PROPOSED RESIDENTIAL DEVELOPMENT

TYDDYN FLETCHER, CAERNARFON, GWYNEDD.

Green Infrastructure Statement

May 2025

Tirlunbarr Associates Chartered Landscape Architecture

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Issue	Author	Reviewed	Date	Status
v1	JB	PW	15.05.25	DRAFT for comment and review
V2	JB	PW	21.05.25	Issued

APPENDICES AND REFERENCES (At the rear of the document)

This report has been prepared by Tirlunbarr Associates on behalf of ADRA (Tai) Cyfyngedig in connection with a proposed residential development on land known as Tyddyn Fletcher, in Caernarfon Gwynedd and takes into account their particular instruction and requirements. It is not intended for and should not be relied on by any third party and no responsibility is undertaken to any third party.

Introduction

1.1 Tirlunbarr Associates Chartered Landscape Architects were appointed in Summer 2024 to assist with the soft landscape design of the proposed scheme with the projects Ecologists and additionally to prepare a Green Infrastructure Statement* (* the Statement) to accompany a Planning Application for a proposed Housing Development of 36no. dwellings on Land known as Tyddyn Fletcher in Caernarfon NGR: 249242 362752 on behalf of ADRA (Tai) Cyfyngedig as a Social Housing Landlord.

1.2 The preparation of this Statement follows the production of detailed Site Layout Proposals which have entailed collaborative input on behalf of the Client from Richards Morehead and Laing as Project Ecologists and ROAVR Group Arboricultural Consultancy, Ainsley Gommon Architects (AGA) as Project Architects, Waterco Datrys Civil Engineering as Project Engineers and specifically Drainage Designers and Tirlunbarr as Landscape Architects.

1.3 Further input into the site proposal has involved:

- Grimster Planning. Transport SCP. CR Archeology/Heritage.

1.4 The design proposals have been under development since early 2024 and refined through a series of team meetings, and after receipt of Planning Consultation responses in 2023 (Ref Y23/0562 dated 6th December 2023) and with this document responding to the legislative need for a Green Infrastructure Statement and as part of a Pre APP submission in advance of any future detailed Planning Application.

1.5 In October 2023 the preparation of a Green Infrastructure Statement to accompany all development submitted for Planning Consent was made a legal requirement by Julie James Minister for Climate Change (Welsh Government) via a letter dated 11.10.23 which provided an immediate update of Chapter 6 of National Planning Policy Wales (PPW11) 'Addressing the Nature Emergency through the Planning System'.

1.6 The Policy Change aimed to shape strategic Local Authority Policy and decision making *'to maximise contribution to the protection and provision of Green Infrastructure assets and networks as a spatial resource to meet societies wider social and economic objectives, and needs of local communities'* and will be achieved via the production of a Green Infrastructure Assessment by local authorities.

1.7 The Assessment at County Level seeks to demonstrate Net Biodiversity Benefit - and enhancement and longer-term management at each step of a design development, and strengthens Protection for Sites of Special Scientific Interest (SSSI's) and increases protection of Trees and Woodland - including promoting new planting as part of any development proposal.

1.8 To contribute to a local Green Infrastructure **Assessment**, the requirement to produce a Green Infrastructure **Statement** forms part of the Chapter 6 update, as a way to demonstrate both positive multi-functional outcomes, and to demonstrate how the intended Stepwise Design Approach of the Policy update has been applied within any submitted project proposals via the Planning Process.

1.9 The final Policy requirements were issued in February 2024 Wales 12 (PPW12 -Ref 6.4.16) and requires that;

''all development must deliver a proportionate net biodiversity and ecosystem resilience from the baseline state through a proactive process to secure enhancement through the design and implementation of the development''.

1.10 This Green Infrastructure Statement is intended to accompany the Pre App and any future Planning Application for residential development on land known as at Tyddyn Fletcher, Llanberis Road Caernarfon. (Ref Y23/0562 dated 6th December 2023.)

2.0 **Green Infrastructure definition**

2.1 The Environment (Wales) Act 2016 provides the context basis for the delivery of multi-functional green infrastructure which can make a significant contribution to the sustainable management of natural resources and protection maintenance and enhancement of biodiversity and ecosystem resilience through improved connectivity enabling them to better recover resist and adapt to pressure.

2.2 Within Chapter 6 (para 6.2.1) of Planning Policy Wales (PPW 12) - Green Infrastructure is defined as;

> ''the network of natural and semi natural features, green spaces, rivers and lakes that intersperse and connect places''.
>
> ''Components of Green Infrastructure can function at a range of difference scales; from trees and woodland to entire ecosystems such as wetlands and rivers to parks, fields and gardens at the local scale and street trees, hedgerows, roadside verges and green roofs/walls at the microscale''

2.3 Paragraph 6.2.3 of PPW12 cites the importance and benefit of Green Infrastructure whereby;

> ''The components of Green Infrastructure, by improving the resilience of ecosystems, can result in positive benefits to well-being including flood management, water purification improved air quality reduced noise pollution and local climate moderation, climate change mitigation and food production. These benefits are important in urban environments where they can facilitate health and well – being related benefits of open space, clean air and improved tranquility for example, as well as creating a sense of place and improved social cohesion. In addition, green infrastructure has a role in protecting local distinctiveness providing economic befits and social and community opportunities.''

2.4 Within Chapter 6 it is intended that Planning Authorities must adopt a strategic and proactive approach to green infrastructure biodiversity and ecosystem resilience by producing up to date inventories and maps of existing green infrastructure and ecological assets and networks which will underpin future development plans on a spatial basis where ''further fragmentation and isolation of habitats and species is avoided wherever possible and wildlife corridors and stepping stones forming wider ecological networks are protected maintained and enhanced''.

2.5 These Assessments will be multi-functional across administrative boundaries, and also reference evidence provided by NRW's Area Statements and Nature Network Maps intended to assist early consideration of development proposals and inform the design and implementation of projects.

2.6 It is understood that at present Gwynedd Councils Green Infrastructure Policy is under active consideration and developing via the Green Gwynedd Plan which seeks to ensure the following:

- Significant reduction in carbon emissions.
- We respond to the effects of climate change.
- An increase in biodiversity and nature habitats.
- An excellent network of routes for residents to have the choice of active travel to their place of work, education or leisure.
- A public transport network that meets the needs of Gwynedd's communities.

The Policy development is reliant on existing Planning Policy Wales Edition 12 (Welsh Government Chapter 11 and National Policy which includes:

- Future Wales - The National Plan 2040 - (Welsh Government 2021) – Policy 9
- The Well Being of Future Generations Act (2015)
- Active Travel (Wales) 2015 – walking accessibility
- Building Better Places The Planning System Delivering Resilient and Brighter Futures Placemaking and the Covid 19 Recovery - Welsh Government (2020)
- Natural Resources Wales (NRW). 2016. The State of Natural Resources report 2016. Assessment of the sustainable management of natural resources.
- National Site Network – (formerly Natura 2000 network)
- DECCA Framework NRW
- 'Statutory SuDS Standards'
- TAN 5, TAN 12, TAN 16 of PPW1
- Updated TAN 15

Green Infrastructure Assessments will need to recognise the need for ecosystems, habitats and species to adopt to climate change and other pressures, and include identification of ways to avoid or reverse the fragmentation of habitats and improve habitat connectivity where appropriate which will be reflected in consideration of development proposals via the Planning system.

The role of development within any Local Authority Green Infrastructure Assessment will be two-fold:

1. ***To ensure that development avoids and minimises impact upon biodiversity and ecosystems.***
2. ***Provides opportunity for enhancement within areas identified as important for the ability of species to adapt and/or to move to more suitable habitats.***

2.7 In due course all LPA's, including Gwynedd will develop a set of Key Indicators for development effects upon biodiversity and green infrastructure functions which will be place specific, such as key species, and habitats, opportunities for the protection, retention, restoration and recovery of nature and benefits /ecosystem services which contribute to the health and wellbeing of communities and which it is intended will be secured by conditions or obligations in addition to management plans for sites.

2.8 The Statement for the proposed development at Tyddyn Fletcher therefore seeks to adopt the above aims of PPW12 Chapter 6 Green Infrastructure Assessment whilst a Final Green Infrastructure Assessment is under preparation for the County.

3.0 Scheme Proposals

3.1 The proposed scheme is for a residential development of 100% affordable homes to meet unmet demand for affordable homes in Gwynedd on agricultural land known as Tyddyn Fletcher located along Llanberis Road, Caernarfon as the location map below indicates. **NGR**: 249242 362752 **Postcode:** LL55 2BS.

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Fig .1. Site Location Source Bing Maps Ordnance Survey ©2025 Microsoft

3.2 The total proposed site area extends to 1.37 hectares with the net developable area extending to 0.98Ha; the site currently comprises a single field of seasonally grazed hinterland agricultural land - with native bounded hedges, hedgerow trees, and ruderal vegetation immediately adjacent to existing residential areas and Cibyn Industrial Estate.

3.3 A 6m wide Welsh Water easement exists across the site, as well as Overhead Power Lines, which preclude development and this is reflected within the proposed site layout which has been devised to take account of this (remaining free of built development).

3.4 The site is Urban in Character - bordered by existing residential development to the south, commercial development to the east, and adjacent open fields to the north including Llanberis Road forming the sites northern edge beyond which is the undeveloped and riparian edge of the Afon Cadnant watercourse and is a Candidate site for residential development within the Gwynedd Local Development Plan.

3.5 The Proposed Site Layout (Figure 2 below) has been developed by AGA Architects with input from a wide range of disciplines namely, Arboricultural, Ecological, Highways, Landscape, Drainage, Traffic, and Energy Consultants with the built content of the proposal subject to the requirements of ADRA the Housing Association as client.

3.6 It is intended to provide a new vehicular and pedestrian Site access into the development from Llanberis Road vehicular and pedestrian linkage to existing housing within and as the development layout below indicates includes 36no. affordable tenure dwellings as two storey accommodation as a mix of apartments, terraced and semi-detached houses and bungalows. Full details are contained within the Planning Statement accompanying the Application.

3.7 The proposed gross housing density will be 26.27 dwellings per hectare with the net density at 36.73 dwellings per hectare.

3.8 The development includes 36 dwellings, a central spine road with pavements on either side, (reflecting the Water and Power Easement across the site) and with a large area of Public Open Space Provision (POS) and proposed Soft Landscape (and integral SUDS Drainage provision) located contiguous with Llanberis Road

3.9 The Soft Landscape Proposals and Site Layout reflect the Ecological and Arboricultural reporting recommendations provided separately and discussed following.

3.10 The site lies within Flood Zone 1 and therefore there is no perceive flood risk from fluvial, coastal/tidal or surface water/small watercourses.

***Fig** .2. Proposed Site Layout*

3.11 Therefore the proposed drainage design (provided separately) includes;

Surface water – creation of a shallow infiltration basin in the area of proposed Public Open Space (POS) to the north eastern corner of the site parallel with Llanberis Road and a small Rain Garden provision to the south. There are 3 areas of Cellular drainage located within soft landscape areas as indicated within Datrys Surface Water Drainage - Layout Scheme Ref 241691/SK501-P3 dated 16.05.25

Foul Water – generated by the development will be directed to an Off -Site connection into the existing drainage system agreed with Welsh Water and as indicated within Datrys Foul Drainage Layout Scheme Ref 24169/SK501-1 P4. Dated 16.05.25

3.12 Full details of the proposal are contained within the Planning Statement which accompanies the Planning Application.

Fig .3. Site context Aerial Source Bing Maps ©Microsoft 2025

4.0 Green Infrastructure Approach and Statement

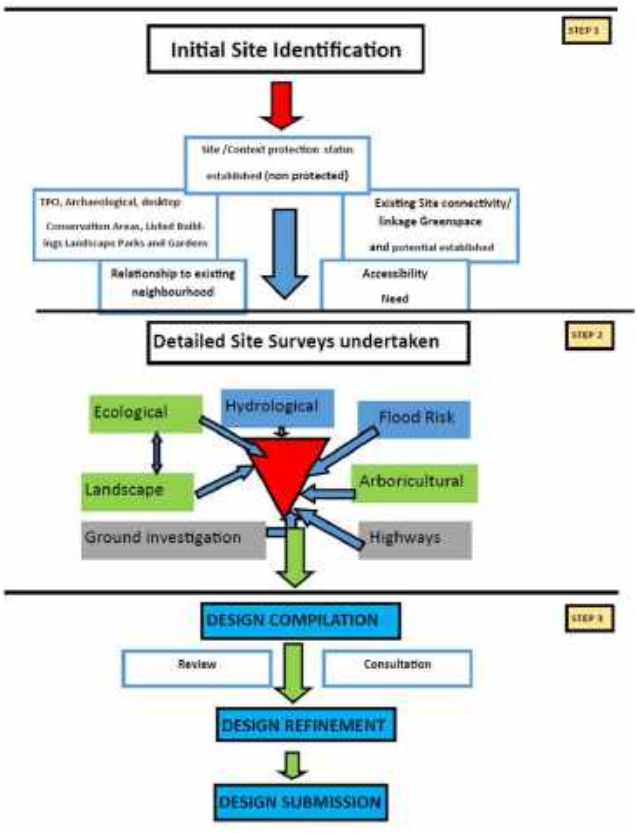
STEP ONE- SITE FEASIBILITY REVIEW

4.1 In order to progress to a detailed design for both a Pre App and subsequent Planning Application for housing on the proposed site, ADRA as client undertook in house studies and engaged consultants at an initial stage to identify or rule out the possibility of development being achieved on the land and to identify its potential for further detailed design as an initial step.

4.2 This entailed background desktop study to ascertain the landscape status with regard to Statutory and Local designation and any legislative protection such as Flood Risk, Scheduled Ancient Monument such as Segontium, Sites of Special Scientific Interest (SSSI's) Conservation Areas, Special Areas of Conservation (SAC), Tree Protection Orders (TPO's), Contaminated Land, Restrictive covenants, Agricultural Land Quality, Restrictive Easements, or Mining interests for example.

4.3 Following this initial review the site was confirmed as NOT BEING SUBJECT TO ANY STATUTORY or NON-STATUTORY PROTECTION OR FLOOD RISK and therefore considered suitable for further review and input towards the creation of a proposed layout in the form of the following:

- Flood Risk Assessment- including topographical survey FRA
- Ground Contamination reference Phase I and Phase II
- Transport Statement - SCP
- Arboricultural Survey - RML (via ROAVR Group)
- Ecological Survey including a Breeding Bird Habitat Appraisal– RML
- Preliminary Ecological Appraisal and Reptile Survey
- Adopted Sustainability Building design principles



STEP TWO - DETAILED SURVEY AND DRAFT PROPOSED SITE LAYOUT

4.4 Following initial sketch plans, the proposed detailed site design was commenced in Summer 2024 when Architectural Consultants AGA (Ainsley Gommon Architects Ltd.) were appointed by ADRA to develop initial site proposals for a capacity and feasibility review and thereafter, if possible, a schematic layout for preliminary comment and refinement with input from all disciplines.

4.5 The initial proposed Masterplan has been refined following the confirmation of the Easement and Watermain route through the site, and overhead Power Supply which restrict development extents, with the housing extents reflecting separation distances from existing dwellings to the south east and south western boundaries, whilst retaining all boundary vegetation in the form of Hedges and hedgerow trees, and providing areas of Public Open Space and responding to the landform which falls towards Llanberis Road and the Afon Cadnant Valley to the north

4.6 A review of available information relating to flood risk and the identification of the nearby Afon Cadnant and its flow into the Y Fenai Bae Conwy/Menai Strait and Conwy Bay Special Area of Conservation (SAC) confirmed the need for attenuation capacity on site, and onsite attenuation was indicated as part of the proposal as an attenuation Pond and cellular containment to the north western and north eastern boundaries of the site.

4.7 The Arboricultural Survey identified existing hedges and trees within the site as being of Good to Fair quality (and these include some specimen Oak trees) and the layout reflects this as all trees and hedges on site are to be retained.

4.8 The topographical survey and engineering review shaped the sites potential with an emphasis on preserving existing levels as much as possible to remove the need for excessive cut and fill operations whilst achieving adoptable levels throughout the proposal and avoiding export/import of materials and hence reduce vehicular movements.

4.9 The Ecological reporting highlighted the importance of the Afon Cadnant and its riparian corridor - including the SAC designation and the overall design aims to retain the boundary hedging contiguous with the sites northern frontage, providing an attractive street scene contribution and approach to Caernarfon along Llanberis Road.

4.10 The RML Ecological Survey undertaken in 2024 provides specific mitigation recommendations including highlighting a need for further Protected Species Survey for Bats (which was subsequently undertaken) which was issued in May 2025 and confirms the use of the site for foraging Bats.

4.11 This led to the proposed layout of houses respecting the natural grain of the landscape and with the proposed access in the general location of the existing field access thus minimising change, and with the proposed area of Public Open Space located at the lowest site topography parallel with Llanberis Road providing an additional area suitable for Large Native tree planting and SUDS water attenuation provision.

4.12 Planting along this north western boundary additionally provides an attractive buffer between the development and Llanberis Road, as an additional green corridor between the site and the Afon Cadnant valley to the north, whilst the retention of hedgerows maintains foraging areas for Bats (as well as minimising light disturbance) in accordance with the RML Bat Survey report recommendations.

4.13 Additional Mitigation Measures include the inclusion of Native trees and Shrubs and pollinator beneficial planting in Amenity Areas, as well as proposed Street and Field trees and areas of Longer Grass Sward to link hedgerows and the site boundaries and reflecting the varied ground conditions envisaged – such as the Attenuation Area.

4.14 Bat and Bird Boxes have also been included within the proposal, and in addition – signed Hedgehog open access Corridors between gardens as shown within Figure 4 of the appendices.

Fig .4. Green Infrastructure Stepwise Approach - Source PPW12 February 2024

4.15 As documented the bulk of the site lies within Flood Zone 1 and is consequently deemed to be at low risk of flooding by Natural Resources Wales (NRW) The overall risk to the proposed development is therefore low.

4.16 There are no open watercourses within the development site, and the site lies within Flood Zone 1 and therefore there is no perceived flood risk from fluvial, coastal/tidal or surface water / small watercourses.

4.17 In accordance with TAN 15 and the latest national standards on Sustainable Urban Drainage Systems (Flood and Water Management Act 2010) a drainage strategy has been prepared and accompanies the Planning Application and ensures that the proposed development will not exceed greenfield run off rates and utilises SuDS to ensure that flood risk is not increased both on, adjacent, or downstream of the proposed site.

4.18 Locating the drainage provision as Cellular Drainage and an Open Infiltration area within the site and area of POS (parallel with Llanberis Road) helps provide a combined green open area of Species Rich seeding potential and large field trees along its northern site boundary - providing both Biodiversity potential and amenity value for occupants and users of the site.

Fig .6. Flood Maps for Planning © NRW

4.19 A Water Conservation measures have included as part of the design proposals which through design efficiency and saving measures - which seek to utilise as little water as possible through dual flush toilets and flow restrictors on taps for example, and likewise the housing design incorporates a very high level

of insulation specification, Air source heat pumps and electric vehicle charging, cycle storage and waste management and recycling provision.

4.20 Likewise the building designs adopt Sustainable Design measures including:

- Materials sourcing - BRE Green Guide to Specification
- Carbon reduction
- Building orientation and Built form
- Passive Solar Gain
- Natural light and wind protection
- High performance PVC fenestration and doors
- Sustainable materials locally sourced - reducing carbon footprint mileage during construction.
- Low air loss design minimising heat loss / energy required to heat the property

4.21 Linkages to the existing footpath network and travel links and areas of greenspace are via the existing highway network primarily via Llanberis Road to the wider footpath network and Town Centre - and include a new Bus Stop on Llanberis Road and a new direct footway link to housing adjacent at Glan Peris, however there is no physical connection between the site and footpath between Cibyn Industrial Estate due to different land ownership.

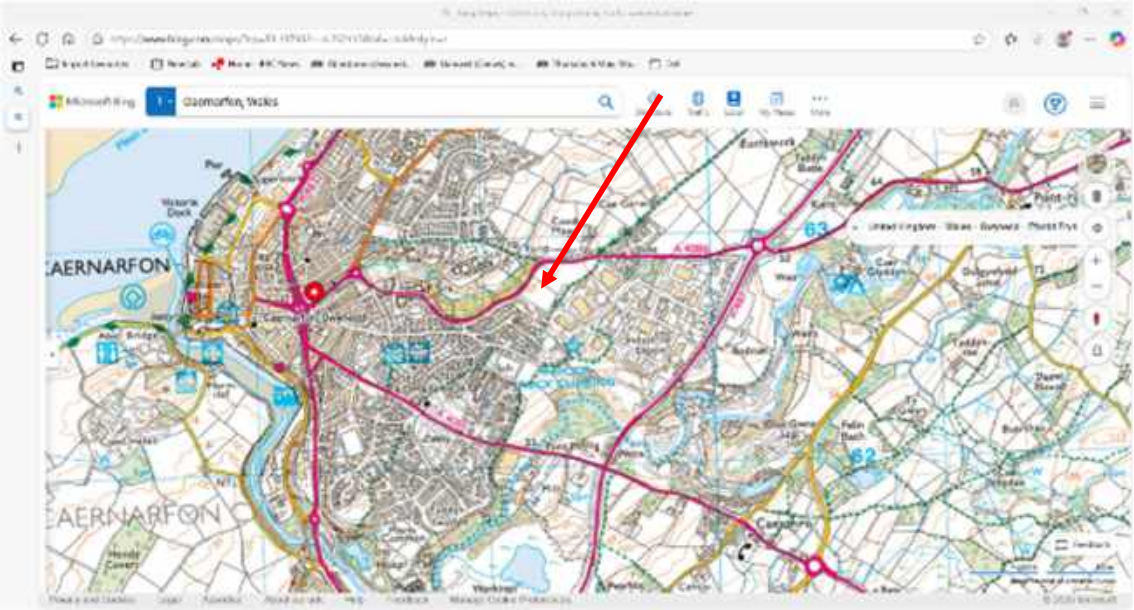


Fig 5. Ordnance Survey Mapping showing footpath locations - source Bing Maps Microsoft 2025

4.22 Soft Landscape proposals were developed with the following aims:

- habitat mitigation and linkage
- native tree addition including field trees
- creation of Species Rich Seeded areas
- provision of Bird boxes and Bat Boxes
- location of designated Hedgehog highways for connectivity.
- Sensitive lighting design
- inclusion of night scented climbers
- visual integration of the built development into the wider landscape
- visual amenity of adjacent existing dwellings and proposed dwellings
- safety and cost of future maintenance and management

STEP 3 FINAL DESIGN

4.23 Following team design comments the site layout was refined for this submission reflect the final position of the Welsh Water Main (and easement) through the site once its exact location was determined, thus providing further areas for greenspace via a carefully considered layout.

4.24 This has resulted in the increased areas of Public Open Space provision including a dedicated area for Active Play and area for informal access and activity.

4.25 The latest Proposed Site Plan (AGA Architects Drawing reference; Proposed Site Layout C1139 015 Revision L) forms the submitted proposal for the Planning Application and the base drawing for the submitted landscape proposals which are both appended to this document.

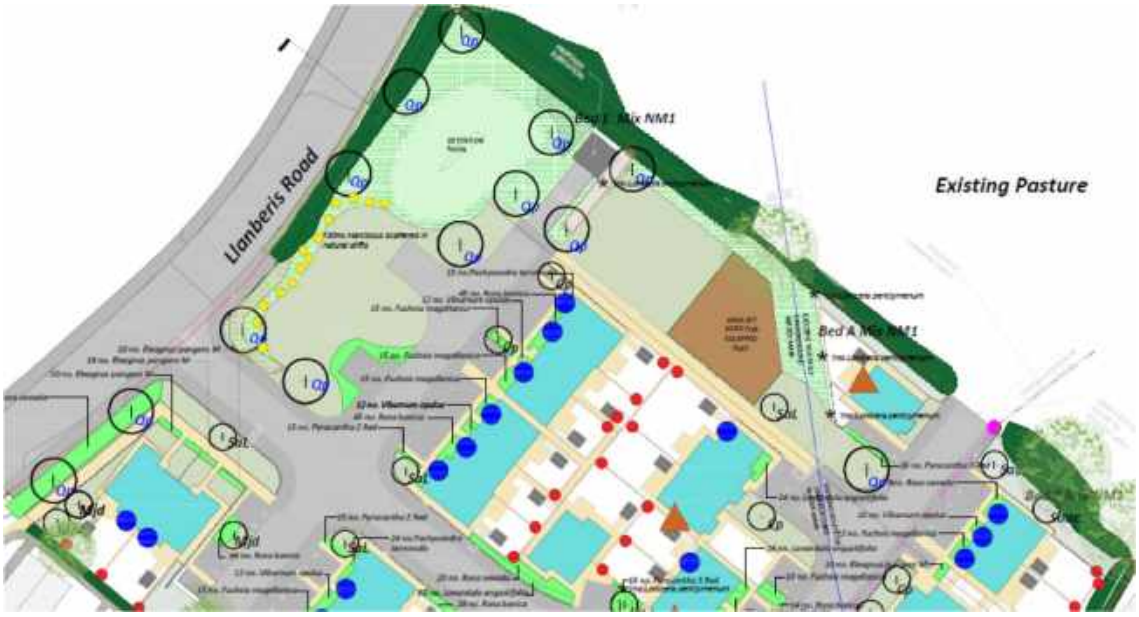


Fig .6. Extract of Soft Landscape Proposals May 2025 ©Tirlunbarr Associates

4.26 The proposals will be subject to the preparation of a 5-year Establishment and Maintenance Plan to ensure the proposed measures establish fully and a 20+ year Management Plan which will detail maintenance in the longer term as well as monitoring responsibilities. This will be via an annual review of the site and Maintenance works,and whereby changes to maintenance activities may be undertaken to ensure the Net Biodiversity gain is met and in the interests of the end users.

4.27 The submitted proposals seek to meet the requirements of Chapter 6 of PPW12 by ensuring avoidance and negative impact upon any protected landscape or habitat, enhancing and protecting the sites Biodiversity and Ecosystem potential as the Stepwise approach above demonstrates, and provides enhanced opportunity for natural linkage of habitats and strengthening of existing resources for the future through a careful and collaborative design approach from all disciplines.

4.28 This accords with the recommended NRW DECCA framework- by meeting their **D**iversity, **C**onnectivity, **E**xtent, **C**ondition and **A**daptability targets in meeting Ecosystem resilience and the requirement, and PPW 12 (Ref 6.4.16) that all development must deliver a proportionate net biodiversity and ecosystem resilience from the baseline state through a proactive process to secure enhancement through the design and implementation of the development.

5.0 Summary

5.1 A Green Infrastructure Statement has been prepared for the proposed development of 36 dwellings in land at land known as Tyddyn Fletcher Llanberis Road Caernarfon, in accordance with the requirements of Chapter 6 (PPW12) issued by Welsh Government in in February 2024.

5.2 As a fairly recent introduction this Statement cannot yet reflect details of a specific Gwynedd Authority Green Infrastructure Strategy (which we understand will be available in due course), but fully accords with stated ambitions within the Cyngor Gwynedd Plan - A Greener Gwynedd 2023-2028.

5.3 The submitted Design Proposals and their refinement have been undertaken by experienced professionals who were able to use their experience and expertise as a team - to produce a Site Layout and content which reflects the Chapter 6 ethos and aims as advocated in the stepwise staged approach on behalf of their client ADRA.

5.4 As a result the development;

- Has taken a stepwise approach to the development provision
- Incorporates Flood Alleviation Measures
- Does NOT propose development on a designated or protected site
- Has not involved any Pre-Site clearance (other than for survey access)
- Delivers net benefit for Biodiversity and Ecosystem gain through a series of proposed measures for mitigation and enhancement
- Has prevented the loss of existing trees and replaced and supplemented them to increase canopy cover
- Contributes towards climate change moderation
- Provides sustainable energy measures
- Provides areas of POS for public access assisting Health and well being
- Provides linkage and maintenance of/to adjacent habitat
- Will be actively managed via a Maintenance and Establishment Plan for soft landscape proposals and a longer-term Management Plan - monitored appropriately - to achieve maturity and successful establishment of the Green Infrastructure Proposals

5.4 In summary habitat extents provided as part of the proposal are as follows:

	Habitat	No/Area	Notes
1	Trees (no)	15 new specimen native Field trees 20 new native and fruiting street trees	Additional trees also planted as part of the proposed Native scrubland planting area mix
2	Species Rich Grassland m²	+932m²	In addition to amenity short mown grass and individual private garden seeded areas
3	Amenity low/shrub planting/herb areas	340m²	Pollinator friendly planting
4	Native tree and shrub Forestry Planting	245m²	Mixed native tree and shrub planting
5	Bat Boxes	8no	
6	Bird Boxes	16	
7	Hedgehog routes (no)	43 holes	with signed hedgehog highways
	Other Features		***Contd….***

			Contd….
8	Water Attenuation basin areas	1no.	Approximately 300m² seeded with Species Rich Seed Mix in addition to grassland extents provided above
9	Rain Garden provision	1no.	Planted with drought resistant and flowering species, for Amenity and Pollinator value.

J.A.Barr Issued 21.05.25

FIGURES

FIGURES

1.0 Site Location Plan
2.0 Proposed Site Plan – AGA Proposed Site Layout Rev L
3.0 Drainage Proposals – Datrys Drawings:
Foul Drainage Layout Scheme Ref 24169/SK501-1 Rev P4 dated 16.05.25
Surface Water Drainage Layout Scheme 24169/SK501 -3 P3 dated 16.05.25
4.0 Soft Landscape and Ecological Mitigation Proposals Tirlunbarr Drawing - Soft Landscape Proposals – Sheets 1 and 2 v2

REFERENCES

1. Tyddyn Fletcher Design and Access Statement FINAL (May 2025) AGA

2. PPW12 Chapter 6 Green Infrastructure February 2024

3. RML Ecology Preliminary Ecological Assessment May 2025

4. RML (ROAVR) Arboricultural Assessment September 2024

5. Datrys Drainage Statement Ref

6. RML (Castell Ecology) Breeding Bird Habitat Appraisal - August 2024

7. SCP Transport Statement Sept 2024

8. Datrys Flood Risk Assessment

9. E-geo Geotechnical Report Dec 2024

10. CR Archaeology Results of Archaeological Evaluation Feb 2025

11. PPW12 February 2024

12. RML Bat Survey April 2025

Proposed residential development on land off

Llanberis Road Caernarfon

FIGURE 1 **SITE LOCATION PLAN** **May 2025**

©Bing Mapping

North

MATURE OAK TREE TO BE RETAINED

POSITION OF OVERHEAD CABLES

FARM GATE FOR ACCESS TO ADJACENT LAND

OVERHEAD CABLES DIVERTED UNDERGROUND

EXISTING POSITION OF OVERHEAD CABLES

SUBSTATION

WILDLIFE CORRIDOR

CAERNARFON PENTECOSTAL CHURCH

LLANBERIS ROAD

AMENITY SPACE 635m²

AREA SET ASIDE FOR EQUIPPED PLAY SPACE 234m²

DETENTION BASIN

3m ACTIVE TRAVEL PATH

AMENITY SPACE 1526m²

AMENITY SPACE 210m²

Bungalow

INDICATIVE VISIBILITY SPLAY

NEW SITE ENTRANCE

INDICATIVE VISIBILITY SPLAY

OPTIONAL BUS STOP

LINK

LINE OF WATERMAIN

PLANTING STRIP

RG

REV	DESCRIPTION	DATE	BY
L	EQUIPPED PLAY SPACE MOVED SOUTH EAST.	20/05/25	IO
K	MORE GREEN AREAS SHOWN & AMENITY SPACE FOR FLATS	30/04/25	GT
J	SECTIONS OF HIGHWAY SHOWN IN 'BROWN' COLOUR ADJUSTED TO LIGHT GREY INFRONT OF HOUSES	29/04/25	GT
H	FLATS 15-20 MOVED UP AND ONE 4P2B HOUSE MOVED DOWN, ADJACENT TO PLOT 26. PLAY AREA MOVED OUT OF THE WATER MAIN EASEMENT	28/04/25	GT
G	WATERMAIN POSITION ADJUSTED	24/04/25	IO
F	AMENDED TEXT ANNOTATION OF ADJACENT LAND	16/04/25	GT
E	FARM GATE ADDED FOR ACCESS TO PHASE 2 LAND WITH STOCK PROOF FENCE EITHER SIDE OF GATE AND ALONG MAIN ROAD. 2.1M FENCE ADDED TO BOUNDARY WITH CIBYN INDUSTRIAL ESTATE.	16/04/25	GT
D	BINS & SHEDS ADDED, 1.2m LANDING DEPTH TO FRONT DOORS	11/04/25	GT
C	PLOT 12 & 13 SWITCHED, SUBSTATION PUSHED BACK, RAIN GARDEN REMOVED ADJACENT PLOT 8	27/03/25	GT
B	AMENDMENTS TO SITE LAYOUT FOLLOWING ADRA'S PREFERRED HOUSING MIX	03/03/25	GT
A	FOR WELSH GOVERNMENT SUBMISSION	09/12/24	GT

PROJECT

LLANBERIS ROAD, CAERNARFON for ADRA

DRAWING TITLE

PROPOSED SITE LAYOUT

SCALE	DATE	DRAWN	CHECKED
1 : 250@A1	17/10/24	GT	SV

DRAWING STATUS: PLANNING

JOB No	DRAWING No	REVISION
C1139	015	L

AINSLEY GOMMON ARCHITECTS

THE OLD POLICE STATION, 15 GLYNNE WAY, HAWARDEN, CH5 3NS
Tel: 01244 537 100 | wales@agarchitects.co.uk | www.agarchitects.co.uk

Ainsley Gommon Architects Ltd. Registered in England & Wales No.4187948
Registered Office: 1 Price Street, Hamilton Square, Birkenhead CH41 6JN

PRINTED: 20/05/2025 14:55:49

0m 5m 10m 15m 20m 25m

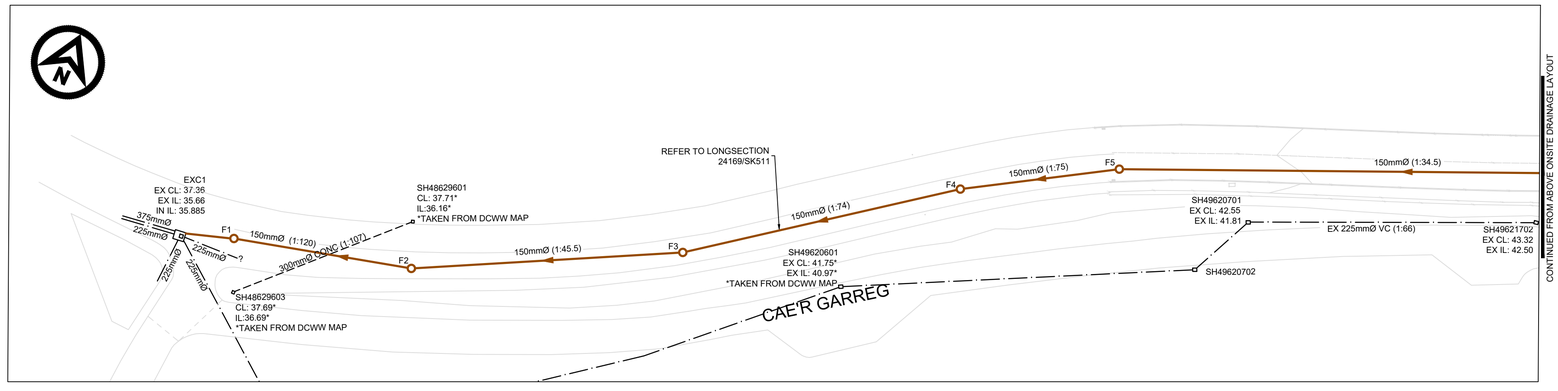
VISUAL SCALE 1:250 @ A1

A1

PROJECT No. 24169 | DRG No. SK501-1

DO NOT SCALE

ONSITE DRAINAGE LAYOUT
1:500



OFFSITE DRAINAGE LAYOUT
1:500

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S, ENGINEER'S AND OTHER SPECIALISTS' DRAWINGS.
2. PLEASE REFER TO ARCHITECTS DRAWINGS FOR FINAL BUILDING LOCATION
3. REFER TO DATRYS DRAWING 24169/SK511 FOR LONGSECTION

KEY

- SITE BOUNDARY
- EXISTING COMBINED SEWER AND CHAMBERS
- EXISTING SURFACE WATER SEWER AND CHAMBERS
- PROPOSED FOUL DRAINAGE AND CHAMBERS
- PROPOSED SURFACE WATER DRAINAGE AND CHAMBERS
- PROPOSED PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RAINGARDEN
- WB PROPOSED WATER BUTT

REV	DATE	DESCRIPTION	BY	CHK	APP
P4	16.05.25	DRAINAGE AMENDED TO SUIT INFILTRATION RESULTS	CB	LI	NJ
P3	06.05.25	DRAINAGE AMENDED TO SUIT LAYOUT UPDATE	CB	NJ	AC
P2	19.12.24	LAYOUT AMENDED	CB	LI	AC

REVISIONS

PRELIMINARY

CLIENT

Adra

PROJECT

Tyddyn Fletcher,
Llanberis Road, Caernarfon.

TITLE

Foul Drainage Layout Scheme

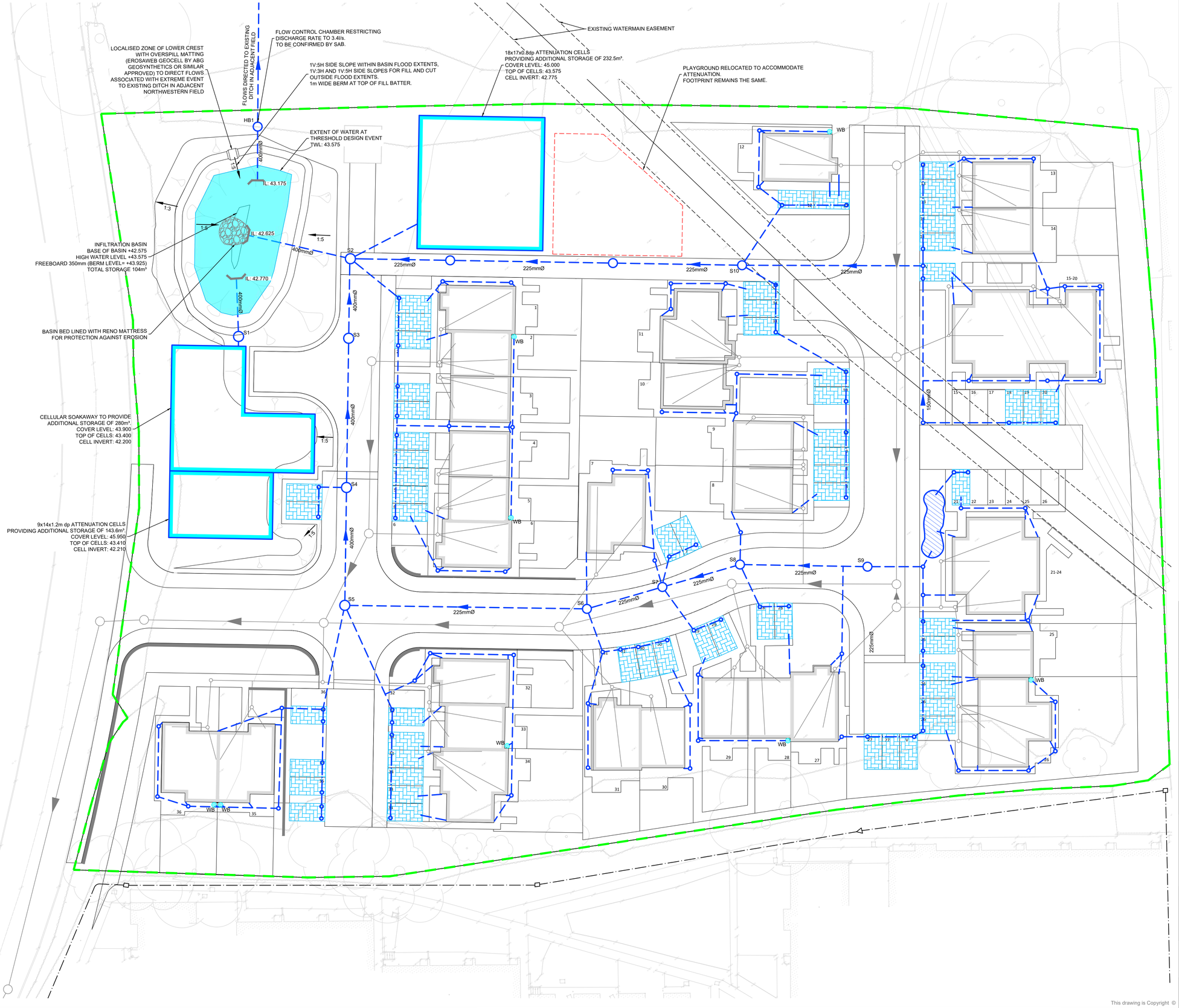
DATRYS

Caernarfon:
Unit 1 Block C, Doc Victoria
Caernarfon, LL55 1TH
Tel: 01286 671027

Mold:
Suite 4A, Broncoed House
Wrexham Road, Mold, CH7 1HP
Tel: 01352 706205
info@datrys.coop | www.datrys.net

DRAWN CB	CHECKED LI	PASSED AC	
DATE 30.09.24	DATRYS REF.		
SCALE AT A1 1:500	AUTOCAD REF. 24169/SK501		
DRAWING No. 24169/SK501-1	REVISION P4		

PROJECT No. 24169 | DRG No. SK501-3 | **DO NOT SCALE**



NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S, ENGINEER'S AND OTHER SPECIALISTS' DRAWINGS.
2. PLEASE REFER TO ARCHITECTS DRAWINGS FOR FINAL BUILDING LOCATION
3. ALL DRAINAGE COMPONENTS ARE TO COMPLY WITH CURRENT BRITISH STANDARDS & BUILDING REGULATIONS REQUIREMENTS
4. **AT ALL OUTFALL POINTS TO AN EXISTING NETWORK, THE POSITION AND INVERT LEVEL OF EXISTING DRAINS MUST BE CONFIRMED WELL IN ADVANCE OF THE PROGRAMMED DATE FOR INSTALLING ANY OF THE UPSTREAM DRAINAGE, OR ORDERING ANY MATERIALS IN ORDER TO ALLOW TIME FOR ANY NECESSARY REVISIONS TO THE HYDRAULIC DESIGN.**
5. ALL GRAVITY PVC-U PIPEWORK TO BE TO BS 4660:2000 OR BS EN 1401-1:2009 WHERE RELEVANT UNLESS NOTED OTHERWISE
6. ALL CONCRETE SHALL BE GEN3 WITH SULPHATE RESISTING IN ACCORDANCE WITH BS8500 U.N.O.
7. FINAL LOCATIONS AND DETAILS OF SOIL & VENT PIPE, STUB STACKS, RAINWATER DOWN PIPES, GULLYS etc. TO BE CONFIRMED BY REFERENCE TO ARCHITECTS' DRAWINGS
8. ALL PIPES INTO MH's TO BE SOFFIT TO SOFFIT LVL U.N.O.
9. WHERE CHAMBERS ARE POSITIONED ON 90° CORNERS, ALWAYS USE THE MAIN CHANNEL BY FITTING A 45° BEND ON THE INLET AND OUTLET
10. ALL NON ADOPTABLE DOMESTIC FOUL AND SURFACE WATER PIPE RUNS SHALL CONSIST OF 100mm Ø PIPES LAID AT A MINIMUM FALL OF 1 IN 80 U.N.O
11. ALL CONNECTIONS FROM HIGHWAY GULLIES TO BE 150mmØ LAID AT FALLS OF BETWEEN 1:20 & 1:100 WITH TYPE S BED & SURROUND TO ALL CONNECTIONS WHERE MIN 1.2m COVER IS ACHIEVED. TYPE Z BED & SURROUND TO ALL OTHER CONNECTIONS.
12. COVER LEVELS ARE APPROXIMATE AND SHOULD MATCH PROPOSED SURROUNDING LEVELS. CONTRACTOR TO USE OFFICIAL TBM'S FOR SETTING OUT.
13. IT IS RECOMMENDED TO WORK TO 3 BLOCK COURSES ABOVE BISCUIT TO ALLOW FOR TOLERANCES IN FINAL SURFACE
14. CLAUSES (e.g E2.32) REFER TO SEWER FOR ADOPTION 7 OR CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY

KEY

- SITE BOUNDARY
- EXISTING COMBINED SEWER AND CHAMBERS
- EXISTING SURFACE WATER SEWER AND CHAMBERS
- PROPOSED FOUL DRAINAGE AND CHAMBERS
- PROPOSED SURFACE WATER DRAINAGE AND CHAMBERS
- PROPOSED PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RAINGARDEN
- WB PROPOSED WATER BUTT
- PROPOSED CELLULAR SOAKAWAY

REV	DATE	DESCRIPTION	BY	CHK	APP
P3	16.05.25	DRAINAGE AMENDED TO SUIT INFILTRATION RESULTS	CB	LI	NJ
P2	30.04.25	SITE LAYOUT UPDATED. INFILTRATION BASIN NOTE AMENDED.	CB	LI	NJ

REVISIONS

PRELIMINARY

CLIENT: Adra

PROJECT: Tyddyn Fletcher, Llanberis Road, Caernarfon.

TITLE: Surface Water Drainage Layout Scheme

DATRYS

Caernarfon:
Unit 1 Block C, Doc Victoria
Caernarfon, LL55 1TH
Tel: 01286 671027

Mold:
Suite 4A, Broncoed House
Wrexham Road, Mold, CH7 1HP
Tel: 01352 706205
info@datrys.coop | www.datrys.net

DRAWN CB	CHECKED LI	PASSED LI	
DATE 20.12.24	DATRYS REF.		
SCALE AT A1 1:250	AUTOCAD REF. 24169/SK501		
DRAWING No. 24169/SK501-3	REVISION P3		

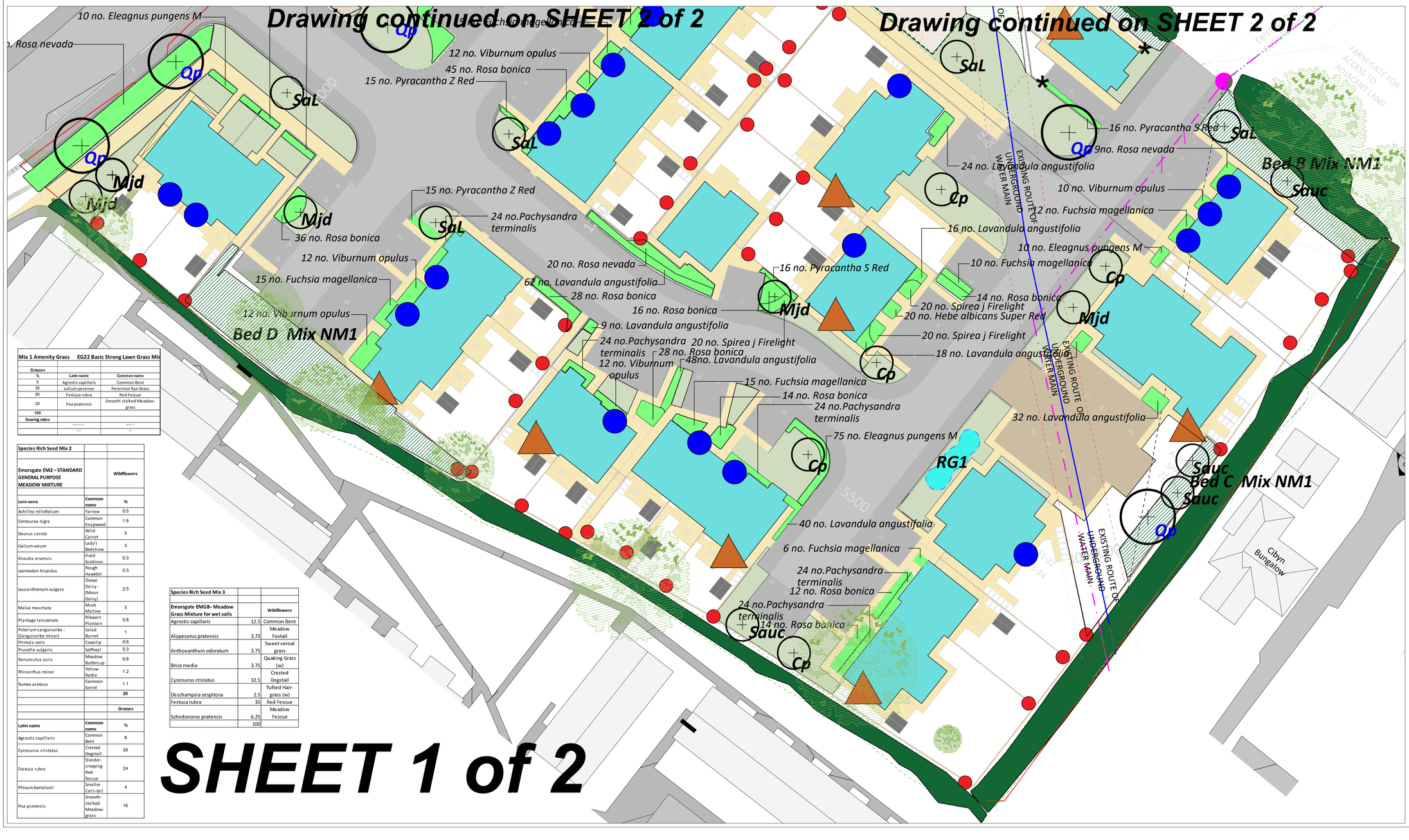
Specimen EHS Native trees						
Abbr.	**Species**	**Size**	**Pot Size**	**Form**	**Spacing**	**Notes**
Qp	Quercus petraea	14-16cm	min 75Ltr	Ctr/rb/Airpot	As shown	U/g Guying or triple staked with tie and spacer
	Planted into prepared pits min 900x900x900cm with added peat free rooting medium, slow release fertilser and michorrhizal additive at manufacturers recommended rates. Fitted with tree guard immediately after planting.Where planted in grass/wildflower areas - 1m diameter circle to be kept weed free and mulched with min 50mm coarse grade bark mulch.					

Specimen Street /Garden trees						
Code	**Species**	**Height**	**Pot Size**	**Form**	**Spacing**	**Notes**
Cp	Crataegus prunifolia	10-12cm	min 75Ltr	Ctr/rb	n/a	Staked with tie and spacer
Mjd	Malus John Downie	8-10cm	min 75Ltr	Ctr/rb	n/a	Staked with tie and spacer
Sar	Sorbus aria Lutchescens	12-14cm	min 75Ltr	Ctr/rb	n/a	Staked with tie and spacer
Sauc	Sorbus aucuparia Streetwise	12-14cm	min 75Ltr	Ctr/rb	n/a	Staked with tie and spacer
	Planted into prepared pits min 600x600x900cm with added peat free rooting medium, slow release fertilser and michorrhizal additive at manufacturers recommended rates. Tree guards to be fitted immediately after planting Staked					

Native Hedge INFILL planting - Mix NHM2	Height	Form	Size	%mix	Spacing	Notes
Species						
Crataegus mongyna	450-600mm	Br	2+0	20	3/lin m	Min 3 breaks
Prunus spinosa	300-450mm	Ctr	2ltr min	70	3/lin m	Min 3 breaks
Sambucus nigra	450-600mm	Br	2+0	10	3/lin m	Min 3 breaks
Planting to be used as infill to gap up the existing hedges where required at a spacing of min 300mm apart grouping of 7 plants of the same species either notch planted or planted into prepared Pits (300x300x300mm backfilled with topsoil, Michorrhizal granular additive and 100mm organic matter + Slow release fertiliser at manufacturers recommended rate.) Where used as infil planting to gap up hedge plant in double or single staggered row as existing root matrix allows. All planting to be fitted with tree shelters to be removed once established and protected from stock grazing where appropriate.						

Native Hedge planting - Mix NHM1	Height	Form	Size	%mix	Spacing	Notes
Species						
Corylus avellana	450-600mm	Br	2+0	5	3/lin m	Min 3 breaks
Crataegus mongyna	450-600mm	Br	2+0	15	3/lin m	Min 3 breaks
Prunus spinosa	300-450mm	Ctr	2ltr min	70	3/lin m	Min 3 breaks
Rosa canina	450-600mm	Br	2+0	10	3/lin m	Min 3 breaks
Planting to be at 450m centres in a double staggered rows 300mm apart max . grouping of 7 plants of the same species. Trench to be 300x300x300mm backfilled with topsoil, Michorrhizal granular additive and 100mm organic matter + Slow release fertiliser at manufacturers recommended rate. Where used as infil planting to gap up hedge plant in double or single staggered row as existing root matrix allows. All planting to be fitted with tree shelters to be removed once established and protected from stock grazing where appropriate.						

Native tree and shrub planting - Native Mix NM2	Height	Form	Size	%mix	Spacing	Notes
Species						
Corylus avellana	450-600mm	Br	2+0	60	1/m²	Min 3 breaks
Crataegus mongyna	450-600mm	Br	2+0	20	1/m²	Min 3 breaks
Prunus spinosa	300-450mm	Ctr	2ltr min	5	1/m²	Min 3 breaks
Rosa canina	450-600mm	Br	2+0	5	1/m²	Min 3 breaks
Sorbus aucuparia	450-600mm	Br	2+0	10	1/m²	Min 3 breaks
Planting to be at 1m centres in staggered rows max . grouping of 7 plants of the same species. Pits to be 300x300x300mm backfilled with topsoil and 100mm organic matter + Michorhizzal additive and Slow release fertiliser at manufacturers recommended rate. All Above planting to be fitted with tree shelters and protected from stock grazing where applicable.						



Mix 1 Amenity Grass	EG22 Basic Strong Lawn Grass Mix	
Grasses		
%	**Latin name**	**Common name**
5	Agrostis capillaris	Common Bent
25	Lolium perenne	Perennial Rye Grass
50	Festuca rubra	Red Fescue
20	Poa pratensis	Smooth-stalked Meadow-grass
100		
Sowing rates		

Species Rich Seed Mix 2		
Emorsgate EM2 – STANDARD GENERAL PURPOSE MEADOW MIXTURE		**Wildflowers**
Latin name	**Common name**	**%**
Achillea millefolium	Yarrow	0.5
Centaurea nigra	Common Knapweed	1.6
Daucus carota	Wild Carrot	3
Galium verum	Lady's Bedstraw	3
Knautia arvensis	Field Scabious	0.3
Leontodon hispidus	Rough Hawkbit	0.3
Leucanthemum vulgare	Oxeye Daisy - (Moon Daisy)	2.5
Malva moschata	Musk Mallow	3
Plantago lanceolata	Ribwort Plantain	0.8
Poterium sanguisorba - (Sanguisorba minor)	Salad Burnet	1
Primula veris	Cowslip	0.6
Prunella vulgaris	Selfheal	0.3
Ranunculus acris	Meadow Buttercup	0.8
Rhinanthus minor	Yellow Rattle	1.2
Rumex acetosa	Common Sorrel	1.1
		20
		Grasses
Latin name	**Common name**	**%**
Agrostis capillaris	Common Bent	8
Cynosurus cristatus	Crested Dogstail	28
Festuca rubra	Slender-creeping Red-fescue	24
Phleum bertolonii	Smaller Cat's-tail	4
Poa pratensis	Smooth-stalked Meadow-grass	16

Species Rich Seed Mix 3		
Emorsgate EMG8– Meadow Grass Mixture for wet soils		**Wildflowers**
Agrostis capillaris	12.5	Common Bent
Alopecurus pratensis	3.75	Meadow Foxtail
Anthoxanthum odoratum	3.75	Sweet vernal grass
Briza media	3.75	Quaking Grass (w)
Cynosurus cristatus	32.5	Crested Dogstail
Deschampsia cespitosa	2.5	Tufted Hair-grass (w)
Festuca rubra	35	Red Fescue
Schedonorus pratensis	6.25	Meadow Fescue
	100	

SHEET 1 of 2

N

Key

- Proposed dwellings - refer to Architects drawings for details
- Proposed parking and access roads - refer to Architects drawings for details
- Existing retained trees - refer to Arboricultural reporting for details
- Existing mixed Native hedgerows (retained)

Proposed Planting

- Qp — Proposed Specimen Native Field tree (species as indicated within schedules)
- Sa — Proposed Specimen Native street tree (species as indicated within schedules)
- Proposed Amenity/Pollinator Low shrubs and groundcover(refer to schedule for species)
- RG1 — Proposed Raingarden (species as indicated)
- Short mown Garden amenity grass seeded areas Mix 1 (species as indicated)
- Species Rich long sward seeded areas Mix 2 (species as indicated)
- Species Rich long sward seeded areas Mix 3 (wetland species as indicated)
- Proposed Native tree and Shrub Mix planting NH1 (species as indicated)
- * — Specimen Shrub/Climber (species as indicated)
- Proposed Native Hedge Planting (species as indicated)

Proposed Biodiversity Mitigation

- Proposed Bat Box
- Proposed Bird Box
- Proposed Hedgehog House
- Proposed Hedgehog Hole (Highway route)

NOTES:

1. Proposals based upon layout provided within Ainsley Gommon Architects Proposed Site Plan Site Analysis and FFL Drawing Ref: C1106 016 Rev L dated 20.05.25
2. Drawing issued for Planning purposes only - not for tendering.
3. Ecological Arboricultural and Drainage reporting provided separately.
4. All fencing to have compliant Hedgehog Holes and signage as indicated - Bat Bird and Hedgehog House types as detailed by RML
5. Plant schedules indicated on Sheets 1 and 2.
6. For Hard Landscape proposals refer to Architects Proposals
7. This drawing remains © copyright of Tirlunbarr Associates.

0m 4m 8m 12m 16m 20m

Scale 1:250 @ A1

v2	PW	JB	JB	21/05/25
v1	PW	JB	JB	15/05/25
Issue	Drawn	Checked	Approved	Date

Tirlun Barr
Chartered Landscape Architecture
Tan y Berllan, Llanbedr y Cennin, Conwy, LL32 8UY
Tel Office :01492 650333
www.tirlunbarr.com

Client: Adra

Project Title: Land at Tyddyn Fletcher, Caernarfon

Drawing Title: **Soft Landscape and Ecological Mitigation Proposals**

Drawing Number: 10/025/PP/01.01

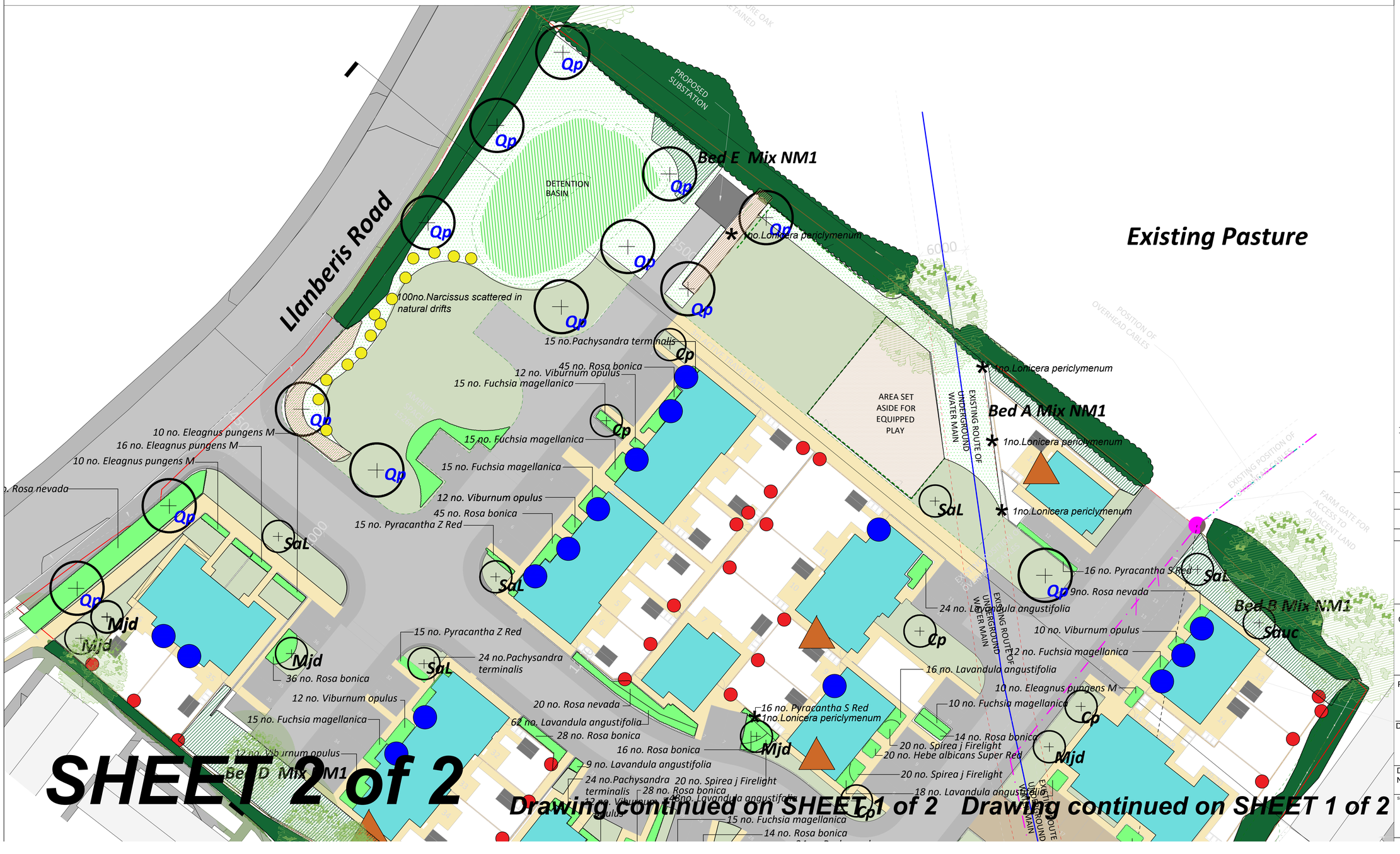
Size	Scale	Issue
A1	1:250	v2

Abbr	Shrubs and Groundcover	Height	Pot Size	Form	Notes	no/m²
	Species selected for Amenity, seasonal interest and Pollinator benefit with certain plants taken from RHS recommended List and for additional Shoulder Month nectar benefits where suitable.					
Epm	Eleagnus pungens Maculata	450-600mm	5ltr	ctr	Min. 5 breaks in lower third	3
Fcm	Fuchsia magellanica	450-600mm	3ltr	ctr	Min. 3 breaks in lower third	3 or 2.5/lin metre
Lav	Lavandula angustifolia Hidcote	450-600mm	3ltr	Ctr	Min. 3 breaks in lower third	6
Hct	Hebe albicans Super Red	450 - 600mm	2ltr	ctr	Min 3 breaks in lower third	4
Psr	Pyracantha Saphyr Red	600-900mm	5Ltr	ctr	Min 3 breaks in lower third	2 per l in m
Rb	Rosa bonica	450-600mm	2Ltr	ctr/br	Min 3 breaks in lower third	4
Rmg	Rosa nevada	450-600mm	2Ltr	ctr/br	Min 3 breaks in lower third	4
Pt	Pachysandra terminalis	300-450mm	1Ltr	ctr	Min 3 breaks in lower third	6
Voc	Viburnum opulus Compactum	450-600mm	2Ltr	Ctr	Min 3 breaks in lower third	4
Sjf	Spirea japonica Firelight	450-600mm	2ltr	ctr	Min 3 breaks in lower third	3
Shrubs to be planted into prepared ground (Including 100mm well incoporated peat free Compost, slow release fertliser and Micchorizzal additives at manufacturers recommended rates, and be evenly spaced within extents indicated. All Ornamental planting areas to receive min 50mm coarse Grade Bark Mulch immediately after planting.						

Climbers					
Species	Size	Spec	Form	Spacing	Notes
Lonicera periclymenum	450-600mm	2Ltr	ctr	As indicated on drawing	Min 4 breaks, cane to remain until established
Planted into prepared pit 300 x 300 x 300mm with added Peat free rooting medium, slow release fertiliser and michorrhizal additive at manufacturers recommended rates.					

Species	Size	Notes	
Narcissus pseudonarcissus	14/16cm	In natural drifts	As indicated

Rain Garden Planting		Planted in single species block as directed on site evenly spaced throughout area into prepared rain garden medium.				BED
Code	Species	Size	Spec	Form	Notes	no/m²
Ah	Aster herveyi	300-450mm	P9/1Ltr	Ctr		8
Am	Alchemilla mollis	300-450mm	P9/1Ltr	Ctr		6
Cg	Campanula glomerata	300-450mm	P9/1Ltr	Ctr		8
Gr	Geranium Rozanne 'Gerwat'	300-450mm	P9/1Ltr	Ctr		8
Gjb	Geranium Jacksons Blue	300-450mm	P9/1Ltr	Ctr		8
MS	Micanthus sinensis Silbespinne	450-600mm	2Ltr	Ctr		3
Vm	Vinca minor	300-450mm	P9/1Ltr	Ctr	Cut back to 300mm before planting	6
Vor	Viburnum opulus Compactum	450-600mm	2Ltr	Ctr		5



SHEET 2 of 2

Drawing continued on SHEET 1 of 2

Drawing continued on SHEET 1 of 2

N

Key

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0m 4m 8m 12m 16m 20m

Scale 1:250 @ A1

Issue	Drawn	Checked	Approved	Date
v2	PW	JB	JB	21/05/25
v1	PW	JB	JB	15/05/25

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Client: Adra

Project Title: Land at Tyddyn Fletcher, Caernarfon

Drawing Title: **Soft Landscape and Ecological Mitigation Proposals**

Drawing Number: 10/025/PP/01.02

Size	Scale	Issue
A1	1:250	v2