

**Llyn Tegid Railway Extension, Bala,
Snowdonia National Park:
Heritage Impact Assessment of the
Pont Mwnwgl-y-llyn bridge.**



View of south span of Pont Mwnwgl-y-llyn.

ARS Ltd Report 2021/65
October 2021

Compiled By:
Dr Ian Wyre

Archaeological Research Services Ltd
Angel House Portland Square
Bakewell
Derbyshire
DE45 1HB

Checked By:
Tony Hanna MCIfA

Tel: 01629 814540

admin@archaeologicalresearchservices.com
www.archaeologicalresearchservices.com



**ARCHAEOLOGICAL
RESEARCH SERVICES LTD**

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Angel House, Portland Square, Bakewell, Derbyshire, DE45 1HB

www.archaeologicalresearchservices.com

Prepared on behalf of: Caulmert Limited on behalf of
Rheilffordd Llyn Tegid Ltd

Date of compilation: May/October 2021

Compiled by: Dr Ian Wyre

Checked by: Tony Hanna MCIfA

Local Authority: Snowdonia National Park Authority

Site central NGR: SH 92964 35065

ESTYNIAD I REILFFORDD LLYN TEGID, Y BALA, PARC CENEDLAETHOL ERYRI: ASESIAID O'R EFFAITH AR DREFTADAETH

CRYNODEB ANNHECHNEGOL

Comisiynwyd Archaeological Research Services Cyf. gan Caulmert Cyf. ar ran Rheilffordd Llyn Tegid Cyf. i baratoi Asesiad o'r Effaith ar Dreftadaeth (AED) ar gyfer Pont Mwnwgl-y-llyn, pont ffordd gynt, Rhestredig Gradd II (Cyfeirnod Adeilad Rhestredig 4675), i'r de o'r Bala, Gwynedd, ym Mharc Cenedlaethol Eryri. Diben yr AED hwn yw cefnogi cyflwyno cais cynllunio am Estyniad Rheilffordd o Ben-y-bont i dref y Bala a fyddai'n creu llinell gangen newydd o'r orsaf sy'n dal i fodoli ym Mhen-y-bont, i'r de o afon Dyfrdwy, i gwr de-orllewinol tref y Bala. Cynigir y byddai'r lein newydd yn aildefnyddio'r Bont Restredig a leolir wrth y gyffordd rhwng y B4403 a'r B4391 gan bontio afon Dyfrdwy wrth ben dwyreiniol Llyn Tegid.

Adeilad Rhestredig Gradd II yw'r bont ffordd gynt, Pont Mwnwgl-y-llyn ac yn ased treftadaeth dynodedig o ddiddordeb archaeolegol a hanesyddol cenedlaethol. Saif y bont o fewn ffiniau Parc Cenedlaethol Eryri, sydd hefyd yn ardal o sensitifrwydd ac arwyddocâd archaeolegol hynod nodedig.

Mae ARS wedi paratoi'r Asesiad hwn o'r Effaith ar Dreftadaeth (AED) er mwyn asesu effaith y cynnig ar y bont a nodweddion cysylltiedig a'r effaith bosibl y gallai'r datblygiad ei chael ar unrhyw nodweddion o bwys treftadol yn unol â chanllawiau presennol Cadw sy'n amlinellu'r dull priodol i'w fabwysiadu lle gallai cynigion datblygu gael effaith (boed yn andwyol neu'n fuddiol) ar asedau hanesyddol (Mai 2017a). Diben AED yw nodi natur a maint unrhyw effaith ar asedau hanesyddol, boed yn uniongyrchol neu'n anuniongyrchol, ynghyd ag adolygu priodoldeb y cynigion yn unol ag anghenion deddfwriaeth gyfredol, polisi cynllunio a chanllawiau'n ymdrin â chadwraeth a rheoli'r amgylchedd hanesyddol yng Nghymru.

EXECUTIVE SUMMARY

In Archaeological Research Services Ltd was commissioned by Caulmert Limited on behalf of Rheilffordd Llyn Tegid Ltd to produce an Heritage Impact Assessment (HIA) of Pont Mwnwgl-y-llyn, a Grade II Listed (Listed Building Reference. 4675) former road bridge to the south of Bala, Gwynedd, in the Snowdonia National Park. This HIA is to support the submission of a planning application for a Pen-y-Bont to Bala Town Railway Extension, which would create a new branch line from the extant station at Pen-y-Bont, south of the River Dee, to the south-western edge of the town of Bala. It is proposed that the new line would re-utilise the Listed bridge, sited at the junction between B4403 and B4391, and spanning the Afon Dyfrdwy at the east end of Lake Tegid.

The former road bridge, Pont Mwnwgl-y-llyn, is a Grade II Listed Building and constitutes a designated heritage asset of national archaeological and historical interest. The bridge is within the bounds of the Snowdonia National Park, equally an area of particularly high archaeological sensitivity and significance.

ARS Ltd has produced this Heritage Impact Assessment (HIA) in order to assess the impact of the proposal to the bridge, and associated features, and the potential impact that the development might have on any features of heritage significance in accordance with current Cadw guidance, which outlines the appropriate approach to be adopted where development proposals could have an impact (whether adverse or beneficial) on historic assets (May 2017a). The purpose of a HIA is to identify the nature and magnitude of any impacts on historic assets, whether direct or indirect, as well as to review the appropriateness of the proposals in line with the requirements of current legislation, planning policy and guidance covering the conservation and management of the historic environment in Wales.

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Preamble.....	1
1.2	The Site	1
1.3	The Proposal	2
2	PLANNING POLICY CONTEXT	2
2.1	Legislation	2
2.2	National Planning Policy	3
2.3	Local Planning Policy - Snowdonia National Park Authority	4
3	ASSESSMENT	5
3.1	Methodology	5
3.2	Historic background	5
3.3	Historic Map Regression	9
3.4	Setting Description.....	10
3.5	General heritage asset description	14
3.6	North retaining walls	15
3.7	North arch.....	17
3.8	North pier	19
3.9	Central arch.....	21
3.10	South pier	23
3.11	South arch.....	26
3.12	South retaining walls	28
3.13	Parapet.....	29
3.14	Bridge deck	31
4	STATEMENT OF SIGNIFICANCE	32
4.1	Methodology	32
4.2	Assessment of Significance	33
4.3	Statement of Significance	35
5	IMPACT ASSESSMENT	36
5.1	Methodology	36
5.2	Impact Assessment of the Proposed Development	36
6	CONCLUSION	37
7	PUBLICITY, CONFIDENTIALITY AND COPYRIGHT	38
8	STATEMENT OF INDEMNITY	38
9	ACKNOWLEDGEMENTS	38
10	REFERENCES.....	39

LIST OF PHOTOGRAPHS

Photograph 1: Approaching Pont Mwnwgl-y-llyn, from the north (looking south), the new crossing in the foreground, the B4391 now circumnavigating the old crossing (indicated by yellow arrow).....	11
Photograph 2: Pont Mwnwgl-y-llyn from the north west (looking south east). The new road crossing the former river course by way of an earth embankment (indicated by yellow arrows).....	11
Photograph 3: View across Pont Mwnwgl-y-llyn (the extant bridge) with the railway sited to the south.....	12
Photograph 4: View towards the Bala Railway from the north.....	12
Photograph 5: View of Castell Gronw motte from the south approach of the bridge (HER 3203; Cadw ME067) .	13
Photograph 6: Views of Pont Mwnwgl-y-llyn bridge from the south west aspect.	13
Photograph 7: Pont Mwnwgl-y-llyn bridge, looking north, the new crossing in the distance.	14
Photograph 8: Pont Mwnwgl-y-llyn bridge westerly aspect.	15
Photograph 9: Pont Mwnwgl-y-llyn north retaining wall west face.....	16
Photograph 10: Pont Mwnwgl-y-llyn north retaining wall, east face.....	16
Photograph 11: Pont Mwnwgl-y-llyn south arch west face.	17
Photograph 12: south arch, east face	18
Photograph 13: Pont Mwnwgl-y-llyn view of underside of south arch (facing south).....	18
Photograph 14: Pont Mwnwgl-y-llyn North pier, west cut water.	19
Photograph 15: North pier, east cut water.	20
Photograph 16: North pier cap.	20
Photograph 17: North pier cap.	21
Photograph 18: Pont Mwnwgl-y-llyn central arch, west face.	22
Photograph 19: Central arch, east face.....	22
Photograph 20: Underside of central arch.....	23
Photograph 21: Pont Mwnwgl-y-llyn south pier, west cutwater.	24
Photograph 22: South pier, east cutwater.	24
Photograph 23: South pier, cap of west cutwater.	25
Photograph 24: South pier, cap of the east cutwater.	25
Photograph 25: Pont Mwnwgl-y-llyn south arch, west face.	26
Photograph 26: South arch, east face.	27
Photograph 27: View (facing south).....	27
Photograph 28: West face of south retaining walls (facing south west).....	28
Photograph 29: Obscured south east retaining wall (facing south).	29
Photograph 30: Representative view of west parapet, the section lining the south approach.	30
Photograph 31: Representative view of east parapet.....	30
Photograph 32: Bridge deck surface (facing north).	31
Photograph 33: Bridge deck surface (facing south).	32

LIST OF APPENDICES

Appendix 1: Figures.....	41
Appendix 2: Pont Mwnwgl-y-llyn Design and access Statement.....	44

1 INTRODUCTION

1.1 Preamble

1.1.1 Archaeological Research Services Ltd was commissioned by Caulmert Limited on behalf of Rheilffordd Llyn Tegid Ltd to produce an Heritage Impact Assessment (HIA) of Pont Mwnwgl-y-llyn, a Grade II Listed (Listed Building Reference. 4675) former road bridge to the south of Bala, Gwynedd, in the Snowdonia National Park. This HIA is to support the submission of a planning application for a Pen-y-Bont to Bala Town Railway Extension, which would create a new branch line from the extant station at Pen-y-Bont, south of the River Dee, to the south-western edge of the town of Bala. It is proposed that the new line would re-utilise the Listed bridge, sited at the junction between B4403 and B4391, and spanning the Afon Dyfrdwy at the east end of Lake Tegid.

1.1.2 The former road bridge, Pont Mwnwgl-y-llyn, is a Grade II Listed Building and constitutes a designated heritage asset of national archaeological and historical interest. The bridge is within the bounds of the Snowdonia National Park, equally an area of particularly high archaeological sensitivity and significance.

1.1.3 ARS Ltd has produced this Heritage Impact Assessment (HIA) in order to assess the impact of the proposal to the bridge, and associated features, and the potential impact that the development might have on any features of heritage significance in accordance with current Cadw guidance, which outlines the appropriate approach to be adopted where development proposals could have an impact (whether adverse or beneficial) on historic assets (May 2017a). The purpose of a HIA is to identify the nature and magnitude of any impacts on historic assets, whether direct or indirect, as well as to review the appropriateness of the proposals in line with the requirements of current legislation, planning policy and guidance covering the conservation and management of the historic environment in Wales.

1.2 The Site

1.2.1 The proposed course of the Bala Railway extension runs northwards from the extant Pen-y-Bont station, and is hereby referenced within this document as the Proposed Development Area (PDA). From the Pen-y-Bont extant station platform, the course of the PDA crosses the field immediately to the north to intercept the B4403 and B4391 road junction and Pont Mwnwgl-y-llyn before crossing the River Dee via the new Pont Mwnwgl-y-llyn road bridge. The site address is Llangywer, Bala, Gwynedd, Wales, LL23 7PH, and is centred at NGR SH 92964 35065 (**Figure 1, Appendix 1**).

1.2.2 The underlying solid geology of the site is comprised of *Siltstone* of the *Glyn Gower Siltstones Member*, sedimentary Bedrock formed approximately 454 to 455 million years ago in the Ordovician Period (BGS 2021). Much of the area is overlain by a superficial deposit of *Alluvium - Clay, Silt, Sand and Gravel* - which comprises a variable sediment of mud, sand and gravel with some peat in places, dating to the Quaternary period (BGS 2021).

1.3 The Proposal

1.3.1 The existing bridge is a listed structure (a designated asset) and therefore protected by the 'Planning (Listed Buildings and Conservation Areas) Act 1990' and guidance provided through *Planning Policy Wales - Edition 11* (February 2021) providing a legal obligation and framework for the structure to be retained. Listed building consent is required for any proposed changes and also the scheme as a whole is required to respect its historic surroundings. Details of the proposal design are included in **Appendix 1, Figure 2**. Details of the design decision-making process is beyond the remit of this assessment but full details are provided by Caulmert Ltd in the accompanying Environmental Statement (ES) in the Alternative Site section in Chapter 1 and also in Appendix 1.2 of the ES (Neil Foxall, *pers. Comm.*).

1.3.2 This HIA is part of a schedule of reports required for the Pen-y-Bont to Bala Town Railway Extension, including the following: *Llyn Tegid Railway Extension, Bala, Snowdonia National Park: Archaeological Desk-Based Assessment Archaeological Research Services Ltd Report 2020/153* (Brown 2021a) and *Llyn Tegid Railway Extension, Bala, Snowdonia National Park: Heritage Assets Setting Assessment - Archaeological Research Services Ltd Report 2021/66* (Brown 2021b).

1.3.3 Preemptive assessment has established that the existing bridge structure is suitable to take the proposed narrow gauge train loading without significant modification. In this case, it is not proposed to make alterations to the bridge's external elevations and parapets, with the modification required being subject to the bridge deck and its approaches.

2 PLANNING POLICY CONTEXT

2.1 Legislation

2.1.1 This Heritage Impact Assessment is carried out in the context of national planning policy and relevant legislation.

2.1.2 In regard to legislation, the *Historic Environment (Wales) Act* came into force in March 2016, but whilst it provided a number of new provisions to existing legislation, the changes did not specifically affect the way in which historic assets (such as listed buildings) are assessed throughout Wales.

2.1.3 The *Planning (Listed Buildings and Conservation Areas) Act 1990* remains the primary legislative instrument addressing the treatment of listed buildings through the planning process in both England and Wales. However, it must be recognised, that *Section 72(1)* of the 1990 Act does not identify that the local authority or the Secretary of State must 'preserve or enhance' the character and appearance of a conservation area; nor does it indicate that proposed development which does not preserve or enhance is unacceptable and should be refused.

2.1.4 This point (albeit in the context of *s66(1) and matters surrounding a listed building*) is made in *Paragraph 54* of the High Court judgement in respect of *Forest of Dean DC v Secretary of State for Communities and Local Government* [2013] EWHC 4052 (Admin), which sets out that:

- ♦ *'...Section 66 (1) did not oblige the inspector to reject the proposal because he found it would cause some harm to the setting of the listed buildings. The duty is directed to 'the desirability of preserving' the setting of listed buildings. One sees there the basic purpose of the 'special regard' duty. It does not rule out acceptable change. It gives the decisionmaker an extra task to perform, which is to judge whether the change proposed is acceptable. But it does not prescribe the outcome. It does not dictate the refusal of planning permission if the proposed development is found likely to alter or even to harm the setting of a listed building.'*

2.1.5 In other words, it is up to the decision maker (such as a local authority) to assess whether the proposal which is before them would result in 'acceptable change', whether the case refers to a listed building or a conservation area.

2.2 National Planning Policy

2.2.1 National planning guidance, concerning the treatment of archaeological remains, listed buildings, conservation areas and the wider historic built environment in Wales, is detailed in Chapter 6, *Distinctive and Natural Places*, of *Planning Policy Wales - Edition 11* (February 2021). In this the following is stipulated.

- ♦ **Regarding Listed Buildings**

6.1.10 *There should be a general presumption in favour of the preservation or enhancement of a listed building and its setting, which might extend beyond its curtilage. For any development proposal affecting a listed building or its setting, the primary material consideration is the statutory requirement to have special regard to the desirability of preserving the building, its setting or any features of special architectural or historic interest which it possesses.* (Welsh Government 2021, 126)

2.2.2 Additional guidance covering archaeology and heritage matters across Wales is set out in *Technical Advice Note 24 The Historic Environment* (TAN 24) (Welsh Government, 2017).

TAN 24 states that it provides *'guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and Listed Building Consent applications.'*

2.2.3 As well as providing general advice regarding the assessment of development impacts on the historic environment, the new Welsh Government guidance also provides more specific advice in respect of the approach which should be taken to:

- ♦ *World Heritage Sites;*
- ♦ *Scheduled monuments;*
- ♦ *Archaeological remains;*
- ♦ *Listed buildings;*
- ♦ *Conservation areas;*
- ♦ *Historic parks and gardens;*
- ♦ *Historic landscapes; and*

- ♦ *Historic assets of special local interest.*

2.3 Local Planning Policy - Snowdonia National Park Authority

2.3.1 Many local planning policies (not only those for design and conservation) can affect development with regard to heritage assets. For instance policies on sustainable development, meeting housing needs, affordable housing, landscape, biodiversity, energy efficiency, transport, people with disabilities, employment and town centres can all have an influence on development and the quality of the environment. However, policies concerned with design quality and character generally take greater importance in areas concerning heritage assets. These policies, along with other matters, will be considered in the ongoing management of development in the area.

2.2.2 The following are documents and policies deemed as relevant in this case adopted by the Snowdonia National Park Authority. Principally this is consolidated within the *Eryri Local Development Plan (ELDP) 2016 – 2031 Written Statement*. In this, it is important to note, the overall vision the strategic policies seek to uphold, this being as follows.

- ♦ ***Protecting and Enhancing the Cultural and Historic Environment***

‘To understand, value, protect and enhance the area’s historic environment including archaeological remains and historic landscapes and to promote development that enhances Snowdonia’s built heritage and townscape.

To protect and enhance the natural beauty of the National Park’s landscape by ensuring that development meets good sustainable design standards and respects the ‘Special Qualities’ of the area and the purposes of the National Park.’ (ELDP 2016, 42)

Accordingly, there is now a great weight upon understanding significance, offering supporting information in describing significance and identifying features of value, to prioritise how they will be conserved to ensure that the conversion will conserve or enhance the heritage significance of the asset and its setting. These are as follows.

- ♦ ***Strategic Policy Ff: Historic Environment (Ff)***

‘The historic landscape, heritage assets and cultural heritage of Snowdonia National Park will be conserved and enhanced, due to their contribution to the character and ‘Special Qualities’ of the National Park. Particular protection will be given to the following archaeological, architectural, historic or cultural assets and where appropriate, their settings.

Development will not be permitted that will adversely affect in any way the following Heritage Assets, or where appropriate their settings and significant views:

Conservation Areas

World Heritage Sites

Candidate World Heritage Sites

Scheduled Monuments and other sites of archaeological importance

Historic landscapes, parks and gardens

Listed Buildings

Traditional Buildings' (Eryri Local Development Plan 2016 – 2031, 62)

3 ASSESSMENT

3.1 Methodology

3.1.1 This report has been prepared with reference to Cadw's document entitled *Heritage Impact Assessment in Wales* (Cadw 2017a). Accordingly, it assimilates the results of background archive research, the completion of visits to the site, and its wider vicinity, and a review and analysis of the relevant planning context from the exploration of the Local Authority's planning website (as completed in Section 2 previously).

3.1.2 The Historic Background discussion that follows is based on the information contained within the document *Pen-y-Bont to Bala Town Railway Extension, Snowdonia National Park: Archaeological Desk-Based Assessment* produced by Archaeological Research Services Ltd (Brown 2020). This targets a study area at Pen-y-Bont and Bala, in the Snowdonia National Park, in advance of the submission of a planning application for a Pen-y-Bont to Bala Town Railway Extension. All information below is distilled from these reports and webpages unless otherwise stated, and where additional information gleaned from GAT's HER entries is referenced, the relevant HER 'preferred reference number' is quoted. In addition, Cadw's reference number is also quoted wherever Scheduled Monuments are discussed, and for any sites that are referred to that are only recorded on the RCAHMW database, the NMRW reference number will be provided. This provides a thorough assessment of the archaeological and historical background of the wider study area under consideration.

3.1.3 A historic building appraisal of Pont Mwnwgl-y-llyn was carried out in March 2021 to assess the significance of the structure and the impact of the proposed development on it. The site work (and subsequent preparation of this report) was completed by an experienced surveyor using appropriate guidance, and with the three visits undertaken during periods of suitable weather conditions. A systematic text description of the buildings is provided with an evaluation of the historical and architectural significance based on the existence or non-existence of statutory and non-statutory designations and also on the author's professional judgement formulated by substantial experience of historic building analysis. A series of digital photographs were taken of the bridge's general areas and particular features of note in reference to this report.

3.2 Historic background

The Prehistoric Period

3.2.1 There is a general paucity for evidence of prehistoric activity within the vicinity of Pont Mwnwgl-y-llyn, and the larger region surrounding Lake Bala/Llyn Tegid. The lake and the former river course would constitute an perfect location seasonal, lowland hunting camps for a local mobile hunter-gatherer population. In the 18th century, along the north-east shore of Lake Bala, , the Reverend John Peter discovered several pieces of Mesolithic worked flint, including a knife, several scrapers and some cores and flakes. It is feasible that

further evidence from this period may be discovered during future groundworks close to the shore of the lake and, this including the mouth of the former river channel, on the adjacent banks of Pont Mwnwgl-y-llyn. It is noted however, that the glacial trough within which the lake is borne has progressively silted up as the lake filled with water since the last glaciation,. This would suggest a propensity for similar ephemeral evidence for Mesolithic activity, or even established settlement, during later prehistoric times is submerged beneath the rising water level.

3.2.2 There is no known evidence for Neolithic activity in the immediate environs of Lake Bala and therefore Pont Mwnwgl-y-llyn itself. Assessment of the wider study area indicate disparate levels of archaeological activity relating to this era. A circular enclosure believe to be a possible Neolithic henge (HER 9982) has been identified from aerial photography, c.1.5km to the north east, at Ty Tan Dderwen. Equally, there is documentary evidence for a now destroyed, stone circle of possible later Neolithic or Early Bronze Age date, c.500m to the north-east of the study area at Llanfor, known as Pabell Llywarch Hen (HER 3224). Also of note, during construction of the railway, a standing stone, of possible Neolithic or Early Bronze Age date (HER 3241), was also removed at Llangower, c.2.45km to the south-west of the study area; it does remain possible however that this may have just constituted a natural stone outcrop. A geophysical survey, in 1997 (ahead of the Eisteddfod works) to target a known Roman military complex located at the north-western edge of the study area at Llanfor (HER 24707) identified was the presence of three, possible, Early Bronze Age round barrows, surviving as ring ditches.

3.2.3 Other identified pockets of prehistoric activity in the context of the wider study area itself, is a find spot of a Bronze Age 'end-loop' socketed spearhead (HER 3207). Found in 1965, in shallow water towards the north-eastern end of Lake Bala, this was close to the proposed course of the new railway extension. Similarly, a Bronze Age double axehead (HER 24119) was also discovered during excavations prior construction of a garage premises at Glan y Gro, c.275m to the south-west of the wider study area and immediately adjacent to the Bala Lake Railway. Likewise, a prehistoric stone axe-hammer (HER 4343) was also unearthed during the construction of the railway between Bala and Corwen, at a location thought to be near the River Dee, close to the north-east of the study area.

Iron Age

3.2.4 On excavation, the presumed Neolithic enclosure at Ty Tan Dderwen (HER 9982), noted above, produced dating evidence revealing that it was actually constructed in the Middle Iron Age, around the 4th to 3rd centuries BC. The settlement site appears to have been subsequently abandoned at the end of the Iron Age between the 1st century BC to the 2nd century AD; it has been intimated that it may have been as a result of the earliest Roman incursion into the area. There are no further known Iron Age sites or findspots within the study area, but a possible Iron Age agricultural building, a rectangular structure within a ditched enclosure, was identified during site investigations ahead of the 2009 Eisteddfod at Llanfor works, c.250m to the north-east of the study area.

The Romano-British Period

3.2.5 Throughout history Lake Bala, as a former glacial valley, would have presented a natural conduit for travel and transport. This natural advantage was seized on by the

Romans, who are known to have built at least five military roads along this corridor during initial incursions into the region (during the Flavian period AD 69-96). Early on in the Flavian period, a large temporary marching camp was established at Llanfor, occupying a low-lying spur at the confluence of the River Dee and one of its main tributaries, Afon Tryweryn (HER 24707; HER 3211). Subsequently, the camp was replaced by a more substantial timber fort, which contained twenty-two barrack buildings and was approached from the north by a routeway (HER 17760) lined with buildings, thought to be the remains of a *vicus* (HER 17183). Another potential road flanked with *vicus* buildings is identified approaching the fort from the north-east (HER 1761). The importance of this short-lived Roman military site has been acknowledged through the designation of the whole complex as a Scheduled Monument (Cadw ME092). Equally, there is evidence that the low-lying position of the fort minimally above the flood plain of the river produced problems with regard to the maintenance of the defensive ditches: this may be why the fort was apparently abandoned c. AD 75-80 after a short period of use. Shortly afterwards, a new fort was established and garrisoned c.8km to the south-west at the far end of Lake Bala at Caer Gai, c. AD 75-80 to 130 (HER 1569). The Roman Road (HER 3850) that connected the Caer Gai fort with the *Deva* (Chester) fort followed the north-western shoreline of Lake Bala and is believed to be fossilised in the alignment of the present A494 (which continues through Bala along High Street and Station Road).

The Early Medieval Period

3.2.6 There is a greater body of evidence for medieval activity within the vicinity of Pont Mwnwgl-y-llyn, and the larger region surrounding Lake Bala/Llyn Tegid. At the Roman withdrawal in the 5th century, the establishment of the Kingdom of Gwynedd was instigated, the River Dee traditionally marking its southernmost boundary. Therefore, at this time, the area is likely to have constituted a major political frontier. Whilst there is no known archaeological evidence contributed to this early period, within the prescribed study area itself, an inscribed stone bearing a Latin inscription was found built into the inside wall of Llanfor church, c.400m to the north-east, thought to date to the 5th to early 6th century (HER 3204). This suggests that continued settlement of the area had endured during the sub-Roman period, however the precise provenance of the stone however is unclear, not having been incorporated into the church tower until the 19th century.

The Medieval Period

3.2.7 By the 12th century, *Penylln* ('head of the Lake') had been established as a land boundary, within the kingdom of Gwynedd, with the wider study area located mostly within *Penllyn uwch Tryweryn*, one of three sub-divisions (*commotes*) within the *cantref*. This was denoted as being 'above Afon Tryweryn', whilst *Penllyn is Tryweryn* ('below Afon Tryweryn') occupied the eastern edge of the wider study area beyond the river. It was likely that Bala served as an administrative centre (*maerdref*) of the commote of Penllyn uwch Tryweryn, demonstrated by the presence of one of the largest Norman mottes in Wales, Tomen y Bala (HER 3202; Cadw ME016) in the town centre. The single historical reference to this structure dates to 1202, when it is recorded that Llewellyn ap Iorweth, King of Gwynedd, 'demolished the structures on the mound and banished the Lord of Penllyn, Elis ap Madog.' There is no evidence that the castle was subsequently re-built and the motte is thought to have fallen out of use at this time.

3.2.8 Crucially, in the context of the site, there was a second motte at Castell Gronw (HER 3203; Cadw ME067), located at the strategic location adjacent the crossing of the River Dee at the head of the lake, c.80m south of Pont Mwnwgl-y-llyn. The NMRW entry for this monument records that the name has been associated with Goronwy ab Ednyfed Fychan (d.1268), a direct ancestor of Henry Tudor (Henry VII of England) and steward to Llywelyn ap Gruffudd (the last sovereign Prince of [Wales](#) prior to the [conquest](#) by [Edward I of England](#)). However, the status and identification of the mound is not certain, as an earlier Royal Commission description of the site records variously that: *‘Edward Llhuyd terms the mound “Kastell Kaer Einion” ... Vaughan of Hengwrt (died 1666) calls it the castle of “Grono Bevr of Benllyn”, a personage who figures prominently in the Mabinogi of Math ab Mathonwy. Historically the founder is more likely to be a member of the great marcher family of Whittington in Salop whose name was also Goronwy and who claimed descent from the more mythic chieftain’* (RCAHMW 1921, 131). The location of the motte would strongly suggest that a medieval bridge may have been at in the vicinity of the location of the present Pont Mwnwgl-y-llyn.

The Post-Medieval Period

3.2.9 On the eastern edge of the town, Pont Trewern bridge is believed to date to the late 18th century (HER 11724), but may have replaced an earlier bridge over Afon Trewern. Accordingly Pont Mwnwgl-y-llyn (HER 3222), spans the River Dee south of the town, and is equally thought to have surviving elements dating to the early 18th century. As noted above, the location of the Castle Gronw Motte adjacent to Pont Mwnwgl-y-llyn would suggest the presence of a river crossing here since from at least the medieval period.

3.2.10 On construction of the Ellesmere Canal, engineering works associated were undertaken adjacent to the Pont Mwnwgl-y-llyn in 1804 by William Jessop and Thomas Telford. Here, sluice gates were inserted west of the bridge, to control the lakes confluence with the Dee (NMRW 410466). These were designed to enable the level of the lake to be raised by one foot during the summer months to help ensure that the Ellesmere Canal always had a sufficient supply of water. Subsequently, these had to be lowered in 1808 due to problems with flooding.

3.2.11 In 1868, The Bala and Dolgelley Railway Company opened the Ruabon-Barmouth branch line. This ran for c.31km between the Corwen & Bala Railway at Bala Junction and the Cambrian Railway’s station at Dolgellau. Bala Junction Station (HER 28432) c.80m south of Pont Mwnwgl-y-llyn. This meeting of lines was unusual, being inaccessible by road and acting only as an interchange station between the GWR’s line and the Bala & Ffestiniog Railway, which continued to the north-west, along the eastern edge of Bala. Only twenty years later, the station had fell out of use.

The Modern Period

3.2.12 On the 5th February 1934 the Bala Lake Halt (NMRW 41294) was opened by the GWR. This was probably at the location of the old station c.80m south of Pont Mwnwgl-y-llyn (although the NMR record its location c.40m to the north-west). However, this halt was short-lived, and was closed on the 25th September 1939, and subsequently demolished. The Ruabon-Barmouth GWR route that skirted the southern edge of Lake Bala closed to passengers on 18th January in 1965.

3.2.13 The only major change to occur during the modern period was the Bala Lake Scheme, undertaken by the Dee and Clwyd River Board in the late 1950s. This involved the demolition of Telford's sluice gates, to the west of the bridge, and the lowering of the natural lake outlet, with new sluice gates being built downstream at the confluence with the Afon Trywryn. Fundamentally, the entire river channel was re-routed c.100m to the north (1963 OS map) and the new Pont Mwnwgl-y-llyn road bridge was constructed to take the B4391 over the new course of the river. At this time the old bridge fell out of traffic use, but survived as a foot-bridge and designated as a Grade II Listed Building (Cadw 4675; HER 3222).

3.2.14 The former GWR standard gauge route, that skirted the southern edge of Lake Bala was reopened as the narrow gauge Bala Lake Railway (HER 24717) in 1972, reaching Bala in 1976, where the eastern terminus is located at the site of the former Ganlllyn Flag Station and Bala Lake Halt. In 1981 it was announced in the railway directory 'Steam '81' that there were plans to extend the railway as far as Bala Loch Café in Bala town centre, but this work did not see fruition.

3.3 Historic Map Regression

3.3.1 The Llanycil tithe map, 1838, is the earliest cartographic depiction of the Pont Mwnwgl-y-llyn and its surroundings to be referenced. The map depicts the crossing at a location further to the east than found in reality, however this is likely attributable to inaccuracies in surveying techniques in production of the map at that time. The tithe award reveals the field names and land use of the plots of land along the wider PDA to the north of the River Dee; at that time, the fields across which the road crosses north from the bridge, was a mixture of meadow, arable and pasture.

3.3.2 By the time of the 1888 Ordnance Survey (OS) the railway is shown in place. The station at Bala however, with a waiting shelter is shown as 'Disused'. By the time of the 1901 OS map, the station was no longer labelled and the waiting shelter had been demolished. These 19th century OS maps depict no further changes along the route of the PDA, and the fields appear unchanged since the layout depicted on the tithe map of 1838.

3.3.3 Subsequent Ordnance Survey mappings reveal few immediate change to the bridge and its main approach routes on the advent of the railway. One addition, opposite the south end of the bridge, a new road adjoins the junction to serve the railway buildings along its course.

3.3.4 Significantly, the 1963 OS map marks the entire river channel having been re-routed c.100m to the north on completion of the Bala Lake Scheme. Consequently, the new Pont Mwnwgl-y-llyn road bridge has been constructed to take the B4391 over the new more northerly course of the river,. The old bridge and original river channel fell out of use, but remained as a foot-bridge and is designated as a Grade II Listed Building (Cadw 4675; HER 3222).

3.3.5 It should be noted that it was not possible to undertake further detailed research of the historic maps and any relevant archives at the local record office as a result of the Covid-19 pandemic and subsequent lockdown.

3.4 Setting Description

3.4.1. The old bridge, Pont Mwnwgl y Llyn, originally carried the B4391 across the former course of Afon Dyfrdwy, the River Dee, at the east end of Lake Tegid. Now redundant as a road bridge, the setting to the north and east aspects of Pont Mwnwgl y Llyn now reflects the mid-20th to early 21st century use of the site. Prior this arrangement, the north approach of the bridge immediately abutted a road junction, between the B4403 (running along the south east side of the lake) and B4391. This junction is now re-sited to the east, the B4391, which leads to the town of Bala c.0.9km to the north, now circumnavigating the old crossing by way of a new road formed over an embankment in the old river bed (**Photographs 1 and 2**).

3.4.2 South of Pont Mwnwgl-y-llyn lies the railway, with the former halt c.80m now serving the heritage railway, set adjacent a green field parking area (**Photograph 3 and 4**). To the east lies the wooded mound of Castell Gronw (HER 3203; Cadw ME067) the medieval motte (**Photograph 5**). To the south east the B4391, from Llangynog meets the B4403 at the re-sited junction until passing over the reformed river course via the new Pont Mwnwgl y Llyn road bridge.

3.4.3 From roadway level views are by Lake Bala, wider undulating side of the river valley. Over these are wooded areas with dry stone walling delineating grassed pasture areas. With the intervening topology and tree growth along many of the landscape boundaries, generally only glimpsed views of the lower extents of the structure are available from the main public realm (**Photograph 6**). Trees have taken root along the banks and within the former river bed. Presently, only the bridge deck provides a visual and link by foot between the town and railway (**Photograph 7**).



Photograph 1: Approaching Pont Mwnwgl-y-llyn, from the north (looking south), the new crossing in the foreground, the B4391 now circumnavigating the old crossing (indicated by yellow arrow).



Photograph 2: Pont Mwnwgl-y-llyn from the north west (looking south east). The new road crossing the former river course by way of an earth embankment (indicated by yellow arrows).



Photograph 3: View across Pont Mwnwgl-y-llyn (the extant bridge) with the railway sited to the south.



Photograph 4: View towards the Bala Railway from the north.



Photograph 5: View of Castell Gronw motte from the south approach of the bridge (HER 3203; Cadw ME067).



Photograph 6: Views of Pont Mwnwgl-y-llyn bridge from the south west aspect.



Photograph 7: Pont Mwnwgl-y-llyn bridge, looking north, the new crossing in the distance.

3.5 General heritage asset description

3.5.1 The historic bridge presents a simple vernacular structure composed of a grey, squared and coursed local stone (**Photograph 8**). The former river crossing, now land locked, comprises three spans with rough cut masonry, segmental arches divided by two intermediate piers with triangular buttressed, cutwaters to both east and west sides. Plain capped parapets over an outward facing the string course, with segmental drip course to each head. The structure largely ascribes to a linear plan form with the parapeted approaches splayed at either end,. The longest axis of the structure lies approximately to a north/south alignment, with the road bed rising slightly with towards the apex of the crossing.

3.5.2 The overall structure appear to originate from within more than one principal stone construction phase, with a sequence of rebuilding and repair evident, probably from the 18th century right up to modern times. The majority of the bridge's extant historic elevations exhibit the use of original construction materials, with some non-sympathetic repointing, interspersed with localised repair and individual stones subject to erosion.



Photograph 8: Pont Mwnwgl-y-llyn bridge westerly aspect.

3.6 North retaining walls

3.6.1 The north retaining walls support a shallow, rising approach prior the centre crossing span. The north retaining walls are set into the former river banks. Prior the plain parapet with stone slab coping over a continuous drip course. The west facing wall, adjacent the spring of the north arch, presents a vertical break to the masonry, constituting a shallow return prior the rougher coursed face over the arch.. **(Photograph 9)**. The east facing abutment is significantly subsumed within the present river bank and the build-up of overspill for the embankment of re-sited road. The parapet largely defines its original extents to the north **(Photograph 10)**.



Photograph 9: Pont Mwnwgl-y-llyn north retaining wall west face.



Photograph 10: Pont Mwnwgl-y-llyn north retaining wall, east face.

3.7 North arch

3.7.1 The most northerly of the three arches follows the common segmental form of each span. The barrel formed from roughly cut slates, the outward faces of the arch heads approximately 0.5m thick with thin string course following the extrados (**Photographs 11 and 12**). The west, lakeside face is relatively exposed although saplings are taking root. The eastern aperture is partially blocked from a build-up of earth and rock, likely overburden from construction of the later road.

3.7.2 From the underside, it is found that the arch barrels are articulated in two sections separated with a longitudinal joint. This may indicate the barrels were not constructed simultaneously the bridge having been widened in the past, or indicative of having been constructed in pairs, the tapering gap resultant from the wooden formers used to support the arch construction (**Photograph 13**). sprung abutment c.0.5m from the present ground level. There is no significant deterioration or clear deformation within the arch structure although localised erosion is noted. A concretion of lime is also noted, from water absorbed through the upper surface. Some repointing of the stonework appears to be a cement based mortar.



Photograph 11: Pont Mwnwgl-y-llyn south arch west face.



Photograph 12: south arch, east face



Photograph 13: Pont Mwnwgl-y-llyn view of underside of south arch (facing south).

3.8 North pier

3.8.1 The two intermediate piers of the bridge present angled cutwaters to both sides of the crossing (**Photographs 14 and 15**). The piers are composed of roughly cut blocks which extend to a height just below the drip course beneath the parapet. The top of the west cut water retains a stepped stone cap, this is of contrast to the east, that has a poorly mortared flat top (**Photographs 16 and 17**).



Photograph 14: Pont Mwnwgl-y-llyn North pier, west cut water.



Photograph 15: North pier, east cut water.



Photograph 16: North pier cap.



Photograph 17: North pier cap.

3.9 Central arch

3.9.1 The centre arch follows the common segmental form of each span, the outward head of the arch c.0.5m thick with a narrow string course along the extrados. The east, former river face, and west, lakeside face remain relatively exposed although saplings are encroaching upon the apertures (**Photographs 18 and 19**). Horizontal anchor plate/straps at the apex of the arch suggest reinforcing tie rods have been required historically to stabilise the west and east faces. From beneath, the barrel is again formed from thin, rough cut stones and articulated in two halves (**Photograph 20**).



Photograph 18: Pont Mwnwgl-y-llyn central arch, west face.



Photograph 19: Central arch, east face.



Photograph 20: Underside of central arch.

3.10 South pier

3.10.1 The south pier presents angled cutwaters to both river and lake sides of the crossing, in keeping with the north pier of the bridge (**Photographs 21 and 22**). Again, retained to the top of the west cut water a stepped stone cap, similarly of contrast to the east, that has a poorly mortared flat top on which a particularly large sapling has taken root (**Photographs 23 and 24**).



Photograph 21: Pont Mwnwgl-y-llyn south pier, west cutwater.



Photograph 22: South pier, east cutwater.



Photograph 23: South pier, cap of west cutwater.



Photograph 24: South pier, cap of the east cutwater.

3.11 South arch

3.11.1 The south arch follows the common segmental form of the previous span. The east, former river face and west lakeside face remain relatively exposed although saplings are encroaching the apertures (**Photographs 25 and 26**). Forged anchor plate/straps metal at extrados level suggest reinforcing tie rods were also required historically to stabilise the west and east faces of the arch. From beneath, the barrel is again formed from thin, rough cut stones and articulated in two halves (**Photograph 27**).



Photograph 25: Pont Mwnwgl-y-llyn south arch, west face.



Photograph 26: South arch, east face.



Photograph 27: View (facing south).

3.12 South retaining walls

3.12.1 The south retaining walls of the bridge are splayed to accommodate the east to west routeway immediately adjacent the bridge's south approach. The west, lake side, is mostly exposed to display its masonry face, which follows a curved profile (**Photograph 28**). Similar to that found on the north retaining wall, the wall incorporates a shallow return, abutting the south spring of south arch. It is not known if these are of original construction or may indicate the approaches were subject to later intervention requiring rebuilding towards the lake side. Sluice gates were historically relegated to this side, which may suggest the presence of these features. Heavy vegetation obscures the east face of the south retaining walls (**Photograph 29**). The south approach of the bridge rises towards apex of the south arch.



Photograph 28: West face of south retaining walls (facing south west).



Photograph 29: Obscured south east retaining wall (facing south).

3.13 Parapet

3.13.1 The bridge comprises an uninterrupted parapets along its east and west aspects. From the outer faces the parapets are three stones high, with stone slab coping, set on a projecting string, drip course, demarcating the bridge deck. To the interior of the crossing the surface is raised, with two courses of stonework remaining exposed; the height is under c.0.8m along the course of the parapet (**Photographs 30 and 31**).



Photograph 30: Representative view of west parapet, the section lining the south approach.



Photograph 31: Representative view of east parapet.

3.14 Bridge deck

3.14.1 The north and south approaches of the bridge rises towards the apex of each outer arch. The surface is a 'blacktop', modern gritted tarmac surface covering of unknown depth (**Photographs 32 and 33**). Set into the tarmac bridge deck, at either end to the bridge, are pairs of roughly dressed stone stone bollards. An ingress of weeds is apparent to the deck edge, abutting the stonework of the parapets.



Photograph 32: Bridge deck surface (facing north).



Photograph 33: Bridge deck surface (facing south).

4 STATEMENT OF SIGNIFICANCE

4.1 Methodology

4.1.1 The definition of ‘significance’ employed here for the identified historic assets is taken from Cadw’s *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment in Wales* (2011), which describes this term as embracing ‘*all of the cultural heritage values that people associate with it, or which prompt them to respond to it*’, and then adds that these values ‘*grow in strength and complexity over time, as understanding deepens and people’s perceptions evolve*’. The document identifies four component values that make up significance, as follows:

- ♦ **High.** An aspect of value that strongly contributes to the significance of a place, forming a key piece of its history and cultural value which may be of national or international importance. In material terms, these aspects will best contribute towards the heritage values. Conservation will be a priority, and alteration is likely to be resisted unless it is demonstrated that significance will be greatly enhanced, reinforced or revealed as a result.
- ♦ **Medium.** An aspect of value that will have some cultural importance (perhaps on a regional scale) and will make a moderate contribution to the significance of a place. In material terms they will play an important role in conveying the heritage values. Efforts should be made to protect and enhance these aspects, though a greater degree of flexibility is possible than with aspects of high value.

- ♦ **Low.** An aspect of value that will make a slight (yet still noteworthy) contribution to the significance of a place, but perhaps only on a local scale. In material terms it will still add something to the heritage values (such as helping to maintain plan form and historic character), although this contribution may have been compromised by loss or uninformed intervention. A greater capacity for enhancement exists than for items of medium or high value, although a low designation does not necessarily mean that the feature is expendable.
- ♦ **Neutral.** An aspect that has no discernible value that neither adds to nor detracts from the significance of the place. Informed change will be acceptable.
- ♦ **Detrimental.** An aspect of the place that detracts from its values and therefore its significance. In material terms, removal or reversal of these aspects should be strongly encouraged.

4.2 Assessment of Significance

4.2.1 The approach to the assessment of significance is that set out in *Conservation Principles* (Cadw 2011), which states that the significance of heritage assets derives from the 'heritage values' that they possess, which may be *evidential*, *historical* (either *illustrative* or *associative*), *aesthetic* or *communal*.

Evidential Value

4.2.2 CADW guidance '*Heritage Impact Assessment in Wales*' (May 2017) defines *evidential value* as follows:

Evidential value: the extent to which the physical fabric tells how and when your historic asset was made, how it was used and how it has changed over time. There may be buried or obscured elements associated with your historic asset which may also be an important potential source of evidence.

4.2.3 The setting of Pont Mwnwgl-y-llyn retains significant archaeological potential, having a high probability of the presence of associated archaeological features and deposits. Historic background assessment (Section 3.2) shows potential evidence for Neolithic, Iron age and Romano-British activity, with greater potential for Medieval and Post-Medieval occupation.

4.2.4 Although the bridge is no longer solely being used for its intended purposes, the main crossing over the river, the fabric of the structure has the potential inform the study of similar historic structures nationally. The bridge structure itself can be expected to contain buried archaeological information concerning chronology and building techniques. The bridge's setting still contributes a range of key indicators to past transport routes and communication activities around the area. Furthermore, the surrounding area and wider landscape retains an inherent potential to provide archaeological information of the past uses of the area.

4.2.5 From assessment of the bridge, a degree of impact from historic alteration and maintenance can be expected, right up to modern times, particularly the area subject to later alteration of the road system. A degree of evidential value rests in the nature of construction and design of the structure as well as its relative locations. The bridge is

simplistic in build and design, typical of functional, vernacular building. The structure exhibits a design focussing upon function and necessity as opposed to aesthetic quality. Furthermore, the surrounding area and wider landscape, although significantly altered, provides an indication as to the former context and function of the bridge.

4.2.6 The bridge is therefore assessed to hold a *medium* level of *evidential value* contributing toward its individual significance.

Historical Value

4.2.7 Accordingly, CADW guidance ‘Heritage Impact Assessment in Wales’ (May 2017) defines *historical value* as follows:

Historic Value: The historic asset may illustrate a particular past way of life or be associated with a specific person or event; there may be physical evidence for these connections which it could be important to retain.

4.2.8 The bridge is of national historical importance, as designated through its Grade II Listing. The bridge comprises a simple vernacular form with triple arch span; it is of unknown date and builder. Whilst of conventional design the structure is at least early 19th century in date and still sited in its respective rural setting, with inherent potential to enhance knowledge of post-medieval construction techniques and local transportation systems. In this case, Pont Mwnwgl-y-llyn retains an important level of *historical value*; this type of structure is an important characteristic of the rural landscape, particularly when combined with the roadways and field boundaries still evident in surrounding enclosures and historic field systems, illustrating the development of the historic landscape. This provides an illustrative example of the historical use of the area. Equally, Pont Mwnwgl-y-llyn itself holds *illustrative historical value*, its simplistic design indicating its former vernacular function, and contributing to the local distinctiveness.

4.2.9 In addition, the bridge represents the adaption of landscapes over time, mapping the impact of changes in use, for instance with the rise and decline of particular types of transport altering the surrounding rural scene. When originally completed, the bridge was in a rural setting, with the construction of taking place around it following the construction of the Canal in the late 18th and 19th centuries. Equally prevalent are new ways of construction, and in new forms (i.e. the later road alterations), which alters the settings of the structure.

4.2.10 The bridge is assessed to hold a *medium* level of *historical value* contributing toward its individual significance.

Aesthetic Value

4.2.11 CADW guidance ‘Heritage Impact Assessment in Wales’ (May 2017) refers to *aesthetic value* as follows:

Aesthetic Value: the design, construction and craftsmanship of the historic asset. This can also include setting and views to and from the historic asset, which may have changed through time.

4.2.12 Historic bridges, such as Pont Mwnwgl-y-llyn, possess measured degrees of *aesthetic value* having been built in a traditional vernacular style with local materials, such comparative types of structures contributing an important visual component of the landscape. The overall site contributes to the aesthetic value of the landscape in two ways. The first is the association these structures have with others in the immediate surrounding area, all being built of locally sourced materials in a similar vernacular style. The second is the way in which such structures represent and supplement the vernacular buildings of the National Park as a whole which contribute highly to its significant aesthetic value.

4.2.13 The setting of the bridge has seen successive alterations which have brought residual negative impacts. This includes the silting up of the river channel, ingress of overgrowth and new road embankment to the east, reducing views and visual context of the historic bridge.

4.2.14 In this case Pont Mwnwgl-y-llyn is considered to have *medium* level of *aesthetic value*.

Communal Value

4.2.15 CADW guidance states in ‘*Heritage Impact Assessment in Wales*’ (May 2017) as *communal value* being the following:

Communal Value: the historic asset may have particular significance to people for its commemorative, symbolic or spiritual value, or for the part it has played in local cultural or public life. This will be particularly important in the case of buildings in public use or sites where public access must be maintained or improved.

4.2.16 Historically, bridges served to link disparate communities together allowing greater trade and social interaction. Whilst the structure no longer serves in this capacity, it retains a level of significant importance to the local community and visitors to the area, both as a functioning footbridge and as a visual waypoint in the local area.

4.2.17 It can be ascertained that the structure possesses a *medium* degree of *communal value* contributing towards its respective significance.

4.3 Statement of Significance

4.3.1 Pont Mwnwgl-y-llyn, is a representative example of a 18th/19th century vernacular built bridge and as such defined as a Grade II designated heritage asset. Of equal precedence, the bridge is situated within the setting of the Snowdonia National Park. Accordingly, its composition maintains a high level of its developmental narrative through the original building fabric, which has been constructed to contribute a functional and sustainable form, which adheres to its particular setting. As such, Pont Mwnwgl-y-llyn is considered to be of *medium significance*, predominantly attributed through its *evidential, aesthetic and historic values*. The tarmac bridge deck and unsympathetic use of 20th century repairs on the fabric of the bridge are considered to be of *low significance*.

4.3.2 Following this appraisal of significance, as a heritage asset of medium heritage value, development proposals are required to pay particular attention to the asset, and its features

and qualities, which indicators of the structures distinctiveness and its worth and recognition through Grade II designation.

5 IMPACT ASSESSMENT

5.1 Methodology

5.1.1 The methodology for assessing the impact on the historic bridge by the proposed development has also been adopted from *Heritage Impact Assessment in Wales*. This stipulates that most development proposals will carry a range of impacts to a historic structure which may be:

- ♦ *positive — such as the repair of damage, the removal of intrusive elements or bringing a building back into beneficial use so that it is no longer at risk*
- ♦ *neutral — such as where proposals are sympathetically designed, or change is accommodated in part of the building or site that is less sensitive*
- ♦ *negative — such as when important fabric or significant aspects of the original design are removed or altered. If the decision maker deems that the level of damage is unacceptable and there are few compensatory benefits, the application maybe refused.*

5.2 Impact Assessment of the Proposed Development

5.2.1 The impact of the proposals is discussed below and a conclusion drawn based on the framework ascribed above. The details of the proposed development plans are located in **Appendix 2**.

5.2.2 As part of this proposal the bridge has been subject to comprehensive assessment to establish if it can be modified to allow its re-use for the narrow gauge Rheilffordd Llyn Tegid (Bala Lake Railway) trains. This preemptive assessment has determined that the existing bridge structure is suitable to take the proposed narrow gauge train loading without significant modification. Accordingly, in this case, it is not proposed to make alterations to the bridge's external elevations and parapets, with required modification being subject to the current bridge deck and its approaches.

5.2.3 The current surface of the bridge is composed of modern tarmac and is to be removed to a specified depth prior a waterproofing layer being constructed over the full deck width. On reinstatement of the upper surfaces, for the narrow gauge railway the construction proposed is conventional ballasted track. The adjacent footway will be reinstated with a blacktop surface in keeping with the present material. A line of kerbs will be integrated to delineate the two forms of construction. The existing parapet walls are to be retained *in-situ*, with no structural interference or enhancement. On approach to the bridge from the south a level crossing will be required to enable the railway to cross the B4403, this running approximately perpendicular to the southern abutment. To achieve the required vertical alignment for the railway traffic it is envisaged that the respective highway level will need to be raised c.600mm.

5.2.4 A comprehensive assessment of impact on setting from the proposed scheme is provided in *Llyn Tegid Railway Extension, Bala, Snowdonia National Park: Heritage Assets Setting Assessment - Archaeological Research Services Ltd Report 2021/66* (Brown 2021b).

5.2.5 No alternatives for consideration in the proposed scheme. The re-utilisation of the old bridge by the proposed railway removes a requirement for the railway project to construct a new structure (either an alternative bridge or earthworks) and also minimises the impact on the environment from the creation of a new structure. Equally, analysis has established that very little work is required to return the existing structure to beneficial use. It can be considered that there would be a degree of archaeological impact from the process of reuse. However the proposed conversion of the former road bridge to narrow gauge rail and pedestrian use will likely result in a minimal level harm to significance through loss of historic fabric and evidential features, as the scheme aims to retain the integral vernacular form of the structure. Conversion works are to be subjugated to the bridge deck, composed of a modern tarmac roadbed. The historic stone elevations and spans are to be retained with conservation and repair to contribute to continued use. This will, therefore, not significantly alter the external appearance of the site. It is also proposed handrail be more sympathetic to the building and its setting than altering of the parapets.

6.2.3 On assessment, it can be ascertained there would be a degree of 'offsetting' to any potential negative impact from the proposal. The bridge is presently subject to erosion and plant growth, with degradation and possible closure of the structure if remedial works are not instigated; it can be expected that as a redundant bridge, remedial works are of low priority. Whilst the development scheme poses impact to the structure and its setting from re-use, a higher scale of initial repair and routine maintenance would expand the lifespan of the structure and retain it a positive contributor to the historic landscape and national park. Equally, it should be considered that removal of the surrounding overgrowth will greater reveal the preserved stone elevations of the original bridge. Accordingly, the proposed development has the potential to better reveal the significance of the heritage asset.

6 CONCLUSION

6.2.1 With regard to the proposed development plans, structures such as those situated on the site of Pont Mwnwgl-y-llyn are a significant contributory quality of the district's regional aesthetic. Accordingly, any harmful modification of such structures would be impactful and detrimental.

6.2.2 Whilst it is apparent that reuse of Pont Mwnwgl-y-llyn, both a rail and foot bridge, would impact upon the significance of the structure and its setting, this impact is measured as low, adversely, and offset by a range of beneficial effects. The proposals seek to maintain the external aesthetic of the historic bridge and repurpose a seemingly redundant structure. Although changes to the fabric are proposed, these are primarily restricted to the bridge deck, meaning they are not inherently harmful to the buildings' vernacular aesthetic. Supplementing a redundant road bridge with narrow gauge rail traffic, connects the historic railway to Bala, becoming a scenic waypoint and, by implication, subject to a greater

scheme of maintenance and conservation. The proposals, in this case, will restore and preserve the site for the future, and are therefore of benefit to the functional and aesthetic aspects of the site, the heritage railway and the town of Bala itself.

6.2.3 In light of these observations, the proposed development scheme is assessed to contribute a **neutral** impact, with changes to setting and potential historic fabric offset from the beneficial re-use of a redundant, historic structure in a scheme of wider positive enhancement for the heritage railway and historic town of Bala.

6.2.4 A programme to produce a historic building record would ensure that the structure is preserved in its current form, via record, in order to mitigate for the proposed alterations. Furthermore, depending upon the extension of ground works to create the new track bed, footpath and hand rails it may be appropriate for archaeological monitoring and recording during ground works to be undertaken in order to record any potential features relating to the development and historic use of the bridge, including its relationship with its surrounding historic setting.

7 PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

7.1 Any publicity will be handled by the client.

7.2 Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

8 STATEMENT OF INDEMNITY

8.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

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10 REFERENCES

1838. *Llanycil tithe map*

1880. *Ordnance Survey Map. County Series:*

1921. *Ordnance Survey Map: County Series:*

1955. *Ordnance Survey Map: County Series:*

Brown A. 2021a. *Llyn Tegid Railway Extension, Bala, Snowdonia National Park: Archaeological Desk-Based Assessment* - Archaeological Research Services Ltd Report 2020/153 – April 2021.

Brown A. 2021b. *Llyn Tegid Railway Extension, Bala, Snowdonia National Park: Heritage Assets Setting Assessment* - Archaeological Research Services Ltd Report 2021/66 - May 2021.

Cadw (Welsh Government) 2021 *Planning Policy Wales - Edition 11 - February 2021*. Available online at: https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf [accessed 12th March 2021].

Cadw (Welsh Government) 2017. *Heritage Impact Assessment in Wales*. Available online at: <https://cadw.gov.wales/sites/default/files/2019-05/20170531Heritage%20Impact%20Assessment%20in%20Wales%2026917%20EN.pdf> [accessed 12th March 2021].

Cadw (Welsh Government) 2011. *Conservation Principles for the sustainable management of the historic environment in Wales*. Available online at: https://cadw.gov.wales/sites/default/files/2019-05/Conservation_Principles%20for%20the%20sustainable%20management%20of%20the%20historic%20environment%20of%20Wales.pdf [accessed 12th March 2021].

Chartered Institute for Archaeologists. 2019a. *Code of Conduct*. Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists. 2019b. *The Standards and Guidance for archaeological investigation and recording of standing buildings or structures*. Reading, Chartered Institute for Archaeologists.

Coflein 2021. *Royal Commission on the Ancient and Historical Monuments of Wales Comisiwn Brenhinol Henebion Cymru* online database NMRW No: 24195. Available online at: <https://coflein.gov.uk/en/site/24195> [accessed 12th March 2021].

Gwynedd Council 2021. *Snowdonia National Park Area Map*. Available online at: <https://www.gwynedd.llyw.cymru/map/default.htm?iaith=cy&x=261127&y=336216&layer=12&level=1> [accessed 12th March 2021].

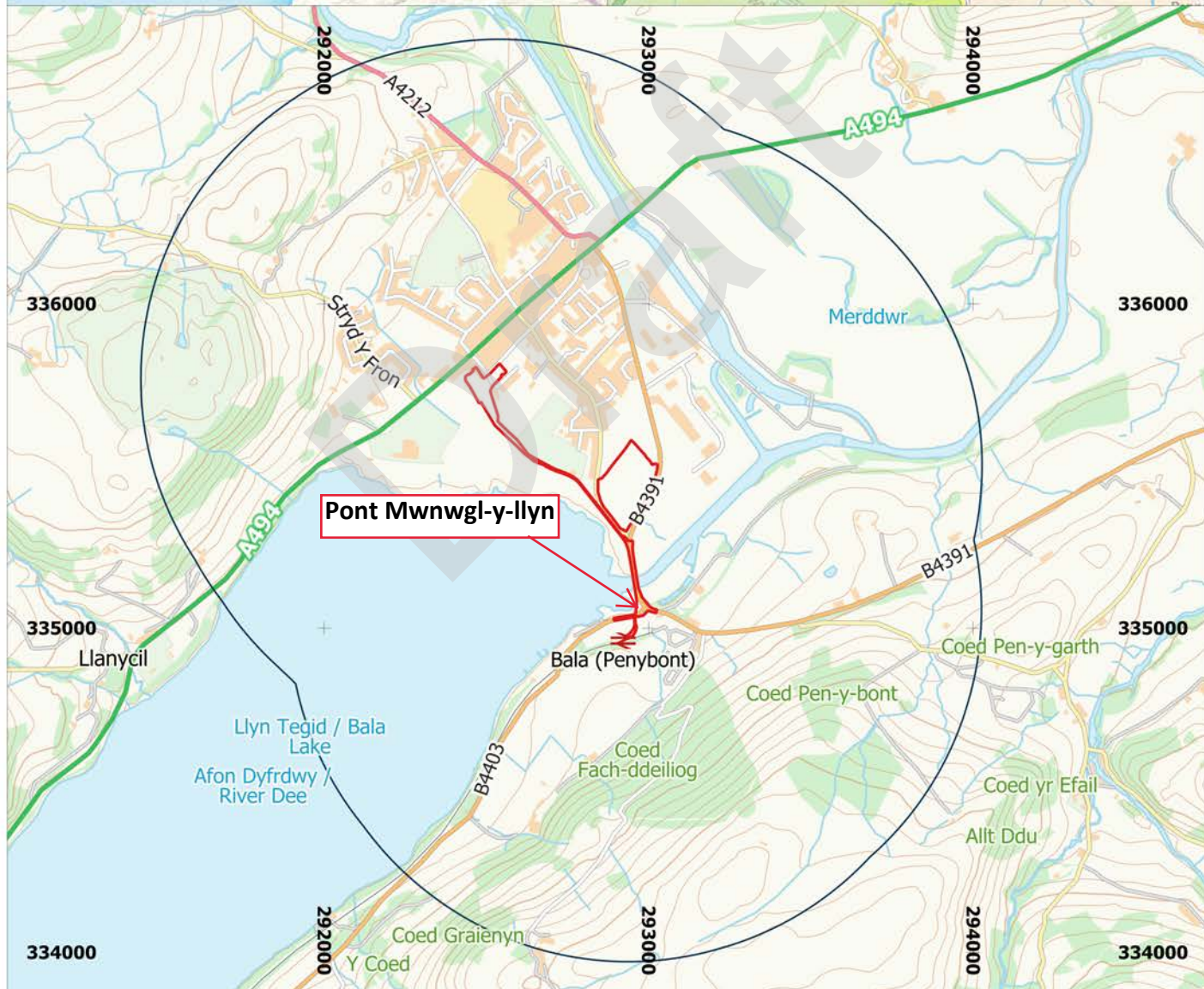
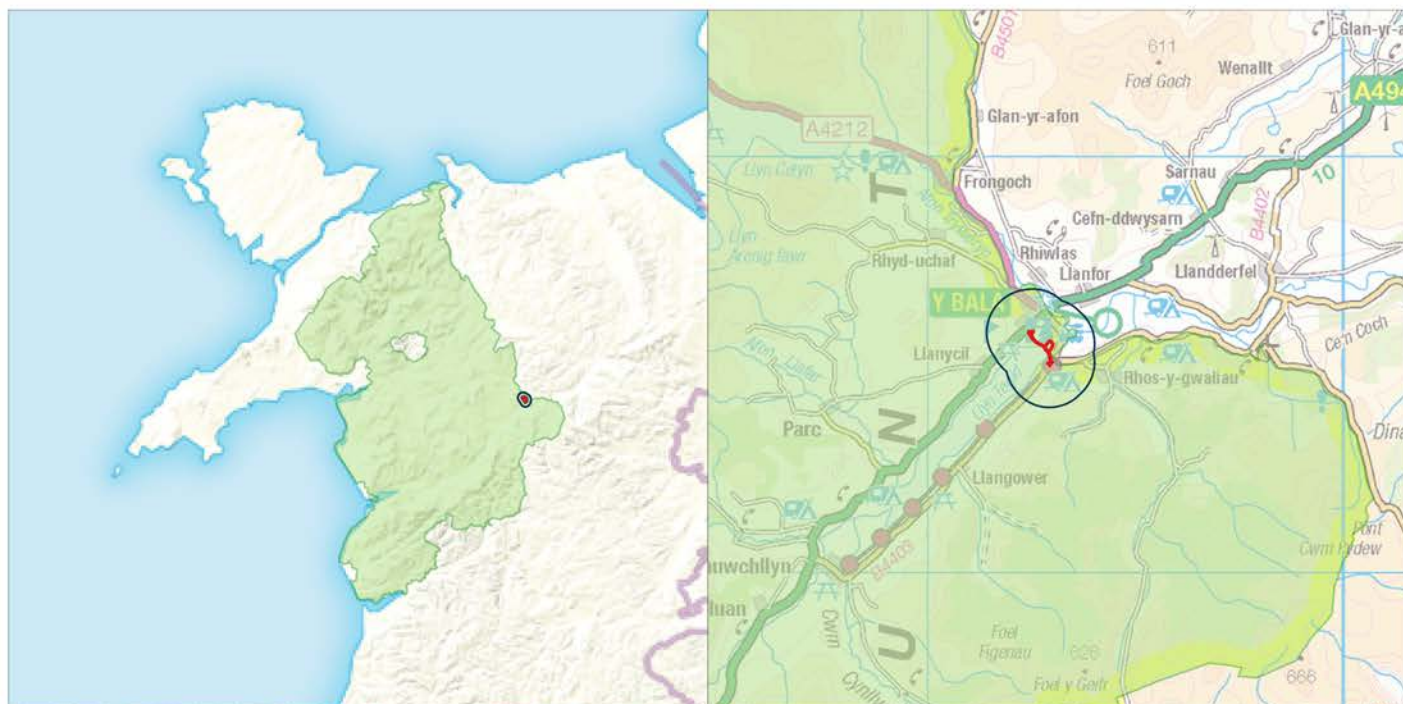
RCAHMMW. 1921. *An Inventory of the Ancient Monuments in Wales and Monmouthshire: VI - County of Merioneth*. London, H.M. Stationary Office

Snowdonia National Park 2016. *Eryri Local Development Plan 2016 – 2031 Adopted Version*.

Available online at:

https://www.snowdonia.gov.wales/_data/assets/pdf_file/0020/261335/Cynllun-Datblygu-Lleol-V4.pdf [accessed 10th March 2021].

APPENDIX 1: FIGURES



Site name: Pen-y-Bont to Bala Town
 Date: October 2020
 Drawn by: AB
 Scale: 1:20,000 @ A4 (main map)

Snowdonia
 National Park

1km study
 area

Application
 boundary



Archaeological Research Services Ltd

Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB



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Excavating with Purpose

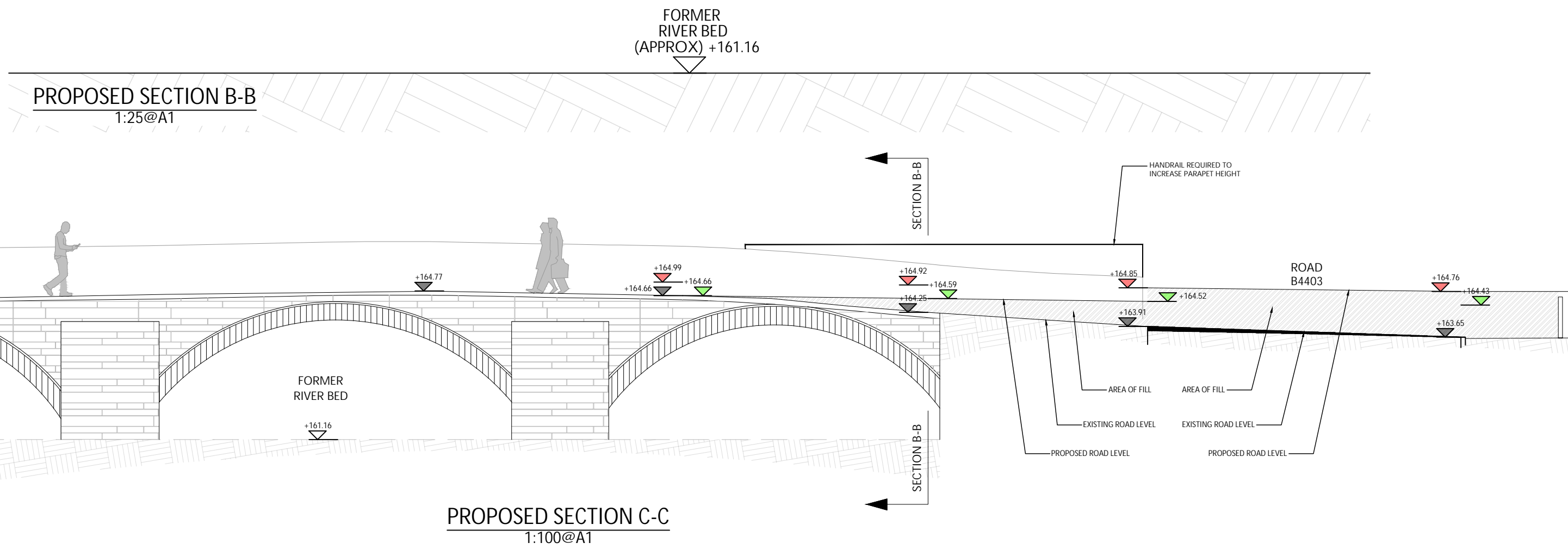
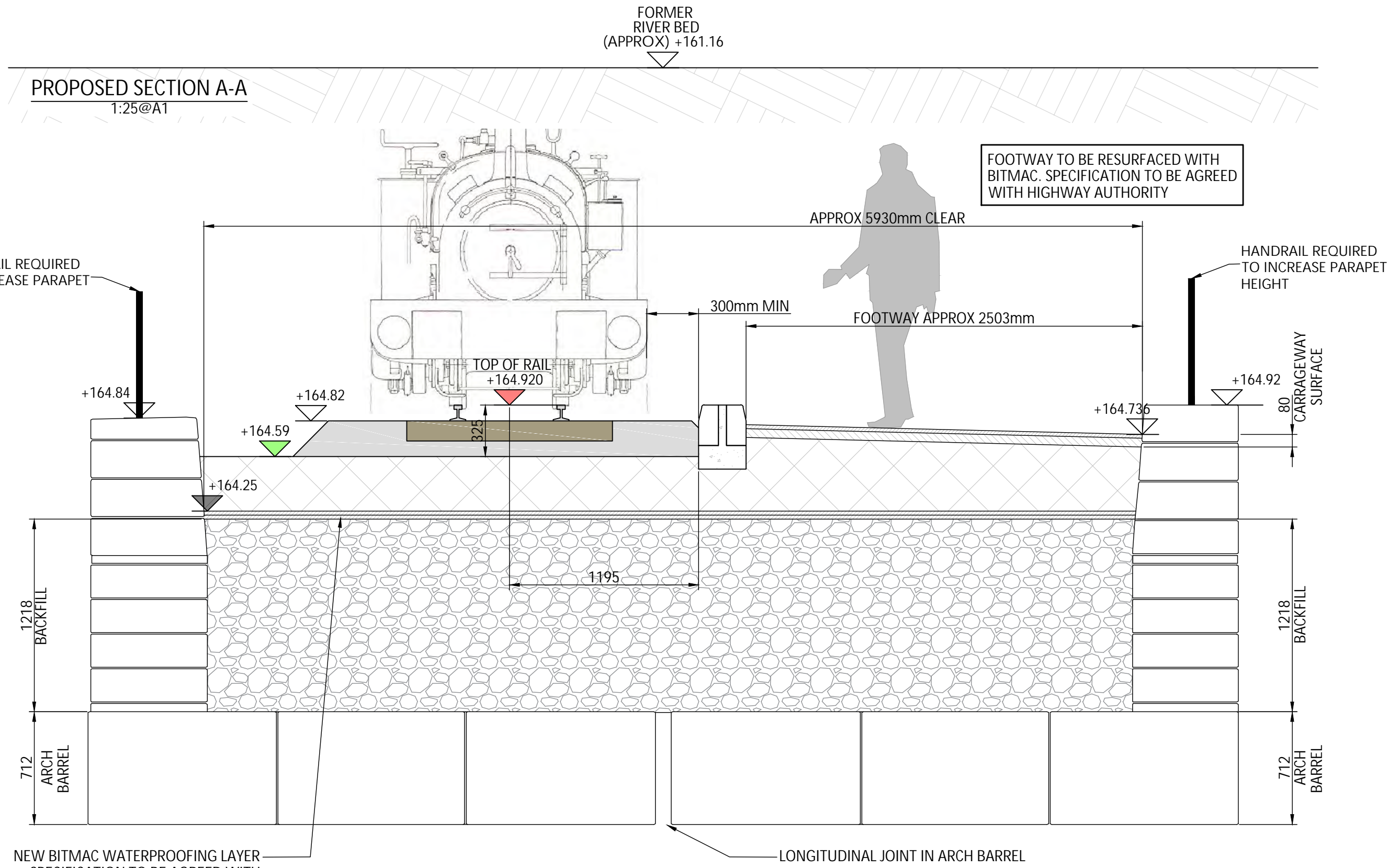
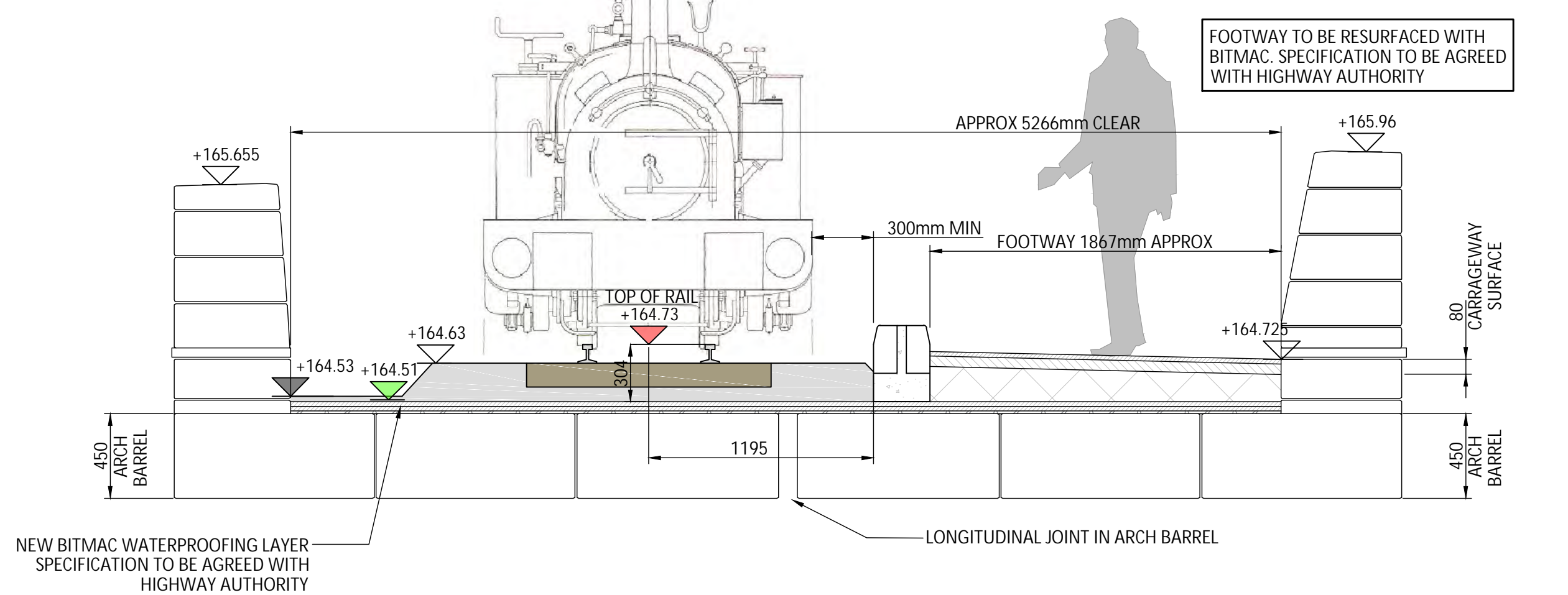
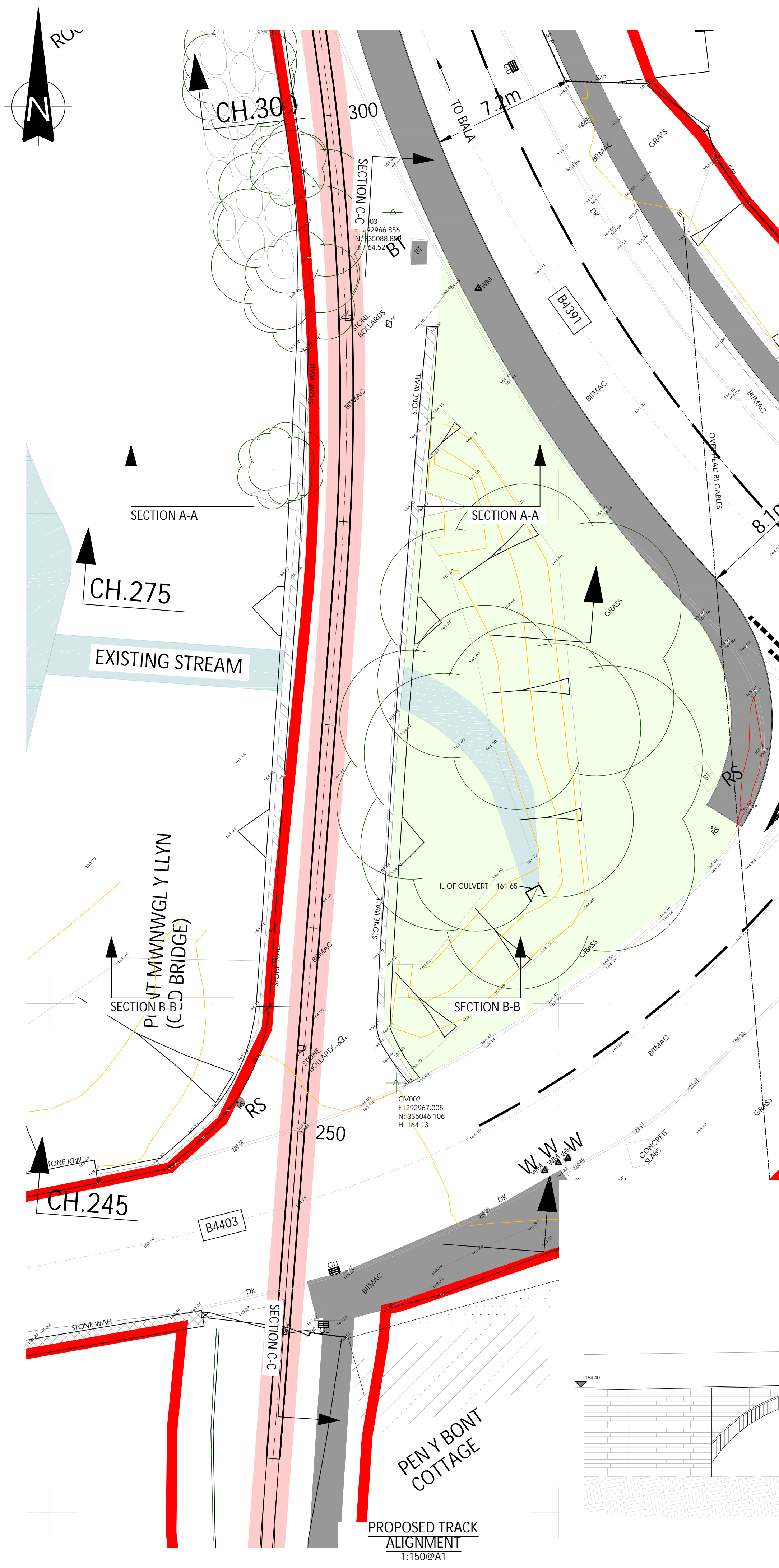
Tel: 01629 814540

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Figure 1:
Site location





NOTES

- DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN METRES AND ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS AND SPECIALIST DRAWINGS AND SPECIFICATIONS.
- BOUNDARIES OF SAC, SSI AND RAMSAR TAKEN FROM ONLINE MAPPING ON SNPA WEB SITE WWW.SNOWDONIA.GOV.WALES
- SEE DRAWINGS 4267-CAU-XX-XX-DR-C-3406 - 3408 FOR SECTIONS.

LEGEND

- PROPOSED RAILWAY
- SPECIAL AREA OF CONSERVATION & SITE OF SPECIAL SCIENTIFIC INTEREST
- PARAPET WALL
- STONE MASONRY
- DENOTES WATER COURSE
- EXISTING SURFACE LEVELS
- TOP OF RAIL LEVELS
- RAILWAY FORMATION LEVELS

P01	ISSUED FOR APPROVAL		EJD	DH	DH
REV	MODIFICATIONS		BY	RE	AP
PURPOSE OF ISSUE				STATUS	
FOR APPROVAL				S2	
CLIENT:					
					
PROJECT:					
BALA LAKE RAILWAY EXTENSION					
TITLE:					
PONT MWYNWGL Y LLYN (OLD BRIDGE) PROPOSED GENERAL ARRANGEMENT					
DESIGNED BY	DRAWN BY		REVIEWED BY	AUTHORISED BY	
PD	AP		ARY	PD	
DATE	SCALE @ A1	JOB REF:		REVISION	
09.09.20	1:250	4267		P01	
DRAWING NUMBER					
4267-CAU-XX-XX-DR-C-1601					
					

APPENDIX 2: PONT MWNWGL-Y-LLYN DESIGN AND ACCESS STATEMENT