Adran yr Economi a'r Seilwaith Department for Economy and Infrastructure



The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) Scheme 201-

The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East of Magor) Connecting Road) (Amendment) Scheme 201-

The London to Fishguard Trunk Road (East of Magor to Castleton) Order 201-

The M4 Motorway (West of Magor to East of Castleton) and the A48(M) Motorway (West of Castleton to St Mellons)(Variation of Various Schemes) Scheme 201-

The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and the M48 Motorway (Junction 23 (East of Magor) Connecting Road) and The London to Fishguard Trunk Road (east of Magor to Castleton) (Side Roads) Order 201-

The Welsh Ministers (The M4 Motorway (Junction 23 (East of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and the M48 Motorway (Junction 23 (East of Magor) Connecting Road) and the London to Fishguard Trunk Road (East of Magor to Castleton)) Compulsory Purchase Order 201-

The M4 Motorway (Junction 23 (East Of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East Of Magor) Connecting Road) (Supplementary) Scheme 201-

The Welsh Ministers (The M4 Motorway (Junction 23 (East Of Magor) to West of Junction 29 (Castleton) and Connecting Roads) and The M48 Motorway (Junction 23 (East Of Magor) Connecting Road) and The London to Fishguard Trunk Road (East of Magor to Castleton)) Supplementary Compulsory Purchase Order 201-

Appendix to Proof of Evidence

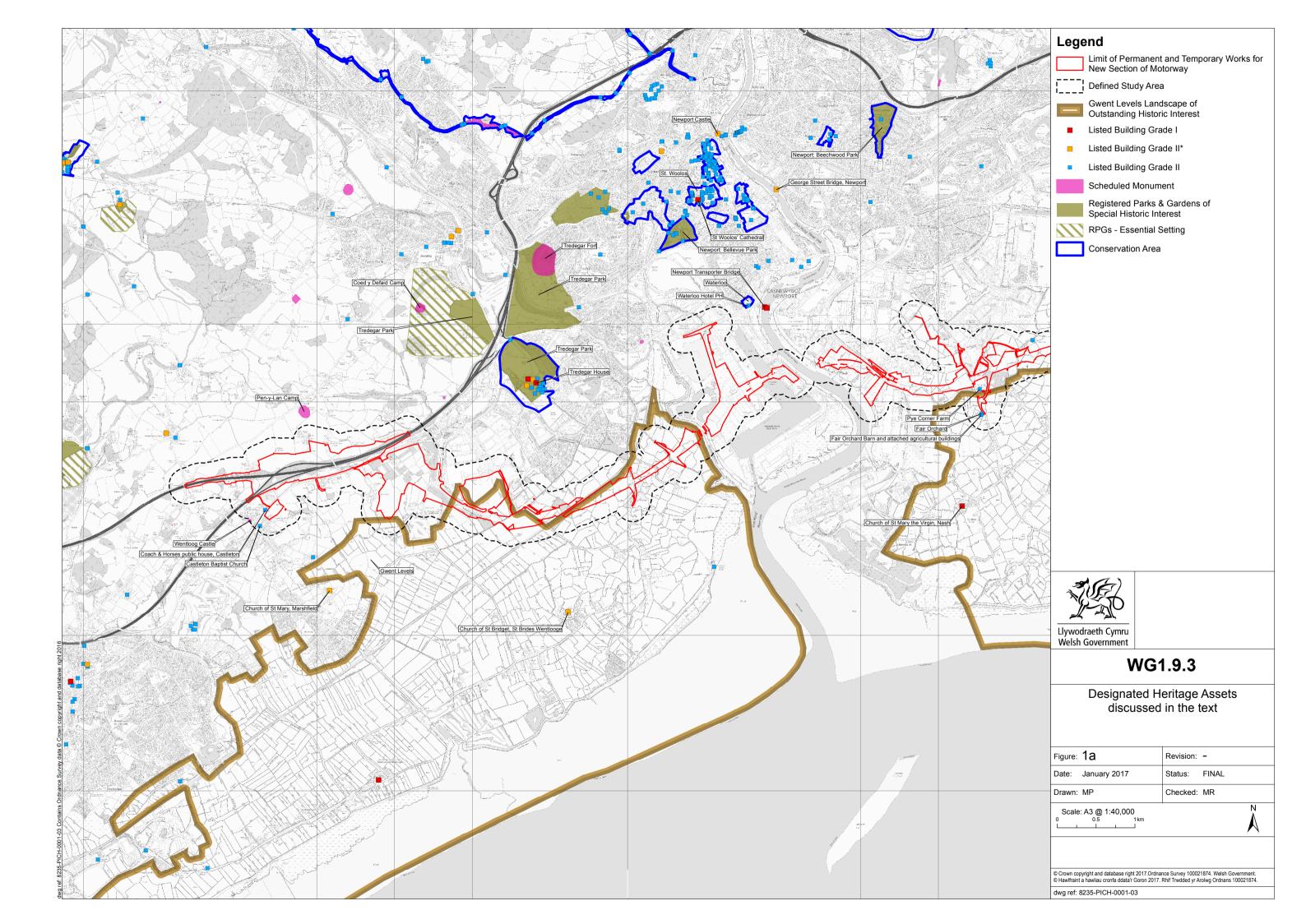
Mick Rawlings BA, MClfA

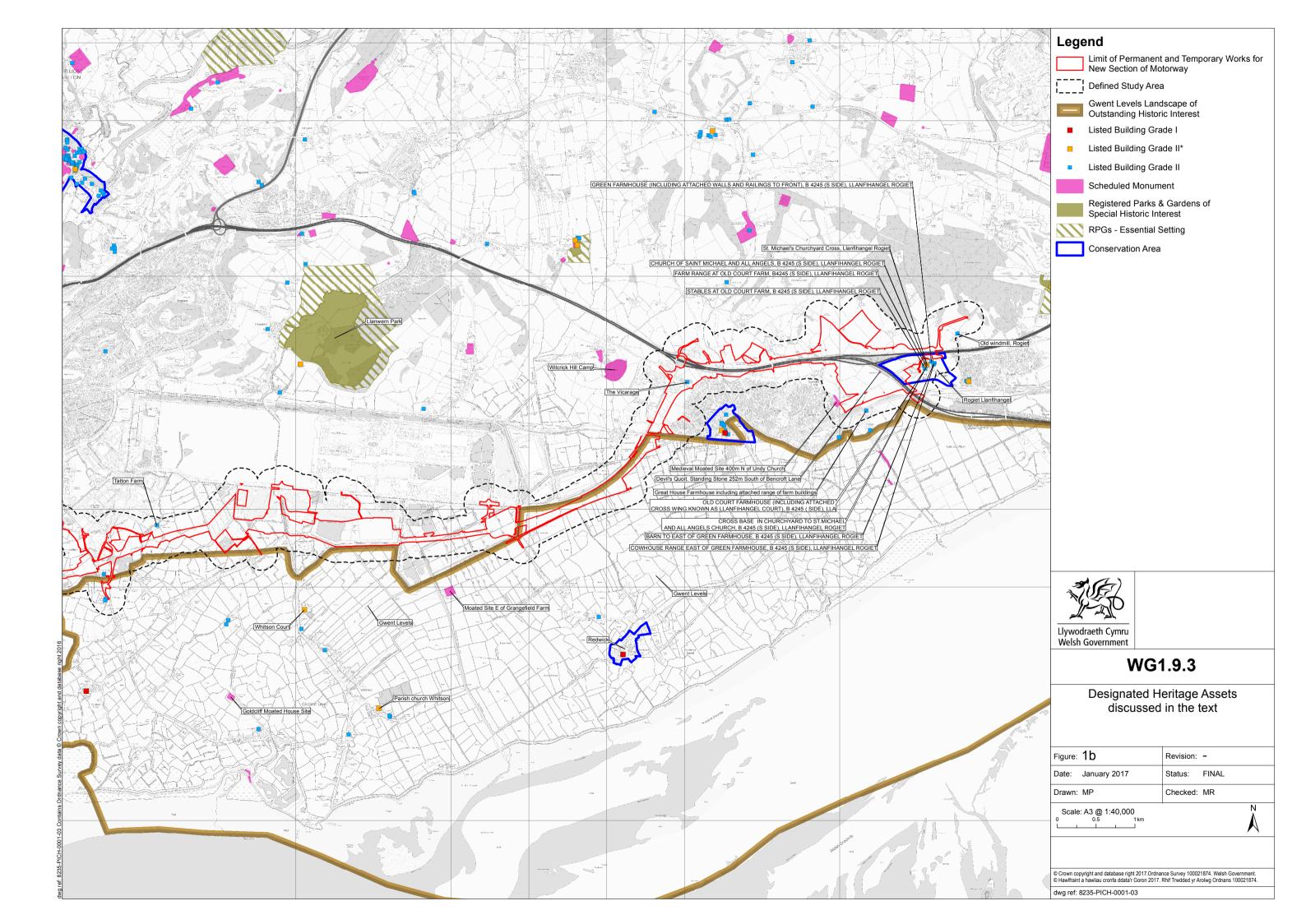
Welsh Government, Cultural Heritage

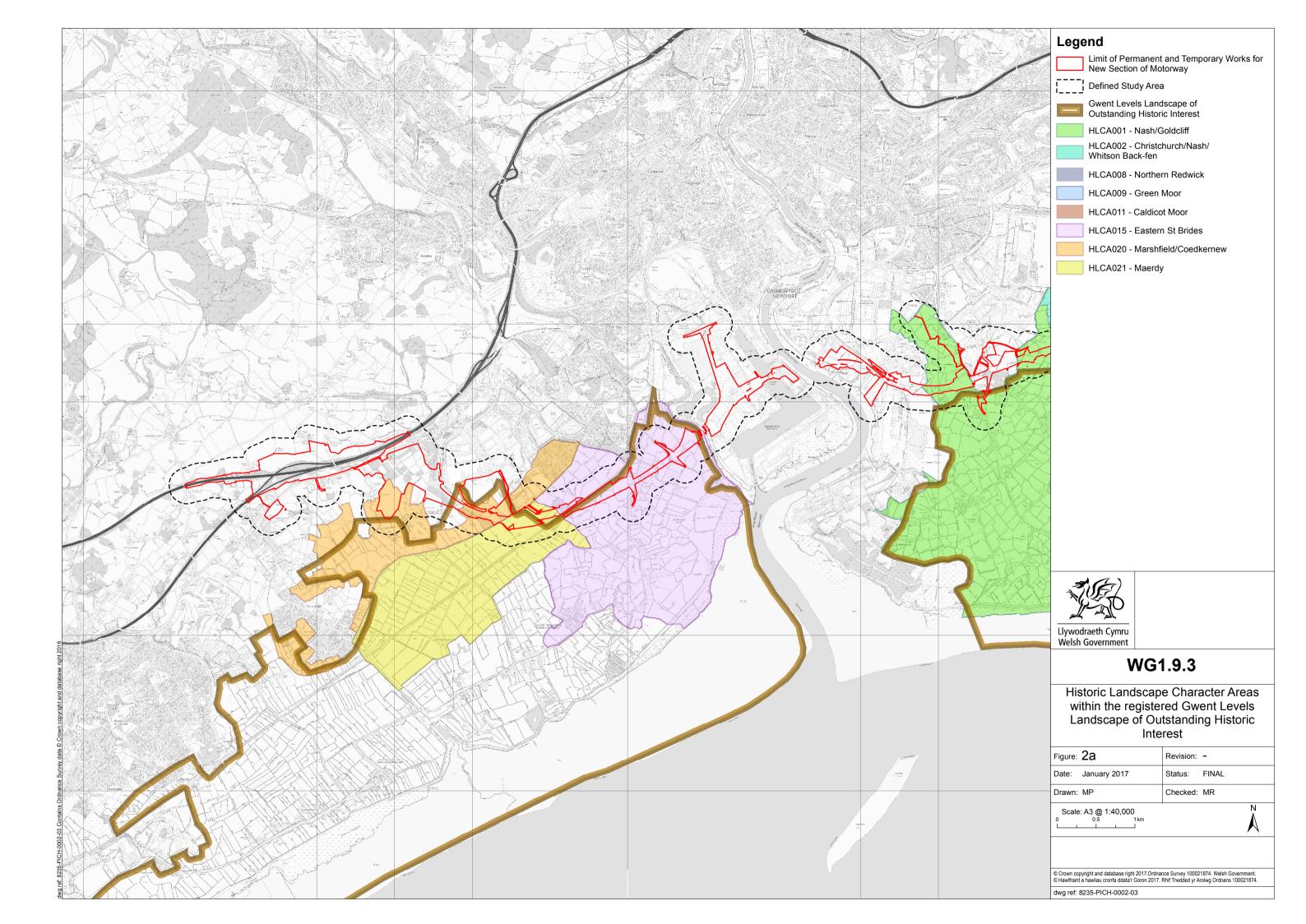
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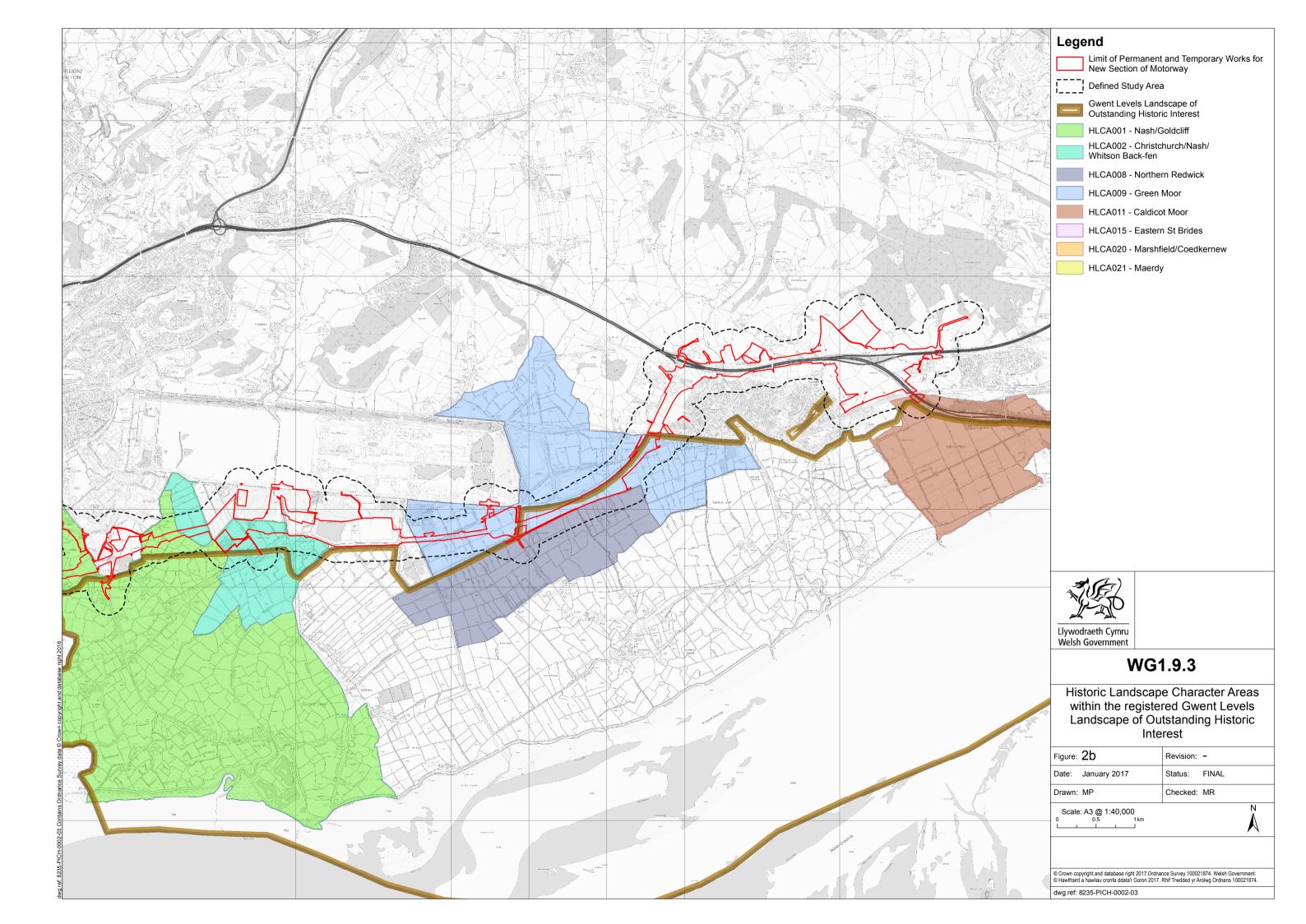
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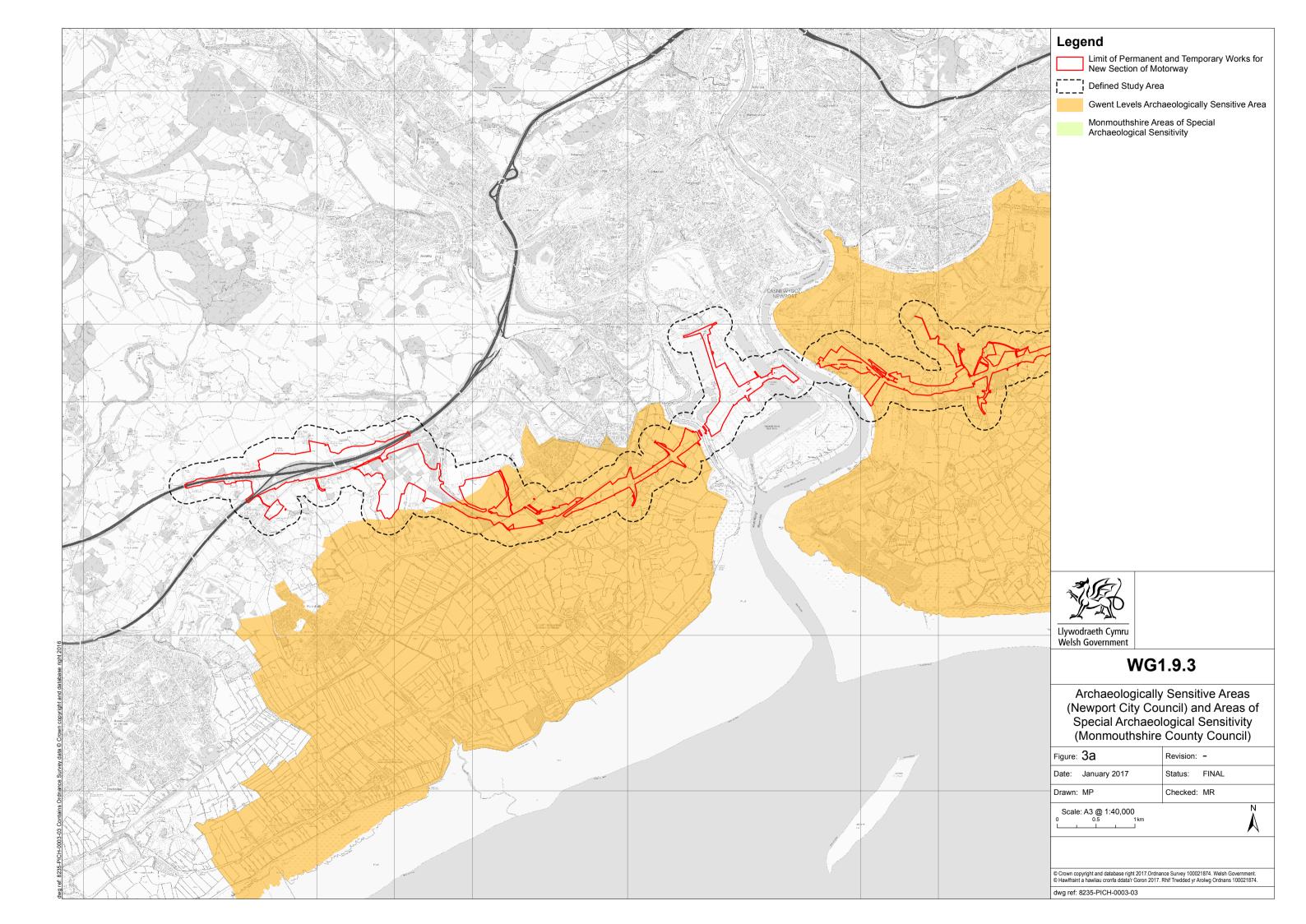
Appendix A - Figures

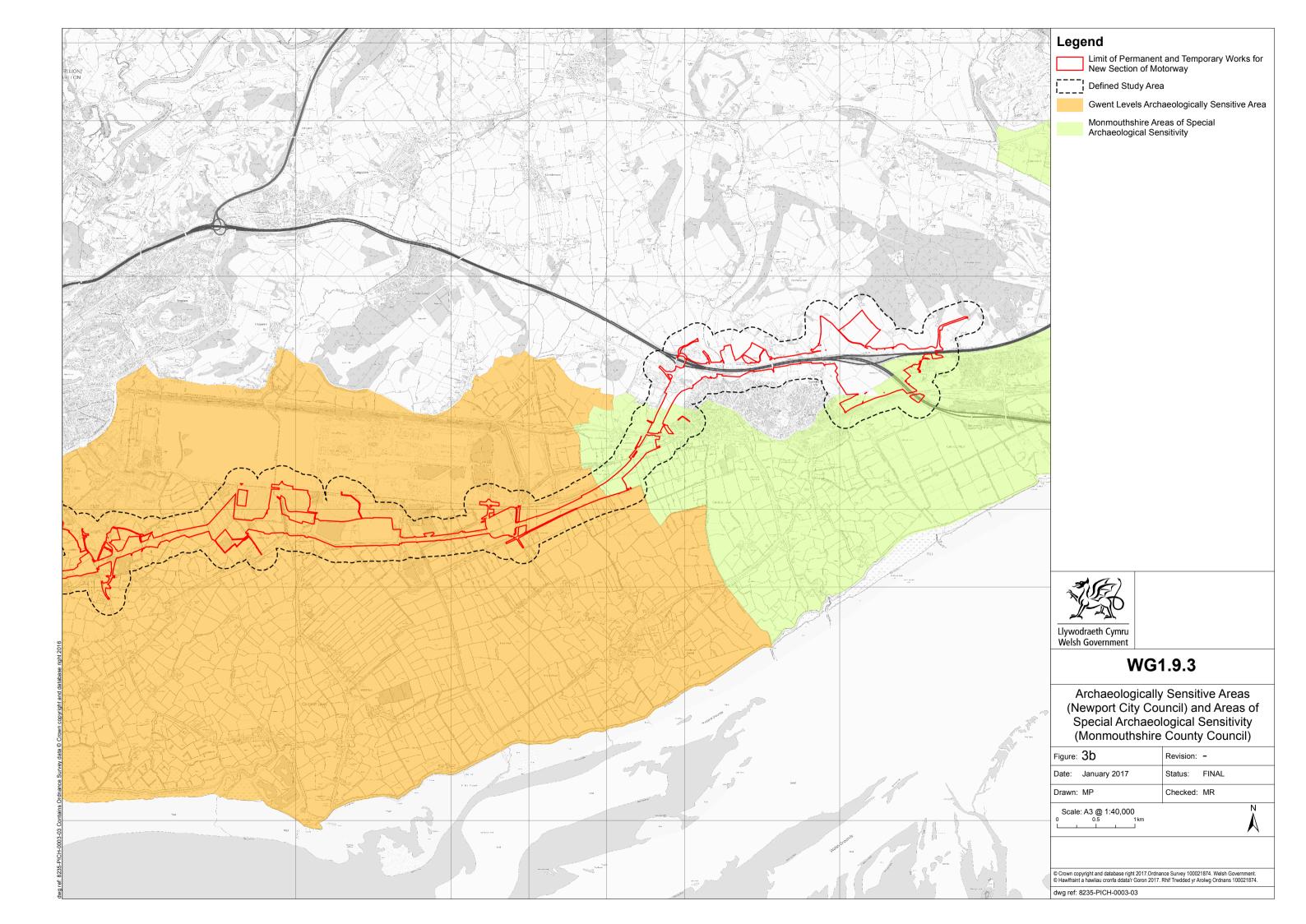


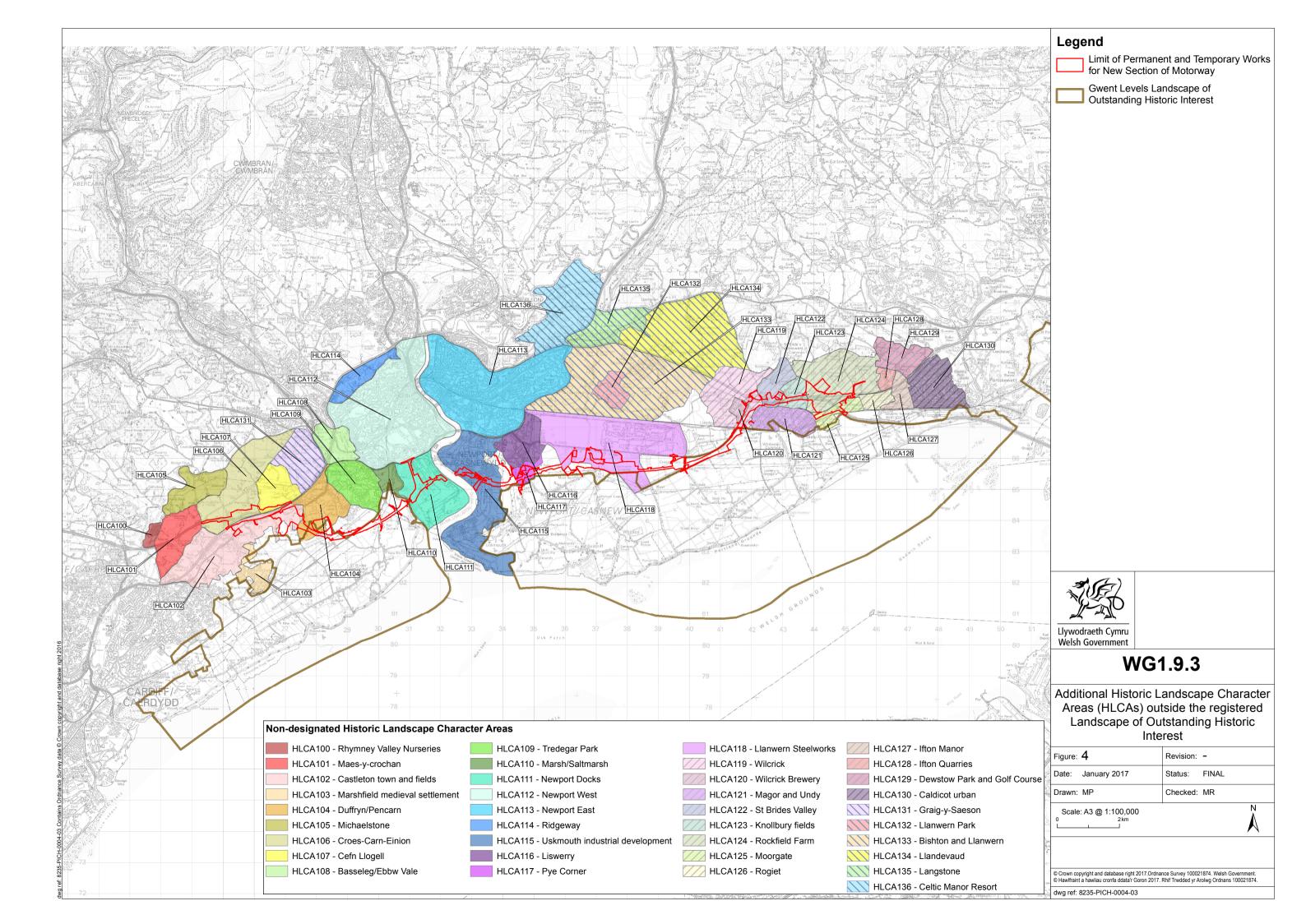


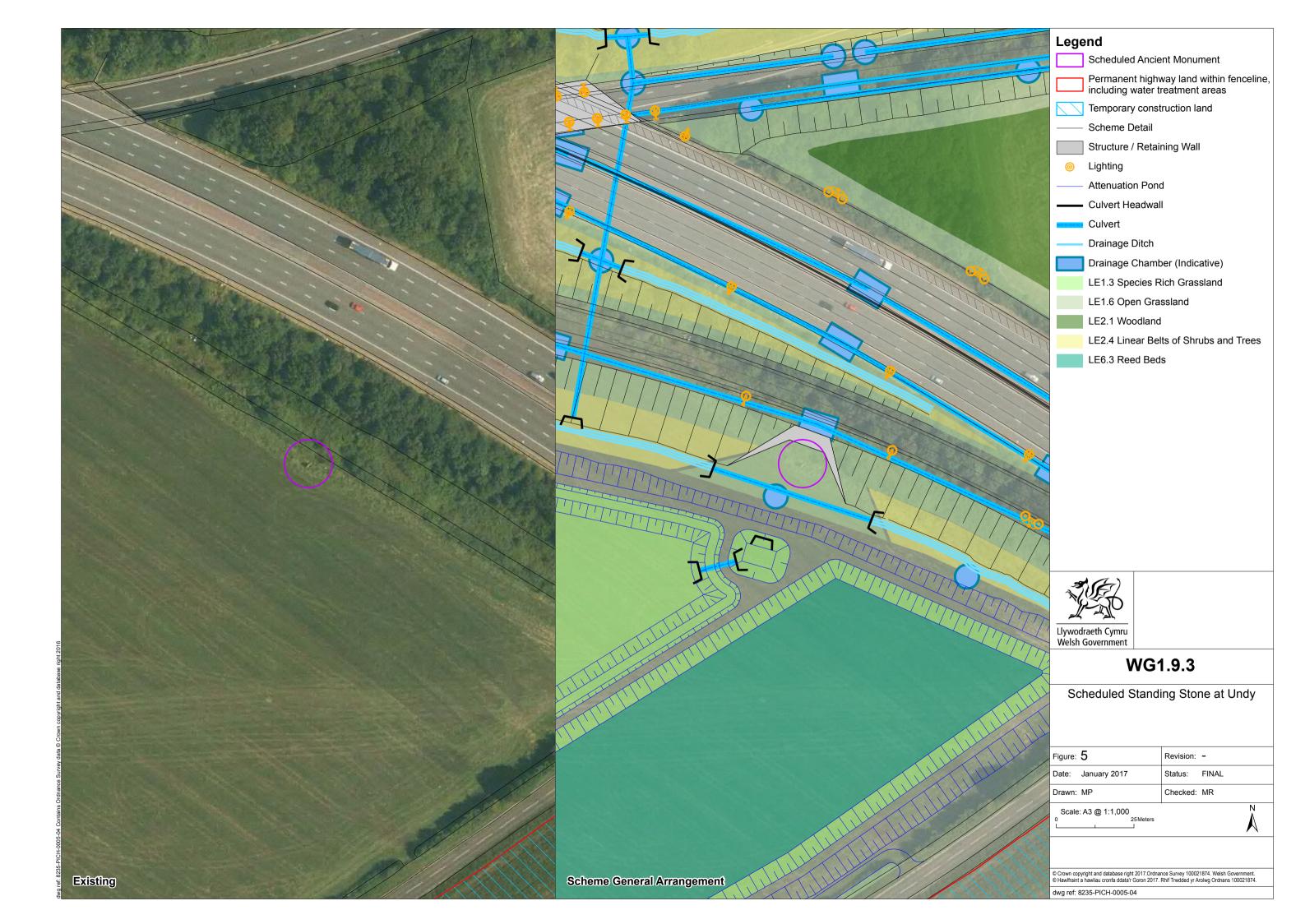


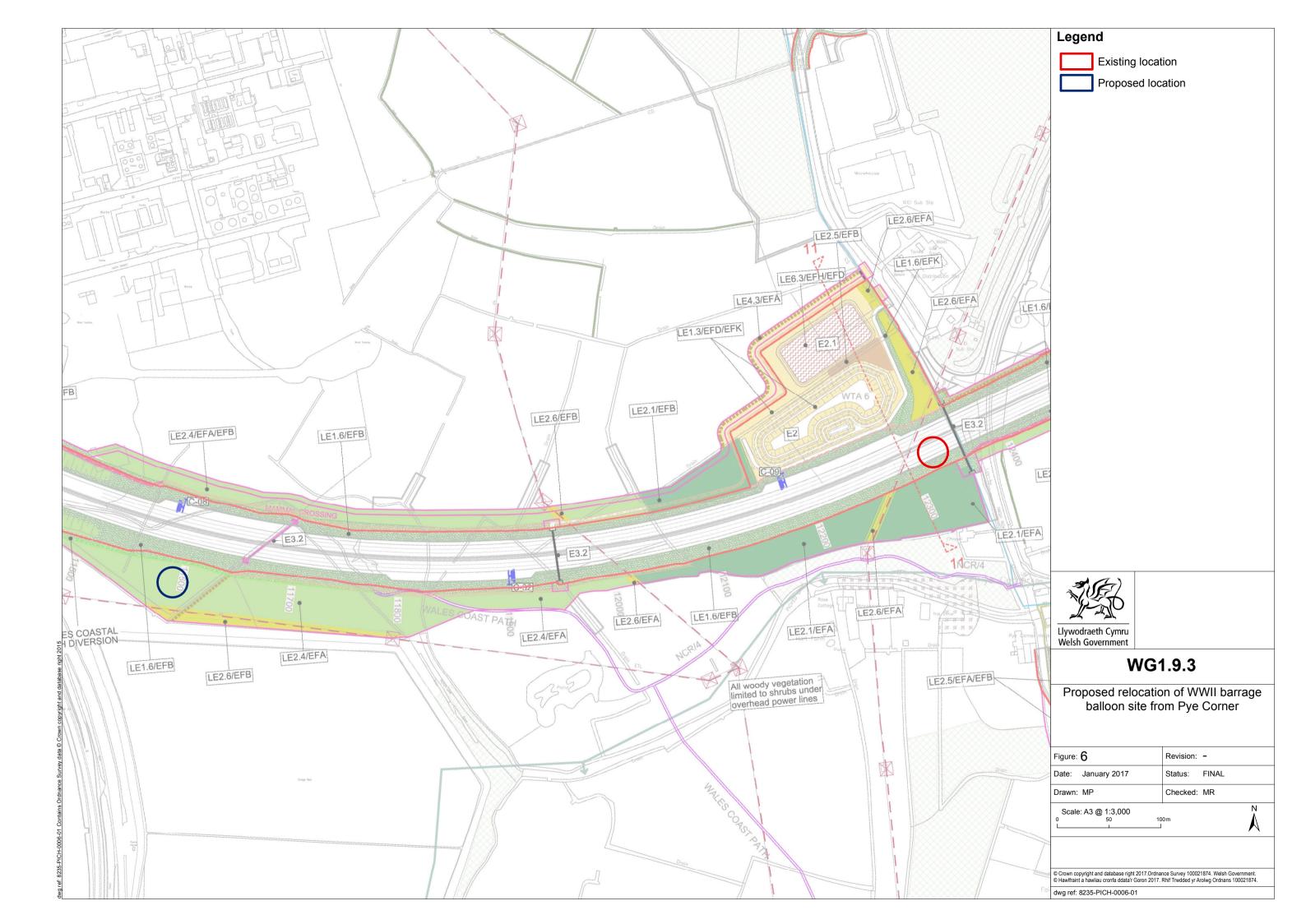


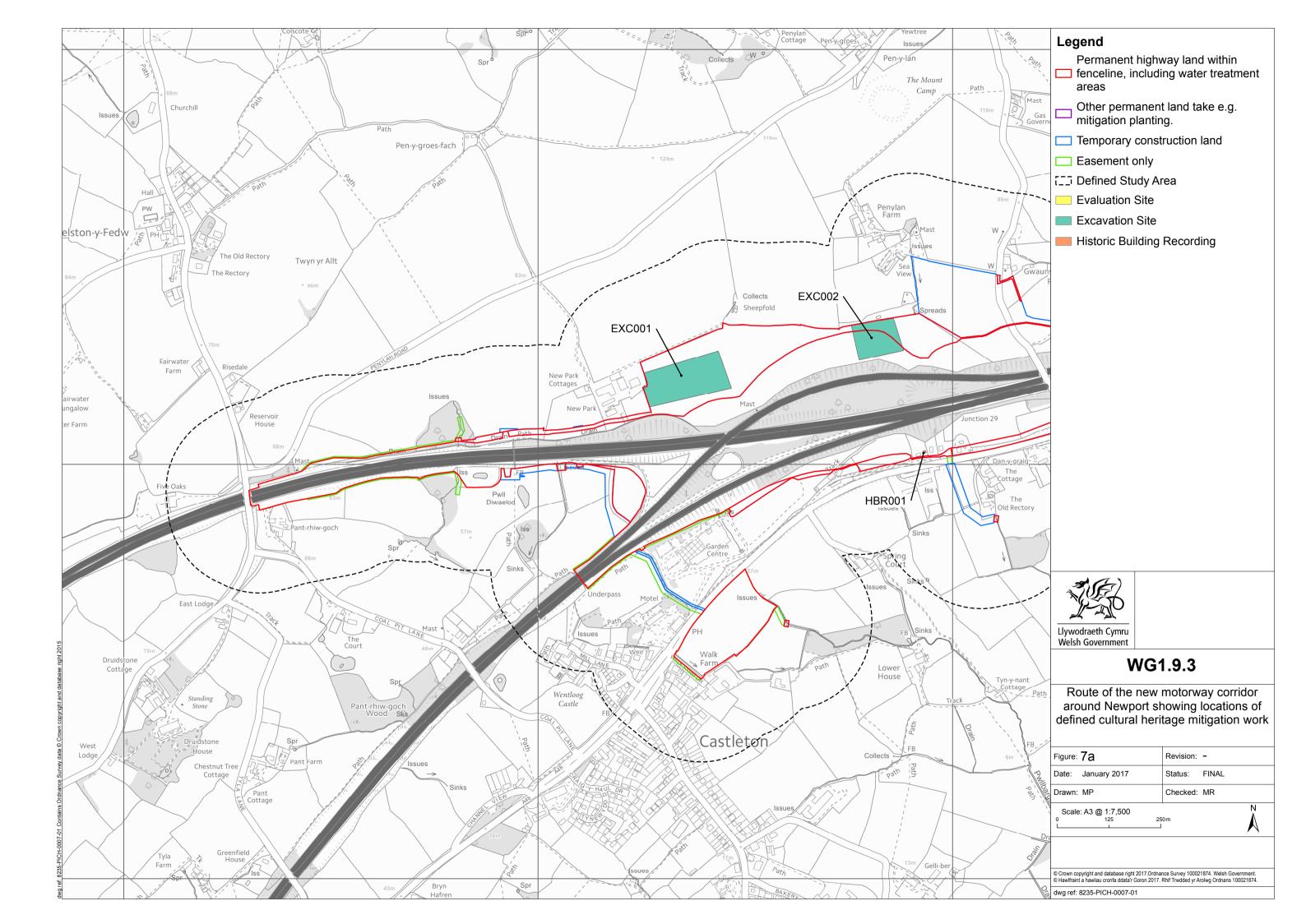


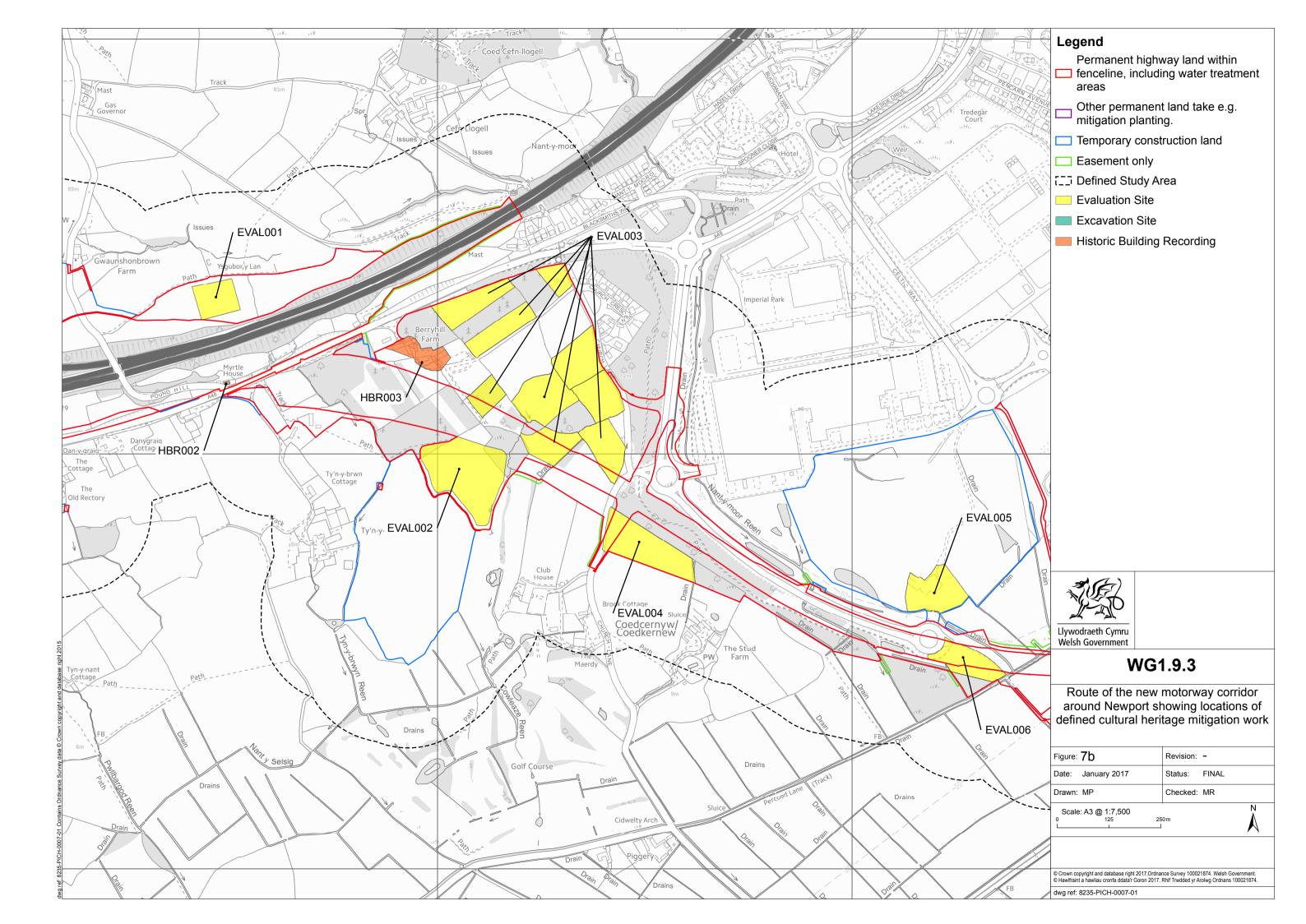


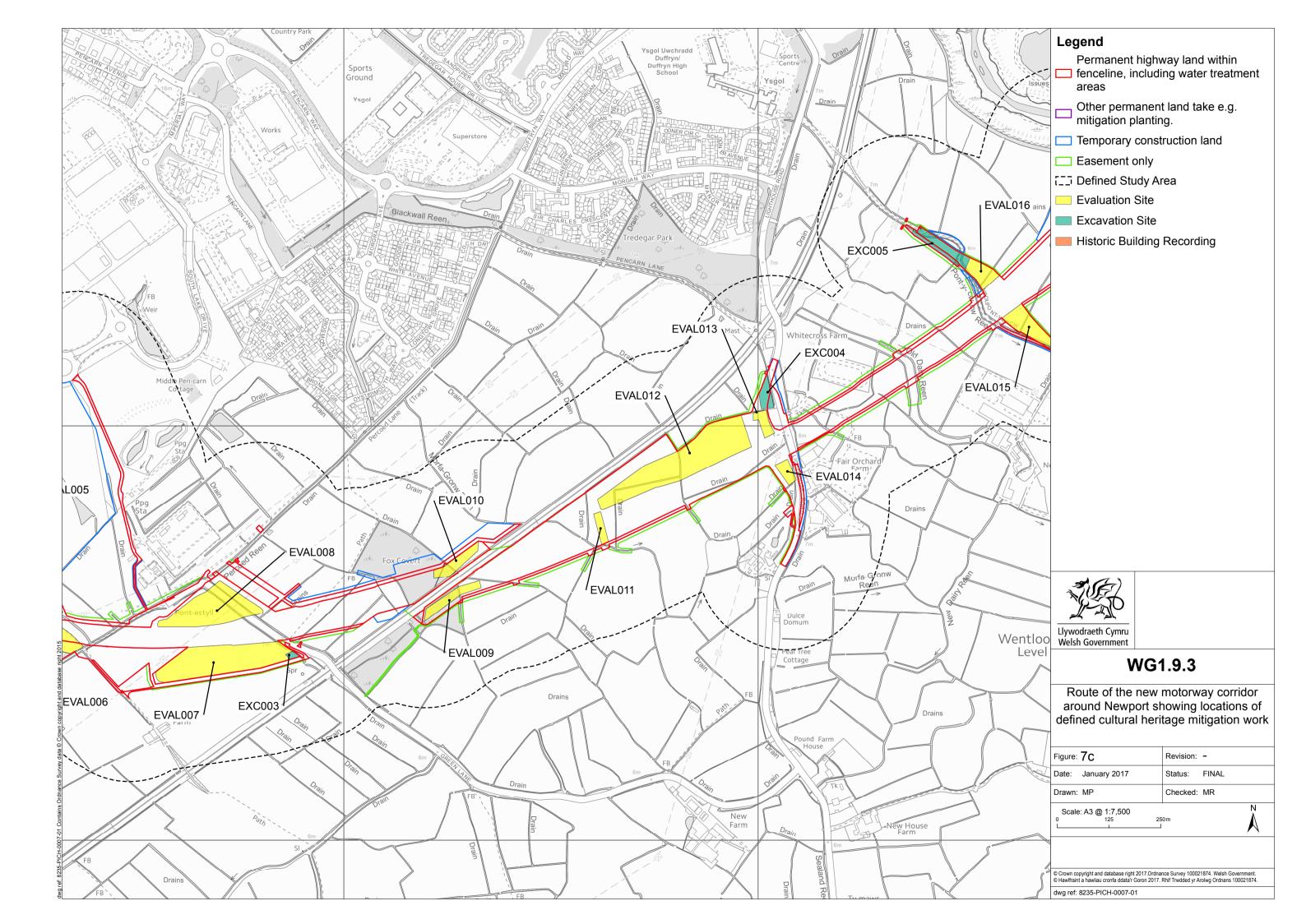


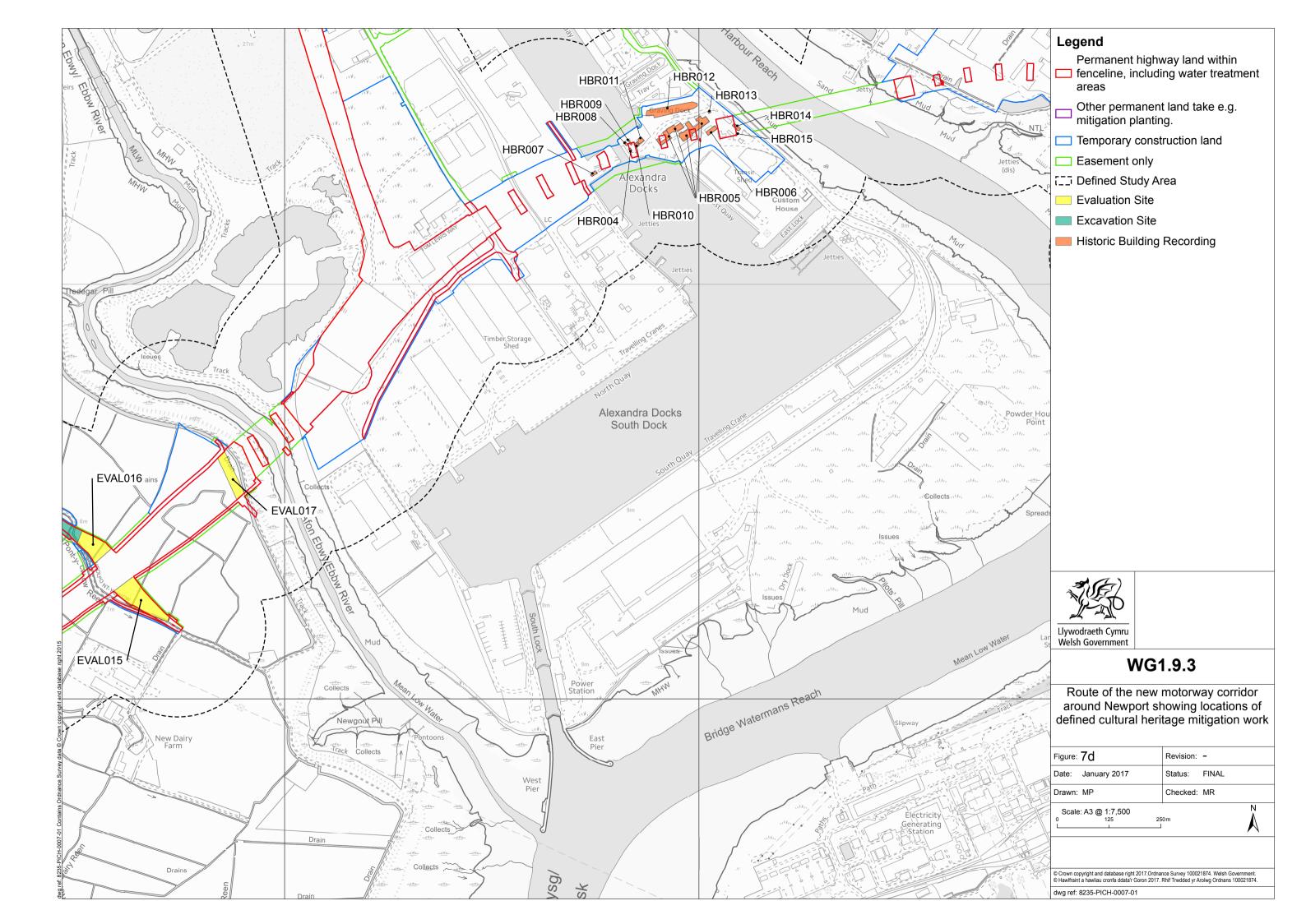


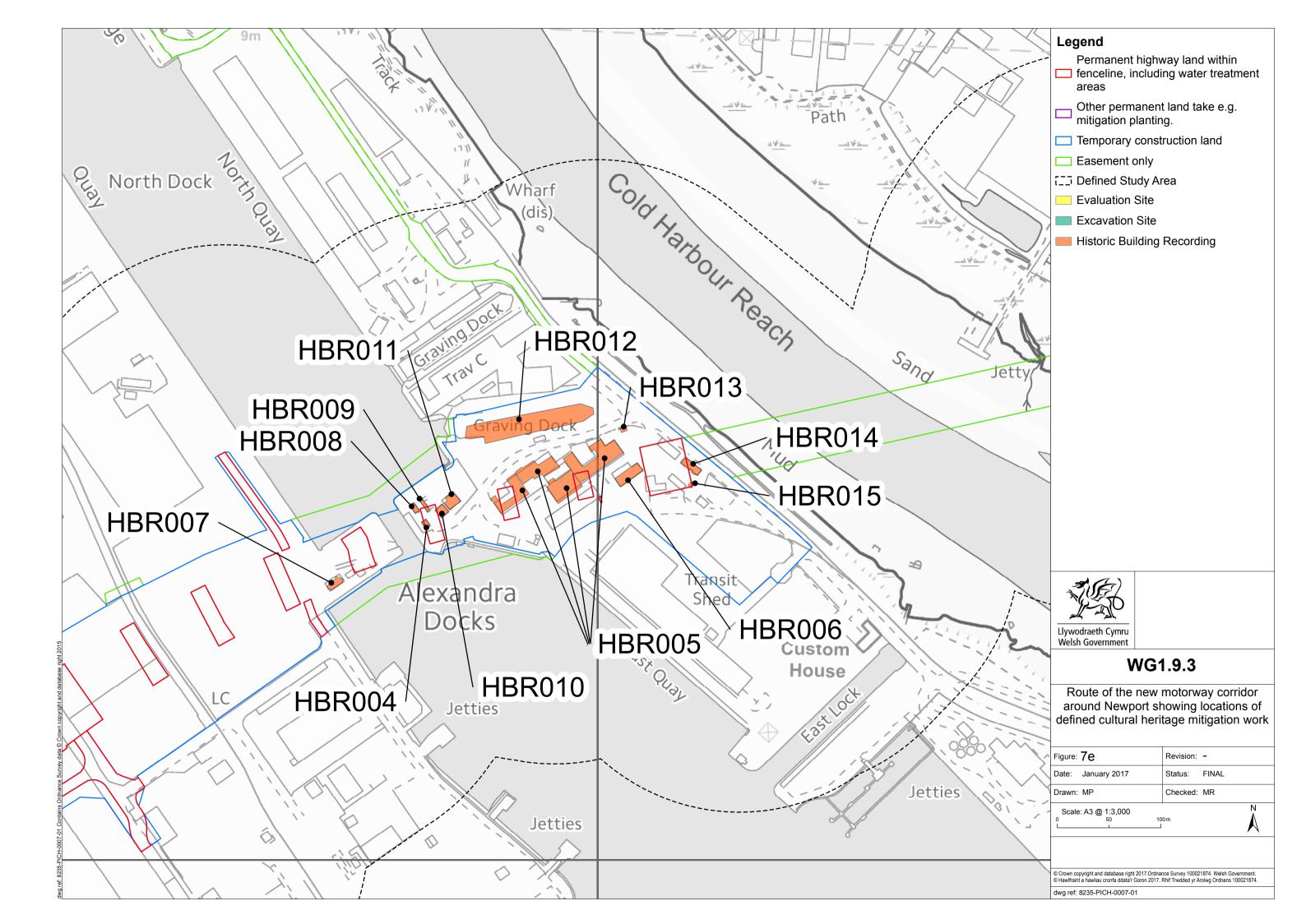


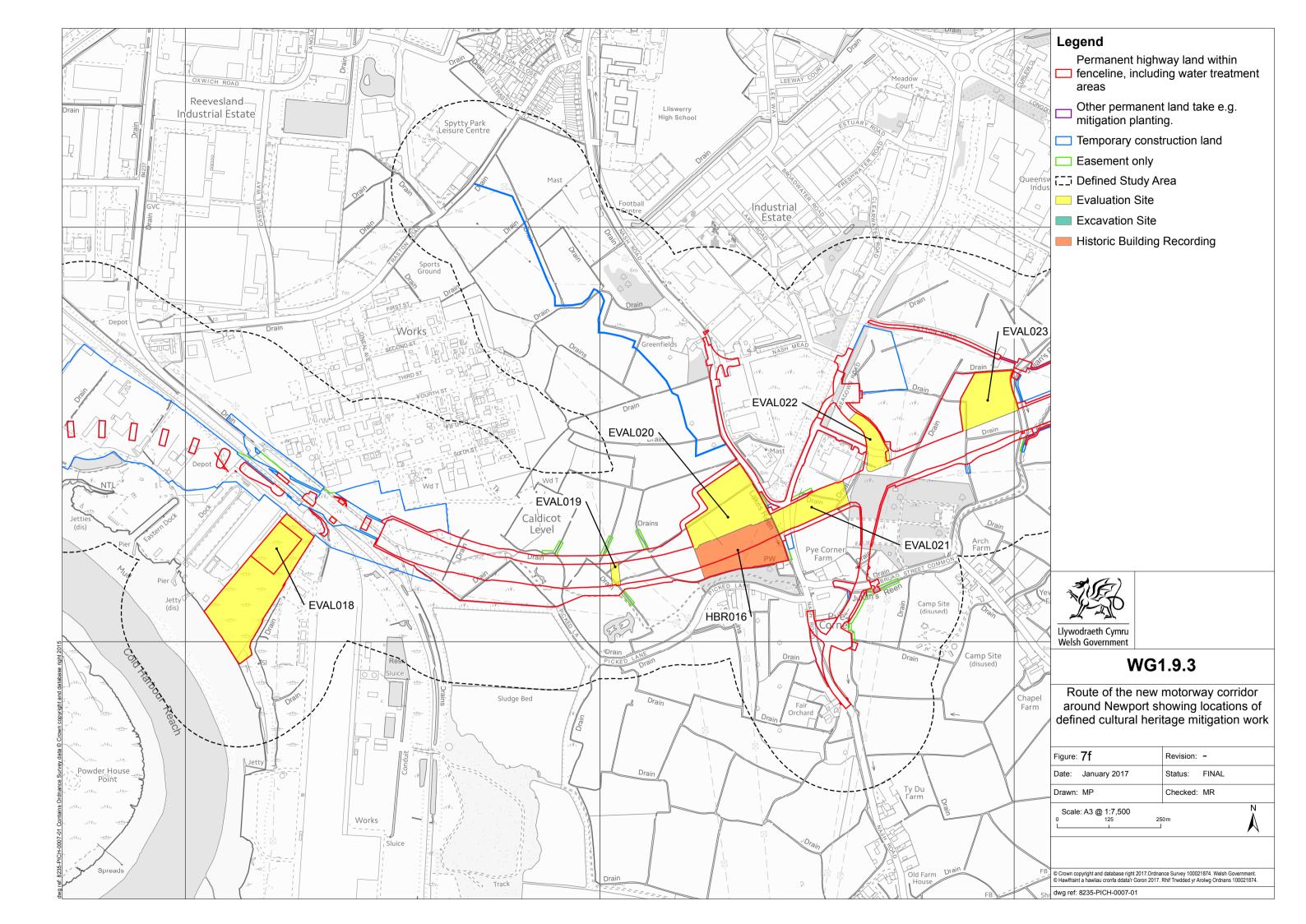


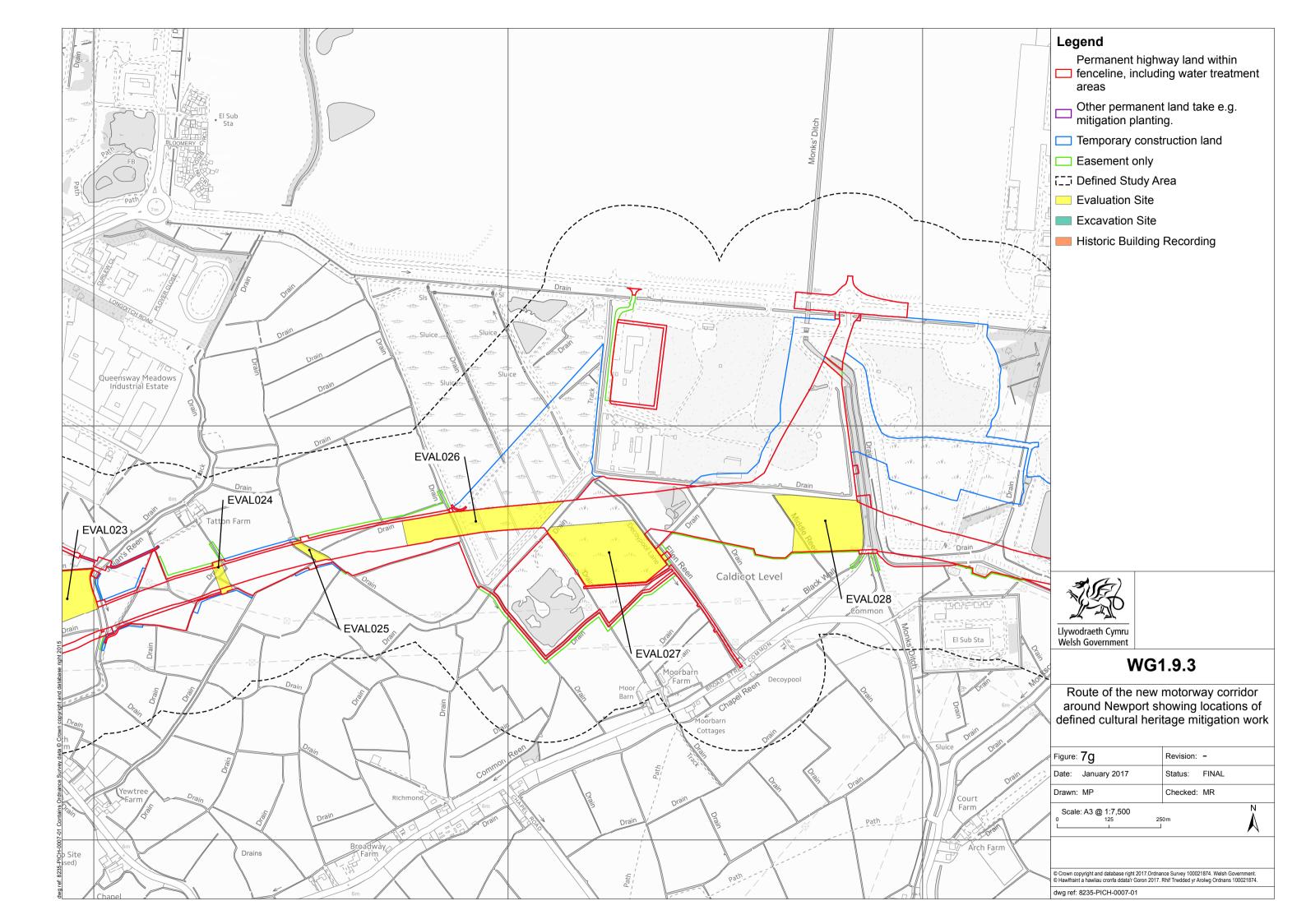


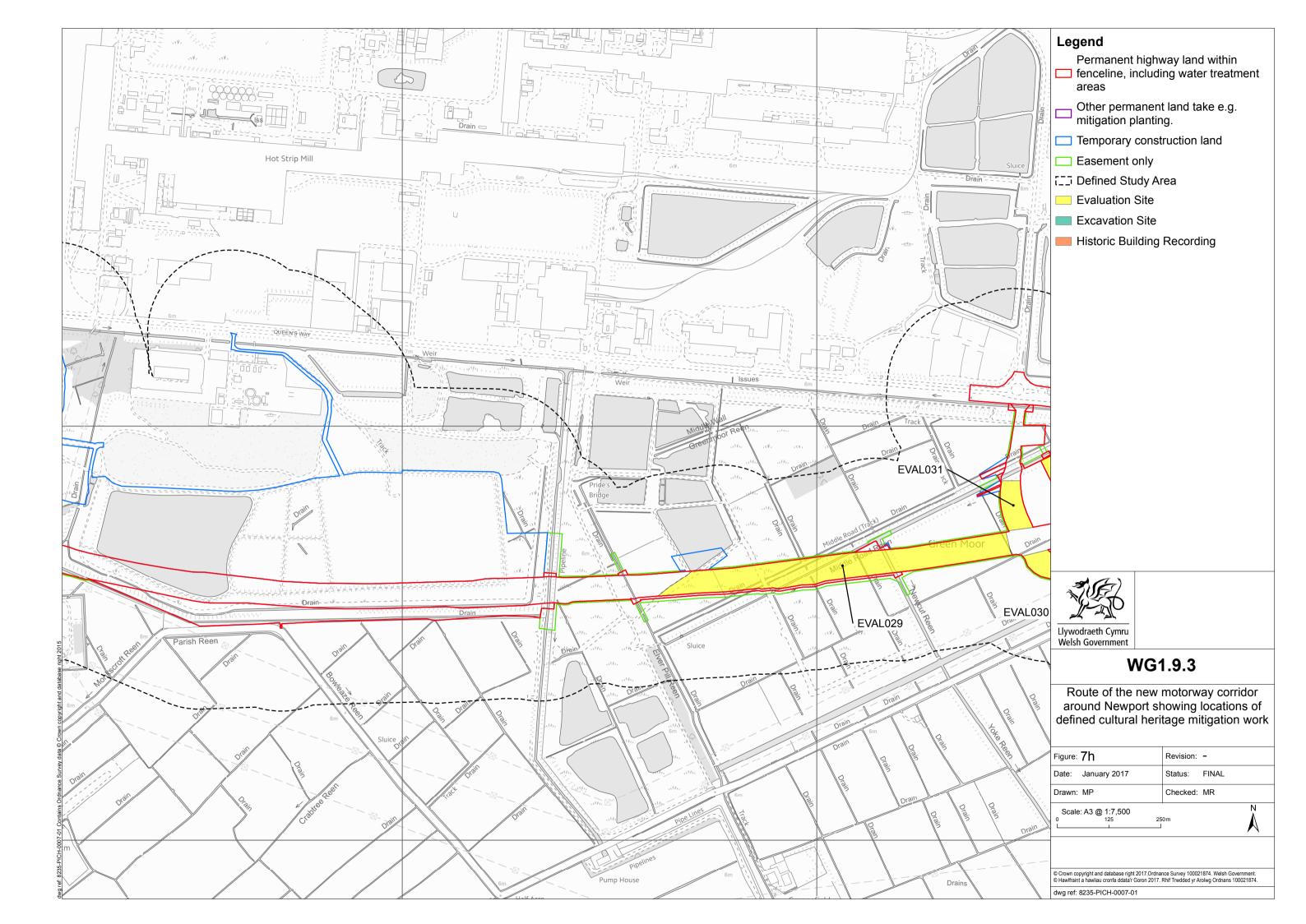


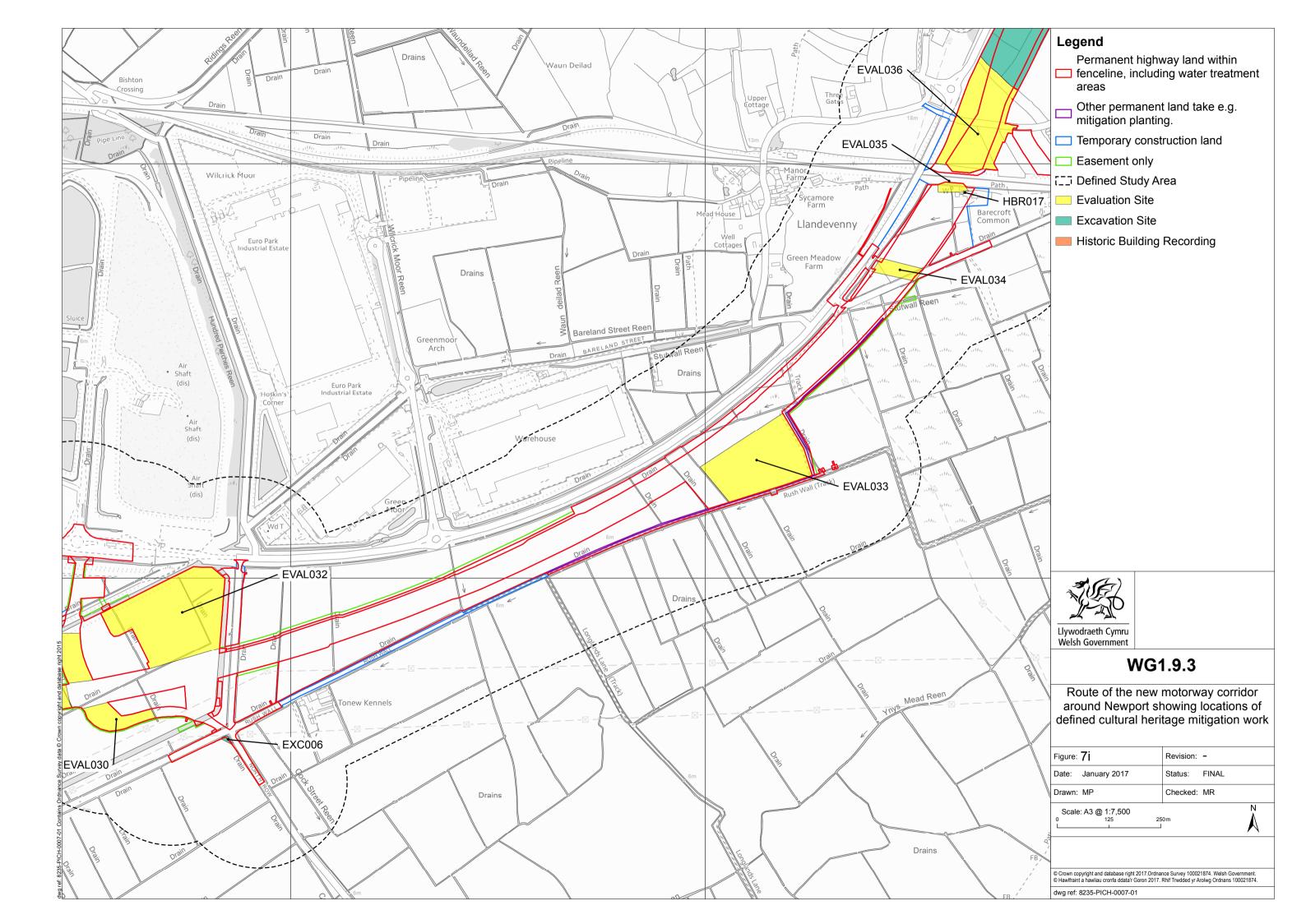


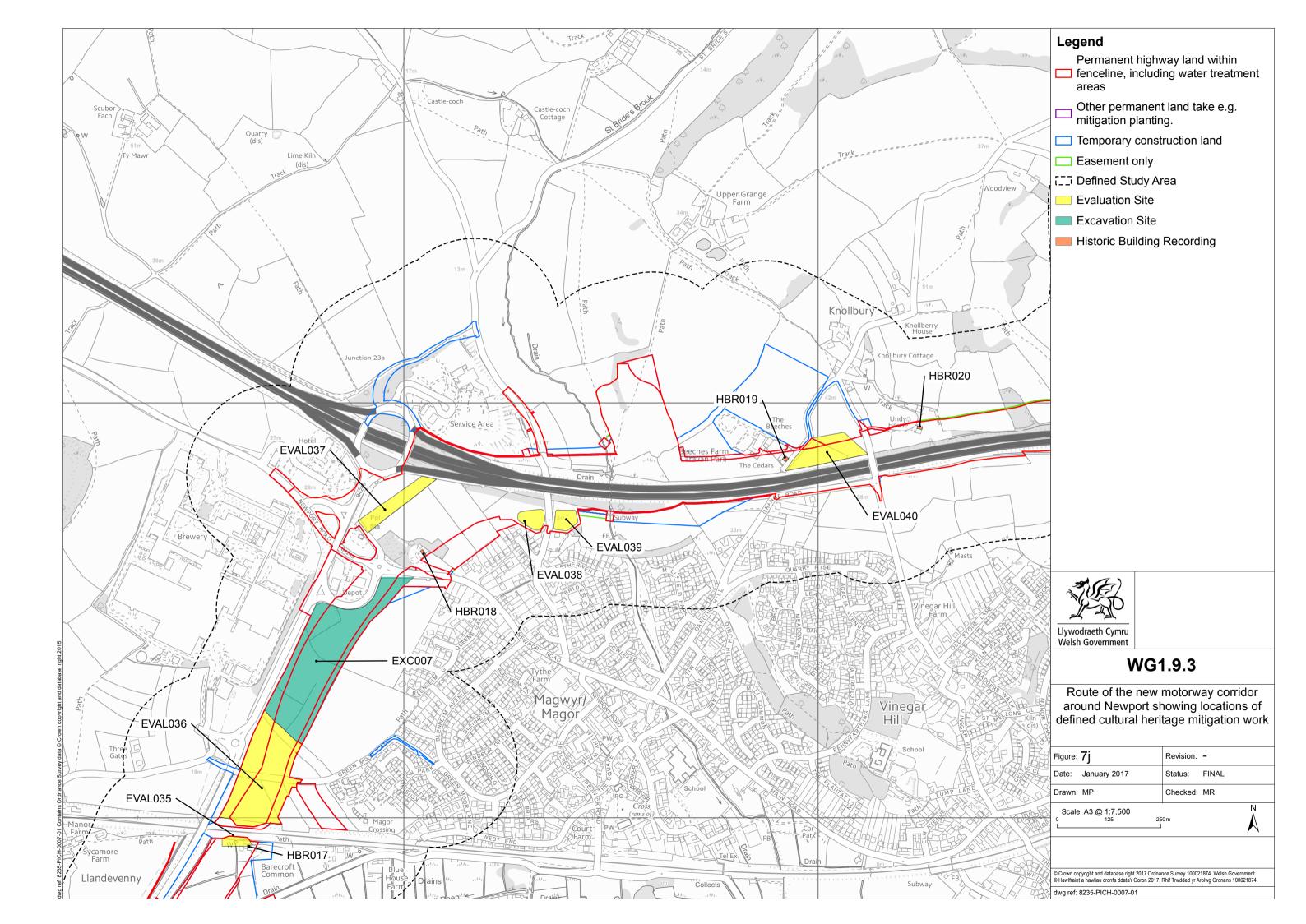


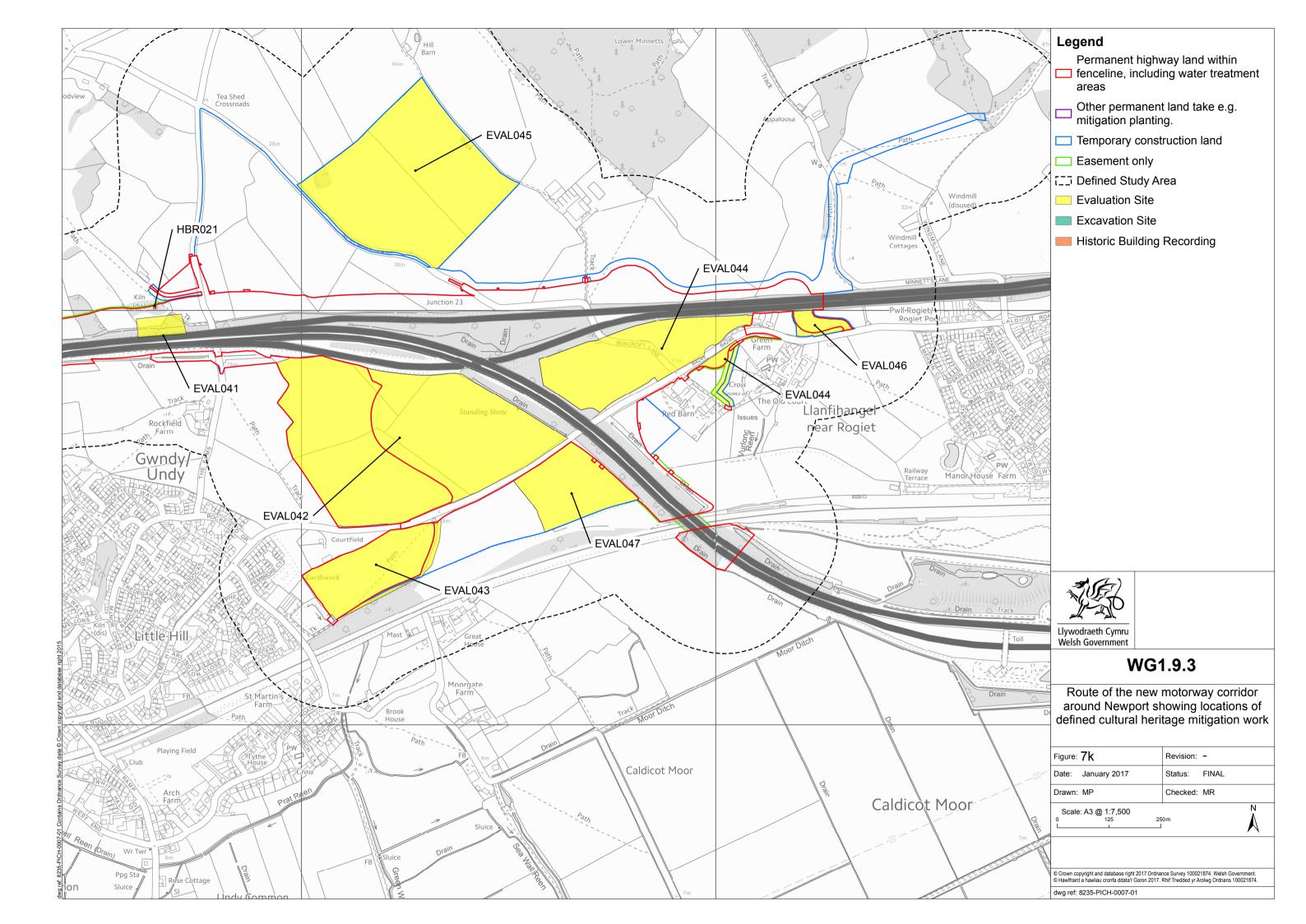












Appendix B - Cadw letter of 27th June 2016



Plas Carew, Uned 5/7 Cefn Coed Parc Nantgarw, Caerdydd CF15 7QQ Ffôn 01443 33 6000 Ffacs 01443 33 6001 Ebost cadw@cymru.gsi.gov.uk Gwefan www.cadw.cymru.gov.uk

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Mr G N Jones Orders Branch, Transport, Welsh Government.

GarethN.Jones@wales.gsi.gov.uk

Eich cyfeirnod Your reference Ein cyfeirnod

Our reference

Dyddiad Date June 2016

Llinell uniongyrchol Direct line

01443 336005

Ebost Email:

Matthew.coward@wales.gsi.gov.uk

Dear Mr Jones

Thank you for your letter of 8 March inviting our comments on the proposed M4 relief road and our subsequent meeting with Matt Jones and the contractor's team on 27 May.

The Welsh Government's Historic Environment Service (Cadw) is routinely consulted on development that is likely to have an impact on the historic environment. In particular, we provide specific expertise on developments of such a scale that they require an EIA to consider the impact on listed buildings, scheduled monuments, protected wrecks and registered landscapes, parks and gardens of special historic interest.

We have reviewed the Environmental Statement (ES) and agree with most of its conclusions concerning the likely impact of the proposed scheme on the historic environment. However, we would like to draw your attention to three areas that we feel need further attention.

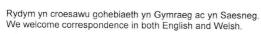
Firstly, we consider that the Cultural Heritage chapter underestimates the potential impact on the registered historic landscape, which is of international importance, and some historic buildings within Newport Docks.

Secondly, we note that there has been little or no evaluation of any potential buried archaeological resource which has not made it easy to assess the full impact of the scheme. At our meeting, we highlighted the risk that unforeseen archaeological sites with exceptional preservation might be uncovered during the course of groundworks. It would be helpful if a more detailed rationale for the absence of such evaluation to date could be provided.

Should the scheme proceed, we recommend that the full evaluation of those areas that have been identified as having high archaeological potential should be undertaken well in advance of construction. This would allow a preferred mitigation strategy to be implemented and so would minimise potential costly delays to the scheme. Indeed, during construction, all groundworks will require archaeological monitoring so that newly discovered archaeological sites can be dealt with in an appropriate manner.

Mae'r Gwasanaeth Amgylchedd Hanesyddol Llywodraeth Cymru (Cadw) yn hyrwyddo gwaith cadwraeth ar gyfer amgylchedd hanesyddol Cymru a gwerthfawrogiad ohono.

The Welsh Government Historic Environment Service (Cadw) promotes the conservation and appreciation of Wales's historic environment.







Given recent experience (for example with the Newport Ship), we would also like to draw attention to the significant cost and time required to excavate such archaeological sites (which needs to include post excavation analysis, conservation and reporting). This should not be underestimated.

Finally, where new archaeological sites are discovered, we note that the EIA proposes 'preservation by record' (that is excavation) rather than 'preservation *in situ*'. This apparent departure from national policy (for example Welsh Government's planning policy — *Planning Policy Wales*) needs further explanation and justification. Following our meeting, we understand that more information will be provided in a supplementary Environmental Statement to explain the rationale behind this approach.

I have attached a note of the key issues, including some recommendations, and we would be happy to discuss these issues further if it was thought to be helpful.

Yours sincerely

Matthew Coward

Mostar Whay

Senior Heritage Planning & Designations Manager

Assessment of the Environmental Statement for the Proposed M4 Relief Road, Newport – Technical Summary

The Cultural Heritage chapter of the ES concludes that the proposed scheme would have a number of 'significant adverse effects' on the historic environment within the scheme footprint. These comprise:

- i. a long term large adverse effect on the Gwent Levels Landscape of Outstanding Historic Interest;
- ii. a permanent large adverse effect resulting from the demolition of the Grade II listed Magor Vicarage;
- iii. a long term adverse effect on one scheduled monument due to a change in its setting;
- iv. a long term adverse effect on one Grade II listed farmhouse due to a change in its setting;
- v. permanent moderate adverse effects resulting from the demolition of three historic buildings or groups of historic buildings within Newport Docks;
- vi. a long term moderate adverse effect on the Grade I listed Newport Transporter Bridge as a result of change in its setting;
- vii. a long term moderate adverse effect on the Grade II* listed Whitson Court as a result of change in setting; and
- viii. short to medium term moderate adverse effect during construction on a second Scheduled Monument as a result of changes within its setting.

We agree with most of these conclusions. However, with respect to i) we consider that the adverse impact will be greater than stated, as the significance ratings of landscape has been underestimated, and with respect to v) we believe the significance may have been underestimated.

With respect to the landscape, the Gwent Levels are a uniquely rich archaeological and historical resource in Wales, and of international importance and significance. This is recognized formally through their registration as a landscape of outstanding historic interest in Wales. They are well-known for their remarkably unique and well-preserved buried archaeology.

Throughout history and prehistory, humans have exploited this landscape in many different ways. Since 1900, some of the most outstanding discoveries in British archaeology have been made on the levels. These include the discovery of Mesolithic footprints at Uskmouth and Magor, prehistoric buildings and trackways at Goldcliff and Redwick, the Newport Medieval Ship, the Barland's Farm Romano-British boat, Magor Pill Medieval boat, the well-preserved Iron Age timber buildings at Greenmoor Arch and the late Neolithic / early Bronze Age wooden structures from Caldicot, including sewn boat pieces, bridge, mooring and fishtraps.

These discoveries demonstrate the extraordinary archaeological potential of the levels, largely as a result of the outstanding degree of anaerobic preservation. This includes the potential survival of timber and organic structures and objects from many different periods reflecting the changing nature and use of the landscape through time. It is reasonable to assume that similar important evidence of prehistoric, Roman and later archaeology will be preserved further inland. Of particular interest is the potential for survival at the interface between the solid geology and the levels – an area that will be

particularly affected by the proposed alignment of the M4 Corridor Around Newport scheme.

The ES concludes that the 'significance of effect' would be large but we consider that this has been underestimated. The landscape is of international importance and we therefore consider that it is a 'very high value' heritage asset rather than a 'high value' one as quoted within the ES. When you then apply the 'significance of effect matrix' with this higher end value, the 'significance of effect' is greater than that explained within the ES.

We also consider that the impact of the scheme on some of the unlisted historic buildings within Newport Docks may have been underestimated. The Cultural Heritage chapter describes some of them as being of low value. However, a listing assessment by Cadw Inspectors has not been possible. From the information available, we consider that many of the buildings appear to represent good early examples of particular types of building or structure and that some could achieve listing status through their historic interest and/or group value. In our view, it would be premature to conclude that their heritage value is low and this therefore brings into question the subsequent conclusion about the likely impact of the proposed scheme on these buildings.

We note that there has been little or no archaeological evaluation of any potential buried archaeological resource that would be directly impacted by the scheme. By its buried nature, most of this resource is currently unknown. Although a desk-based assessment and various remote sensing techniques have been undertaken in an attempt to assess this potential, not all areas were covered. The absence of any subsequent archaeological investigation means that the impact of the scheme on any potential buried archaeology is not yet fully understood. There may be good reasons why this work has not yet been done, but this needs fuller explanation. However, should the scheme proceed, the full evaluation of those areas that have been identified as having high archaeological potential will need to be taken well in advance of construction to avoid costly delays.

Archaeological monitoring will also need to be undertaken during all ground works associated with the construction and it will be necessary to accommodate the costs and delays that may result as a consequence of any unexpected discovery.

We note that the statement in the Cultural Heritage Mitigation Plan (Appendix 8.10) that 'the implementation of the programme of further archaeological work would not result in the avoidance or reduction of the potential impacts and effects on these buried archaeological remains, but rather should be seen as a 'remedy''. This is an apparent departure from national policy – for example Planning Policy Wales and Welsh Office Circular 60/96 - *Planning and the Historic Environment: Archaeology*, which advocates that there should be presumption in favour of the preservation *in situ* of archaeological remains of national importance, whether scheduled or not. This principle is also promoted within the *Design Manual for Roads and Bridges* volume 10. The rationale for the different approach requires further explanation and justification, perhaps in a supplementary ES. We would urge that every opportunity should be taken to preserve important archaeological remains found within this scheme during its preparatory, construction and mitigation phases through sympathetic design.

As a finite and non-renewable resource that cannot be relocated, recovered or regenerated, we recommend that every opportunity is taken to reduce the impact of this scheme on a rich and well preserved historic environment, so that it can meet one of the key environmental challenges to 'reduce the negative impacts of transport on our

heritage – landscape, townscape, historical environment and Wales' distinctiveness', as set out in the Wales Transport Strategy (2008).

We provide the following detailed recommendations. We suggest that some of our recommendations might be included within a supplementary Environment Statement while others might be included within the detailed scheme design.

Vol 1, Chapter 3, Scheme Construction

3.5.2 – Pre-Construction Environmental Management Plan

We recommend that all historic environment provisions within the Pre-Construction Environmental Management Plan (Pre-CEMP) and Construction Environmental Management Plan (CEMP) should be shared with the Welsh Government's Historic Environment Service (Cadw) and agreed by the scheme's appointed independent archaeological curator.

Vol 3, Appendix 3.1, Buildability Report

1.4, 1.5 and 1.6

The discovery of a well-preserved archaeological site or structure could have a significant impact on the management and delivery of the scheme and should be treated as a scheme implementation risk with appropriate contingency. While the magnitude and cost (£3.9m) of dealing with Newport Ship was exceptional, the likelihood of a repeat scenario should not be underestimated. There is also the possibility of several smaller, but equally well-preserved sites, being identified each of which might have significant cost implications.

We recommend that the significant potential for the discovery of one or more unknown archaeological sites and evidence should be acknowledged in the construction scheme strategy, programme and potentially phasing, highlighting an appropriate contingency for the costs and time for successful mitigation.

2.1.1 - main construction activities

In addition to appropriate pre-construction archaeological investigation, we recommend that any scheme operations that involve ground disturbance should also be subject to adequate archaeological monitoring and investigation. This should include, but not be limited to, enabling works, topsoil stripping, piling, foundation construction, temporary and permanent reen protection works, construction of reens, culverts and retaining walls, remediation, construction of haul roads, site clearance, water management, including temporary water treatment areas, collection ditches and lagoons, and permanent carriageway drainage and water attenuation ponds, earthworks, including provision of band drains, pre-cast piles, and soil mixing, borrow pits and re-profiled areas, accommodation work, landscaping..etc

6.2 - Network Rail interface

We recommend that warning signs and reasonable care should be taken around the locations of the listed GWR bridges to prevent any inadvertent damage. Details of all listed structures within the locality are available online through the following website

http://cadw.gov.wales/historicenvironment/recordsv1/cof-cymru/?lang=en

7.2 – Earthworks strategy

We recommend that this section of the report should refer to the archaeological implications of any earthworks operations. As any ground disturbance has the potential to impact on buried archaeology, archaeological monitoring and investigation should be undertaken routinely.

10.1 - Gwent Levels Overview

We recommend that this section acknowledges that the Gwent Levels is a registered historic landscape of international importance, as well as a SSSI. The report should also acknowledge that the reen drainage network has significant historical as well as ecological importance and that any works to this network, including the provision of new reens as ecological mitigation, will have an impact on the historic character of the area.

13.1.1. – Complementary Measures

We recommend there may be opportunities to improve the setting of Tredegar House historic park and garden through the removal of gantries and matrix boards on the route of the downgraded stretch of M4.

Vol 3, Appendix 3.2, Pre-Construction Environmental Management Plan

4.4.1 - Regulatory bodies and other interested parties

We recommend the addition of Glamorgan Gwent Archaeological Trust (GGAT), in their role as maintainers of the regional historic environment record, as an interested party for cultural heritage and archaeology. We would also recommend the addition of the appointed independent archaeological curator.

5.1 – Environmental Aspects Register

We recommend that Table 5.1 should include other activities which will also potentially impact on the potential, but as yet unknown, buried archaeological resource including band drain installation, remediation, borrow pits, construction of culverts, coffer dams, pier foundations and the created of new reens. Appropriate forms of mitigation should also be proposed.

6.3 – Cultural Heritage Control Measures

We have been advised that adequate finance and resource will be provided to ensure that archaeological work is undertaken to appropriate standards. In addition, adequate and reasonable time will also be required to complete archaeological monitoring and investigation. As we have highlighted elsewhere, given the potential for well-preserved archaeological deposits and structures, the cost of this should not be underestimated. It will be essential that these financial commitments extend through post-excavation, publication and archival deposition stages.

Vol 1, Chapter 8 Cultural Heritage

8.3.65 – limitations of the assessment

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The ES identifies all available known data within the scheme boundary, and correctly states that the key limitation of the cultural heritage study was the determination of the presence or absence of buried archaeology.

While we consider that the use of remote sensing technologies was an appropriate approach in this situation (Appendices 8.4, 8.6 and 8.7), we note that some areas were not explored using these techniques. We would also make the observation that these methods possess inherent problems that do not allow all buried archaeological features, structures and deposits to be captured, identified and/or interpreted.

Similarly, while some historic invasive archaeological data was examined, we note that no new work was commissioned within the scheme boundary (8.3.67). In normal circumstances, archaeological evaluation (for example through trial trenching), in those areas identified as being of high archaeological potential, is routine. This helps to determine the presence, character and significance of any buried archaeology and to design appropriate mitigation strategies. The absence of such evaluation means that the character of the buried archaeology is not yet fully understood and it is impossible to identify with any confidence, the nature of the resource, attribute significance, or to recommend mitigation strategies. We would advise that an absence of archaeological evidence does not automatically indicate an absence of buried archaeology. The scheme will involve extensive and destructive ground works within a wetland environment that is known to have very rich archaeological preservation.

We recommend that further explanation is required that highlights the limitations of the remote sensing approaches to the archaeological assessment and the rationale behind the absence of archaeological evaluation to date.

If the scheme proceeds, it is essential that full evaluation in those areas that have been identified as having high archaeological potential should be undertaken well in advance of construction – for example through using the Gwent Levels Archaeological Deposit Model (Appendix 8.8) and as detailed in the Cultural Heritage Mitigation Plan (Appendix 8.10; Sections 5.2 and 5.3). Should archaeological sites be identified, this approach would allow a preferred mitigation strategy to be implemented and so would minimise potential costly delays to the scheme.

If there is agreement that excavation is the preferred form of mitigation, it is essential that adequate resources are made available, including for any post excavation analysis, conservation, reporting and archiving. Given the potential level of preservation and given recent experience (for example with the Newport Ship – see above) the cost should not be underestimated.

8.4 - Baseline Environment

The baseline environmental summary in the Cultural heritage chapter, is a detailed and comprehensive assessment of the known resource and benefitted from the input from an Expert Archaeological Panel and from the independent Archaeological Curator (GGAT).

8.5 – Mitigation

While the mitigation measures that are proposed are welcomed, we recommend that it would be possible to design-out further known impacts on historic environment features.

- 8.6 Assessment of potential land take effects
- 8.6.7 The ES identified a number of locations where the presence of archaeology is definite or very likely. Tree roots are known to cause irreversible damage to fragile

buried archaeology, particularly as trees mature, and then if they are the subject of wind blow.

We recommend that those areas of known archaeological resource should be avoided by tree planting and be left as open grassed areas, where shallow rooting will not harm the archaeology.

8.6.29 – unknown archaeological remains

The cultural heritage chapter correctly acknowledges that previously un-investigated '…land within the boundary of the proposed new section of motorway has the potential to contain buried archaeological remains of unknown date and nature, and is therefore of unknown value. Within the Gwent Levels in particular, currently unknown buried archaeological remains could be present that are of high or even very high value'.

We suggest that such remains could meet the criteria for statutory protection as scheduled monuments of national importance. While a programme of archaeological investigation is described in the Cultural Heritage Mitigation Plan (Appendix 8.10), the ES notes that 'the implementation of the programme of further archaeological work would not result in the avoidance or reduction of the potential impacts and effects on these buried archaeological remains, but rather should be seen as a 'remedy' (8.6.30).

This statement would appear to depart from the published national policy, including Planning Policy Wales and Welsh Office Circular 60/96. DMRB volume 10, section 6, part 1 (HA 75/01 – *Trunk roads and archaeological mitigation*) defines mitigation as:

'work intended to reduce the effect of a scheme on the archaeological resource... [which] may involve avoiding important archaeology...'.

Similarly, DMRB volume 11, section 3, part 2 (HA 208/07 – *Cultural Heritage*) states that:

'mitigation should aim to avoid or lessen the effect of negative impacts on the archaeological resource'.

We suggest that preservation *in situ* via avoidance, burial and/or altering the scheme design is the preferred form of archaeological mitigation, and in some cases also has the potential for being the less costly option. Preservation through record is considered to be a secondary form of mitigation.

We suggest that further explanation and justification for the rationale behind the apparent departure from the 'presumption in favour of preservation *in situ*' is required.

We further recommend that reasonable flexibility in the variation of the details of the scheme design should be added as an element to the mitigation strategy as described in para 5.1.2 of the Cultural Heritage Mitigation Plan (Appendix 8.10). This would represent best practice and follow published guidance. Failure to include such a provision would undermine the ES's claim that the archaeological 'programme of work described in this CHMP is in general accordance with the procedures identified in HA 75/01 and HA 208/07.

We would also advise that the independent Archaeological Curator should be a MCIfA or work for a MCIfA registered organisation as well as the archaeological Contractor (Appendix 8.10: 5.1.3). The independent Curator should be impartial, qualified, experienced, independent and knowledgeable of the archaeology of the scheme area.

We recommend that there should be pro-active dialogue with Cadw during the preconstruction evaluation phase and during the construction phase so that, as and when new archaeological sites are discovered, we will have an opportunity to consider new evidence in line with our statutory duties. If a site or monument is considered to be of national or international importance, all reasonable options to preserve such sites will need to be considered in line with national policies and professional standards and guidance.

8.6.35 – Gwent Levels Landscape

We note that the ES recognises the importance of this registered landscape of outstanding historic interest and an ASIDOHL2 report supports the Cultural Heritage chapter (Appendix 8.3). The proposed motorway would cut through the northern area of two parts of the registered landscape in the area of the back-fen. There would be direct physical impacts in seven of the twenty-one historic landscape character areas. This is the area which is closest to the solid land and also the lowest lying and wettest. It is the location at which much past human activity and where some of the best archaeological preservation can be anticipated. The proposed motorway scheme would orphan parts of the registered landscape. These would potentially face future development pressure as the new alignment of the M4 comes to form the new southwards edge for development around Newport.

The ES concludes that the 'proposed new section of motorway would have a moderate magnitude of impact on the registered historic landscape. This is a high value heritage asset and the consequent significance has therefore been assessed as large.' (8.6.38).

However, we recommend that as a site of international importance the Gwent Levels should be defined as a 'very high value' heritage asset, with a significance rating of Large / Very Large (Chapter 8, Table 8.4, p. 17)

8.6.103 - Magor Vicarage

The demolition of the listed vicarage, along with its associated outbuildings, should be an option of last resort.

We recommend that if demolition is to proceed, a fully recorded and researched survey of recording should take place prior to any demolition work commencing. We also recommend that the Royal Commission on the Ancient and Historical Monuments of Wales should be given reasonable access to the buildings for the purpose of recording.

8.6.106-157 - Non-designated historic buildings

The ES states that a number of non-designated historic buildings would be demolished in order to accommodate elements of the new scheme. This includes a proposal to demolish a group of buildings and structures at Newport Dock. The Wessex Archaeology report on the surviving docks (Appendix 8.5) assumes that none of the structure or buildings would be likely to attain the level of significance required to satisfy the listing criteria. However, the assessments of significance are brief and it has not previously been possible for Cadw to assess these buildings for listing. We consider that many of the buildings represent good early examples of particular types of building or structure and that some could achieve listing status through their historic interest and/or group value.

We believe that it is premature to conclude that some of the buildings to be demolished in Newport Dock are of low heritage value. Doing so places subsequent conclusions regarding the magnitude of the impact and the consequent significance of the effect in doubt.

We would welcome access to the site to undertake our own assessment to determine whether the group meet the criteria for listing as buildings of special architectural or historic interest and for the results of our assessment to inform the scheme design.

We understand that the development at Newport Docks will be fully recorded and researched prior to any demolition and that the Royal Commission on the Ancient and Historical Monuments of Wales will be given reasonable access to the buildings for the purpose of recording.

We have noted the proposal for landscape planting at Pye Corner, the location of a surviving WWII barrage balloon site. Whilst the ES states that this site is a low value heritage asset, to our knowledge it is actually the only known surviving barrage balloon site in Wales. The tethering blocks and hut bases retain important evidential, spatial and group values. As a rare, and possibly unique, site with good preservation, this site is considered to possibly be one of national importance. As the site was chosen for its open character, the proposed landscape planting would appear to be contrary to the fundamental setting of the monument.

We recommend that the heritage value of the WWII barrage balloon site is high. The moderate impact would therefore have a large 'significance of effect'. While the benefit of retaining the heritage asset in situ is acknowledged, we would recommend changes to the proposal to plant at this location.

8.7 - Assessment of potential construction effects

We consider the assessment of the scheduled monuments known as Medieval Moated Site North of Church at Undy (MM198) and Devil's Quoit (MM068) are appropriate.

However, given the significant cumulative impact of all of the scheme's elements proposed at Devil's Quoit Standing Stone (MM068), we recommend that serious consideration should be given to how the impact of this proposal can be lessened. For example, the re-siting of the water treatment area and reed bed further away from the monument should be given careful consideration.

8.8.8-11 - Assessment of potential operational effects on the Gwent Levels Landscape

The ES concludes that the operation of the new proposed section of motorway would have a moderate magnitude of impact on the registered historic landscape in terms of visual and noise impacts. As a high value heritage asset, the consequent significance of effect is considered to be large.

Our earlier comments have highlighted how the impact on the historic landscape may have been underestimated due it being a landscape of international importance.

8.8.52-106 - Assessment of potential operational effects on scheduled monuments

We agree with the assessment and conclusions in respect of the scheduled monuments in the area.

However, while the introduction of a new access path and interpretation panel at Devli's Quoit is welcomed, we would recommend the scheme designers relocate the water treatment area to another location in order to reduce the cumulative impact of the various works.

The installation of the path and interpretation panel may require Scheduled Monument Consent from the Welsh Ministers (via Cadw) if they are located within the scheduled area

8.8.107-212 Listed buildings

We recommend that reasonable care should taken around the locations of the listed buildings to prevent any inadvertent damage, for example, by vibration or vehicular damage. The ES should explain the measures that will be taken to avoid any such damage,

We note that in applying the 'significance of effect' matrix to Newport Transporter Bridge the adverse effect is judged to be 'moderate or large' and that it is concluded to be 'medium'. We would welcome further explanation of the rationale that led to this conclusion.

8.9 – Additional mitigation and monitoring

We suggest that the work proposed in the Cultural Heritage Mitigation Plan would be better described as compensation for the impact of the scheme on heritage assets. As already stated above, we recommend that every effort should be made to preserve any buried archaeological remains found within this scheme during its preparatory, construction and mitigation phases in line with national policy and best practice.

8.9.9

We suggest that monitoring of the effect of the scheme on historic assets should take place.

Firstly, we recommend that monitoring should be undertaken during the constructional phases, during which the cultural heritage investigative work should be subject to signoff, monitoring and approval by the appointed independent archaeological curator.

Secondly, there will be significant opportunities for reflective practice and new learning. Given the scale and complexity of the proposed development and the historic environment sensitivity of the development location, we recommend that a comprehensive study with regard to the land take, construction and operational effects of the scheme should be undertaken in order to inform best practice for subsequent road schemes in Wales. We also recommend that the monitoring should include an assessment of whether the conclusions reached in the ES Cultural Heritage chapter were correct, and an analysis of how historic environment features fared in relation to other considerations such as the natural environment.

Such a study should also seek to identify how the organisation, deployment, operation and review of cultural heritage arrangements can be improved, including any requirements to add to or amend relevant chapters of DMRB. For example it is clear that there is some ambiguity in the relationship between the terminology used in national policy, ASIDOHL2 and DMRB.

This review should include the Historic Environment Service (Cadw) and the appointed archaeological curator and contractor(s). Due to the extent of the potential archaeological intervention, and the possible significance of the buried archaeological resource, it would be best practice to consider publishing a monograph presenting the results of the archaeological investigations.

<u>Consequently, we recommend that a retrospective review should be undertaken once</u> the motorway is operational.

Historic Environment Service (Cadw)
June 2016

Appendix C - WG letter of 05th August 2016 to Cadw

Adran yr Economi a'r Seilwaith Department for Economy and Infrastructure Llywodraeth Cymru Welsh Government

Mr Matthew Coward
Senior Heritage Planning & Designations Manager
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Parc Nantgarw
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CF15 7QQ

Our Ref: qA1174612/OBJ0341

Date: 5th August 2016

Dear Mr Coward

M4 Corridor around Newport

Thank you for the detailed comments on the M4CaN Environmental Statement set out your letter of 27th June 2016. We appreciate the time you have taken in reviewing the information and we would like to offer the following response on the issues raised.

Three main issues are raised in your letter and I will address each of these in turn. I will then address the other issues you have raised in your letter on a point by point basis.

1. You consider that the Cultural Heritage chapter of the Environmental Statement (ES) underestimates the potential impact on the registered historic landscape which is of international importance and on some historic buildings within Newport Docks

In the ES we ascribed a 'High' value to the Gwent Levels registered historic landscape. The magnitude of impact was assessed as 'Moderate' and the DMRB matrix gives the consequent level of effect as 'Moderate' or 'Large'. As explained in the ES (para. 8.3.47), where the matrix gives more than one significance level, professional judgement is used to determine the significance of effect.

One of the factors taken into consideration is the guidance set out in Table 2.3 of HA205/08 (the current DMRB guidance on Environmental Impact Assessment) and reproduced as Table 8.9 of the ES. In this guidance document, 'Large' effects are those which 'are considered to be very important considerations and are likely to be material in the decision-making process', whereas 'Medium' effects 'may be important but are not likely to be key decision-making factors'.

Taking into account the guidance provided in Table 2.3 of HA205/08 and our professional judgement on the matter, we assessed the level of effect as 'Large' (i.e. a very important consideration likely to be material in the decision-making process). This is the level therefore recorded in the ES which describes the effect on the Gwent Levels registered historic landscape as long term, large and adverse.



You prefer to see the value of the Gwent Levels registered historic landscape as 'Very High', saying that (page 9) 'we recommend that as a site of international importance the Gwent Levels should be defined as a 'very high value' heritage asset, with a significance rating of Large/Very Large'.

Guidance on establishing the value of historic landscapes is provided in Table 7.1 of HA209/07 (DMRB), reproduced as Table 8.4 of the ES. This provides the following factors for 'Very High' value:

- a) World Heritage Sites inscribed for their historic landscape qualities
- b) Historic landscapes of international value, whether designated or not
- c) Extremely well preserved historic landscapes with exceptional coherence, timedepth or other critical factor(s)

and for 'High' value:

- a) Designated historic landscapes of outstanding interest
- b) Undesignated landscapes of outstanding interest
- c) Undesignated landscapes of high quality and importance, and of demonstrable national value
- d) Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s)

The Gwent Levels historic landscape is included on the Register of Landscapes of Outstanding Historic Interest in Wales, therefore the 'High' value which we have ascribed to this historic landscape relates to the first bullet point above for this value level. However the description in the Register identifies the Gwent Levels historic landscape as being 'certainly of international importance and significance' – hence we can see that it would be equally plausible to ascribe a value level of 'Very High' (as you propose) with regard to the second bullet point above for this value level.

Two points follow on from this. Firstly, if we accept a value level of 'Very High' as you propose, then taken with the 'Moderate' magnitude impact (which we note you are not disagreeing with), the matrix provides a level of effect of 'Large/Very Large'. As described above, in deciding which of these levels is the most appropriate we would look to the DMRB guidance on Significance of Effect Categories (Table 8.9 of the ES). Very Large Effects are those which 'represent key factors in the decision-making process', whereas Large Effects are those which 'are considered to be very important considerations and are likely to be material in the decision-making process'. In our opinion the level of effect on the registered historic landscape is 'Large' rather than 'Very Large' when considered against the DMRB guidance – and this is what we have already stated in the ES. In other words, raising the value of the registered historic landscape from 'High' to 'Very High' as you propose, would not change the assessed level of effect – this would remain as 'Large'.

Secondly, statutory responsibility with regard to the effects of proposed developments on registered historic landscapes is shared between Cadw and NRW. At a meeting on



25th January 2016 between RPS (for M4CaN), Cadw, NRW, Monmouthshire CC and Newport CC to discuss landscape issues, including historic landscapes, it was agreed that NRW would take the lead on reviewing the Draft Orders submission for M4CaN with regard to the registered historic landscape. In their response to Draft Orders dated 4th May 2016, NRW explicitly agree with the conclusion in the ES that there would be a long term <u>large</u> adverse effect on the registered historic landscape (page 41 of NRW's letter). NRW also state (page 42 of their letter) that the registered landscape is of <u>high value</u> (and sensitivity) – i.e. NRW agreed with our ascription of value. It is also worth noting that the independent archaeological Curator approved by Cadw also approved our ascription of a 'High' level of value.

With regard to the issue of the potential impact on the historic buildings in Newport Docks, we would refer you to the discussion that we had on this matter during our meeting of 27th May 2016. You say in your letter (page 9) that 'The Wessex Archaeology report on the surviving docks (Appendix 8.5 [of the ES]) assumes that none of the structures or buildings would be likely to attain the level of significance required to satisfy the listing criteria. However, the assessments of significance are brief and it has not been possible for Cadw to assess these buildings for listings. We consider that many of the buildings represent good early examples of particular types of building or structure and that some could achieve listing status through their historic interest and/or group value'.

In the meeting of 27th May 2016 we drew your attention to the Statement of Use placed at the beginning of Appendix 8.5 of the ES. This explains that the Wessex Archaeology report was provided only for the purpose of informing the baseline position. It is <u>not</u> our position that 'none of the structures or buildings would be likely to attain the level of significance required to satisfy the listing criteria'; we have not assessed the buildings in the docks against the listing criteria as it is not our role to do so.

In the ES we considered each of the historic buildings within the docks separately. Where we felt that it was appropriate, we ascribed a level of value of 'Medium' – this is the same level of value that applies to most Grade II listed buildings in the DMRB methodology. This level of value was given to three structures: a former graving dock (HB044); a group of former locomotive running sheds and engineering workshops (HB049); and a former locomotive engine shed (HB055). All other structures and buildings were ascribed a 'Low' level of value.

Our attribution of value was not based solely on the information presented in the Wessex Archaeology report (Appendix 8.5 of the ES). We carried out our own inspection of the buildings in order to review any changes that had occurred subsequent to the Wessex Archaeology fieldwork which was undertaken in May 2008. One of our team that carried out this inspection was Robert Kinchin-Smith, an acknowledged expert on historic railway buildings and structures, who subsequently provided advice with regard to the appropriate level of value for each of the buildings here.

For two of the three structures or buildings ascribed a 'Medium' level of value, the consequent effect following from their proposed demolition is described in the ES as 'Moderate', which is a significant effect. The third one (the former graving dock) would not be demolished and the level of effect resulting from the impact of the scheme on this structure has been assessed as 'Slight' (i.e. not significant).



The remaining historic buildings within the docks have been ascribed a 'Low' value. The consequent level of effect as a result of their demolition has generally been assessed as 'Slight', i.e. not significant. However for one building, a probable former Swing Bridge Operation Building (HB039), the level of effect resulting from its demolition has been assessed as 'Moderate' and therefore significant.

Our assessment has therefore been considered and thoughtful. We have identified that some of the historic buildings within the docks merit a level of value equivalent to that given (within the DMRB based methodology) to Grade II listed buildings. Demolition of such buildings would result in significant effects. We have also given a higher (and consequently significant) level of effect as a result of the demolition of 'Low' value buildings where this was felt to be appropriate.

Your letter (page 9, final paragraph) states that 'It is premature to conclude that some of the buildings to be demolished in Newport Dock are of low heritage value. Doing so places subsequent conclusions regarding the magnitude of impact and the consequent significance of the effect in doubt'.

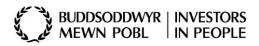
I can confirm that the independent archaeological Curator approved by Cadw has approved our ascription of levels of values with regard to each of the historic buildings within the docks.

Regardless of the level of value ascribed to any building in the docks, the magnitude of impact would not change, contra your comment in the final paragraph on page 9 of your letter. Demolition will always result in a 'Major' magnitude of impact.

You say on page 10 of your letter that you understand that the development at the docks will be fully recorded and researched prior to demolition and that the Royal Commission on the Ancient and Historical Monuments of Wales will be given reasonable access to the buildings for the purpose of recording. We have committed to the pre-demolition detailed recording of the most significant buildings and the basic recording of the less significant structures in the Cultural Heritage Mitigation Plan (Appendix 8.10 of the ES). We will offer RCAHMW the opportunity to record the buildings – this will be included in the Register of Commitments.

You say on page 10 of your letter that you would welcome access to the site to undertaken your own assessment. Access to the site would need to be agreed with Associated British Ports (the owner and operator of the docks) and we are not able to facilitate access on behalf of Cadw. However, we would hope that the above explanation of assessment methodology and independent archaeological Curator verification would avoid the need for this.

2. There has been little or no evaluation of any potential buried archaeological resource which has not made it easy to assess the full impact of the scheme. There is a risk that unforeseen archaeological sites with exceptional preservation might be uncovered during the course of groundworks. The full evaluation of those areas that have been identified as having high archaeological potential should be undertaken well in advance of construction. This would allow a preferred mitigation strategy to be implemented and so would minimise potential costly delays to the scheme. Indeed all groundworks will require archaeological monitoring so that newly discovered archaeological sites can be dealt with in an appropriate manner. Given recent experience (e.g.



the Newport Ship) we would also draw attention to the signficant cost and time required to excavate such archaeological sites (which needs to include post excavation analysis, conservation and reporting).

Evaluation of the potential buried archaeological resource within the Scheme boundary has been in the form of desk-based assessment followed by remote sensing (e.g. geophysical surveys using various methodologies and appraisal of LiDAR and satellite data), allied with the results of previous archaeological fieldwork undertaken with regard to earlier proposed iterations of a new road in the general location of the M4CaN Scheme.

We understand your comment that 'there has been little or no evaluation' to refer specifically to intrusive archaeological evaluation in the form of trial trenches and/or test pits.

Section 289(3)(a) of the Highways Act 1980 provides the Highway Authority (in this case Welsh Government) with powers of entry onto land for the purpose of surveying including the 'power to search and bore for the purpose of ascertaining the nature of the subsoil or the presence of minerals in it'. This power of entry does not cover archaeological work therefore any access to undertake such works must be done under negotiated agreement with landowners. Compensation payments would be due to landowners and tenants in addition to the cost of the archaeological work.

We examined this subject very carefully during the preparation of the Draft Orders and to some extent it is linked to your third main issue to which we have responded below.

The methodology utilised for intrusive evaluation needs to be closely aligned with the nature and extent of any impact resulting from the Scheme.

The Gwent Levels Archaeological Deposit Model (Appendix 8.8. of the ES) has established the location and extent of areas of higher archaeological potential in this part of the Scheme. The impacts of the Scheme in this area are described in paragraphs 5.3.13 – 5.3.17 of the Cultural Heritage Mitigation Plan (CHMP – Appendix 8.10 of the ES) and in further detail in the Buildability Report (Appendix 3.1 of the ES).

Impacts in areas of higher archaeological potential within the Gwent Levels could occur to depths of 7m or more below current ground level. Examination of this archaeological potential through the use of trial trenches would therefore require substantial excavations – exposure of just a 2m x 2m area at a depth of 7m would require an excavation measuring at least 16m by 16m at surface level.

Our experience of geotechnical work in this part of the Levels shows that each area of investigation would need to be pumped on a 24 hour basis, with discharge either to ground or to a reen (with the consent of NRW), and the excavation area and spoil heaps would need to be fully fenced. There would need to be night-time security for health and safety purposes. It is likely that we would need to construct a temporary access road to each excavation location (as we have done for recent geotechnical works) to allow plant to reach these locations and operate safely.

On completion of the excavation at each location, the trench would have to be backfilled with the arisings. Given the nature of the ground this would result in an area of very wet, soft ground that would be unsuitable for grazing or cultivation. If there are



livestock in the vicinity then the backfilled excavation area would need to remain fenced.

Thus it is our view that the excavation of trial trenches in the Levels at this stage could result in a considerable amount of visible and physical impact within the registered historic landscape and SSSI without the surety that the Scheme would actually proceed. If the current Scheme does not progress through to construction then this work could leave a legacy of visible impact along with short-medium term issues regarding compensation for loss of grazing or crop acreage.

There is also the issue of aligning the archaeological investigations with the nature of the scheme impacts as discussed further below. Our strategy is to keep the surface 'crust' intact across the Gwent Levels, with band drains used to reduce surcharge rather than any more intrusive methodology. The opening up of deep areas for archaeological investigations would impact on that strategy and result in areas where the surface 'crust' was not present.

If intrusive archaeological evaluations are undertaken within the Gwent Levels, it is our opinion that this would best be done once the Orders for the Scheme have been confirmed. This would put us in a much better position to control access, security, reinstatement etc. and if done post-CPO would also remove the issue of landowner compensation.

Outside of the Gwent Levels there are some areas where trial trenches may have assisted our understanding of the nature of buried archaeology – but such areas were brought into the Scheme at a fairly late stage (they include borrow pits, spoil storage areas). These areas are identified within the CHMP (Appendix 8.10 of the ES) and will be evaluated at the earliest possible time within the construction programme or possible in advance of this programme.

We accept Cadw's recommendation that the construction programme needs to provide adequate time for pre-construction archaeological work. We will continue to develop the programme with this in mind and will also look to any opportunity to commence archaeological investigation work ahead of the construction programme. This may include serving Notice to Treat and Enter on areas of higher archaeological potential but please be aware that this can only happen after confirmation that the Scheme will proceed to construction.

We agree with your comment that 'all groundworks will require archaeological monitoring so that newly discovered archaeological sites can be dealt with in an appropriate manner'. This issue is addressed in para. 5.4.1 of the CHMP (Appendix 8.10 of the ES) which states 'An archaeological watching brief would be maintained during defined construction works at locations that have not been covered by other forms of archaeological mitigation and where impact on presently unknown buried archaeological sites is possible'. Section 5.3 of the CHMP describes the procedures for dealing with Discovered Cultural Heritage Remains, i.e. archaeological sites not yet known but identified during construction.

With regard to your comment on the signficant time and cost required to excavate archaeological sites in this environment, we can confirm that risks around addressing Identified and Discovered Cultural Heritage Remains have been considered through



the Scheme Risk Register process. The issue of programming such works is discussed above.

3. Where new archaeological sites are discovered, we note that the EIA proposes 'preservation by record' (that is excavation) rather than 'preservation in situ'. This apparent departure from national policy needs further explanation and justification.

As noted in your letter, we are intending to provide additional text in the ES Supplement that is currently being prepared. We will make this document available to you for comment in due course.

Section 8.5 in chapter 8 of the ES describes mitigation measures that are incorporated into the Scheme design. Although not explicitly stated as such, this includes examples where we have sought to preserve cultural heritage remains *in situ*. One example is the Scheduled standing stone at Undy (MM068) which were have managed to retain in its current location rather than removing it as previously envisaged. Another example is at Llandevenny where we have relocated a Water Treatment Area to the south side of the new motorway in order to avoid a direct and considerable impact on a site where a quantity of Mesolithic and early Neolithic flints was previously identified.

Other elements of the Scheme have also been designed with the aim of preserving archaeological remains in situ. Areas identified for the storage of materials (including soils and unsuitable materials) will not be stripped of topsoil as part of process of preparation. Instead a layer of geotextile matting would be placed over the current surface. This will enable preservation of archaeological remains *in situ* if any such are present within these areas.

Similarly, within the Gwent Levels part of the Scheme topsoil will generally be retained as part of the strategy of keeping the 'crust' intact. This is described in paragraphs 7.3.36-7.3.38 of the Buildability Report (Appendix 3.1 of the ES). A geotextile or geogrid would be placed directly over the present ground surface and then stone would be placed on top of the geotextile/geogrid. Impacts on archaeological remains within and beneath the topsoil would therefore be limited to interventions through this protective layer (such as band drains and pre-cast piles), in the transition zones between the piled embankments and the surcharged areas where soil mixing may be required, and for areas of cut outside of the highway footprint such as water treatment areas, replacement reens etc.

This then comes back to the issue discussed above with regard to archaeological evaluation. Where scheme impacts are limited to band drains and/or pre-cast piles, archaeological evaluation in the form of trial trenches could well be more damaging to buried archaeological remains than the scheme itself. This is because the area of excavation required for the archaeological investigation would be larger than the area if impact resulting from construction of the Scheme. Preservation *in situ* in this situation is more a matter of controlling impacts through design.

Consequently any form of archaeological evaluation needs to be carefully aligned with the nature and locations of Scheme impacts and this is best done in the Detailed Design stage of work.



Once the Scheme has been through Detailed Design and construction has started, opportunities to achieve preservation *in situ* of archaeological remains will be relatively limited. It may be possible to retain archaeological remains within borrow pits although this would require the winning of replacement stone from another suitable location. It is less likely for archaeological sites within water treatment areas as volumes are very specific and excavating deeper in other parts of the water treatment area would not provide replacement volume. For locations where elements of the Scheme are within cuttings it would clearly not be possible to preserve archaeological sites *in situ*.

Other issues raised in your letter of 27th June 2016

- You recommend that all historic environment provisions within the Pre-Construction Environmental Management Plan (Pre-CEMP) and the Construction Environmental Management Plan (CEMP) should be shared with the Welsh Government's Historic Environment Service (Cadw) and agreed by the scheme's appointed independent archaeological curator.
 - Response the Pre-CEMP (Appendix 3.2 of the ES) makes it clear that all relevant documents relating to historic environment provisions, including the Project Design and any Further Archaeological Designs, will be agreed by the scheme's appointed independent archaeological curator ahead of commencement of any part of the works described in such documents. We would be happy to include a commitment within the Scheme Commitments Register to share these documents with Cadw.
- 2. You recommend the insertion of additional text into the Buildability Report (Appendix 3.1 of the ES) with regard to the significant potential for the discovery of unknown archaeological sites and to the identification of scheme operations that involve ground disturbance.
 - Response we consider that these issues are adequately addressed within the suite of documents that accompanied the Draft Orders. We do not propose any amendments to the Buildability Report in the light of your comments.
- 3. You recommend that warning signs and reasonable care should be taken around the locations of listed GWR bridges to prevent any inadvertent damage.
 - Response at our meeting on 27th May 2016 we advised that we were not aware of any Grade II listed GWR structures in the vicinity of the Scheme. We have subsequently reviewed the information on the Historic Wales website as you have suggested. The only listed GWR structure in the area is the Stow Hill railway tunnel in the western part of the city of Newport (Grade II). The construction and operation of the Scheme will have no impact on this tunnel or its setting and we consider that it is not necessary to place any warning signs or take any specific precautions with regard to this structure. If you are aware of any listed GWR structures that could potentially be affected by the Scheme then we ask you to provide further information.
- 4. You recommend the insertion of additional text into the Buildability Report (Appendix 3.1 of the ES) with regard to the archaeological implications of earthwork operations and to the fact that the Gwent Levels is a registered historic landscape of international importance.



- Response we consider that these issues are adequately addressed within the suite of documents that accompanied the Draft Orders. We do not propose any amendments to the Buildability Report in the light of your comments.
- 5. You recommend that there may be opportunities to improve the setting of the historic park and garden at Tredegar House through the removal of gantries and matrix boards on the present M4 as part of the Complementary Measures.
 - Response we have discussed this matter with the National Trust (NT) and will continue to liaise with the NT as the design of the Complementary Measures is progressed.
- 6. Re. the Pre-Construction Environmental Management Plan (Appendix 5.2 of the ES) you recommend the addition of Glamorgan Gwent Archaeological Trust and also the appointed independent archaeological curator. You also recommend that Table 5.1 of this document should include additional activities that could impact on as yet unknown archaeological remains and should identify appropriate mitigation. You advise that the Control Measures identified in para. 6.3 should be adequately financed and resourced.
 - Response we note the advice regarding the need for adequate budget and resources. The additions of GGAT and the independent archaeological curator to the list of regulatory bodies and interested parties will be taken forward into the Construction Environmental Management Plan (CEMP) should the Scheme proceed to construction. We feel that the issue of identification of activities that could potentially impact on archaeological sites is adequately addressed within the suite of documents that accompanied the Draft Orders. We do not propose any amendments to the Pre-CEMP in the light of your comments.
- 7. With regard to paragraph 8.6.35 of Chapter 8 of the ES, you recommend that further explanation is required to highlight the limitations of the remote sensing approaches and the rationale behind the absence of archaeological evaluation to date.
 - Response this further explanation will be provided in the ES Supplement that is currently being prepared. We will make this document available to you for comment in due course. Much of this is covered in preceding parts of this current response to your letter of 27th June 2016.
- 8. With regard to section 8.5 of Chapter 8 of the ES, you recommend that it would be possible to design-out further known impacts on historic environment features.
 - Response we will continue to look for any opportunities to design out impacts on historic environment features.
- 9. With regard to section 8.6 of Chapter 8 of the ES, you advise that tree roots can cause irretrievable damage to buried archaeology. You recommend that areas of known archaeological resource should be avoided by tree planting and left as open grassed areas.
 - Response we are aware of the damage that tree planting can cause to buried archaeological remains. The ES identifies the magnitude of impact as tree planting on archaeological sites as 'Major' (*cf.* para. 8.6.9). However the Scheme design needs to balance environmental effects and tree planting is required at selected locations for



- screening and/or for replacement habitat. We will review all areas of proposed tree planting that coincide with known archaeological sites to see if open grassland is suitable given the balancing requirements for the Scheme.
- 10. You recommend that the independent Archaeological Curator should be an MClfA or work for a ClfA Registered Organisation. The Archaeological Curator should be impartial, qualified, experienced, independent and knowledgeable of the archaeology of the Scheme area.
 - Response we agree with this recommendation and will include this in the Register of Commitments.
- 11. You recommend that there should be pro-active dialogue with Cadw during the preconstruction evaluation phase and during the construction phase. If a site or monument is considered to be of national or international importance, all reasonable options to preserve such sites should be considered in line with national policies and professional standards and guidance.
 - Response we agree with the recommendation to engage in pro-active dialogue with Cadw at all stages of the archaeological work. Cadw's collaboration is requested to ensure that their inputs are received in a timely manner with regard to any issues raised. If any discovered sites or monuments are considered to be of national or international importance then we would look at reasonable options to ensure preservation *in situ* of such sites or monuments.
- 12. You recommend that the demolition of the listed vicarage at Magor should be an option of last resort. If demolition is necessary than a fully recorded and researched survey should be undertaken in advance and the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) should be given reasonable access for the purpose of recording.
 - Response we have revised all design options for the scheme in this area and it is not possible to retain the vicarage. We have committed to the pre-demolition detailed recording of this building and associated structures in the Cultural Heritage Mitigation Plan (Appendix 8.10 of the ES). We will offer RCAHMW the opportunity to record the buildings this will be included in the Register of Commitments.
- 13. You recommend that the heritage value of the barrage balloon site is high and the moderate impact would therefore have a large 'significance of effect'. While the benefit of retaining the heritage asset in situ is acknowledged, we would recommend changes in the proposal to plant at this location.
 - Response we have made a further visit to this site (HB087) in order to review its level of physical preservation. The site is much better preserved than previously thought and we agree that its value is greater than 'low' which was the level attributed to it in the ES. However the site location is further north than was previously thought and much of the site is actually within the proposed highway boundary. Consequently we will prepare a revised assessment of the level of value, magnitude of impact and significance of effect with regard to this site. This will be presented in the ES Supplement that is currently being prepared. We will make this document available to you for comment in due course.



- 14. With regard to the Devil's Quoit standing stone Scheduled Monument at Undy, you recommend that the re-siting of the proposed water treatment area and reed bed further away from this monument should be given careful consideration.
 - Response we are mindful of this issue and will give it careful consideration during any review of the arrangements for this junction and also during the Detailed Design which we will undertake if the Scheme proceeds to construction. However there are a number of constraints in this area and drainage is a critical issue.
- 15. You recommend that reasonable care should be taken around the locations of listed buildings to prevent damage from vibration or from vehicle impacts. The ES should explain the measures that will be taken to avoid any such damage.
 - Response we are not aware of any listed buildings that are at risk of damage during the construction and operation of the Scheme (other than the vicarage at Magor). We will review this issue and if any such buildings are identified then the measures that we propose to take will be described in the ES Supplement that is currently being prepared. We will make this document available to you for comment in due course.
- 16. You note that with regard to the Newport Transporter Bridge, the level of effect of the Scheme (as a result of change within the setting of the bridge) falls within the matrix (Table 8.9 of the ES) as 'Moderate' or 'Large', and that we have assessed the level of effect to be 'Moderate'. You have requested further explanation of this decision.
 - Response the 'Minor' magnitude of impact on this heritage asset of 'Very High' value presents a choice in the significance of effect of either 'Moderate' or 'Large' (Table 8.9 of the ES). We then reviewed these against the DMRB guidance on Significance of Effect Categories (Table 8.9 of the ES). Large Effects are those which 'are considered to be very important considerations and are likely to be material in the decision-making process', whereas Moderate Effects are those which 'may be important, but are not likely to be key decision-making factors'. In our opinion the level of effect on the Transporter Bridge is 'Moderate' rather than 'Large' when considered against the DMRB guidance.
- 17. You suggest that the work proposed in the Cultural Heritage Mitigation Plan would be better described as compensation for the impact of the scheme on heritage assets.
 - Response this issue is touched on in paragraph 8.9.2 of the ES, which identifies that the proposed programme of further archaeological work should be regarded as 'offsetting' the impacts on the Scheme on heritage assets. A more detailed discussion is presented in Section 1 of the CHMP (Appendix 8.10 of the ES).
- 18. You recommend that monitoring of the effects of the Scheme on heritage assets should be undertaken during construction, with the cultural heritage investigative work subject to sign-off, monitoring and approval by the appointed independent archaeological curator.
 - Response we agree with this and will ensure that this forms part of the duties of the archaeological curator.
- 19. You recommend that there should be post-construction reflexive monitoring of the effects of the Scheme on heritage assets in order to inform best practice for



subsequent road scheme in Wales. This should include assessment as to whether the conclusions reached in the ES were correct along with analysis of how historic environment features fared in relation to other considerations such as the natural environment. It should also cover any requirements to add to or amend relevant chapters of DMRB.

Response – we request clarification of what Cadw means by post-construction 'reflexive' monitoring.

Outputs from Environmental Liaison Meetings (to which Cadw are invited) and 'lessons learnt' on highway schemes in Wales are currently collated and reviewed within Welsh Government. Monitoring during construction, including meeting the mitigation requirements of the ES, the AIES and relevant consents, licences and permits is a key requirement of the Construction Environmental Management Plan as set out in Chapter 18 and Appendix 3.2 of the ES.

Following completion of the construction of the proposed new section of motorway there would be a five year aftercare period which would be the responsibility of the contractor. From an environmental perspective that would be managed as described within the Environmental, Landscape and Ecology Aftercare Plan, which would form part of the CEMP. As stated at paragraph 18.8.2 of the ES "the environmental mitigation, including the requirements set out in the ES, the Assessment of the Impacts upon European Sites (AIES) and the Environmental Commitments Register, would be monitored on a regular basis throughout the five year aftercare period".

At the end of the five year aftercare period a Handover Environmental Management Plan (HEMP) would be produced which would set out the proposed strategy for the future maintenance and management of the environmental mitigation measures for the following 10 year period.

You should also be aware that the responsibility of adding to or amending the DMRB rests with Highways England. Welsh Government can only forward its thoughts to Highways England for them to consider further.

Once you have reviewed this response, we would be grateful if you could advise whether Cadw are content to withdraw their objection to the draft Statutory Orders. If you have any remaining concerns we would like to have a further meeting with you to discuss.

Yours sincerely

Matthew Jones
Project Engineer



Sans

Appendix D - Cadw letter of 24th August 2016



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Mr Matthew Jones Project Engineer, Transport Welsh Government.

Dyddiad

24 August 2016

Llinell uniongyrchol
Direct line

Eich cyfeirnod Your reference

Ein cyfeirnod

Our reference

01443 336005

Ebost Email:

Matthew.coward@wales.gsi.gov.uk

Matthew.Jones@wales.gsi.gov.uk

Dear Mr Jones

M4 Corridor around Newport

Thank you for your letter of 5 August.

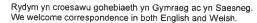
I can confirm that we have not objected to the proposed scheme. The purpose of our comments has been to highlight the issues within the Environmental Statement that would normally be explored at a Public Inquiry. Therefore, we would recommend that the helpful explanations that you have provided could usefully be included within the Supplementary Environmental Statement. This might include some further clarification explaining the rationale behind any conclusions that have been based on professional judgements. You may also be asked to clarify in more detail why the conclusion relating to the level of effect on the Transporter Bridge is considered 'Moderate' rather than 'Large'. We note that some of the buildings in Newport Dock have been assessed as equivalent to listed buildings and will therefore be considered as such at the Inquiry.

We also note from your letter that the land is not suitable for pre-determination archaeological evaluation and we would therefore recommend that a significant contingency is provided to cover the cost of any archaeological works that may be required later on in the project. We acknowledge that the nature of the land may require a departure from national policy and this will be a matter for the Inspector to consider. However, we would recommend that all reasonable attempts are made to preserve all nationally significant archaeological evidence in situ, including the possibility of considering alternative design solutions where this is feasible. If the scheme is approved, it will also be important that everyone operating on the scheme is familiar with the potential for significant archaeology to be revealed to avoid inadvertent damage.

Finally, our previous advice concerning post-construction monitoring should have read 'reflective' rather than 'reflexive' and it was intended to enable everyone to take stock of the entire project, possibly identifying opportunities for improvement regarding the

Mae'r Gwasanaeth Amgylchedd Hanesyddol Llywodraeth Cymru (Cadw) yn hyrwyddo gwaith cadwraeth ar gyfer amgylchedd hanesyddol Cymru a gwerthfawrogiad ohono.

The Welsh Government Historic Environment Service (Cadw) promotes the conservation and appreciation of Wales's historic environment.







archaeological and wider historic environment implications of the planning and implementation of the scheme.

Yours sincerely

Matthew Coward

BALLINGOM

Senior Heritage Planning & Designations Manager