Design and Access Statement

Prepared for the Canal & River Trust at Trevor Basin



Buttress

April 2025

Version history

Project name: Trevor Basin
Project number: 9815
Client: Canal & River Trust

Rev:	Date:	Status	Name	Description
1	11-09-2024	PLANNING	LB | Architect	Draft
2	19-03-2025	PLANNING	LB | Architect	Final
3	30-04-2025	PLANNING	LA | Associate	Final with landscape edits

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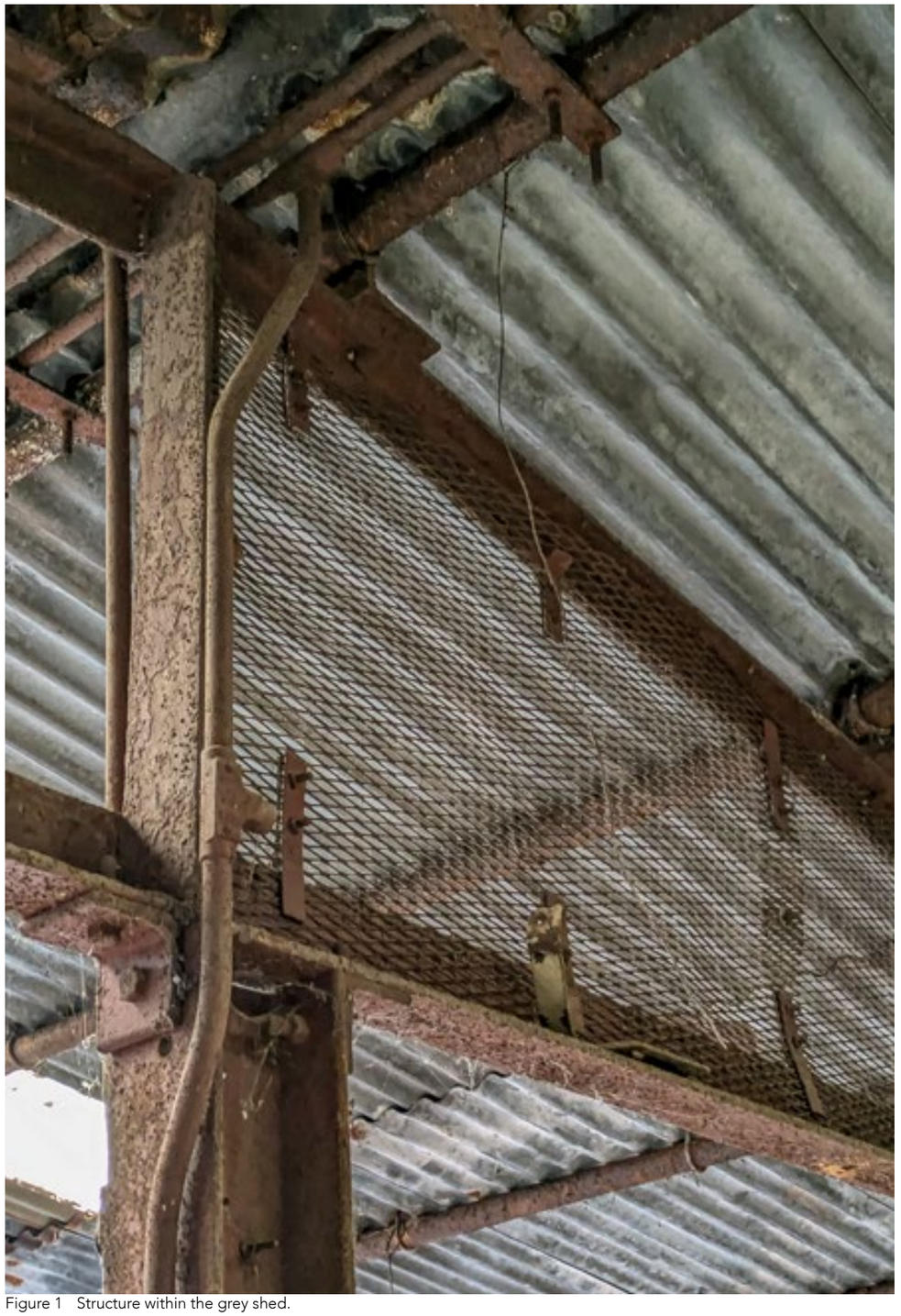


Figure 1 Structure within the grey shed.

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Figure 2 The grey shed from the tow path.

Introduction

1.0 The Trust

The Canal & River Trust cares for 2000 miles of 200 year old network of canals, rivers, reservoirs and docks across England & Wales. The Trust is a waterways and well-being charity who believe that life is better by water.

The Trust inspires innovation and education by connecting children to our canals and rivers, through learning programmes.

'Explorers' is aimed at younger children ages 5-11 and host a series of learning opportunities. STEM is their focus, offering more advanced learning, such as understanding of the canal and river habitats and physics of water management. The Trust offer free visits, workshops and resources providing opportunities to explore the geography of rivers, history of canals, habitats and their place in our communities.

The Trust have also partnered with Inspiring the Future to inspire young people, raise awareness about the breadth of careers available within conservation, environment and heritage.



Canal & River Trust | Explorers

Location

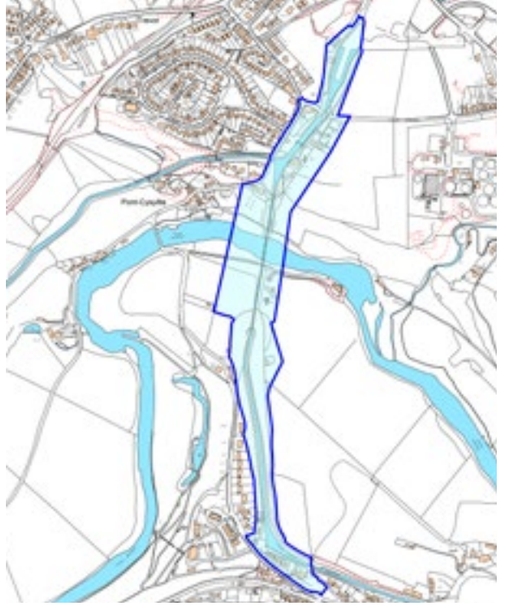


Figure 3 Pontcysyllte Conservation Area

2.0 Trevor Basin

Trevor Basin is located in Wrexham, North Wales at the World Heritage Site within the Scheduled Ancient Monument boundary of the Pontcysyllte Aqueduct and within the Pontcysyllte Aqueduct Conservation Area.

As a UNESCO landmark attraction, the site has high visitor numbers for the aqueduct, tourism, leisure, education and recreational purposes such as kayaking and paddle-boarding.

The aerial view below displays significant structures and listed buildings in yellow, with the proposed site highlighted within a red boundary line.

Significant Structure - Stone Boundary

Listed Building

Site Boundary

Figure 4 Google Maps Aerial View

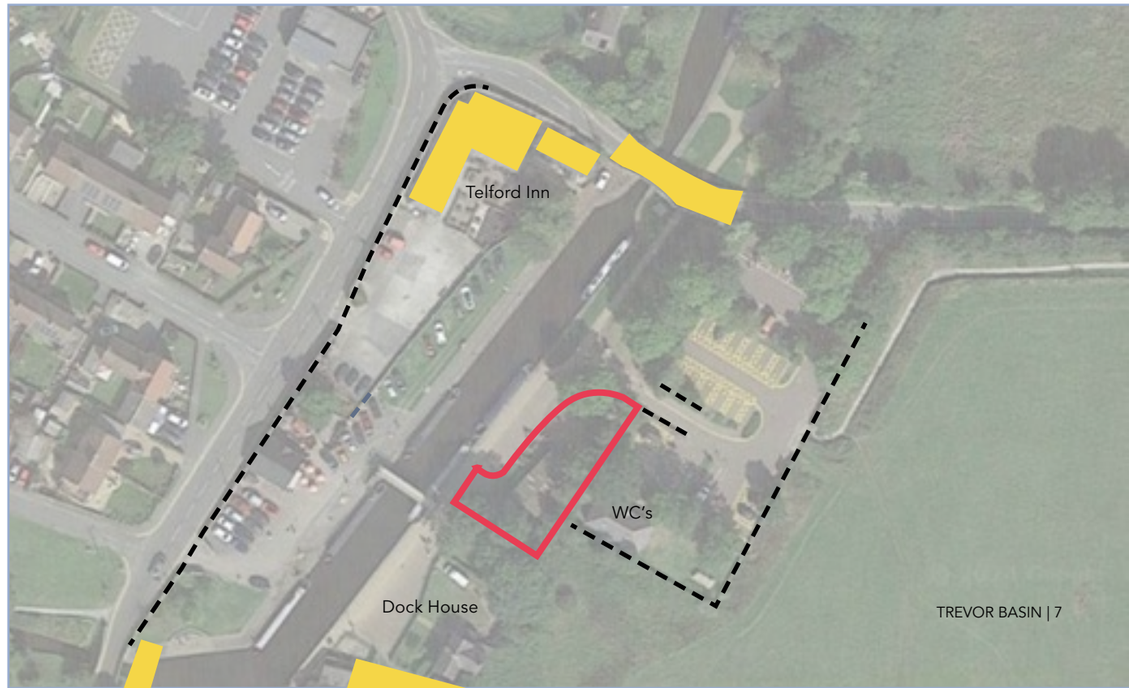




Figure 5 Grey Shed South Elevation



Figure 6 Grey Shed West Elevation



Figure 7 Grey Shed North Elevation



Figure 8 Visitor Centre



Figure 9 Public WC's



Figure 10 Dock House

The Past



3.0 The Grey Shed

Located within Trevor Basin is the Grey Shed. A low height storage structure clad with corrugated iron. Originally, the Grey Shed may have been a workshop, later converted into a garage with an inspection pit. Today it is used as a covered storage space.

Clwyd Powys Archaeological Trust undertook a historic building recording of the Grey Shed and concluded the following:

'The corrugated shed was probably constructed during the mid-20th century. It was originally considered that it may have been a pre-fabricated building of the type used during the First and Second World Wars, but it seems more likely it was constructed piecemeal utilising materials that were locally available.

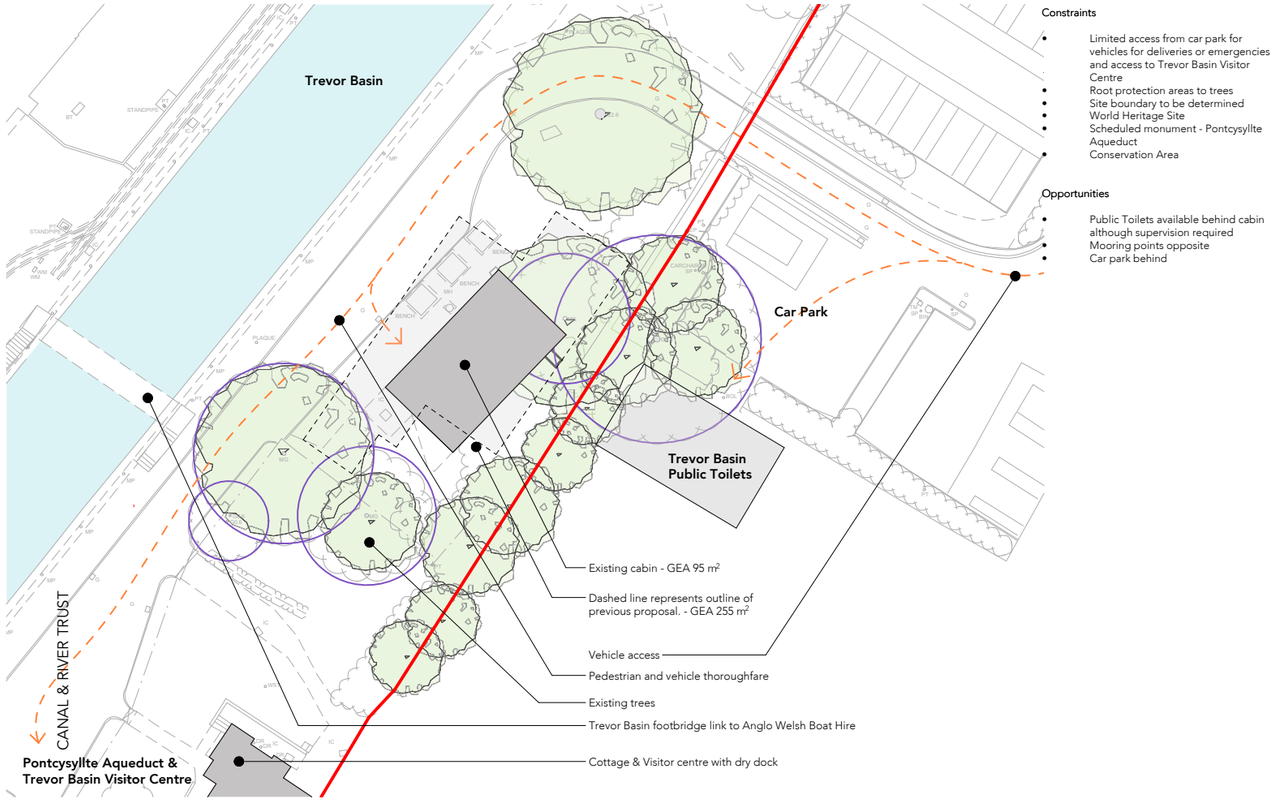
The cast tubular wall members were of particular interest. They are similar in appearance and design to those used in railway architecture and it is possible that they were reused components from the goods transfer shed or another railway building in the nearby vicinity.



The goods shed itself was extant on 1930s mapping but had gone by 1961. The shed is of uncertain date but is dated via mapping to the early-mid 20th century. Mapping pre-dating the 1960s does not record the building but the Ordnance Survey mapping during the inter-war years was Provisional and derived from earlier editions so may not necessarily be accurate.

The shed may have been associated with the dry dock, as an additional workshop or repair shop. It could also have been used by a boat hire company later in the 20th century as a repair shop and also a garage for support vehicles for the business.'





The Future



4.0 Space for Learning

Through a series of workshops, the Trust has engaged with internal teams to brainstorm a vision of what the new Grey Shed site could be like and how a new building might be experienced.

Buttress were provided with a brief to provide an educational space for children aged between 5 - 18 managed by parents or guardians, local community groups, volunteers and educational staff. Ideally, space for a whole class of 30 students. Guidance for educational spatial requirements can be found in 'Area guidelines for mainstream schools, building Bulletin 103, June 2014' (AGMS 103) published by the department of education, available in Gov. uk's, a relevant guiding document for spatial requirements in broad terms. Within AGMS 103, Figure 7, 'typical primary teaching spaces in basic teaching area and respective zones' states that a class base with a sink requires 50 msq for 30 pupils.

Due to the scale and budget of the project, the on site existing WC facilities which the Canal and River Trust lease from Wrexham, will remain. Services to wash hands, equipment and a brew area is provided with built in bench seating and adequate storage.

Outdoor space is critical for interactive learning to do crafts, water and sand play and it is imperative to protect the new building from anti-social behaviour by providing security shutters to windows and access doors.





5.0 Biodiversity

As part of the education offer and to add some visual interest and learning, the Canal and River Trust are focused on the significance of biodiversity across all of their sites. It is important to enhance each area by providing the opportunity for enhanced habitats for the range of species found along the canal side.

This habitat wall will be able to be personalised and focused on canal based wildlife and the interactivity will engage learning at all ages.





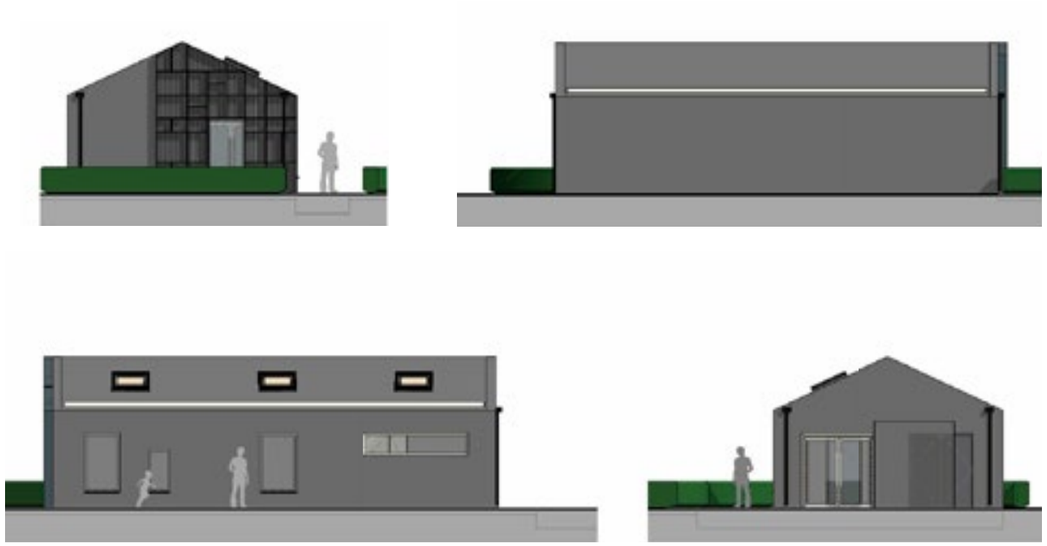
6.0 The Proposal

On visiting the site we were inspired by the existing elements. The rough texture of the trusses, natural shading of the overgrown vegetation and raw nature of the site.

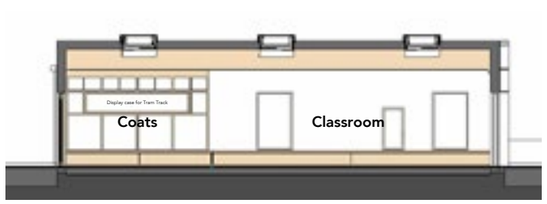
We wanted to maintain the feeling of rawness within the proposed building to emphasise how heritage lives through episodes of evolution. To educate the next generation of designers, thinkers and engineers on their journey.

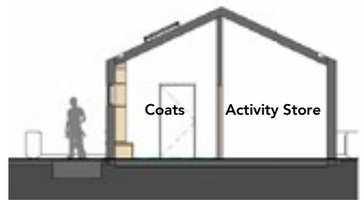
The space provided by the footprint of the Grey Shed was adequate, as was the modular structure. So we used similar dimensions within the new construction in reference. The new cabin is orientated in-line with the canal, with its primary entrance to the south west, concealed from the main tow path.

The new shed is constructed in sustainable SIPS panels and clad with locally manufactured corrugated metal cladding with sustainably sourced, timber framed windows.



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7.0 Use

The cabin has been sized to provide seating for 30 students. Open space is required to introduce furniture or equipment where required, most activities take place outside in the site. In-built coats, shoes and bag storage is provided within the seating. The tram track relic is inbuilt into a display case at high level.

Plywood is used internally for its raw and robust qualities. Storage is provided internally along with facilities for washing up and a brew station. External storage is accessed from the patio. External openings are protected by shutters, with a bespoke barn style door to protect the main entrance doors.

Figure 11 Proposed ground floor plan



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8.0 Materiality

We explored cladding materials to apply to the structure. We considered the use of timber slat cladding, due to its relationship with the natural surroundings. Through further design development, however, corrugated metal cladding became the obvious choice, as an upgrade of what exists and in reference to the industrial heritage of use in the canal.

The cladding will be pretreated and low maintenance, easy to clean and replace individual panels if required. The material selected is Euroclad Sinusoidal in black.

The windows and doors selected will be timber externally and internally, on tilt turn mechanisms.

The windows are playful sizes to allow a connection out to the water at all ages. A bench seat runs throughout the perimeter of the room so cills are kept to 450mm min above the ground.



Figure 12 Corrugated cladding example

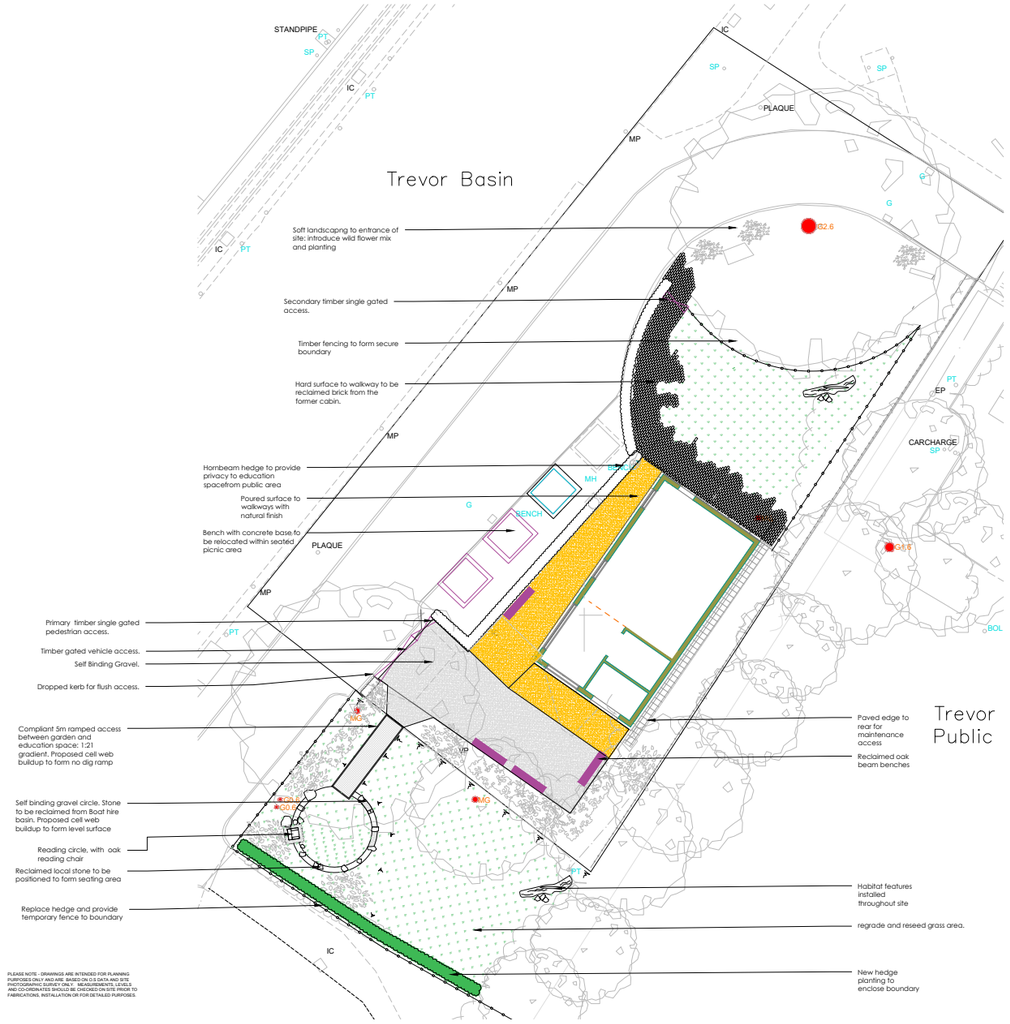
Figure 13 Corrugated cladding example



9.0 External Space & Landscape

Creating a distinctive public realm to the cabin will reflect its function and location, and ensure the grounds are utilised as effectively and efficiently as possible.

The semi-private space will provide an amenity for interactive learning for users. A naturalistic landscape weaves through the site, a light touch flexible space to facilitate day-to-day access alongside events and activities, with an opportunity for creative and temporary interventions to enliven the spaces



9.1 Landscape Palette

To complement the architectural proposals, utilising a simple, textural material palette and a wilder planting scheme are proposed.

Local vernacular materials will be used and where possible, to be sustainable and recycled from elsewhere on site and locally sourced.

Reclaimed brick paving from within the existing Grey Shed will provide a footpath within the curtilage of the site. This will also provide opportunities for habitats to continue the theme of the habitat walls on the education centre.

Local Cefn Mawr quarry recycled sandstone for seating stones, reclaimed oak for seating and a self-binding and bound gravel base for paths, carefully matched to complement the pathways in and around the location.

9.2 Soft Landscaping

The proposed planting will take its cue from the existing native vegetation in the locality. Planting can integrate into the landscape by allowing understory planting, grass, and wildflowers to grow around the margins and edges of the paving and thresholds.

New planting includes native hedge¬row species to create a threshold to a semi-private interior, bulbs and woodland under¬storey plants, perennials, and shrubs that are attractive to insects and pollinators and increase the biodiversity of the site.

10.0 Access & Maintenance

10.1 Access

The existing large car park accessed of Tower Hill will continue to be used for access, parking and coach drop off. It includes accessible bays, a turning head for coach drop off, bin collection and storage and WC provision. This car park is accessed from New Road over Scotch Hall Bridge. Refuse will be collected by the user groups and disposed of when leaving the building.

10.2 Security

The Canal and River Trust operate Trevor Basin and manage a visitor centre to the south of this building. Staff lock and secure each unit when leaving the area. As the area is open to the public along the tow-path, security shutters are proposed to the glazed entrance doors and windows to prevent anti-social damage. Landscape and planting is designed to provide a buffer between the proposed building and the public area.

10.3 Maintenance

The building itself is single storey and maintenance access will be provided by ladder with a connection point located against the gable to avoid damaging the building. Maintenance of the rainwater goods will be essential due to the large tree canopy above.

Figure 14 Proposed site plan



The Conclusion

11.0 Conclusion

The proposal will provide a useful educational space, adaptable for activities for all ability youth groups and for corporate use if required. Trevor Basin will benefit from introduction of a high quality, fit for purpose building using raw, robust and attractive materials.

The Canal and River Trust are dedicated to inspiring the next generation, along with their partners who run the explorer programmes. They want to provide educational opportunities to ensure the legacy and innovative history of the canals and waterways continues to be appreciated for generations to come.

Figure 15 Visual of the proposed new cabin.



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Thank you

Any questions, please contact Libby Butterworth.

Manchester Studio and Registered Office

Buttress Architects Ltd.
41 Bengal St.
Manchester
M4 6AF
T: 0161 236 3303

Leeds Studio

Buttress Architects Ltd.
Clockwise, Yorkshire House, Greek St.
Leeds
LS1 5SH
T: 0113 539 7965

www.buttress.net

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