

Liberty Steel Site – Modular Data Centre

784-B079802

Flood Consequence Assessment

Second Issue

Era4 Limited

March 2026

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TETRA TECH

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Appendix A: Development Proposals

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Gwent Levels

Acronyms/Abbreviations

Acronyms/Abbreviations	Definition
AEP	Annual Exceedance Probability
AOD	Above Ordnance Datum
BGL	Below Ground Level
BGS	British Geological Survey
CC	Climate Change
DCWW	Dwr Cymru Welsh Water
FCA	Flood Consequence Assessment
FFL	Finished Floor Levels
FWMA	Flood Water Management Act
IDD	Internal Drainage District
NCC	Newport City Council
NPA	National Planning Authority
NRW	National Resources Wales
SFCA	Strategic Flood Consequence Assessment
LFRMS	Local Flood Risk Management Strategy
SAB	SuDS Approval Body
SPZ	Source Protection Zone
SuDS	Sustainable Drainage Systems
TAN	Technical Advice Note

Note of Flood Frequencies

The frequency of a flood can be quoted in terms of a return period, which is defined as the average time between years with at least one larger flood, or as an annual exceedance probability (AEP), which is the inverse of the return period.

Return periods can be expressed more succinctly than AEP. However, AEP can be helpful when presenting results to members of the public who may associate the concept of return period with a regular occurrence rather than an average recurrence interval.

The following table is provided to enable quick conversion between return periods and annual exceedance probabilities.

AEP (%)	50	20	10	5	3.33	2	1.33	1	0.5	0.1
AEP	0.5	0.2	0.1	0.05	0.033	0.02	0.0133	0.01	0.005	0.001
Return Period (Years)	2	5	10	20	30	50	75	100	200	1000

1.0 Introduction

1.1 Purpose of this Report

- 1.1.1 Tetra Tech Ltd have been appointed by Era4 Limited (the ‘Client’) to prepare a Flood Consequence Assessment (FCA) to support an outline planning application for a modular data centre on the land to the east of the Liberty Steel Site, located at Newport Data Centre situated at the former Liberty Steelworks off Corporation Road in Newport, nearest postcode NP18 2BU.

1.2 Requirement for this Report

- 1.2.1 The site is located within Flood Zone 1 according to the National Resources Wales (NRW) River Flood Risk map. The site is predominantly located within Flood Zone 1 according to the Surface Water and Ordinary Watercourse Flood Risk map, with a small, isolated area situated within Flood Zone 2. The proposed development is less than 1ha.

1.3 Scope of the Report

- 1.3.1 The FCA will consider all potential sources of flood risk including tidal, ‘Main Rivers’, ‘Ordinary Watercourses’, surface water and overland flow routes, groundwater, sewers, and reservoirs. It will identify the level of risk and, where necessary, propose mitigation to manage flood risk.

1.4 Previous Reporting

- 1.4.1 An FCA was previously prepared by Egniol, November 2025, to support a planning application for the development of a modular data centre approximately 420 m to the southwest of this proposed site location.
- 1.4.2 This report builds upon the FCA prepared by Egniol, providing an update to the flood risk based upon the updated proposed development location.

1.5 Limitations of this Report

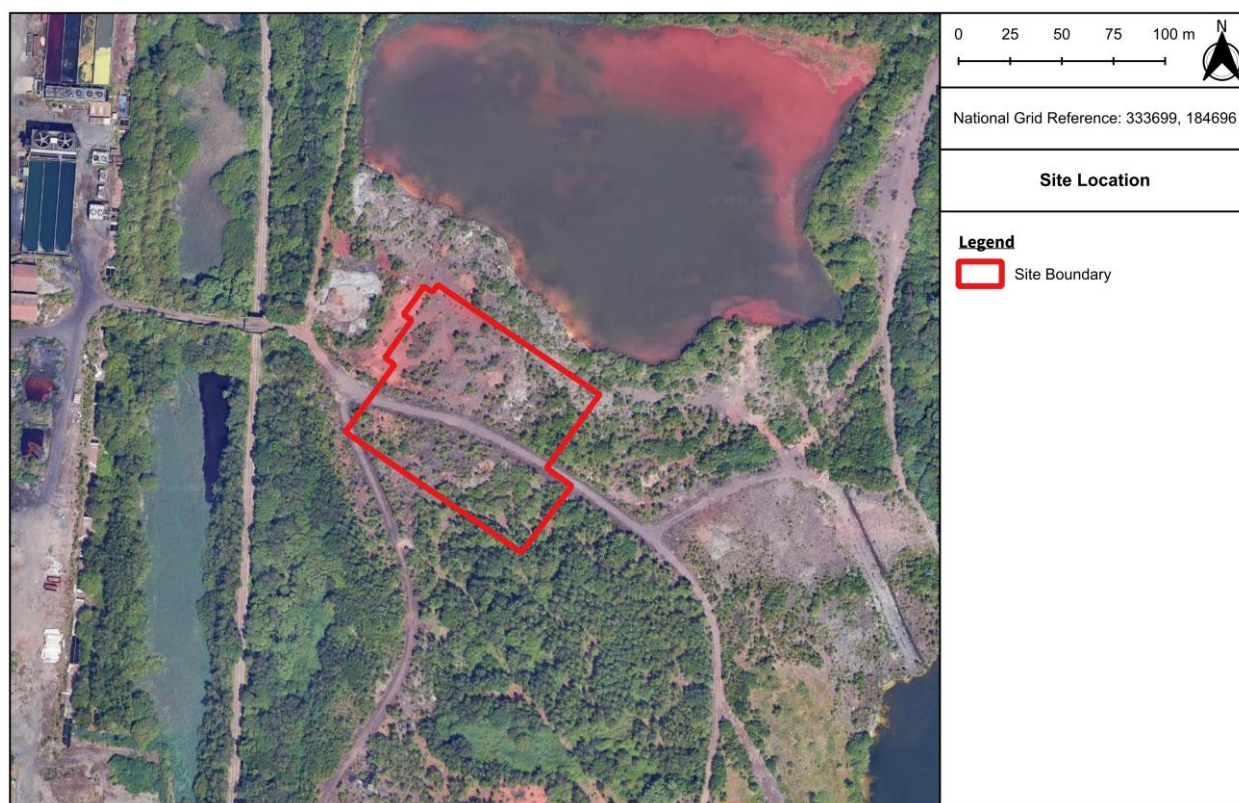
- 1.5.1 This report has been prepared by Tetra Tech Ltd on behalf of Era4 Limited in connection with the scope of the report as described in Section 1.3 above and taking into account the particular instructions and requirements set out in Tetra Tech’s fee proposal and the Client’s acceptance. It is not intended for and should not be relied on by any third party and no responsibility is undertaken to any third party.
- 1.5.2 Tetra Tech Ltd accepts no duty or responsibility (including in negligence) to any party other than Era4 Limited and disclaims all liability of any nature whatsoever to any such party in respect of this report.

- 1.5.3 This report cannot be reproduced without Tetra Tech's written consent.
- 1.5.4 This assessment has been completed based on the best available data at the time of writing. Flood risk and climate change is an evolving science and therefore documents such as this should be revisited at regular intervals in the future when new flood risk and climate change information, guidance or data is published.

2.0 Site Description

2.1 Existing Site

- 2.1.1 The existing site is located at Newport Data Centre situated at the former Liberty Steelworks off Corporation Road in Newport, nearest postcode NP18 2BU. The grid reference is ST 33673 84707 and the what.three.words identifier is belong.tell.finest. The site boundary is shown in Figure 2-1.
- 2.1.2 This site boundary shown in Figure 2-1 was provided following completion of the First Issue of this FCA. This updated site boundary was included during the Second Issue, however, the remaining figures throughout the report continue to use the original, approximate site boundary. The original site boundary covers a larger area than that shown in the updated site boundary, so the findings of the below assessment have not changed. The updated site boundary provided in Figure 2-1 is 0.83 ha. General arrangement drawings of the updated site boundary are provided within Appendix A.



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Figure 2-1 Site Location

- 2.1.3 The site is approximately 1.1 hectares (ha) in size and consists of shrubland with an unpaved road through the centre.

2.1.4 The site is located approximately 4km to the southeast of Newport. The areas surrounding the site consist of the following:

- To the north, the site is bounded by shrubland with a pond located further to the north;
- To the east and south the site is bounded by shrubland;
- To the west the site is bounded by a railway line.

2.2 Site Topography

2.2.1 Topographic data from NRW Composite LiDAR indicates that the site generally slopes from west to east from a maximum elevation of approximately 13.1 m Above Ordnance Datum (AOD) in the northwest, to a minimum of approximately 10.1 m AOD in the east, to the north and south of the unpaved road, as shown in Figure 2-2.

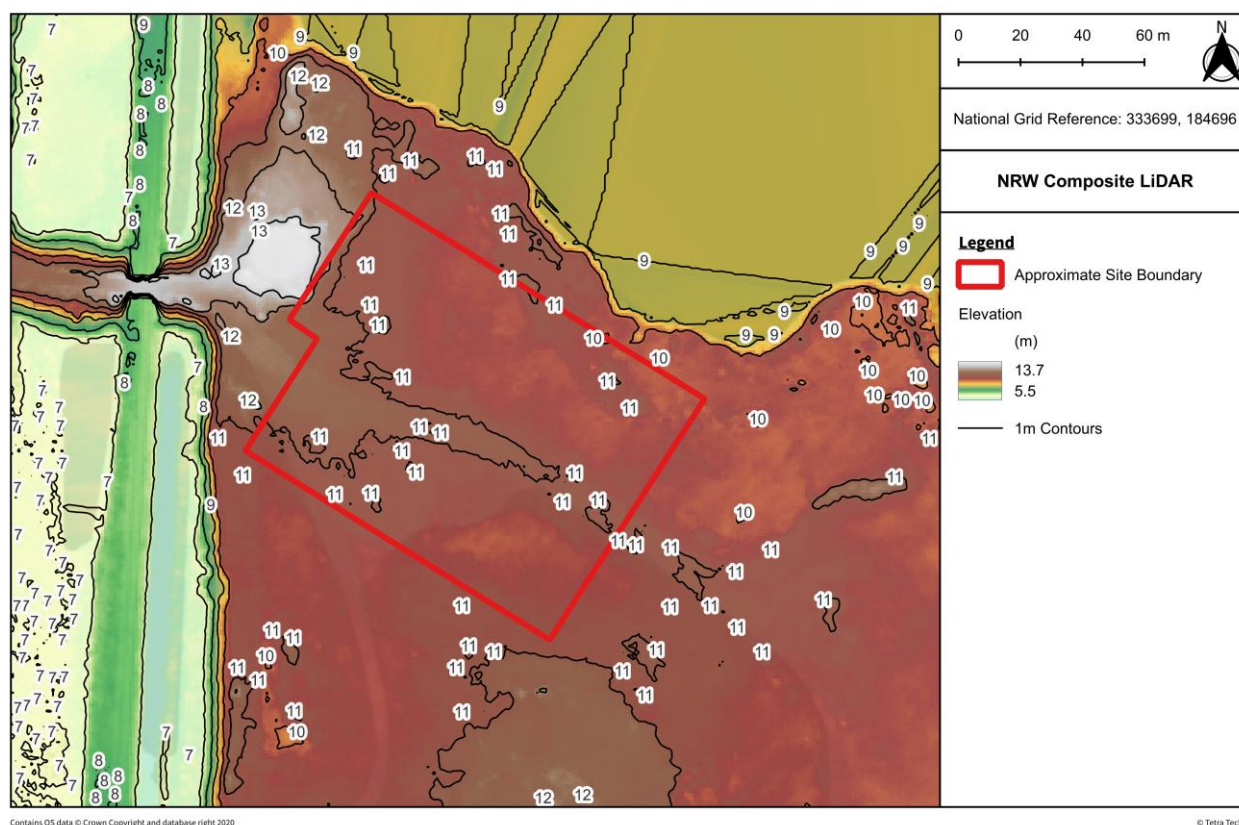


Figure 2-2 Composite LiDAR Elevations

2.3 Existing Drainage

Watercourses

- 2.3.1 According to NRW Main River mapping, the River Usk (main river) is located approximately 500m to the west of the site, before it comes to confluence with the mouth of the River Severn approximately 3.5km to the south. Furthermore, Julians Reen (main river), a tributary of the River Usk is located approximately 500m to the south of the site where it flows east to west before coming to confluence with the River Usk approximately 700m to the west.
- 2.3.2 According to Google Satellite imagery there appears to be a ditch connecting two of the ponds located in vicinity of the site. This ditch is located approximately 80m to the east of the site and is not classified as main river, thus deemed an ordinary watercourse.
- 2.3.3 According to OS base mapping, a waterbody is present approximately 20m to the west of the site, where it bounds the railway line. It is unclear from mapping if this is a ditch or a small, isolated water body.

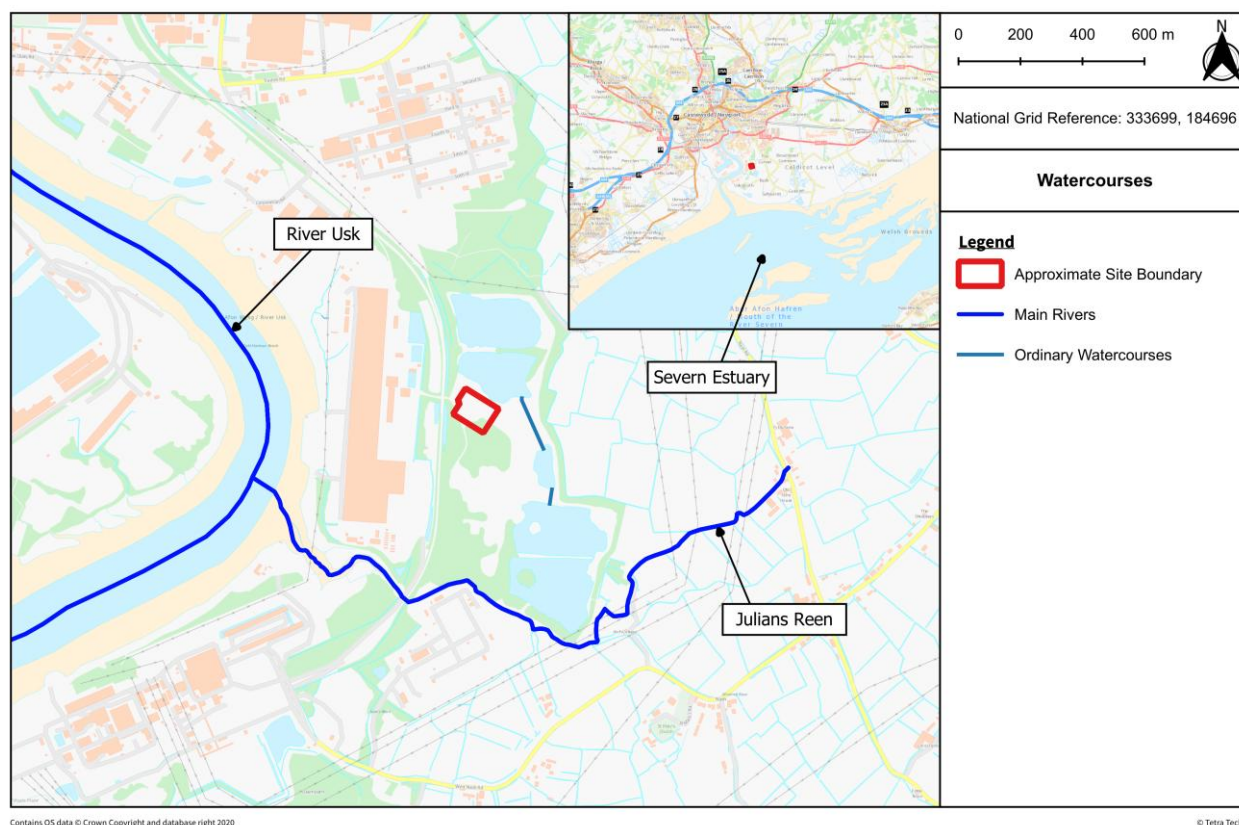


Figure 2-3 Watercourses

- 2.3.4 No canals are located within the vicinity of the site.

2.4 Existing Sewers

Private Drainage

- 2.4.1 At the time of writing no details of an existing private drainage network for the site have been provided by the client, however, based on the existing land use, it is anticipated that there is no private drainage network serving the site.

2.5 Ground Conditions

Soils

- 2.5.1 A review of UK Soil Observatory online mapping indicates that the underlying soils are unclassified. It is indicated that the underlying soils approximately 200 m to the east of the site are classified as loamy and clayey soils of coastal flats with naturally high groundwater.

Geology

- 2.5.2 A review of the British Geological Survey (BGS) online geological mapping indicates that the site is underlain entirely by superficial geology of Tidal flat deposits (clay and silt).
- 2.5.3 This is indicated as being underlain entirely by bedrock deposits of Mercia Mudstone Group (Mudstone).
- 2.5.4 No BGS boreholes are located within the site boundary. The nearest records, ST38NW235, ST38NW236, and ST38NW237, are located approximately 500m to the north and record the presence of made ground, clay, and some gravel to a maximum proven depth of 20.45 m Below Ground Level (BGL). The location of these BGS boreholes is indicated in Figure 2-4. Groundwater was encountered in all 3 boreholes, with final standing water levels at 1.70m – 6.40m BGL.

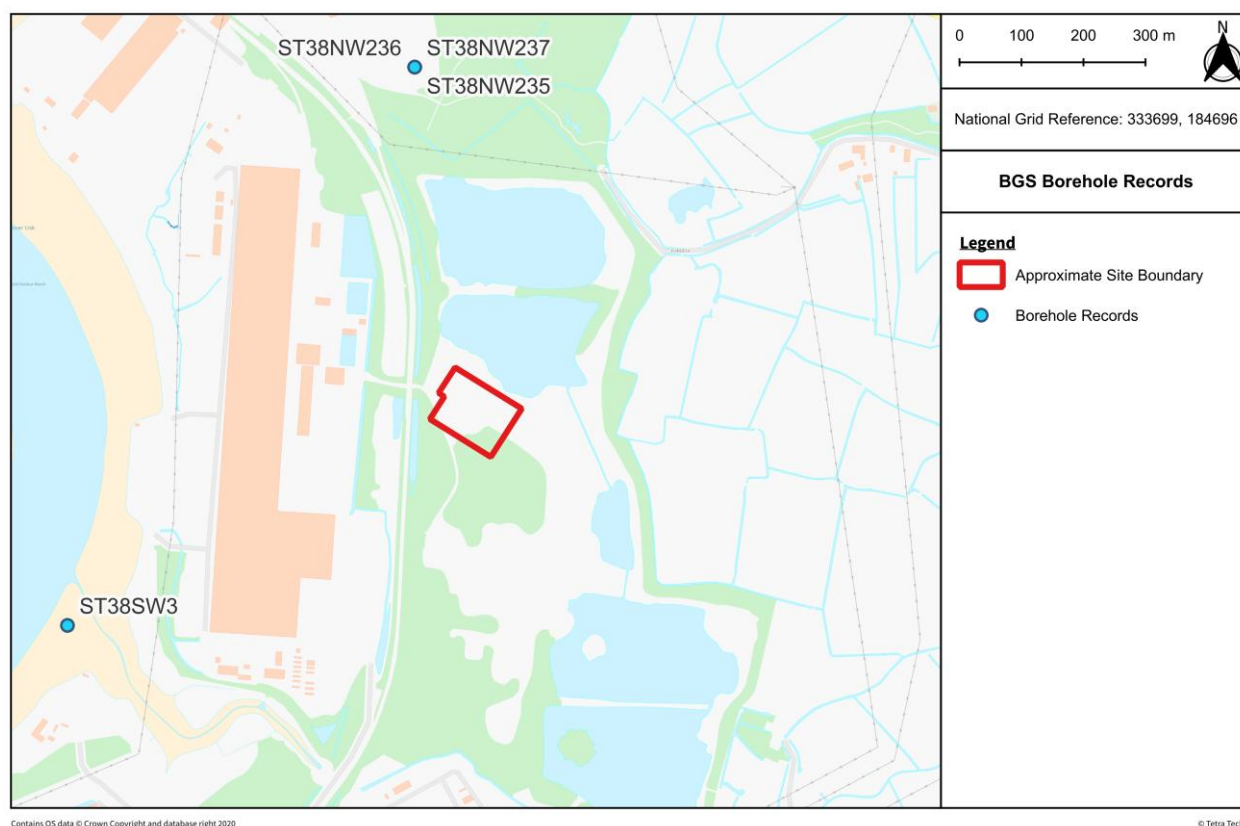


Figure 2-4 BGS Boreholes

Hydrogeology

- 2.5.5 A review of NRW's online natural environment mapping indicates the superficial aquifers underlying the site are classified as Unproductive. Whilst the bedrock aquifers underlying the site are classified as Secondary B.
- 2.5.6 Unproductive strata are largely unable to provide usable water supplies and are unlikely to have surface water and wetland ecosystems dependent on them.
- 2.5.7 Secondary aquifers provide significant quantities of drinking water, and water for business needs. They may also support rivers, lakes and wetlands.
- 2.5.8 Secondary B aquifers are mainly lower permeability layers that may store and yield limited amounts of groundwater through characteristics like thin cracks (called fissures) and openings or eroded layers.

Source Protection Zones (SPZ)

- 2.5.9 A review of NRW's online natural environment mapping indicates that the site is not located within a SPZ.

Internal Drainage Districts (IDD)

- 2.5.10 A review of NRW's online internal drainage district mapping indicates that the site is located within the Caldicot & Wentlooge Levels. Drainage districts are at risk from various sources of flooding. Without flood risk and water level management, drainage districts would be unsuitable to live in and would not protect and provide for the variety of agricultural land, utilities and transport networks that have developed within their boundaries.

3.0 Proposed Development & Planning Policy

3.1 Proposed Development

- 3.1.1 The proposed development comprises of a new modular data centre and associated hardstanding. The development consists of a number of modular buildings (Power Module Units and Modular Data Centres), underlain by hard standing and surrounded by mesh fencing. Additionally, the development will also include provision of power transformers, parking area, and a security portacabin.
- 3.1.2 The development proposals are shown within Appendix A.

3.2 Planning Policy and Guidance

- 3.2.1 The Lead Local Flood Authority (LLFA), SuDS Approval Body (SAB) and Local Planning Authority (LPA) is Newport City Council (NCC).

Technical Advise Note (TAN) 15: development, flooding and coastal erosion

- 3.2.2 TAN15 provides technical guidance to supplement the policies set out within Planning Policy Wales (PPW) and Future Wales in relation to flooding and coastal erosion.
- 3.2.3 In accordance with TAN15 '9. Vulnerability to Flooding', the proposed development would be considered as 'Less Vulnerable', due to the data centre being deemed as commercial/industrial use. However, this is dependent upon the nature of the data being housed at the centre, in some cases it can be treated as especially vulnerable industrial development, therefore, classified as 'Highly vulnerable'.
- 3.2.4 In line with TAN15 '9. Vulnerability to Flooding', applications for all types of development are acceptable in principle for developments located within Flood Zone 1.

Statutory Standards for Sustainable Drainage Systems

- 3.2.5 As outlined in the Statutory Standards for Sustainable Drainage Systems – designing, constructing, operating and maintaining surface water drainage systems, Schedule 3 of the Water and Flood Management Act (2010) which came into force in Wales, January 2019, requires all new developments where the construction area is 100 m² or more, will require sustainable drainage systems (SuDS) for managing surface water.

SuDS Approval Body (SAB)

- 3.2.6 From January 2019, new developments within Wales of more than one dwelling or where the area of construction work equals or exceeds 100 m² require approval before construction can commence from the SAB.
- 3.2.7 The SAB guides developments to consider the following principles when developing SuDS schemes:
- manage water on or close to the surface and as close to the source of the runoff as possible;
 - treat rainfall as a valuable natural resource;
 - ensure pollution is prevented at source, rather than relying on the drainage system to treat or intercept it;
 - manage rainfall to help protect people from increased flood risk, and the environment from morphological and associated ecological damage resulting from changes in flow rates, patterns and sediment movement caused by the development;
 - take account of likely future pressures on flood risk, the environment and water resources such as climate change and urban creep;
 - use the SuDS Management Train, using drainage components in series across a site to achieve a robust surface water management system (rather than using a single “end of pipe” feature, such as a pond, to serve the whole development);
 - maximise the delivery of benefits for amenity and biodiversity;
 - seek to make the best use of available land through multifunctional usage of public spaces and the public realm;
 - perform safely, reliably and effectively over the design life of the development taking into account the need for reasonable levels of maintenance;
 - avoid the need for pumping where possible; and
 - be affordable, taking into account both construction and long term maintenance costs and the additional environmental and social benefits afforded by the system.
- 3.2.8 The SAB also requires planning applications to consider proposals for a maintenance plan and the means of funding for the scheme for its design life. Planning applications seeking SAB approval must demonstrate how they have complied with these principles or provide justification for any departure.

Local Policy Documents

- 3.2.9 The site is located within the administrative boundary of NCC. The NCC Local Development Plan (2011 – 2026) guides development to 2026. The NCC Local Development Plan sets out the following policy with relation to flood risk which should be followed during the design of any development on site:

“SP3: Flood Risk

Newport’s coastal and riverside location necessitates that development be directed away from areas where flood risk is identified as a constraint and ensure that the risk of flooding is not increased elsewhere. Development will only be permitted in flood risk areas in accordance with national guidance. Where appropriate a detailed technical assessment will be required to ensure that the development is designed to cope with the threat and consequences of flooding over its lifetime. Sustainable solutions to manage flood risk should be prioritised.

Flood risk management is a clear consideration for the LDP due to Newport’s coastal location, the River Usk and the complex reën systems on the Gwent Levels. The tidal limit of the Usk extends beyond Newport’s boundary making tidal and fluvial flood risk a key concern for a high proportion of the Authority area. In addition to tidal and fluvial flood risk developers must also consider their effect on surface, groundwater and flood risk from artificial sources, including reservoirs and canals. Watercourses within the Internal Drainage Board (IDB) area must not be culverted and development must avoid obstructing the water course by providing a buffer zone of 12.5m minimum for reëns and 7m minimum for field ditches in order to allow on-going maintenance. It is recommended that developers seek advice and information from Natural Resources Wales, the Local Authority and Internal Drainage Board where relevant.

A Strategic Flood Consequence Assessment (SFCA) has been undertaken to collate and refine the extensive amount of existing information on flood risk within Newport to inform policy production, namely Policies SP3 Flood Risk and GP1 Climate Change and site selection. There are a range of statutory and non-statutory plans and strategies which affect how flood risk is to be managed by the LDP. The development of coastal strategies (Shoreline Management Plan) and catchment focused strategies (Catchment Flood Management Plans for River Usk and Eastern Valleys) deal with a range of flooding issues and a consistent approach towards such a complex issue is required and will be brought together in the SFCA. The Plan sets out its approach to planning within its Coastal Zone in Chapter 4.

There is a clear requirement to address the issue of flood risk and flood resilience and resistance measures in developments. The Plan sets out its approach to flood risk in Policy GP1: Climate Change.”

“SP4: Water Resources

Development proposals should minimise water consumption, protect water quality during and after construction and result in no net increase in surface water run-off through the sustainable management of water resources by:

- i) the use of sustainable drainage systems;*
- ii) the reuse of water and reduction of surface water run-off through high quality designed developments;*
- iii) careful consideration of the impact upon finite water resources, particularly in terms of increased pressures on abstraction and the impact of climate change;*
- iv) ensuring development is appropriately located and phased so that there is capacity in the waste water, sewerage and water supply as well as the protection of water quality.*

Sustainability is an overriding objective of the Plan with conservation and enhancement of water resources being a main element. SUDS (Sustainable Drainage Systems) are designed to minimise the quantity and improve the quality of surface water before discharge by dealing with run-off water as close to the source as possible. This minimises the pollution discharged into watercourses, reduces the quantity of water discharged to sewer or outfall while increasing the amount of water infiltrating the ground. These effects can benefit the nature conservation, landscape and amenity value of both site and surroundings and be a major contributor to sustainable development. Further advice on SUDS will be provided through anticipated technical guidance at the national scale, local guidance will be provided where necessary. Developers will be expected to demonstrate that they can reduce any adverse effects of their proposed development on the water environment by encouraging the use of SUDS, where appropriate, at an early stage of the process.

Natural Resources Wales has the statutory responsibility to manage water resources and it does this through its abstraction licensing procedures. Almost all water abstractions require a licence. Dwr Cymru/Welsh Water provides mains water supplies to the majority of households and many of the businesses in the plan area. All abstractions, including existing ones, impact on the water environment through removal of water from our rivers and lakes. The recent review of consents undertaken as part of the European Habitat Regulations requirements by the Natural Resources Wales has sought to ensure that the water resource being removed from recognised Natura 2000 ecological sites is not having or will not have a significant effect on the conservation objectives for the site. Therefore developers are required to ensure that they consider the impact of such a review on future water supply and that they are able to provide a sustainably sourced water supply and waste water treatment in line

with any restrictions placed on abstractions set by the Environment Agency (now Natural Resources Wales) review. The developer must ensure that there is environmental capacity to support the development. The Council will seek to ensure that Natural Resources Wales is consulted on any proposal which is likely to affect the supply of water, the quality of water, or is likely to be affected by, or cause flooding, as appropriate.”

- 3.2.10 Additionally, the site has been identified within the NCC Local Development Plan: Candidate Site Register (2023), as shown in Appendix B, with reference CS-0064.

4.0 Flood Risk

4.1 Historic Flooding

- 4.1.1 NRW Recorded Flood Extents mapping indicates no historic flooding at the site. However, there is a recorded flood extent approximately 550m to the northwest of the site, adjacent to the River Usk. This recorded event occurred in December 1981 (see Figure 4-1).

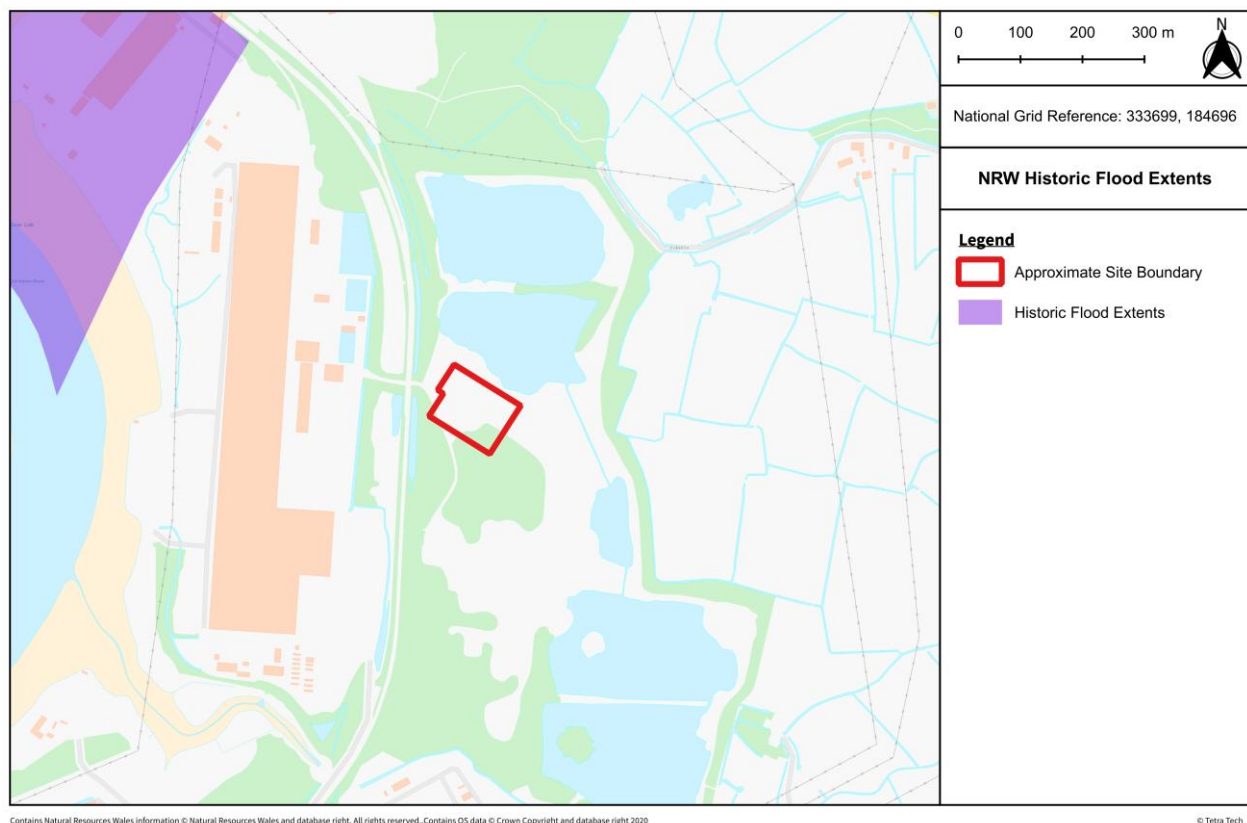


Figure 4-1 NRW Historic Flood Extents

4.2 Tidal and Fluvial Flood Risk

- 4.2.1 A floodplain is the area that would naturally be affected by flooding if a river rises above its banks or is inundated by the sea (coastal or tidal flooding). In Wales, flood zones are defined by TAN15 for planning purposes. These are defined as:
- Flood Zone 1 – less than 1 in 1,000 (0.1%) (plus climate change) chance of flooding in a given year;
 - Flood Zone 2 – less than 1 in 100 (1%) but greater than 1 in 1,000 (0.1%) chance of fluvial flooding in a given year, including climate change or a less than 1 in 200

(0.5%) but greater than 1 in 1,000 chance of tidal flooding, including climate change;

- Flood Zone 3 – A greater than 1 in 100 (1%) chance of fluvial flooding in a given year, including climate change or a greater than 1 in 200 chance of tidal flooding in a given year, including climate change; and
- TAN15 Defended Zones – Areas where flood risk management infrastructure provides a minimum standard of protection against flooding from rivers of 1 in 100 plus climate change and freeboard or areas where flood risk management infrastructure provides a maximum Standard of Protection (SoP) against flooding from the sea of 1 in 200 plus climate change and freeboard.

4.2.2 The site is wholly located within Flood Zone 1 for both tidal and fluvial flood risk, as shown in Figure 4-2. Therefore, the risk of flooding from tidal and fluvial sources is considered as **low**.

4.2.3 The entire area of Flood Zones 2 and 3 to the north and a strip of land to the west of the site are indicated to be a TAN15 defended zone. According to NRW flood mapping, which indicates presence of flood defences, an embankment on the mouth of the River Severn to the south of the site at Saltmarsh and an embankment indicated to the northwest of the site just north of Coronation Park, on the River Usk are present in vicinity of the site.

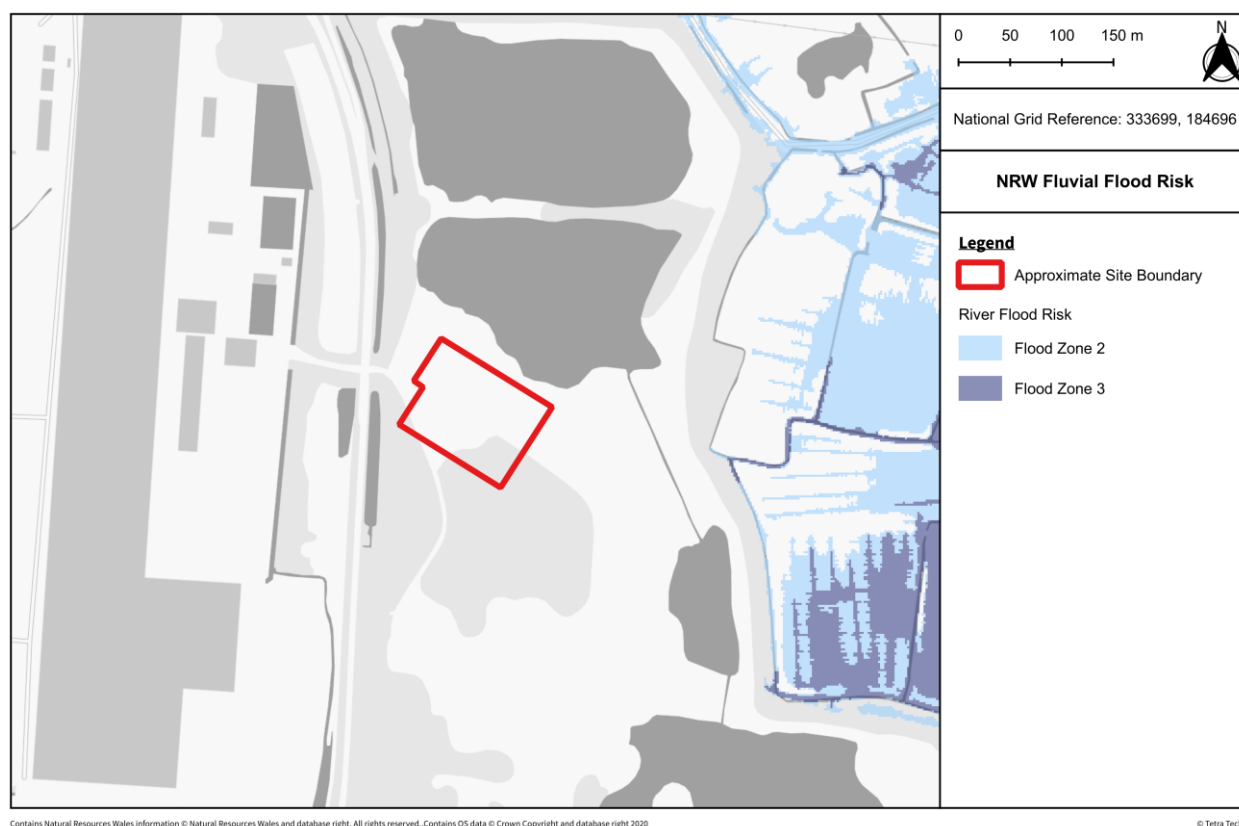


Figure 4-2 NRW River Flood Risk map

4.2.4 The site is located within the NRW Usk Estuary Flood Alert and 103FWTt06 Flood Warning Areas, as shown in Figure 4-3.

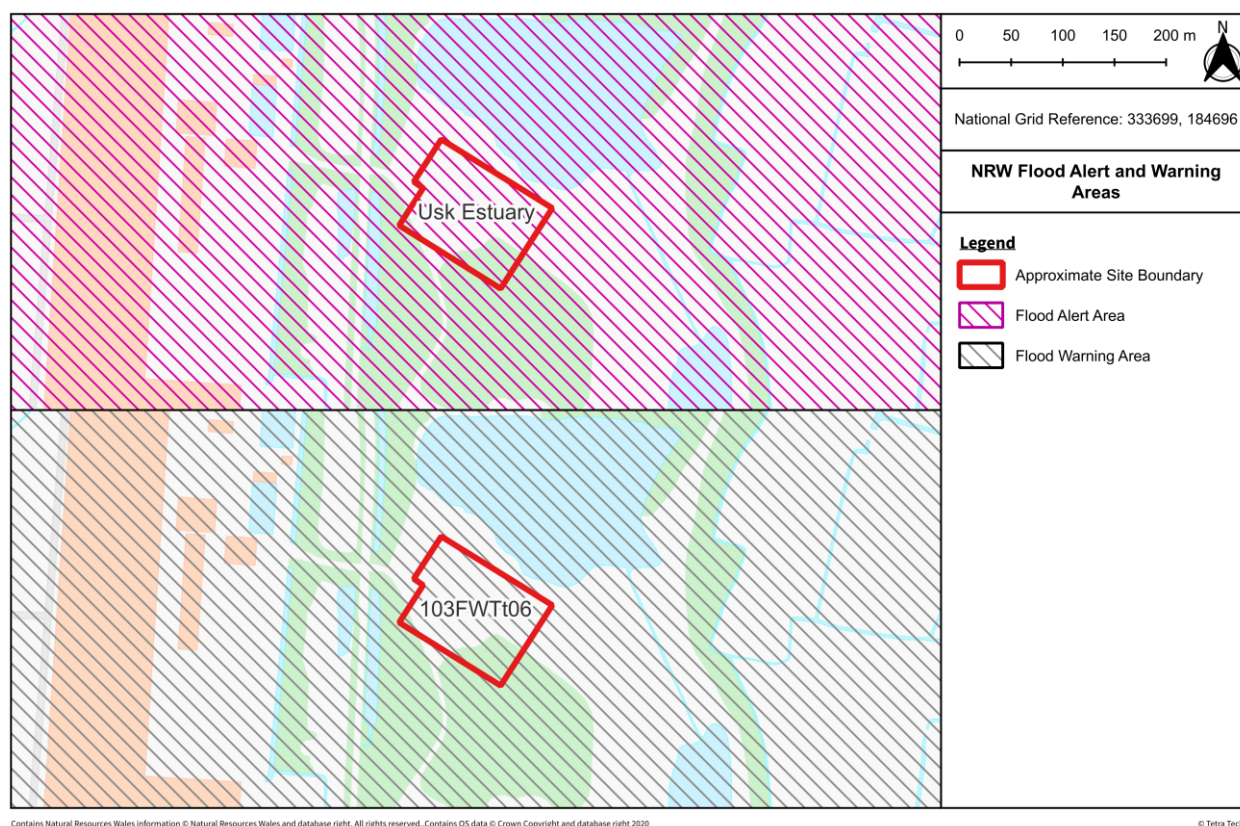


Figure 4-3 Flood Alert and Warning Area

- 4.2.5 Based on the above findings, the risk of flooding from tidal and fluvial sources is considered as **low** in both the present day and climate change scenarios.

4.3 Surface Water and Overland Flows

- 4.3.1 Surface water flooding can occur during high intensity rainfall events as sheet runoff from fields or hard paved areas. It is particularly prevalent in areas with significant hard standing or poorly permeable soils (i.e. clay). This is because the grounds capacity for infiltration is reduced. In addition, the inability to enter local drainage systems also contributes to risk from this source. The risk of surface water flooding is divided as follows, as defined by NRW:

- Flood Zone 1 – Areas with less than 1 in 1,000 (0.1%) (plus climate change) chance of flooding in a given year.
- Flood Zone 2 – Areas with less than 1 in 100 (1%) but greater than 1 in 1000 (0.1%) chance of flooding in a given year, including climate change.
- Flood Zone 3 – Areas with a greater than 1 in 100 (1%) chance of flooding in a given year, including climate change.

- 4.3.2 The extent of surface water flooding at the site is shown in Figure 4-4. There is a minor, isolated area of Flood Zone 2 within the site extent, located in the southeast portion, associated with a topographical low spot. No further surface water flooding is located within the site extent.
- 4.3.3 Further isolated areas of Flood Zone 2 are located outside of the site extent, approximately 10m and 50m to the south of the site. There is also evidence of a Flood Zone 2 flow path approximately 20m west of the site at the boundary of the railway line.

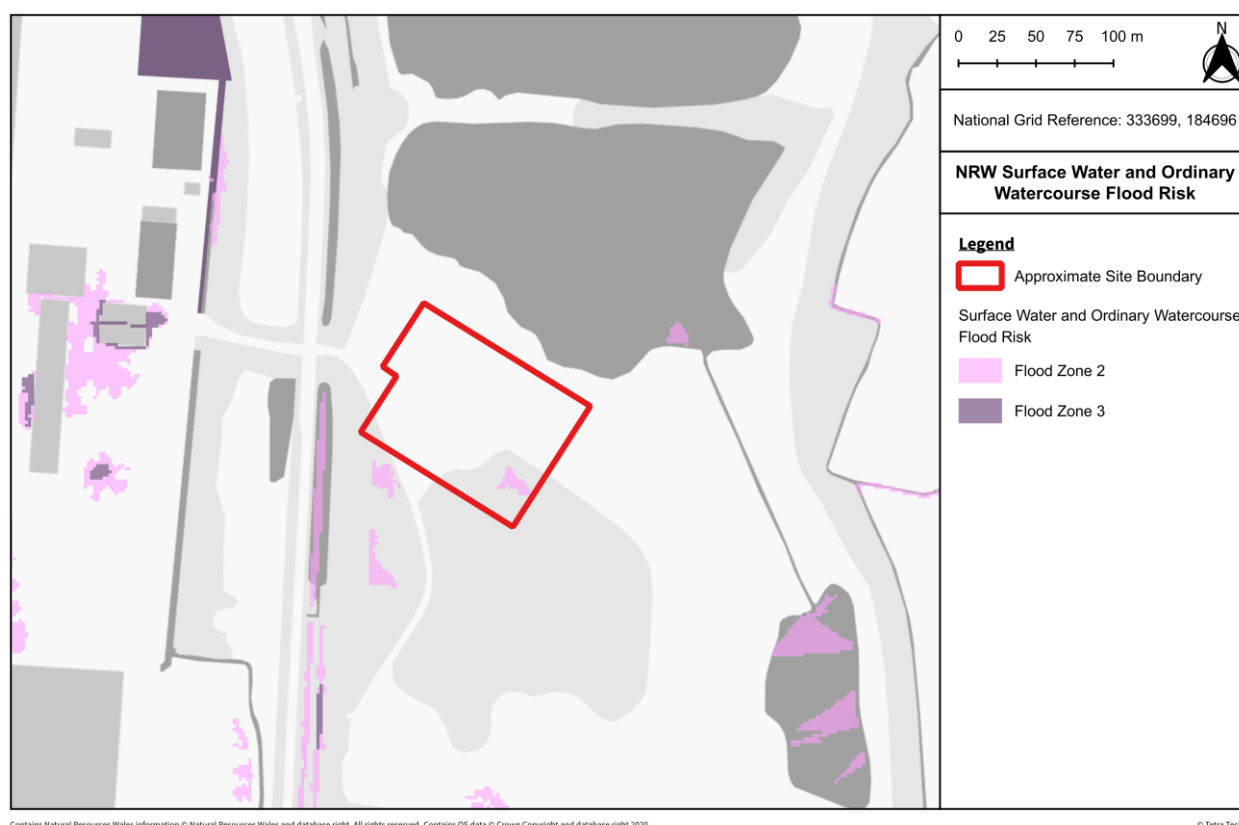


Figure 4-4 NRW Surface Water and Ordinary Watercourse Flood Risk

- 4.3.4 Surface water depth mapping from NRW for the high (3.3% AEP), medium (1% AEP) and low (0.1% AEP) risk events is provided in Figure 4-5.
- 4.3.5 In both the high (3.3% AEP) and medium (1% AEP) risk event, there is no recorded surface water at any depth throughout the site.
- 4.3.6 In the low (0.1% AEP) risk event, the site is largely indicated to remain free from surface water flooding, however depths of up to 0.3 m as a result of pooling at the topographical low spot to the southeast is indicated.

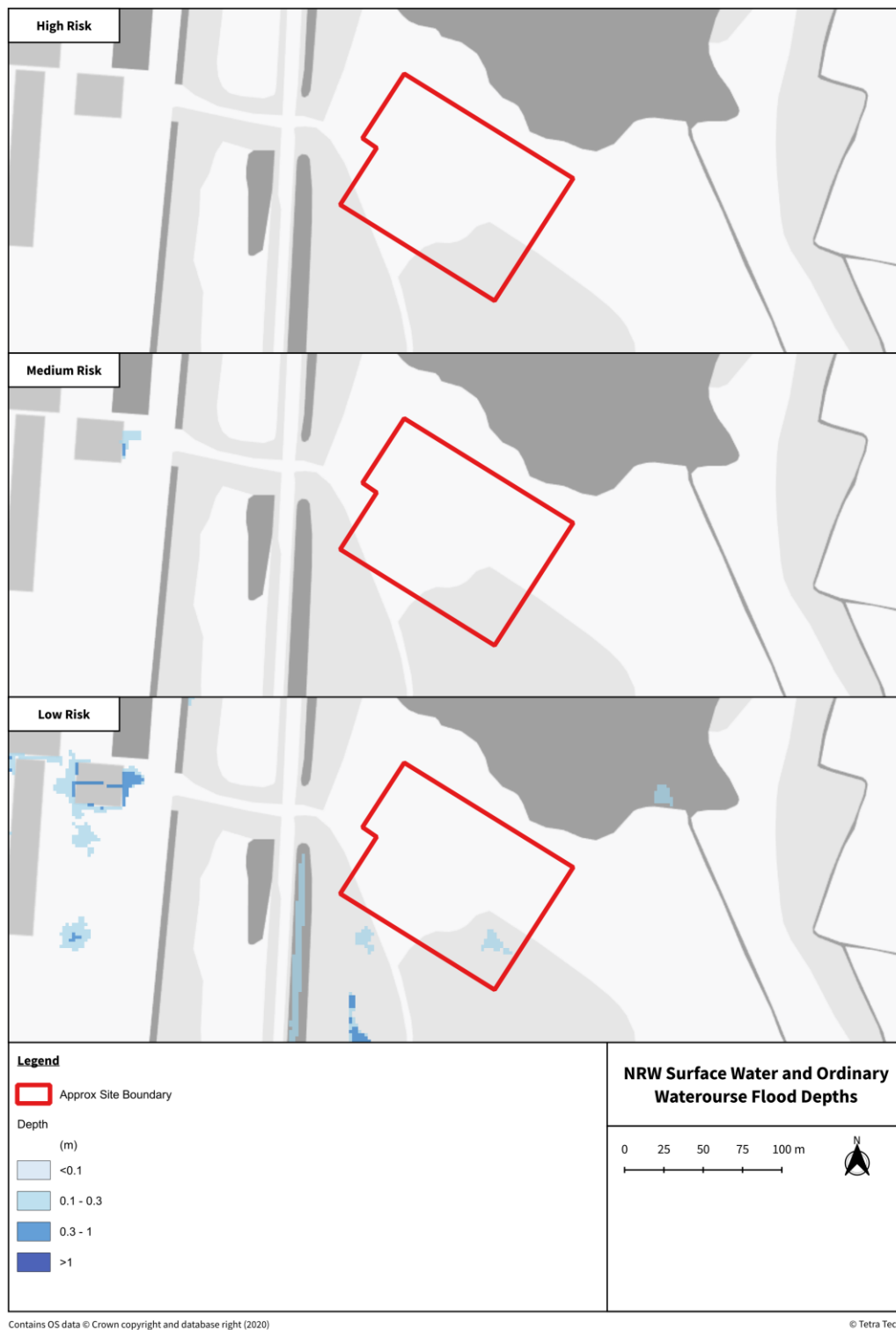


Figure 4-5 NRW Surface Water Depths

4.3.7 It should be noted that NRW surface water extent and depth mapping does not consider the presence of private and local drainage networks. However as

discussed in Section 2.4; it is anticipated that there is no private drainage network serving the site.

- 4.3.8 The risk of flooding to the site is therefore considered to be **low** for present day and climate change scenarios.

4.4 Groundwater Flooding

- 4.4.1 Groundwater flooding occurs when water levels in the ground rise above the land surface. This type of flooding is most likely to occur in areas above an aquifer. The occurrence of groundwater flooding is usually local and does not generally pose a significant risk to life due to the slow rate at which the water level rise.
- 4.4.2 The South West Wales Stage 1 Strategic Flood Consequence Assessment (SFCA) (2022) Indicative Groundwater Flood Depth map indicates that the site is located where there is low risk of groundwater flooding.
- 4.4.3 The risk of groundwater flooding is therefore considered as **low**.

4.5 Sewer Flooding

- 4.5.1 Sewer flooding occurs when intense rainfall overloads the sewer system capacity and/or when sewers cannot discharge properly to watercourses due to high water levels. Sewer flooding can also be caused when problems such as blockages, collapses or equipment failure occur in the sewerage system.
- 4.5.2 As outlined in Section 2.4, the site is anticipated to have no private drainage network serving it.
- 4.5.3 Based on the above, the overall risk of sewer flooding is considered to be **negligible**.

4.6 Reservoir Flooding

- 4.6.1 Flooding from reservoirs occurs when a reservoir dam is overtopped or breaches due to structural failure. The consequence of such an event would be severe but the probability of a catastrophic dam failure is considered to be extremely low due to the management and maintenance required under the Reservoirs Act 1975.
- 4.6.2 According to the NRW flood risk mapping (see Figure 4-6), the site is shown to be located within an area at risk of reservoir flooding in the extremely unlikely event a reservoir breach occurred.

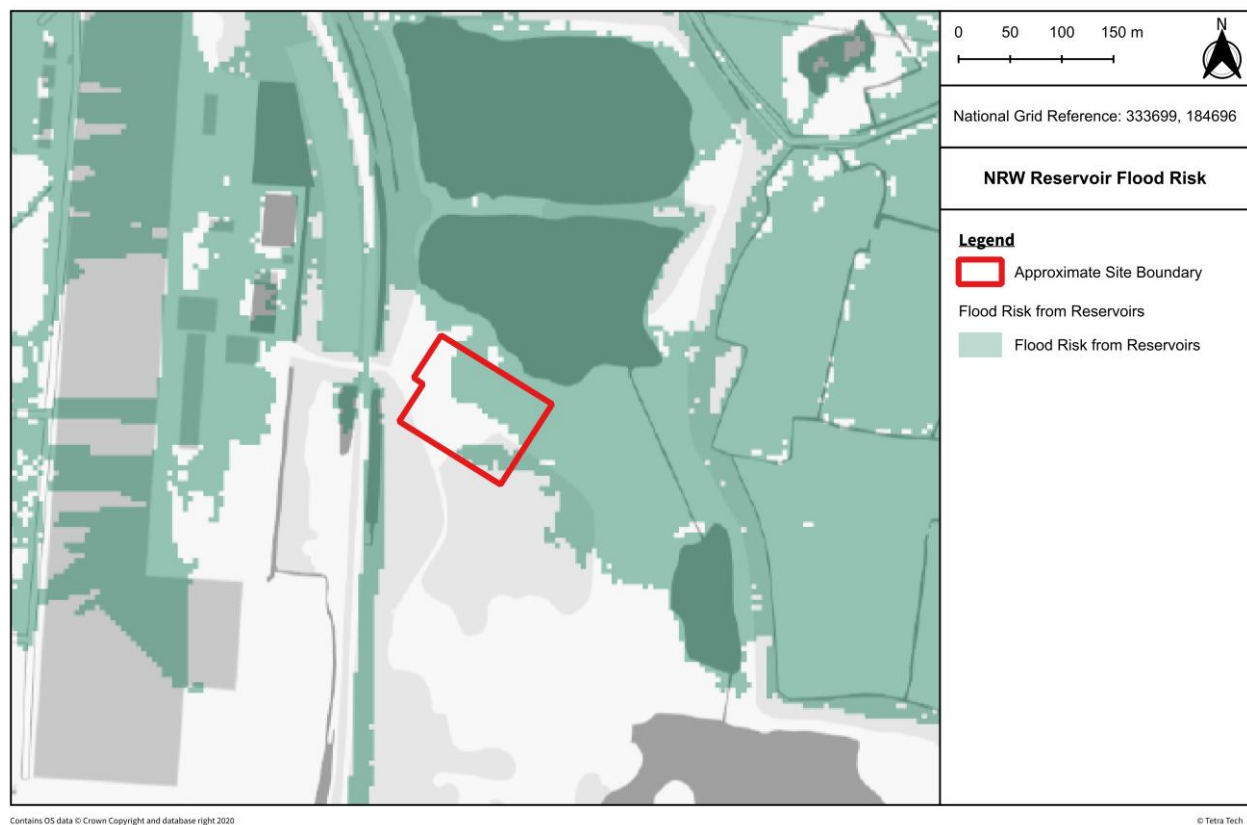


Figure 4-6 NRW Reservoir Flood Risk

4.6.3 Due to the low likelihood of an event, the overall risk of reservoir flooding is considered **low**.

4.7 Canal Flooding

4.7.1 Flooding from a canal occurs when the canal is overtopped or breaches due to failure.

4.7.2 No canals are located within the proximity of the site.

4.7.3 The risk of flooding from canals is therefore considered to be **negligible**.

4.8 Summary of Flood Risk

4.8.1 The flood risk at the site is summarised in Table 4-1.

Table 4-1: Flood Risk Summary

Source	Present Day Risk	Future Risk
Fluvial	Low	Low
Tidal	Low	Low
Surface Water	Low	Low
Groundwater	Low	Low
Sewer	Negligible	Negligible
Reservoir	Low	Low
Canals	Negligible	Negligible

Flood Risk to Potential Development

- 4.8.2 As discussed in Section 4, the overall risk of surface water flooding in the present day and climate change scenarios for the site is considered to be low, with only a minor, isolated low spot associated with surface water and ordinary watercourse flooding located within Flood Zone 2.
- 4.8.3 The site is considered to be at low or negligible risk of flooding from all other sources.

Flood Risk Arising from the Development

- 4.8.4 Given that the site is currently primary scrubland, there will be an increase in hardstanding and impermeable areas as a result of the development. Therefore, as part of the detailed design of the site a surface water drainage strategy will be prepared, compliant with Statutory standards for sustainable drainage systems – designing, constructing, operating and maintaining surface water drainage systems (2018) and the NCC Local Development Plan (2011 – 2026), that will manage surface water runoff from the site such that there will be no increase in surface water runoff from the site, and therefore no increase in flood risk to the site or surrounding areas. The site has sufficient space to manage surface water runoff.
- 4.8.5 The surface water drainage strategy will form part of the SAB application which will be required in addition to the planning application for approval. The latest SuDS Standards for Wales recommends that detention basins, bioretention areas, and rain gardens can be used where the drained impermeable surface area is less than 5 times the vegetated surface area receiving the runoff. It is recommended to engage NCC as the SAB to agree design standards for SuDS.

5.0 Conclusions and Recommendations

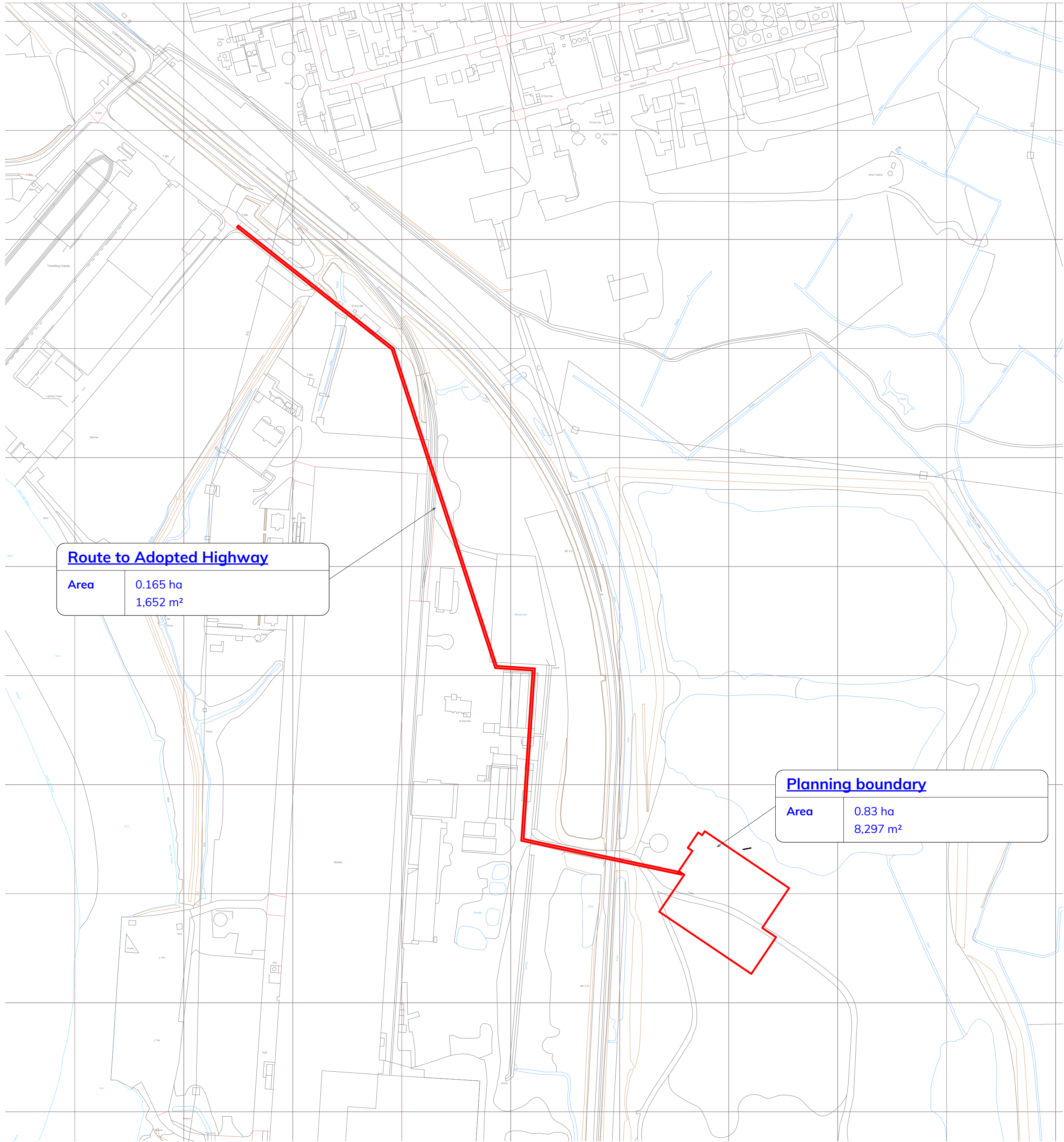
5.1 Conclusions

- 5.1.1 Tetra Tech Ltd have been appointed by Era4 Limited (the ‘Client’) to prepare a Flood Consequence Assessment (FCA) to support an outline planning application for a modular data centre on the land to the east of the Liberty Steel Site, located at Newport Data Centre situated at the former Liberty Steelworks off Corporation Road in Newport, nearest postcode NP18 2BU.
- 5.1.2 The existing site is primarily shrubland with an unpaved road through the centre of the site. The site slopes gently from west to east. The River Usk and Julians Reen, both NRW Main Rivers, are located approximately 500 m west and south of the site respectively.
- 5.1.3 The assessment of flood risk to the site and different elements within it has been informed by NRW flood risk mapping.
- 5.1.4 The risk of surface water flooding is primarily considered to be low in the present day and climate change scenarios, with only a minor, isolated low spot located within Flood Zone 2.
- 5.1.5 The risk of flooding from all other sources is considered as low to negligible.

5.2 Design Considerations

- 5.2.1 Based on the above, the following will be required when designing the site in detail:
- The requirements set out in Policy SP3 and SP4 of the NCC Local Development Plan (2011 – 2026) included within any design at the site where appropriate;
 - A surface water drainage strategy prepared to manage site runoff, compliant with local and national guidance, including the Statutory standards for sustainable drainage systems – designing, constructing, operating and maintaining surface water drainage systems (2018), and the NCC Local Development Plan (2011 – 2026);
 - A SAB application undertaken in conjunction with the future design proposal in order to gain the approval of SuDS incorporated within the proposed drainage strategy.

Appendix A: Development Proposals



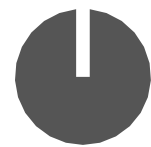
1 **Site Location Plan**
1:2500



- General Notes:**
- Do not scale off this drawing unless a scale bar is provided.
 - Any ambiguities, omissions and errors on this drawing should be notified immediately to the Architect before the commencement of works on site.
 - Dimensions are in millimetres unless otherwise stated.
 - Dimensions, unless otherwise indicated, are to the face of unfinished block walls or to the finished plaster face of stud partitions.
 - Dimensions are to be checked on site. Discrepancies are to be notified immediately to the Architect before the commencement of works on site.
 - All levels are in meters unless otherwise stated.
 - This drawing is to be read in conjunction with all other relevant drawings and specifications for this project.

Revision Notes:					
Rev.	Date	Notes	Issuer	Checker	
P1	2026-03-11	Preliminary Planning	OTH	BH	
P2	2026-03-18	Redline Boundary Updated	OTH	BH	

0 100m
1:2500



Carbon3.ai

Newport

Job Number: 25-0071
Project Address: 51.557733, -2.960885

Client Name: Carbon3.ai

Director / Associate: Oliver Higgins

Status: S3 Preliminary

Sheet Size: A1P

Project Lead: Ivan Tomasevic

Functional Breakdown: S1

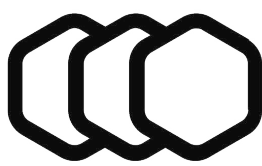
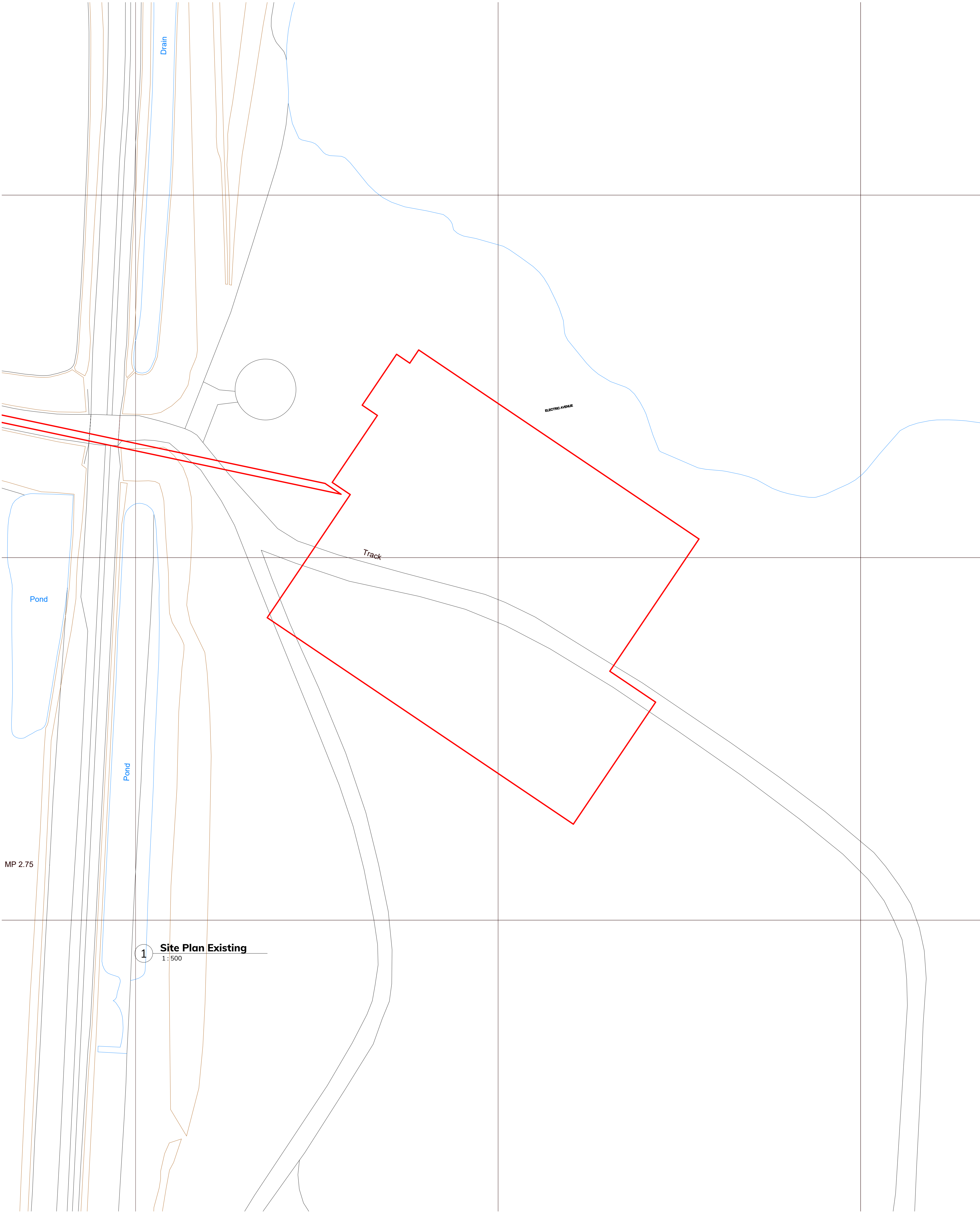
Scale: 1:2500

Drawing Name: **Site Location Plan**

Full Document Reference:
VLS-FEA-S1-XX-DP-A-0002

Document Number: **0002**
Current Revision: **P2**
Revision Date: **2026-03-18**

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- General Notes:**
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 2. Any ambiguities, omissions and errors on this drawing should be notified immediately to the Architect before the commencement of works on site.
 3. Dimensions are in millimetres unless otherwise stated.
 4. Dimensions, unless otherwise indicated, are to the face of unfinished block walls or to the finished plaster face of stud partitions.
 5. Dimensions are to be checked on site. Discrepancies are to be notified immediately to the Architect before the commencement of works on site.
 6. All levels are in meters unless otherwise stated.
 7. This drawing is to be read in conjunction with all other relevant drawings and specifications for this project.

Revision Notes:				Issuer		Checker
Rev.	Date	Notes				
P1	2026-03-11	Preliminary Planning		OTH	BH	
P2	2026-03-18	Redline Boundary Updated		OTH	BH	



Carbon3.ai

Newport

Job Number: 25-0071
Project Address: 51.557733, -2.960885

Client Name: Carbon3.ai

Director / Associate: Oliver Higgins

Status: S3 Preliminary

Sheet Size: A1P

Project Lead: Ivan Tomasevic

Functional Breakdown: S1

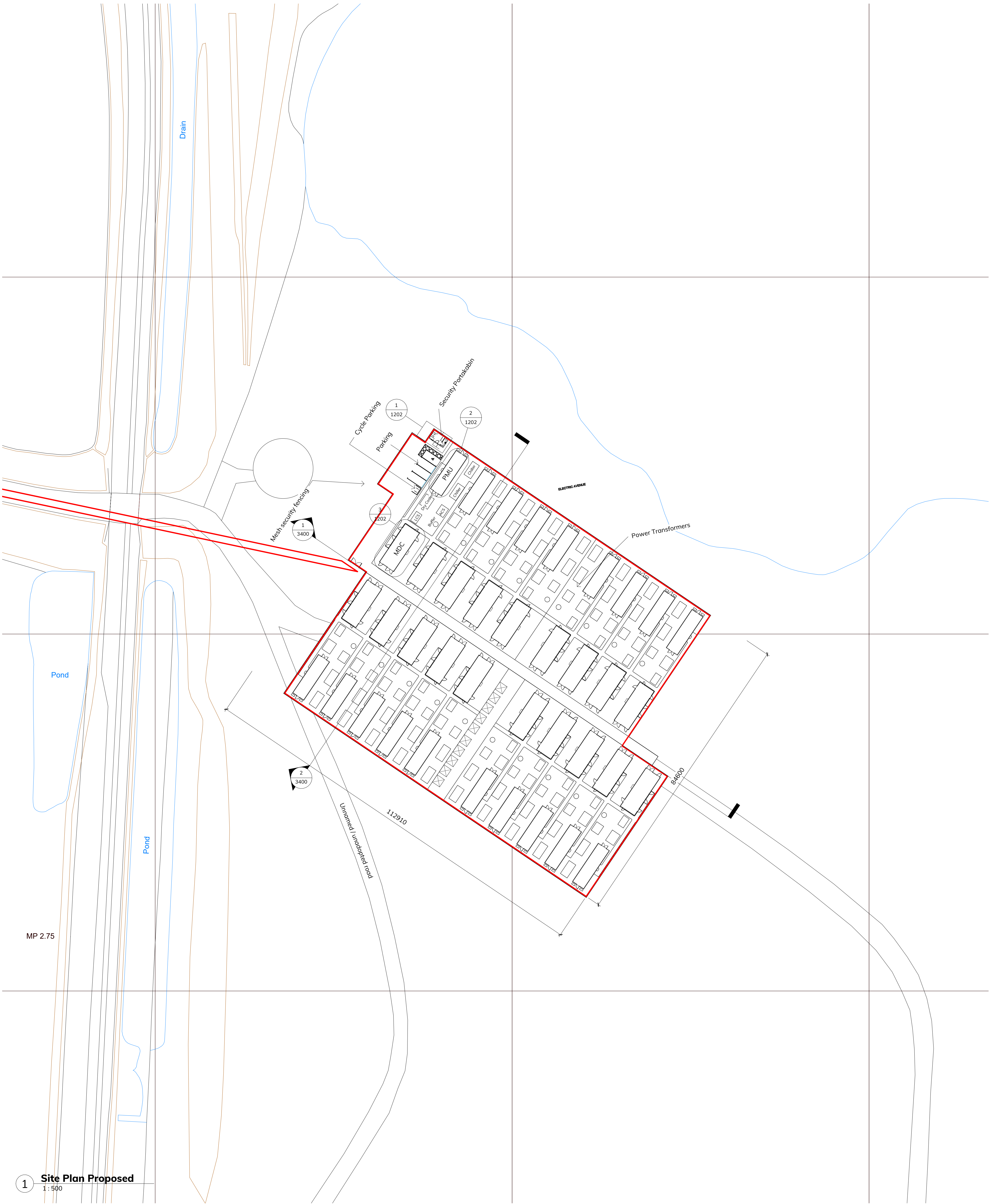
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Drawing Name: Existing Site Plan

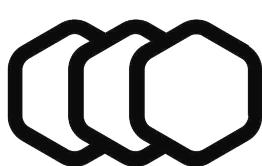
Full Document Reference:
VLS-FEA-S1-XX-DP-A-1100

Document Number: 1100
Current Revision: P2
Revision Date: 2026-03-18

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1 Site Plan Proposed
1:500



Carbon3.ai

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 - Dimensions are in millimetres unless otherwise stated.
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 - Dimensions are to be checked on site. Discrepancies are to be notified immediately to the Architect before the commencement of works on site.
 - All levels are in meters unless otherwise stated.
 - This drawing is to be read in conjunction with all other relevant drawings and specifications for this project.

Revision Notes:					
Rev.	Date	Notes	Issuer	Checker	
P1	2026-03-11	Preliminary Planning	OTH	BH	
P2	2026-03-18	Redline Boundary Updated	OTH	BH	



Carbon3.ai

Newport

Job Number: 25-0071
Client Name: Carbon3.ai
Project Address: 51.557733, -2.960885

Director / Associate: Oliver Higgins
Status: S3 Preliminary
Sheet Size: A1P
Project Lead: Ivan Tomasevic
Functional Breakdown: S1
Scale: 1:500

Drawing Name:
Proposed Site Plan

Full Document Reference:
VLS-FEA-S1-XX-DP-A-1201

Document Number: 1201
Current Revision: P2
Revision Date: 2026-03-18

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Appendix B: NCC Local Development Plan Candidate Site Register (October 2023) – Gwent Levels

