

GENERAL NOTES

DRAWINGS AND SPECIFICATIONS: This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialists drawings together with the specification.

Data obtained from Natural Resources Wales NRW.

To be used for Flood Consequence Assessment (FCA) planning phase only.
NOT FOR CONSTRUCTION.

Key

Site Boundary

Flood Water Velocity

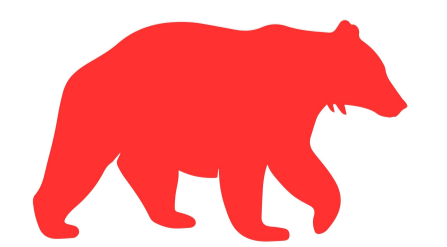
- <= 0.10m/s
- 0.10 - 0.20m/s
- 0.20 - 0.30m/s
- 0.30 - 0.45m/s
- > 0.45m/s

1 In 1000 Year Flood Event Flood Velocity (with 2115 Climate Change Horizon Year with Flood Defence)

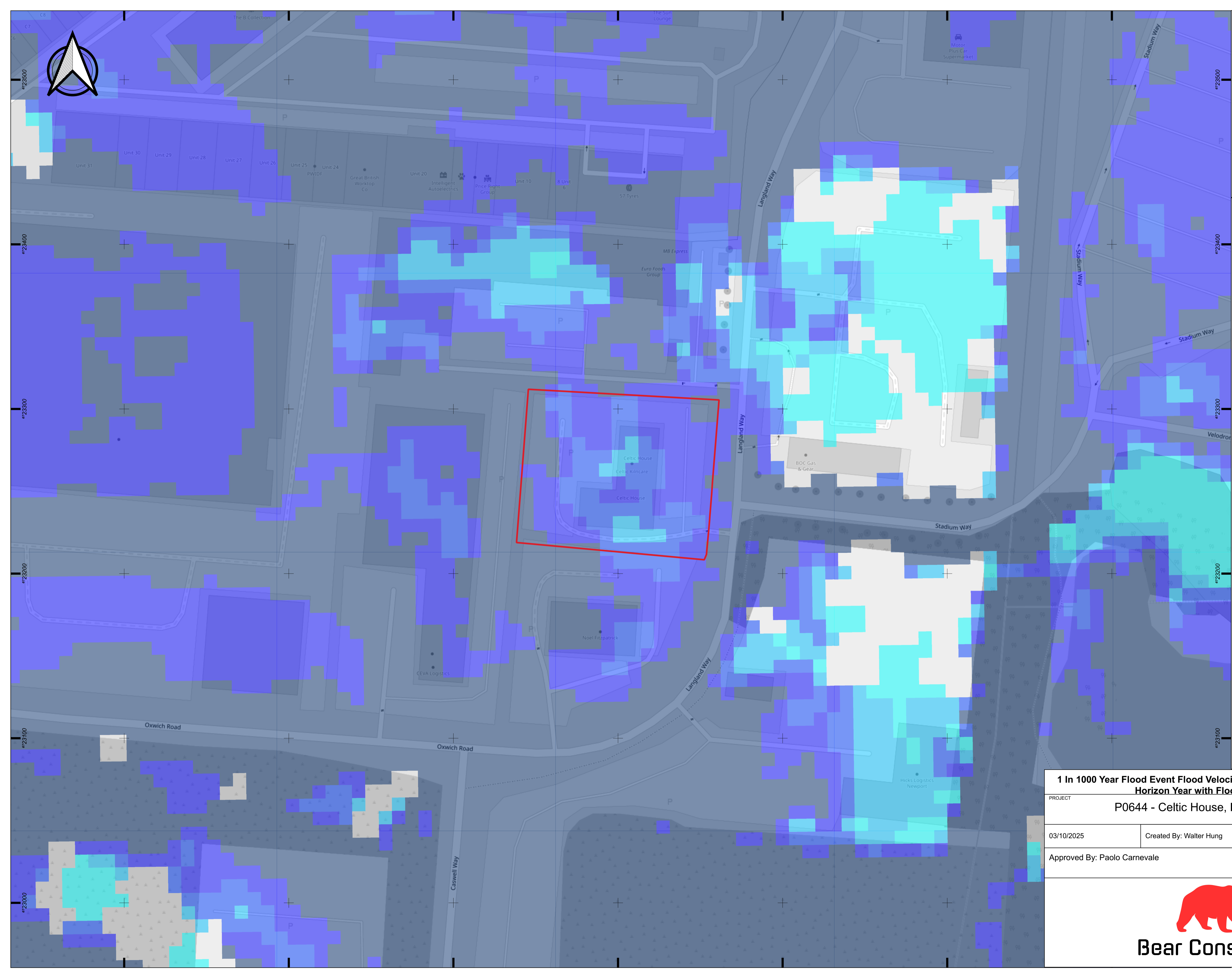
PROJECT
P0644 - Celtic House, Langland Way

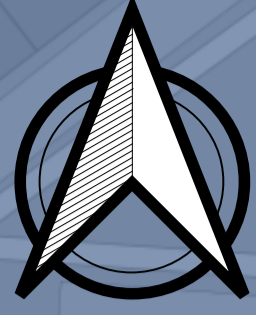
03/10/2025 Created By: Walter Hung Scale 1:1,000

Approved By: Paolo Carnevale



Bear Consulting





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Key

Flood Depth

- <= 0.30m ■
- 0.30 - 0.60m ■
- 0.60 - 0.80m ■
- 0.80 - 1.00m ■
- > 1.00m ■

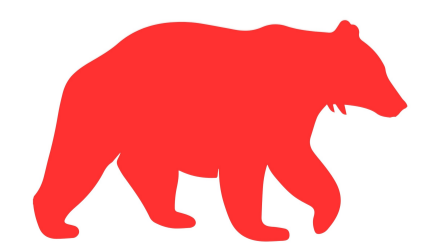
Site Boundary —

1 In 1000 Year Flood Event Flood Depth (with 2115 Climate Change Horizon Year and 95% Confidence Interval with Flood Defence)

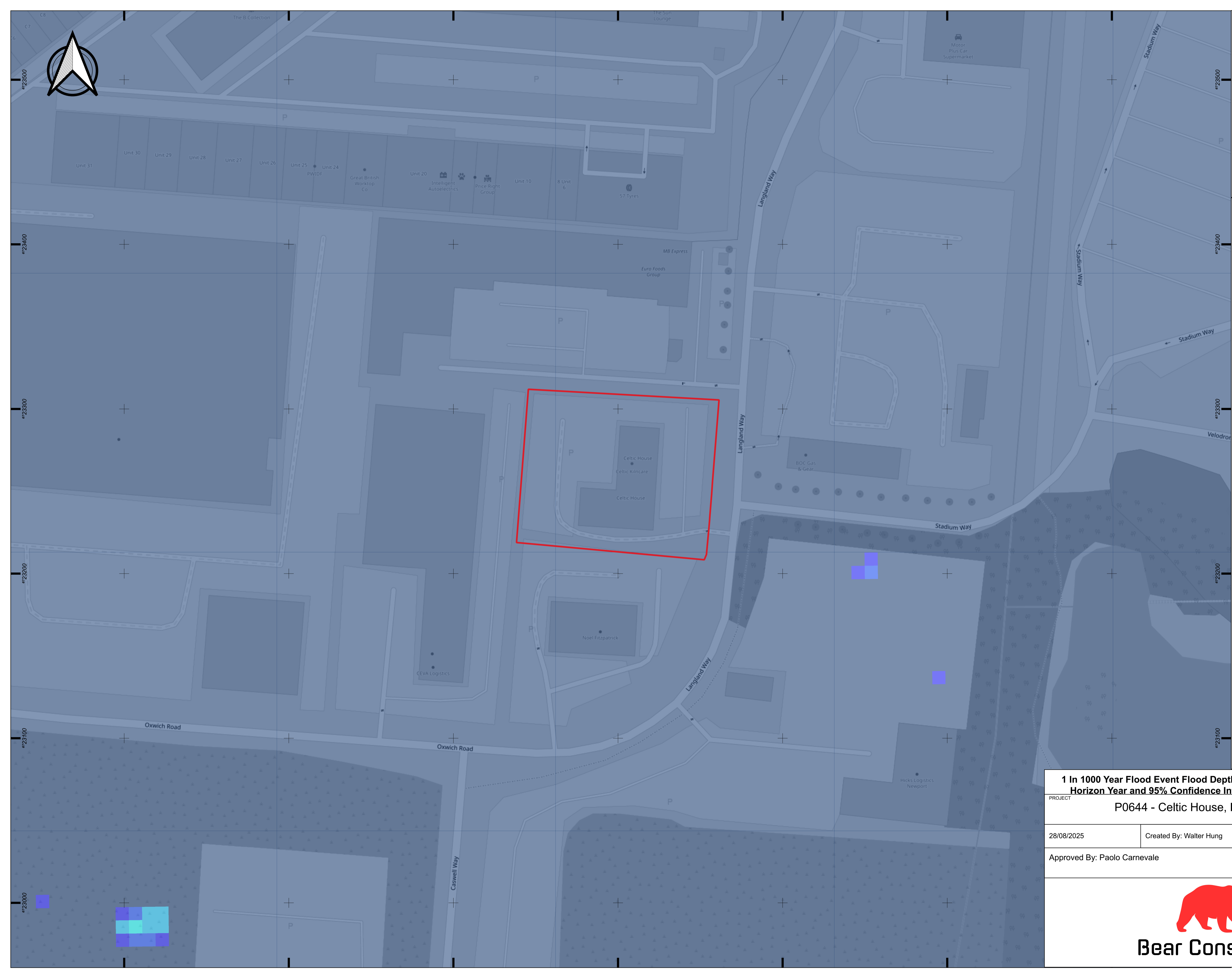
PROJECT
P0644 - Celtic House, Llangland Way

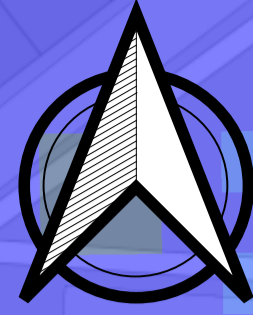
28/08/2025 Created By: Walter Hung Scale 1:1,000

Approved By: Paolo Carnevale



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Key

Site Boundary 

Flood Water Velocity

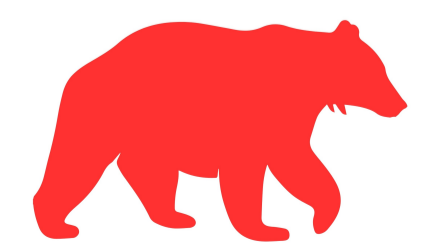
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-  0.20 - 0.30m/s
-  0.30 - 0.45m/s
-  > 0.45m/s

1 In 1000 Year Flood Event Flood Velocity (with 2115 Climate Change Horizon Year and 95% Confidence Interval with Flood Defence)

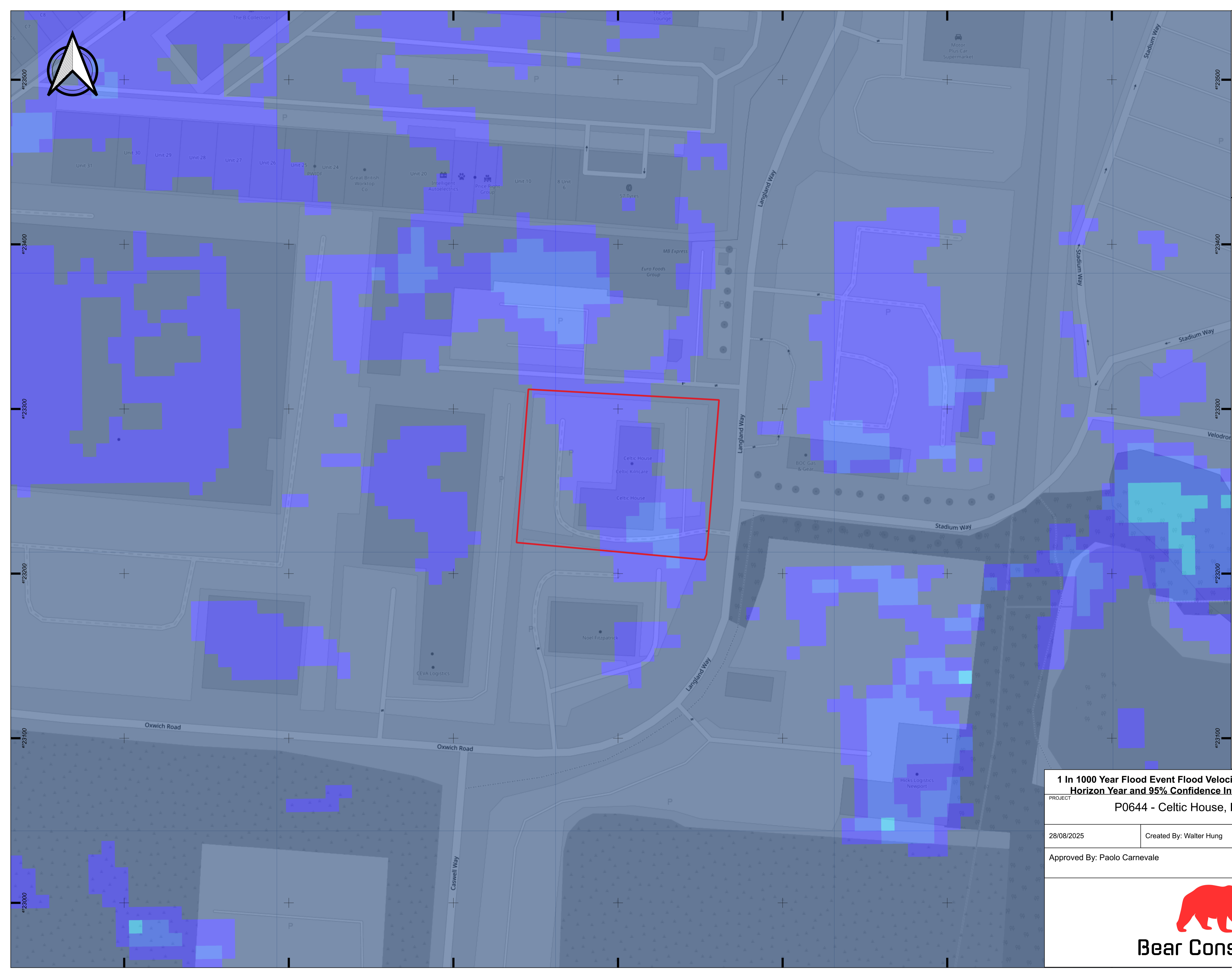
PROJECT
P0644 - Celtic House, Langland Way

28/08/2025 Created By: Walter Hung Scale 1:1,000

Approved By: Paolo Carnevale

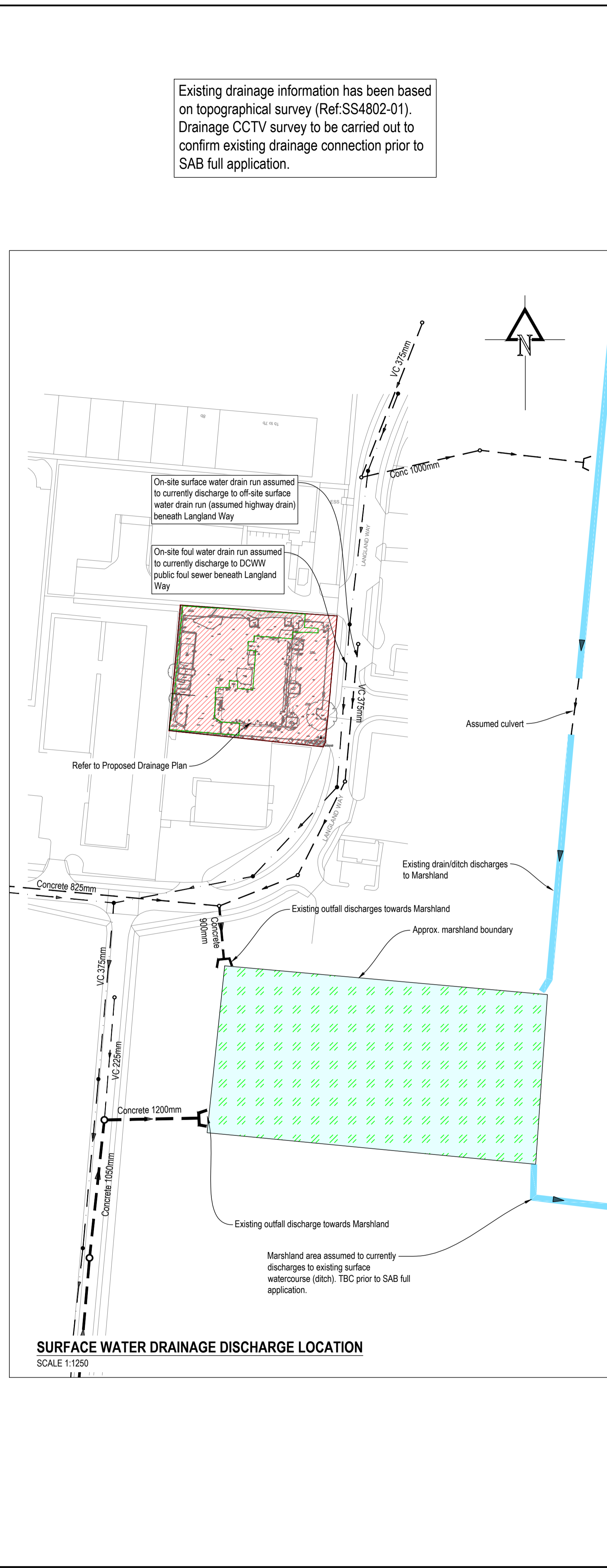
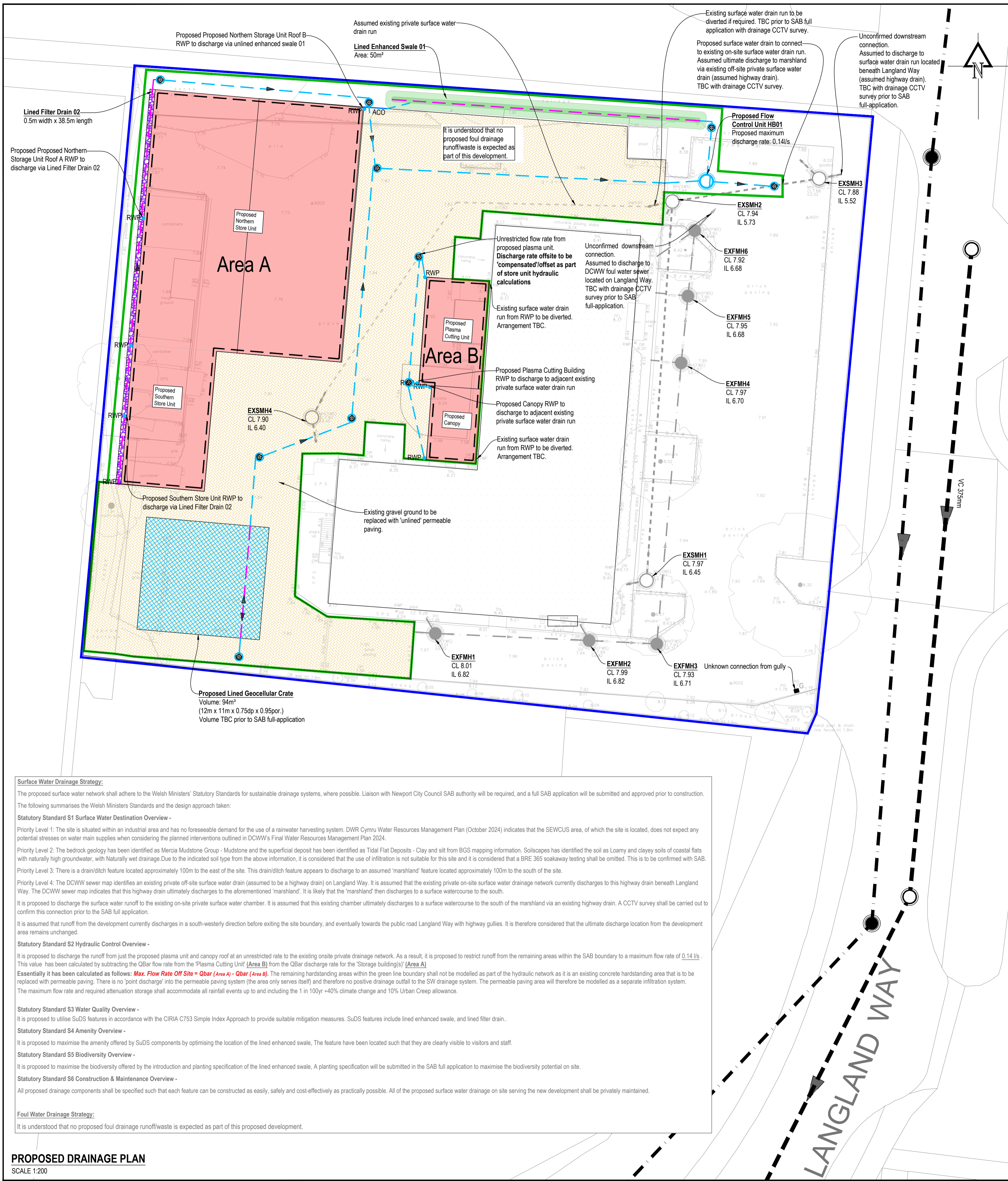


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Appendix H



Existing drainage information has been based on topographical survey (Ref:SS4802-01). Drainage CCTV survey to be carried out to confirm existing drainage connection prior to SAB full application.

KEY

- SAB Boundary
- Applicant Ownership Boundary
- Existing On-Site Private Foul Water Chamber
- Existing On-Site Private Surface Water Chamber
- Existing DCWW Public Foul Water Chamber
- Existing Off-Site Private Surface Water Chamber (Assumed Highway Drain Chamber)
- Existing On-Site Private Foul Water Drain
- Existing On-Site Private Surface Water Drain
- Existing DCWW Public Foul Water Sewer
- Existing Off-Site Private Surface Water Drain (Assumed Highway Drain)
- Existing Surface Water Outfall
- Existing Watercourse (Assumed Ditch)
- Existing Watercourse (Assumed Marshland)
- Proposed Lined Filter Drain
- Proposed Private Surface Water Drain
- Proposed Private Perforated Drain
- Proposed ACO Drainage Channel
- Proposed PPIC Type 3 Private Surface Water Chamber
- Proposed Private Hydrobrake/Flow Control Unit
- Proposed RWP
- Proposed Rodding Eye
- Proposed ACO SuDS Swale Inlet (Or Similar Approved Erosion Control)
- Proposed Lined Enhanced Swale
- Proposed Lined Geocellular Crate System
- Proposed SuDS Planter
- Proposed Structure (Refer to Architect's Plan)
- Proposed Unlined Permeable Paving

- Notes:**
1. This drawing is to be read in conjunction with all other geotechnical engineer, surveys and Bear Consulting project drawings/specifications.
 2. This drawing has been produced for information only and is not to be used for construction.
 3. Exact location of all apparatus to be determined on site.
 4. Topographical Survey was carried out by AZIMUTH LAND SURVEYS LIMITED (Date: May 2025, Ref: SS4802-01).
 5. Existing drainage information was obtained from topographical survey, DataMapWates, and DCWW sewer map. Information shown partially for indicative purposes with assumptions.
 6. Existing drainage information TBC with drainage CCTV survey prior to SAB full-application.
 7. Proposed drainage layout shown indicatively. Final layout TBC in SAB full application.
 8. Proposed RWP locations shown indicatively. TBC with Architect prior to SAB full application.

Rev.	Date	Details	By	Chk.
B	18/08/25	Updated following client meeting	WH	PC
A	13/08/25	Updated to suit client's comments	WH	PC

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Project:
CELTIC HOUSE, LANGLAND WAY NEWPORT

Title:
PROPOSED DRAINAGE STRATEGY FOR PLANNING

Drawing Status:
FOR INFORMATION

Drawn:	Checked:	Scale(s) at A1:
WH	PC	AS SHOWN
Date:	Job No:	Drawing No.
30/06/2025	P0644	SKW51
		Revision
		B

Surface Water Drainage Strategy:

The proposed surface water network shall adhere to the Welsh Ministers' Statutory Standards for sustainable drainage systems, where possible. Liaison with Newport City Council SAB authority will be required, and a full SAB application will be submitted and approved prior to construction. The following summarises the Welsh Ministers Standards and the design approach taken:

Statutory Standard S1 Surface Water Destination Overview -

Priority Level 1: The site is situated within an industrial area and has no foreseeable demand for the use of a rainwater harvesting system. DWR Cymru Water Resources Management Plan (October 2024) indicates that the SEWCUS area, of which the site is located, does not expect any potential stresses on water main supplies when considering the planned interventions outlined in DCWW's Final Water Resources Management Plan 2024.

Priority Level 2: The bedrock geology has been identified as Mercia Mudstone Group - Mudstone and the superficial deposit has been identified as Tidal Flat Deposits - Clay and silt from BGS mapping information. Soilscape has identified the soil as Loamy and clayey soils of coastal flats with naturally high groundwater, with naturally wet drainage. Due to the indicated soil type from the above information, it is considered that the use of infiltration is not suitable for this site and it is considered that a BRE 365 soakaway testing shall be omitted. This is to be confirmed with SAB.

Priority Level 3: There is a drain/ditch feature located approximately 100m to the east of the site. This drain/ditch feature appears to discharge to an assumed 'marshland' feature located approximately 100m to the south of the site.

Priority Level 4: The DCWW sewer map identifies an existing private off-site surface water drain (assumed to be a highway drain) on Langland Way. It is assumed that the existing private on-site surface water drainage network currently discharges to this highway drain beneath Langland Way. The DCWW sewer map indicates that this highway drain ultimately discharges to the aforementioned 'marshland'. It is likely that the 'marshland' then discharges to a surface watercourse to the south.

It is proposed to discharge the surface water runoff to the existing on-site private surface water chamber. It is assumed that this existing chamber ultimately discharges to a surface watercourse to the south of the marshland via an existing highway drain. A CCTV survey shall be carried out to confirm this connection prior to the SAB full application.

It is assumed that runoff from the development currently discharges in a south-westerly direction before exiting the site boundary, and eventually towards the public road Langland Way with highway gullies. It is therefore considered that the ultimate discharge location from the development area remains unchanged.

Statutory Standard S2 Hydraulic Control Overview -

It is proposed to discharge the runoff from just the proposed plasma unit and canopy roof at an unrestricted rate to the existing onsite private drainage network. As a result, it is proposed to restrict runoff from the remaining areas within the SAB boundary to a maximum flow rate of 0.14 l/s. This value has been calculated by subtracting the QBar flow rate from the 'Plasma Cutting Unit' (Area B) from the QBar discharge rate for the 'Storage building(s)' (Area A).

Essentially it has been calculated as follows: **Max. Flow Rate Off Site = QBar (Area A) - QBar (Area B)**. The remaining hardstanding areas within the green line boundary shall not be modelled as part of the hydraulic network as it is an existing concrete hardstanding area that is to be replaced with permeable paving. There is no 'point discharge' into the permeable paving system (the area only serves itself) and therefore no positive drainage outfall to the SW drainage system. The permeable paving area will therefore be modelled as a separate infiltration system. The maximum flow rate and required attenuation storage shall accommodate all rainfall events up to and including the 1 in 100yr +40% climate change and 10% Urban Creep allowance.

Statutory Standard S3 Water Quality Overview -

It is proposed to utilise SuDS features in accordance with the CIRIA C753 Simple Index Approach to provide suitable mitigation measures. SuDS features include lined enhanced swale, and lined filter drain.

Statutory Standard S4 Amenity Overview -

It is proposed to maximise the amenity offered by SuDS components by optimising the location of the lined enhanced swale. The feature have been located such that they are clearly visible to visitors and staff.

Statutory Standard S5 Biodiversity Overview -

It is proposed to maximise the biodiversity offered by the introduction and planting specification of the lined enhanced swale. A planting specification will be submitted in the SAB full application to maximise the biodiversity potential on site.

Statutory Standard S6 Construction & Maintenance Overview -

All proposed drainage components shall be specified such that each feature can be constructed as easily, safely and cost-effectively as practically possible. All of the proposed surface water drainage on site serving the new development shall be privately maintained.

Foul Water Drainage Strategy:

It is understood that no proposed foul drainage runoff/waste is expected as part of this proposed development.