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**PROPOSED SECURE STORAGE FACILITY
NEATH ABBEY ROAD, NEATH**

FLOOD CONSEQUENCES ASSESSMENT

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1.0 INTRODUCTION AND DEVELOPMENT DESCRIPTION

1.1 Project Introduction and Objectives

Green Oaks Logistics Ltd. has commissioned NSugg Ltd. to prepare a Flood Consequences Assessment (FCA) to support a planning application for a secure storage facility on land at Abbey Road Industrial Estate, Neath Abbey Road, Neath.

This document represents a site-specific FCA for the proposed development and has been undertaken in accordance with the relevant planning policy and guidance outlined below.

1.2 Planning Policy and Guidance

1.2.1 Planning Policy Wales (PPW) Edition 12

PPW¹ sets out the Welsh Government's national land use planning policies to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales.

PPW Paragraphs 6.6.22 to 6.6.29 present the national policy on development and flood risk and confirm that a precautionary approach of positive avoidance of development in areas of flooding from rivers or from the sea should be adopted.

PPW Paragraph 6.6.25 states that development should reduce, and must not increase, flood risk arising from river and/or coastal flooding on and off the development site.

PPW Paragraph 6.6.26 confirms that developments located within flood risk areas remain at risk from flooding even if mitigation measures are applied.

PPW Paragraphs 6.6.17 to 6.6.19 present the national policy on sustainable drainage systems (SuDS) and confirms that new developments of more than one dwelling or where construction works exceeds 100m², require the provision of SuDS and approval from the SuDS Approval Body (SAB) before construction can commence.

PPW is supplemented by Technical Advice Note 15 (TAN15): Development and Flood Risk, which provides further policy advice.

1.2.2 TAN15: Development and Flood Risk

PPW TAN15: Development, Flooding and Coastal Erosion² provides technical guidance with regards development and flood risk and details the requirement for a Flood Consequences Assessment (FCA). Section 6.4 of TAN15 confirms the prime objective of an FCA is to develop a full appreciation of:

- the risk and consequences of flooding on the development; and
- the risk and consequences (i.e. overall impact) of the development on flood risk elsewhere.

¹ Welsh Government, February 2024, Planning Policy Wales, Edition 12.

² Welsh Assembly Government, March 2025, Planning Policy Wales Technical Advice Note 15: Development, Flooding & Coastal Erosion.

TAN15 introduces the Wales Flood Map, which comprises the Flood Map for Planning and the Flood Risk Assessment Wales (FRAW) map. Advice is presented, following a risk-based approach, on permissible land uses in relation to the location of the proposed development and the consequences of flooding. TAN15 confirms there is greater flexibility regarding the acceptable consequences of flooding for redevelopment, changes of use, conversions and extensions, than for new development proposals, where the ability to substantially redesign a development is limited.

1.2.3 Local Policy and Guidance

The following documents provide local flood risk policy and guidance for development within Neath:

- The South West Wales Strategic Flood Consequence Assessment (SFCA)³ which presents an overview of flood risk and flood risk management across the region.
- Neath Port Talbot Council's Flood Risk Management Plan⁴ presents a review of local sources of flooding within the region and proposed flood risk management measures.
- Neath Port Talbot Council's Local Development Plan (Adopted January 2016)⁵ presents the local policies and proposals for new development in the region. **Policy SP1 Climate Change** includes the following relevant statement:

In relation to the consequences of climate change:

1. Likely increased flood risk will be taken into account and addressed by ensuring that there is greater resilience by avoiding development on land that is at risk from flooding in the first instance in accordance with the sequential approach set out in national guidance or in locations that could increase the risk of flooding elsewhere;

1.3 Site Location

The application site comprises an area of car parking/storage within the former Day's Motor Group car sales and servicing centre, Abbey Road Industrial Estate, Neath Abbey Road, Neath Abbey, Neath, SA10 7BR, as outlined in red on the Site Location Plan within Figure 1.

³ JBA Consulting, November 2022, South West Wales – Stage 1 Strategic Flood Consequence Assessment.

⁴ Neath Port Talbot County Borough Council, Flood Risk Management Plan 2015.

⁵ Neath Port Talbot County Borough Council, Local Development Plan 2011 - 2026.



Figure 1. Site Location Plan

The application site is located within the commercial / light industrial area of Neath Abbey, to the south of Neath Abbey Road (A474), approximately 1km west of Neath town centre.

The total area of the application site, as indicated on the Site Location Plan, is approximately 0.2 hectares.

1.4 Topography and Existing Land Use

Review of Ordnance Survey mapping indicates that the local topography is flat and low-lying associated with the Vale of Neath, with a ground level of approximately 6mAOD within the application site.

Figure 2 presents an extract of the Environment Agency's 2022 DTM LiDAR topographic data with 0.1m contour interval; the approximate site boundary is outlined in red. Figure 2 confirms a slight topographic fall across the site from south to north, assumed towards site drainage features, from 6.7mAOD on the southern boundary to between 6.3mAOD and 6.4mAOD in the north. Locally, ground levels are generally consistent with site levels, with the exception of the raised embankment to the A474 west of the site, and the alignment of a minor watercourse to the north-west.

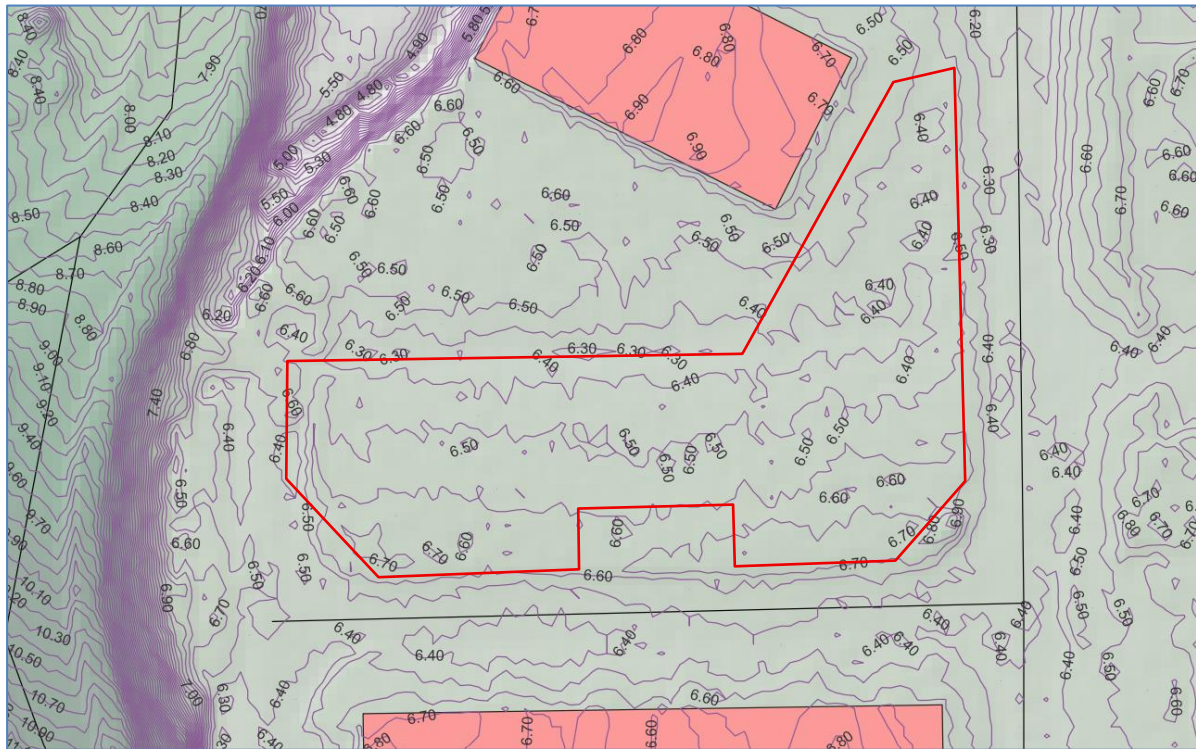


Figure 2. Environment Agency 2022 DTM LiDAR Topographic Data (0.1m Contour Interval)

The application site is accessed off a minor industrial estate road on the eastern boundary, which connects to Neath Abbey Road (A474) to the north; the site is bound to the north, east and south by existing commercial / light industrial development. The site is bound to the west by an area of woodland and minor watercourse with the roundabout junction of the A474 and A4230 beyond. The application site currently comprises an area of car parking/storage, as indicated on Figure 3.

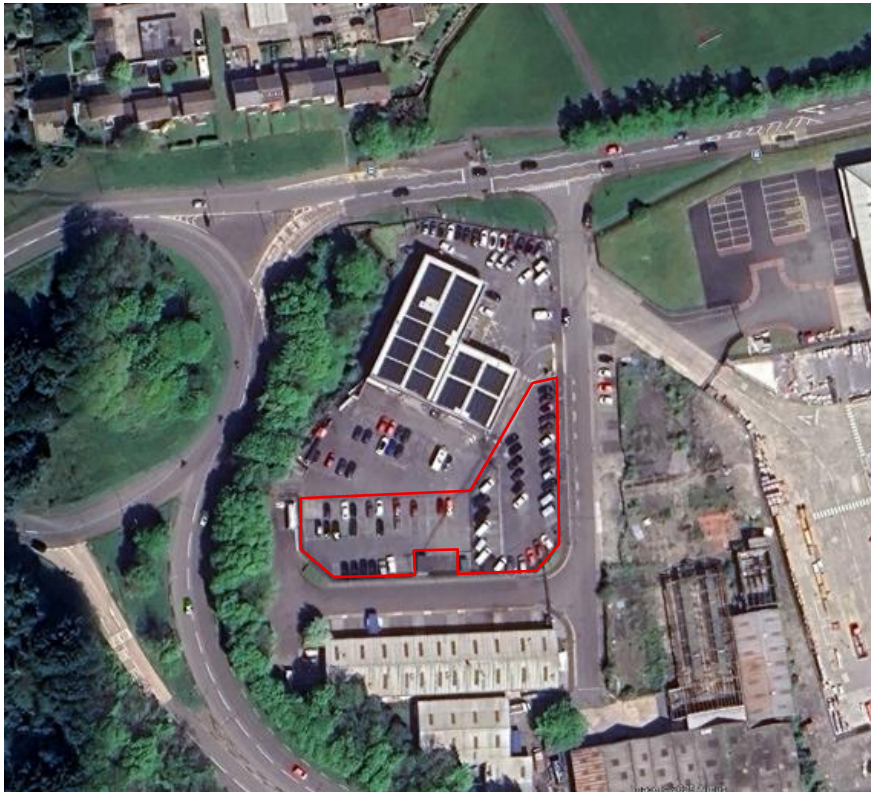


Figure 3. Existing Land Use (extracted from Google Earth Pro, image dated August 2025)

1.5 Ground Conditions

British Geological Survey mapping indicates that the local geology beneath the application site comprises superficial Glaciofluvial Sheet Deposits (sand and gravel) overlying sandstone of the Swansea Member of the Pennant Sandstone Formation⁶.

A published geological log is available for a borehole installed in 1967 approximately 50m south of the application site (BGS reference: SS79NW80). The borehole log confirms the following local ground conditions:

- 0.0 – 0.46m below ground level (mbgl): topsoil
- 0.46 – 2.29mbgl: very dense gravel with some cobbles and boulders
- 2.29 – 12.19mbgl (base of borehole): dense gravel

Groundwater was struck at 2.29mbgl, with a rest groundwater level of 1.68mbgl.

1.6 Hydrological Features and Site Drainage

The application site lies within the surface water catchment of the tidal River Neath, which passes approximately 450m south-east of the site. The Tennant Canal passes approximately 150m south of the site; the canal originally linked the River Tawe with the River Neath but is no longer navigable. A minor, unnamed ordinary watercourse flows in a south-westerly direction, passing approximately 20m north-west of the site and is culverted beneath the adjacent roads.

⁶ British Geological Survey, GeoIndex Onshore Viewer, accessed 3rd November 2025.

The local hydrological setting is presented in Figure 4 below.

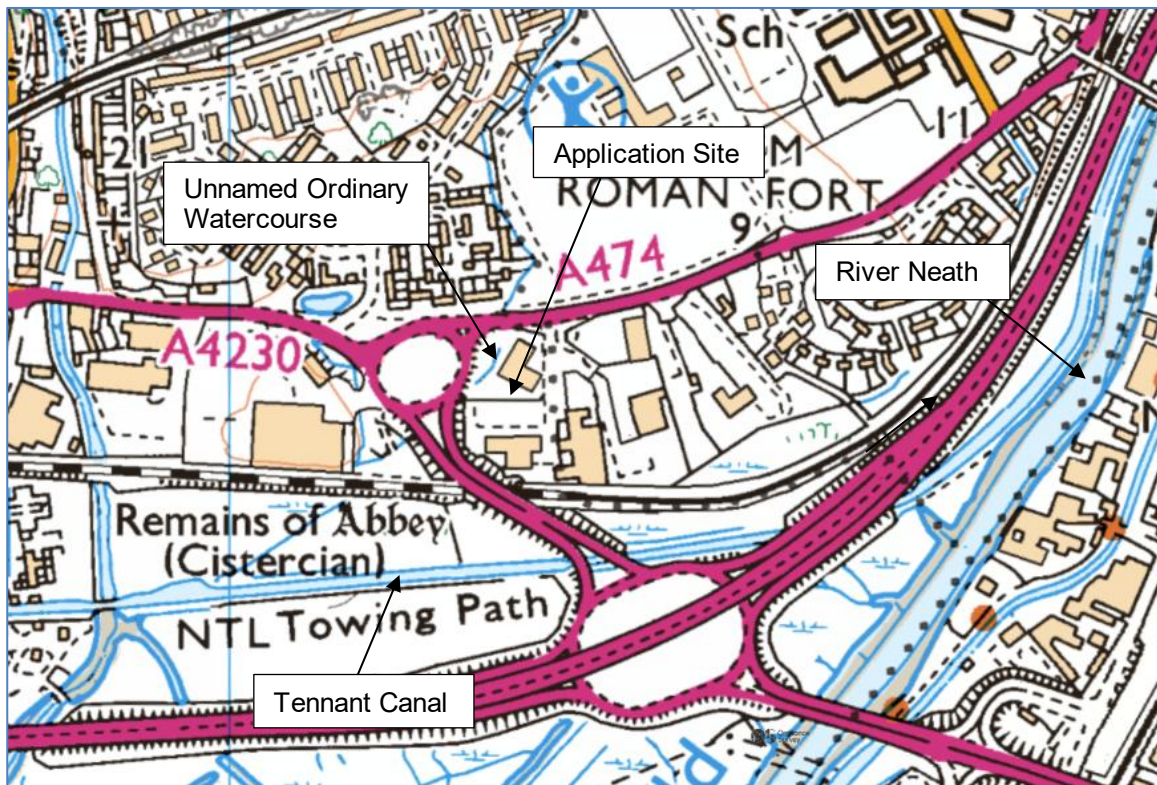


Figure 4. Local Hydrological Setting

The application site comprises an area of impermeable car parking. The LiDAR data (Figure 2) and aerial mapping indicate site levels fall gently to drainage infrastructure, and it is assumed that surface water runoff discharges unattenuated to public sewer. Further details regarding site drainage are outlined in Section 3.

1.7 Proposed Development and Flood Risk Vulnerability

The proposed development comprises the installation of secure storage units (steel shipping containers) within a perimeter fence, with vehicular access in the south-east corner, as indicated on the proposed layout plan included as Appendix 1. The facility would have no on-site staff and would provide secure storage for individual users within the established industrial estate setting.

In terms of flood risk vulnerability classification, Figure 4 of TAN15 confirms that general industrial, employment, commercial and retail development is classified as 'less vulnerable' development. The proposed development will not therefore increase the flood risk vulnerability of the land use and comprises 'redevelopment' of a brownfield site, as defined within TAN15. This is discussed further in Section 2.3.

2.0 FLOOD CONSEQUENCES ASSESSMENT

2.1 Sources of Information

In addition to the flood risk planning policy and guidance outlined in Section 1.2, the following sources of information have been consulted during the preparation of this FCA:

- NRW's online Flood Map for Planning and FRAW – for fluvial/tidal, surface water and reservoir flood maps and historic flood mapping.
- NRW consultation – for site-specific flood model data and reports.

2.2 Flood Hazard

All potential sources of flooding to the application site are considered within this section of the report.

2.2.1 NRW Flood Map for Planning and Fluvial/Tidal Flood Risk

NRW's online Flood Map for Planning confirms local flood zone extents and supports TAN15. Figure 5 presents an extract of the flood zone extents for flood risk from rivers, with the approximate site boundary outlined in red. The application site lies within Flood Zone 3 for flood risk from rivers; this represents land with more than 1.0% (1 in 100) annual probability of flooding, with allowance for climate change.

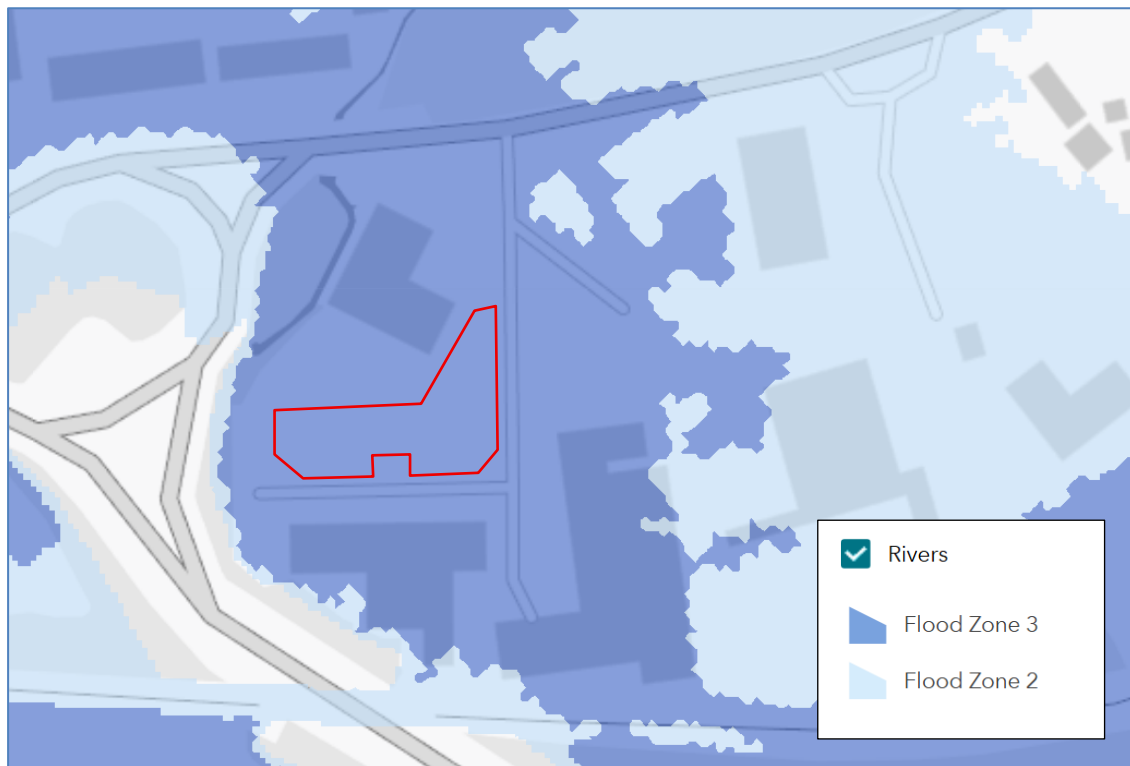


Figure 5. Flood Map for Planning – Flood Risk from Rivers

Figure 6 presents an extract of the flood zone extents for flood risk from the sea, with the approximate site boundary outlined in red.

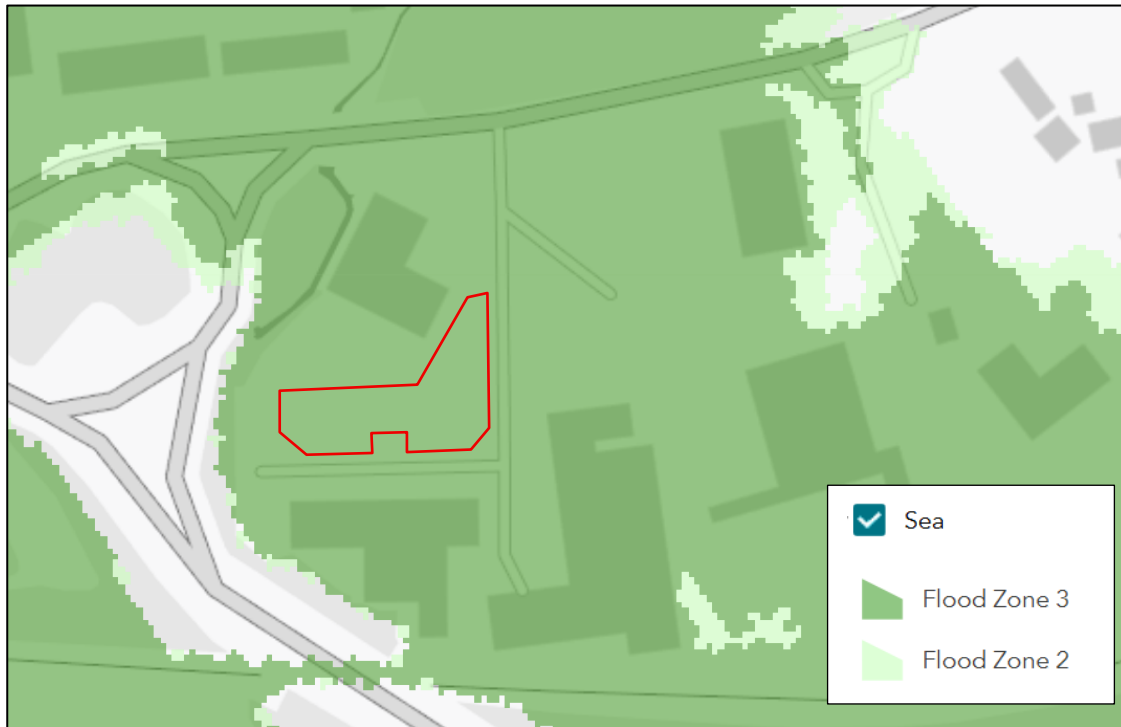


Figure 6. Flood Map for Planning – Flood Risk from the Sea

Figure 6 confirms the application site lies within Flood Zone 3 for flood risk from the sea; this represents land with more than 0.5% (1 in 200 year) annual probability of flooding, with allowance for climate change. The Flood Map for Planning (Figures 5 and 6) ignores the effect of any local flood defences.

Review of NRW's Flood Risk Assessment Wales mapping confirms that the majority of the application site has a very low risk of flooding from the sea for the present day (excluding the effects of climate change); this is equivalent to less than 0.1% annual probability of flooding (1 in 1000 year). The site is shown to have a medium risk of flooding from rivers for the present day; this is equivalent to between 1.0% and 3.3% annual probability of flooding.

NRW has been consulted for site-specific flood model data; their response, dated 3rd November 2025 included the model report and model data (Products 5 and 6) for the Neath_5_V1.0_2015 study and Neath_5_V1.1_2023 study. The 2015 flood modelling study assesses tidal and fluvial flood risk from the River Neath and local watercourses; the 2023 study presents updated tidal flood risk data.

Appendix 2 presents flood maps created for the application site from the flood model data, confirming the predicted peak flood extents and peak flood water levels for a range of modelled scenarios, as discussed below.

Tidal Flood Risk (Neath_5_V1.1_2023)

Drawings 1-6 of Appendix 2 present site-specific tidal flood maps for the defended and undefended scenario, based on the model results. The flood maps confirm the site benefits from regional tidal flood defences, as detailed below.

- During the present-day 0.5% annual probability tidal flood event, the site is predicted to remain dry, due to the presence of regional flood defences, as indicated on Drawing 1 of Appendix 2.

- Model results are presented for 2123, to represent the future, climate change scenario with allowance for sea level rise; this is beyond the 75-year design life for non-residential development. Drawing 3 of Appendix 2 presents the 2123, 0.5% annual probability tidal flood event (defended); the entire site is predicted to flood during this scenario, with peak flood water depths in the range 0.7m - 1.25m. The model results will be based on present-day flood defences.
- During the extreme, 0.1% annual probability tidal flood event (defended, present day), flooding is only predicted to encroach marginally along the eastern site boundary, with a peak predicted flood water depth of 0.02m. This is represented on Drawing 2 of Appendix 2.

The risk of flooding from the sea is shown to increase throughout the lifetime of the development due to climate change. However, there is no consideration of future coastal flood defence improvements within the flood modelling or mapping.

The coastline in the vicinity of the site lies within Shoreline Management Plan (SMP) Unit 20.8.6 (Neath Estuary) with a long-term policy of 'hold the line'. There is an intention to maintain and upgrade existing defences to minimise the risk of coastal erosion and flooding to assets and to manage the risk of potentially contaminated fill from being released in the estuary and coastal system.

Therefore, based on the SMP policy, it is inferred that the application site would benefit from future coastal flood defence maintenance and upgrades.

Climate change model results are available for 2123 only; however, a design life of 75 years (2100) is appropriate for the proposed, non-residential development. Therefore, the design tidal flood water levels will be lower than modelled, with the potential consequences of flooding reviewed in Section 2.3 and appropriate flood risk mitigation measures discussed in Section 2.4.

Fluvial Flood Risk (Neath_5_V1.0_2015)

The model results for the defended and undefended scenarios are comparable, confirming the site does not benefit from fluvial flood defences. Drawings 7-9 of Appendix 2 present site-specific fluvial flood maps, based on the defended model results. The design fluvial flood event is represented by the 1.0% annual probability plus 30% climate change (refer to Section 2.2.6). This scenario was not included in the flood model, with a 20% climate change allowance assumed. Based on the 75-year design life and 2015 baseline flow within the flood model (compared to an assumed 1961-1990 baseline flow data in the climate change allowances guidance), the 20% climate change allowance is considered appropriate for the development and is presented on Drawing 8 of Appendix 2. The fluvial flood maps within Appendix 2 include spot heights of predicted flood water levels at the site access/egress and at various points across the site; these confirm:

- The entire site is predicted to flood during the present day 1.0% annual probability flood event and is therefore within fluvial Flood Zone 3. Peak flood water depths are in the range 0.09m - 0.57m.
- During the design fluvial flood event (1.0% annual probability + 20% climate change), peak predicted flood water depths are shown to increase to the range 0.4m – 0.9m.
- During the extreme, 0.1% annual probability fluvial flood event, peak predicted flood water depths are in the range 0.75m-1.34m.

The 0.1% annual probability + climate change flood event is not assessed within the model. Peak flood water depths during the 1.0% annual probability event increase by approximately 0.35m as a result of climate change. Therefore, an uplift of approximately 0.5m is estimated for the climate change allowance for the extreme 0.1% annual probability flood event. This would result in approximate peak flood water depths of between 1.25m and 1.84m during the 0.1% annual probability + climate change event.

The potential consequences of flooding are reviewed in Section 2.3 and appropriate flood risk mitigation measures are recommended in Section 2.4.

2.2.4 Other Potential Sources of Flooding

The local SFCA and online flood maps have been reviewed to identify any other potential sources of flood risk to the application site and evidence of historic flood events in the local area. This information is presented in Table 1 below.

Table 1: Neath Abbey Road – Potential Sources of Flooding

Potential Source	Significant Potential Risk at Application Site?	Reasoning
Fluvial Flooding	Yes	Review of NRW's Flood Map for Planning and flood model output from the 2015 Neath fluvial flood modelling confirms that the application site is located entirely within Flood Zone 3, defined as land with >1.0% annual probability of flooding from rivers including the effects of climate change. This is discussed above in Section 2.2.1. with appropriate mitigation outlined in Section 2.4.
Tidal Flooding	Yes	The application site lies within high probability tidal Flood Zone 3, defined as land with >0.5% annual probability of flooding from the sea including the effects of climate change. However, the site benefits from regional flood defences. Tidal flood risk is discussed above in Section 2.2.1. with appropriate mitigation outlined in Section 2.4.
Flooding from High Groundwater	No	Whilst shallow groundwater would be anticipated in the superficial deposits beneath the site, and is confirmed locally at less than 2mbgl, no below ground (basement) development is proposed. Shallow groundwater is assumed to be in continuity with local watercourses and the risk of groundwater flooding, in the absence of river flooding, is considered very low and acceptable.
Surface Water Flooding	Yes	Review of NRW's Flood Map for Planning indicates that the application site is partially within Flood Zone 2 associated with flood risk from surface water and small watercourses. This is discussed further below.
Flooding from Artificial Drainage Systems	No	Table 1-2, Appendix B1 of the SFCA confirms Neath has not recorded a high incidence of historic sewer flooding. LiDAR topographic data (Figure 2) confirms the adjacent industrial estate access road would represent a preferential flow route, in the event of exceedance of local drainage systems. Therefore, based on the available information and site setting, the risk of flooding to the site from artificial drainage systems is assessed as low and acceptable.
Flooding due to Infrastructure Failure	No	Review of NRW's Flood Map for Planning confirms that the application site is not within the predicted maximum extent of flooding of local reservoirs. The Tenant Canal passes approximately 150m south of the site but is at a similar or lower elevation than the site, with no raised embankment evident. Therefore, the risk of flooding to the site due to infrastructure failure is assessed as very low.

Table 1 confirms that the only significant potential sources of flooding identified within the application site are tidal flooding, fluvial flooding and flooding from surface water and small watercourses. The risks associated with tidal flooding and fluvial flooding are detailed above in Section 2.2.1.

Figure 7 presents an extract of NRW's flood map for surface water and small watercourses. The southern part of the application site is within Flood Zone 1, defined as land with <0.1%

annual probability of flooding from surface water and/or small watercourses with allowance for climate change. The lower lying, northern part of the site extends into Flood Zone 2 defined as land with between 0.1% and 1.0% annual probability of flooding from surface water and/or small watercourses with allowance for climate change.

The potential low risk of surface water flooding in the north of the site is associated with runoff ponding in this low-lying area and potential flood risk associated with the small watercourse to the north-west of the site boundary. However, the flood map for surface water and small watercourses is indicative only; it does not consider site-specific drainage infrastructure.

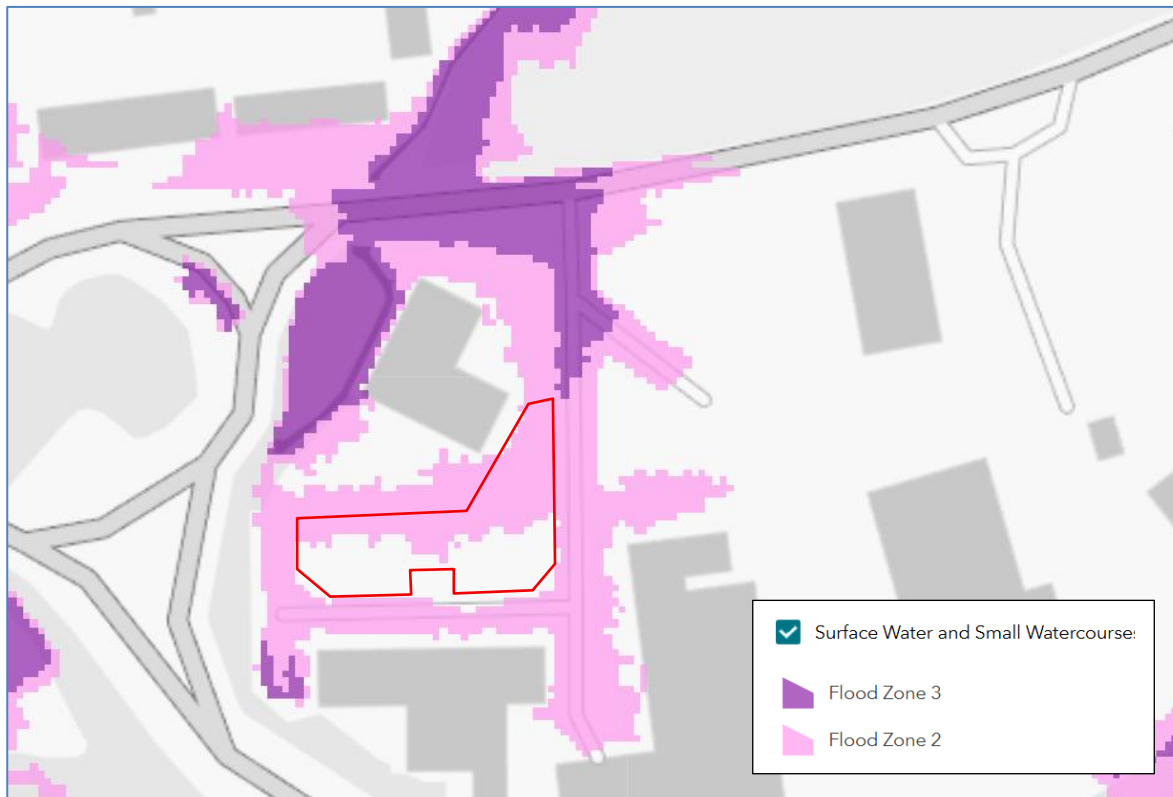


Figure 7. NRW Flood Map for Planning – Flood Risk from Surface Water and Small Watercourses

The development area comprises an existing impermeable car park, which falls gently to the north, towards site drainage infrastructure. No additional impermeable surfaces will be introduced as a result of the development, but the existing drainage infrastructure should be appropriately maintained to ensure it continues to operate as designed throughout the life of the development. A drainage statement is presented within Section 3 of this report.

Therefore, the risk of flooding from surface water and small watercourses is assessed as low and acceptable. The flood risk mitigation measures recommended to address the risk of fluvial and tidal flooding (refer to Section 2.4) will further reduce the risk of flooding from surface water and small watercourses.

2.2.5 Historic Flooding & Flood Warning Areas

Review of NRW's online recorded flood extents presented on the Flood Map for Planning confirms the application site and adjacent access roads have not previously recorded flooding.

There is no evidence of historic flooding within the site or immediate vicinity from any source, within the SFCA.

NRW's online flood mapping confirms that the application site is not located within a Flood Warning Area but is located within the Flood Alert Areas for the River Neath and for Swansea Bay and the Gower Coast. The development will have no on-site staff; therefore, there is no requirement for a Flood Warning Plan.

2.2.6 Climate Change

The Welsh Government's climate change allowances guidance⁷ confirms that rainfall, sea levels and river flows are predicted to increase as a result of climate change, which must be considered throughout the lifetime of the proposed development.

The Flood Map for Planning contains 100-year climate change scenarios; however, a 75-year design life is appropriate for non-residential development. This is discussed further in Section 2.2.1.

The application site lies within the West Wales River Basin District, where river flows are predicted to increase by between 15% (lower end estimate) and 75% (upper end estimate) by the 2080s. The guidance confirms that the central estimate (30%) should be used to inform design levels. Therefore, the design fluvial flood event is represented by the 1.0% annual probability + 30% climate change event; this is discussed further in Section 2.2.1.

2.3 Acceptability of Flood Consequences

Figure 5 of TAN15 sets out the flood events for which development must be flood free. The flood free thresholds can be applied with more flexibility for redevelopment, where the ability to substantially redesign a development is limited. In those circumstances the thresholds are a guide.

For less vulnerable development, the required design standard is for new development to be flood free during the 1.0% annual probability river flood and during the 0.5% annual probability flood from the sea, plus appropriate allowance for climate change.

Section 2.2.1 confirms the site is predicted to remain dry during the present day 0.5% annual probability tidal flood event due to the presence of flood defences. Tidal flooding is predicted in the future, during the 0.5% annual probability plus climate change event, with peak flood water depths of between 0.7m and 1.25m by 2123. However, this exceeds the design flood event for non-residential development (2100) and ignores proposed future upgrades to coastal flood defences, in accordance with the local SMP policy.

Section 2.2.1 also indicates the site is predicted to flood during the 1.0% annual probability fluvial flood event with allowance for climate change, with peak flood water depths of between 0.4m and 0.9m. In the absence of flood defences, fluvial flooding is considered the most significant potential source of flooding to the development.

The site currently comprises a car park within an existing industrial estate and the development proposals are limited to a storage facility with no on-site staff. The proposal

⁷ Welsh Government, September 2021, Flood Consequences Assessments: Climate Change allowances.

comprises redevelopment of a brownfield site and appropriate flood risk mitigation measures are proposed below in Section 2.4, to ensure the redeveloped site will have less severe consequences in the event of flooding, than the existing development. Redevelopment is an opportunity to incorporate flood resistant and resilient design, as recommended in Section 2.4, thereby reducing the risk and consequences of flooding, in accordance with the aims of TAN15.

Figure 6 of TAN15 presents the tolerable conditions for an extreme flood event (equivalent to the 0.1% annual probability event plus climate change). This scenario has not been modelled for fluvial flood risk. However, as detailed in Section 2.2.1, peak predicted flood water depths in excess of 1.2m would be anticipated during this extreme flood event; this exceeds the tolerable maximum depth of flooding of 0.6m for less vulnerable development. As set out in TAN15, each site must be considered individually, and a judgement taken in the context of the circumstances which could prevail at that site. Based on the nature of the proposed redevelopment, it is not feasible to substantially redesign the site within existing constraints. There will be no on-site staff and no increase in flood risk vulnerability of the land use. The mitigation measures detailed in Section 2.4 ensure the consequences of flooding to the redeveloped site are acceptable, in accordance with the requirements of TAN15.

Section 11 of TAN15 sets out the requirements that must be in place for any development to be permitted in flood risk areas. The following conditions must be met in all circumstances:

- **No increase in flooding elsewhere** - the site currently comprises a car storage area for the adjacent vehicle sales/repair centre. The proposed shipping containers will be raised to ensure no loss of floodplain storage at low flood water levels, with the containers designed to flood in the event of water levels rising above the base of the containers (refer to Section 2.4). As a result of these design measures, there will be no significant impact on flood flow routes, no loss of floodplain storage and no increase in flooding elsewhere. A Flood Storage Assessment is presented below, in Section 2.4; this assesses the loss of floodplain storage during the worst-case scenario with the shipping containers not raised above ground level and the containers remaining sealed (not designed to flood). This confirms peak flood water levels would increase locally by <0.01m, with no discernible increase in flood risk to others.
- **Occupiers aware of flood risk; escape/evacuation routes present; flood emergency plans and procedures agreed and in place** – users of the storage facility will be made aware of the potential risk of flooding. The development will have no on-site staff; therefore, a Flood Warning and Evacuation Plan is not appropriate.
- **Flood resistant and resilient design** – inherent in the design, as outlined in Section 2.4.
- **Acceptable consequences for type of use** – confirmed above as appropriate, given the redevelopment status and limited ability to substantially redesign the site.

Based on the above criteria and TAN15 guidance for redevelopment, it is concluded that the consequences of flooding are acceptable, with appropriate flood risk mitigation, as detailed in Section 2.4.

2.4 Flood Risk Mitigation Measures

The development is limited to the introduction of shipping containers for storage on the existing area of car parking; there will be no on-site staff. The following flood risk mitigation measures are considered appropriate based on the findings of this FCA, the nature of the development and current guidance:

Flood Resilient Design

The containers will be sited on levelling pads which will raise the base of the container a maximum 0.26m above existing ground level. Therefore, the containers would remain dry during low flood water levels and would not obstruct flood flow routes or result in a loss of floodplain storage.

The floor of each container would be fitted with holes/vents to allow flood water to enter the container in the event of flood water levels rising above the container floor level. This will ensure no displacement of floodwater and no loss of floodplain storage during the design tidal and fluvial flood events.

Flood Storage Assessment

Whilst the containers will be raised and designed to flood, as outlined above, a Flood Storage Assessment has been undertaken of the worst-case scenario, assuming no void beneath the containers and assuming the containers are sealed against flooding.

The extreme, 0.1% annual probability + climate change fluvial flood event has not been included within the Neath_5_V1.0_2015 flood model. However, as outlined in Section 2.2.1, an uplift of approximately 0.5m is anticipated due to climate change. Therefore, based on Drawing 9 of Appendix 2, a peak flood water depth of approximately 1.54m would be anticipated in the north and east of the site and a peak flood water depth of approximately 1.41m would be expected in the south and south-west, during the 1.0% annual probability + climate change event. This is approximately equivalent to a peak flood water level of 8mAOD. The proposed development layout (Appendix 1) confirms 31no. containers in the north and east of the site and a total of 17no. containers in the south and south-west. The footprint of each container is 6.058m x 2.438m; therefore, the total volume of floodwater displaced during this worst-case scenario would be:

$$31\text{no.} \times 6.058\text{m} \times 2.438\text{m} \times 1.54\text{m (flood water depth)} = 705\text{m}^3$$

+

$$17\text{no.} \times 6.058\text{m} \times 2.438\text{m} \times 1.42\text{m (flood water depth)} = 357\text{m}^3$$

This represents a total potential loss of floodplain storage of **1062m³** during the future extreme flood event (0.1% annual probability + climate change). It is reiterated that this is the worst-case scenario and does not reflect the proposed mitigation of raising the containers above ground level and allowing flood water to enter the containers during extreme flood events.

During this extreme flood event, flood water is predicted to enter the site from the north-west via the A4230 and Neath Abbey Road (from the River Clydach) and from the south and south-east, passing beneath the A465 (from the River Neath). These flood flow routes are indicated as blue arrows on Figure 8 below, which also presents the regional topography with 1m contour intervals (LiDAR data). The predicted extent of local flooding is also outlined on Figure 8, for the 0.1% annual probability + climate change event, based on the 8mAOD contour.

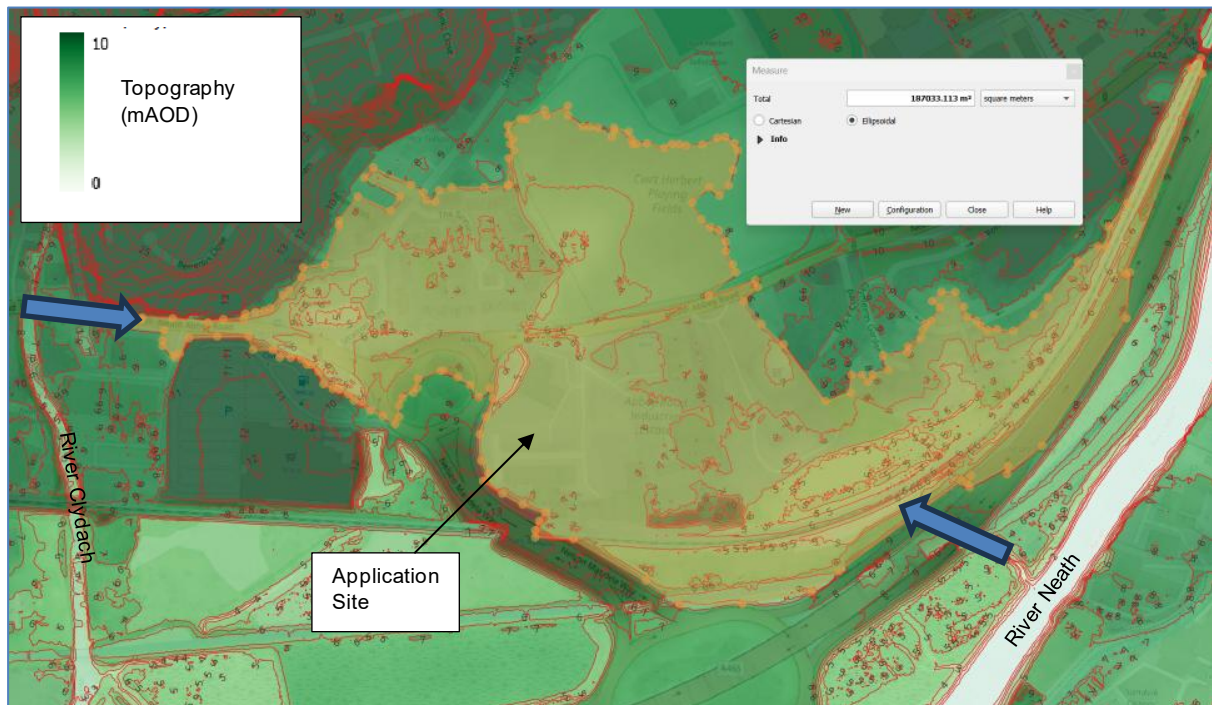


Figure 8. LiDAR Topographic Data, Flood Flow Routes & Approximate Local Flood Cell (0.1% Annual Probability + Climate Change flood event)

The predicted local flood plain is indicated on Figure 8 as approximately 187,000m². The potential loss of floodplain storage (1062m³) from the containers would equate to an approximate rise in the peak flood water level across this area of <0.01m. Therefore, it is inferred that there would be no discernible increase in flood risk to others, even during this worst-case scenario.

Flood Risk Awareness

All users of the storage facility will be made aware of the risk of flooding to the site and to the containers.

Drawing 8 of Appendix 2 presents the peak predicted flood water depths during the design fluvial flood event. These typically range between 0.5m and 0.7m above ground level. Peak flood water depths of approximately 1.0m above ground level are predicted during the extreme 0.1% annual probability flood event (refer to Drawing 9 of Appendix 2). Water-sensitive items should be stored above these elevations.

Surface Water Management

The development will not increase the area of existing impermeable surfaces and will not therefore have drainage implications; a Drainage Statement is included within Section 3 below.

3.0 DRAINAGE STATEMENT

The application site currently comprises an impermeable car park, with surface water runoff intercepted by drainage channels, as indicated on the drainage layout plans within Appendix 3. The drainage channels are shown to discharge to the north, into the wider surface water drainage system of the adjacent commercial premises, which ultimately discharges to the watercourse on the western site boundary.

The proposed development will not introduce any additional impermeable surface area and will not therefore have drainage implications. The proposed storage units will be raised above ground level on levelling pads, ensuring they do not form a barrier to surface water runoff or drainage infrastructure. The site's existing surface water drainage system, as indicated on the drainage layout plans (Appendix 3) shall be relied on and should be appropriately maintained throughout the lifetime of the development.

In the event of exceedance of the site drainage system, exceedance flows would follow the alignment of the channel drainage and gravity drain towards the eastern site boundary. Exceedance flows would exit the site and adjacent premises via the existing and proposed eastern site entrances and gravity drain via the road network, ultimately discharging to the local watercourse as indicated in Figure 9.



Figure 9. Exceedance Flow Route (NRW 2022 LiDAR Data)

4.0 SUMMARY AND CONCLUSIONS

This report represents a site-specific Flood Consequences Assessment for proposed storage units on land at Abbey Road Industrial Estate, Neath Abbey Road, Neath.

NRW's Flood Map for Planning indicates that the application site lies within Flood Zone 3 due to flood risk from the sea and flood risk from rivers; therefore, a detailed, site-specific FCA is required.

A review of all potential sources of flooding to the application site has been undertaken; the only significant potential sources of flooding identified are tidal and fluvial flooding from the River Neath and tributaries. The site benefits from tidal flood defences with a minimum 0.5% annual probability standard of protection and a local policy to maintain and upgrade the defences in response to climate change. It is noted there is no record of flooding within the site from any source.

The most significant potential source of flooding is assessed as fluvial flood risk from local watercourses. The site is predicted to flood during the design fluvial flood event, with allowance for climate change, with peak predicted flood water depths of between 0.4m and 0.9m. Data are not available for the extreme 0.1% annual probability flood event with climate change, but peak flood water depths in excess of 1.0m would be anticipated.

Whilst these are outside the TAN15 guidelines for less vulnerable development, flexibility is allowed for redevelopment proposals. The development is limited to installation of storage containers within an existing car storage/parking area; there will be no on-site staff, and all users of the storage facility will be made aware of the risk of flooding to the site. The containers will be raised as high as practicable via levelling blocks and will be designed to flood to ensure no loss of floodplain storage. The development will not introduce additional impermeable surfaces and will rely on existing surface water drainage infrastructure.

This FCA concludes that the proposed redevelopment of an area of car parking to provide a secure storage facility, on land within Abbey Road Industrial Estate, off Neath Abbey Road, Neath, is appropriate and sustainable with regards to flood risk.

5.0 CLOSURE

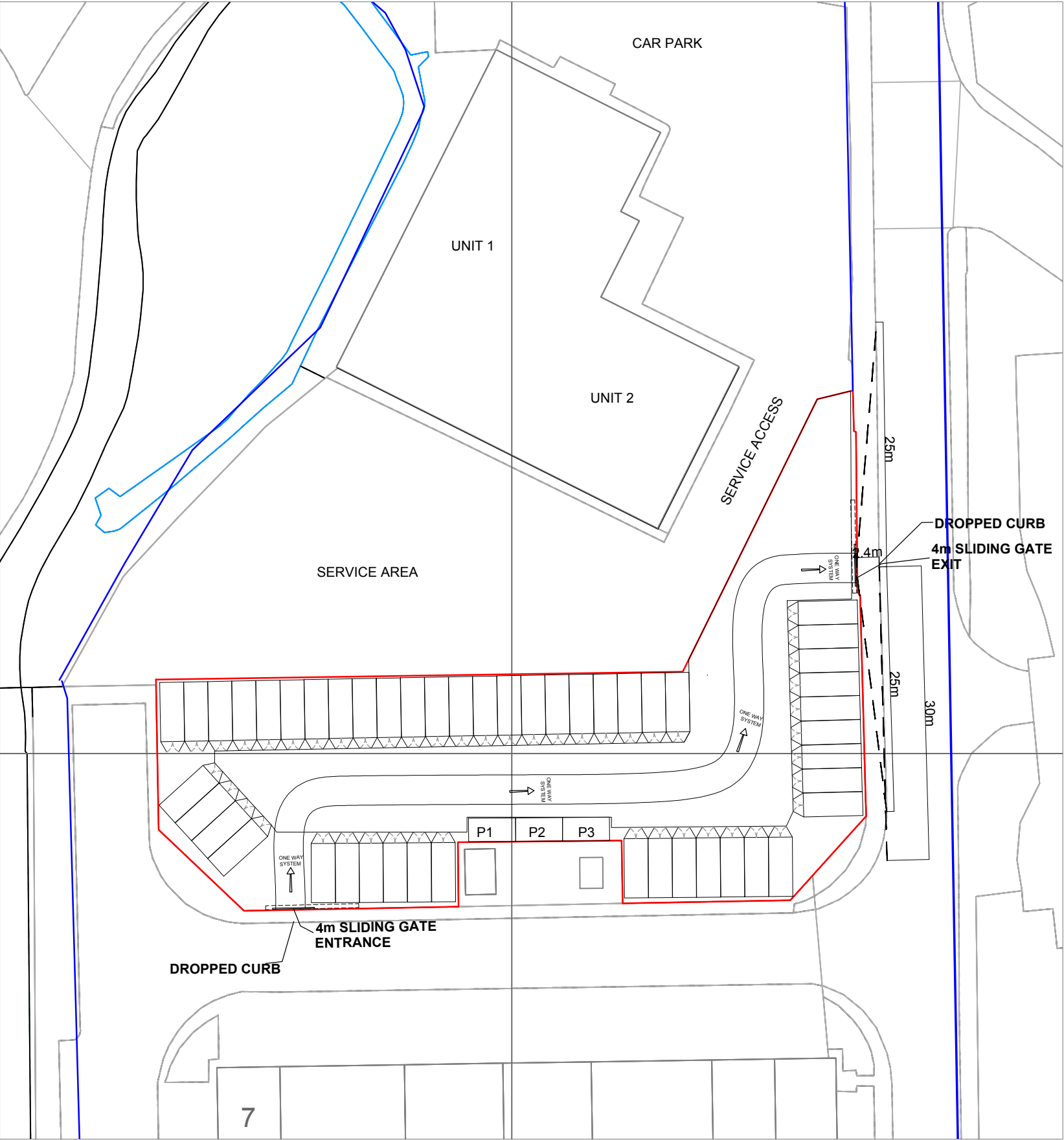
This report has been prepared by Nicola Sugg (trading style of NSugg Limited) with all reasonable skill and care, and in accordance with the services agreed with Green Oaks Logistics Ltd. Relevant information provided by Green Oaks Logistics Ltd. has been accepted in good faith as being accurate and valid. This report is based on the relevant guidance and legislation in force at the date of the report and should be reviewed if such guidance and legislation are amended or superseded.

NSugg Ltd do not warrant that the advice in this report will guarantee the availability of flood insurance either now or in the future.

It will be the owner's /occupier's responsibility to ensure the recommended flood risk mitigation measures outlined within this FCA are implemented and to maintain the site drainage system throughout the lifetime of the development.

This report is for the exclusive use of Green Oaks Logistics Ltd.; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from Nicola Sugg.

APPENDIX 1



- Red Line Boundary - extent of application site
- Blue Boundary - Land in ownership of landlord



Avalon Architecture | Pensaernïaeth Afallon

helen@avalonarchitecture.co.uk
07541229202
avalonarchitecture.co.uk

project north



notes

- Drawings are based on survey data and may not accurately represent what is physically present.
- Do not scale from this drawing. All dimensions to be site verified by the contractor before proceeding.
- All dimensions are in millimetres unless noted otherwise.
- Avalon Architecture Ltd shall be notified in writing of any discrepancies.

key plan
not to scale

revisions

REV	DATE	DRAWN BY	APPR. BY	NOTES
P01	18.12.25	HF/RL	HF/RL	first issue
P02	17.03.26	HF	HF	Visibility Splay, Access relocated
P03	16.04.26	HF	HF	One way system added, gates amended
P04	21.04.26	HF	HF	Visibility Splay Amended
P05	12.05.26	HF	HF	Exits and Entrance Amended
P06	18.06.26	HF/RL	HF/EL	Access Route amended

client:

Greenoaks Logistics

project:

Day's Trade Park Neath
Abbey Road, SA10 7BR

status: S3 – PLANNING

revision: P06

title:

Block Plan
Proposed

drawn by: HF/RL

approved by: HF/RL

date: 18.12.2025

job no: 2025–036

scale: 1:500@A3L

drawing no:

002

APPENDIX 2



NOTES:

1. MODEL DATA FROM NEATH_5_V1.1_2023 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

- SITE BOUNDARY
- FLOOD DEPTH
- SITE LAYOUT

FLOOD DEPTHS (M)

	<= 0.5
	0.5 - 0.6
	0.6 - 0.8
	0.8 - 1.0
	1.0 - 1.2
	1.2 - 1.4
	1.4 - 1.6
	1.6 - 1.8
	1.8 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NSUGG LTD

PROJECT:
NEATH ABBEY ROAD

DRAWING TITLE:
DEFENDED TIDAL FLOODING 0.5% AEP 2023

SCALE: 1:800 @ A3	DATE: NOVEMBER 2025
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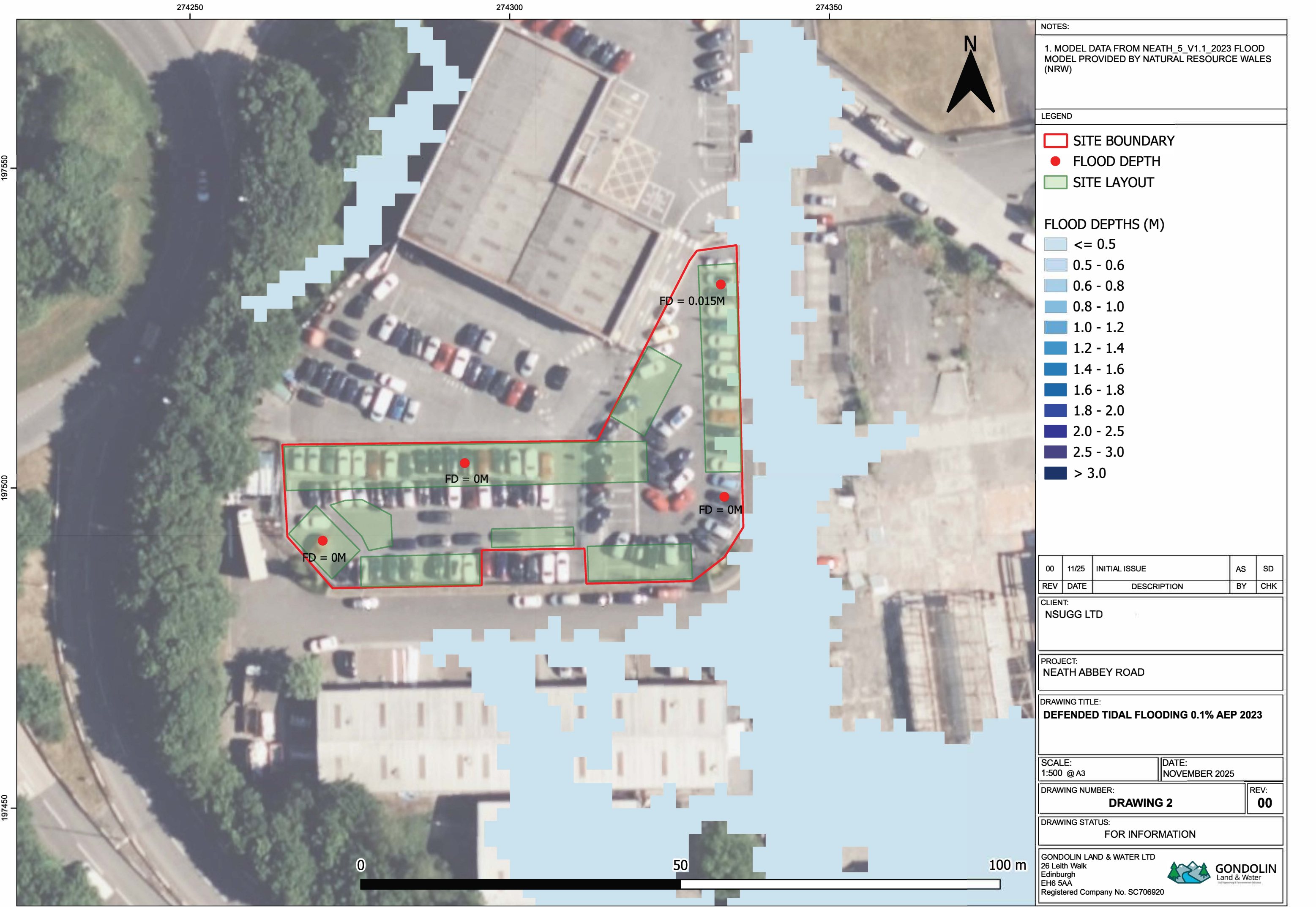
DRAWING NUMBER: DRAWING 1	REV: 00
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DRAWING STATUS:
FOR INFORMATION

GONDOLIN LAND & WATER LTD
26 Leith Walk
Edinburgh
EH6 5AA
Registered Company No. SC706920



GONDOLIN
Land & Water
Land Engineering & Environmental Solutions



NOTES:

1. MODEL DATA FROM NEATH_5_V1.1_2023 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

SITE BOUNDARY

● FLOOD DEPTH

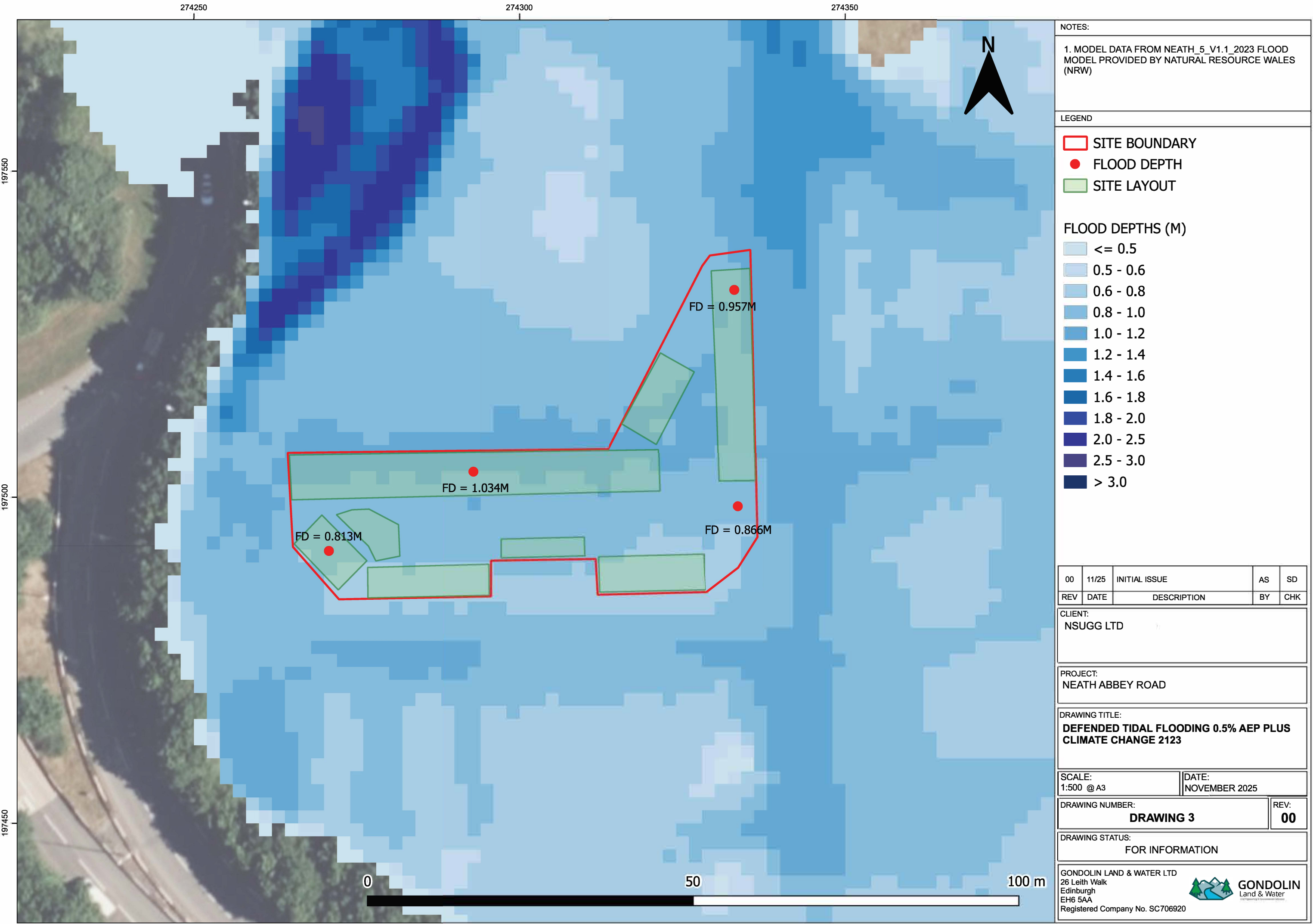
SITE LAYOUT

FLOOD DEPTHS (M)

	<= 0.5
	0.5 - 0.6
	0.6 - 0.8
	0.8 - 1.0
	1.0 - 1.2
	1.2 - 1.4
	1.4 - 1.6
	1.6 - 1.8
	1.8 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK
CLIENT: NSUGG LTD				
PROJECT: NEATH ABBEY ROAD				
DRAWING TITLE: DEFENDED TIDAL FLOODING 0.1% AEP 2023				
SCALE: 1:500 @ A3			DATE: NOVEMBER 2025	
DRAWING NUMBER: DRAWING 2				REV: 00
DRAWING STATUS: FOR INFORMATION				
GONDOLIN LAND & WATER LTD 26 Leith Walk Edinburgh EH6 5AA Registered Company No. SC706920				





NOTES:

1. MODEL DATA FROM NEATH_5_V1.1_2023 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

- SITE BOUNDARY
- FLOOD DEPTH
- SITE LAYOUT

FLOOD DEPTHS (M)

	<= 0.5
	0.5 - 0.6
	0.6 - 0.8
	0.8 - 1.0
	1.0 - 1.2
	1.2 - 1.4
	1.4 - 1.6
	1.6 - 1.8
	1.8 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NSUGG LTD

PROJECT:
NEATH ABBEY ROAD

DRAWING TITLE:
DEFENDED TIDAL FLOODING 0.5% AEP PLUS CLIMATE CHANGE 2123

SCALE: 1:500 @ A3	DATE: NOVEMBER 2025
----------------------	------------------------

DRAWING NUMBER: DRAWING 3	REV: 00
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DRAWING STATUS:
FOR INFORMATION

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26 Leith Walk
Edinburgh
EH6 5AA
Registered Company No. SC706920

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Land & Water
Land Engineering & Environmental Solutions



NOTES:

1. MODEL DATA FROM NEATH_5_V1.1_2023 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

- SITE BOUNDARY
- SITE LAYOUT
- SITE LEVEL

FLOOD DEPTHS (M)

- <= 0.5
- 0.5 - 0.6
- 0.6 - 0.8
- 0.8 - 1.0
- 1.0 - 1.2
- 1.2 - 1.4
- 1.4 - 1.6
- 1.6 - 1.8
- 1.8 - 2.0
- 2.0 - 2.5
- 2.5 - 3.0
- > 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NSUGG LTD

PROJECT:
NEATH ABBEY ROAD

DRAWING TITLE:
UNDEFENDED TIDAL FLOODING 0.1% AEP 2023

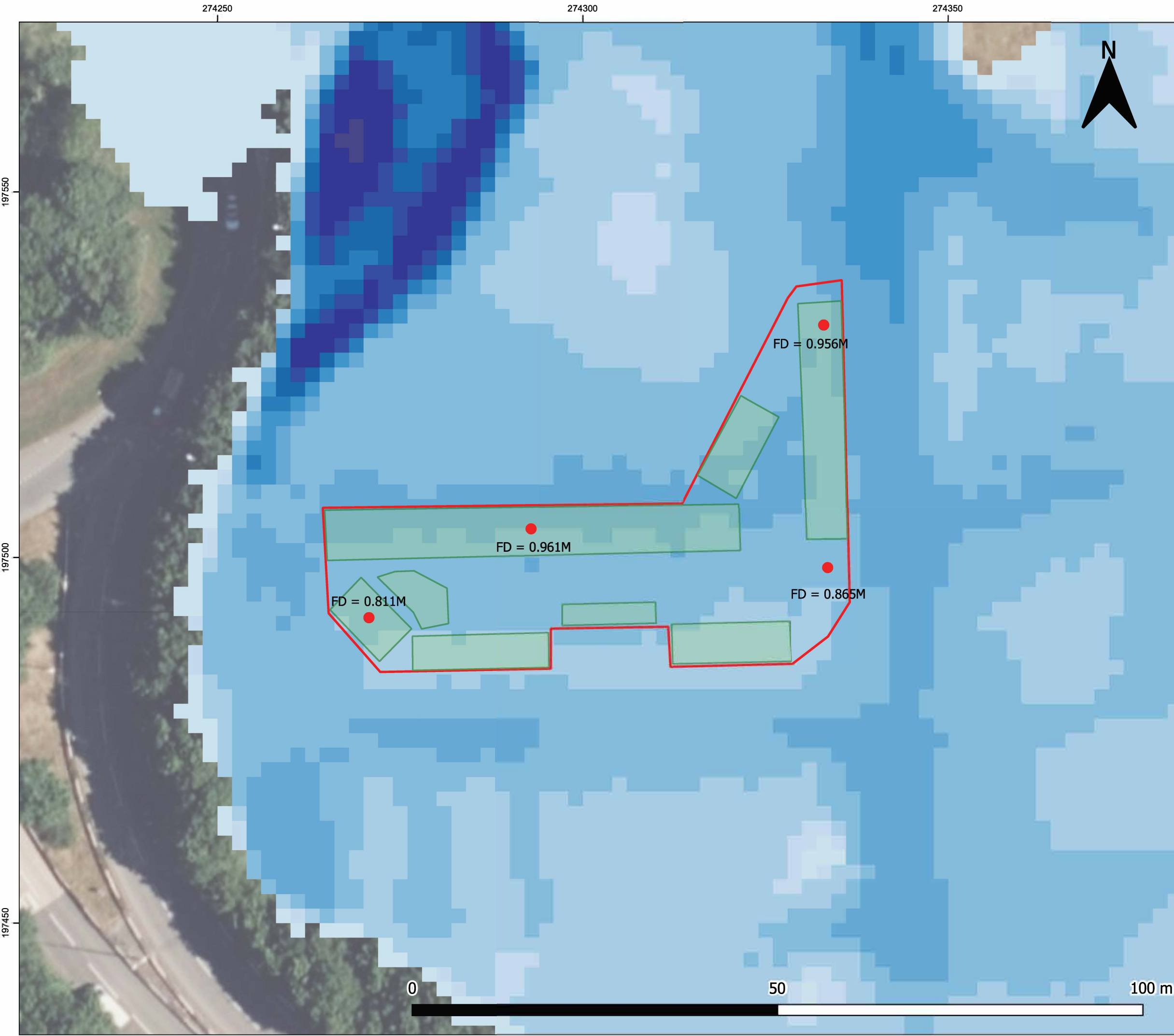
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DRAWING NUMBER: DRAWING 4	REV: 00
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DRAWING STATUS:
FOR INFORMATION

GONDOLIN LAND & WATER LTD
26 Leith Walk
Edinburgh
EH6 5AA
Registered Company No. SC706920

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Civil Engineering & Environmental Solutions



NOTES:

1. MODEL DATA FROM NEATH_5_V1.1_2023 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

- LEGEND
- SITE BOUNDARY
 - FLOOD DEPTH
 - SITE LAYOUT

FLOOD DEPTHS (M)

	<= 0.5
	0.5 - 0.6
	0.6 - 0.8
	0.8 - 1.0
	1.0 - 1.2
	1.2 - 1.4
	1.4 - 1.6
	1.6 - 1.8
	1.8 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NSUGG LTD

PROJECT:
NEATH ABBEY ROAD

DRAWING TITLE:
UNDEFENDED TIDAL FLOODING 0.5% AEP PLUS CLIMATE CHANGE 2123

SCALE: 1:500 @ A3	DATE: NOVEMBER 2025
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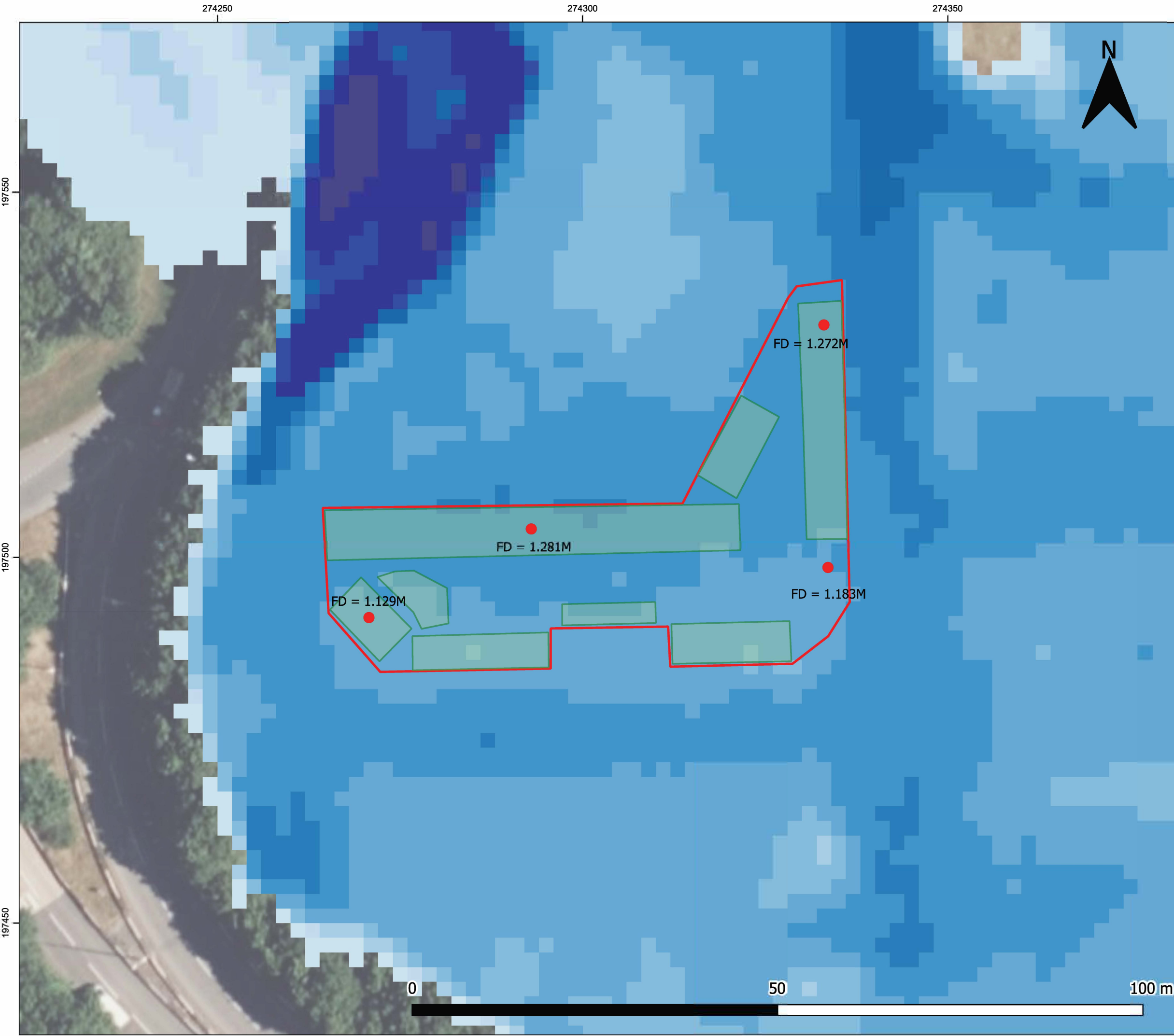
DRAWING NUMBER: DRAWING 5	REV: 00
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DRAWING STATUS:
FOR INFORMATION

GONDOLIN LAND & WATER LTD
26 Leith Walk
Edinburgh
EH6 5AA
Registered Company No. SC706920



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Land & Water
Land Engineering & Environmental Solutions



NOTES:

1. MODEL DATA FROM NEATH_5_V1.1_2023 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

SITE BOUNDARY

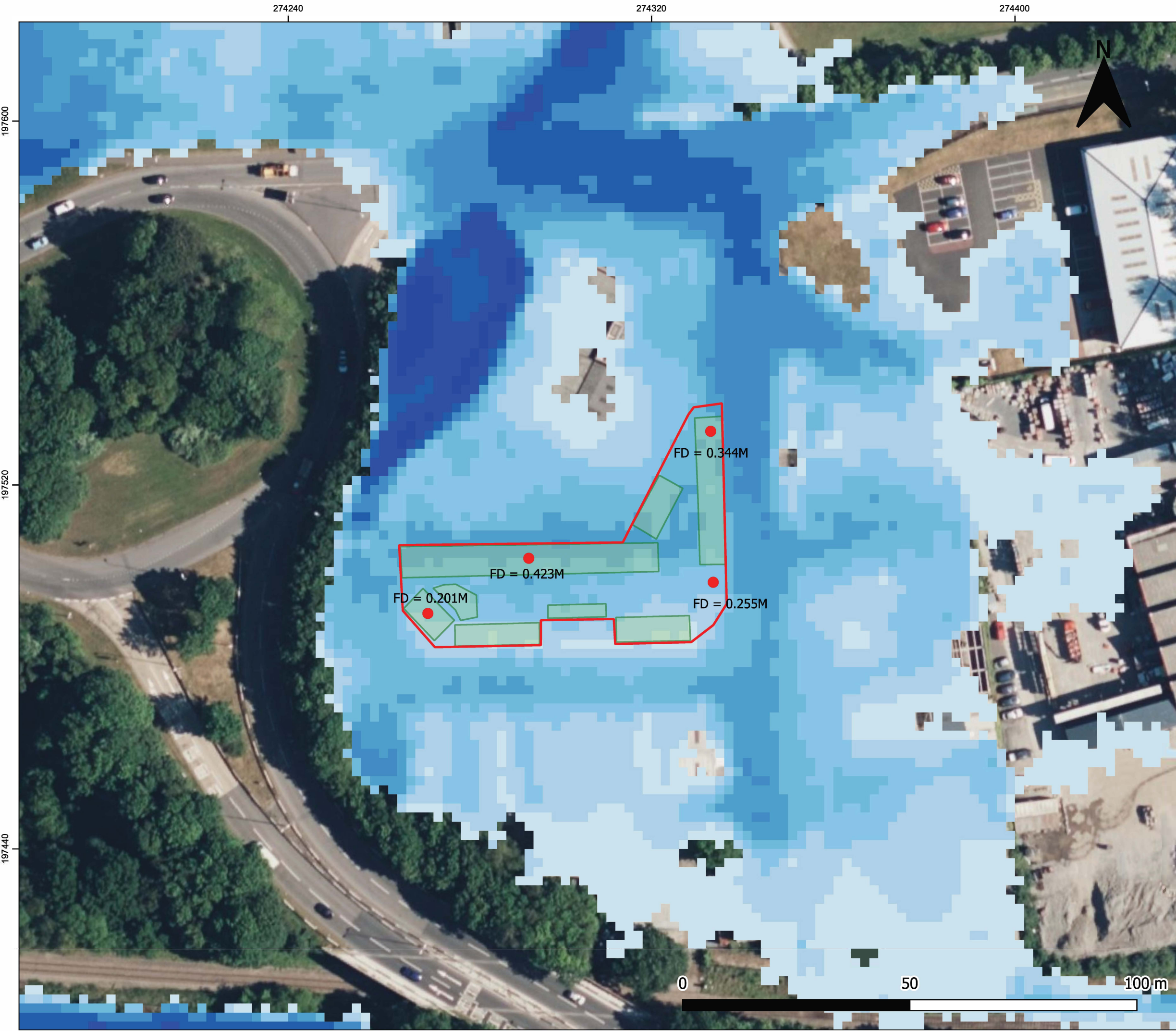
● FLOOD DEPTH

SITE LAYOUT

FLOOD DEPTHS (M)

	<= 0.5
	0.5 - 0.6
	0.6 - 0.8
	0.8 - 1.0
	1.0 - 1.2
	1.2 - 1.4
	1.4 - 1.6
	1.6 - 1.8
	1.8 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK
CLIENT: NSUGG LTD				
PROJECT: NEATH ABBEY ROAD				
DRAWING TITLE: UNDEFENDED TIDAL FLOODING 0.1% AEP PLUS CLIMATE CHANGE 2123				
SCALE: 1:500 @ A3			DATE: NOVEMBER 2025	
DRAWING NUMBER: DRAWING 6				REV: 00
DRAWING STATUS: FOR INFORMATION				
GONDOLIN LAND & WATER LTD 26 Leith Walk Edinburgh EH6 5AA Registered Company No. SC706920			 GONDOLIN Land & Water Land Engineering & Environmental Solutions	



NOTES:

1. MODEL DATA FROM NEATH_5 V1.0_2015 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

SITE BOUNDARY

● FLOOD DEPTH

SITE LAYOUT

FLOOD DEPTH (M)

	<= 0.1
	0.1 - 0.2
	0.2 - 0.3
	0.3 - 0.4
	0.4 - 0.5
	0.5 - 0.75
	0.75 - 1.0
	1.0 - 1.5
	1.5 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NSUGG LTD

PROJECT:
NEATH ABBEY ROAD

DRAWING TITLE:
DEFENDED FLUVIAL FLOODING 1% AEP

SCALE: 1:800 @ A3	DATE: NOVEMBER 2025
----------------------	------------------------

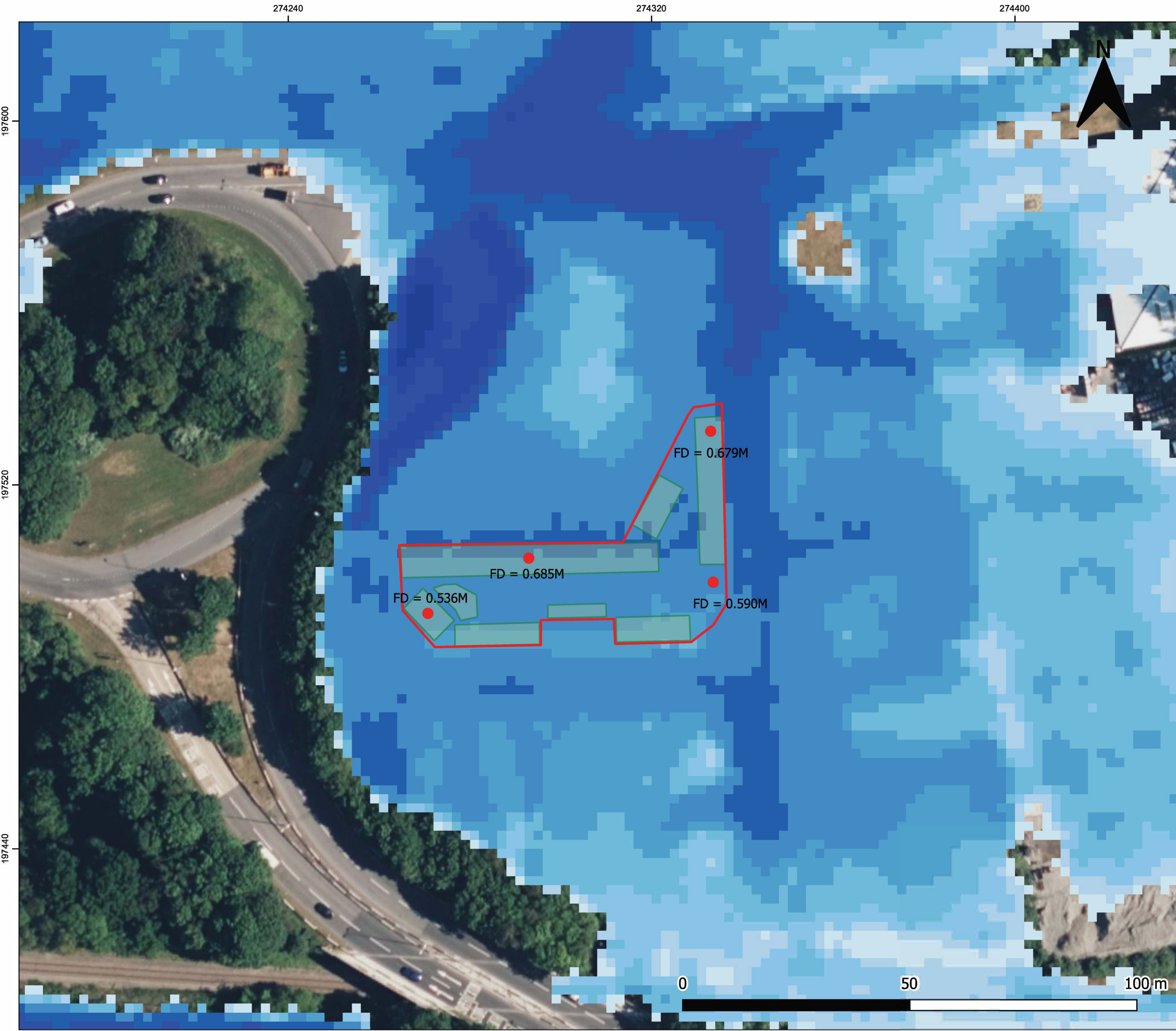
DRAWING NUMBER: DRAWING 7	REV: 00
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DRAWING STATUS:
FOR INFORMATION

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26 Leith Walk
Edinburgh
EH6 5AA
Registered Company No. SC706920



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Land & Water
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NOTES:

1. MODEL DATA FROM NEATH_5 V1.0_2015 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

- SITE BOUNDARY
- FLOOD DEPTH
- SITE LAYOUT
- FLOOD DEPTH (M)
- <= 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - 0.3 - 0.4
 - 0.4 - 0.5
 - 0.5 - 0.75
 - 0.75 - 1.0
 - 1.0 - 1.5
 - 1.5 - 2.0
 - 2.0 - 2.5
 - 2.5 - 3.0
 - > 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NSUGG LTD

PROJECT:
NEATH ABBEY ROAD

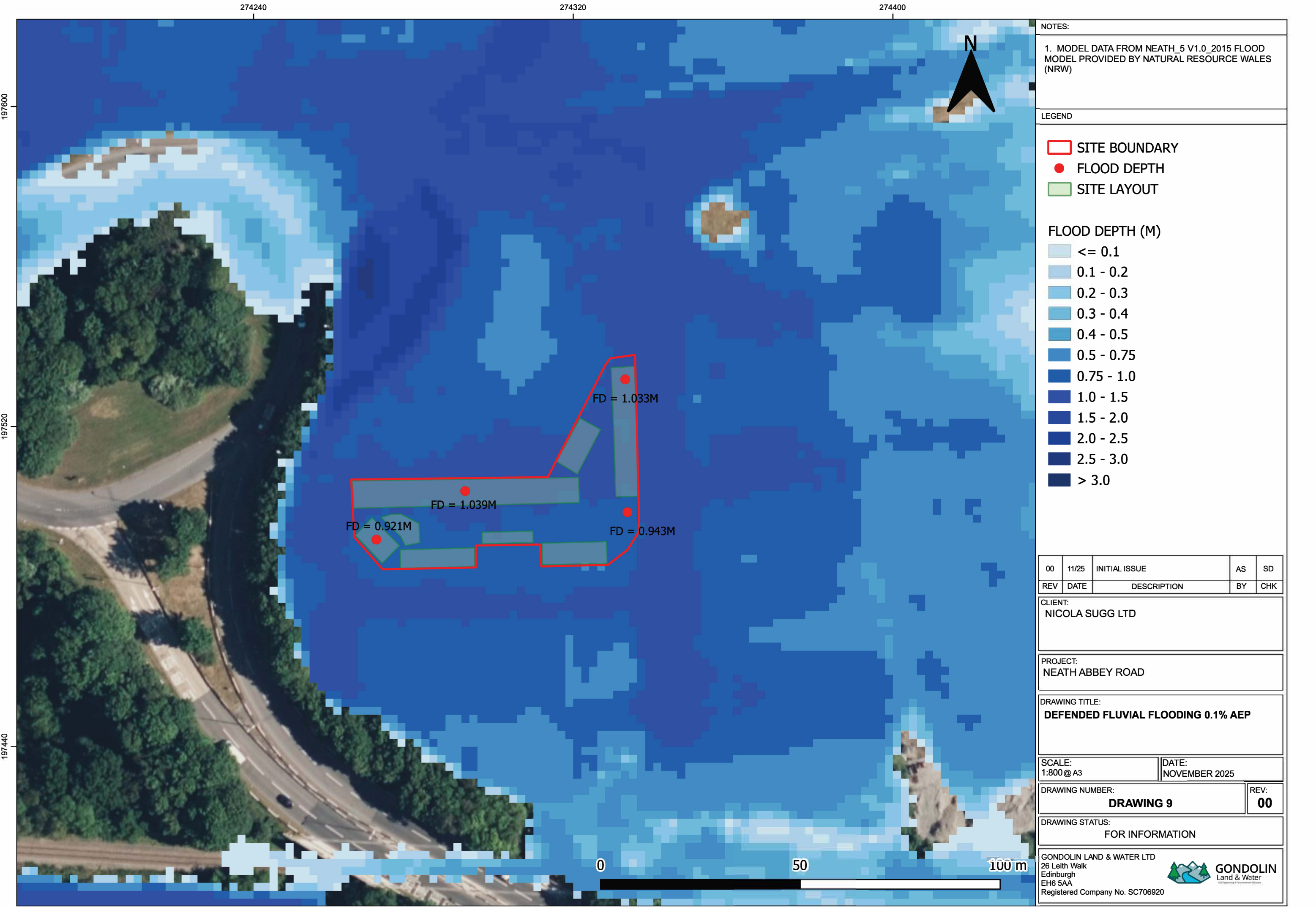
DRAWING TITLE:
DEFENDED FLUVIAL FLOODING 1% AEP + CLIMATE CHANGE

SCALE: 1:800 @ A3	DATE: NOVEMBER 2025
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DRAWING NUMBER: DRAWING 8	REV: 00
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DRAWING STATUS:
FOR INFORMATION

GONDOLIN LAND & WATER LTD 26 Leith Walk Edinburgh EH6 5AA Registered Company No. SC706920	 GONDOLIN Land & Water Land Engineering & Environmental Solutions
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NOTES:

1. MODEL DATA FROM NEATH_5 V1.0_2015 FLOOD MODEL PROVIDED BY NATURAL RESOURCE WALES (NRW)

LEGEND

- SITE BOUNDARY
- FLOOD DEPTH
- SITE LAYOUT

FLOOD DEPTH (M)

	<= 0.1
	0.1 - 0.2
	0.2 - 0.3
	0.3 - 0.4
	0.4 - 0.5
	0.5 - 0.75
	0.75 - 1.0
	1.0 - 1.5
	1.5 - 2.0
	2.0 - 2.5
	2.5 - 3.0
	> 3.0

00	11/25	INITIAL ISSUE	AS	SD
REV	DATE	DESCRIPTION	BY	CHK

CLIENT:
NICOLA SUGG LTD

PROJECT:
NEATH ABBEY ROAD

DRAWING TITLE:
DEFENDED FLUVIAL FLOODING 0.1% AEP

SCALE: 1:800 @ A3	DATE: NOVEMBER 2025
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DRAWING NUMBER: DRAWING 9	REV: 00
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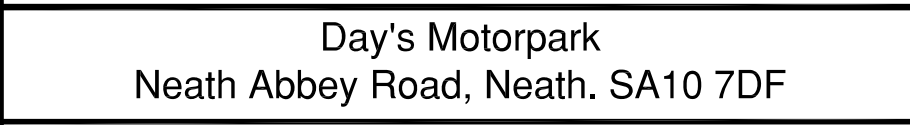
DRAWING STATUS:
FOR INFORMATION

GONDOLIN LAND & WATER LTD 26 Leith Walk Edinburgh EH6 5AA Registered Company No. SC706920	 GONDOLIN Land & Water Land Engineering & Environmental Solutions
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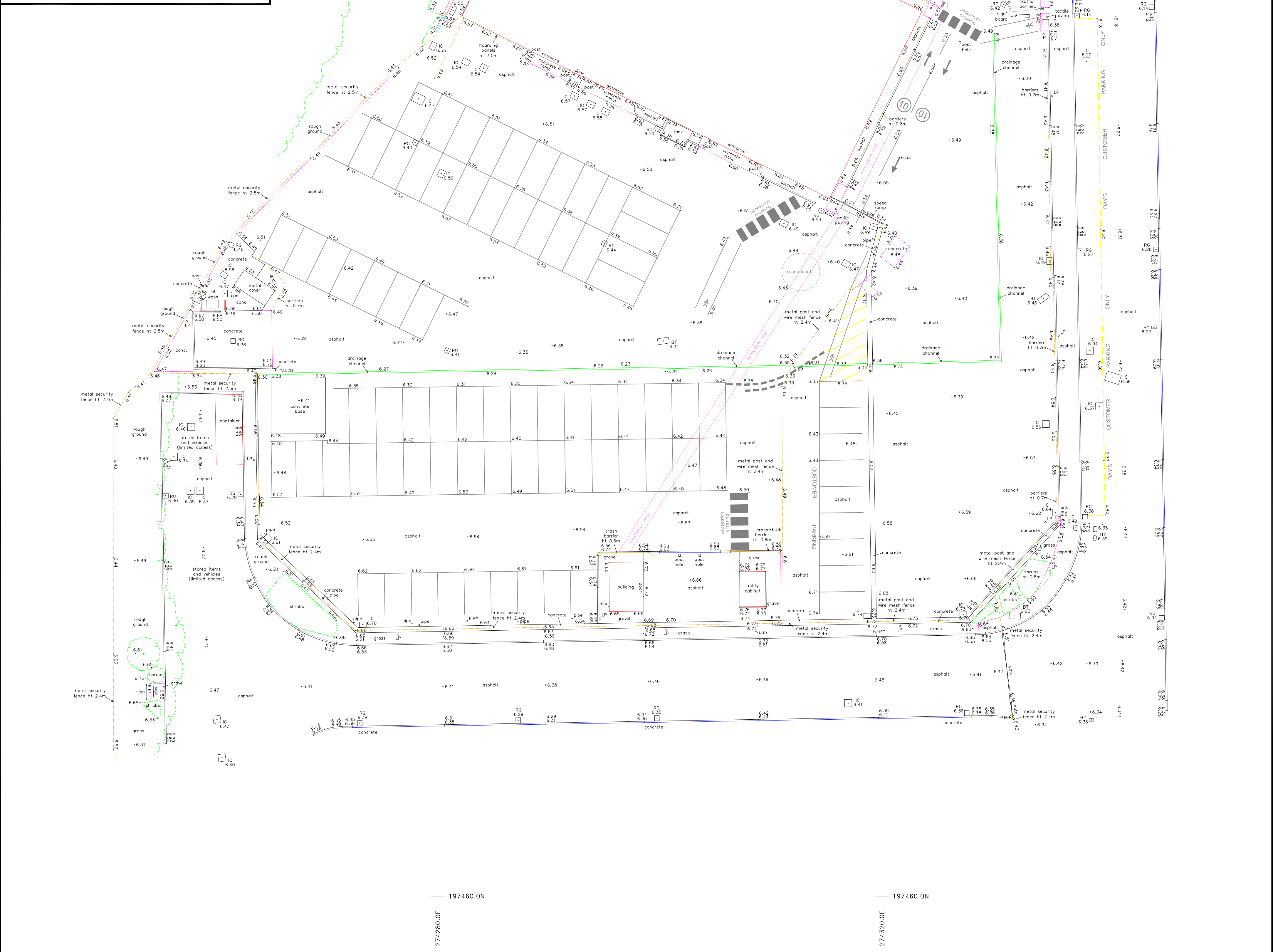
APPENDIX 3

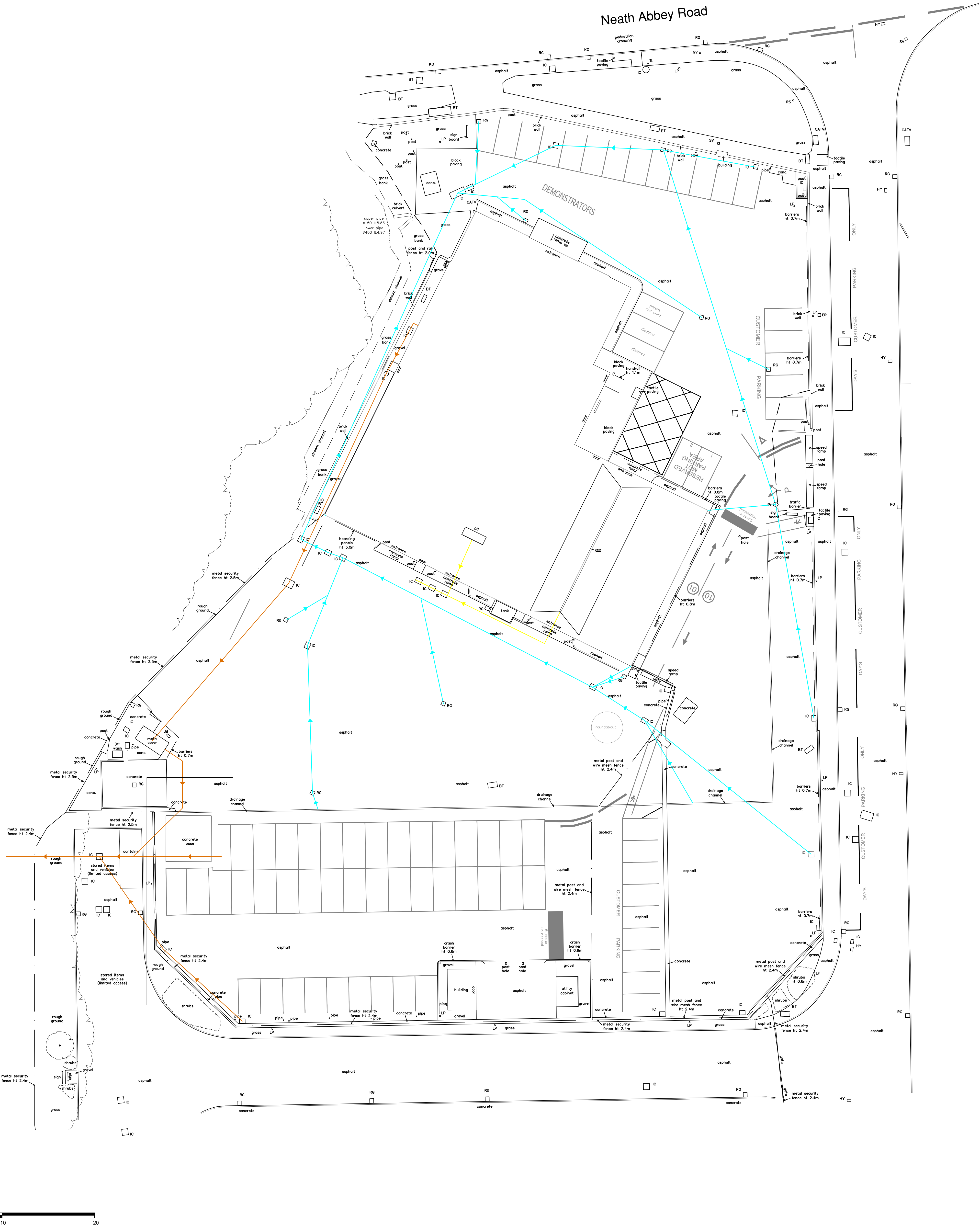
NOTES

1. Features shown dashed are approximate.
2. Foliage, parked vehicles and stored materials may obstruct additional features.
3. Foliage, parked vehicles and stored materials may obstruct additional features.



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- FOUL DRAINAGE
- SURFACE WATER
- WORKSHOP WASTE

NOTE: PARKING LAYOUT TO FRONT AS EXISTING

THIS DRAWING SHOWS EXISTING DRAINAGE RUNS AS PER SURVEY CONDUCTED JULY 2025 BY MARK TYZAK.
THIS DRAWING DOES NOT INCLUDE ANY DRAINAGE REQUIRED FOR INSTALLATION OF TOOLSTATION WC



Nicola Sugg
Consultant Hydrogeologist
& Hydrologist

nicola@nsugg.co.uk

07866 374158

Nicola Sugg trading style of NSugg Limited (company number: 08043774)
Registered Office: Grove Hill House, Martinstown, Dorchester, Dorset DT2 9JP