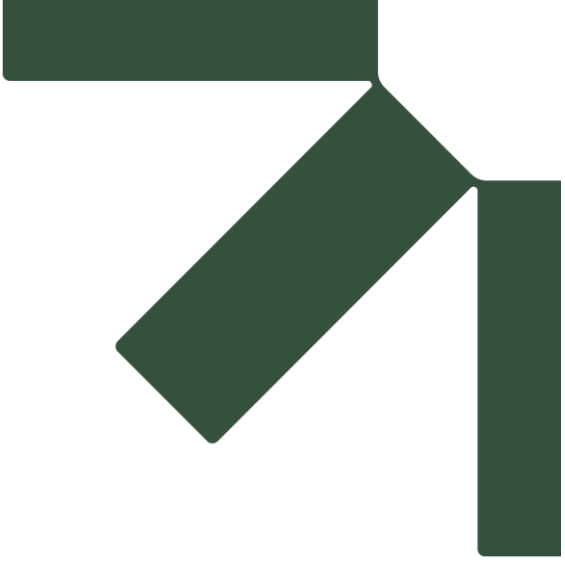
Opportunities for biodiversity enhancement include:

⁹ Bat Conservation Trust (BCT) and Institute of Lighting Professionals (ILP) Guidance Note (2018) Bats and artificial lighting in the UK. Bats and the built environment series



- Wildlife friendly planting – new landscaping should provide a diverse mix of species of demonstratable value for wildlife known to be at Site/have the potential to be encouraged to the Site.
- Invertebrate habitat features – Invertebrate habitat features should be incorporated within landscaped areas to provide features of interest as well as ecological function. Stag beetle loggeries, solitary beehives and habitat panels should be placed in suitable locations. Stag beetle loggeries should be placed in shady areas amongst trees to provide forage and shelter for saproxylic invertebrates in larval stage, whereas beehives and habitat panels should be located in sunny areas.





Appendix A Relevant Legislation and Planning Policy

River Itchen Waste Water Treatment Works

Preliminary Ecological Appraisal Report (PEAR)

SLR Project No.: 433.000083.00003

27 June 2024

A.1 Relevant Legislation and Policy

A summary of legislation relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original legislation should be consulted for definitive information.

Environment Act (2021)

The Environment Act has wide ranging provisions including those around:

- Environmental governance;
- Environmental regulation;
- Waste and resource efficiency;
- Air quality and environmental recall;
- Water;
- Nature and biodiversity;
- Conservation covenants.

Of particular relevance is Part 6 of the Act which introduces “biodiversity gain in planning” and will apply in England to planning applications under the Town & Countryside Act and the Planning Act. Schedule 14 now requires that biodiversity gain be a condition of planning permission in England. These changes will be enacted through subsequent secondary legislation or regulations. This part of the Act also changes the responsibilities that Government or public bodies have by strengthening the existing NERC Act biodiversity duty. Public authorities are now required to seek to conserve and enhance biodiversity in the exercise of their functions.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. Under the Habitats Regulations it is an offence to deliberately capture, kill or disturb¹ wild animals listed under Schedule 2 of the Regulations as well as damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time). European Sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), are also protected under the Habitat Regulations, and any proposal that could affect them will require an Habitats Regulations Assessment (HRA).

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Part 3 of the regulations provide for the protection of areas of habitats or species where maintenance of the status of water is an important factor. Under the regulations additional consideration may need to be given to sites in the form of a Water Framework Directive (WFD) assessment where a project lies in proximity to a water body or to linked water bodies which could be affected. This includes consideration of whether water bodies are WFD receptors in particular those of high status or have high status morphology.

Natural Environment & Rural Communities (NERC) Act 2006

Section 40 of the NERC Act 2006 places a duty on public authorities to have regard to the purpose of conserving biodiversity in the exercise of their functions. Public authorities include government departments, local authorities and statutory undertakers.



Section 41 of the Act (Section 42 in Wales) requires the publication of a list of habitats and species publish which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity.

Note that Sections 40 and 42 were superseded in Wales by the Environment (Wales) Act 2016 (see below).

Wildlife & Countryside Act 1981

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act; or
- Plant or cause to grow in the wild any plant species listed under Schedule 9 of the Act.

A.2 Planning Policy

A summary of national planning policy relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original policy documents should be consulted for definitive information. For local planning policy relevant to biodiversity the relevant local plans should be consulted.

National Planning Policy (England)

The National Planning Policy Framework (NPPF) sets out guidance for local planning authorities and decision-makers in how to apply planning policies when drawing up plans and making decisions about planning applications. Along with Government Circular 06/052, the broad policy objectives in relation to the protection of biodiversity and geological conservation in England through the planning system are set out. Specific policies relating to habitats and biodiversity are set out in paragraphs 174 and 179-182 of the NPPF.

Paragraph 174 states that:

“Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and



other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development f) should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

F) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate”.

Paragraph 179 states that:

“To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

Paragraph 180 states that:

“When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around



developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.”

Paragraphs 181-182 relate to European sites (referred to as habitats sites) and state:

“The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.”

Eastleigh Borough Local Plan (2016-2036)

Policy DM11, Nature Conservation

General Approach:

1. The Council will work with statutory and voluntary agencies and developers, and will determine planning applications, to:
 - a) Protect, conserve and enhance all:
 - i. international, national and local nature conservation designations; and
 - ii. networks of natural habitats and features, including the Local Ecological Network, Priority Biodiversity Areas and Priority Biodiversity Links, watercourses, wetland complexes, woodland trees, and trees and hedgerows important to biodiversity and local character; and facilitate their adaptation to climate change wherever possible;
 - b) assist in achieving national, county and local biodiversity targets as set out in Biodiversity Action Plans (BAPs);
 - c) seek a net gain of biodiversity on all development sites (including sites for redevelopment) through the protection, enhancement and connection of existing and provision of new habitats and features of nature conservation interest compatible with the native biodiversity characteristics of the Borough, having regard to local geodiversity and soils; and
 - d) contribute to major elements of the PfSH Green Infrastructure Strategy and other strategies for the provision and enhancement of multifunctional green infrastructure including green routes, ecological networks and biodiversity enhancements (see strategic policy S9).

International Designations:



2. Development which is likely (either individually or in combination with other developments) to adversely affect the integrity of an international or European nature conservation site will not be permitted subject only to imperative reasons of overriding public interest and securing any necessary compensatory measures in the absence of alternative solutions. A 'project level' Habitat Regulations Assessment will be required where there are likely significant effects or uncertainty. Any mitigation measures required to ensure no adverse impact must be implemented at the appropriate time.
3. The Council will work with PfSH, Natural England, the Environment Agency and other wildlife organisations to develop and implement with developers a strategic approach to the protection and enhancement of international and European sites from the direct and indirect effects of development. Within Eastleigh Borough this will include:
 - a) Implementing:
 - b) the Solent Recreation Mitigation Strategy (requiring contributions from residential developments within 5.6 kilometres of the Solent Special Protection Area to the Strategy); and
 - c) the interim and any future New Forest Recreation Mitigation Strategy if required;
 - d) or alternative agreed site specific measures to address recreational disturbance;
 - e) preserving the water quality and flows within the Itchen and Hamble, Southampton Water and Solent;
 - f) protecting the River Itchen SAC, in particular the maintenance and where appropriate restoration of habitats and qualifying species to favourable conservation status (as defined by article 1 of the Habitats Directive); and
 - g) seek contributions towards measures set out in the Southern Damselfly Conservation Strategy (or other strategy) specifically to deliver biodiversity net gain.

National and Local Designations:

4. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on a Site of Special Scientific Interest (SSSI), Site of Importance for Nature Conservation (SINC) or Local Nature Reserve (LNR) as shown on the policies map (or on a more recent plan provided by the Hampshire Biodiversity Information Centre) unless it can be demonstrated that:
 - a) There are no alternative solutions;
 - b) the adverse effects are unavoidable;
 - c) measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d) there is an overall biodiversity net gain; and
 - e) if there are any residual adverse effects which cannot be avoided, mitigated or compensated, the benefits of the development must clearly outweigh the adverse



effects on the nature conservation value of the site and any broader impacts on national and local designations.

Priority habitats, protected and priority species and the local ecological network

5. Development will not be permitted if it is likely (either individually or in combination with other developments) to have a direct or indirect adverse effect on priority habitats, protected or priority species, or on the local ecological network unless it can be demonstrated that:
- a) There are no alternative solutions;
 - b) the adverse effects are unavoidable;
 - c) measures are taken to mitigate or, as a last resort, compensate for the adverse effects;
 - d) there is an overall biodiversity net gain; and
 - e) if there are any residual adverse effects, the benefits of the development clearly outweigh the adverse effects on priority habitats, priority and protected species, and the local ecological network.

Irreplaceable habitats

6. Development will not be permitted if it results in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and a suitable compensation strategy exists.

Buffers

7. Buffers free from development will be provided to designated sites to avoid/mitigate impacts, including recreational impact and impacts on edge habitats, and to maintain dark skies.

Surveys

8. Development will not be permitted unless it can be demonstrated that:
- a) There have been thorough habitat and species surveys;
 - b) the great crested newt strategic survey and strategy have been considered in all developments within 500m of a great crested newt pond; and
 - c) the strategic bat trapping survey has been considered in all developments within the locality of a woodland or connected habitat networks.

New development which is likely to have a significant effect on the ecological integrity of the Thames Basin Heaths Special Protection Area (SPA), including all net new dwellings, will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects. The mechanism for delivering this policy is set out in the Council's Thames Basin Heaths Special Protection Area Avoidance and Mitigation Strategy (2014),



supported by the Thames Basin Heaths Delivery Framework prepared by the Thames Basin Heaths Joint Strategic Partnership.

Residential development that would result in a net gain of units will not be permitted within 400 m of the SPA boundary unless, in exceptional circumstances and in agreement with Natural England, an appropriate assessment demonstrates that there will be no adverse effect on the SPA.

In all instances where mitigation measures are applicable, as set out in the Delivery Framework, the following standards will apply, unless an evidence-based alternative strategy has been agreed with Natural England:

- a) A minimum of 8 ha of SANG land (after discounting to account for current access and capacity) should be provided in perpetuity per 1,000 new occupants, either through contributions towards the provision of SANG identified by the Borough Council, or through on-site SANG, agreed with Natural England; and
- b) Contributions towards Strategic Access Management and Monitoring measures.

Policy NE4 – Biodiversity

Development proposals will be permitted if significant harm to biodiversity and/ or geodiversity resulting from a development can be avoided or, if that is not possible, adequately mitigated such that it can be clearly demonstrated that:

- 1 There will be no adverse effect on the conservation status of priority species;
- 2 There will be no adverse effect on the integrity of designated and proposed European designated sites;
- 3 There will be no adverse effect to nationally designated sites;
- 4 There will be no adverse effect to locally designated sites;
- 5 There will be no loss or deterioration of a priority habitat type, including irreplaceable habitats; and
- 6 There will be no adverse effect to the integrity of linkages between designated sites and priority habitats.

The weight given to the protection of nature conservation interests will depend on the international, national or local significance and any designation or protection applying to the site, habitat or species concerned.

Where development proposals do not comply with the above, they will only be permitted if it has been demonstrated clearly that there is an overriding public need for the proposal which outweighs the need to safeguard biodiversity and/or geodiversity, and there is no satisfactory alternative with fewer or no harmful impacts. In such cases, as a last resort, compensatory measures will be secured to ensure no net loss of biodiversity and, where possible, provide a net gain.

Development proposals should seek to secure opportunities to enhance biodiversity and include proportionate measures to contribute, where possible, to a net gain in biodiversity, through creation, restoration, enhancement and management of habitats and features, including measures that help to link key habitats.

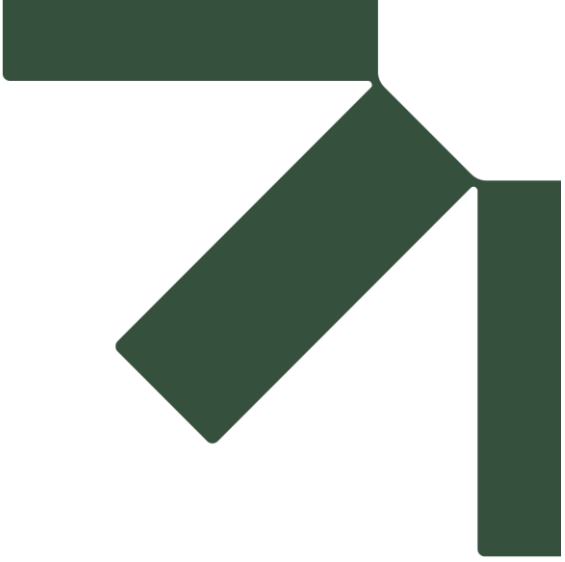
The Council will seek to protect, maintain and enhance the Borough's biodiversity and geological resources, in association with partners, through:

- 1 Supporting a programme of survey of habitats and species, and designation of 'Sites of Importance for Nature Conservation';



- 2 Seeking the inclusion of measures which protect and strengthen populations of protected and target species and contribute to the habitat restoration targets identified in the Rushmoor Biodiversity Action Plan;
- 3 Seeking the inclusion of measures to protect and enhance local watercourses, including the River Blackwater, Cove Brook and Basingstoke Canal, and their tributaries;
- 4 Maintaining a Borough-wide network of local wildlife sites and wildlife corridors between areas of natural greenspace to prevent the fragmentation of existing habitats;
- 5 Supporting measures to increase local understanding of the importance of biodiversity in the Borough; and
- 6 working in partnership to protect, maintain and enhance biodiversity at the landscape scale.





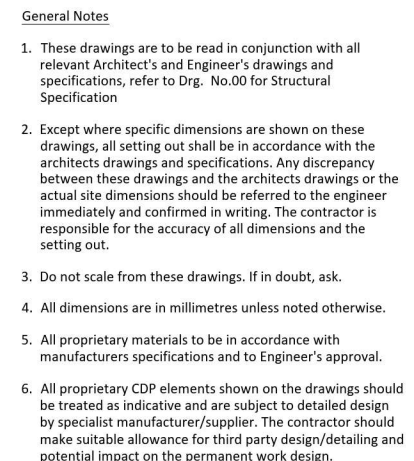
Appendix B Proposed Development

River Itchen Waste Water Treatment Works (WWTW)

Preliminary Ecological Appraisal Report (PEAR)

SLR Project No.: 433.000083.00003

28 June 2024

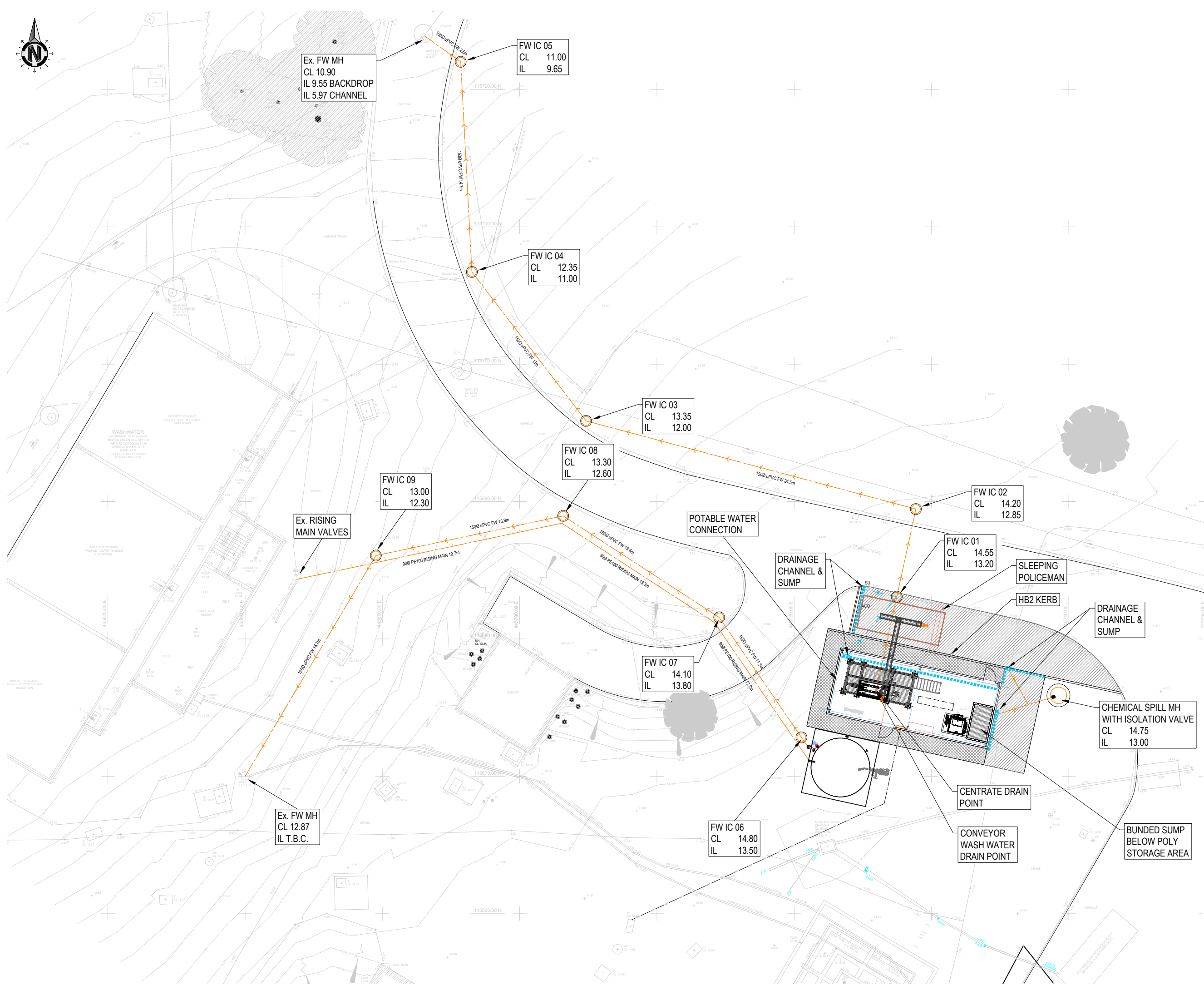


General Notes

1. These drawings are to be read in conjunction with all relevant Architect's and Engineer's drawings and specifications, refer to Drg. No.00 for Structural Specification
2. Except where specific dimensions are shown on these drawings, all setting out shall be in accordance with the architects drawings and specifications. Any discrepancy between these drawings and the architects drawings or the actual site dimensions should be referred to the engineer immediately and confirmed in writing. The contractor is responsible for the accuracy of all dimensions and the setting out.
3. Do not scale from these drawings. If in doubt, ask.
4. All dimensions are in millimetres unless noted otherwise.
5. All proprietary materials to be in accordance with manufacturers specifications and to Engineer's approval.
6. All proprietary CDP elements shown on the drawings should be treated as indicative and are subject to detailed design by specialist manufacturer/supplier. The contractor should make suitable allowance for third party design/detailing and potential impact on the permanent work design.



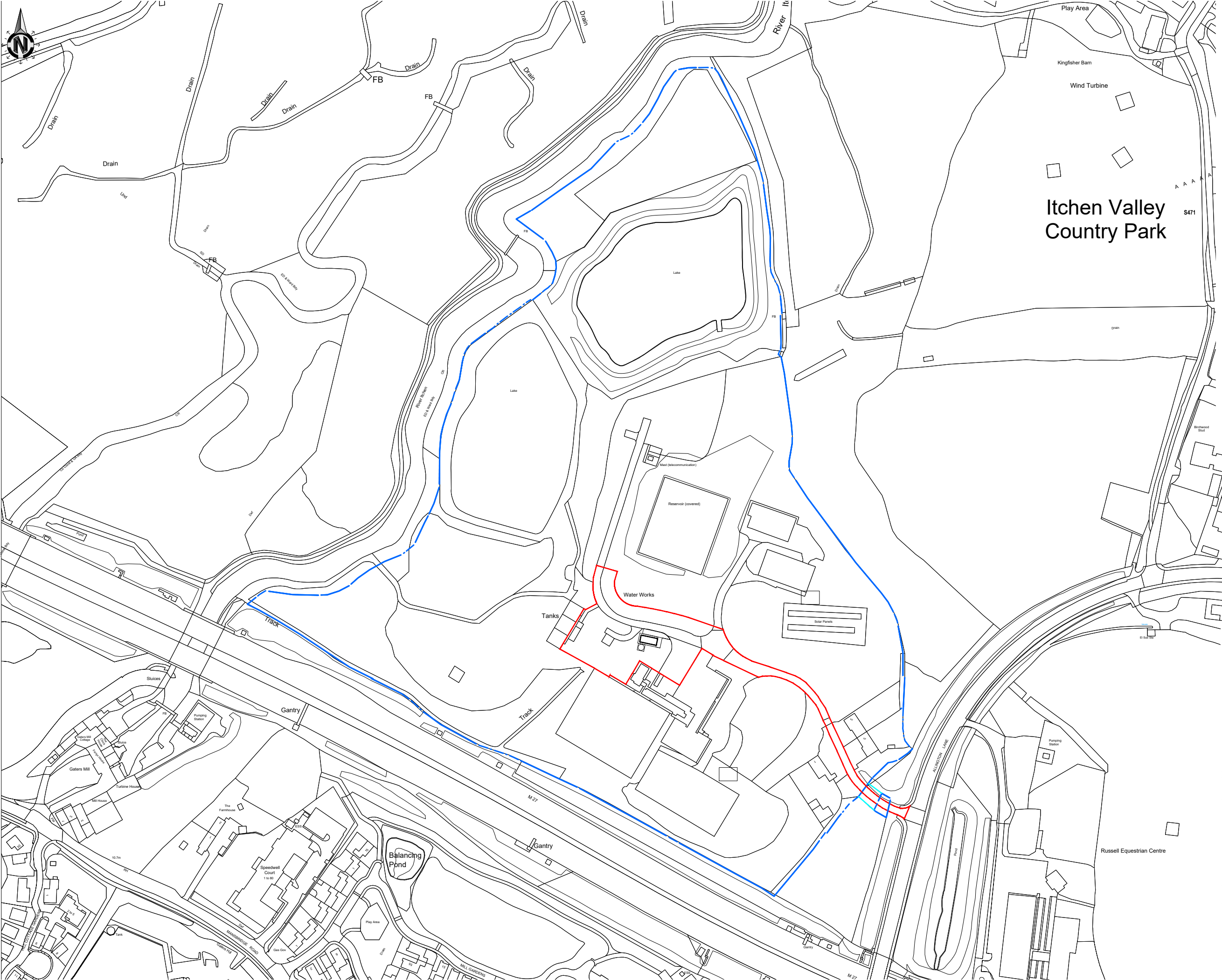
Drawing Status: S3 - Suitable for Review		
GODSELL • ARNOLD		
PARTNERSHIP LTD		
Consulting Civil and Structural Engineers		
7 Arrowsmith Court, Station Approach Broadstone, Dorset. BH18 8AX		
Telephone: 01202 600 900 Website: www.gapltd.net		
Client:	PORTSMOUTH WATER LTD	
Project:	RIVER ITCHEN WORKS - CENTRIFUGE	
Drawing Title:	CENTRIFUGE BUILDING SITE LAYOUT PLAN	
Scale:	1 : 100 @ A1	Drawn: GAP Checked: JIW
Project-Originator-Zone-Level-Type-Role	Drawing No.:	Revision:
23708-GAP-XX-XX-DR-C	9001	P04



- General Notes
1. These drawings are to be read in conjunction with all relevant Architect's and Engineer's drawings and specifications, refer to Drg. No.00 for Structural Specification
 2. Except where specific dimensions are shown on these drawings, all setting out shall be in accordance with the architects drawings and specifications. Any discrepancy between these drawings and the architects drawings or the actual site dimensions should be referred to the engineer immediately and confirmed in writing. The contractor is responsible for the accuracy of all dimensions and the setting out.
 3. Do not scale from these drawings. If in doubt, ask.
 4. All dimensions are in millimetres unless noted otherwise.
 5. All proprietary materials to be in accordance with manufacturers specifications and to Engineer's approval.
 6. All proprietary CDP elements shown on the drawings should be treated as indicative and are subject to detailed design by specialist manufacturer/supplier. The contractor should make suitable allowance for third party design/detailing and potential impact on the permanent work design.

THIS DRAWING IS FOR
PLANNING PURPOSES ONLY
This drawing has been prepared for submission
to fulfil planning permission requirements only.

P01	23.05.24	Preliminary Issue	UW
Rev	Date	Revision Description	Issued by
S3 - Suitable for Review			
GODSELL • ARNOLD			
PARTNERSHIP LTD			
Consulting Civil and Structural Engineers			
7 Arrowsmith Court, Station Approach			
Broadstone, Dorset. BH18 8AX			
Telephone: 01202 600 900 Website: www.gapltd.net			
Client:	PORTSMOUTH WATER LTD		
Project:	RIVER ITCHEN WORKS - CENTRIFUGE		
Drawing Title:	CENTRIFUGE BUILDING SITE LAYOUT SERVICES		
Scale:	1 : 125 @ A1	Drawn:	GAP
Project-Originator/Zone-Level-Type/Role	Drawing No.:	Revision:	
23708-GAP-XX-XX-DR-C	9002	P01	



- General Notes
- These drawings are to be read in conjunction with all relevant Architect's and Engineer's drawings and specifications, refer to Drg. No.00 for Structural Specification
 - Except where specific dimensions are shown on these drawings, all setting out shall be in accordance with the architects drawings and specifications. Any discrepancy between these drawings and the architects drawings or the actual site dimensions should be referred to the engineer immediately and confirmed in writing. The contractor is responsible for the accuracy of all dimensions and the setting out.
 - Do not scale from these drawings. If in doubt, ask.
 - All dimensions are in millimetres unless noted otherwise.
 - All proprietary materials to be in accordance with manufacturers specifications and to Engineer's approval.
 - All proprietary CDP elements shown on the drawings should be treated as indicative and are subject to detailed design by specialist manufacturer/supplier. The contractor should make suitable allowance for third party design/detailing and potential impact on the permanent work design.

LEGEND

- DEVELOPMENT SITE
- APPLICANT OWNERSHIP
- APPLICANT RIGHT OF ACCESS

THIS DRAWING IS FOR PLANNING PURPOSES ONLY
This drawing has been prepared for submission to fulfil planning permission requirements only.

P02	16.05.24	Red line revised following client review	I/W
P01	01.05.24	Preliminary issue	I/W
Rev	Date	Revision Description	Issued by

Drawing Status: **S3 - Suitable for Review**

GODSELL • ARNOLD
PARTNERSHIP LTD
Consulting Civil and Structural Engineers
7 Arrowsmith Court, Station Approach
Broadstone, Dorset. BH18 8AX
Telephone: 01202 600 900 Website: www.gapltd.net

Client: **PORTSMOUTH WATER LTD**

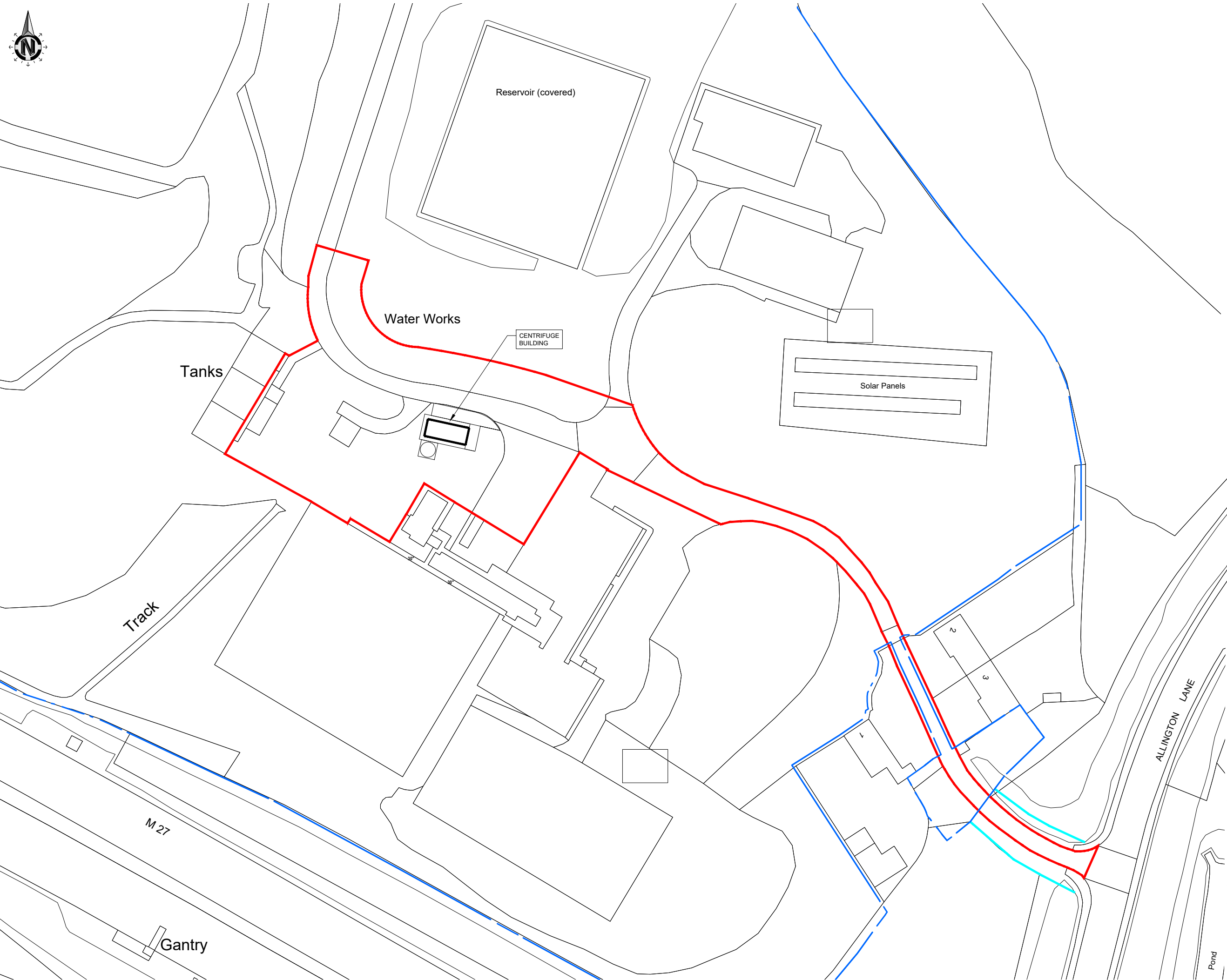
Project: **RIVER ITCHEN WORKS - CENTRIFUGE**

Drawing Title: **CENTRIFUGE BUILDING
LOCATION PLAN**

Scale: **1 : 1250 @ A1** Drawn: **GAP** Checked:

Project-Originator-Zone-Level-Type-Role Drawing No.: **23708-GAP-XX-XX-DR-C** Revision: **9050 P02**

Reproduced by permission of Ordnance Survey on behalf of HMSO.
© Crown copyright and database right 2024. All rights reserved.
Ordnance Survey Licence Number 100018036.



General Notes

- These drawings are to be read in conjunction with all relevant Architect's and Engineer's drawings and specifications, refer to Drg. No.00 for Structural Specification
- Except where specific dimensions are shown on these drawings, all setting out shall be in accordance with the architects drawings and specifications. Any discrepancy between these drawings and the architects drawings or the actual site dimensions should be referred to the engineer immediately and confirmed in writing. The contractor is responsible for the accuracy of all dimensions and the setting out.
- Do not scale from these drawings. If in doubt, ask.
- All dimensions are in millimetres unless noted otherwise.
- All proprietary materials to be in accordance with manufacturers specifications and to Engineer's approval.
- All proprietary CDP elements shown on the drawings should be treated as indicative and are subject to detailed design by specialist manufacturer/supplier. The contractor should make suitable allowance for third party design/detailing and potential impact on the permanent work design.

LEGEND

- DEVELOPMENT SITE
- APPLICANT OWNERSHIP
- APPLICANT RIGHT OF ACCESS (LEASED LAND)

THIS DRAWING IS FOR PLANNING PURPOSES ONLY

This drawing has been prepared for submission to fulfil planning permission requirements only.

P01	23.05.24	Preliminary Issue	UW
Rev	Date	Revision Description	Issued by

S3 - Suitable for Review

GODSELL • ARNOLD
PARTNERSHIP LTD
Consulting Civil and Structural Engineers
7 Arrowsmith Court, Station Approach
Broadstone, Dorset. BH18 8AX
Telephone: 01202 600 900 Website: www.gapltd.net

Client: PORTSMOUTH WATER LTD

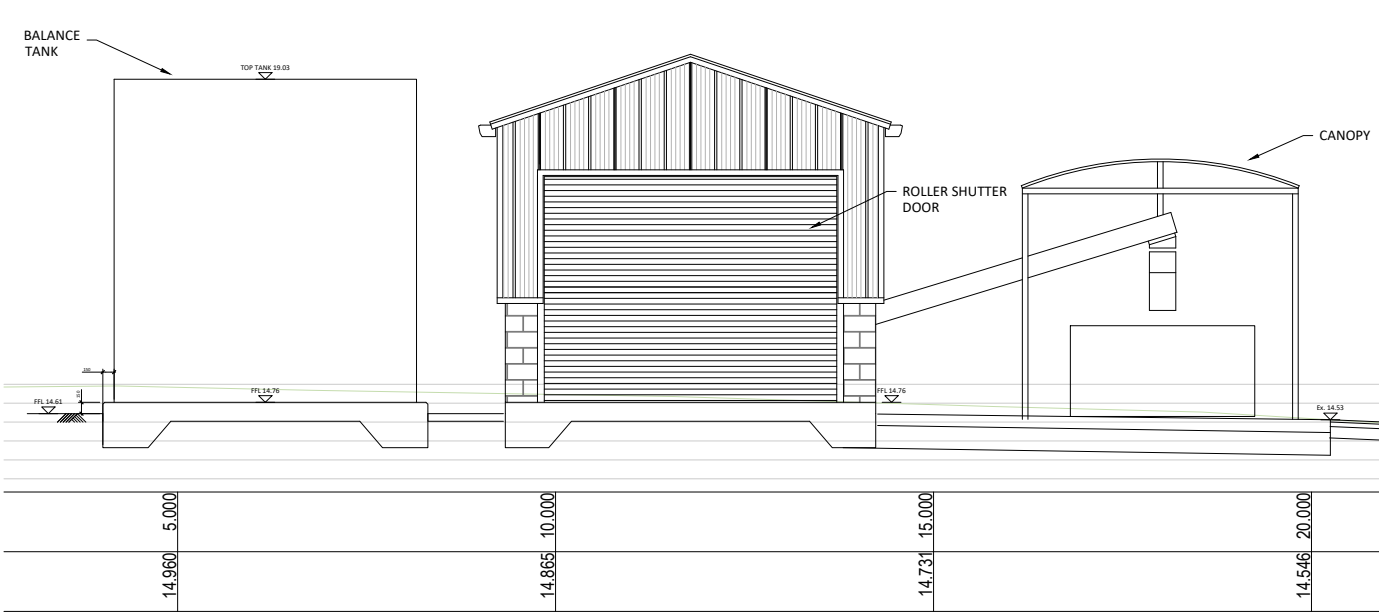
Project: RIVER ITCHEN WORKS - CENTRIFUGE

Drawing Title: CENTRIFUGE BUILDING
BLOCK PLAN

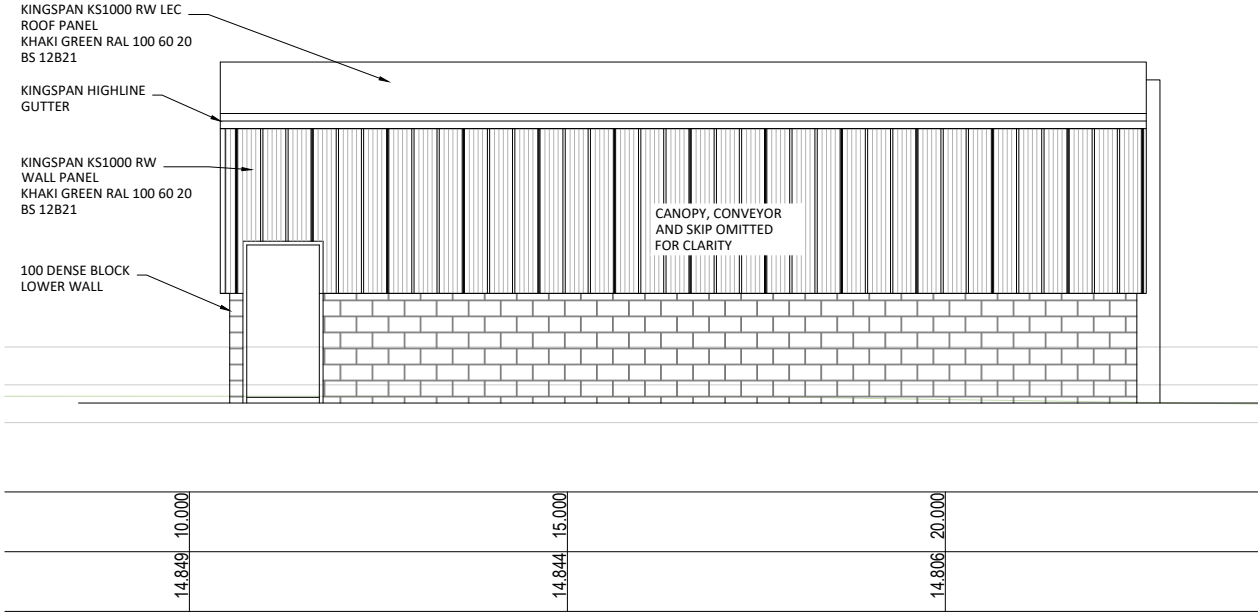
Scale: 1 : 500 @ A1 Drawn: GAP Checked:

Project-Originator-Zone-Level-Type-Role Drawing No.: 23708-GAP-XX-XX-DR-C 9051 P01

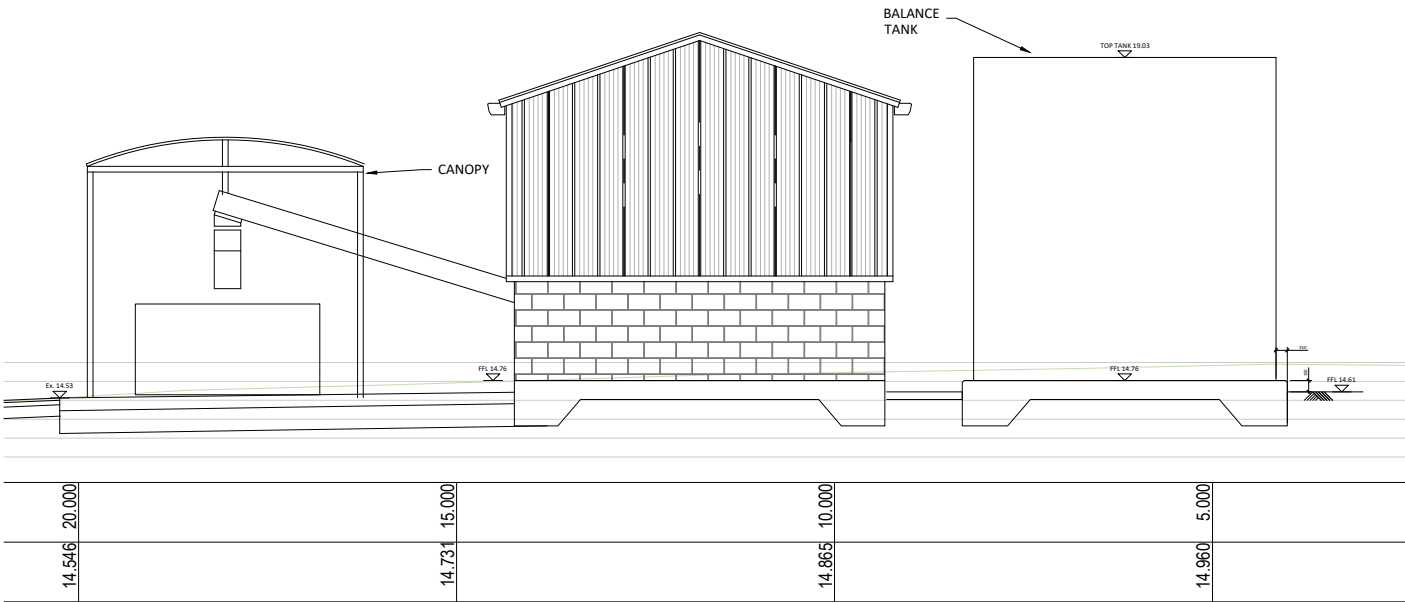
Reproduced by permission of Ordnance Survey on behalf of HMSO.
© Crown copyright and database right 2024. All rights reserved.
Ordnance Survey Licence Number 100018036.



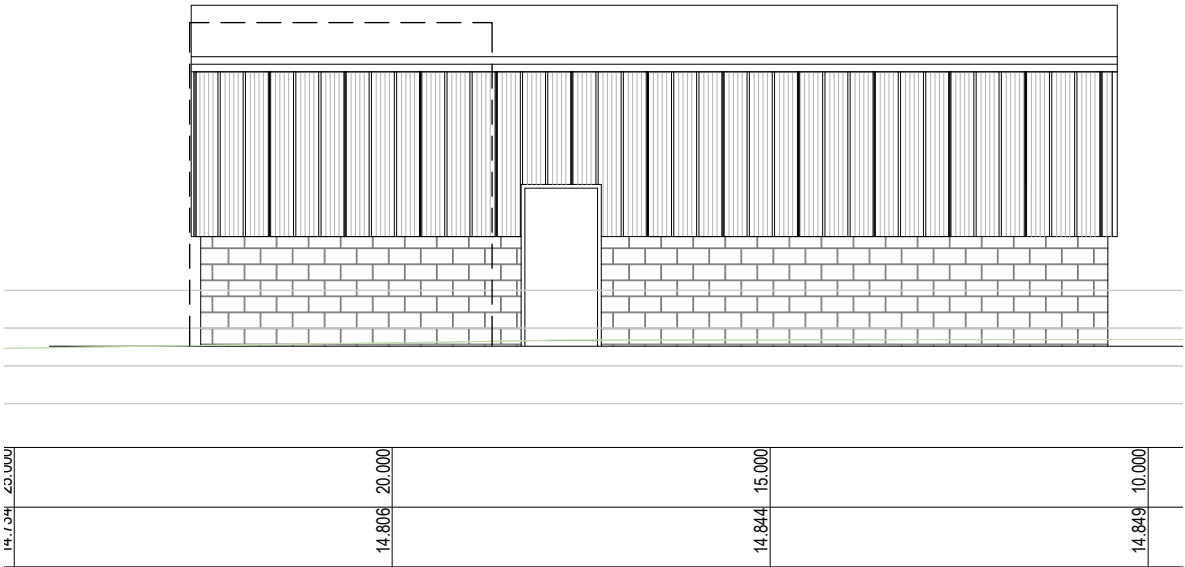
East Elevation
1:50



North Elevation
1:50



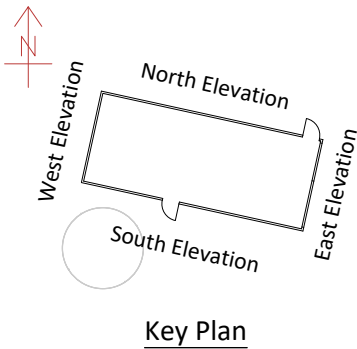
West Elevation
1:50



South Elevation
1:50

General Notes

- These drawings are to be read in conjunction with all relevant Architect's and Engineer's drawings and specifications, refer to Drg. No.00 for Structural Specification
- Except where specific dimensions are shown on these drawings, all setting out shall be in accordance with the architects drawings and specifications. Any discrepancy between these drawings and the architects drawings or the actual site dimensions should be referred to the engineer immediately and confirmed in writing. The contractor is responsible for the accuracy of all dimensions and the setting out.
- Do not scale from these drawings. If in doubt, ask.
- All dimensions are in millimetres unless noted otherwise.
- All proprietary materials to be in accordance with manufacturers specifications and to Engineer's approval.
- All proprietary CDP elements shown on the drawings should be treated as indicative and are subject to detailed design by specialist manufacturer/supplier. The contractor should make suitable allowance for third party design/detailing and potential impact on the permanent work design.



Key Plan

THIS DRAWING IS FOR
PLANNING PURPOSES ONLY

This drawing has been prepared for submission
to fulfil planning permission requirements only.

P04	23.05.24	Canopy and additional detail	I/W
P03	14.03.24	Additional elevations	I/W
P02	27.02.24	Building height reduced to suit lower conveyor	I/W
P01	13.02.24	Preliminary issue	I/W
Rev	Date	Revision Description	Issued by

S3 - Suitable for Review

GODSELL • ARNOLD
PARTNERSHIP LTD

Consulting Civil and Structural Engineers

7 Arrowsmith Court, Station Approach
Broadstone, Dorset. BH18 8AX
Telephone: 01202 600 900 Website: www.gapltd.net

Client: PORTSMOUTH WATER LTD

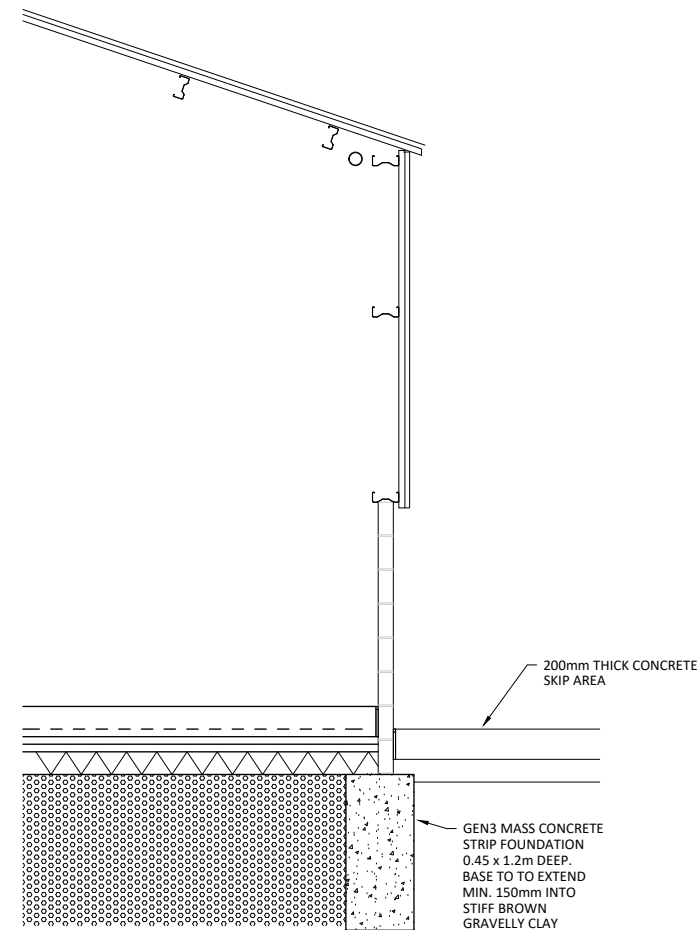
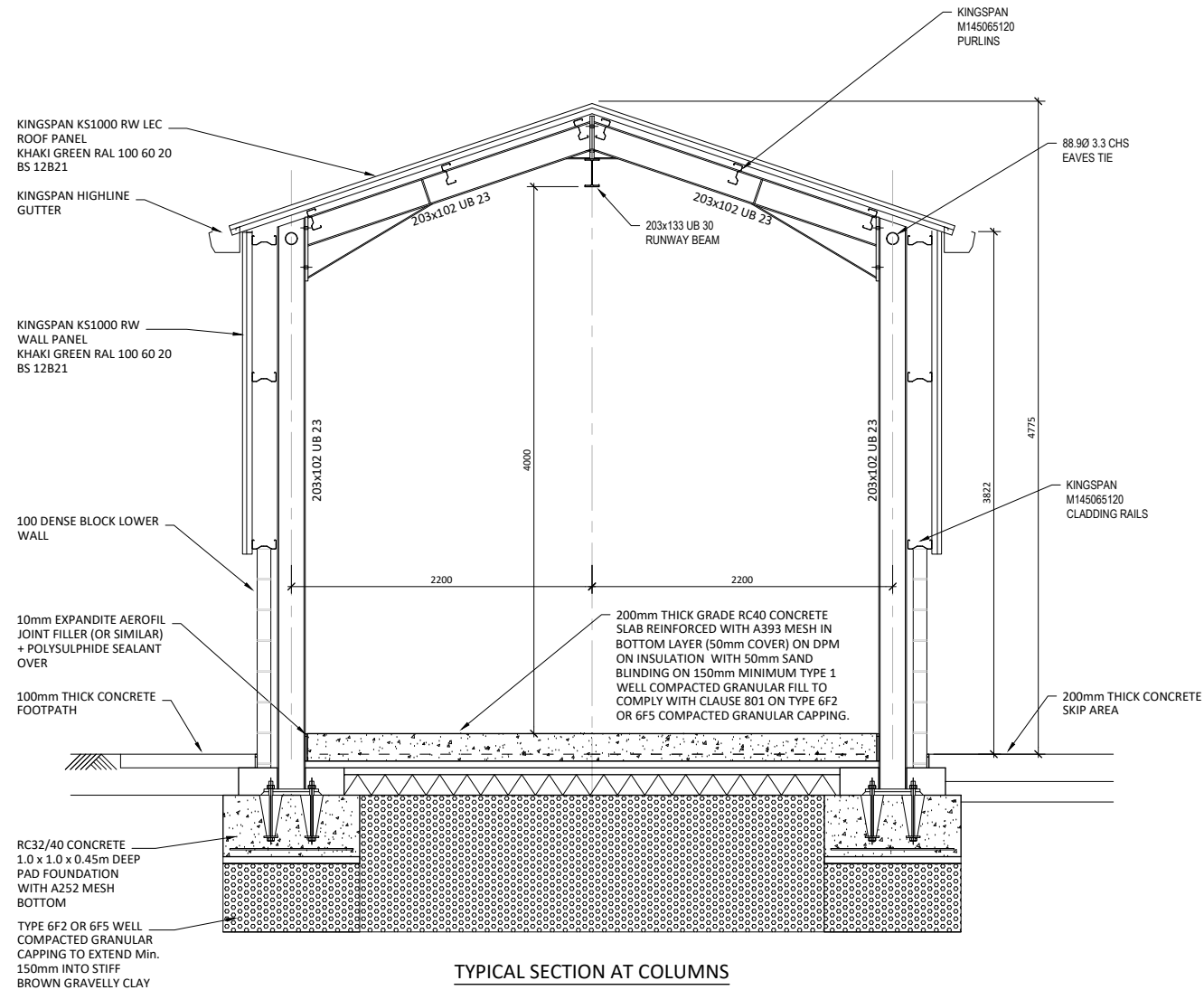
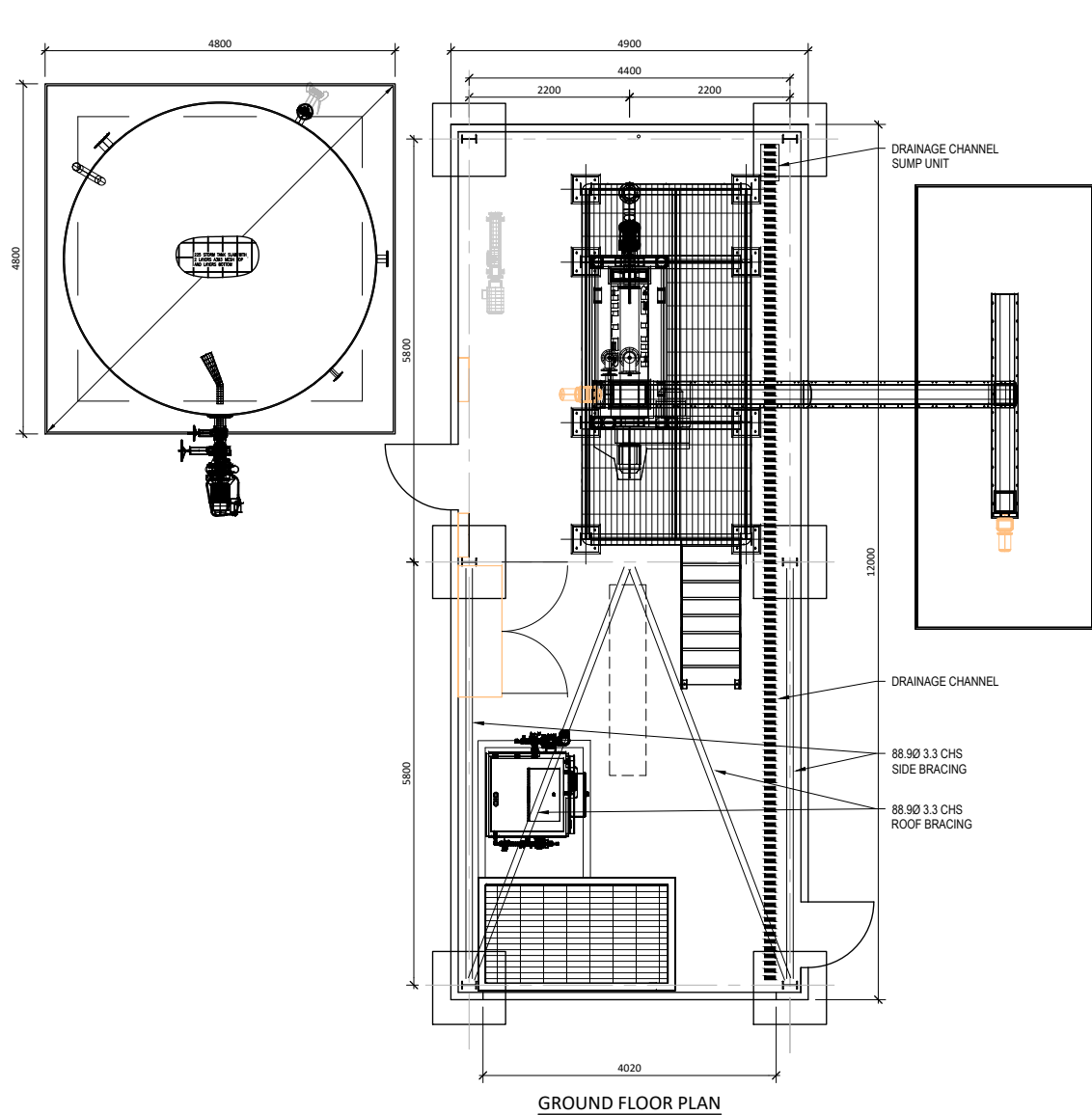
Project: RIVER ITCHEN WORKS - CENTRIFUGE

Drawing Title: CENTRIFUGE BUILDING
ELEVATIONS

Scale: 1 : 50 @ A1 Drawn: GAP Checked:

Project-Originator-Zone-Level-Type-Role Drawing No.: Revision:

23708-GAP-XX-XX-DR-C 9201 P04



General Notes

- These drawings are to be read in conjunction with all relevant Architect's and Engineer's drawings and specifications, refer to Drg. No.00 for Structural Specification
- Except where specific dimensions are shown on these drawings, all setting out shall be in accordance with the architects drawings and specifications. Any discrepancy between these drawings and the architects drawings or the actual site dimensions should be referred to the engineer immediately and confirmed in writing. The contractor is responsible for the accuracy of all dimensions and the setting out.
- Do not scale from these drawings. If in doubt, ask.
- All dimensions are in millimetres unless noted otherwise.
- All proprietary materials to be in accordance with manufacturers specifications and to Engineer's approval.
- All proprietary CDP elements shown on the drawings should be treated as indicative and are subject to detailed design by specialist manufacturer/supplier. The contractor should make suitable allowance for third party design/detailing and potential impact on the permanent work design.

THIS DRAWING IS FOR
PLANNING PURPOSES ONLY

This drawing has been prepared for submission
to fulfil planning permission requirements only.

P03	23.05.24	additional detail / NOTES	IJW
P02	16.04.24	Pad foundation and additional details	IJW
P01	14.03.24	Preliminary issue	IJW
Rev	Date	Revision Description	Issued by

Drawing Status: S3 - Suitable for Review

GODSELL • ARNOLD
PARTNERSHIP LTD
Consulting Civil and Structural Engineers
7 Arrowsmith Court, Station Approach
Broadstone, Dorset. BH18 8AX
Telephone: 01202 600 900 Website: www.gapltd.net

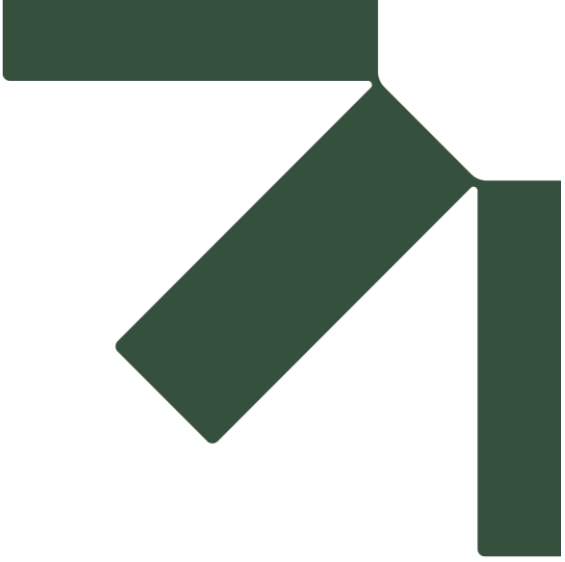
Client: PORTSMOUTH WATER LTD

Project: RIVER ITCHEN WORKS - CENTRIFUGE

Drawing Title: CENTRIFUGE BUILDING
PLAN & TYPICAL SECTION

Scale: 1 : 50 & 1 : 25 @ A1 Drawn: GAP Checked: IJW

Project-Originator-Zone-Level-Type-Role Drawing No.: Revision:
23708-GAP-XX-XX-DR-C 9202 P03



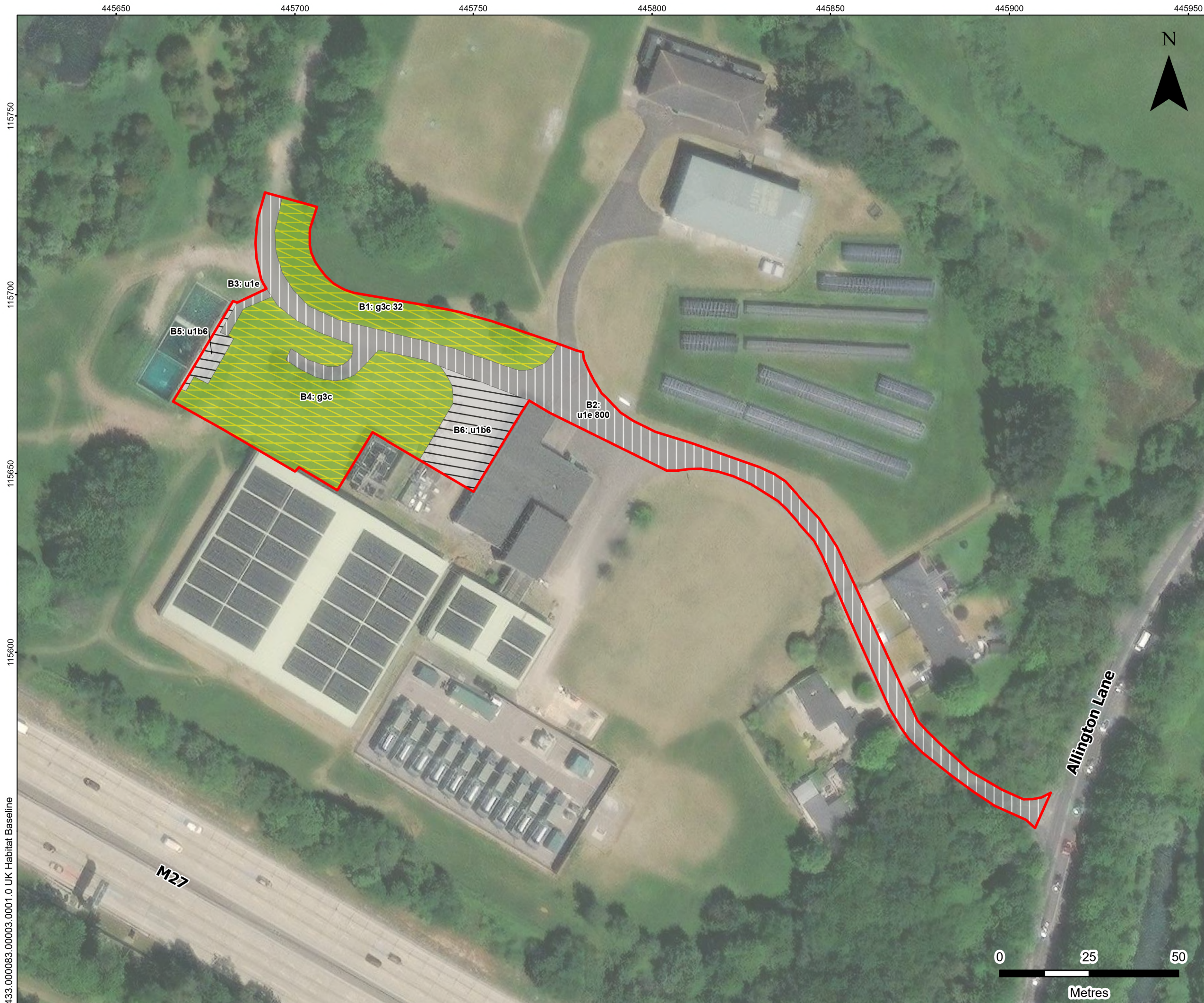
Appendix C UKHab Classification Survey Plan

River Itchen Waste Water Treatment Works (WWTW)

Preliminary Ecological Appraisal Report (PEAR)

SLR Project No.: 433.000083.00003

28 June 2024



LEGEND

 Site Boundary

Primary Habitat Classification

Grassland - Neutral Grassland

 g3c - Other Neutral Grassland

Urban - Built-up Areas and Gardens

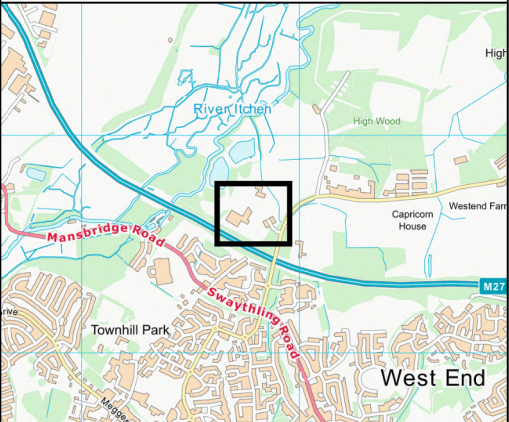
 u1b6 - Other Developed Land

 u1e - Built Linear Feature

Secondary Codes:

32 - Scattered Trees

800 - Road







RIVER ITCHEN WASTE WATER
TREATMENT WORKS

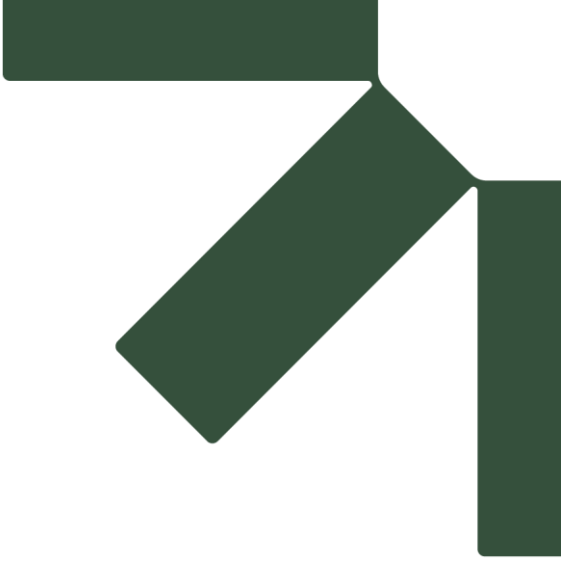
PRELIMINARY ECOLOGICAL APPRAISAL

UK HABITAT BASELINE

FIGURE 1

Scale 1:1,000 @ A3

Date JUNE 2024



Appendix D Desk Study Records of Notable Bird Species

River Itchen Waste Water Treatment Works (WWTW)

Preliminary Ecological Appraisal Report (PEAR)

SLR Project No.: 433.000083.00003

28 June 2024

Species	Designation
Barn owl <i>Tyto alba</i>	Schedule 1
Bittern <i>Botaurus stellarus</i>	Schedule 1, Section 41
Black redstart <i>Phoenicurus ochruros</i>	Schedule 1
Brambling <i>Fringilla montifringilla</i>	Schedule 1
Cetti's warbler	Schedule 1
Common scoter <i>Melanitta nigra</i>	Schedule 1, Section 41, Red list
Corncrake <i>Crex crex</i>	Schedule 1, Section 41, Red list
Cuckoo <i>Cuculus canorus</i>	Section 41, Red list
Curlew <i>Numenius arquata</i>	Section 41, Red list
Crossbill <i>Loxia curvirostra</i>	Schedule 1
Dartford warbler <i>Curruca undata</i>	Schedule 1
Fieldfare <i>Turdus pilaris</i>	Schedule 1, Red list
Firecrest <i>Regulus ignicapilla</i>	Schedule 1
Goshawk <i>Accipiter gentilis</i>	Schedule 1
Grasshopper warbler <i>Locustella naevia</i>	Section 41, Red list
Grey partridge <i>Perdix perdix</i>	Section 41, Red list
Green sandpiper <i>Tringa ochropus</i>	Schedule 1
Hawfinch <i>Coccothraustes coccothraustes</i>	Section 41, Red list
Hobby <i>Falco subbuteo</i>	Schedule 1
House sparrow <i>Passer domesticus</i>	Section 41, Red list
Kingfisher <i>Alcedo atthis</i>	Schedule 1, Section 41, Red list
Lapwing <i>Vanellus vanellus</i>	Section 41, Red list
Lesser redpoll <i>Acanthis cabaret</i>	Section 41, Red list
Little gull <i>Hydrocoloeus minutus</i>	Schedule 1
Little ringed plover <i>Charadrius dubius</i>	Schedule 1
Marsh harrier <i>Circus aeruginosus</i>	Schedule 1
Mediterranean gull <i>Ichthyaetus melanocephalus</i>	Schedule 1
Merlin <i>Falco columbarius</i>	Schedule 1, Red list
Osprey <i>Pandion haliaetus</i>	Schedule 1
Peregrine <i>Falco peregrinus</i>	Schedule 1
Reed bunting <i>Emberiza schoeniclus</i>	Section 41
Red kite <i>Milvus milvus</i>	Schedule 1
Redwing <i>Turdus iliacus</i>	Schedule 1, Red list
Ring ouzel <i>Turdus torquatus</i>	Section 41, Red list
Skylark <i>Alauda arvensis</i>	Section 41, Red list
Spotted flycatcher <i>Muscicapa striata</i>	Section 41, Red list

Species	Designation
Tree pipit <i>Anthus trivialis</i>	Section 41, Red list
Whimbrel <i>Numenius phaeopus</i>	Schedule 1, Red list
Woodlark <i>Lullula arborea</i>	Schedule 1, Section 41, Red list
Yellow wagtail <i>Motacilla flava flavissima</i>	Section 41, Red list



Making Sustainability Happen