Placemaking Design Report

Rev A

February 2023

Appendix A

Prepared by:

ARUP

On behalf of:

Dŵr Cymru Welsh Water

ARUP

Prepared by Arup, on behalf of Dŵr Cymru, Welsh Water.
This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.
In preparing this report we are relying on information contained in reports supplied by the client and third parties, as stated throughout the document. We have relied in particular on the accuracy and completeness of such reports and accept no liability for any error or omission in this statement to the extent the same results from error or omission in the other consultants' reports. This report is intended to read alongside the Planning Design and Access Statement, ref ' B16789-102503-01-XX-RP-ZA-PN6711'.
Please note, this report is intended to be viewed and printed as an A4 double-sided document with cover page.
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Contents

1. Context of the design

A NATURE BASED SOLUTION FOR WALES

This project highlights a journey of how Welsh Water and National Resource Wales will make their commitments to safeguarding the environment, a better future for all communities and clean safe water, a reality.

A Nature-based Solution (NBS) utilises natural processes or features to sustainably manage and address environmental challenges such as biodiversity decline, climate change, human health, food and water security. In this instance it is proposed that a reedbed and wetland ponds will naturally filter semi-treated waste water whilst providing human well-being and biodiversity benefits with good placemaking design.

1

1.1 Site location

The site is located along the Afon (River) Lwyd in New Inn, Pontypool South Wales.

It is currently accessible to the public from PROW 421 30/1 which runs north / south through access stile gates.

It is neighboured to the north by New Panteg RFC, Afon Close residential areas to the east, private farmland to the south and the Afon Lwyd to the west.

It is approximately 1.6km south of Pontypool and New Inn Railway Station.

Image 01: Site location Plan

1.2 The Placemaking approach

Placemaking will define the character, feel and function of the new park at Pont-y-felin. This is underpinned by simple open space to create more room for nature, to help mitigate the impacts of climate change and to provide new and enhanced open spaces for local people.

Placemaking can be thought of as an 'engine' that is supporting not just nature and people, but is also actively managing rainwater, capturing carbon and cleaning air.

Improved connectivity and active travel routes to and from the site

Low Carbon utility, employing natural processes instead of traditional grey infrastructure

New facilities for any years play and education. Nearest play features off Woodfield Road, New Inn.

Net benefit for Biodiversity across the site and improvements to existing corridors

2. Policy drivers

REALISING A CLIENTS VISION

The objectives of the clients, Welsh Water and National Resources Wales, have been used to define the scope of the projects potential and are shown summarised below. These objectives along with Arup's approach to placemaking design and the Sustainable Development Goals of the UN have guided the projects design standards and decisions on the best way of utilising a Nature-based Solution specific to New Inn.

2.1 Arup's approach to design

The below diagram shows the holistic approach to placemaking design Arup implements to ensure a socially progressive and environmentally beneficial outcome for each project.

Water
Deisgn to improve water quality, reduce flooding and improve system resilience at a catchment scale

Biodiversity
Protecting, enhancing, creating and connecting habitats for widllife at scale to realise biodiversity net gain

People
Looking through a socioecanomic lens to design in the best social and ecnomic value from a scheme

Heritage
Understanding human influence through time. To protect, conserve and enhance the heritage of a site and its context.

Carbon
Minimise the carbon impacts of the scheme and its operation whilst maximising carbon capture to tackle climate change

Landscape
Understanding the site in its physical and cultural context and designing integrated and sustainable places for people and nature

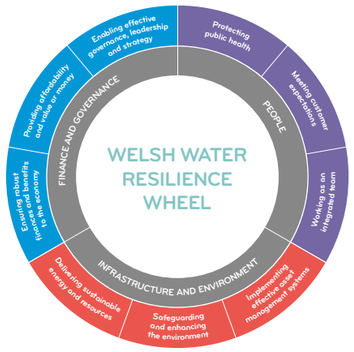
Image 02: Placemaking approach to regenerative design diagram

Welsh Water

Dŵr Cymru Welsh Water

2050 VISION

WELSH WATER 2050 – "To become a truly world class, resilient and sustainable water service for the benefit of future generations."



Natural Resources Wales

Cyfoeth Naturiol Cymru Natural Resources Wales

WELL-BEING STATEMENT

"Managing today's natural resources to tomorrow's generations."

Well-being objectives

- Champion the Welsh environment and the sustainable management of Wales' natural resources
- Ensure land and water in Wales is managed sustainably and in an integrated way
- Improve the resilience and quality of our ecosystems
- Reduce the risk to people and communities from environmental hazards like flooding and pollution
- Help people live healthier and more fulfilled lives
- Promote successful and responsible business, using natural resources without damaging them
- Develop NRW into an excellent organisation, delivering first-class customer service

United Nations

SUSTAINABLE DEVELOPMENT GOALS

SUSTAINABLE DEVELOPMENT GOALS

Arup has pledged to use the UN's 2030 Agenda for Sustainable Development as the core driver behind all its designs.

It provides a shared blueprint for peace and prosperity for people and the planet, now and into the future through its 17 SDG's.

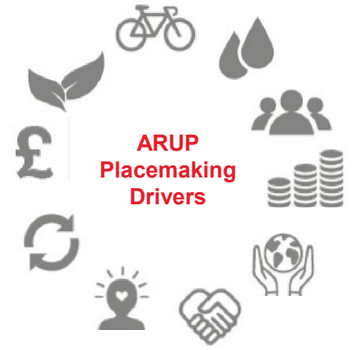
Placemaking

ARUP

PLACEMAKING DRIVERS

Beyond Arup's commitments to sustainable design, the placemaking team have specific drivers which guide our approach to design excellence on all projects.

These are split in 11 key areas which help to achieve a beneficial outcome for our clients, stakeholders and the local community.



2.3 Objectives RAG Assessment

DETERMINING THE SCOPE

A Red, Amber, Green assessment (RAG) was used to bring together the policy drivers shown above and determine the best form of NbS to be utilised for the Pont-y-felin project.

All proposed placemaking interventions were also run through the B£ST Tool, this gives tangible valuations for the benefits of blue-green infrastructure both economically but also against the predicted improvement to the local community.

Nature Based Solutions/ Added Benefits	Reduction of flood risk	Water quality	Active travel	Community/ Social cohesion & value	Biodiversity net gain	Natural capital	Carbon reduction & sequestration	Health & wellbeing	Sustainable construction	Stakeholder/ Partnerships/ Public perception	Return on investment
SUSTAINABLE DEVELOPMENT GOALS	6, 13	6, 14	11, 13	5, 8, 10, 11	13, 15	8, 13	7, 13	3	9, 12	17	
WW 2050 Vision (specifically strategic response 14,15,16 & 18)	strategic response 15, using nature to reduce flood risk and pollution	strategic responses 15&16, using nature to reduce flood risk and pollution, cleaner rivers and beaches		strategic responses 17 working with customers and communities & 8 ensuring affordability of service	strategic responses 14, supporting ecosystems and biodiversity	SMNR commitments	Strategic response 18 - circular economy & combating climate change	Alignment with furture well being act i.e several of the strategic response hit this category	Strategic response 18 - circular economy & combating climate change		
NRW Wellbeing Objectives	2 Ensure land and water in Wales is managed sustainably and in an integrated way	3 Improve the resilience and quality of our ecosystems	5 Help people live healthier and more fulfilled lives	4 Reduce the risk to people and communities from environmental hazards like flooding and pollution	3 Improve the resilience and quality of our ecosystems	1 Champion the Welsh environment and the sustainable management of Wales' natural resources	1 Champion the Welsh environment and the sustainable management of Wales' natural resources	5 Help people live healthier and more fulfilled lives	6 Promote successful and responsible business, using natural resources without damaging them	7 Develop NRW into an excellent organisation, delivering first-class customer service	
Underground storage	🟡	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴
Reedbed (passive)	🟢	🟡	🟢	🟡	🟡	🟡	🟢	🟢	🟡	🟢	🟢
Aerated reedbed	🟢	🟢	🟢	🟡	🟡	🟡	🟡	🟢	🔴	🟡	🟡
Lagoons	🟡	🟡	🟢	🟢	🟡	🟡	🟡	🟢	🟢	🟢	🟢
Constructed wetlands	🟢	🟡	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢

Image 03: RAG assessment spreadsheet

Appendix - Placemaking

3. Baseline and context

In order to understand the challenges and
Opportunities that exist, it is essential to understand the existing place, its context and history. This section explores the current situation for the Pont-y-felin site and it's context to New Inn, Pontypool

3.1 Constraints

Placemaking needs to respond to three main constraints, the extent of land affected by flood events, the existing uses of the site and the fixed placement of the proposed compound and treatment areas.

The intention should be to minimise the use of hard surfaces throughout the site and use these primarily for access and circulation such as to enhance the existing PROW.

The PROW's proposed new location takes into account recent flood level data and the predicted interest of public users in the proposed wetland treatment areas.

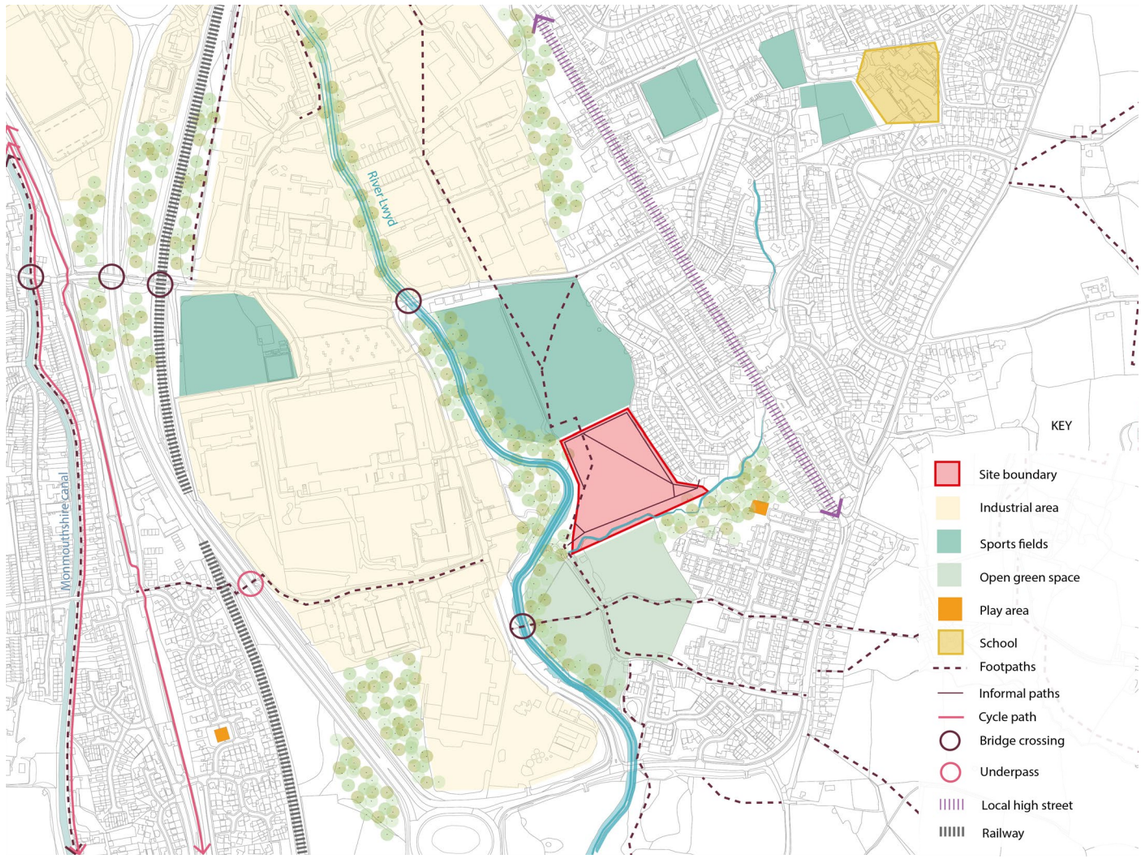


Image 04: Constraints Plan

3.2 Site photos and surrounding context

Image 05: Wildlife viewing sketch

Image 06: Active travel sketch

Image 07: Wetland creation sketch

Image 08: Sensory exploration sketch

Image 09: Natural play sketch

Image 10: Open space sketch

3.3 Opportunities

Following analysis of the site and the local context, it was determined that there was significant potential to create new amenity provision alongside the engineering works and to provide an uplift in biodiversity value in the area.

We evaluated potential site-specific opportunities, including; the site's proximity to the Afon Lwyd, residential areas of New Inn, the adjacent sports pitches and the location of PROW 421 30/1. This was done in the light of a review of objectives from Torfaen County Borough Council's 'Climate and Nature Emergency', 'Green Infrastructure Strategy' and Welsh Governments 'The Well-being of Future Generations Act' 2015 to ensure proposals were the best use of the space for the end users.

Image 11: Opportunities Plan

4. Site Analysis

UNDERSTANDING THE SITE

This section identifies the site specific traits which the design approach is required to enhance or mitigate.

4.1 Flooding and Utilities

The site is prone to flooding as shown below, with roughly the western half of the site in the Flood zone 2 mapping and a quarter in Flood zone 3. This led to the relocation of the Wetland and Reedbed treatments to the far east boundary to minimise risk from, flood events.

- Flood zone 2
- Flood zone 3
- Utilities
- Pipe easement
- Compound and fixed water treatment elements

Image 12: Flood analysis

4.2 Green Infrastructure

New tree planting should be proposed to filter views into the site from housing off Afon Close along the eastern boundary.

The buffer on the east and other boundary vegetation should enhance biodiversity and carbon sequestration.

- Indicative enhanced green infrastructure
- Proposed vegetation for screening
- Compound and fixed water treatment elements
- Potential to enhance or create biodiversity corridor

Image 13: Indicative Green Infrastructure

4.3 Circulation

The site currently allows limited access to the public along PROW 421 30/1 as well as an informal access point in the south east corner. The proposals will look to enhance the existing PROW and form new connections alongside provision for vehicular access for maintenance and school / educational visits.

All existing access points should be maintained and enhanced where necessary.

- PROW 421 30/1
- Indicative pedestrian movement
- Indicative vehicular movement
- Existing pedestrian access
- Compound and fixed water treatment elements

Image 14: Circulation

4.4 Amenity, Recreation and Play

The space should provide interest to all age groups with sensory routes, nature-based play items, recreation spaces, pontoon observation decks, seating and outdoor classroom group education space accessible to all users.

- Recreation
- Amenity
- Play areas
- Compound and fixed water treatment elements

Image 15: Indicative Amenity, recreation and play

5. Vision and optioneering

DESIGN DEVELOPMENT

This section shows the process of creating a series of options and how these have been assessed and refined.

5

5.1 Early sketches of wetland cell concept

These three sketch options were presented as gold, silver and bronze. These were run through the B£st tool to evaluate their costs against amenity provision. This process resulted in a selection of a preferred option which was a hybrid between the silver and bronze options.

Image 16: Optioneering Diagrams

5.2 Design development

The preceding opportunities diagrams show the framework of different data sets we have layered together to inform our design response around how the design has evolved from an in depth understanding of the baseline and has considered:

- the existing baseline;
- flooding constraints;
- intentions for a robust green infrastructure network;
- a priority to maintain and enhance connectivity between the site and neighbouring areas; and
- the best amenities for the community to create a sense of place

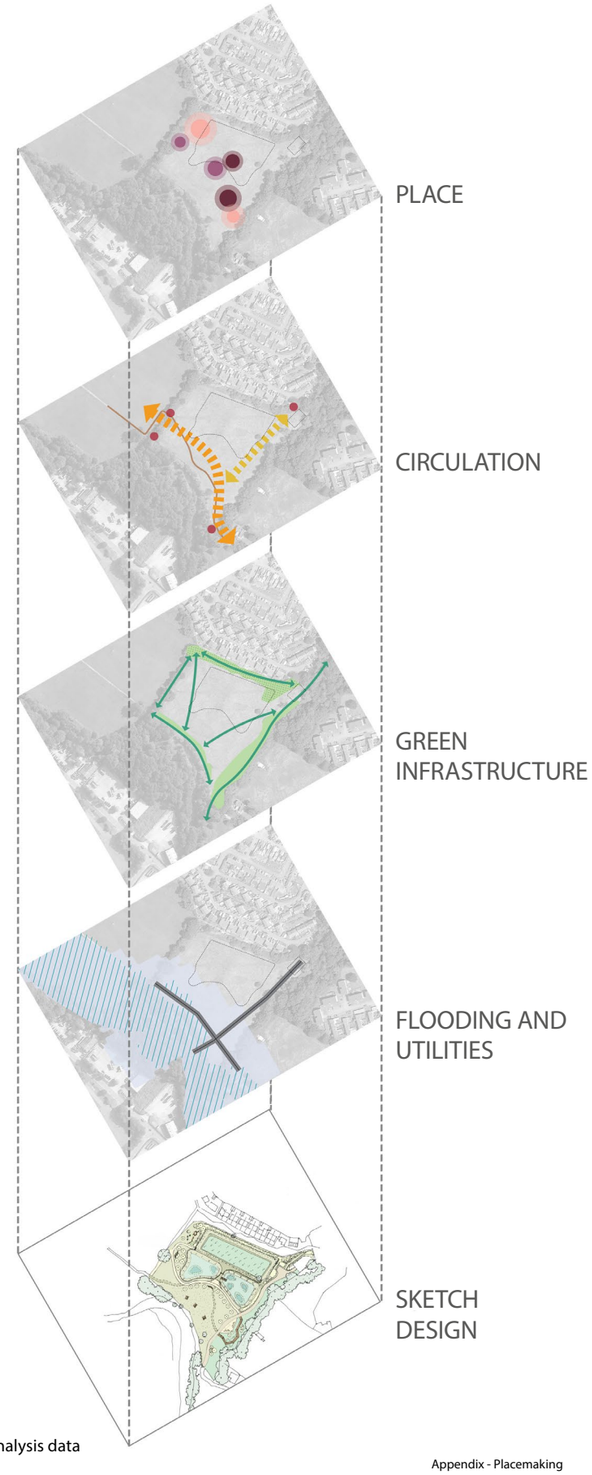


Image 17: Layered analysis data

5.3 Concept design plan

The intention is to minimise the use of hard surfaces throughout the site and use these primarily to enhance the existing PROW.

The PROW's enhanced path takes into account recent flood level data and the predicted interest of public users in the wetland treatment areas whilst ensuring it is accessible for all abilities.

Seating provision is spaced through the site with the outdoor classroom, central 'plaza seating area' and play space.

Image 18: Concept Design plan

Appendix - Placemaking

6. Masterplan

RESULTING DESIGN

This section details the design response following the optioneering and further resolution of a preferred design response.

6.1 Design proposals

The existing site boundary would be improved along the west boundary with the Afon Lwyd, access to the site would be enhanced with improved timber gates where suitable as well as updated and improved Stiles along the northern boundary.

Tertiary paths act as desire lines and help break up the areas of soft landscaping into species rich grasslands to allow the continuation of public recreation and dog walking in the site against the species rich wildflower meadow along the central western boundary.

Seating provision has been spaced through the site with the outdoor classroom, central 'plaza seating area' and play space.

These proposed interventions all look to encourage people to interact with nature, educating or focussing attention on other site wide enhancements in biodiversity net gain and habitat creation. These include but are not limited to; new tree planting, hedgerow creation, marginal and wetland planting, bird boxes, bat habitat creation, reptile and amphibian hibernacula, wildflower meadow creation and insect hotels.

MATERIALITY

The proposed materiality throughout the site has been purposefully limited and aims to retain an aesthetic in keeping with the low-density urban edge character of the area. The scheme aims to minimise hard material surfaces and focus on natural elements such as play features and furniture. This is to improve visitor's connections to nature as well as lowering the cost and carbon footprint of the project. The proposed landscape and materiality include the following:

- Native planting and seeding with local provenance;
- Self-binding gravel (natural / buff);
- Chipping laid tarmacadam (buff colour chippings);
- Recycled plastic and rubber grass reinforcement mat systems rather than hard finishes where possible;
- Timber effect recycled plastic decking, balance play;
- Natural log benches;
- Timber and boulder play elements; and
- Timber gates and fencing, some metal wire roll.

6.2 Access

Proposed paths prioritise the existing PROW route through the site from the south-west corner to the north central access point with access available through mobility kissing gates. All public access paths are DDA compliant in gradient and material allowing the space to now be enjoyed by all abilities.

Secondary paths are proposed along predicted desire lines, the defined routes look to keep movement out of wildflower areas to reduce impact on habitats.

A board walk in the south-west of the site, allows movement through an area prone to water-logging, turning an unusable space into a sensory experience for all user types whilst limiting the grounds compaction from hard materials. Timber-effect recycled plastic is proposed for the board walk for its low carbon resource requirements, durability, and longevity, not requiring as intensive maintenance as timber equivalents. A small upstand either side will act as an edge warning and guide to wheelchair users.

Existing informal access from Afon Close is proposed to be enhanced and a purpose built path guides users into the site.

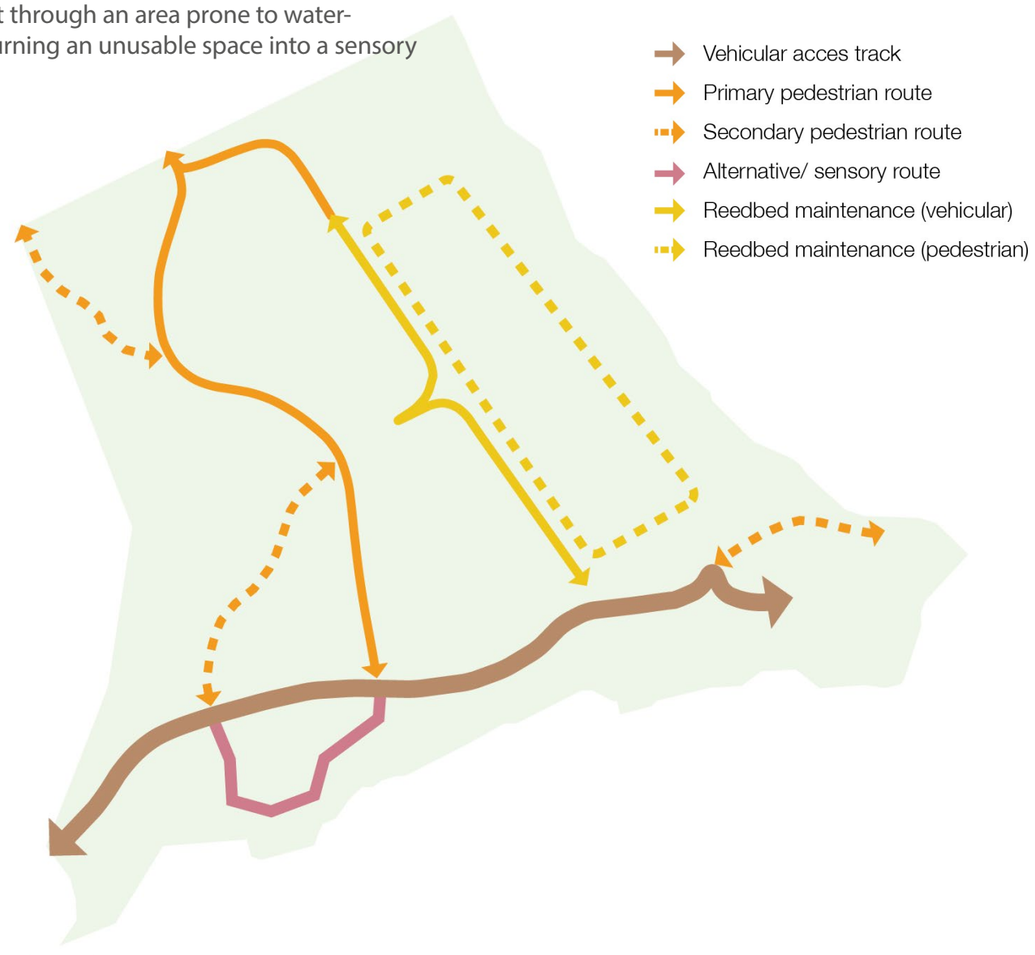


Image 19: Proposed access diagram

6.3 Planting plan

Proposed planting would look to create an enhanced ecological network through the site and integrating with substantial areas of vegetation in the local context.

- Marginal and wetland planting provide habitat for reptiles, aquatic and terrestrial invertebrates;
- Wildflower and improved grassland mixes provide enhanced habitats for pollinators; and
- Tree and native hedge planting would provide visual screening between the residential development along Afon Close and would form interest with seasonal colour and enable the visual containment of the reedbed. They would also create new and improved habitats for birds and bats, new bat habitat creation will also be formed from poor health trees on site with future management.

Image 20: Proposed planting diagram

6.5 Trees

Proposed tree planting will form habitat creation for birds and bats. It will mitigate small losses of existing trees (as indicated on the masterplan below) to enable site proposals and temporary works access. New planting will improve water retention and carbon sequestration.

Species will be selected based on suitability for the site's micro-climate, soil index, the poor drainage across the site and taking into account the flood analysis.

Trees will be proposed along the eastern boundary to help form a vegetative boundary whilst planting along the primary access paths provide shade, create interest and frame views from the central seating area westward to the river.

- Selected species are subject to change until soil analysis for the site has been undertaken.

Image 21: Proposed tree planting diagram

6.6 Wildflower meadow and pollinator routes

Proposed wildflower meadow areas look to provide a significant net gain in the site's biodiversity.

There is a strong presence of Brown-Banded Carder Bee in and around the site, the use of certain wildflower species look to create new pollinator routes through the site helping to forge connections into existing biodiversity corridors.

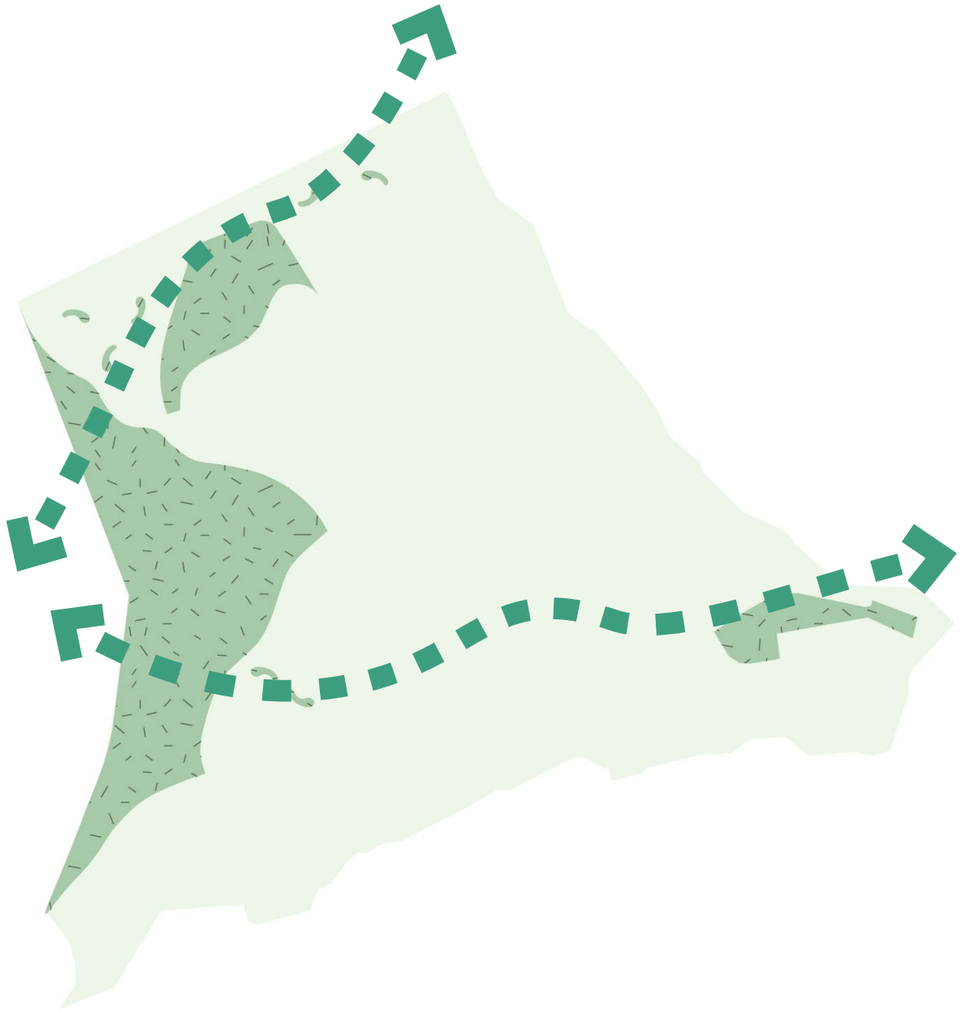


Image 22: Proposed wildflower meadow seeding diagram

A1

N

New Panteg Rugby Football Club

Approximate location of amphibian and reptile hibernacula located at high point of site, away from flood events and close to mature existing vegetation

+500mm raised ground to assist with water shedding

LAP Play Space

Bird Boxes - proposed along western boundary

Wetland
-secondary treatment (fenced)

Reedbed - primary treatment

Maintenance Track - access to primary treatment - reedbed

Turning Head - allowing access to compound

Wetland
-secondary treatment (open)

Seating area

Observation Deck

Outdoor Classroom

Sensory Raised Walkway

Balance Play

Compound

For 'Compound' information refer to B16789-102503-01-XX-DR-TA-PN0204 'Compound Layout' and "- PN0205 'Compound Elevations'

Diverted PRoW Footpath

Vehicular Access Track

Parking Provision - for occasional maintenance requierments. Not delineated on ground, shown for information only

Bird Boxes - proposed along western boundary

Section of existing trees proposed to be removed to allow temporary works and replaced with like for like native mature trees. Tree loss to be minimised and to turn out on site. None of the trees removed to be of notable arboricultural value

Boardwalk +300mm above existing ground level

Parking Provision - for seasonal food vending businesses, school use and display / events. No permanent fixings associated

Afon Llwyd

Afon Close

Pont-Y-Felin Ln

PROW 421/301

A-A

B-B

+90.53

+200mm

+300mm

0 5 10 20 Metres

Scale 1:500

LEGEND

Site Boundary

Hard Landscape

PT1 Paving Type 1: access track
self-binding gravel
natural / buff colour - vehicular loading

PT2 Paving Type 2: self-binding gravel
natural / buff colour - pedestrian paths

PT3 Paving Type 3: chipping laid tarmacadam
buff colour aggregate chips >10mm

PT4 Paving Type 4: plastic matrix reinforced grass seed mix - Terram Bodpave 40 or similar approved by Landscape Architect

PT5 Paving Type 5: rubber grass mat system-playground company 'Safer System' or similar approved by Landscape Architect

PT6 Paving Type 6: timber effect recycled plastic decking for boardwalk

Boundary Types

BT1 Boundary Type 1: timber 3-bar fence 1.2m(h) - 'stock wire roll' to lower 0.5m

GTx Gate Type 1: secure locked timber 5-bar double width gate 1.2m(h) x 6m(w) - vehicular access
Gate Type 2: secure locked timber 5-bar single width gate 3m(w) - vehicular access
Gate Type 3: pedestrian access gate 1.2m(h) x 0.9m(w) - long handle latch opening
Gate Type 4: stile - 3-bar, 2-step timber
Gate Type 5: Mobility Kissing Gate 1.2m(h) x 2.3m (total width) 1.13m leaf width & depth 1.25m

Street Furniture

FT1 Furniture Type 1: natural log bench

FT2 Furniture Type 2: sculptural point of interest - land art items reflecting history of the site

Natural Play Features

Play Features
-balance and climb play equipment

Wetland Observation Platform - timber effect recycled plastic deck

Post-Mounted Insect Hotel - miscellaneous material construction with varied habitat types

Litter Bin

SOFT LANDSCAPE

Existing Tree(s) - to be retained

GTxx Existing Tree(s) - to be removed for arboricultural reasons (See Arboricultural Impact Assessment)

GTxx Existing Tree(s) - to be removed for development proposals

Existing Tree(s) - to be removed for Temporary Works access

Proposed Tree Planting

SP1 Proposed Native Hedgerow - indicative height 4-5m at 10-15 years

SP2 Wildflower Meadow Seeding

SP3 Species Rich Grassland
-hard wearing seed mix, improved existing condition where possible

SP4 Species Rich Grassland
-wet soils wildflower seed mix

SP5 Wetland - secondary treatment
-planting species to be approved by treatment specialist

SP6 Reedbed - primary treatment
-detail and specification by treatment specialist

This drawing should be read in conjunction with the following listed drawings:

- B16789-102503-01-XX-DR-CA-PN0001 Site Location Plan
- B16789-102503-01-XX-DR-CA-PN0202 Existing Site Plan
- B16789-102503-01-XX-DR-TA-PN0204 Proposed Compound Layout Plan
- B16789-102503-01-XX-DR-CA-PN0205 Compound Elevations
- B16789-102503-01-XX-DR-CA-PN0206 Site Drainage Plan
- B16789-102503-01-XX-DR-LA-PN0008 Landscape Section A-A
- B16789-102503-01-XX-DR-LA-PN0009 Landscape Section B-B

NOTES ABOUT STATUTORY UTILITY PROVIDERS RETURNS

1. THE POSITIONS OF THE EXISTING SERVICES ON THIS DRAWING HAVE BEEN INTERPRETED FROM INFORMATION RECEIVED FROM THE STATUTORY LOCAL AUTHORITIES.
2. THIS DRAWING IS DIAGRAMMATIC AND HAS BEEN PREPARED AS AN OVERVIEW TO DETERMINE THE ROUTES OF SERVICES. IT IS NOT DEFINITIVE AND THE SITE TEAM MUST REFER TO THE ORIGINAL RECORDS FOR FULL DETAILS AND TO CONFIRM THE LOCATIONS OF EXISTING SERVICES ON SITE PRIOR TO THE WORKS BEING UNDERTAKEN.
3. THE SITE TEAM SHOULD ANTICIPATE ADDITIONAL SERVICES CONNECTING TO THE PROPERTIES AND / OR STREET FURNITURE SUCH AS LAMPPOSTS THAT ARE NOT GENERALLY COVERED BY THE RETURNS FROM INDIVIDUAL STATUTORY AUTHORITIES
4. EXACT LOCATION OF UTILITIES SHOULD BE CONFIRMED ON SITE.

Rev.	Description	Drawn	Chkd.	Appd.	Issue Date
P1	Initial Planning Issue	JS	OM	BO	24.02.23

Capital Delivery Alliance
Cynghrair Cyflawni Cyfalaf
Ty Awen, Spooner Close, Coed Kernow, Newport, NP10 8FZ

Project Name.
PONT Y FELIN NEW INN NATURE-BASED SOLUTIONS

Drawing Title.
GENERAL ARRANGEMENT

Suitability.	Suitability Code.
FOR INFORMATION	S2
Internal Project Number. 275292	Scale. 1:500 @ A1
	Rev. P1

Drawing Number.
B16789-102503-01-XX-DR-LA-PN0203

Z:\Jobs\27500\00275292-0004 Internal Project Data\4-30 Drawings\4-30 Placemaking\01_CAD\B16789-102503-01-XX-DR-LA-PN0203 General Arrangement.dwg

7. Precedents

AN IDEA OF THE INTENDED PROPOSALS

The following images have been grouped into categories which act as a guide for the intended proposals through the site.

7.1 Precedent imagery

ACCESS


Image by Gareth1953 - (CC BY 2.0)


Image by Ad acta - (CC BY-SA-2.0)

The existing site boundary would be improved along the west boundary with the Afon Lwyd, access to the site would be enhanced with improved timber gates where suitable as well as updated and improved stiles and mobility access kissing-gates along the PROW route.

HARD MATERIAL SURFACES

Self-binding gravel has been proposed for the new vehicular access track and improved PROW through the site.

The intention is to use a material suitable for occasional service vehicle overrun, able to act as a solid bound base to allow wheelchair users equal access and which reflects the character of the sites position at the edge of New Inn between urban and rural character areas.

BOARDWALK


Image by Centriforce

The proposed Sensory Walkway in the south-west corner of the site provides an alternative sensory route looping around the outdoor classroom and connecting between the diverted PROW and tertiary connecting path. Timber-effect recycled plastic is proposed for its low carbon resource requirements, durability, and longevity, not requiring as intensive maintenance as timber equivalents. A small upstand either side will act as an edge warning and guide to wheelchair users.

SECONDARY PATHS AND MAINTENANCE ACCESS


Image by Gridforce


Image by Sportsafe

It is proposed to use reinforcement systems for where occasional vehicular overrun is required for maintenance, low pedestrian footfall is planned for tertiary paths and the play space to the north-east of the site. These different systems create permeable surfaces used which are able to support heavy loading or regular footfall even during wet conditions without degrading and damaging the areas of grass seeding. Species rich grass seeding to these routes will also enhance the biodiversity value of these areas.

Appendix - Placemaking

7.2 Precedent imagery

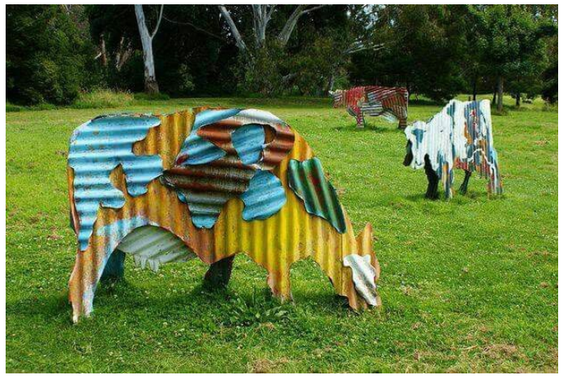
RECREATION AND EDUCATIONAL AMENITIES

The proposed recreational and educational spaces look to provide interest to all age groups with accessible sensory routes, nature-based play items, recreation grass meadow spaces, pontoon observation decks, seating and outdoor classroom group education space. These will use site won materials where any existing features can be re-purposed such as log seats from felled trees as part of the drive for low carbon initiatives and a circular economy approach.

BIODIVERSITY ENHANCEMENTS INSECT HOTELS)

These proposed biodiversity enhancements look to encourage people to interact with nature, educating or focussing the users attention the sites wider enhancements in biodiversity net gain and habitat creation. These include but are not limited to; new tree planting, hedgerow creation, marginal and wetland planting, bird boxes, bat habitat creation, reptile and amphibian hibernacula, wildflower meadow creation and insect hotels

CULTURAL REFERENCE POINTS



Proposed interpretation boards located at the seating areas and site entrance spaces aim to improve awareness to the proposed nature-based water treatment areas. Site-specific land art sculptures are proposed such as the ‘Corrugated Cows’ an example shown below, looking back at the Afon Lwyd valley’s history with iron and tinplate as well as the sites previous use for livestock grazing. This art element will be refined through engagement with the local community in later design stages.

Appendix - Placemaking

7.3 Planting precedents

7

- Native species deciduous tree
- Native mix double staggered hedgerow, typical mix including Hawthorn, Prunus spinosa, Corylus avellana, Rosa canina
- Improved native species rich grassland and wildflower areas;
- Marginal planting to the natural drainage areas and NBS; and
- Wetland Planting and Primary NBS reedbed planting to provide biodiversity net gain for the site

NATIVE TREE PLANTING

NATIVE HEDGEROW

MARGINAL & WETLAND PLANTING

WILDFLOWER MEADOW SEEDING

8. Visualisations

ARTIST'S IMPRESSIONS SHOWCASING THE DESIGN

The section shows the visual communication used to illustrate the proposed design approach for the site.

8.1 Visualising the design

The following visual sections and the artist impression look to provide an idea of the designs potential from different perspectives.

The sections should be viewed alongside the accompanying drawings B16789-102503-01-XX-DR-LA-PN0008 and "-PN0009.

The artist impression illustrates the proposed development from a bird's eye view beyond the west boundary of the site looking east to housing along Afon Close. The visual shows as a late autumn / early winter scene at 5-10 years maturity for the vegetation.

8.2 Indicative site sections

Section A-A

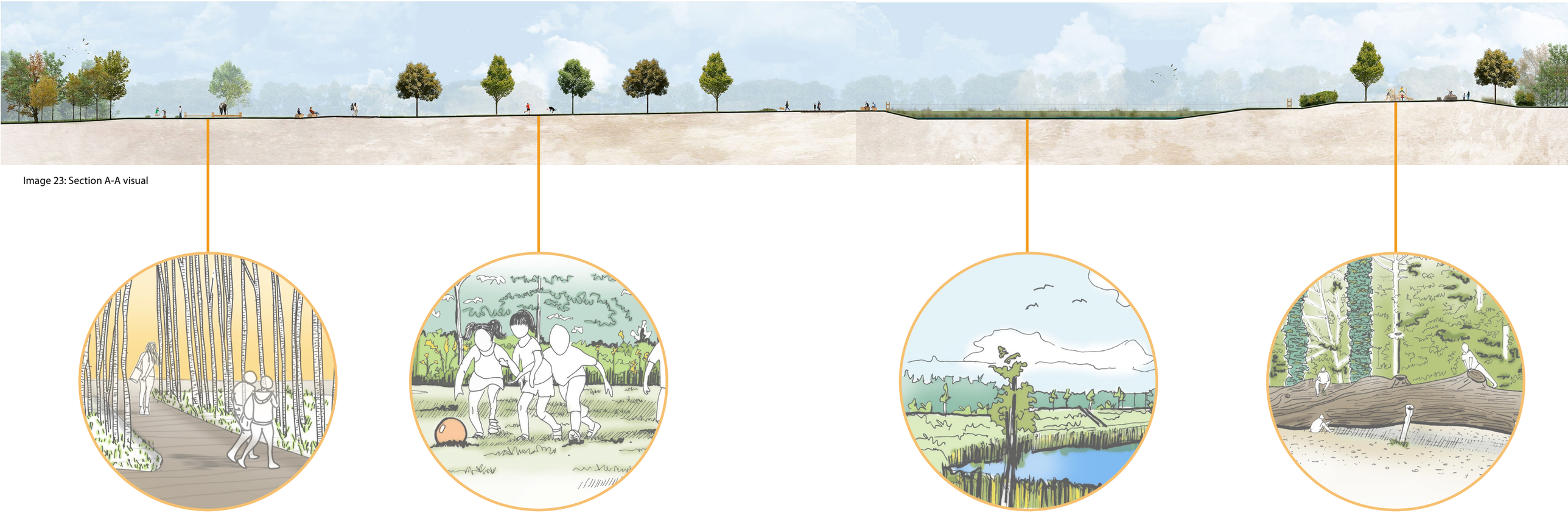


Image 23: Section A-A visual

Section B-B

Image 23: Section B-B visual

Appendix - Placemaking

8.3 Bird's eye view visual

Image 24: Bird's eye view artist's impression

Appendix - Placemaking

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Appendix - Placemaking