

5 Description of the Development

5.1 Introduction

- 5.1.1 This chapter provides a description of the Development which forms the basis of the EIA. It was prepared by Quod and based on information provided by the project architects, Cornish Architects, re-form landscape architects, and other members of the project team.
- 5.1.2 This chapter is supported by the following appendices:
- Appendix 5.1: Selection of planning application drawings; and
 - Appendix 5.2: Tree Arboricultural Impact Assessment (including Tree Protection Plan and Method Statement).
- 5.1.3 The Design and Access Statement (DAS) which accompanies the planning application provides a more detailed description of the Development with illustrations.
- 5.1.4 A description of the anticipated construction programme and a description of proposed key construction activities is provided within ES Chapter 6: Construction.

5.2 Overview of the Development

- 5.2.1 The planning description of the Development is provided in ES Chapter 1: Introduction. This section describes the Development for which the Applicant is seeking planning permission. The Development will bring forward the following key components and land use types, as set out in Table 5.1.
- 5.2.2 The Development will deliver 17,785 sqm Gross External Area (GEA) of fully flexible employment development (Use Class E(g)(iii) and/or B2 and/or B8) within 11 employment units (Units 1-11). The final uses could be up to 100% of any of these use classes, except offices which will only be ancillary.

Table 5.1: Development Floorspace

Land Use Type	Proposed Area (GEA)
Employment Floorspace (Use Class E(g)(iii) and/or B2 and/or B8)	17,785sqm
Parking	Number
Parking (including HGV)	206 (including 17 blue badge spaces)
Cycle Parking	88

- 5.2.3 The Development also includes delivery of part of the Strategic Link Road (SLR), as described in Chapter 1.
- 5.2.4 Appendix 5.1 includes a selection of planning application drawings to allow readers to understand the Development. These are listed in Table 5.2.

Table 5.2: Selection of Planning Application Drawings

Drawing Reference	Drawing Title
20019-TP-002 REV F	Proposed Site Plan
0897-RFM-XX-00-DR-L-0003	Planting Strategy
20019-TP-008 REV C	Units 1-3 Elevations
20019-TP-012 REV C	Unit 4 Elevations
20019-TP-016 REV C	Unit 5 Elevations
20019-TP-019 REV C	Units 6-10 Elevations
20019-TP-022 REV C	Unit 11 Elevations
S1209-PH3-04 B	External Works and Levels
1746-ESC-00-ZZ-DR-E-2100	Lighting Drawing

5.3 Site Layout

5.3.1 Figure 5.1 shows the layout of the Development.

Figure 5.1: Site Layout (Drawing Reference No. 2019-TP-002 REV F)



NOTES

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Subject to Statutory Approvals.

- Subject to Highways Development.
- Parameters Boundary
 - Planning Site Boundary
 - Ownership Boundary
 - Notional Boundary
 - Hedgerow Protection
 - SLR License
 - 2.5m high acoustic fence
 - 4m high acoustic fence with acoustic gates

F	Site Boundary Updated	CS	02/09/2021
E	Site Boundary updated	CS	31/08/2021
D	Acoustic fences added	SK	20/08/2021
C	Street number amended, Road layout updated, Area updated	SK	16/08/2021
B	Paving around units 1-3 yards amended, Acoustic fence added and replaced by enclosed between unit 10 and 11	SK	29/07/2021
A	Units 6&7 moved further into the site to achieve 10m buffer to eastern site ownership boundary	SK	16/07/2021
Rev	Description	DA	Date

Plot House
8-14 Vandon Street
London WC2X 8JZ

tel +44(0)20 7400 2120

www.cornisharchitects.com
www.cornisharchitects.com

RIBA
Chartered Practice

cornisharchitects

Project Title:
PHASE 3 AXIS J9 BICESTER

Drawing Title:
PROPOSED SITE PLAN

Drawing Status:
TOWN PLANNING

Scale:
D 1:10 metres

Drawn By: S K
Scale: 1:1000 @ A1
Date: 08/07/2021
Drawn No: C S

Drawn By: ALBION LAND
Drawing No: 2019 - TP - 002
Rev: F

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UNIT	Ground Floor GEA sqm	Ground Floor GEA ft	First Floor GEA sqm	First Floor GEA ft	Second Floor GEA sqm	Second Floor GEA ft	Total Unit GEA sqm	Total Unit GEA ft	Ground Floor GEA sqm	Ground Floor GEA ft	First Floor GEA sqm	First Floor GEA ft	Second Floor GEA sqm	Second Floor GEA ft	Total Unit GEA sqm	Total Unit GEA ft	Car Parking
1	1830	19908	224	2411	0	0	2054	22309	1759	19034	185	2004	0	0	1954	21038	23
2	1695	18222	232	2504	0	0	1927	20926	1913	20762	179	1933	0	0	2092	22705	21
3	1112	12045	214	2291	0	0	1326	14336	1052	11391	183	1973	0	0	1235	13364	21
4	4412	47491	272	2928	272	2928	4956	53446	4278	46048	238	2568	238	2568	4754	51165	53
5	2552	27234	479	5145	0	0	3031	32379	3433	36933	423	4533	0	0	3856	41466	42
6	527	5678	0	0	0	0	527	5678	491	5296	0	0	0	0	491	5296	8
7	519	5575	0	0	0	0	519	5575	492	5296	0	0	0	0	492	5296	8
8	437	4704	0	0	0	0	437	4704	412	4435	0	0	0	0	412	4445	8
9	361	3778	0	0	0	0	361	3778	328	3521	0	0	0	0	328	3549	7
10	406	4318	0	0	0	0	406	4318	430	4609	0	0	0	0	430	4639	8
11	651	7007	0	0	0	0	651	7007	600	6468	0	0	0	0	600	6468	7
TOTAL	18126	193880	1287	13980	272	2928	17785	191458	13488	144691	1219	13118	238	2568	18001	191920	206

5.4 Building Uses, Layout and Heights

- 5.4.1 The Development will comprise 11 commercial units (Units 1-11), arranged along access roads, as shown in Figure 5.1. The Development would be bisected by the SLR with Units 1-5 located to the west of the SLR and Units 6-11 located to the east.
- 5.4.2 Units 1-3 are rectangular in shape, terraced and located within the south west of the Site, adjacent to the units within Phase 2 of the Axis J9 development. Units 4 and 5 are located within the north of the Site and consist of two large detached units, separated by an emergency services route. Units 1-3 and Units 4-5 are separated by the car parking and service yards, as well as the new vehicular access road that will service these Units. Units 6-11 consist of smaller terraced units, located along the eastern boundary with Howes Lane. Unit 11 is separated from Units 6-10 by the new vehicular access road that will service Units 6-11.
- 5.4.3 Units 1-3 will be situated at a development platform finished floor level (FFL) of 84.000 above ordnance datum (AOD) (see External Works & Levels drawing No. S1209-PH3-04, Appendix 5.1), with a maximum ridge height of 13.6m.
- 5.4.4 Units 4-5 will be situated at a development platform FFL of 84.200 and 84.000 respectively, with a maximum ridge height of 15.15m.
- 5.4.5 Units 6-11 will be situated at a development platform FFL of 83.000, with a maximum ridge height of 10.9m.
- 5.4.6 A summary of the floorspace, land use and heights of the Units is provided in Table 5.3.
- 5.4.7 As the end users are not yet known, planning permission is sought for Use Class E(g)(iii) and/or B2 and/or B8.

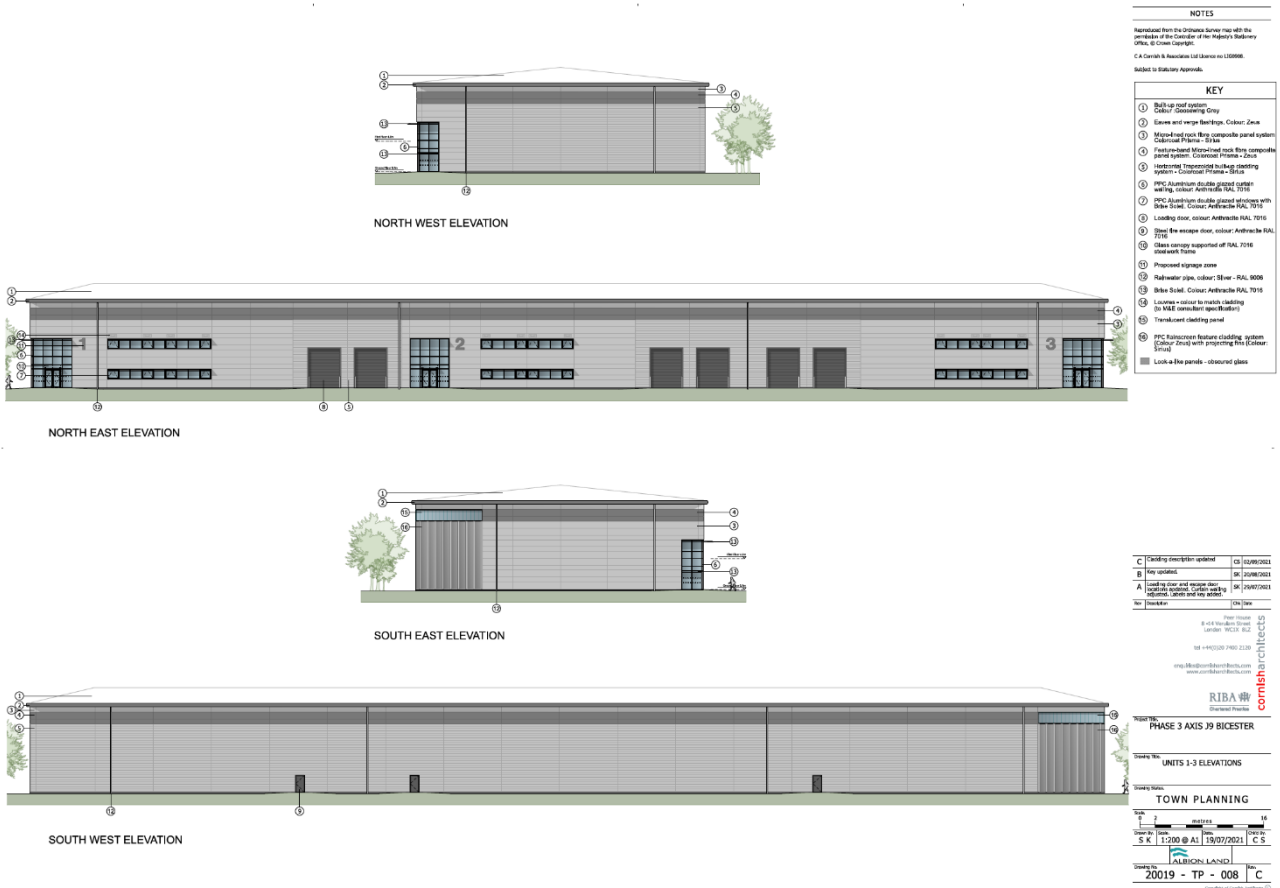
Table 5.3: Building Unit Summary

Unit No.	Maximum Building Height (m to ridge)	Parking (including HGV)
1	13.6	23
2	13.6	21
3	13.6	21
4	15.15	53
5	15.15	42
6	10.9	8
7	10.9	8
8	10.9	8
9	10.9	7
10	10.9	8
11	10.9	7

5.5 Appearance

- 5.5.1 Figure 5.2 below shows the facade treatment of Units 1-3. Similar elevational treatments would be adopted across all Units within the Development as shown in the elevation drawings included within Appendix 5.1.
- 5.5.2 The Units would be clad using standard warehouse cladding materials with low reflective values that mirrors the materials used on Phase 1 and 2 of the Axis J9 development. Each Unit will be mainly clad with horizontally laid cladding panel in grey. HGV gates will be a darker grey horizontally-laid cladding panel system.

Figure 5.2: Units 1-3 Facade Treatment (Drawing Reference No. 20019-TP-008 REV C)



5.6 Operational Hours

- 5.6.1 The Development will be operational and available 24-hours per day.
- 5.6.2 A Travel Plan has been developed and a lighting assessment undertaken to ensure that potential adverse effects of the operational use of the Development are mitigated as far as practicable. Further details on the external lighting strategy are provided later in the chapter.

5.7 Acoustic Barrier

- 5.7.1 An acoustic barrier will run along the length of the access road between Units 10 and 11, at the rear of their car park, and is shown on drawing 20019-TP-003-A in Appendix 5.1 and

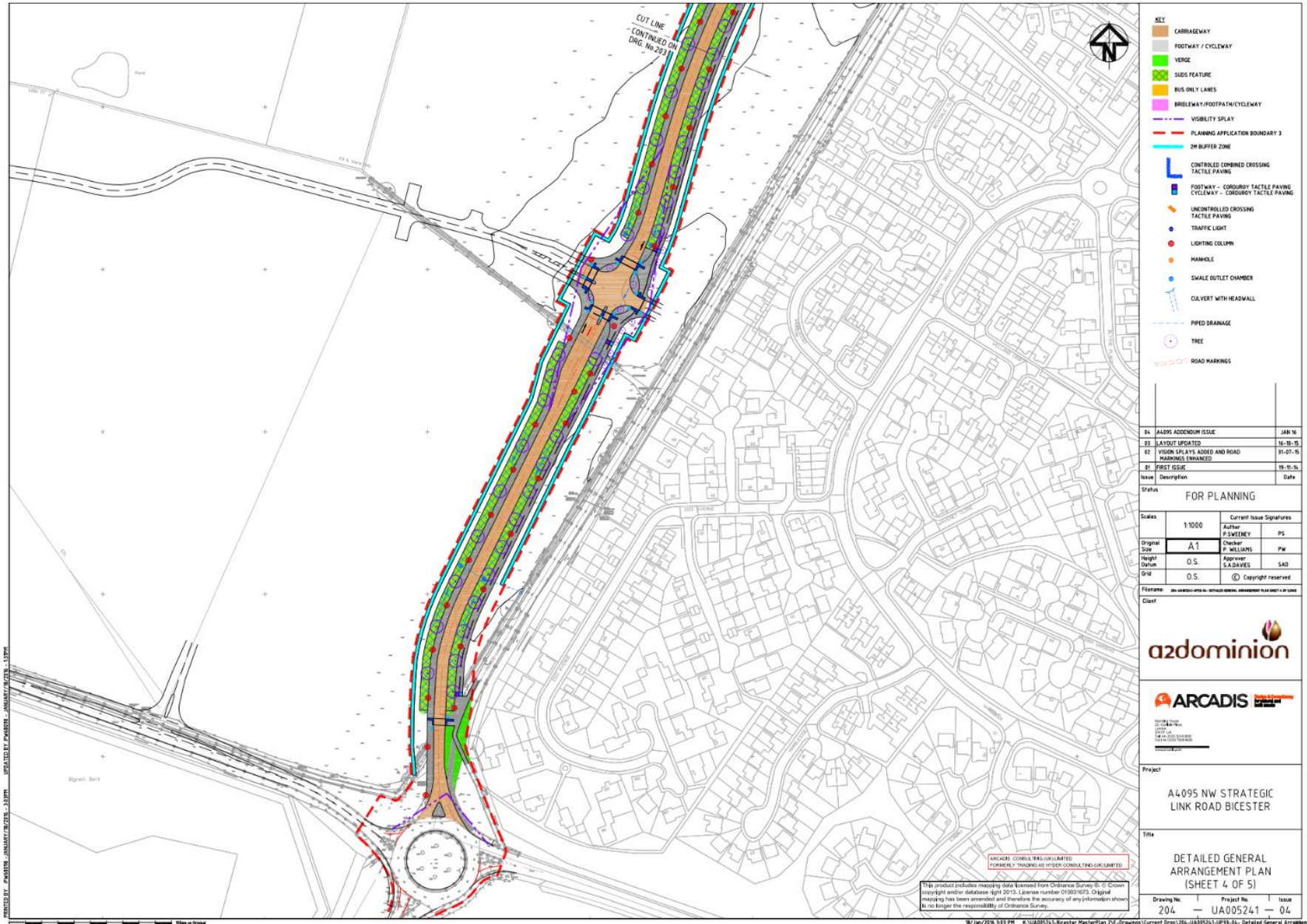
marked as a blue line on Figure 9.4 in ES Chapter 9: Noise and Vibration. The acoustic fence will be 4m in height, and will be of solid timber construction with no gaps and a minimum surface density of 10kg/m².

- 5.7.2 A 2.5m high acoustic barrier will be located between Units 3 and 6, and adjacent to Unit 6, as shown in Figure 9.4 in ES Chapter 9: Noise and Vibration.

5.8 Access and Parking

- 5.8.1 The SLR benefits from planning permission (Ref: 14/01968/F). Part of the SLR passes through the Development Site, as shown in Figure 1.2 and 1.3, and once constructed would form connections with other key transport infrastructure intended to support the delivery of the Eco-Town.
- 5.8.2 All Units would initially be accessed via Middleton Stoney Road through the Axis J9 development onto the section of the SLR that will be delivered by the Development. The section of the SLR to be delivered by the Development will follow the approved route and will be constructed in accordance with the consented detail of the planning approval for the SLR.
- 5.8.3 The section of the SLR to be delivered by the Development will comprise:
- 7.3m wide strategic road;
 - 5m wide swale/verge and 4m wide footpath to the west of the carriageway, and a 5m wide swale/verge, 2.5m wide cycle path and 2m wide footpath to the west of the carriageway; and
 - Sustainable Urban Drainage Systems (SuDS) feature to either side of the SLR.
- 5.8.4 Once the other sections of the SLR, to the north and south of the Site, are delivered (by others), the section of the SLR road provided by the Development, and pedestrian and cycle infrastructure, will be connected to the SLR and will form part of the SLR.
- 5.8.5 Once the north and south sections of the SLR are delivered, the temporary access arrangements to the Site via the Axis J9 development will be closed and landscaped to form part of the Site's strategic green infrastructure. From this point forward, permanent access to the Development (Phase 3) would be via the SLR.
- 5.8.6 The Development would provide a total of 206 car parking spaces (approximately 5% of which would be Disability Discrimination Act (DDA) compliant and 88 cycle parking spaces.

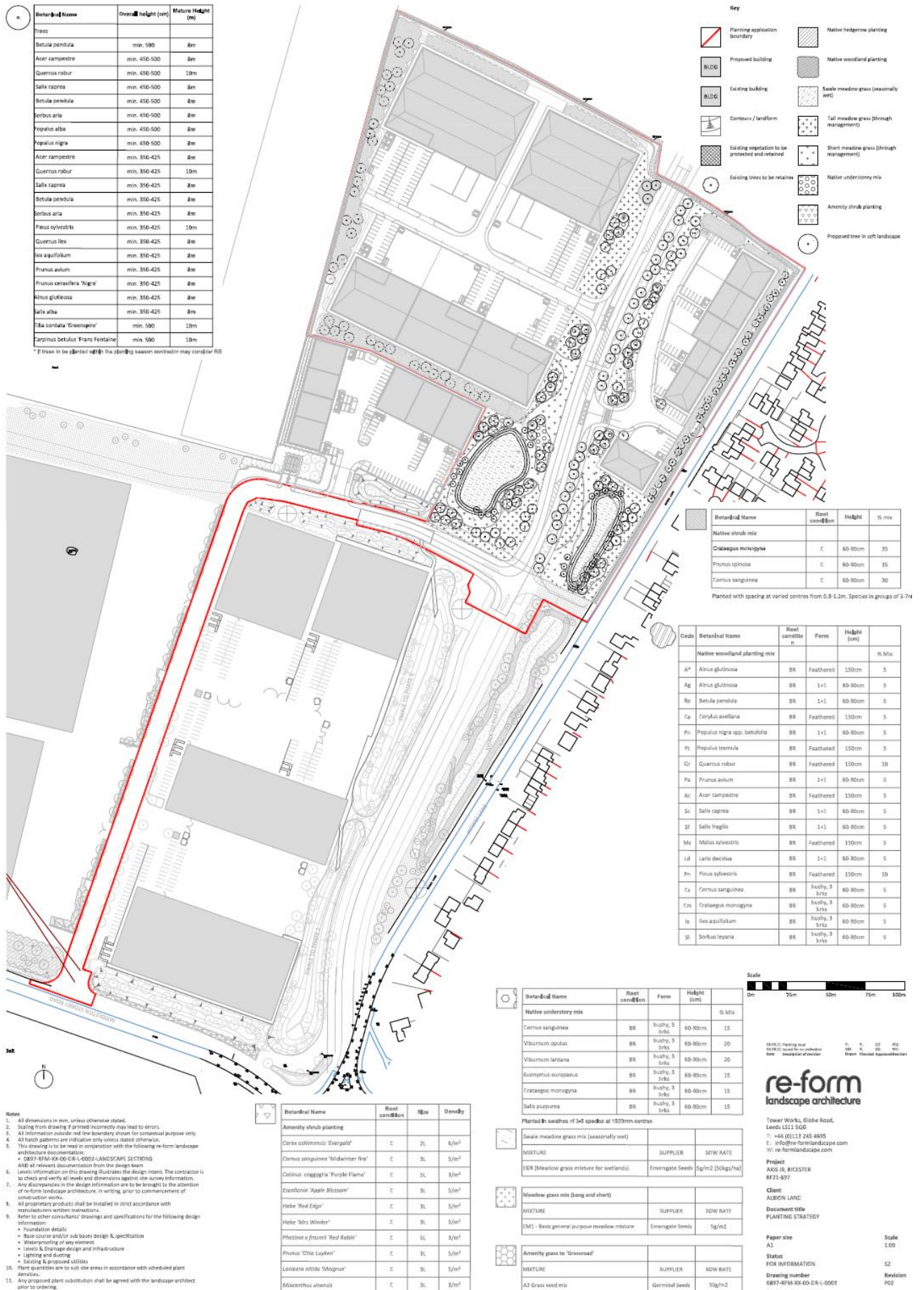
Figure 5.3: Detailed Plan of SLR (Drawing Reference No. 204-UA005241-04)



5.9 Landscaping and Biodiversity

- 5.9.1 Hedgerows and trees along the Site boundaries will be retained. None of the trees on Site are subject to Tree Preservation Orders (TPO). An Arboricultural Impact Assessment (including Tree Protection Plan and Method Statement) has been prepared and accompanies the planning application and is provided at Appendix 5.2.
- 5.9.2 A 10m buffer zone is incorporated in the boundary where existing hedgerows are to be retained, in line with the North West Bicester Supplementary Planning Document (SPD) (Development Requirement 9).
- 5.9.3 Mounds would be delivered around the perimeter of the Site, to the rear of Units 1-3 and along the north, eastern and western boundaries. These mounds would comprise materials obtained from construction of the development platforms and would range in height from 1-3m depending on the Site constraints. The mounds would elevate some of the planting, making it more effective at screening the new built form.
- 5.9.4 The Development will include provision of 40% Green Infrastructure, which will include features for biodiversity net gain, landscape screening and drainage. A completed biodiversity net gain metric is submitted with the application (Appendix 10.2), in accordance with the Bicester Ecotown SPD¹.
- 5.9.5 As agreed with CDC, biodiversity net gain was considered across Phase 1, 2 and 3. On the basis of the approved plans for Phase 1 and 2 and the planting strategy for Phase 3, overall the Development will achieve a linear mitigation score of 10.85 resulting in a net gain of +1.41 biodiversity units. The on-Site enhancements would be achieved through implementation of the proposed landscape masterplan (Figure 5.4) that will provide new hedgerow planting, increased width of field buffers, new wetland habitat in the form of two swales and areas of wildflower grassland. Ecological enhancements in the form of bat bricks, bat boxes and nest boxes will be located on the new buildings and on retained trees on the Site.

Figure 5.3: Planting Strategy (Drawing Reference No. 0897-RFM-XX-00-DR-L-0003)



5.10 Lighting and Security

- 5.10.1 The Site layout has been designed to align with ‘Secured by Design’ principles. Building design and layout would minimise visual and physical obstacles and car and cycle parking will have appropriate lighting in place.
- 5.10.2 A lighting assessment has been undertaken in accordance with Institution of Lighting Professionals: Guidance Note 01/21² and taking account of BS 5489-1:2013³, BS EN 12464-2:2014⁴ to ensure sufficient illumination is provided to external areas for safe operation of the Development whilst ensuring that lux levels would be kept to a minimum on adjacent natural habitats and avoid direct light spill and glare into sensitive ecological locations and nearby residents, in accordance with Lighting and the Environment: A Guide to Good Urban Lighting⁵. Design measures proposed include the use of full cut-off luminaires, horizontal, “flat” floodlights and LED lamps under the ridge canopies to reduce spill light and glare to and around the Site boundary and prevent sky glow.

5.11 Drainage

- 5.11.1 There are no adopted sewers beneath Howes Lane or Middleton Stoney Road and the surface water from the surrounding highways is taken to the adjacent ditches on the roadsides. The application is accompanied by a Flood Risk and Drainage Assessment (‘FRA’), which demonstrates that the Development would not be at risk of flooding, nor would it increase the risk of flooding elsewhere.
- 5.11.2 The FRA includes a drainage strategy which has had due regard to the requirements of the NPPF, Local Plan 2031 and the Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire⁶, with proposals for surface and foul water drainage undertaken in liaison CDC (as the Local Lead Flood Authority).
- 5.11.3 The Development will use a combination of traditional piped drainage systems and Sustainable Urban Drainage Systems (SUDS). The drainage layouts for surface water and foul water are shown in Figures 5.5 and 5.6. The blue arrows and lines on Figure 5.5 depict the proposed surface water system. The red arrows and lines on Figure 5.6 depict the proposed foul drainage system.

Surface Water

- 5.11.4 A 5m swale/verge will be located either side of the SLR. In addition, two new swales will collect and clean stormwater, and link to swales in Phase 2.
- 5.11.5 Surface water runoff from the Site will be less than ‘greenfield’ runoff at 10 litres/second from Swale 1 and 5 litres/second from Swale 2. These run-offs will then be directed to the Phase 2 Swale which then outlet at a previously agreed rate of 30 seconds/litre into an existing ditch adjacent to the large roundabout at the junction of Middleton Stoney Road and Howes Lane. The surface water drainage strategy will incorporate SUDS to manage surface water runoff, subject to detailed design. The following SuDS measures are proposed:
- Swales;

- Permeable paving;
- Petrol interceptors;
- Catchpits, gullies and line drains; and
- Flows control devices.

Foul Water

- 5.11.6 A gravity system will be constructed to outfall to an on-site pumping station with appropriate 'off-line' storage to cater for emergency breakdown of pumps. The foul water will then be pumped to the adopted Thames Water sewer adjacent to Howes Lane.

Figure 5.5: Storm Water Drainage Layout blue lines (Drawing Reference No. S1209-PH3-02 C)

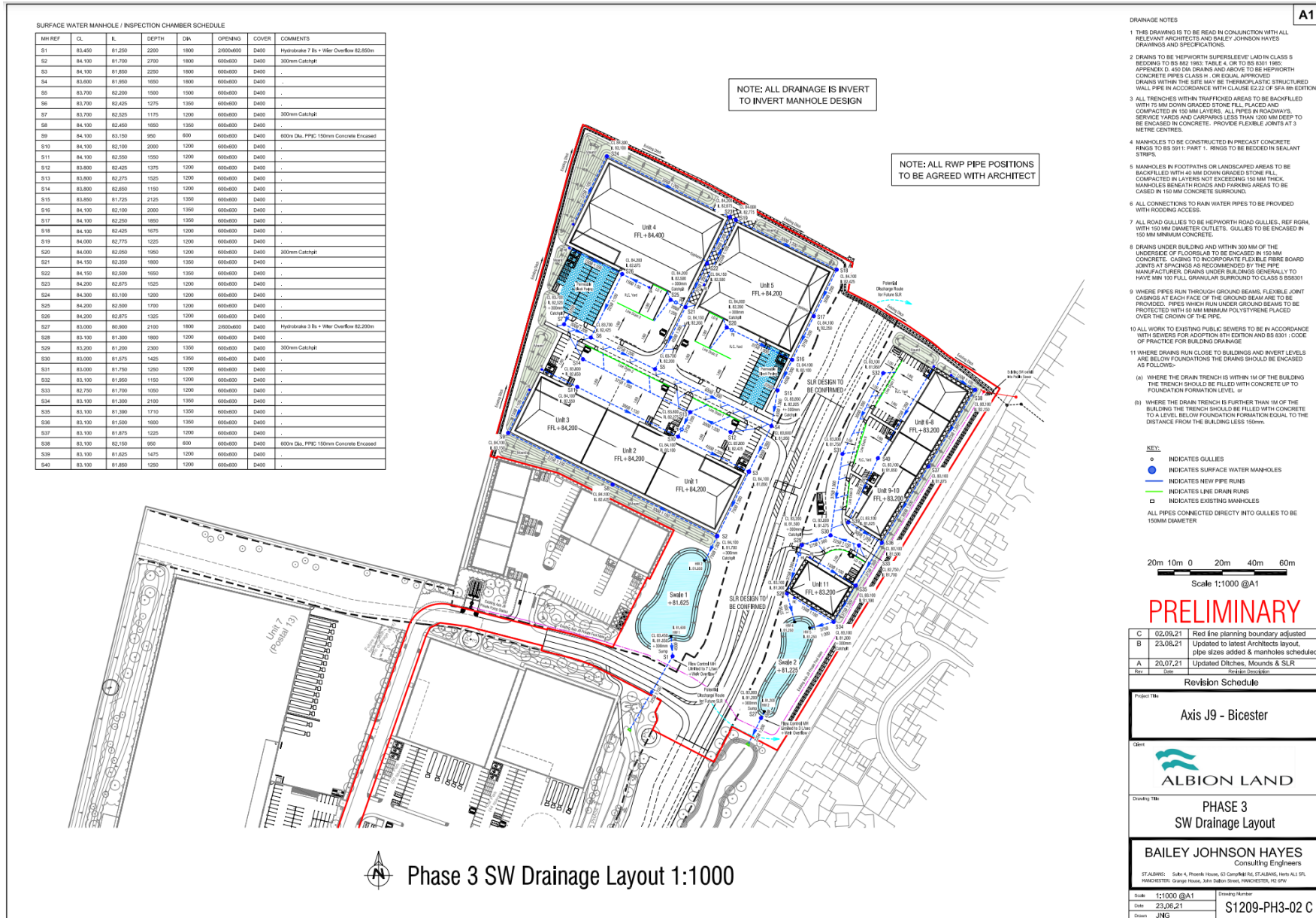
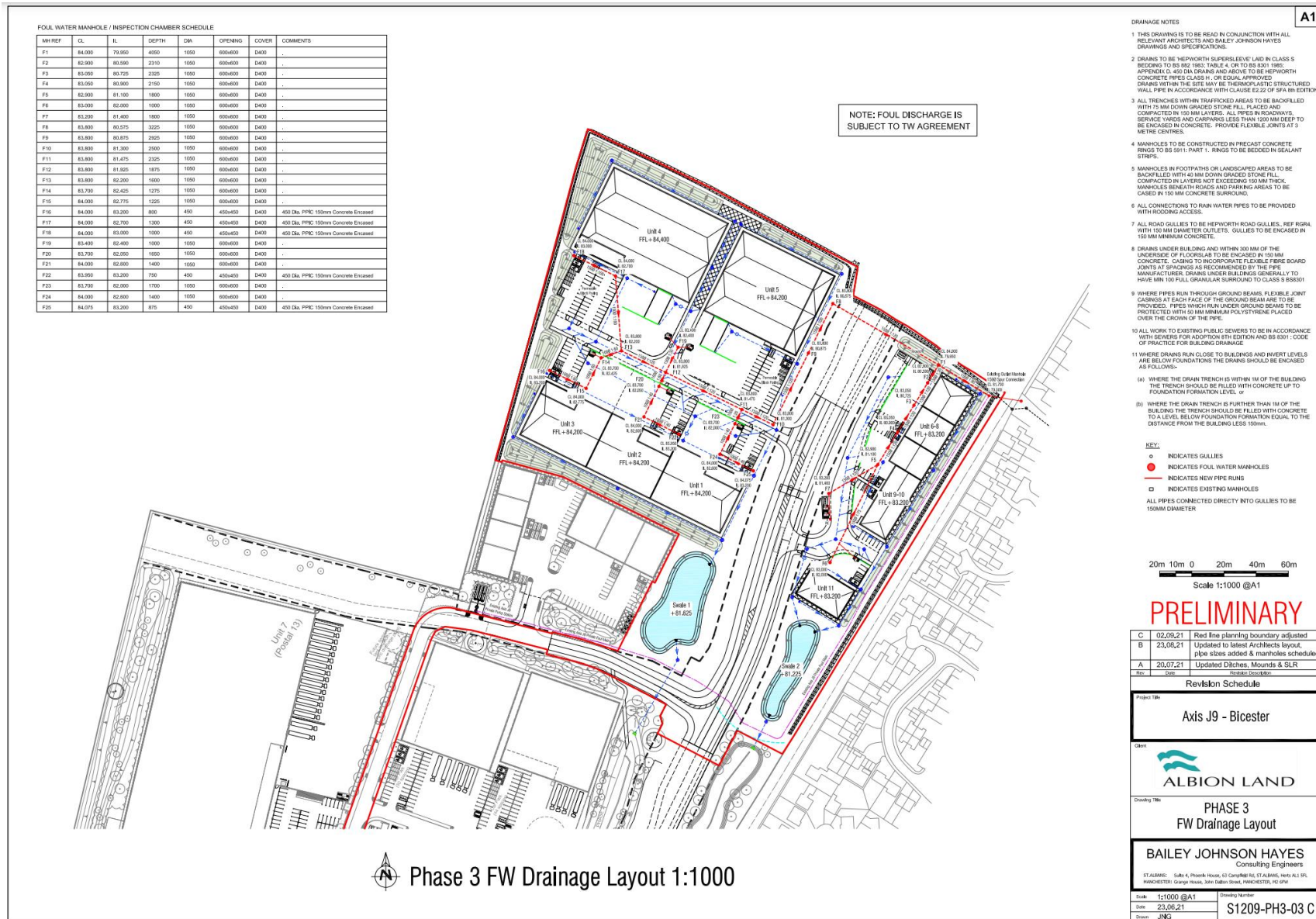


Figure 5.6: Foul Water Drainage Layout red lines (Drawing Reference No. S1209-PH3-03 C)



5.12 Energy and Sustainability

- 5.12.1 A Sustainability Statement prepared by Engineering Services Consultancy Ltd is submitted with the planning application in-line with planning policy requirements. The Development will be constructed to BREEAM “very good” standard, with a capability of achieving “excellent” standard.
- 5.12.2 To minimise energy consumption by the Development, the following design measures are proposed:
- Effective built form and orientation and proficient location of services such that the building design is optimised for energy efficiency;
 - Construction methods that apply the use of pre-fabricated units would minimise energy use and waste arisings;
 - Installation of Photovoltaic (PV) panels on unshaded roof areas;
 - The offices areas will be serviced by highly efficient air source heat pumps;
 - The buildings will be lit by high efficiency LED lighting utilising low-energy control systems such as daylight dimming and occupancy sensing, where applicable;
 - Use of water efficient fixtures to reduce water consumption and demand; and
 - The provision of electric charging points on-site, to encourage the use of electric vehicles.
- 5.12.3 A Sustainability Statement is provided in support of the planning application.

5.13 Utilities

- 5.13.1 Connection points for utility infrastructure for the Development have been identified and consultation with the respective service providers has been conducted to ensure that the local networks have adequate provision to service the Development.

5.14 Waste and Servicing

- 5.14.1 Waste and recycling storage for the Development has been designed with consideration of local policy and guidance. Through design development, the architects have ensured that adequate waste provision is made for future occupiers of the Development with waste and recycling areas located near the entrance of service yards providing convenient user and collection vehicle access.
- 5.14.2 Spoil from construction works will be re-used on Site for mound construction and landscaping.

5.15 Climate Change Adaptation and Resilience

- 5.15.1 A number of measures have been incorporated within the Development to reduce risks associated with climate change. The key measures are as follows:

- The FRA and drainage strategy have been informed by climate change guidance published by the Environment Agency⁷. The surface water system is designed to cater for 1 in 100 year + climate change storm conditions.
- The drainage scheme is designed for a 100 year event + 40% climate change.
- Water efficient fixtures within the Units would minimise risks to deficits to public water supplies.
- The retained and new habitats, namely hedgerow and grasslands, whilst considered to be vulnerable to significant climate change such as major drought, are relatively robust to change. This will also prevent emergence of non-native species and adverse impacts of pests and diseases.

References

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- ¹ Bicester Ecotown SPD <http://modgov.cherwell.gov.uk/documents/s31171/Appendix%204%20-%20North%20West%20Bicester%20SPD%20-%20Final%20Draft%20November%202015.pdf>
 - ² Institute of Lighting Professionals (2021). Guidance Note 01/21 – The Reduction of Obtrusive Light.
 - ³ BS 5489-1:2013 Code of Practice for the Design of Road Lighting.
 - ⁴ BS EN 12464-2:2014 Light and Lighting – Lighting of work places.
 - ⁵ Lighting and the Environment – A Guide to Good Urban Lighting, Chartered Institution of Building Service Engineers.
 - ⁶ Oxfordshire County Council, 2018. Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire. November 2018.
 - ⁷ Environment Agency, Climate Change Guidance. February 2016, as amended.