Llanharan Community Council's 'Ewenny Bridge' Project

ITQ: INVITATION TO QUOTE

Project Management Services

CONTENTS

1.Project Overview

Llanharan Community Council intends to use its CIL funds to design and commission a new multi-user bridge over the River Ewenny to be built in Brynna Woods, to replace the existing narrow pedestrian bridge.

The project also includes a new multi-user pathway between the recently constructed Network Rail Trenos railway crossing bridge and the planned new Ewenny River bridge.

The planned bridge deck is likely to be approximately 20 metres long and 3 metres wide and will sit along a similar route to the current narrow pedestrian bridge.

In common with the Network Rail Trenos railway crossing bridge, both the new river Ewenny bridge and the connecting pathway will be designed to be suitable for use by all users including pedestrians, cyclists, horse riders, disabled people (specifically wheelchair users) and those with impaired mobility therefore being fully compliant with the Equality Act 2010 and family friendly.

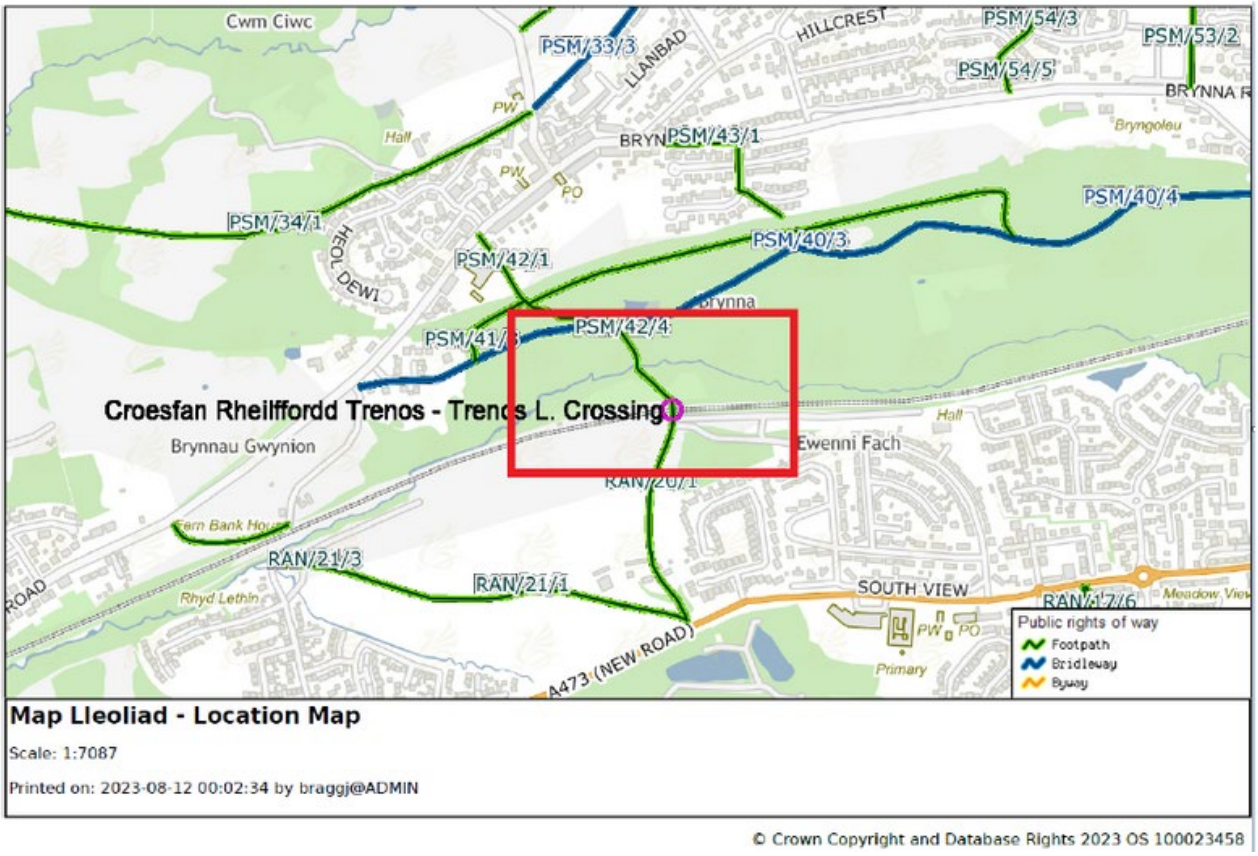
Llanharan Community Council seeks a PROJECT MANAGER to assist in the delivery of this project.

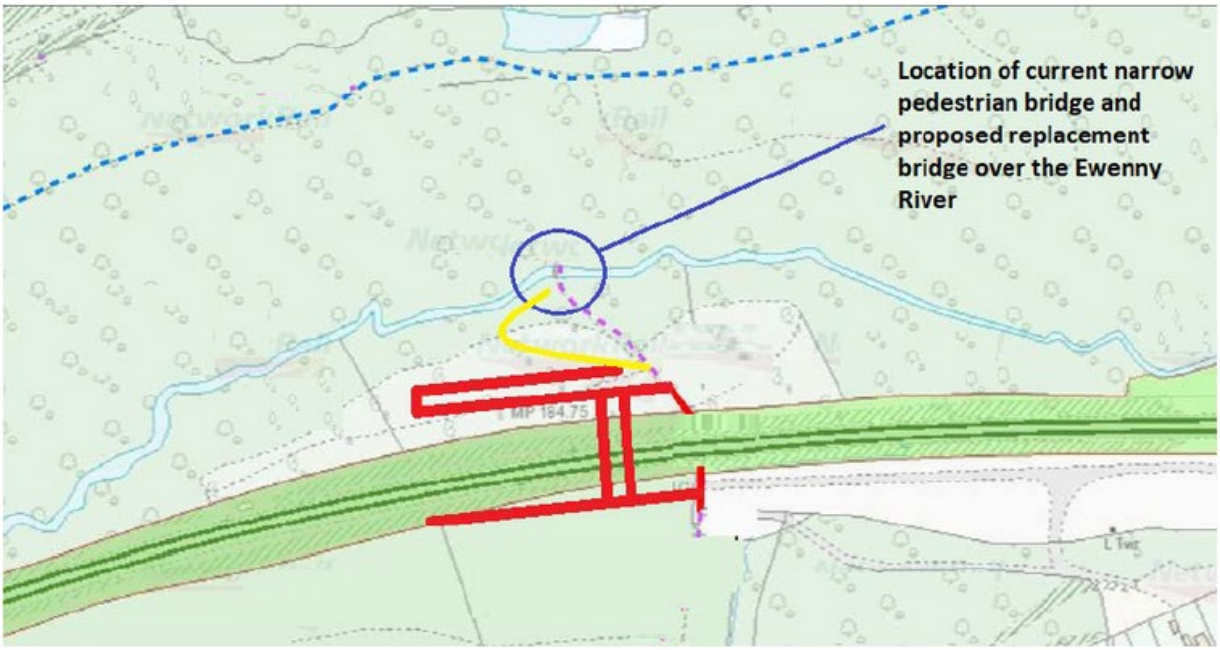
Background

For many years a Community Council working group comprising Community Councillors, The Wildlife Trust of South and West Wales, RCTCBC, Network Rail, Persimmon Homes, the British Horse Society and other stakeholders has been working to develop a wider scheme with the aim of providing a safe multi -user route from the communities south of the railway line near Trenos , over the railway and river Ewenny and through Brynna Woods connecting the communities of Llanharan and Brynna via the woods.

Network Rail have already constructed the Trenos Railway crossing bridge. Llanharan Community Council's ' Ewenny Bridge' project currently comprising the new River Ewenny Bridge and connecting pathway forms part of this overall scheme.

Once a suitable network is built and in place, Network Rail intend to apply to create a formal Bridleway along this route. This aspect of the wider project does not form part of this current scope of work.





Route of current 'rough' footpath

Approximate route of proposed multi-user path

Approximate footprint of Network Rail Trenos railway crossing bridge (Under construction).


Location of proposed replacement bridge
Location for proposed equestrian friendly brdige over River Ewenny to replace existing footbridge
Location for proposed equestrian friendly railway bridge to replace exisitng pedestrian level crossing - to be provided by Network Rail
Proposed route of new bridleway
Equestrian level crossing to be stopped up
PSM/33/3
PSM/54/4
PSM/54/5
PSM/53/2
PSM/50/1
BRYNNA ROAD
GROVE TERRACE
PSM/45A/1
CHAPEL HILL
PSM/45/1
PSM/40/4
PSM/43/1
HAWTHORN PARK
PSM/43/3
PSM/41/2
Brynna
PSM/44/1
Ewenni Fach
RAN/20/1
TERRY'S WAY
HEATHFIELD CRESCENT
DUFFRYN CRESCENT
COLLIERS AVENUE
HAROLD STREET
A473 (BRIDGEND ROAD)
RAN/32/1
Bridleway proposal
Scale: 1:3500
Printed on: 2023-03-10 08:42:54 by braggj@ADMIN
© Crown Copyright and Database Rights 2022 OS 100023458

2. Invitation to Quote (ITQ) Requirements

Please see below the intended evaluation criteria which may be used to assess proposals. *

Reference	Sub-Criteria	Weighting
1	Point of Contact &attended the meet the team on site.	Pass/ Fail
2	Previous Experience / CVs	20%
3	Team Organogram	5%
4	Methodology	5%
5	Pricing and Resource Schedule	70%
6	Legal	Pass/ Fail

Quality Scoring Criteria (scores out of 5)

0 - No information provided
1 - Information provided but fails to address the scope and service requirements
2 - Information provided which addresses some of the scope and services required
3 - Information provided addresses all the scope and services required
4 - Information provided addresses all the scope and services required and begins to provided additional value
5 - Information provided addresses all the scope and services required and provides additional value and innovation in approach

Pricing Scoring Criteria

Score is calculated using the below formula

$$\frac{\text{Lowest Compliant Fee}}{\text{Submitted Compliant Fee}} \times \text{Weighting (70\%)}$$

* Decisions on selection of a tender may be made using further information or criteria not published here and/or as a result of further due diligence. LCC reserves the right to select a tender based on all aspects of its due diligence.

Anyone wishing to submit a quotation must adhere to the below guidance and instructions at all times. Quotations are invited for organisations to bid for works covered in this document only (provision of Project Manager) and will be submitted via the Sell2 Wales portal. Quotation responses should be submitted in line with the below timescales. Organisations **MUST** attend meet the team day and look around the site prior to tendering.

Invitation to quote issued to suppliers
30/06/2025

Meet the Team Day (On Site)
W/C 14/7/2025 (11am @ CF72 9UU) or by alternative arrangement.

Deadline for Quotations to be Submitted
10/08/2025 (Initial enquiries Emailed to Leigh Smith: Clerk@Llanharan-cc.gov.wales. Submissions via Sell2Wales portal)

Award Notice Issued
W/C 18/08/2025

Commencement Date
Within 2 weeks of issue of tender.

In the first instance queries should be submitted by email to: *Clerk@Llanharan -cc.gov.wales* ahead of the deadlines identified above.

It should be noted that consultant appointments will be made directly to Llanharan Community Council.

Responses should address the below criteria and include the relevant information requested.

1) A key point of contact should be identified for the submission and contract

2) Two case studies should be included to demonstrate experience on projects of similar type, value and client

3) A team organogram should be included to demonstrate the team who would be delivering the project services

4) CV's for the key project team members should be included, demonstrating the individuals role, qualifications, experience and suitability

5) A methodology should be included to demonstrate your approach to delivering the scope of services enclosed

6) A pricing and resource schedule should be provided which demonstrates your commercial offer for the project (including day rates)

7) Issue of standard terms and conditions for review by the community council

The project is currently at Concept Design Stage. The current project timescales will be fixed in consultation with the successful Project Manager. However, the Community Council are keen to deliver the project as soon as possible and by the end of 2026.

Pre Construction Activities
TBD

Construction Phase
TBD

Completion on Site/ Handover
TBD

The project team is outlined below for information.

Client
Llanharan Community Council (Via The Clerk of the Council)

Civil & Structural Designer
To be appointed

Principal Designer/ H&S Consultant
To be appointed

Project Manager
To be appointed

Contractor
To be appointed

3. Scope of Service

1.0 General

1.1 Overview

Llanharan Community Council seeks to appoint a Project Manager to oversee all pre-construction and construction activities through to project completion and handover. Responsibilities include managing, assisting in procuring relevant consultants and suitable Principal Contractor, and supporting the client throughout all phases to ensure successful completion and handover.

1.2 Review of Existing Information

The Project Manager will appraise and review the information provided by the client and the scoping documents.

1.3 Available Documentation

The following documents will be available to support project planning and execution:

- Utilimap - Topographical Survey
- Utilimap - Site Report
- South Wales Ground Testing – Letter report on ground investigation
- Borehole location sketch
- Borehole logs 1 &2, including photographs
- Public Consultation Document
- Correspondence and notes on engagement with NRW, Dŵr Cymru, RCTCBC and Wildlife Trust.

2.0 Pre -Construction Activities

2.1 External Stakeholder Engagement

The Project Manager will liaise with all key stakeholders, including the Wildlife Trust, Natural Resources Wales, Dŵr Cymru Welsh Water, RCTCBC planning, RCTCBC Structures, Network Rail, and other interested parties. They will identify and obtain all necessary permissions, licenses, and agreements required to fully design and install the new bridge.

2.2 Project Plan Development

The early development of a comprehensive project plan is essential for efficient project delivery. The Project Manager will produce a structured program covering pre-construction, construction, completion, and handover activities. This plan will be regularly updated to track progress, identify risks, and implement necessary adjustments. A well-maintained project plan will enhance coordination, minimise delays, and support successful delivery.

2.3 Risk Identification & Management

Effective risk management is crucial to delivering the Ewenny Bridge Project on time, within budget, and to the required standards. The Project Manager will develop a comprehensive risk register addressing:

- Environmental concerns
- Stakeholder agreements (including the adoption of future inspection and maintenance by RCTCBC)
- Cost control
- Health and safety
- Regulatory compliance
- Other as identified by Project Manager and Project Team

This risk register will be developed in collaboration with the client to ensure alignment with project objectives.

2.4 Cost Control

A structured cost control strategy is essential for project success. The Project Manager will develop an initial budget cost plan covering:

- Design
- Other consultants, see 2.6
- Construction
- Third -party permissions
- Contingencies

The cost plan will be regularly reviewed to provide financial transparency, mitigate risks, and ensure value for money. Proactive monitoring and reporting will help prevent budget overruns and maintain financial efficiency.

2.5 Design Development

The Project Manager will oversee the design process, collaborating with the design team, contractor, and client representatives to develop a robust, cost - effective, and environmentally appropriate solution. The design must:

- Meet all required standards
- Align with Llanharan Community Council's objectives
- Address site access restrictions

Through proactive management, the Project Manager will ensure the design is safe, durable, and cost -efficient, minimising future maintenance requirements.

2.6 Coordination of Additional Consultants

The Project Manager will identify and coordinate necessary surveys, assessments, and expert consultations, including:

- Ecology and tree surveys
- Flood risk assessments
- Utility investigations

They will work with the officers of the Council to facilitate the obtaining of quotations, ensure timely completion of investigations, and integrate associated costs into the budget plan, ensuring compliance with all relevant regulations affecting Community Council procurement.

2.7 Compliance with CDM 2015 Regulations

The Project Manager will ensure compliance with the Construction (Design and Management) Regulations 2015 (CDM 2015), appointing a Principal Designer and Principal Contractor to manage design and construction risks. Adherence to these regulations will promote safety, reduce hazards, and ensure legal compliance throughout the project lifecycle.

2.8 Contractor Procurement

A structured procurement process is essential for securing a competent contractor. The Project Manager will:

- Identify suitable contractors
- Facilitate Council officers in Issuing tender invitations and documents
- Manage the selection process

The appointed contractor will be engaged under an appropriate contract (e.g., NEC4) to ensure clear responsibilities and risk allocation. This process will align with Llanharan Community Council's objectives, ensuring high-quality, cost-efficient, and timely project delivery and in line with Council Financial Regulations.

3.0 Construction Phase

During construction, the Project Manager will provide critical support to the client, coordinating with stakeholders and the Principal Contractor to ensure:

- Adherence to the program
- Budget control
- Compliance with required standards

Key responsibilities include:

- Contract administration
- Bi-weekly updates and monthly meetings
- Approving monthly contractor valuations
- Issuing payment certificates
- Organising and chairing project meetings
- Distributing meeting minutes

Effective management and communication will facilitate smooth project execution in line with Llanharan Community Council's expectations.

4.0 Completion and Handover

A well-structured completion and handover process is crucial to a smooth transition from construction to operation. The Project Manager will:

- Define and document handover requirements
- Ensure all contractual, quality, and safety standards are met
- Provide the client with necessary maintenance and operational information.
- Arrange the adoption of the structure by RCT for future inspection and maintenance

A well-managed handover minimises delays and post-completion issues, ensuring a seamless transition for the client.

5.0 Reporting

5.1 Communication & Reporting Strategy

Effective communication is key to project success. The Project Manager will produce structured, timely reports covering:

- Project progress
- Budget updates
- Risk assessments
- Program status
- Bi-weekly written report updates to officers and monthly in person meetings (Face to face or via video conferencing software) to present to Officers/Members of the Council.

These reports will be shared with stakeholders to facilitate informed decision - making and maintain transparency.

5.2 Post-Construction Review

A post-completion review is essential for evaluating project success and identifying lessons learned. The Project Manager will:

- Conduct a thorough review with stakeholders
- Assess cost management, program adherence, and quality
- Produce a comprehensive report with key findings and recommendations

This process will support continuous improvement and enhance future project delivery.

The scope of services outlined in Section 3 has been prepared by the client based on their knowledge and experience. However, if the tendering company believes any activity items are missing, please include them at the bottom of the pricing schedule along with an estimated cost.

4. Project Management Pricing Schedule

See enclosed pricing to be completed and submitted with tender submission

Note: There are two tabs to complete on the enclosed spreadsheet

The scope of services outlined in Section 3 has been prepared by the client based on their knowledge and experience. However, if the tendering company believes any activity items are missing, please include them at the bottom of the pricing schedule along with an estimated cost.

5. Methodology

A methodology should be included to demonstrate your approach to delivering the scope of Project Management Services. (Max 1 page A4)

6. Legal

Please provide your standard terms and conditions which will be reviewed by the client legal advisor for proposed amendments.

For further details contact:

Clerk@Llanharan -cc.gov.wales

Structural Engineers Report For:

Ewenny Stream Footbridge Replacement

Preliminary “Scoping” Design

Prepared for:

Llanharan Community Council

REF: 17686

01656 863794 | Enquiries@Vale-Consultancy.co.uk | Vale-Consultancy.co.uk
29 Bocam Park | Old Field Road | Pencoed | Bridgend | CF35 5LJ

Document Control

Project	**Ewenny Stream Bridge Replacement**
Client	**Llanharan Community Council**
Vale Consultancy Ref:	**17686**

Document Checking:

Prepared By:	**Chris Newby BEng (Hons) CEng MIStructE** **Regional Director**	**Signed:**
Checked By:	**Matt Jones MEng (Hons) CEng MIStructE MICE** **Managing Director**	**Signed:**
Verified By:	**Chris Newby BEng (Hons) CEng MIStructE** **Regional Director**	**Signed:**

Issue	Date	Status
A	12th January 2024	First issue
B	7th June 2025	Second Issue

12th January 2024
Our Ref: 17686/CN/MJ/B

2 Chapel Rd,
Llanharan
Pontyclun
CF72 9QA

To whom it may concern,

RE: Preliminary/Indicative "scoping" Design of replacement footbridge at Brynna Woods

We were appointed by our client, Llanharan Community Council, to undertake a visual inspection of the site at the above address, review provided site information (Site Investigation data, topographical data) and provide indicative, preliminary "scoping" designs for a replacement structure for the purposes of initial discussions and outline information for tender purposes.

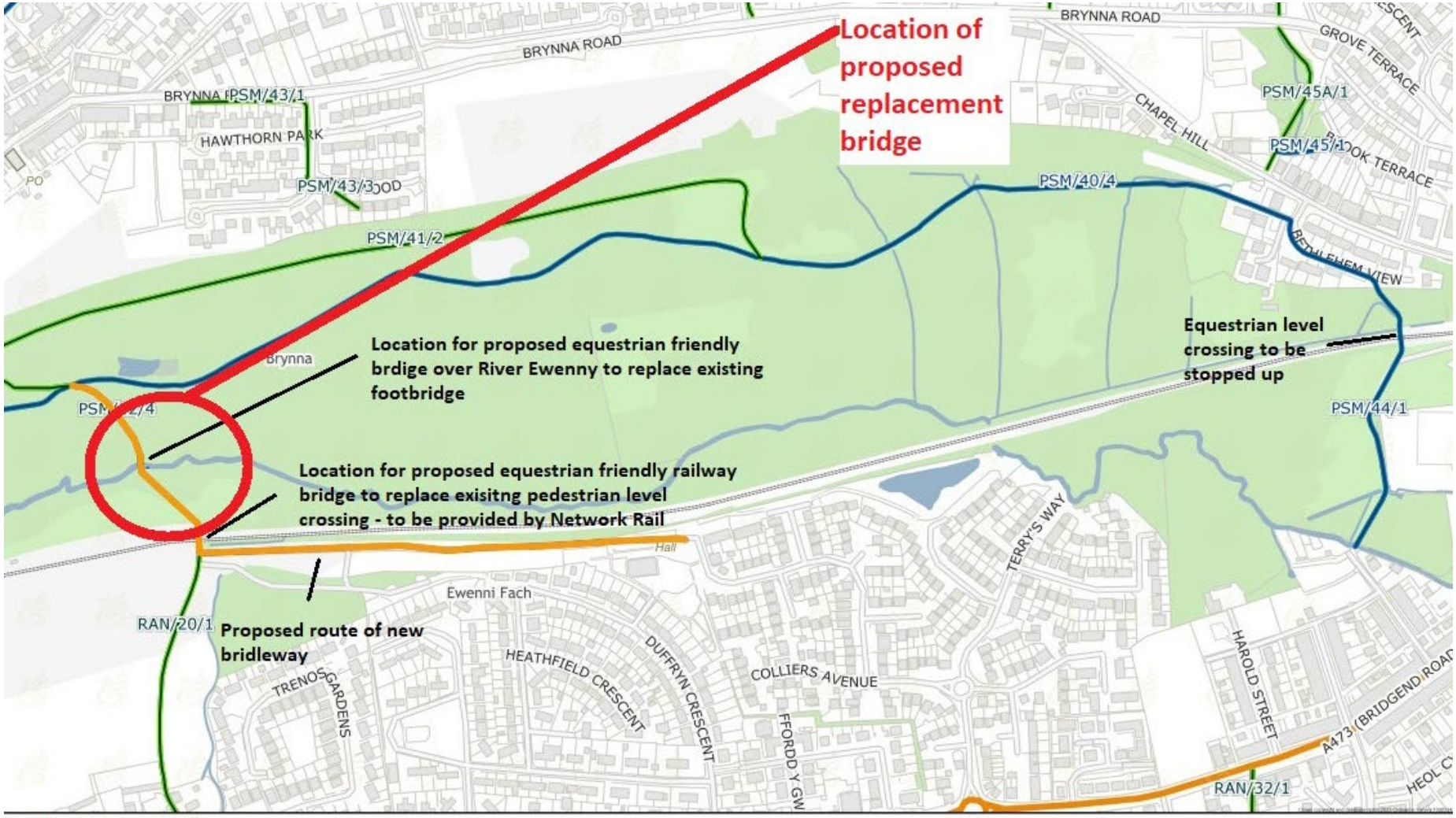
It is understood that for the purposes of this exercise, this information is solely for guidance to represent the clients desired outcome or expectation of the replacement structure, and not to be relied upon for design or construction purposes. Any prospective tenderers are to provide their own design and arrangement, referring to the below for guidance purposes only.

This report shall be for the confidential use of our client, and the report shall not be reproduced in whole or in part, or relied upon by a third party without the express written authorisation of Vale Consultancy. **This report does not constitute a design check of the structures concerned.**

1. **Project name: Ewenny Stream Bridge Replacement**
    a. **Site Location**

Nearby Address: Brynna Woods Bridleway, Llanharan, CF72 9QD
Grid Reference: SS986829

See diagram on overleaf



Bridleway proposal

Scale: 1:3500

Printed on: 2023-03-10 08:42:54 by braggj@ADMIN

b. Scope/Brief

Provision of multi-user crossing, including to bridleway over existing “Ewenny Stream” to replace existing concrete and steel single person access walkway, of age unknown, at the above site location.

The bridge replacement is required to provide a more appropriate multi-user route which will form part of a bridleway route and access for all users including those with limited or impaired mobility and specifically wheelchair users. The existing structure is of an aging construction, and does not meet modern design standards or procedures for access. The original bridge spanned a main tributary of the Afon Ewenny, and as well as serving the practical requirements of access for pedestrians, this bridge is a high-profile feature of the woodland. As a result, it is important to design a replacement bridge which would be aesthetically pleasing and appropriate to the setting in which it is to be installed.

c. Existing bridge

- Existing concrete abutments

Existing concrete abutments -

 - Primary span of existing bridge (circa 9m)

 - Primary foot/pedestrian access to bridge

d. Topographical survey of local area (See Appendix B)

(See Figure 1 overleaf)

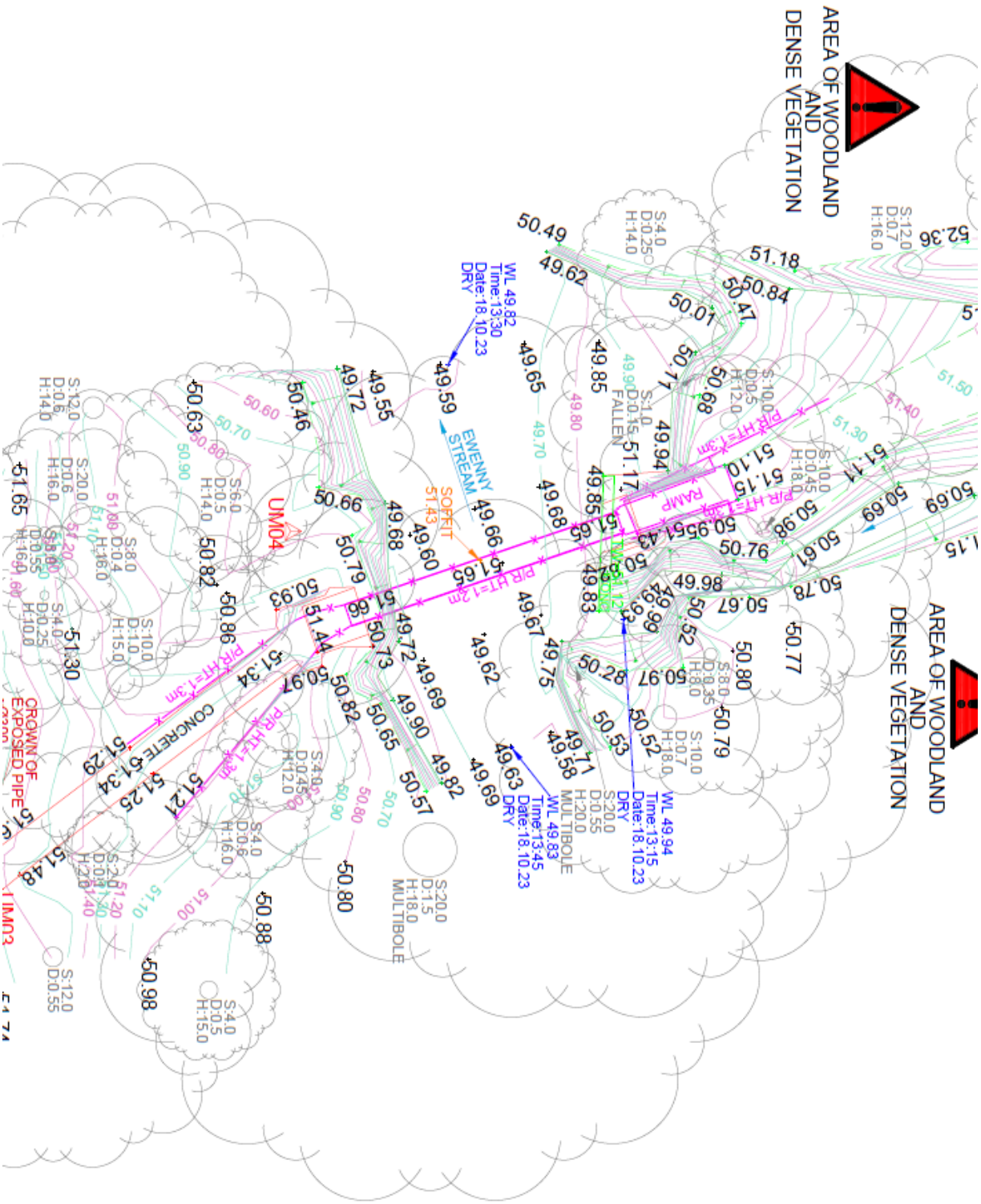


Figure 1 - Utilimap 2D Topo Survey Extract

e. Borehole and preliminary site investigation data (See Appendix C)

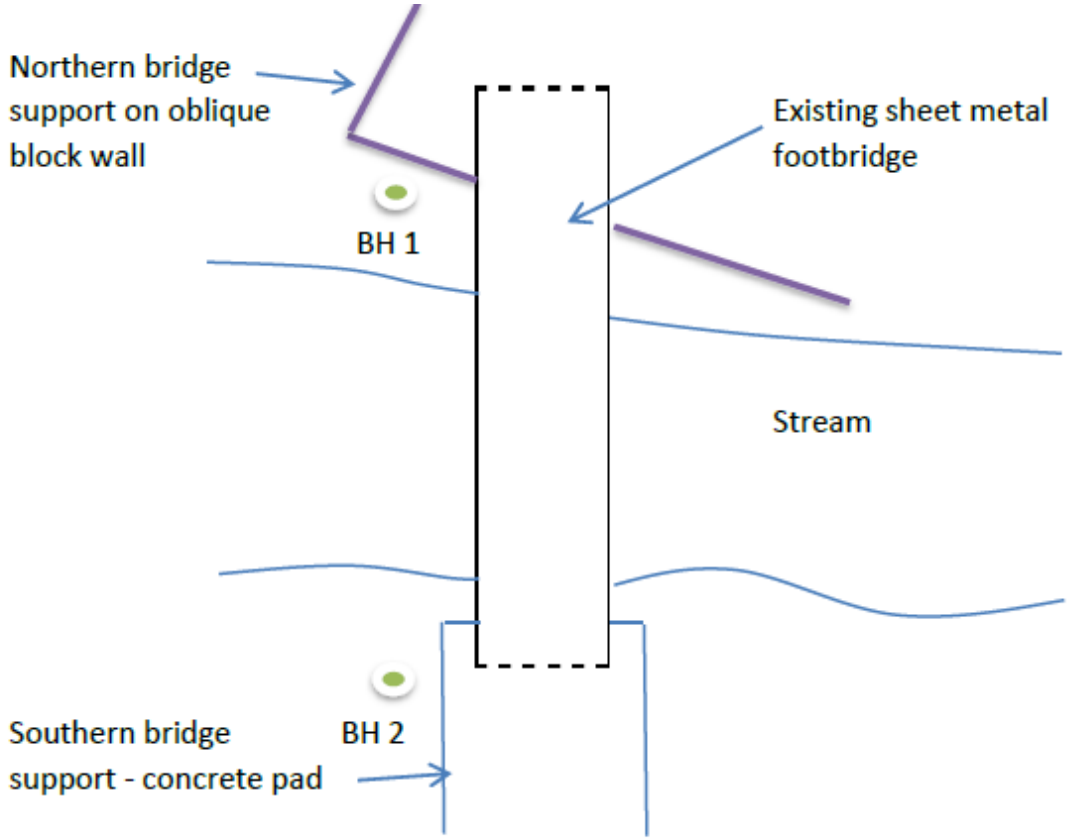


Figure 2 - South Wales Ground Testing "Borehole Locations"

f. Summary regarding site investigation data

"…Near the surface both boreholes encountered very soft peaty clay overlying generally silty fine to coarse sands with rounded sandstone gravel. Borehole 2 showed low single figure SPT N values to five metres in depth while Borehole 1 had much higher values below 2.0 metres. It would be very difficult to assign a suitable allowable bearing pressure to these strata due to the large variation in SPT N values. A problem with fully saturated sand deposits is that any excavation below the water level will result in quick or running sand conditions and any in situ strength of the sand will be lost. Therefore, I think it would be very difficult to set any concrete foundation below the water level."

" …Both boreholes encountered impenetrable strata at just over 6 metres in depth. The soil or rock here proved to be too compact for the sample tubes to penetrate and obtain a sample, but the SPT N values were well over 50. Should it be required that the bridge be set on a new foundation the mini piles to around six metres in depth could be a solution." – *South Wales Ground Testing*

2. Replacement footbridge bridge – General specifications (Utilising replacement foundations)

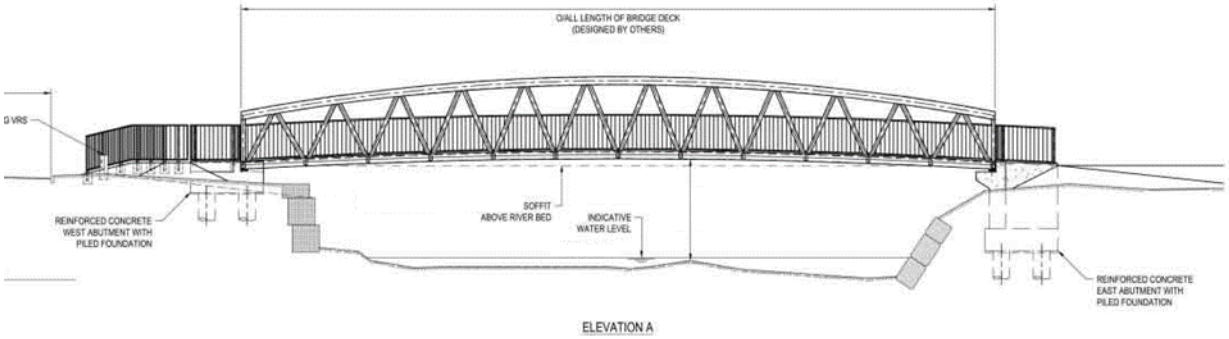
1. Clear span – Circa 10-20m, between abutments

2. Proposed width – 3m wide (to accommodate equestrian requirements)

3. Abutments – Reinforced concrete on mini-piles or mass footings subject to liaison with geotechnical engineer.

a. Replacement Bridge Visual Examples – Primary Span

b. Indicative Section Example



ELEVATION A

c. General material requirement

i. **Primary bridge deck – Timber between supporting steel feature trusses**
ii. **Parapet – ancillary with feature barrier elements**
iii. **Primary bridge construction – Steel box section left exposed, likely trussed or simple beam span between abutments**
iv. **Specific requirement as per brief to provide a 'suitable' deck/finish for use as bridleway and for wheelchair access. (It is noted that advice will be given to horse riders that they must dismount to cross, however it is accepted that signs are not always adhered to, and therefore deck & surface must be designed for this eventuality).**
v. **Bridge parapets (side rails as per photographs above) will be designed with sufficient height as per guidance under DMRB or BHS (British Horse Society) "Bridleway Bridge Design" requirements.**

d. Bridge approaches

i. **Handrails are to be provided along existing footway and tied into proposed arrangement**
ii. **Handrails are to be feature timber "fencing" type or similar, visually appealing and sympathetic with environment**
iii. **Access footway to be tied into existing forest floor pathway, transitioning to**

compacted gravel makeup utilizing geotextile stabilization methods as necessary.

3. General details summary

The proposed replacement bridge structure is to replace an existing footbridge structure, with a minimum proposed design life of 25 years. The primary bridge structure is expected to form part of the exposed visible elements, therefore will be incorporated into the visual "aesthetic", as shown in the above visual examples.

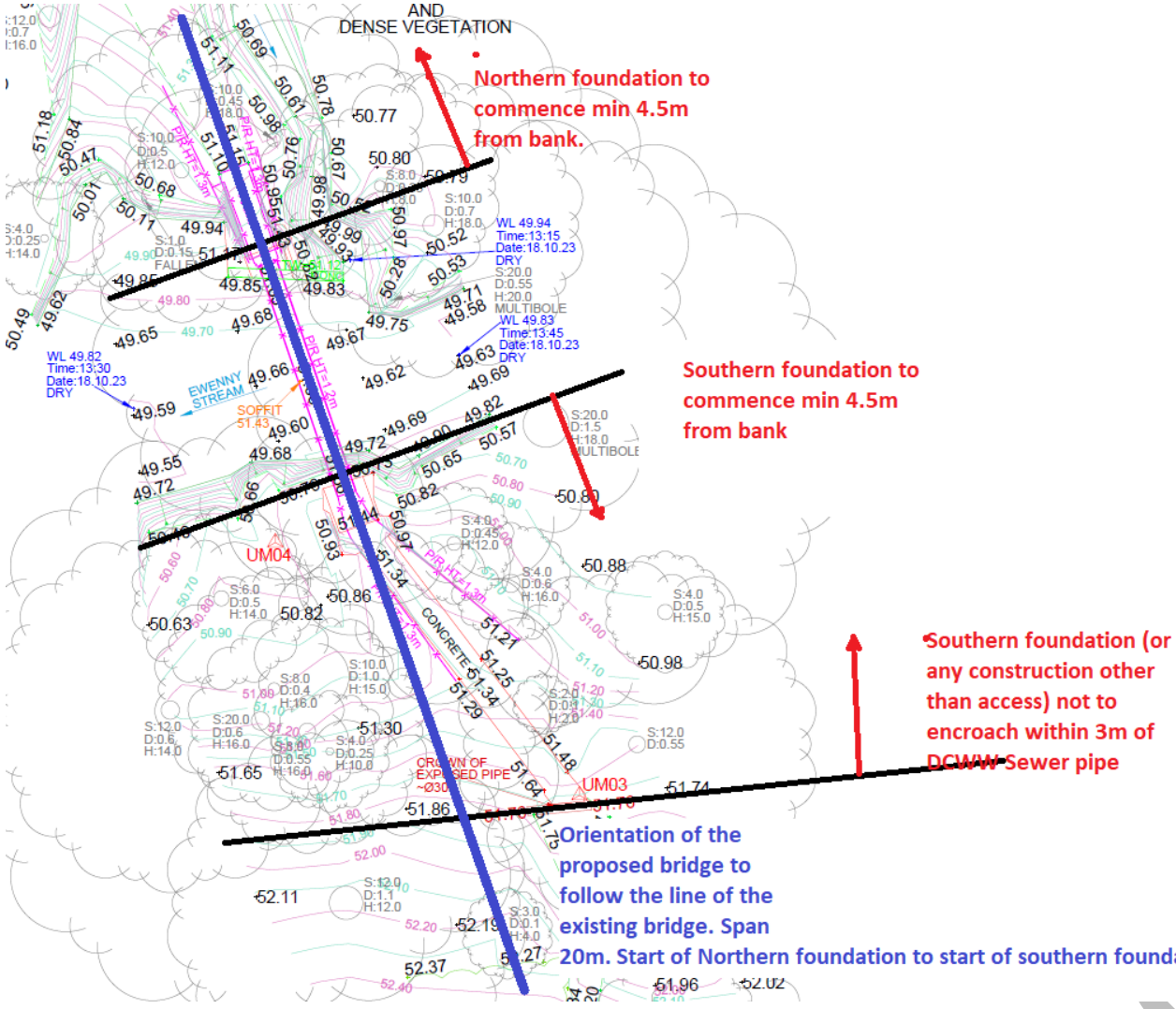
Foundation to be constructed 4.5m from the banks and must not encroach within 3m of the DCWW sewer pipe at any point (southern end). (No construction activity other than access allowed within 3m of the pipe and full RAMS and mitigation measures such as use of bog mats etc.. to be pre-approved by DCWW).

4. Bridge Span Details

Span 10-20 meters. (Start of N foundation to start of S foundation. Actual design span of bridge may be greater).

Note: Orientation of the Bridge to be along current angle. Approximate location of foundation pads shown on attached diagram.

See diagram on overleaf


AND
DENSE VEGETATION
Northern foundation to commence min 4.5m from bank.
Southern foundation to commence min 4.5m from bank
Southern foundation (or any construction other than access) not to encroach within 3m of DCWW Sewer pipe
Orientation of the proposed bridge to follow the line of the existing bridge. Span 20m. Start of Northern foundation to start of southern foundation. (Actual design span of bridge may be greater).
WL 49.94
Time:13:15
Date:18.10.23
DRY
WL 49.83
Time:13:45
Date:18.10.23
DRY
WL 49.82
Time:13:30
Date:18.10.23
DRY
EWENNY STREAM
SOFFIT
51.43
UM04
UM03
CROWN OF EXPOSED PIPE -Ø30
CONCRETE

5. Additional relevant details

The proposed preliminary outline specification *(to be used for guidance only)* can be found in **Appendix A**.

1. The arrangement and buildability of the frame, including the extent of the bridge structure which is to be brought to site as one, and how much is to be brought to site in sections and assembled in situ is to be discussed and confirmed by the tendering contractor, subject to their access requirements and recommended best practices.

2. It is assumed that the current bridge abutments will be left in place, based on the above the assumed span 10-20m to the start point of the abutments/pads. Extra over should be included within tenderers proposal for inclusion of new RC mass or piled abutments.

3. Assume traditional construction materials (eg Steel and timber) and no legs/supports necessary in the Ewenni river itself.

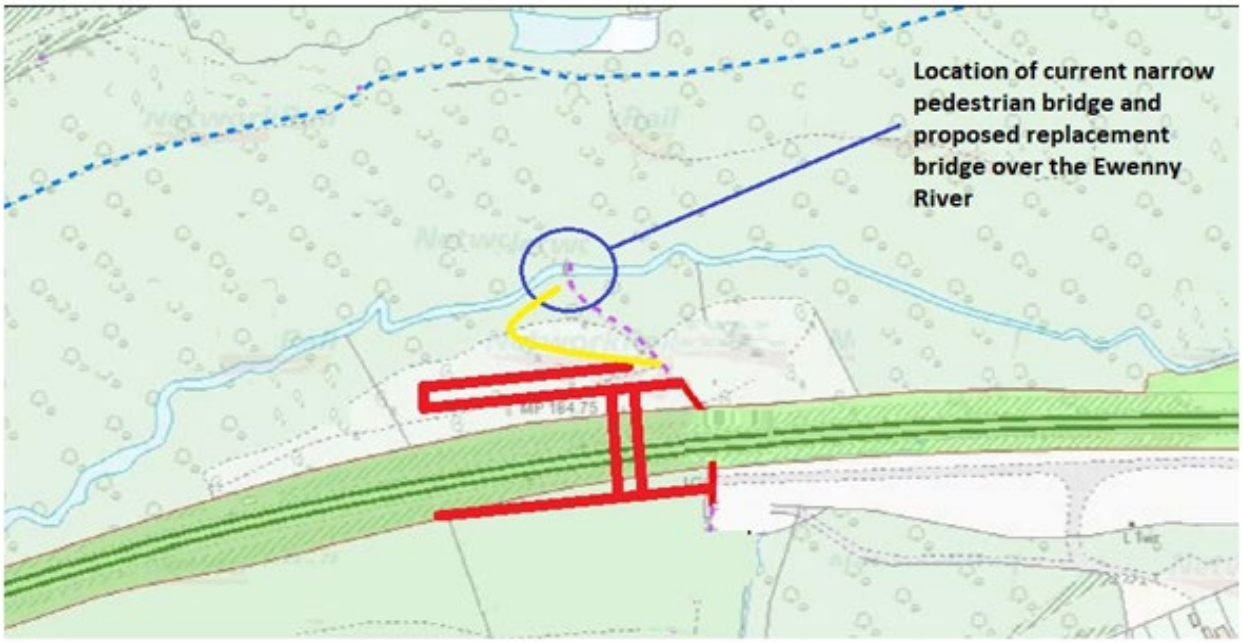
4. Bridge to be equestrian specification (eg min 3m wide, 1.8m parapet).

5. Surface material of deck to be decided at a later date. However, for illustration purposes proposed surfaces should be durable, provide long lasting skid resistance, be equestrian and wheelchair friendly (and those with limited mobility) should be resistant to puddling have drainage properties and able to be used in a woodland environment (leaves/mulch etc). Proposed surfaces should have a minimum 5-10 year lifespan between maintenance periods.

6. Pathway from southern exit of bridge to NR bridge ramp to be 3m wide and constructed with a finish of an appropriate wheelchair -friendly surface =as above.

7. The small section of path leading on to the NR bridge footsteps to be 1m wide and constructed from compacted GSB Type 1. All sections suitably edged (using tanalised timber or similar to contractors specification).

8. Precise route, gradient and specification of the path to be assumed to be no greater than 1:20 unless engineering or other factors dictate otherwise. An engineering design will be required at design stage to firm this up but the approximate route as shown in the drawing below.



Route of current 'rough' footpath

Approximate route of proposed multi-user path

Approximate footprint of Network Rail Trenos railway crossing bridge (Under construction).

9. The small tributary stream running from the north and joining the stream to the east of the northern abutment will be left in place but we aim to fortify the western bank with a suitably sympathetic material using soft engineering techniques.

10. The bridge railing/guardrail/handrails at each end of the bridge to guide users safely from the footpath onto the bridge to be constructed from a material in keeping with the bridge design and materials and in keeping with the woods. This will need to be indicative only at this stage.

11. Colour – Green/brown, in keeping with the woods. Will be decided upon in future by the client.

12. Pre-tender visit mandatory, and meeting with local community council leaders must be undertaken prior to tender submission.

13. The path from the north is currently 2m wide in places. (potential to widen subject to agreement from the Wildlife trust and any consents or licences that might be necessary).

14. Drop off only (no parking) on the woodland reserve land itself. Limited parking available at the western end of the reserve.

15. Access from the south will be limited to traffic that can pass over the NR railway bridge.

16. Future inspection and maintenance of the bridge to be adopted by RCT subject to design approval and the relevant processes.

If you have any queries regarding this report or require any further information, please contact our

office at the above address.

Chris Newby BEng (Hons) CEng MIStructE
Regional Director
Vale Consultancy

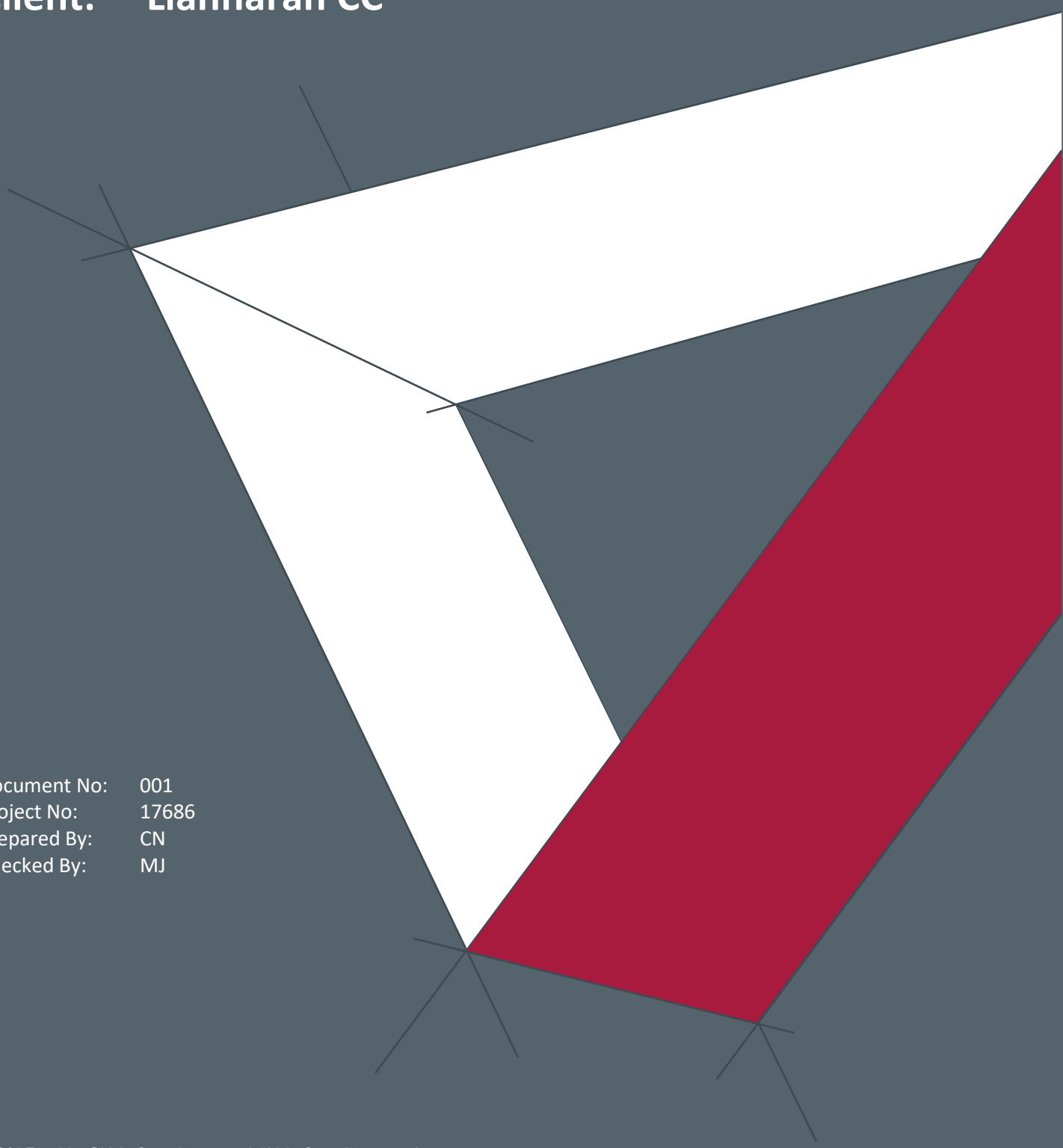
Enclosures: Appendix A – Preliminary Outline Specification for Information Only.

Appendix A – Preliminary Outline Specification for Information Only.

Title: Structural Calculations

Project: Ewenny Stream Bridge – Option 1

Client: Llanharan CC

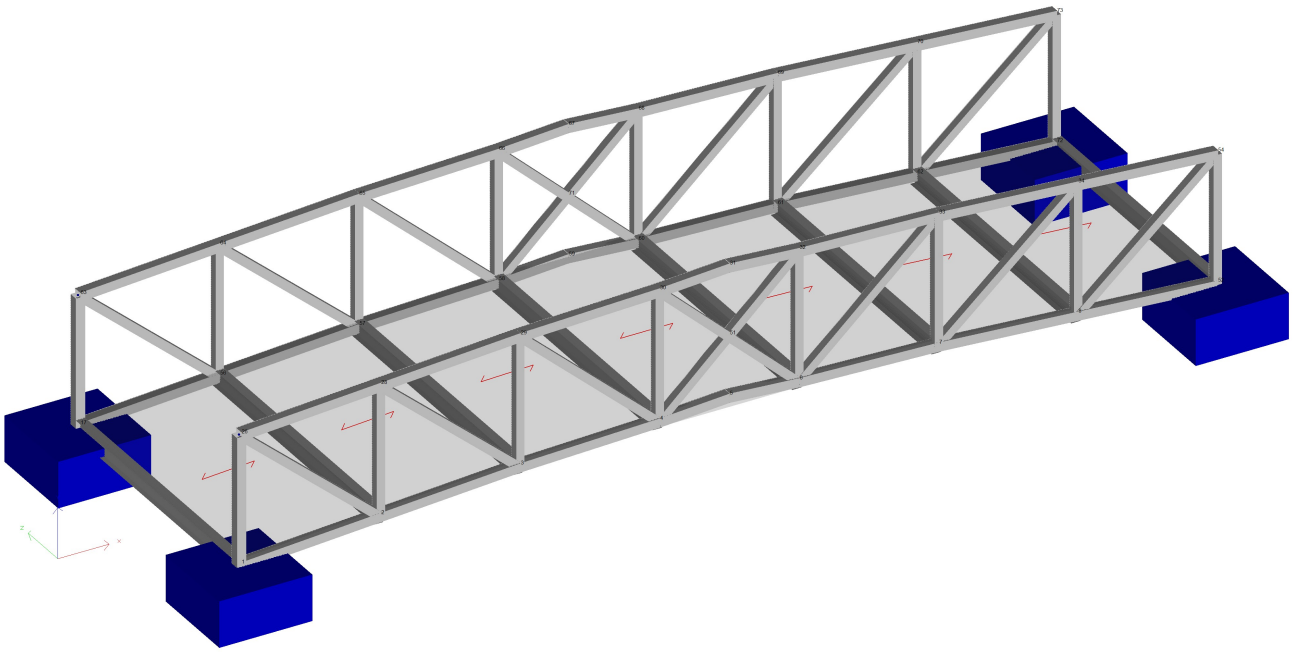


Document No: 001
Project No: 17686
Prepared By: CN
Checked By: MJ

01656 863794 | Enquiries@Vale-Consultancy.co.uk | Vale-Consultancy.co.uk
29 Bocam Park | Old Field Road | Pencoed | Bridgend | CF35 5LJ

Current View

PRELIMINARY - NOT FOR PRICING OR CONSTRUCTION



Vale Consultancy CONSULTING CIVIL & STRUCTURAL ENGINEERS	Ewenny Stream Bridge, Llanharan	Job No 17686 Job Ref Prelim Opt 1 Designed By CN Checked By MJ Date 02/02/2024 Revision No 1.0 Calc No 1.0 Page No 8

Design Results Summary (continued)

Group reference	Design object			Comments	Design status
	Reference	Type	Code		
	35	SW Design	BS5950:2000		Passed
	36	SW Design	BS5950:2000		Passed
	37	SW Design	BS5950:2000		Passed
	38	SW Design	BS5950:2000		Passed
	39	SW Design	BS5950:2000		Passed
	40	SW Design	BS5950:2000		Passed
	41	SW Design	BS5950:2000		Passed
	42	SW Design	BS5950:2000		Passed
	49	SW Design	BS5950:2000		Passed

Steelwork Design Results

Desig object ref	Memb ref	Design parameter	Analysis section	Design section	Utilisation factors				Design status
					Local capacity	Lateral buckling	Torsion	Deflection	
Group Reference - Frame									
6	22-25	*defaults*	90x90x5.0 SHS		0.059	0.118	n / a	0.037	Passed
7	23-24	*defaults*	90x90x5.0 SHS		0.060	0.120	n / a	0.037	Passed
12	56-59	*defaults*	90x90x5.0 SHS		0.060	0.120	n / a	0.037	Passed
13	57-58	*defaults*	90x90x5.0 SHS		0.060	0.120	n / a	0.037	Passed
14	1	*defaults*	100x100x5.0 SHS		0.227	0.275	n / a	0.210	Passed
15	16	*defaults*	90x90x5.0 SHS		0.159	0.169	n / a	0.230	Passed
16	17	*defaults*	90x90x5.0 SHS		0.071	0.075	n / a	0.173	Passed
17	18	*defaults*	90x90x5.0 SHS		0.063	0.008	n / a	0.073	Passed
18	19	*defaults*	90x90x5.0 SHS		0.062	0.008	n / a	0.072	Passed
19	20	*defaults*	90x90x5.0 SHS		0.071	0.075	n / a	0.172	Passed
20	21	*defaults*	90x90x5.0 SHS		0.165	0.175	n / a	0.227	Passed
21	26	*defaults*	90x90x5.0 SHS		0.354	0.012	n / a	0.340	Passed
22	27	*defaults*	90x90x5.0 SHS		0.232	0.012	n / a	0.293	Passed
23	28	*defaults*	90x90x5.0 SHS		0.108	0.012	n / a	0.186	Passed
24	29	*defaults*	90x90x5.0 SHS		0.111	0.012	n / a	0.185	Passed
25	30	*defaults*	90x90x5.0 SHS		0.251	0.265	n / a	0.206	Passed
26	31	*defaults*	90x90x5.0 SHS		0.353	0.012	n / a	0.336	Passed
27	32	*defaults*	90x90x5.0 SHS		0.235	0.012	n / a	0.292	Passed
28	35	*defaults*	100x100x5.0 SHS		0.228	0.276	n / a	0.210	Passed
29	50	*defaults*	90x90x5.0 SHS		0.160	0.169	n / a	0.231	Passed
30	51	*defaults*	90x90x5.0 SHS		0.071	0.075	n / a	0.174	Passed

Appendix A – SI & Topographical Data (3rd Party Provider)

SOUTH WALES
GROUND TESTING

Ewenny Stream Bridge Letter report on Ground Investigation

26 October 2023

South Wales Ground Testing were commissioned to carry out a borehole investigation at the above location. The purpose of the ground investigation was to determine the nature and depth of underlying strata prior to the construction of a replacement pedestrian footbridge. The existing footbridge comprises a narrow horizontal section of sheet metal with scaffold hand rails. The bridge is supported on the northern stream side on an oblique block work wall approximately one metre in height. The southern part of the bridge is supported on a concrete pad a little wider than the walkway.

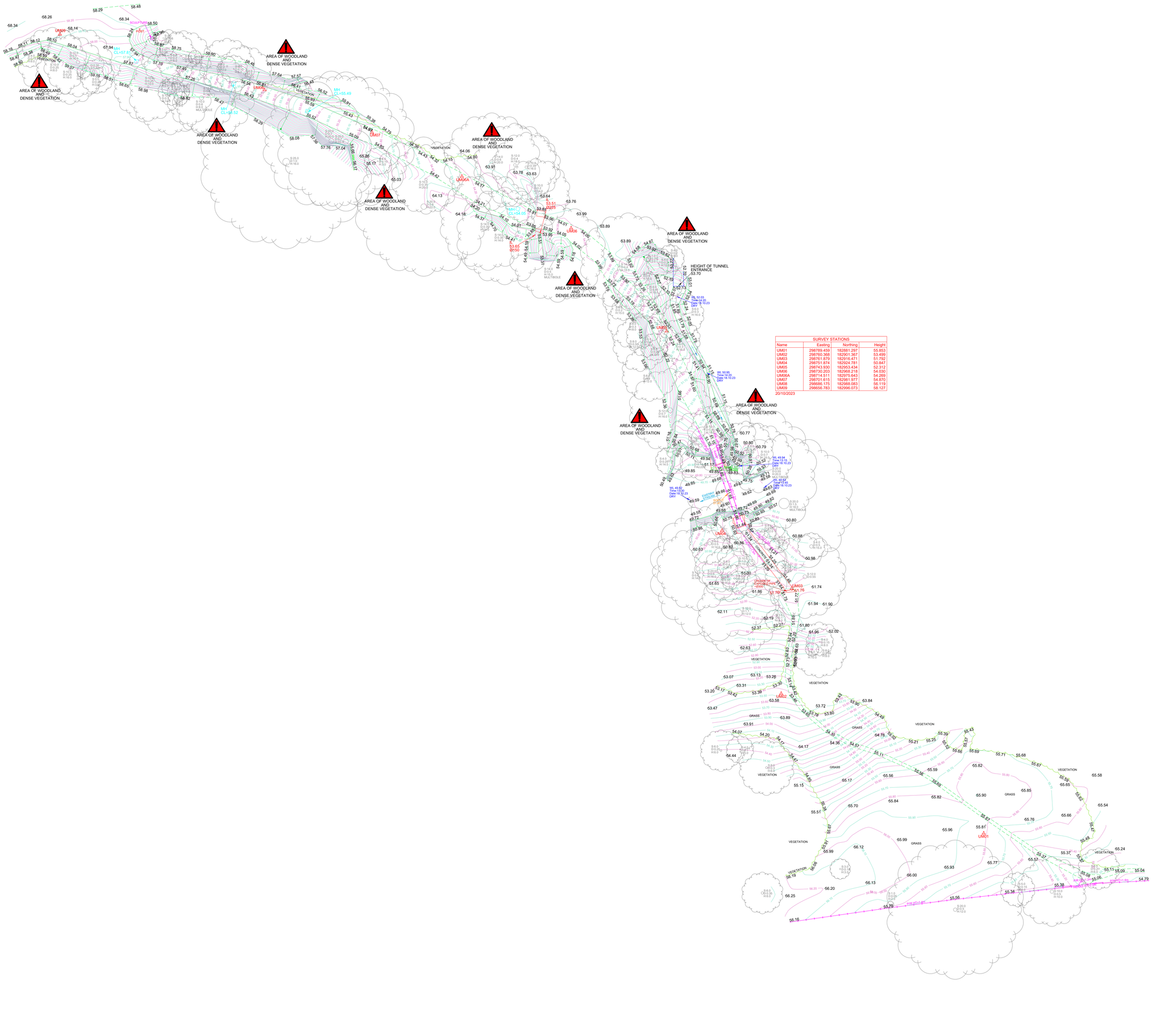
Two boreholes were drilled using a tracked percussive soil sampling and profiling rig. One metre long plastic lined sample tubes are hammered into the ground and the plastic sleeve recovered for examination. At the end of each one metre sample run a standard penetration test was carried out to provide an 'N' value which gives a figure of relative density for the soil. The boreholes were carried out as shown on the attached plan. Borehole 1 was drilled on the northern bank, just above river level and Borehole 2 was drilled on the southern bank approximately 0.60 metre above river level.

The boreholes encountered a series of fluvial (river) deposits of very variable density. Near the surface both boreholes encountered very soft peaty clay overlying generally silty fine to coarse sands with rounded sandstone gravel. Borehole 2 showed low single figure SPT N values to five metres in depth while Borehole 1 had much higher values below 2.0 metres. It would be very difficult to assign a suitable allowable bearing pressure to these strata due to the large variation in SPT N values. A problem with fully saturated sand deposits is that any excavation below the water level will result in quick or running sand conditions and any in situ strength of the sand will be lost. Therefore I think it would be very difficult to set any concrete foundation below the water level.

Both boreholes encountered impenetrable strata at just over 6 metres in depth. The soil or rock here proved to be too compact for the sample tubes to penetrate and obtain a sample, but the SPT N values were well over 50. Should it be required that the bridge be set on a new foundation the mini piles to around six metres in depth could be a solution. However it is likely that the new bridge will be of similar bearing weight to the existing bridge. Visually the existing supports on the northern and southern banks appear structurally sound and could well be adequate to support the new structure.

For and on behalf of South Wales Ground Testing Limited

D. McArthur BSc, MSc, ARSM
Engineering Geologist



SURVEY STATIONS			
Name	Easting	Northing	Height
UM01	298789.459	182881.297	55.853
UM02	298760.368	182901.367	53.499
UM03	298761.879	182916.471	51.792
UM04	298751.874	182924.761	50.947
UM05	298743.930	182953.434	52.312
UM06	298730.203	182968.218	54.030
UM06A	298714.511	182975.643	54.269
UM07	298701.615	182981.977	54.870
UM08	298686.175	182988.083	56.119
UM09	298656.783	182996.073	58.127

20/10/2023

KEY

BANK BOTTOM
BANK TOP
BUILDING
BUILDING CANOPY
CONCRETE
DECKING
EAVE
EDGING
FENCE
KERB
KERB DROP
KERB TOP
OVERHEAD LINE
PAVING
RIDGE
SOFFIT
STONE
VERGE
WATERS EDGE
VEGETATION/CANOPY/ OVERGROWTH
HEDGE

AREA UNABLE TO SURVEY

SIGN/NAME PLATE
BORE HOLE
GATE
UM UTILIMAP SURVEY STATION & ID
TREE WITH SPREAD, DIAMETER & HT
SHRUB OR PLANTER

ABBREVIATIONS

AC	Air Conditioning Unit	CR	Cable Riser
D/C	Drainage Channel	BB	Belisha Beacon
BOL	Bollard	EP	Electricity Pole
ER	Earth Rod	FFL	Finish Floor Level
FH	Fire Hydrant	GR	Gas Riser
GV	Gas Valve	GY	Gully
IC	Inspection Cover	IL	Invert Level
JB	Junction Box	LP	Lamp Post
MH	Manhole	MP	Marker Post
MW	Monitoring Well	PB	Post Box
RE	Rodding Eye	RS	Road Sign
RWP	Rain Water Pipe	SP	Soil Pipe
ST	Stop Tap	TW	Top of Wall
TP	Telegraph Pole	TL	Traffic Light
UTR	Unable To Raise	VP	Vent Pipe
WL	Water Level	WM	Water Meter
WO	Wash Out	WR	Water Riser
WV	Water valve		

FENCE ABBREVIATIONS

ARMCO	Armco Barrier	C/B	Closed Board
CL	Chainlink	H/R	Hand Rail
PAL	Palisade	PNL	Panel
PKT	Picket	P/R	Post & Rail
P/W	Post & Wire	W/I	Wrought Iron

WALL ABBREVIATIONS

CONC	Concrete	BLK	Block
BRK	Brick	ST	Stone

NOTES

PLEASE CONTACT UTILIMAP LTD, TO CONFIRM THAT THE LATEST REVISION IS BEING USED.

EVERY EFFORT HAS BEEN MADE BY UTILIMAP LTD TO PROVIDE ACCURATE INFORMATION, THOUGH, ALL SERVICES, LEVELS AND CRITICAL DIMENSIONS SHOULD BE FIELD VERIFIED BY THE CLIENT BEFORE UNDERTAKING ANY WORKS.

ANY DISCREPANCIES FOUND SHOULD BE DISCUSSED WITH UTILIMAP LTD.

GRID AND LEVEL RELATED TO GPS OSGB15 DATED 18.10.2023. LEVELS RELATIVE TO STN UM01. ALTHOUGH OS COORDINATES ARE SHOWN ON THIS DRAWING THE GRID IS TO BE TREATED AS ARBITRARY.
NO SCALE FACTOR HAS BEEN APPLIED TO THE SURVEY, THEREFORE THE COORDINATES SHOWN ARE NOT TRUE OS COORDINATES.

LEVELS

LOCAL DATUM:	☐
GPS OS DATUM:	☒
PREVIOUS SURVEY:	☐

GRID

LOCAL & ARBITRARY:	☐
GPS OS GRID:	☒
PREVIOUS SURVEY:	☐

NORTH INDICATIVE ONLY

APPROX.

UtiliMap
Land & Utility Surveyors

Richmond House
Avonmouth Way
Bristol
BS11 8DE
Tel:0844 335 1123
Email:info@utilimap.co.uk
Web: www.utilimap.co.uk

- Utility Mapping Surveys
- Topographical Surveys
- Cross Section Surveys
- CCTV Drainage Surveys

Client

Title

EWENNY STREAM BRIDGE PROJECT
TOPOGRAPHICAL SURVEY

REVISION HISTORY

REV	ISSUE DATE	EXPIRY DATE	DRAWING CHANGE
R1	20.10.2023	20.10.2024	TOPOGRAPHICAL SURVEY
--	--	--	--
--	--	--	--
--	--	--	--
--	--	--	--

Original Scale: 1:250 @ A0	Dimension In: Levels: m Depths: m	Drawn: LG Date: OCT 2023	Checked: SW Date: OCT 2023

Drawing Number: ACAD-EWENNY-STREAM-BRIDGE-PROJECT

Rev R1