A55(T) Abergwyngregyn to Tai'r Meibion Improvement Advance Works

Archaeological Watching Brief

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

A55(T) Abergwyngregyn to Tai'r Meibion Improvement Advance Works

Archaeological Watching Brief

Project No. G2424

Report No. 1391

Prepared for: Ymgynghoriaeth Gwynedd Consultancy

July 2017

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Published by Gwynedd Archaeological Trust
Gwynedd Archaeological Trust
Craig Beuno, Garth Road,
Bangor, Gwynedd, LL57 2RT

Approvals Table				
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Approved by	Principal Archaeologist	JOHN ROBERTS		10/11/17

Revision History			
Rev No.	**Summary of Changes**	**Ref Section**	**Purpose of Issue**
1	Inclusion of aims of objectives	1.1	Gwynedd Archaeological Planning Service feedback
	Clarification on frequency of attendance	3	Gwynedd Archaeological Planning Service feedback
	Inclusion of National grid coordinate for pit [004] in text and figure	4.3.1 Figure 01	Gwynedd Archaeological Planning Service feedback
	Inclusion of a context register	Appendix III	Gwynedd Archaeological Planning Service feedback
	Deletion of repeated Appendix pages	Appendix	Gwynedd Archaeological Planning Service feedback

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CRYNODEB ANNHECHNEGOL

Mae'r adroddiad hwn yn nodi canlyniadau y briff gwylio a gynhalwyd gan Ymddiriedolaeth Archaeolegol Gwynedd yn ystod y gwaith ymlaen llaw i'r uwchraddio arfaethedig o ffordd yr A55(T) rhwng Tai'r Meibion, Llanllechid, Gwynedd, a Fferm Wig, Abergwyngregyn, Gwynedd. Gwnaethwyd y gwaith yn cael ei wneud ar ran Ymgynghoriaeth Gwynedd Consultancy rhwng Chwefror a Gorffenaf 2017.

Cafodd pob gwaith tir ymwthiol eu monitro i lawr i'r lefelau daearegol drifft naturiol. Nodwyd archaeoloeg cyfyngedig yn ystod y briff gwylio yn ffurf pwll llosg cynhanesyddol posibl ym maes 5, a darganfuwyd yn ystod trawsleoli y gwrych a dau cylfatiau llechi ôl-ganoloesol yng nghaeau 6 ac 8 yn ystod gwaith cloddio y sianel ddraenio.

NON-TECHNICAL SUMMARY

This report sets out the results of the watching brief undertaken by Gwynedd Archaeological Trust during the advance works for the proposed A55(T) road upgrade between Tai'r Meibion, Llanllechid, Gwynedd, and Wig Farm, Abergwyngregyn, Gwynedd. The work was carried out on behalf of Ymgynghoriaeth Gwynedd Consultancy between February and July 2017.

All intrusive ground works were monitored down to the natural drift geological levels. Limited archaeological remains in the form of a possible prehistoric burnt pit in field 5, uncovered during the translocation of the hedge and two post-medieval slate culverts in fields 6 and 8 during the excavation of the drainage channel were identified during the watching brief

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was commissioned by Ymgynghoriaeth Gwynedd Consultancy (YGC) to undertake an archaeological watching brief during upgrade works between Junctions 12 and 13 of the A55(T) expressway. The A55(T) upgrade works extended for 2.2km between NGR SH62977173 and NGR SH65067263 (Figure 01) and were undertaken to improve network resilience to potential flooding. The watching brief was undertaken during intrusive groundworks associated with the upgrade, from 14th February 2017 to 25th July 2017.

A section of hedge plantation has still to be completed (Fields 1 to 4); the exact timetable is to be confirmed, but will be scheduled from late 2017/early 2018. GAT will undertake a watching brief during these works and an additional report will be submitted on completion.

The monitored groundworks included:

1. site clearance and excavation of a drainage channel ditch and construction of an earth bund along the south side of the A55(T);
2. translocating/planting a hedge along this same length;
3. the construction of the diverge and merge tapers for the new access to Glyn Farm (but not construction of the link to Bryn Meddyg), associated drainage, kerbing and a strip of carriageway construction to link it with the existing carriageway;
4. the installation of a new 600mm diameter pipe under the A55(T) for Stream 8;
5. the installation of a new 450mm diameter pipe across the field between the A55(T) and Roman Road just west of The Old School, Abergwyngregyn, tying in to the pipe for Stream 8; and
6. the lining of Stream 8 downstream for approximately 200m as far as the existing culvert under the main access track to the farm's fields, and installing weirs at the discharge outfall to reduce erosion.

The archaeological watching brief was monitored by Gwynedd Archaeological Planning Services (GAPS) and conformed to the guidelines specified in *Standards and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014). A project design was submitted by GAT in November 2016 (cf. Appendix I).

1.1 Aims and Objectives

In accordance with the Chartered Institute for Archaeologists *Standards and Guidance*, the archaeological watching brief was undertaken as a formal programme of observation and investigation during groundworks to identify any archaeological remains. The key aims were to:

- establish the extent to which archaeological remains survive at the site;
- establish the date and nature of archaeological remains at the site and assess their implications for understanding the historical development of the area; and
- establish the depth of archaeological remains and the quality, value and level of preservation of any deposits.

2 BACKGROUND

GAT completed an Assessment of the Significance of the Impact of Development on Historic Landscape (ASIDOHL) report (McNichol 2015a: GAT Report 1257) and a heritage desk based assessment report (McNichol, 2015b: GAT Report 1258) of the A55(T) Abergwyngregyn to Tai'r Meibion Improvement in 2015. The desk based assessment report included recommendations for trial trenching, prior to any other work on site at two potential sites within the scheme footprint: the proposed site of a medieval township at Wig (Asset Number 27; GAT PRN 6811) and the proposed route of the Canovium - Segontium Roman Road to the south of Tai'r Meibion (Asset Number 12; RCAHMW NPRN 405340). Four trial trenches were excavated, three at Wig Farm and one at Tai'r-meibion. No evidence for medieval settlement was identified at Wig Farm, whilst Trench 04 at Tai'r Meibion revealed evidence for two modern drains and a stone and earth field boundary bank of unknown date; no evidence for the Roman Road was encountered.

3 METHODOLOGY

An archaeological watching brief can be divided into four categories:

- comprehensive (present during all ground disturbance);
- intensive (present during sensitive ground disturbance);
- intermittent (viewing areas of ground disturbance after machining); or
- partial (as and when seems appropriate).

A **comprehensive** watching brief was requested by GAPS for all stages of the Advance Works involving ground disturbance. This involved GAT attendance during all ground disturbances (as listed in para. 1.0) until it was determined the aims and objectives had been met at specific locations. A total of 30 visits were made, between 14th February 2017 to 25th July 2017.

The watching brief entailed the observation by a GAT archaeologist of the non-archaeological excavation and intrusive groundworks within the footprint of the works, as far as the glacial horizon or engineering horizon (whichever was encountered first). The elements of the Advance Works to be monitored during the watching brief were:

- the excavation of a drainage channel and associated bund along the south side of the A55(T) (Figure 7; Figure 8; Figure 9; Figure 10);
- site clearance necessary for that work (Figure 7; Figure 8; Figure 9; Figure 10);
- translocating/planting a new hedge along this same length (Figure 2; Figure 3; Figure 4; Figure 5; Figure 6);
- the construction of the diverge and merge tapers for the new access to Y Glyn Farm (but not construction of the link to Bryn Meddyg), associated drainage, kerbing and a strip of carriageway construction to link it with the existing carriageway (Figure 8; Figure 9);
- the installation of a new 600mm diameter pipe under the A55(T) for Stream 8 (Figure 6; Figure 10);
- the installation of a new 450mm diameter pipe across the field between the A55(T) and Roman Road just west of The Old School, tying in to the pipe for Stream 8 (Figure 6; Figure 10); and

- the lining of Stream 8 downstream for approximately 200m as far as the existing culvert under the main access track to the farm's fields, and installing weirs at the discharge outfall to reduce erosion (Figure 10).

The groundworks were completed by Jones Bros Civil Engineering UK and were monitored by GAT between February 2017 and July 2017. The fencing between Tai'r Meibion and The Old School was installed using pile-driven posts and was not monitored as part of the watching brief. A section of hedge plantation has still to be completed (Fields 1 to 4); the exact timetable is to be confirmed, but will be scheduled from late 2017 or early 2018. GAT will undertake a watching brief during these works and an additional report will be submitted on completion.

All attendances and identified features were recorded using GAT watching brief pro-formas. Photographic images were taken using a digital SLR (Nikon D3100) camera set to maximum resolution (4608 × 3072 12.7 effective megapixels) in RAW format and were converted to TIFF and JPEG format for archiving using Adobe Photoshop; a photographic record was maintained on site using GAT pro-formas and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process. A total of 71 images were taken (archive reference: G2424_WB_2017_001 to G2424_WB_2017_071. All archaeological features/deposits encountered were manually cleaned and examined to determine extent, function, date and relationship to adjacent features. All plans and sections were drawn at a minimum 1:10 scale on GAT pro-forma permatrace.

The project archive will be prepared on approval of the report: the paper records will be retained at GAT, along with a copy of the digital records. The digital records will also be submitted to the Royal Commission on the Ancient and Historical Monuments of Wales in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata, and the approved report (text and Adobe pdf versions).

4 WATCHING BRIEF RESULTS

4.1 Introduction

For the purposes of the watching brief, the scheme was sub-divided into numbered fields (cf. Figure 01). The results are presented by monitored activity and then by field.

4.2 Drainage channel and associated bund along the south side of the A55(T).

The drainage channel was excavated using a Komatsu 210 tracked excavator fitted with a trapezoidal ('V' ditching) bucket. The material excavated was placed adjacent to the channel to create the bund along the south side of the A55(T). The initial plan was for a topsoil strip to precede the ditching which would provide the bulk of the material for the bund. The changes in topography throughout the scheme, however, meant that in places the ground would need to be built up in order for the correct profile of ditch (1m across at the top, 0.4m at the base with 0.5m sloping sides) to be excavated at the elevation stated in the design. The methodology therefore changed to omit the topsoil strip. As there was no longer enough material being excavated to create the bund, material was moved from the compound stockpile using a tracked dumper.

4.2.1 Field 1

The drainage channel in this area was 100m in length with a NE/SW orientation. The topsoil here consisted of a mid-brown silty clay with moderate stone inclusions and an average depth of 0.28m. The natural geology in the area was a yellow sandy clay with frequent stone inclusions and patches of gravel. No archaeology found in this area. (Plate 01)

4.2.2 Field 2

In this area the topsoil consisted of a mid-brown sandy silt with frequent stone inclusions and an average depth of 0.27m. This gave way to a mid-brown silty clay subsoil with frequent stone and cobble inclusions and an average depth of 0.41m. The natural geology was a yellow sandy clay with frequent stone, cobble and boulder inclusions. The drainage channel in this field was up a gentle slope from the NE to the SW and the subsoil layer became shallower towards the top of the slope (Plate 02). No archaeology was identified in this area

4.2.3 Field 3

The drainage channel did not cross the entirety of field 3 but extended 100m in a SW direction from the NE boundary with field 2. The geology in this area consisted of a mid-brown sandy silt with frequent stone inclusions, average depth 0.25m. Under this was the natural geology, a yellow sand-silt with frequent stones and cobbles (Plate 03). No archaeology was identified in this area

4.2.4 Field 4

The drainage channel in this field was divided into two sections. The first section was situated in the NE of the field on a SW-NE slope. Topsoil in this area consisted of a mid-brown silty clay with infrequent stone inclusions and averaged 0.27m in depth. Under this was a mid-brown silty clay subsoil with a red hue, moderate stone inclusions and an average depth of 0.45m. It was only at the SW end of the drainage channel that the natural geology was encountered which consisted of a red clay with frequent stone inclusions (Plate 04). No archaeology was identified in this area.

The second section of drainage channel was situated in an area which had initially been used for the spoil tip. The ditch in this area was monitored and was entirely within the made ground from the previously excavated material (Plate 05).

4.2.5 Field 5

At the SW of this field for approximately 30m, the drainage channel was initially from ground level to a depth of approximately 1.8m. The topsoil consisted of a mid-brown silty clay with occasional sub-rounded and sub-angular stones. Under this was the natural geology of an orange sandy clay with frequent sub-rounded stones, cobbles and boulders. Due to the depth of the trench the topsoil strip was reinstated for the remaining 180m of this field. The topsoil strip averaged 0.4m in depth and was 3m wide. No archaeology was identified in this area.

4.2.6 Field 6

The 'V' ditching in this field was excavated from ground level (Plate 06). The topsoil consisted of a mid-brown silty clay with moderate sub-rounded stones. Where the trench reached the natural geology this consisted of an orange sandy clay with frequent sub-rounded stones and cobbles.

In the central area of this field it was necessary to excavate a pit (3x4x1.4m) in order to connect a slate topped culvert (structure [007]) to the existing drainage under the A55(T) (Plate 07). The culvert [007] was orientated N-S and was 0.72m wide with a height of 0.53m. It consisted of a slate lined base, larger capping slates and stone built walls. The uppermost slates measured 0.7x0.6x0.05m and were considerably more substantial than the base slates. The walls were constructed from round stones with an average size of 0.2x.0.15x0.15m. They were placed to produce a single skin with mostly 3 courses and no mortar (Plate 08).

4.2.7 Field 7

A 50x4m length of topsoil strip was completed at the SW side of this field. The topsoil was mid-brown silty clay with moderate sub-rounded stones and cobbles. Under this was a yellow/orange sandy clay with frequent sub-rounded stones and cobbles. There were frequent sandy gravel patches within this material (Plate 09). In the remaining 250m of this field the 'V' ditch was excavated from ground level (Plate 10). Occasionally it was necessary for a small strip either side of the ditch to be reduced to provide an anchor point for the lining material and the correct profile of ditch (Plate 11). Approximately halfway across this field is a slate topped culvert which the drainage ditch will empty into (Plate 12). This culvert was similar in size and construction to structure [007] found in field 6 but was, although still running, severely damaged from the movement of heavy plant across the scheme.

4.2.8 Field 8

A 4m wide topsoil strip was undertaken along the length of the scheme in this field. The topsoil was mid-brown silty clay with moderate sub-rounded stones and cobbles. Under this was yellow/orange sandy clay with frequent sub-rounded stones, cobbles and occasional boulders. There were frequent sandy gravel patches within this material. This is the natural geology within this area. No archaeological features were identified during the topsoil strip (Plate 13).

At the SW end of this field a 3x3m pit was excavated to find an existing pipe. There was no pipe, however, there was a slate topped culvert (Structure [006]) situated at a depth of approximately 2m. The culvert was orientated NW-SE and was constructed using 3 courses of bricks laid stretcher, single skinned and secured with mortar. The slate capping stones averaged 0.6x0.5x0.07m and had been secured to the brick walls using mortar. The culvert was approximately 1m breadth and 0.3m depth. Due to the culvert

still carrying water and it's depth below ground level further investigation was impossible (Plate 14).

4.3 Hedge Translocation/Planting.

A section of hedge plantation has still to be completed (Fields 1 to 4); the exact timetable is to be confirmed, but will be scheduled from September 2017. GAT will undertake a watching brief during these works and an additional report will be submitted on completion.

4.3.1 Field 5

A shallow semi-circular profile ditch was excavated to a maximum 0.4m depth along this field (approximately 280m) into which the existing hedge was translocated (Plate 15). The topsoil in this area consisted of a light brown silty clay with frequent stone inclusions and an average depth of 0.3m. This gave way to the natural geology, a yellow sandy clay with frequent stone, cobble and boulder inclusions.

Approximately 125m along the trench, from the NE boundary between Fields 4 & 5, a burnt pit [004] was uncovered at NGR SH62287225 (Plate 16; Figure 01 and Figure 10). The pit had a loose charcoal rich fill (005), (sample 01) and was packed with burnt stone that appeared to have shattered due to heat. The complete extent of the pit could not be established on the E side but it appeared to be circular with a diameter of 1.22m. The sides of the pit were steeply sloping with sharp breaks of slope the base of the pit was flat. There was some staining on the natural geology at the base of the pit which would suggest in situ burning (Plate 17).

4.3.2 Field 6

This field had mid-brown sandy clay topsoil with frequent stone inclusions and an average depth of 0.35m. The natural geology, where reached consisted of a yellow mottled sandy clay with frequent stones, cobbles and boulders. The ditch spanned the length of the field, a distance of approximately 280m. No archaeology was found in this field. (Plate 18).

4.3.3 Field 7

The natural geology in this field (approximately 300m length) was a lot sandier than elsewhere on the scheme, an orange/yellow clayey sand with some stones and frequent cobbles and gravel patches. Topsoil was as elsewhere, a mid-brown sandy clay with frequent stones and cobbles. No archaeology found.

4.3.4 Field 8

The topsoil in this area consisted of a mid-brown silty clay with moderate sub-rounded stones and cobbles. Under this was the natural geology, a yellow/orange sandy clay with frequent sub-rounded stones, cobbles and occasional boulders. There were frequent sandy gravel patches within this material. No archaeological features were uncovered. (Plate 19).

4.4 Construction of diverge & merge tapers for new access to Y Glyn Farm.

4.4.1 Field 4

In order to construct the diverge taper and area 50x4m (at its widest point) next to the existing carriageway construction was excavated to the natural geology which consisted of an orange sandy clay with gravel patches (Plate 20). No archaeology was found.

4.4.2 Field 5

The merge taper was also reduced to the natural geology which was a yellow sandy clay with moderate stones, cobbles and occasional boulders. No archaeology was found (Plate 21, Plate 22).

4.5 Installation of a new 600mm diameter pipe under the A55(T) for Stream 8.

4.5.1 Field 2

In order to install the new pipe under the A55(T) a large reception pit (10x6x3m) was excavated at the NE of field 2. In order for the excavator to be able to reach to the appropriate depth an area adjacent to this pit was reduced by 0.4m. The topsoil consisted of a mid-brown sandy clay with frequent stone and cobble inclusions, average depth 0.25m. The natural geology was a yellow sandy clay with frequent stones, cobbles and occasional boulders. No archaeology was uncovered in this area (Plate 23).

4.5.2 Field 9

Another pit measuring 6x4x0.72m was required in this field in order to install the pipe under the A55(T). The topsoil in this area consisted of a mid-brown silty clay with a moderate amount of stone inclusions, average depth 0.24m. This gave way to the natural geology which consisted of a yellow mottled sandy clay with frequent stone and cobble inclusions. No archaeology was found in this area (Plate 24).

4.6 Installation of a new 450mm diameter pipe across the field between the A55(T) and Roman Road just west of The Old School.

4.6.1 Field 1

In order to provide access for vehicles a topsoil strip was undertaken in this area and then covered with stone. The strip was approximately 90-100m in length, 3.5m wide and to a depth of 0.4m (Plate 25). No archaeology was noted within the stripped area.

A strip to the natural geology was undertaken along the route of the new pipe across this field. The strip was orientated NW-SE and was approximately 125m in length and 4m wide. Topsoil was a mid-brown silty clay with moderate stone and cobble inclusions, average depth 0.33m. The natural geology consisted of a yellow/orange/grey mottled sandy clay with frequent stone, cobbles and occasional boulders. No archaeology found (Plate 26).

4.7 The lining of Stream 8 downstream as far as the existing culvert, and installing weirs at the discharge outfall to reduce erosion.

4.7.1 Field 9

Stream 8 extended NW-SE alongside a mature hedge and had been backfilled by the site contractor during work to create a haul road (Plate 27) to provide access to install the new 600mm diameter pipe under the A55(T). The backfill was up cast from excavation work, that consisted of a mid-greyish brown silty clay mixed with moderate medium to large sub-angular stones (Plate 28) and building debris, such as, short lengths of timber, work gloves and slate gravel from the adjacent haul road. The excavation had an approximate depth of 0.5m and was dug out by a 360° excavator fitted with a toothless ditching bucket. The excavation did not extend beyond the depth or width of the up cast material and as such it was determined that monitoring this work was of no archaeological significance.

5 SUMMARY AND CONCLUSIONS

Gwynedd Archaeological Trust was commissioned by Ymgynghoriaeth Gwynedd Consultancy (YGC) to undertake an archaeological watching brief on works in advance of the proposed A55(T) Abergwyngregyn to Tai'r Meibion Improvement. The watching brief was conducted during intrusive groundworks associated with the advance works which were undertaken to improve network resilience to potential flooding. The watching brief identified a limited degree of archaeological activity within the remit of the site work associated with the advance works.

The earliest feature was a suspected prehistoric pit in Field 5, with a charcoal rich fill mixed with heat fractured stones. An environmental sample was recovered and it is recommended that the sample is submitted for post-excavation assessment and analysis, with a view to obtaining a radiocarbon date.

Slate culverts were identified in Fields 6 and 8 and were interpreted as evidence of land improvement works undertaken in the 19th century to help drain the fields of excess water and to make for more productive pastureland.

The archaeology identified during the watching brief helps to inform and improve the known archaeological record of this part of Gwynedd and has uncovered a possible prehistoric feature in an otherwise predominantly medieval and post-medieval landscape.

6 REFERENCES

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location of pit [004]
NGR SH62287225

Gwynedd Archaeological Trust

Figure 1: Scheme extent and the location of assets in proximity to the Advance Works

Scheme footprint

27 Heritage Asset with number

8 Field number

N

Date: 12/10/2016

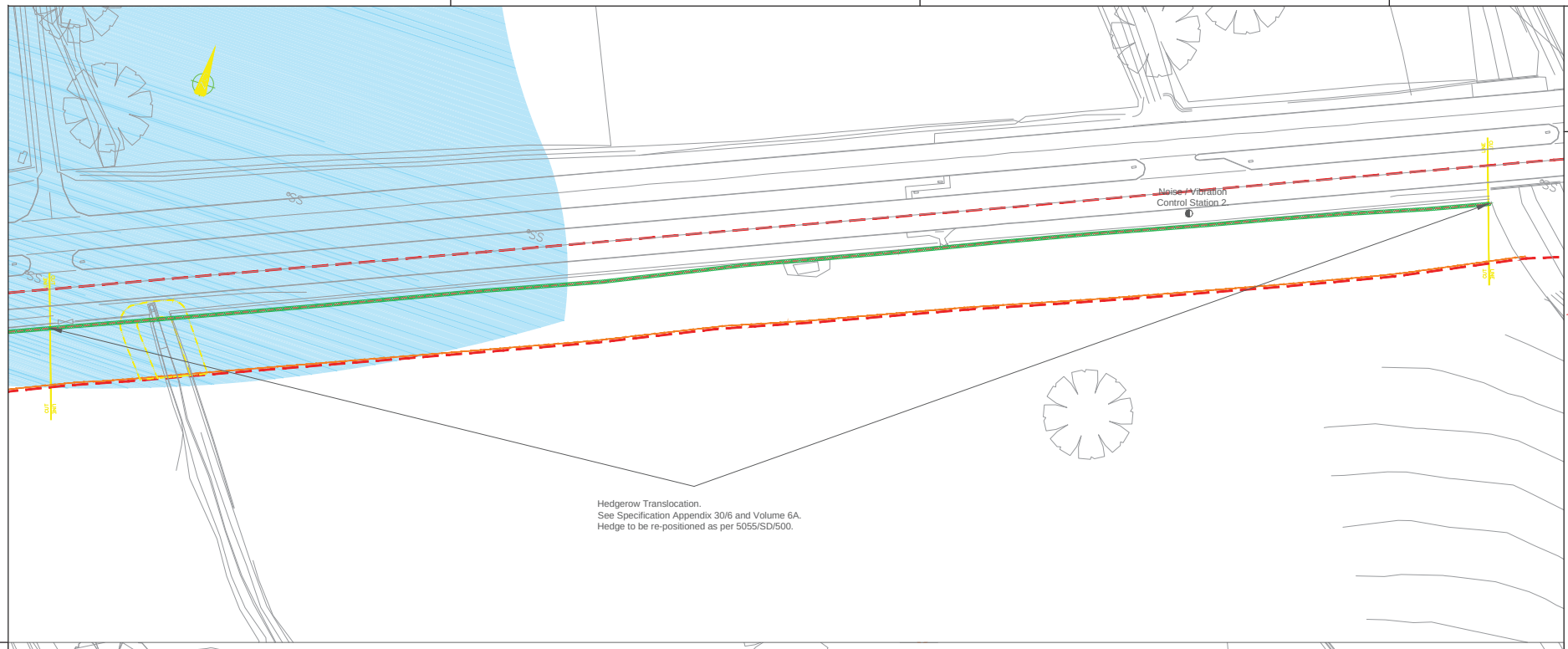
Author: NMC

Office:

Drawing: G2424/AWPD/F01/R2

Scale: 1:10,000@A3

0 100 200 400 metres



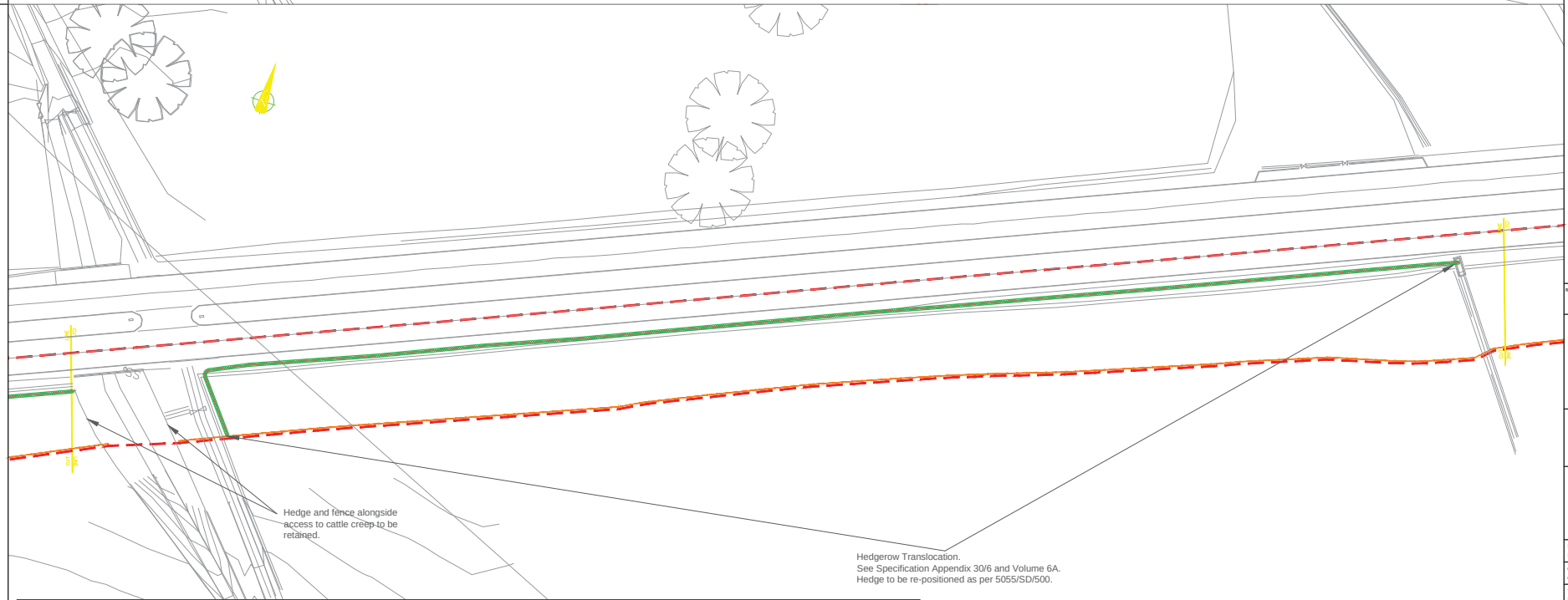


Figure 2: Scope of Advance Works detail plan, plan 1 of 8 (after YGC drawing 5055/GA/501)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Hedgerow Translocation. Existing Fence to be taken down and disposed off site. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- Existing Trees to remain.
- Existing Trees to be felled.
- Fluvial floodplain

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE

YGC Ffyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
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Rhif Lluniad
Drawing No. 5055/GA/501

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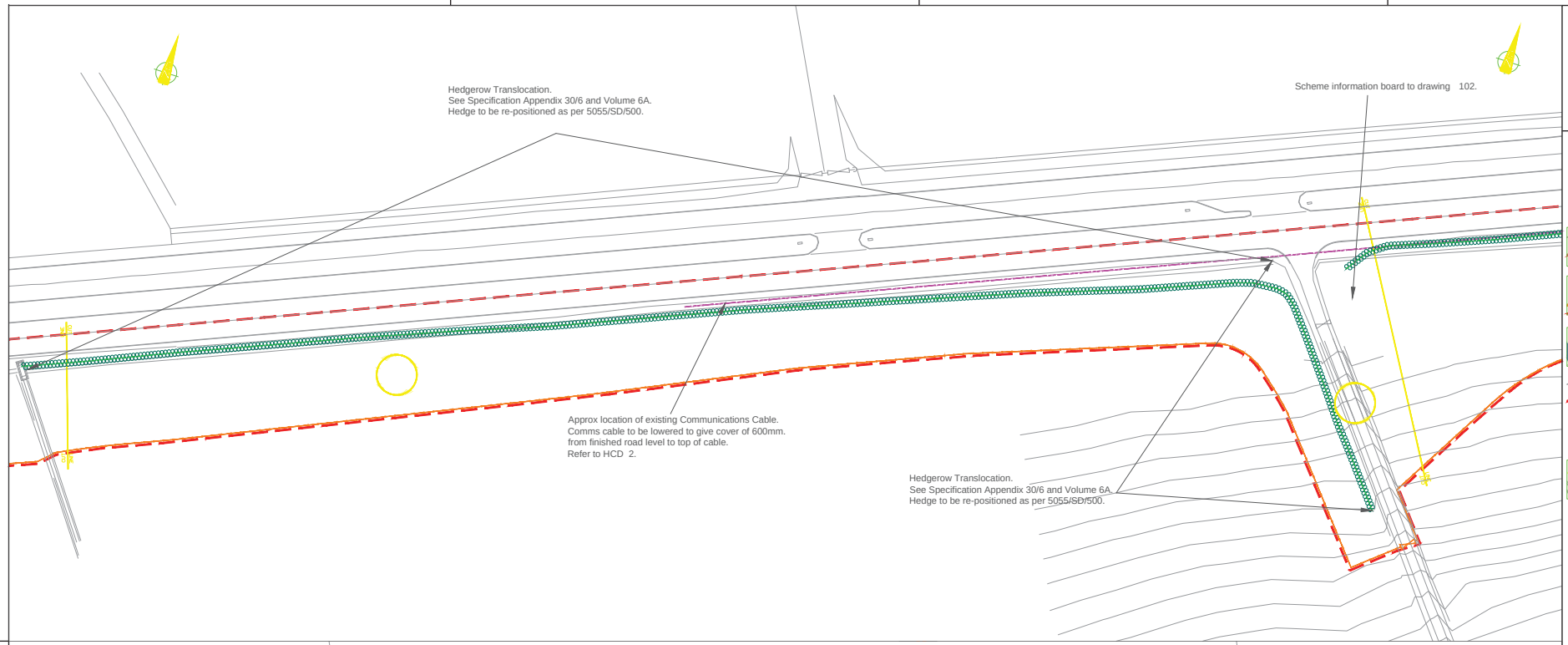

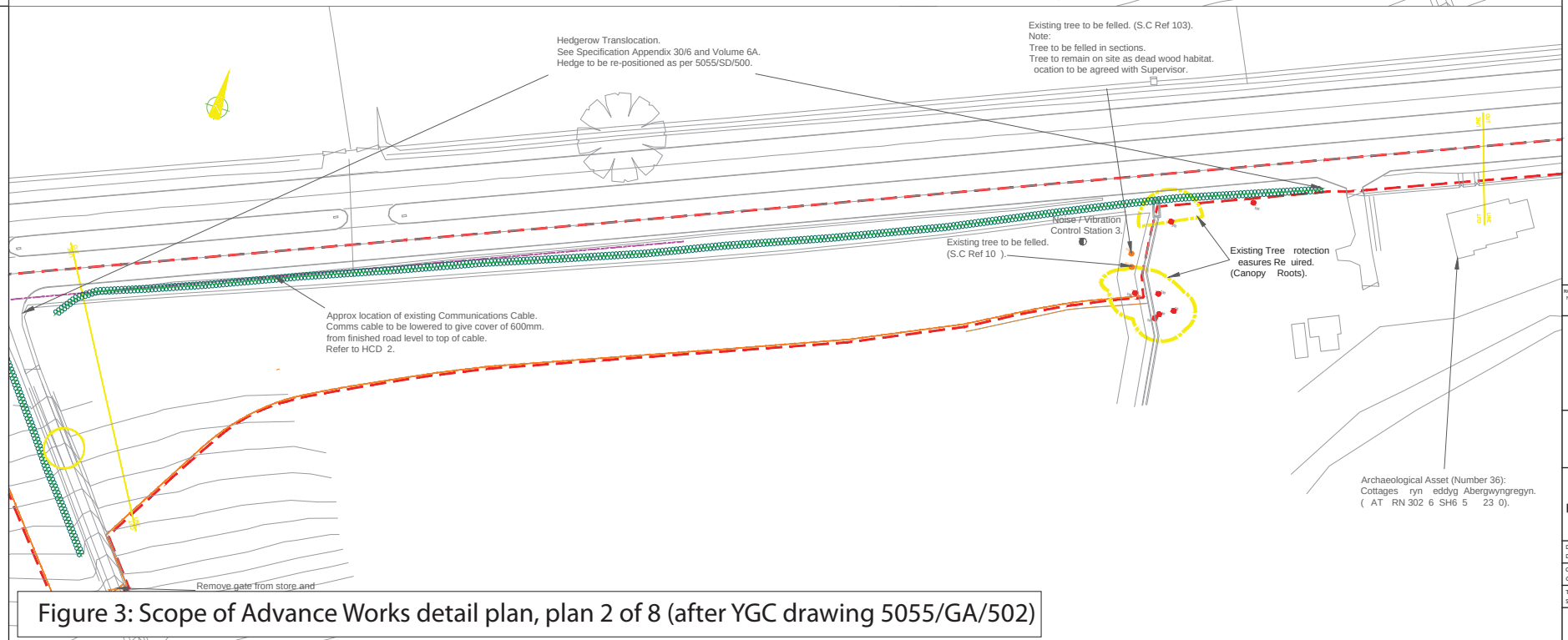

Figure 3: Scope of Advance Works detail plan, plan 2 of 8 (after YGC drawing 5055/GA/502)

CLIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Existing Hedge Taken and Timber Fence to be taken down and disposed off site.
- Existing Trees to remain.
- Existing Trees to be felled.
- Tree rotection easures Re uired.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
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Rhif Lluniad Drawing No. 5055/GA/502

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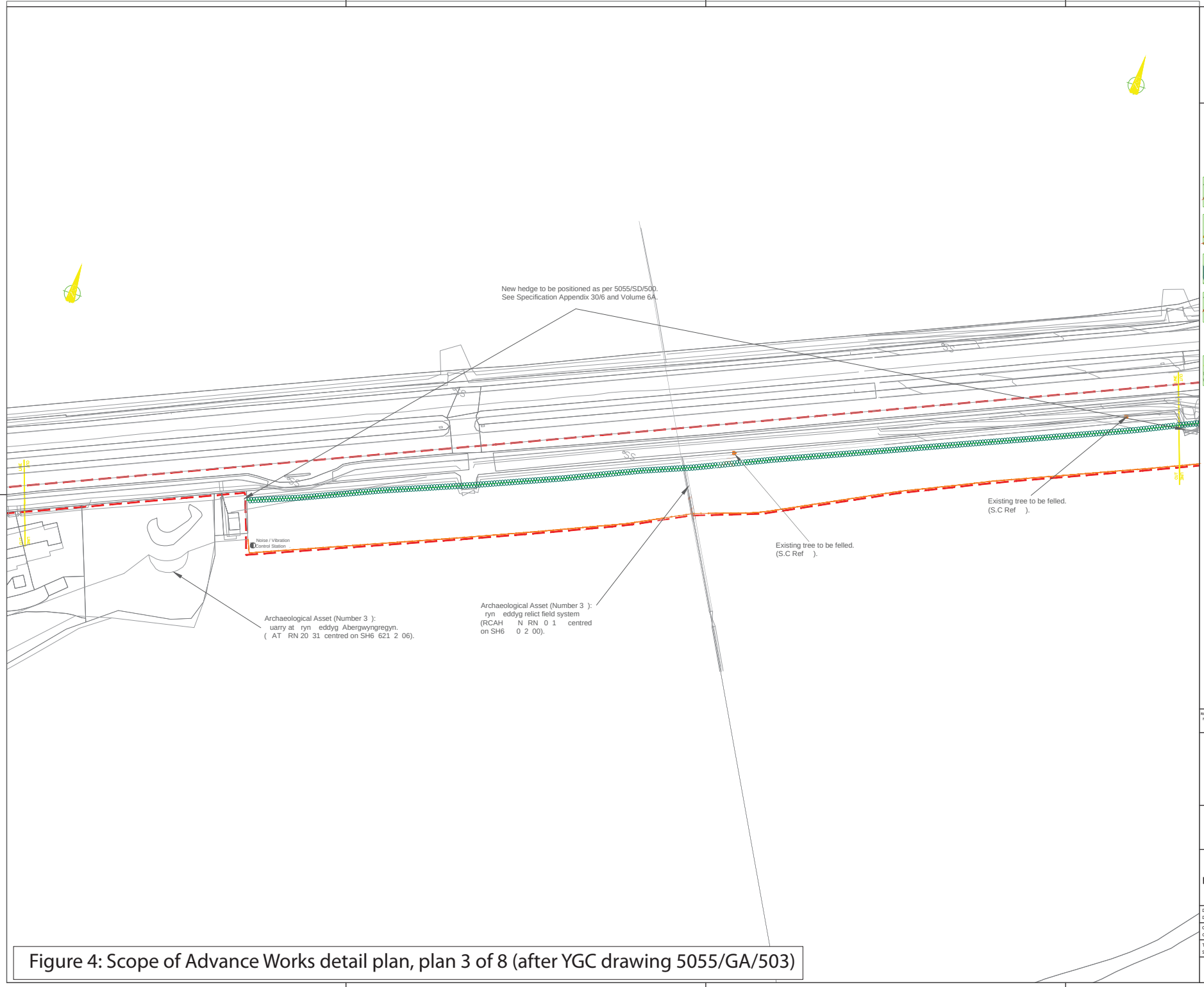

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Existing Hedge Taken and Timber Fence to be taken down and disposed off site.
- Existing Trees to remain.
- Existing Trees to be felled.
- Tree rotection easures Re uired.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHKD

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
Taflen Sheet	1 of 1	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad Drawing No. 5055/GA/503

CYWI REV

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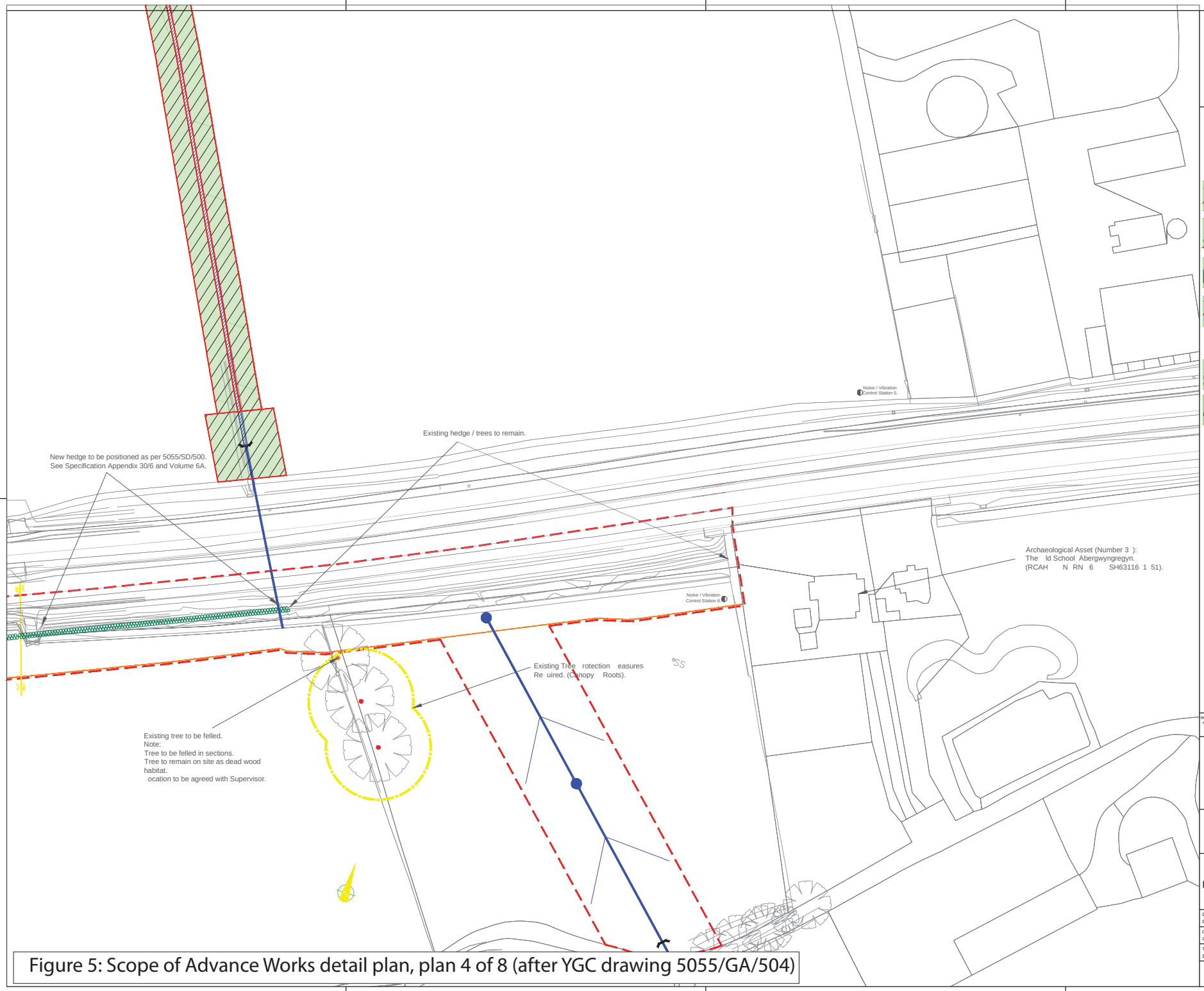
Figure 4: Scope of Advance Works detail plan, plan 3 of 8 (after YGC drawing 5055/GA/503)



CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Existing Hedge Taken and Timber Fence to be taken down and disposed off site.
- Existing Trees to remain.
- Existing Trees to be felled.
- Tree rotection easures Re uired.
- Area A

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

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GWIRIWYD GAN : CHECKED BY : A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED : 12/08/2016
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Figure 5: Scope of Advance Works detail plan, plan 4 of 8 (after YGC drawing 5055/GA/504)

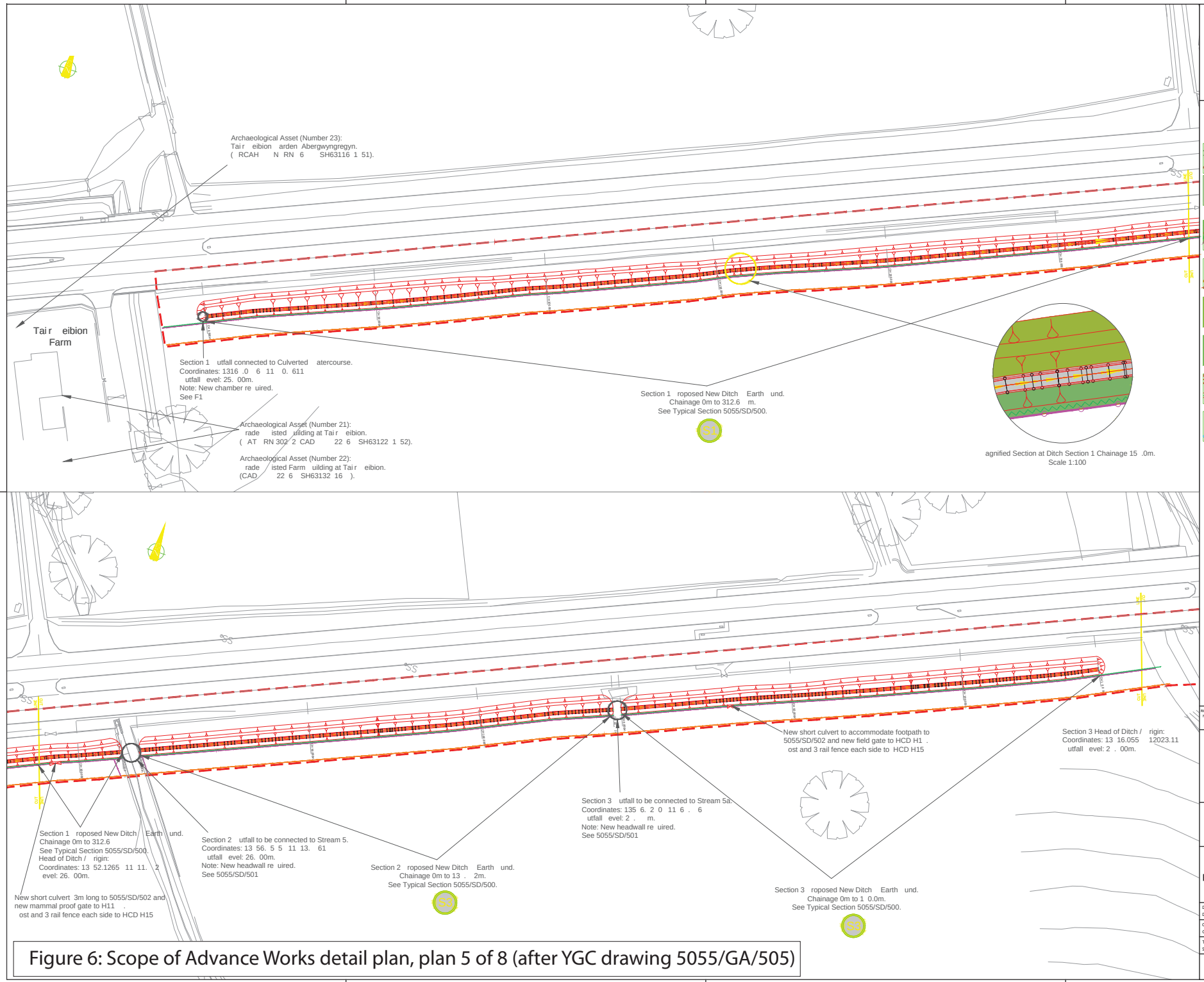

Figure 6: Scope of Advance Works detail plan, plan 5 of 8 (after YGC drawing 5055/GA/505)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- roposed New Ditch Section Reference. See 5055/SD/500 for Details.
- roposed New 1.2m high woven wire fence to drawing H102C with C / 0/15 netting but with barbed wire at base.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Environmental rass ix A. Refer to Specification Appendix 30/5.
- Environmental rass ix . Refer to Specification Appendix 30/5.
- Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- 1.5m High stock proof fence consisting of 2 rows of plain wire heavy duty sheep netting secured to roadside face of fence as per 5055/SD/500.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN DRWY BY	DYDDIAD DATE
		CYNGOR GWYNEDD COUNCIL	

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
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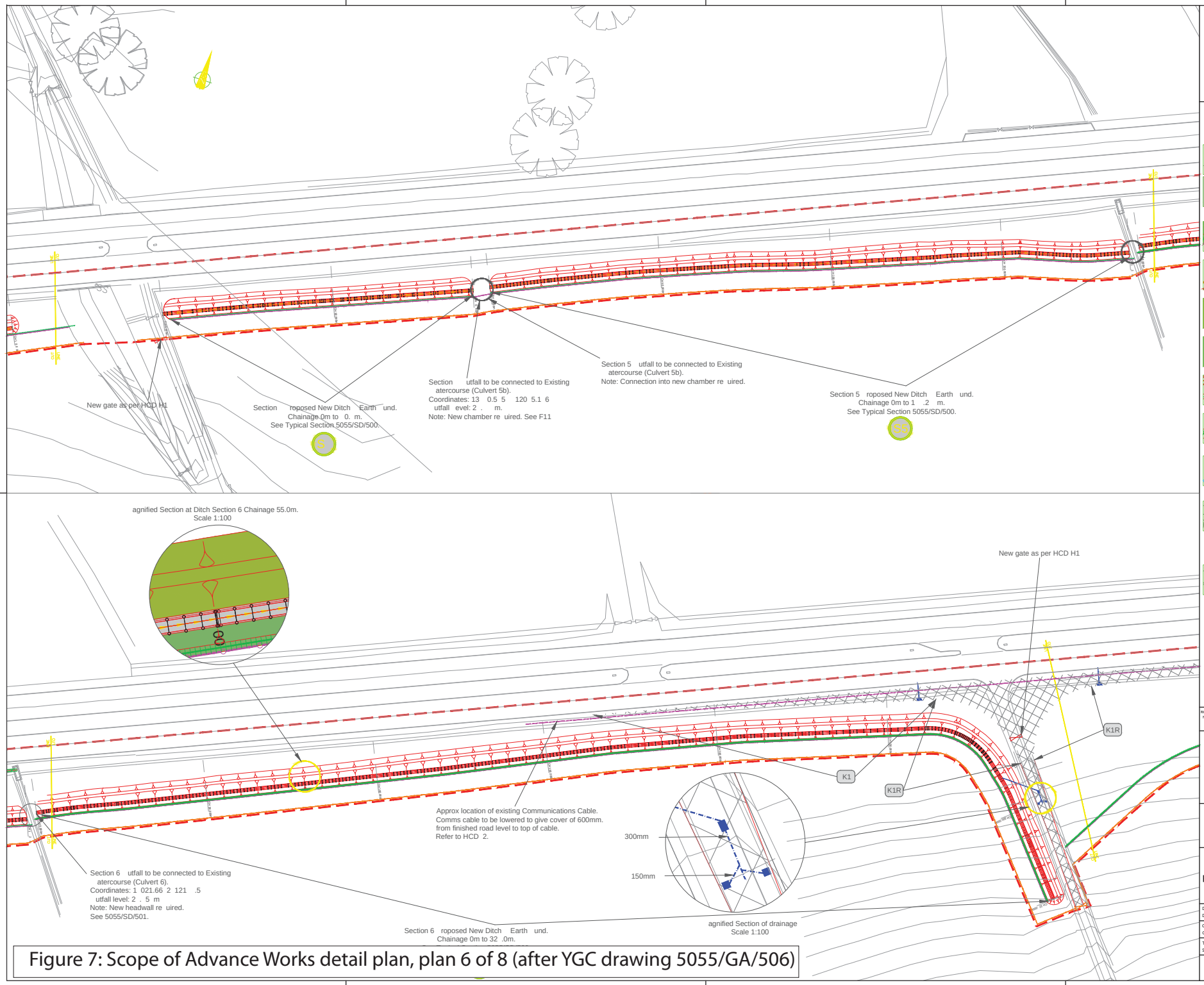

Figure 7: Scope of Advance Works detail plan, plan 6 of 8 (after YGC drawing 5055/GA/506)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- roposed New Ditch Section Reference. See 5055/SD/500 for Details.
- roposed New 1.2m high woven wire fence to drawing H102C with C / 0/15 netting but with barbed wire at base.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Environmental rass ix A. Refer to Specification Appendix 30/5.
- Environmental rass ix . Refer to Specification Appendix 30/5.
- Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- New Hedgerow. See Specification Appendix 30/6 and Volume 6A.
- 1.5m High stock proof fence consisting of 2 rows of plain wire heavy duty sheep netting secured to roadside face of fence as per 5055/SD/500.
- Full Carriageway Construction:
  5mm thick AC 1 C surf 100/150 (min SV 55)
  60mm AC 20 dense bin 100/150
  100mm AC 32 dense base 100/150
  200mm Type 1 sub base
  ond coat to S 5
- Drainage:
  roposed New ullies and Drainage.
  ullies 1 2: 150mm dia connection to new 300mm dia. pipe. Type detail concrete surround.
  Double ullies 3 : Temporary 150mm. dia Connection to Existing Highway Filter Drain. Type detail concrete surround.
  ipe Diameter: 300mm dia. as per HCD F1 Type F .
  New anhole as per HCD F Type 2 Chamber.
  All ullies as per HCD F13.
- K1 roposed New Type A Kerbs. See SD/ 103.
- K1R roposed New Type A radius Kerbs. See SD/ 103.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN DRAWN	DYDDIAD DATE	GWIRIWYD CHECKED

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
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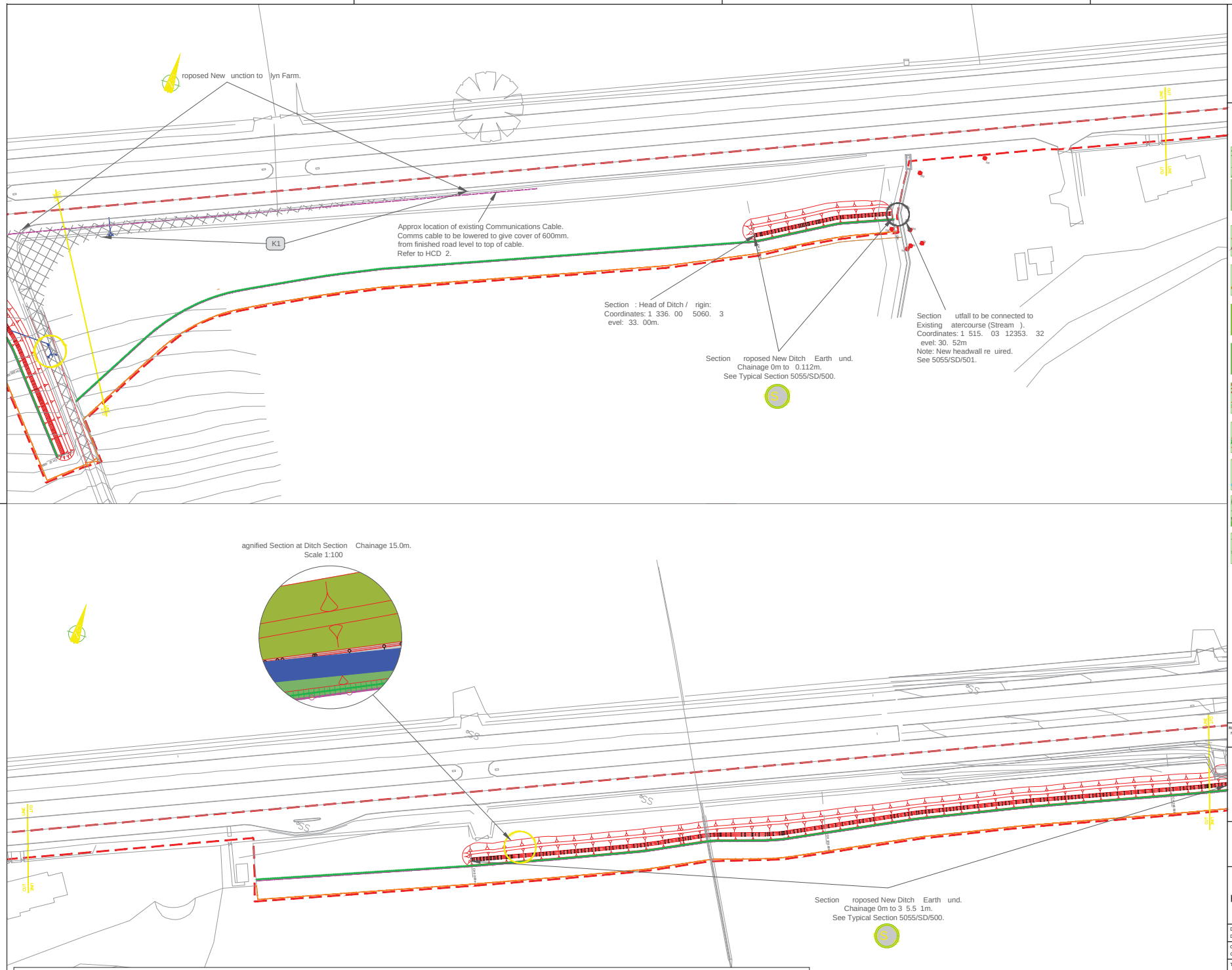

CLIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- roposed New Ditch Section Reference. See 5055/SD/500 for Details.
- roposed New 1.2m high woven wire fence to drawing H102C with C / 0/15 netting but with barbed wire at base.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Environmental rass ix A. Refer to Specification Appendix 30/5.
- Environmental rass ix . Refer to Specification Appendix 30/5.
- Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- New Hedgerow. See Specification Appendix 30/6 and Volume 6A.
- 1.5m High stock proof fence consisting of 2 rows of plain wire heavy duty sheep netting secured to roadside face of fence as per 5055/SD/500.
- Full Carriageway Construction as Specification Appendix /1.
- Drainage:
  roposed New ullies and Drainage.
  ullies 1 2: 150mm dia connection to new 300mm dia. pipe. Type detail concrete surround.
  Double ullies 3 : Temporary 150mm. dia Connection to Existing Highway Filter Drain. Type detail concrete surround.
  ipe Diameter: 300mm dia. as per HCD F1 Type F .
  New chamber as per Detail F11 C.
  All ullies as per HCD F13.

K1 roposed New Type A Kerbs. See SD/ 103.

K1R roposed New Type A radius Kerbs. See SD/ 103.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN DRAWN	DYDDIAD DATE	GWIRIWYD CHECKED

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
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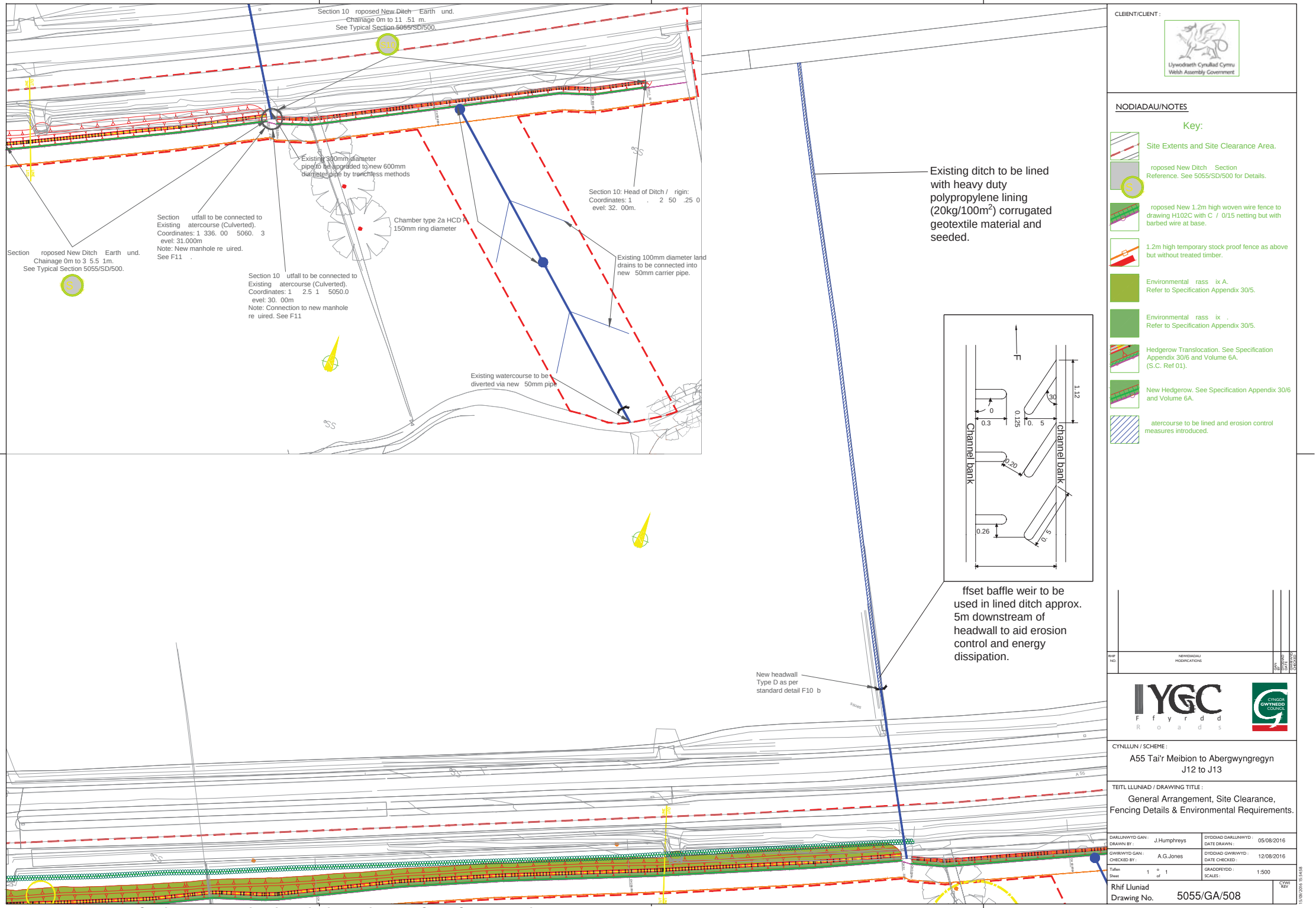
Figure 8: Scope of Advance Works detail plan, plan 7 of 8 (after YGC drawing 5055/GA/507)



CLIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- roposed New Ditch Section Reference. See 5055/SD/500 for Details.
- roposed New 1.2m high woven wire fence to drawing H102C with C / 0/15 netting but with barbed wire at base.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Environmental rass ix A. Refer to Specification Appendix 30/5.
- Environmental rass ix . Refer to Specification Appendix 30/5.
- Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- New Hedgerow. See Specification Appendix 30/6 and Volume 6A.
- atercourse to be lined and erosion control measures introduced.

RHIF NO. | NEWIDIADAU MODIFICATIONS | GAN BY | DYDDIAD DATE | GWIRIWYD CHECKED

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	J.Humphreys	DYDDIAD DARLUNWYD : DATE DRAWN :	05/08/2016
GWIRIWYD GAN : CHECKED BY :	A.G.Jones	DYDDIAD GWIRIWYD : DATE CHECKED :	12/08/2016
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Rhif Lluniad Drawing No. 5055/GA/508

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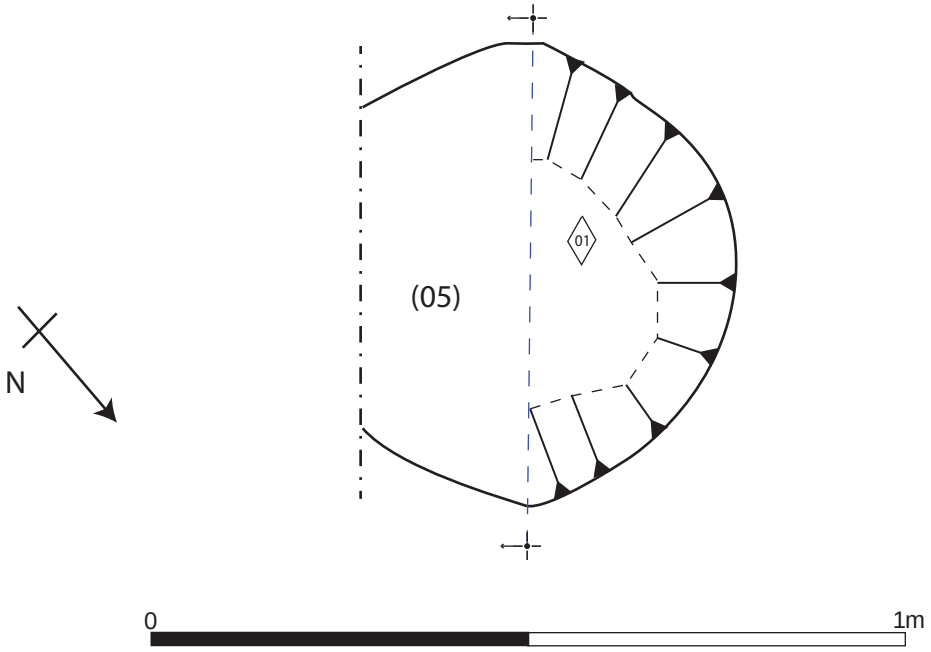
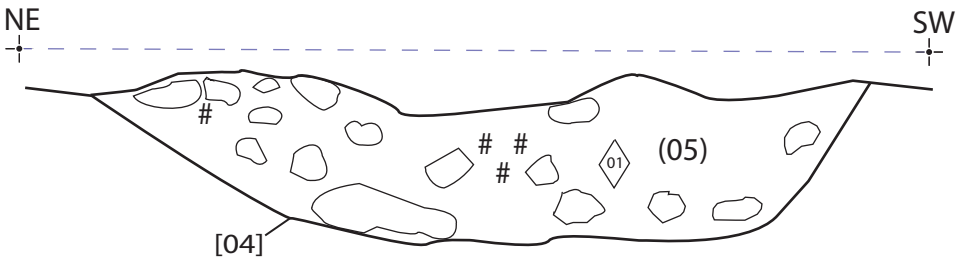
Figure 9: Scope of Advance Works detail plan, plan 8 of 8 (after YGC drawing 5055/GA/508)

Plan of Pit [04]
Scale 1:20@A4



NW Facing section through Pit [04]
Scale 1:10@A4



wynedd Archaeological Trust

Figure 10: Field 5
Plan and section through pit [04]

Charcoal
Stone
01 Sample number and location

25/05/201
AT
2 2
1:20 / 1:10 A

Plate 01: Drainage channel in Field 1. View from SW. Scale 1x1m. (G2424_WB_2017_058).

Plate 02: Drainage channel in Field 2. View from NE. Scale 1x1m. (G2424_WB_2017_056).

Plate 03: Drainage channel in Field 3. View from SW. Scale 1x1m. (G2424_WB_2017_057).

Plate 04: Drainage channel in Field 4. View from SW. Scale 1x1m. (G2424_WB_2017_055).

Plate 05: Drainage channel in Field 4. View from SW. Scale 1x1m. (G2424_WB_2017_062).

Plate 06: Drainage channel in Field 6. View from SW. No Scale. (G2424_WB_2017_053).

Plate 07: Drainage channel, pit and existing drainage in field 6. View from SW. Scale 1x1m. (G2424_WB_2017_066).

Plate 08: Slate topped culvert [007] in Field 6. View from N. Scale 1x1m. (G2424_WB_2017_067).

Plate 09: Topsoil strip in Field 7. View from NE. Scale 1x1m. (G2424_WB_2017_032).

Plate 10: Drainage channel in Field 7. View from SW. Scale 1x1m. (G2424_WB_2017_050).

Plate 11: Reduced sides along side the drainage channel in field 7. View from NE. Scale 1x1m. (G2424_WB_2017_051).

Plate 12: Existing culvert in Field 7. View from NW. Scale 1x1m. (G2424_WB_2017_052).

Plate 13: Topsoil strip in field 8. View from NE. Scale 1x1m. (G2424_WB_2017_031).

Plate 14: Slate topped culvert [06] in Field 8. View from SW. No Scale. (G2424_WB_2017_028).

Plate 15: Ditch for hedge translocation in Field 5. View from NE. Scale 1x1m. (G2424_WB_2017_027).

Plate 16: Burnt pit [04] in Field 5. View from NE. Scale 1x1m. (G2424_WB_2017_015).

Plate 17: NW facing section of burnt pit [04]. View from NW. Scale 1x1m. (G2424_WB_2017_016).

Plate 18: Ditch for translocation of hedge in Field 6. View from SW. Scale 1x1m. (G2424_WB_2017_025).

Plate 19: Drainage channel in Field 8. View from NE. Scale 1x1m. (G2424_WB_2017_022).

Plate 20: Strip to natural for diverge taper. View from SW. Scale 1x1m. (G2424_WB_2017_018).

Plate 21: Strip to natural for merge taper. View from NE. Scale 1x1m. (G2424_WB_2017_019).

Plate 22: Strip to natural for merge taper. View from NW. Scale 1x1m. (G2424_WB_2017_020).

Plate 23: Reception pit in Field 2. View from S. No Scale. (G2424_WB_2017_061).

Plate 24: Excavation of reception pit in Field 9. View from the W. Scale 1x1m. (G2424_WB_2017_065).

Plate 25: Topsoil strip for access road in Field 1. View from S. Scale 1x1m (G2424_WB_2017_035).

Plate 26: Strip in advance of 450mm pipe in Field 1. View from NW. Scale 1x1m (G2424_WB_2017_044).

Plate 27: Haul road in Field 9 and filled in Stream 8. Scale 1x1m (G2424_WB_2017_069).

Plate 28: SSE face of upcast material being excavated for Stream 8. Scale 1x1m (G2424_WB_2017_071).

APPENDIX I

Approved project design

A55(T) ABERGWYNGREGYN TO TAI'R MEIBION IMPROVEMENT ADVANCE WORKS

PROJECT DESIGN FOR AN ARCHAEOLOGICAL WATCHING BRIEF (G2424)

Prepared for

Ymgynghoriaeth Gwynedd Consultancy

November 2016

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

A55(T) ABERGWYNGREGYN TO TAI'R MEIBION IMPROVEMENT ADVANCE WORKS: PROJECT DESIGN FOR AN ARCHAEOLOGICAL WATCHING BRIEF (G2424)

Prepared for *Ymgynghoriaeth Gwynedd Consultancy*, October 2016.

CONTENTS

Approvals Table				
	Role	**Printed Name**	**Signature**	**Date**
Originated by	Document Author	NEILL GLENNS	N. McG	24/10/16
Reviewed by	Document Reviewer	JOHN ROBERTS		24/10/16
Approved by	Principal Archaeologist	JOHN ROBERTS		24/10/16

Revision History			
Rev No.	**Summary of Changes**	**Ref Section**	**Purpose of Issue**
1	Amended text to clarify that there is a possibilty that an interim report may be required before production of a final report. Clarified that 50% excavation sampling stategy is a minmum .Corrected typos and ommissions and clarified poorly worded methodology sections	3.3, 3.4,3.5, 4 throughout	Requested by GAPS
	Changed proposed start date for works, added Jones Bros as appointed contractor, added aditional work to stream 8 to scope of works . Corrected typos and ommissions	1, 3 throughout	Requested by YGC

All GAT staff should sign their copy to confirm the project specification is read and understood and retain a copy of the specification for the duration of their involvement with the project. On completion, the specification should be retained with the project archive:

Name	**Signature**	**Date**

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was asked by Ymgynghoriaeth Gwynedd Consultancy (YGC) to prepare a Project Design for an Archaeological Watching Brief on works in advance of the proposed A55(T) road upgrade. The A55(T) road upgrade extends for 2.2km between Junctions 12 (NGR SH62977173) and 13 (NGR SH65067263) (Figure 01). Advance Works will start on Monday 14th November 2016 and should be completed by Friday 24th March 2017.

The watching brief will be conducted during all intrusive groundworks associated with Advance Works which are to be undertaken to improve network resilience to potential flooding (Appendix I). The Advance Works will comprise:

- the excavation of a drainage channel ditch and construction of an earth bund along the south side of the A55(T);
- site clearance necessary for that work;
- the provision of new fencing between the east side of the Tai'r Meibion cattle creep and the eastern end of the scheme at the boundary with The Old School, Abergwyngregyn;
- translocating/planting a new hedge along this same length;
- the construction of the diverge and merge tapers for the new access to Glyn Farm (but not construction of the link to Bryn Meddyg), associated drainage, kerbing and a strip of carriageway construction to link it with the existing carriageway;
- the installation of a new 600mm diameter pipe under the A55(T) for Stream 8;
- the installation of a new 450mm diameter pipe across the field between the A55(T) and Roman Road just west of The Old School, Abergwyngregyn, tying in to the pipe for Stream 8; and
- the lining of Stream 8 downstream for approximately 200m as far as the existing culvert under the main access track to the farm's fields, and installing weirs at the discharge outfall to reduce erosion.

Any specification for future archaeological works resulting from this watching brief and all subsequent future reporting must be approved by Gwynedd Archaeological Planning Service (GAPS) and all proposed archaeological works monitored by GAPS.

GAPS (2016, pers. comm.) have stated that archaeological mitigation for the Advance Works should consist of:

- An archaeological watching brief on all stages of the works involving ground disturbance with initial observations determining whether attendance is required for the duration of all intrusive groundworks during each stage; subject to agreement with GAPS.

The archaeological watching brief will conform to the guidelines specified in *Standards and Guidance for an archaeological watching brief* (Chartered Institute for Archaeologists, 2014).

2 PROJECT BACKGROUND

The following sections are taken from GAT Report 1258, A55 (T) Abergwyngregyn to Tai'r Meibion Improvement Desk Based Assessment Report (McNichol 2015).

2.1 Archaeological Background

2.1.1 Prehistoric and Roman (up to 400 AD)

Evidence of prehistoric activity within the coastal strip is provided mainly by stray finds from the fields. A Bronze Age axe was found at Wig Farm (GAT PRN 6811), while a Bronze Age stone axe hammer from College Farm, Abergwyngregyn (GAT PRN 4071), and a Bronze Age burial urn at Pen-y-Bryn, immediately to the east of Abergwyngregyn (GAT PRN 4079), have also been found. Systematic study of the Aber valley, immediately to the southeast of the study area has produced many prehistoric and later remains (GAT 2001), whilst east of Abergwyngregyn a 'burnt mound' has been located (GAT 1994). There is significant evidence for prehistoric activity in the uplands with several cairns of Bronze Age type on the hill-tops and ridges as well as remains of settlements and fields. The remains of potentially prehistoric and / or medieval fields, Coed Bryn Meddyg Relict Field System (RCAHMW NPRN 408179) lie within the study area in fields to the south of the A55 carriageway between Bryn Meddyg and the Old School, Abergwyngregyn.

During the Roman period a major road between Segontium (Caernarfon) and Canovium (Caerhun) in the Conwy valley ran very close to the study area (GAT PRN 17,568). The course of this road is known to the east of Abergwyngregyn at Madryn Farm, where a Roman milestone has been discovered (GAT PRN 638). The exact line of the road within the study area cannot be clearly identified, although based on the location of known milestones it probably ran to the south of the study area (GAT 2005, 6-8). A Roman coin has been recovered from Abergwyngregyn parish (GAT PRN 4073), while a possible Roman fortlet has been identified at Tal-y-Bont, 2km west of the study area (GAT PRNs 2454 and 2465).

2.1.2 Medieval (400 AD – 1485 AD)

In the early medieval period the centralised control of Roman administration broke down into territorial divisions known as cantrefi (hundreds), which were subdivided into commotes. Abergwyngregyn was the commotal centre of Arllechwedd Uchaf and one of

the seats of the Princes of Gwynedd, and thus important as a regional centre of power. The court, or llys, may have been located at or near the site of the motte (GAT PRN 370), or closer to the present Pen-y bryn, on the east side of Abergwyngregyn (Johnstone 2000). The earliest settlement at Aber is probably indicated by the site of St. Bodfan's church on a rise in ground to the west of the village. The original church was demolished and rebuilt but it lies within a sub-circular enclosure or llan. Such features usually indicate an early medieval foundation, and the earliest ecclesiastical settlement would have developed around the church.

It was control of the crossing point at the junction of the coastal road and another taking the upland route through the valleys that was the key to Aber's importance and the reason why a small castle on a mound or motte was built there, possibly during a campaign by the Norman Earl of Chester during an unsuccessful attempt to subjugate Gwynedd between 1081-1090. Later, when Gruffudd ap Cynan reasserted the independence of Gwynedd and established administrative control he made Aber the llys or court of the commote of Arllechwedd Uchaf. The hall that was built there became one of the favourite residences of the princes of Gwynedd. The valley was a sheltered place and its position facing the priory at Penmon may also have made it attractive. The earliest antiquarian description was by Leland in the 1530's who stated 'The moode in the parish of Aber otherwise Llan Boduan, wher Tussog Lluelin uab Gerwerd Trundoon had a castle or palace on a hill by the church, whereof yet parte stondith'. Excavations in 1993 revealed the foundations of a hall close to the castle mound of Ty'n y Mwd, associated with pottery of the 13th-15th century, a ring-brooch of 13th-14th century style and a coin dating to 1335-43 (Johnstone 1994, 1995, 1997, and 2000; Longley 1997).

The hall of the llys lay close to the motte and within a curvilinear enclosure believed to be the bailey or castle yard. The village grew up around the west side of this bailey enclosure. In the late 13th century 24 families were recorded as living there (Lewis 1912, 175). Elements of the Coed Bryn Meddyg Relict Field System (RCAHMW NPRN 408179), located to the SW of the current village, may be related to the once thriving medieval settlement at Aber. After the death of Llywelyn the Manor of Aber passed through various hands and although still maintained for some time the hall eventually fell into decay. However, the village continued and in 1339 was granted the right to hold a weekly market and a fair three times a year (ibid). It seems to have flourished because of its position on the crossroads at the junction of the valley and coastal road and the route from the coastal road across the Lavan Sands for the ferry across to Anglesey, which was the chief route across the Straits until the opening of Telford's bridge in 1826. This route was also a

droving route, which took the valley road over the hills and may have therefore been associated with the Aber fairs.

Aber is also of significance owing to it having been at the focus of the traditional routes from Anglesey across the Lafan Sands, the mainland to the west and the Conwy valley across the hills to the east.

There was also a medieval settlement at Wig (GAT PRN 6811) which is referred to in medieval extents and grants. It was a bond township of two gafaelion. The medieval township may have contained more than one settlement, but it is likely that at least one of these lay on or near the present Wig, which lies 100m north of the proposed improvements. An area of earthworks survives at Wig Farm which could be medieval in date and if this is the case could form part of a documented medieval settlement of regional importance.

2.1.3 Post-medieval and later (1485 AD to the present day)

During the post-medieval period there appears to have been dispersed settlement along the fertile coastal strip east of Abergwyngregyn. The survival of estate maps and plans for this area is extremely limited (Johnstone 1995, 16). A 1693 survey of the sea coast of England [including Wales] shows roads crossing the Lavan Sands, with no detail of the fields in the coastal strip (Collins 1693). A plan of the New Road of Penmaenmawr dated to 1769 (UCNWB Penrhyn 198) showing the proposed new turnpike route between Conwy and Bangor, shows a pattern of irregular small fields on the coastal strip, although it does not show any detail or the location of any structures with the exception of the old bridge at Aber. A survey of the glebe land at Aber parish dated to 1776 shows four irregular shaped fields, three of which appear to have been under cultivation and one pasture on the coastal strip immediately north of Aber on the west side of the river (Gwynedd Archives XPE/56/106), and also indicated that the surrounding land was the property of the Baron Hill estate. The earliest reasonably detailed depiction of the wider area is provided by the John Evans map of 1797, which shows buildings scattered across the coastal strip by Abergwyngregyn. The more accurate 1 inch OS depiction, completed by 1823, shows a scatter of buildings on either side of the main road and linked to it by a series of smaller roads or tracks. In 1839 the Bangor to Conwy road was improved in Abergwyngregyn with a new road and bridge built north of the village itself, effectively bypassing it (UCNWB Baron Hill MSS 6895). The Llanllechid tithe map of 1839 and the Abergwyngregyn tithe map of 1848 (Gwynedd Archives) only shows the boundaries

between different land blocks, rather than the individual fields themselves. A railway plan of c.1840 shows that the area was divided into numerous small fields of irregular size and shape, which could date back to early times.

The principal 19th century landowners in the study area were the Bulkeley and Pennant families, the former having gained control of the manor in 1689, who at some time between 1848 and 1896 reorganised the coastal strip into a landscape of rectilinear fields. This resulted in the loss of many of the small roads and buildings shown on earlier maps. This field pattern has survived with only limited alteration until the present day. The Bulkeley family remained the main proprietors of the manor until 1863 when they sold off their Caernarfonshire lands and Abergwyngregyn holdings to the Penrhyn estate in whose holding it remained until into the 20th century (Evans 2003).

Improvements were carried out at Wig Farm and Wig Bach cottages in the early years of the 20th century (UCNWB Baron Hill MSS 6608, Penrhyn MSS 14), and Wig Bach cottage was demolished in 2011.

2.1.4 Desk based assessment

A heritage desk based assessment for the scheme was carried out by GAT in 2015. (McNichol, 2015: GAT Report 1258). **Seven** heritage assets are located within or close to the area affected by the Advance Works (Figure 1).

Four historic building assets will **not** be directly physically affected by the Advance Works:

- Asset Number 21, Grade II Listed Building at Tai’r-meibion (GAT PRN 30282; CADW LB 22968; SH6312271752)
- Asset Number 22, Grade II Listed Farm Buildings at Tai'r-meibion (CADW LB 22969; SH6313271694
- Asset Number 36, Cottages, Bryn Meddyg, Abergwyngregyn (GAT PRN 30286; SH6458772390); and
- Asset Number 39, The Old School, Abergwyngregyn (RCAHMW NPRN 41152; SH 6511972609).

Two archaeological assets will **not** be directly physically affected by the Advance Works:

- Asset Number 23, Tai’r-meibion garden, Abergwyngregyn (RCAHMW NPRN 86479; SH6311671751);

- Asset number 37, Quarry at Bryn Meddyg (GAT PRN 20831; centred on SH6462172406).

One archaeological asset identified within the assessment **may potentially** be directly physically affected by the Advance Works:

- Asset Number 38, Coed Bryn Meddyg relict field system (RCAHMW NPRN 408179; centred on SH6479072400).

3 METHODOLOGY

3.1 Watching Brief

The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

An archaeological watching brief can be divided into four categories:

- comprehensive (present during all ground disturbance);
- intensive (present during sensitive ground disturbance);
- intermittent (viewing areas of ground disturbance after machining); or
- partial (as and when seems appropriate).

An initial **comprehensive** watching brief has been requested by GAPS for all stages of the Advance Works involving ground disturbance (2016, pers. comm.). Initial observations will determine whether attendance is required for the duration of all intrusive groundworks during each stage; subject to agreement with GAPS.

The watching brief will entail the observation by a GAT archaeologist all non-archaeological excavation and intrusive groundworks within the footprint of the Advance Works, as far as the glacial horizon or engineering horizon (whichever is encountered first). The elements of the Advance Works to be monitored during the watching brief are:

- the excavation of a drainage channel and associated bund along the south side of the A55(T) (Figure 7; Figure 8; Figure 9; Figure 10);
- site clearance necessary for that work (Figure 7; Figure 8; Figure 9; Figure 10);
- the provision of new fencing between the east side of the Tai'r Meibion cattle creep and the eastern end of the scheme at the boundary with The Old School (Figure 2; Figure 3; Figure 4; Figure 5; Figure 6);
- translocating/planting a new hedge along this same length (Figure2; Figure 3; Figure 4; Figure 5; Figure 6);

- the construction of the diverge and merge tapers for the new access to Y Glyn Farm (but not construction of the link to Bryn Meddyg), associated drainage, kerbing and a strip of carriageway construction to link it with the existing carriageway (Figure 8; Figure 9);
- the installation of a new 600mm diameter pipe under the A55(T) for Stream 8 (Figure 6; Figure 10);
- the installation of a new 450mm diameter pipe across the field between the A55(T) and Roman Road just west of The Old School, tying in to the pipe for Stream 8 (Figure 6; Figure 10); and
- the lining of Stream 8 downstream for approximately 200m as far as the existing culvert under the main access track to the farm's fields, and installing weirs at the discharge outfall to reduce erosion (Figure 10).

The scope of the archaeological monitoring of any works additional to those outlined above are subject to approval by GAPS and may require the production of a updated or separate project design.

The watching brief will undertaken by one suitably qualified and experienced GAT archaeologist and will be monitored by the GAT project manager. The project manager will be responsible for reviewing the fieldwork report.

The Advance Works will be undertaken by Jones Bros Civil Engineering UK who will supply all plant and welfare facilities.

The Advance Works are scheduled to begin on Monday 14th November 2016 and due to be completed by Friday 24th March 2017. Additional time and costs may be required if complex activity and stratigraphy is encountered.

Much of the proposed Advance Works will take place on the northern periphery of Asset Number 38, Coed Bryn Meddyg Relict Field System (RCAHMW NPRN 408179; centred on NGR SH6479072400; Figure 1). Asset Number 38 consists of a series of earthworks and terraces associated with likely prehistoric and / or medieval fields located in the fields to the south of the A55 between The Old School, Aber and Bryn Meddyg. A written and photographic record will be made of any visible earthworks associated with the field system that will be affected by the Advance Works during the course of the watching brief, prior to commencement of any works in the vicinity. A measured survey of any affected

components will also be conducted. A drawn record (in the form of a scaled, hand drawn section) will also be made during the watching brief if the Advance Works reveal any earthworks in section. Depending on the depth of excavation resulting from the Advance Works, if affected earthworks are observed to seal and preserve a palaeosol underneath, the palaeosol will be sampled for organic material suitable for dating purposes.

The monitoring of the Advance Works is to be undertaken in a manner that allows for the immediate cessation of development for the recording of archaeological evidence.

3.2 Basic watching brief methodological procedures

- All attendances and identified features will be recorded using GAT watching brief pro-formas (Appendix II; Appendix III)
- Photographic images will be taken using a digital SLR (Nikon D40) camera set to maximum resolution (3008 × 2000 6.1 effective megapixels) in RAW format and will be converted to TIFF and JPEG format for archiving using Adobe Photoshop; a photographic record will maintained on site using GAT pro-formas (Appendix IV) and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process;
- Any subsurface remains will be recorded photographically, with detailed notations and a measured survey.
- All archaeological features/deposits encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent features. If any discrete features such as pits, postholes or ditches are encountered, the following will apply: a minimum of 50% sample of each sub-circular feature, and a minimum 10% sample of each linear feature. However, any discrete features may be 100% excavated if required. Any large-scale or more detailed excavation required will be detailed in an appropriate **Further Archaeological Works Design** (Sec 3.6).
- All sections to be drawn at a minimum 1:10 scale. This will include the profiles/sections of any earthworks truncated or removed during the course of the Advance Works. Sections will be drawn on GAT pro-forma permatrace.
- All plans to be at a minimum 1:20 scale. Plans will be drawn on GAT pro-forma permatrace.
- Should dateable artefacts, ecofacts or human remains be recovered, an interim report may be submitted summarising the results, along with an assessment of potential for analysis specification (in line with the MAP2 process).

3.3 Environmental Sampling (Ecofacts)

It is possible that potential sources of ecofacts will be identified during the course of the watching brief on the Advance Works. Samples of any deposits deemed suitable for dating will be taken from sealed contexts, with bulk samples from ditches and pit fills proposed as not less than 10 litres from each context. The sampling strategy will be undertaken in accordance with the principles set out in Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage, 2011). Recourse will be made to relevant specialists for paleo-environmental analysis and dating. Any required specialists will be consulted during the watching brief to advise GAT on a sampling strategy.

If ecofacts suitable for further analysis are recovered during the watching brief, following the completion of the watching brief an interim report may be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope for analysis and assessment of any ecofacts recovered from the site. A final report incorporating the results of the ecofact assessment, and any other specialist post-excavation analyses required, will subsequently be produced once all post-excavation analyses have been completed.

3.4 Human Remains

It is not currently expected that human remains will be encountered during the course of the watching brief on the Advance Works; however, if applicable, should any human remains be encountered, they will be left in-situ, covered and protected, and both the coroner and the GAPS Archaeologist informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a Ministry of Justice licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains need to be investigated or moved.

If human remains are recovered that are deemed suitable for further assessment/analysis, this will be completed in accordance with Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports (Historic England, 2004). This will include the appointment of a Project Osteologist, as recommended by the guidelines. This will be an external appointment using a non-GAT specialist. Based on their feedback during the course of the fieldwork, proposals for further assessment and/or analysis may be made in a further archaeological works design.

If human remains requiring further specialist analysis are encountered during the course of the watching brief, following the completion of the watching brief an interim report may be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope for analysis and assessment of any human remains recovered from the site. A final report incorporating the results of the assessment and analysis of human remains, and any other specialist post-excavation analyses required, will subsequently be produced once all post-excavation analyses have been completed.

3.5 Small Finds

Any diagnostic artefacts recovered during the watching brief on the Advance Works will be treated according to guidelines issued by the UK Institute of Conservation (Leigh and Watkinson, 2001) in particular the advice provided within *First Aid for Finds* (Leigh and Watkinson, 1998) and Historic England (2015). Pottery sherds of 19th and 20th century date will be examined on site and the context from which they were retrieved noted but the sherds will not be retained.

If diagnostic artefacts suitable for further analysis are recovered during the watching brief, following the completion of the watching brief an interim report may be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope for analysis and assessment of any diagnostic artefacts recovered from the site. A final report incorporating the results of the assessment and analysis of diagnostic artefacts, and any other specialist post-excavation analyses required, will subsequently be produced once all post-excavation analyses have been completed.

All finds are the property of the landowner; however, it is Trust policy to recommend that all finds are donated to an appropriate museum, in this case *Bangor Museum*. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown, on whose behalf the National Museums and Galleries of Wales acts as advisor on technical matters, and may be the recipient body for the objects.

The National Museums and Galleries of Wales will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

GAT will contact the landowner for agreement regarding the transfer of any artefacts, initially to GAT and subsequently to the relevant museum (Bangor Museum). A GAT produced pro-forma will be issued to the landowner where they are given the option to donate the finds or to record that they want them returning to them once analysis and assessment has been completed. If artefacts are transferred to Bangor Museum, this must be in accordance with the Bangor Museum guidelines.

3.6 Further Archaeological Works

The identification of significant archaeological features during the watching brief on the Advance Works may necessitate the production of a new project specification and the submission of new cost estimates to the contractor.

The application of a Further Archaeological Works Design (FAWD) will be dependent on the initial identification, interpretation and examination of an archaeological feature and the identification of activity that cannot be addressed within the provisions of the current design, e.g. structures. The requirement for an FAWD will be determined in conjunction with GAPS through established communication lines and the monitoring process.

The FAWD will be instigated through a GAT produced document that will include:

- feature specific methodologies;
- artefact specialist requirements, with detail of appropriate specialist analysis;
- timings, staffing and resourcing; and
- a summary of additional costs.

The FAWD document will need to be approved by GAPS before further archaeological works commence.

3.7 Monitoring Arrangements

The GAPS Archaeologist will need to be informed of the project start date and of the subsequent progress and findings. This will allow the GAPS Archaeologist time to arrange monitoring visits and attend site meetings (if required) and enable discussion about the need or otherwise for FAWDs (if required) as features of potential archaeological significance are encountered. The curator contact details are:

Jenny Emmett jenny.emmett@heneb.co.uk | 01248 370926

3.8 Fieldwork Archiving

Following the completion of the watching brief fieldwork, a programme of field work archiving will be completed based on following task list;

- Pro-formas: all cross referenced and complete;
- Photographic Metadata: completed in Microsoft Access and cross-referenced with all pro-formas;
- Sections: all cross referenced and complete;
- Plans: all cross referenced and complete;
- Survey data: downloaded using a Computer Aided Design package imported into a GIS shapfile;
- Artefacts (if relevant): quantified and identified; register completed;
- Ecofacts (if relevant): quantified and register completed;
- Context register (if relevant): quantified and register completed

All data will be processed, final illustrations will be compiled and a report will be produced which will detail and synthesise the results. Location drawings and a sample of relevant photographs will be used to illustrate the reports.

4 REPORT

Following completion of the stages outlined above, a draft report will be produced within four weeks of completion of the watching brief. The report will incorporate the following:

1. Non-technical summary
2. Introduction
3. Background
4. Methods and techniques, including details and location of project archive
5. Watching Brief Results
6. Summary and conclusions
7. List of sources consulted.
8. Appendix I – approved project design

Illustrations will include plans of the location of the study area and archaeological sites and features identified. Historical maps, when appropriate and if copyright permissions allow, will be included. Photographs of relevant sites and of the study area where appropriate will be included. A draft copy of the report will be sent to the regional curatorial archaeologist (GAPS) and to the client for review. Once approved, a final report will be submitted.

If diagnostic artefacts, ecofacts or human remains requiring specialist analyses are recovered during the watching brief, an interim report may be submitted in the first instance, along with an assessment of potential summary. The interim report will summarise the results of the fieldwork and the assessment of potential summary will discuss the scope for the analysis and assessment for any artefacts, ecofacts, and human remains recovered from the site. A final report incorporating the results of the assessments and analyses of any diagnostic artefacts, ecofacts and human remains will subsequently be produced according to the structure set out above once all post-excavation analyses have been completed.

5 DISSEMINATION AND ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the watching brief will be prepared. The archaeological watching brief outlined in this project design will be completed during the Spring of 2017. A draft report or interim report (if relevant) will be submitted within a month of fieldwork completion; a final report, subject to GAPS and client approval, will be submitted to the Historic Environment Record within six months of submitting the draft report.

The following dissemination will apply:

1. A digital report will be provided to GAPS (draft report then final report).

2. A paper report plus a digital report will be provided to the regional Historic Environment Record, Gwynedd Archaeological Trust; this will be submitted within six months of report completion (final report only).

3. A digital report and archive (including photographic and drawn) data will be provided to Royal Commission on Ancient and Historic Monuments, Wales (final report only). Submission of digital information to the Royal Commission on the Ancient and Historical Monuments of Wales shall be undertaken in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata.

4. A digital report(s) plus paper report(s) (if requested) will be provided to the client (draft report then final report).

5. Artefacts recovered from the site during the watching brief will be transferred in accordance with the protocols and guideline defined in para. 3.5.

6. Dependent on the results of the watching brief, a summary note or a specific article will be included in the Council for British Archaeology Wales publication *Archaeology in Wales*. This shall be agreed with GAPS, and the client, in advance of publication along with all publication content. GAPS involvement in the project will be acknowledged therein.

5.1 Historic Environment Record

In line with the regional Historic Environment Record (HER) requirements, the HER must be contacted at the onset of the project to ensure that any data arising is formatted in a manner suitable for accession to the HER. At the onset, the HER Enquiry Form provided by the HER, will be completed and submitted.

6 PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and attended by one GAT Project Archaeologist. The project archaeologist will be responsible for completing the watching brief and all field management duties, e.g. liaison with GAPS and client. The project archaeologist will be responsible for completing all on site pro-formas (Appendix II; Appendix III; Appendix IV) and the fieldwork archive itemised in para. 3.8. The project archaeologist will also be responsible for submitting a draft final report (or interim report/assessment of potential document, if relevant) for project manager review and approval. The report will then be submitted as per the arrangements defined in Sec. 5.

7 HEALTH AND SAFETY

The GAT Project Archaeologist will be CSCS certified. Copies of the site specific risk assessment will be supplied to the client and site contractor prior to the start of fieldwork. Any risks and hazards will be indicated prior to the start of work via a submitted risk assessment. The GAT Project Archaeologist will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat. The GAT Project Archaeologist will also adhere to all Health and Safety requirements specified by the client during the course of the works.

8 INSURANCE

Public Liability

Limit of Indemnity- £5,000,000 any one event in respect of Public Liability

INSURER Aviva Insurance Limited
POLICY TYPE Public Liability
POLICY NUMBER 24765101 CHC/000405
EXPIRY DATE 22/06/2017

Employers Liability

Limit of Indemnity- £10,000,000 any one occurrence.

The cover has been issued on the insurers standard policy form and is subject to their usual terms and conditions. A copy of the policy wording is available on request.

INSURER Aviva Insurance Limited
POLICY TYPE Employers Liability
POLICY NUMBER 24765101 CHC/000405
EXPIRY DATE 22/06/2017

Professional Indemnity

Limit of Indemnity- £5,000,000 in respect of each and every claim

INSURER Hiscox Insurance Company Limited
POLICY TYPE Professional Indemnity
POLICY NUMBER
HU PI 9129989/1208
EXPIRY DATE 23/07/2017

9 REFERENCES

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2. English Heritage 1991 *Management of Archaeological Projects*.

3. English Heritage, 2011. *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*, 2nd Edition;

4. Evans, R. 2015. *Penrhyn Castle Renewable Heating Scheme Archaeological Assessment*. GAT Report 1286.

5. Historic England, 2004. Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports

6. Historic England, 2015. *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*

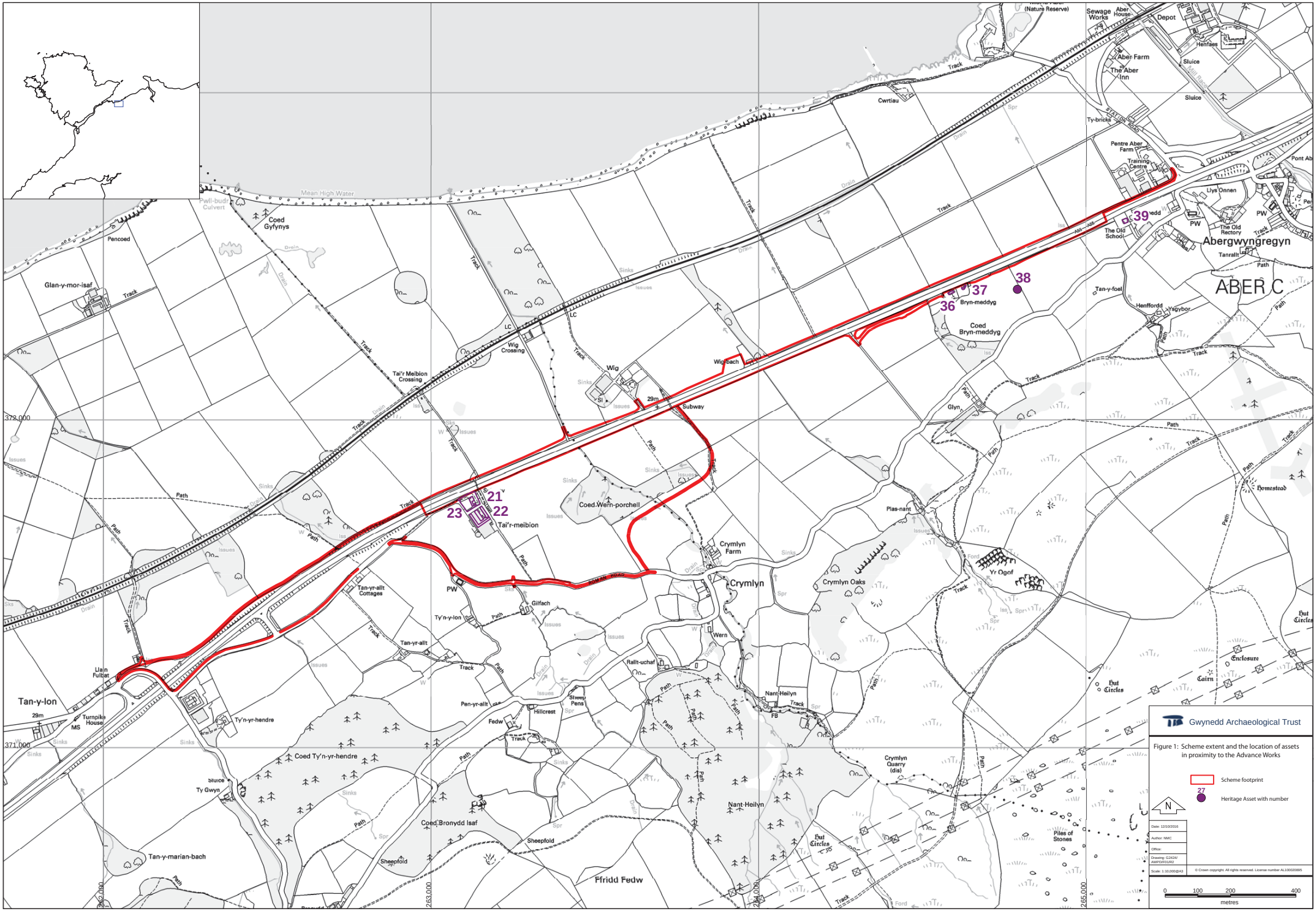
7. Leigh, D. and Watkinson, D. 1998. *First Aid for Finds: Practical Guide for Archaeologists*.

8. Leigh, D. and Watkinson, D. 2001. *UK Institute for Conservation: Excavated Artefacts and Conservation*.

9. McNichol D. 2015. *Abergwyngregyn to Tai'r Meibion Improvement: Desk Based Assessment Report*. GAT Report 1258

10. Royal Commission on Ancient and Historic Monuments of Wales. 2015. *Guidelines for digital archives*

10 FIGURES


Gwynedd Archaeological Trust
Figure 1: Scheme extent and the location of assets in proximity to the Advance Works
Scheme footprint
27
Heritage Asset with number
N
Date: 12/10/2016
Author: NMC
Office:
Drawing: G2424/AWPDF01/R2
Scale: 1:10,000@A3
© Crown copyright. All rights reserved. License number AL100020895
0 100 200 400
metres
21
22
23
36
37
38
39
Abergwyngregyn
ABER C
Crymlyn
Crymlyn Farm
Crymlyn Oaks
Crymlyn Quarry (dis)
Nant-Heilyn
Tan-y-lon
Ffridd Fedw
Coed Gyfynys
Coed Bryn-meddyg
Coed Wern-porchell
Coed Ty'n-yr-hendre
Coed Bronydd Isaf
Tai'r-meibion
Bryn-meddyg
Subway
Wig Crossing
Wigbach
Mean High Water
Sheepfold
Hut Circles
Enclosure
Cairn
Piles of Stones
Homestead
Depot
Sewage Works
Aber Farm
The Aber Inn
Pentre Aber Farm
Training Centre
The Old School
The Old Rectory
Llys Onnen
Tan-y-foel
Henffordd
Ysgybor
Plas-nant
Yr Ogof
Gilfach
Hillcrest
Rallt-uchaf
Tan-yr-allt Cottages
Tan-y-marian-bach
Llain Fulbat
Turnpike House
Ty Gwyn
Sheepfold
372,000
371,000
262,000
263,000
264,000
265,000

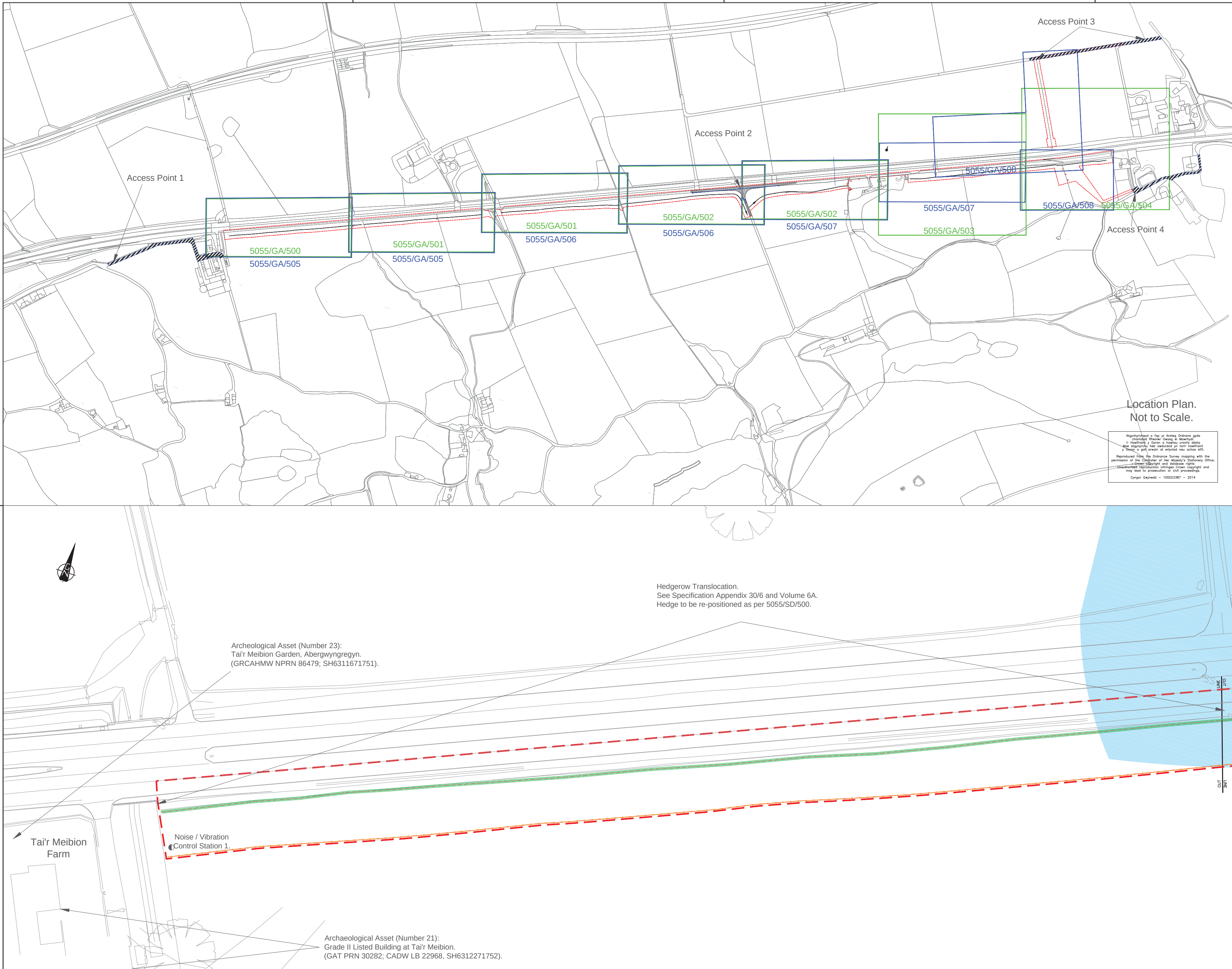


Figure 2: Index plan for Advance Works detail plans and Advance Works detail plan (after YGC drawing 055/GA/500/REVA)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence to drawing H102C with C8/80/15 netting but without barbed wire at the base and without treated timber.
- Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- Existing Trees to remain.
- Existing Trees to be felled.
- Fluvial floodplain

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED

YGC Ffyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

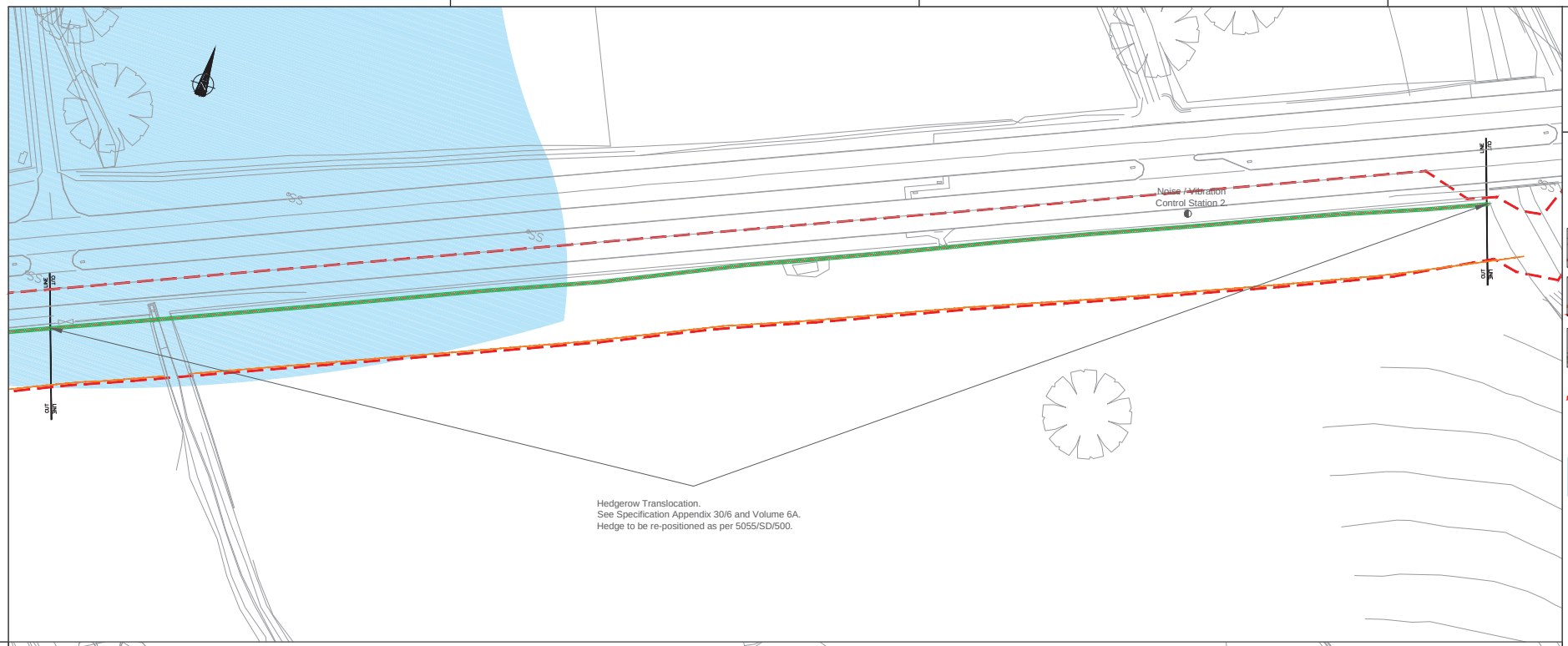
TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 o of 1	GRADDFEYDD : SCALES :	As Shown

Rhif Lluniad Drawing No. 5055/GA/500

CYWI REV A



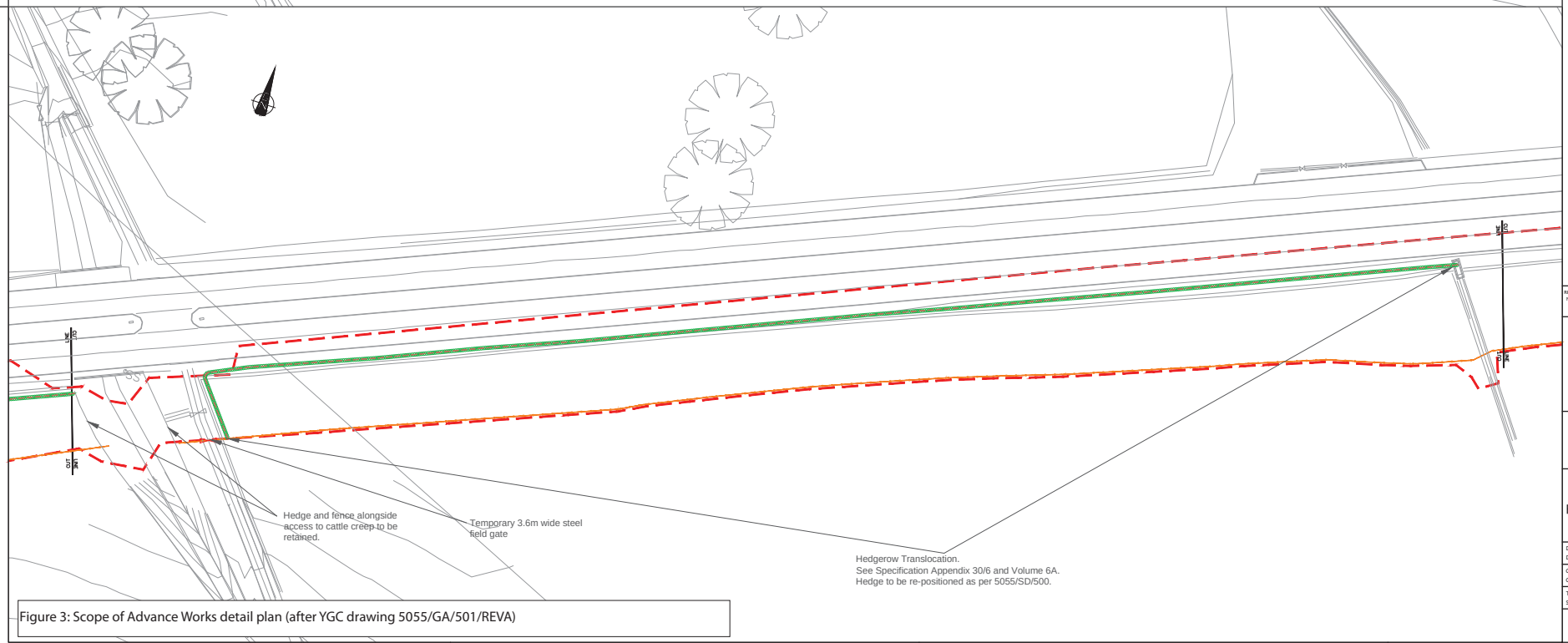


Figure 3: Scope of Advance Works detail plan (after YGC drawing 5055/GA/501/REVA)

CLIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence to drawing H102C with C8/80/15 netting but without barbed wire at the base and without treated timber.
- Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
- Existing Trees to remain.
- Existing Trees to be felled.
- Fluvial floodplain

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

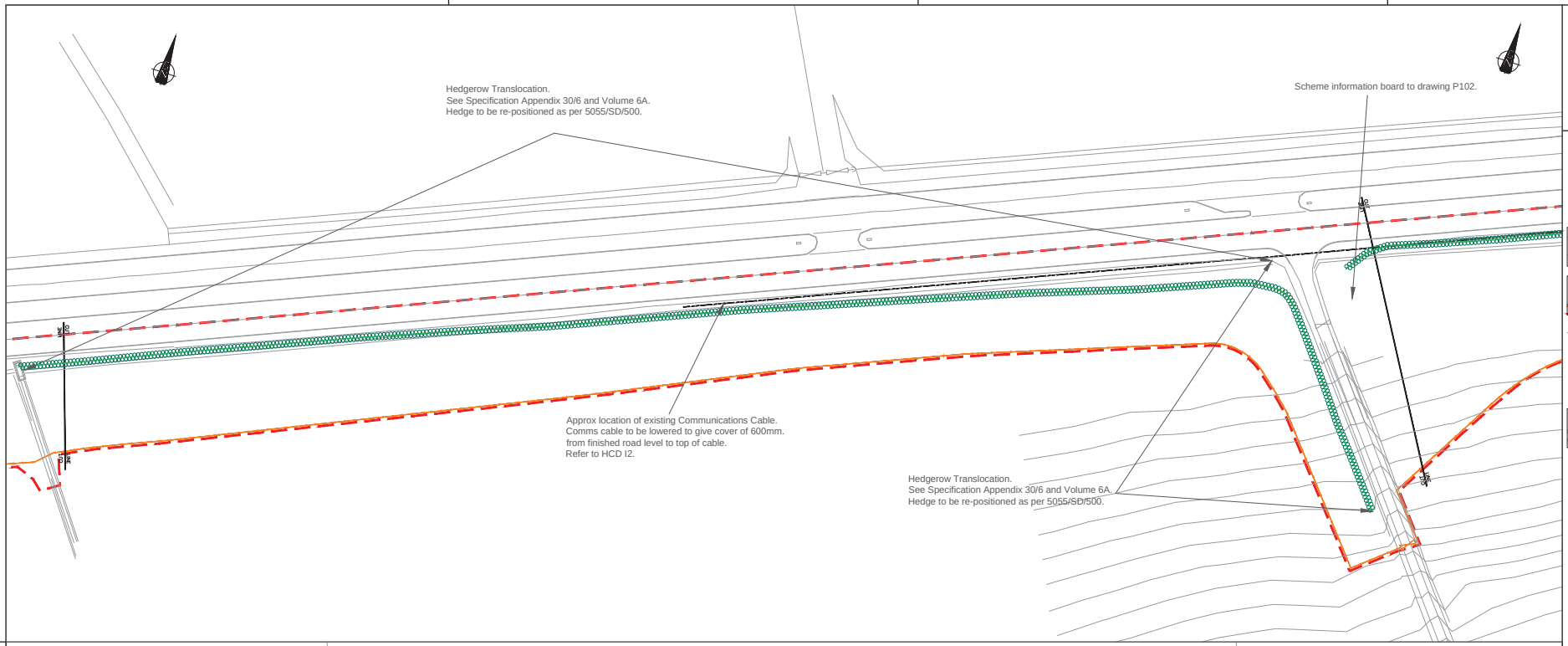
DARLUNWYD GAN : DRAWN BY : S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN : 21/09/2016
GWIRIWYD GAN : CHECKED BY : D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED : 21/09/2016
Taflen Sheet 1 o 1	GRADDFEYDD : SCALES : 1:500

Rhif Lluniad Drawing No. 5055/GA/501

CYMI REV A

\\YGC-DAT\PEDDGDVLIB$\SCHEMES\A55\WORKING\5055\CAD - COMPUTER DESIGN PROGRAMS\AUTOCAD\ADVANCED WORKS DWGS\5055_GA @ 1_500 T1_3.DWG

21/09/2016 13:18:17



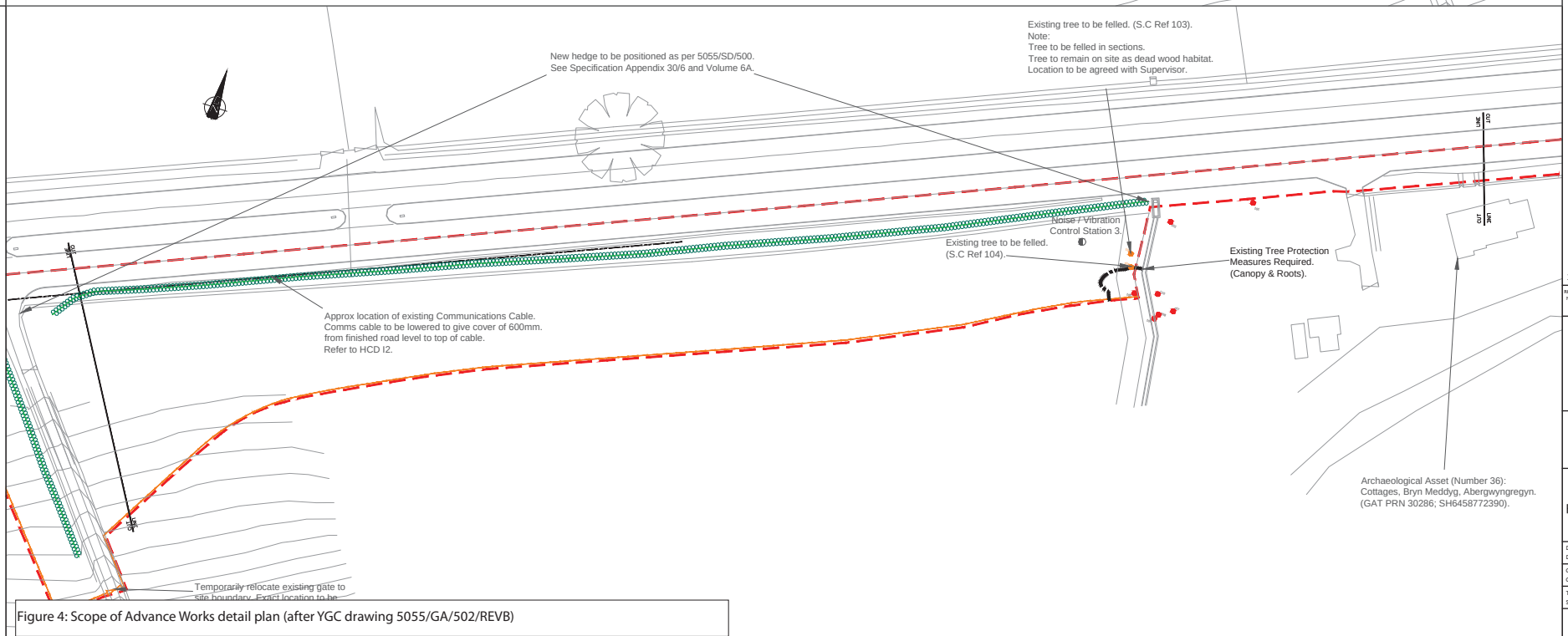


Figure 4: Scope of Advance Works detail plan (after YGC drawing 5055/GA/502/REVB)

CLIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence to drawing H102C with C8/80/15 netting but without barbed wire at the base and without treated timber.
- Existing Trees to remain.
- Existing Trees to be felled.
- Tree Protection Measures Required.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED
1	Note changed from hedge translocation to new hedge.	SW	23/09	CRJ

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 o 1 of	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad Drawing No. 5055/GA/502

CYM REV B

\\YGC-DAWTA\DATA\GDV\UKJP\ST5\DATA\WWW\ROOT\DEVDATA\CAD - COMPUTER DESIGN PROGRAMS\AUTOCAD\ADVANCED WORKS DWGS\5055_GA @ 1_500 T1_SHEAG

21/09/2016 11:23:11

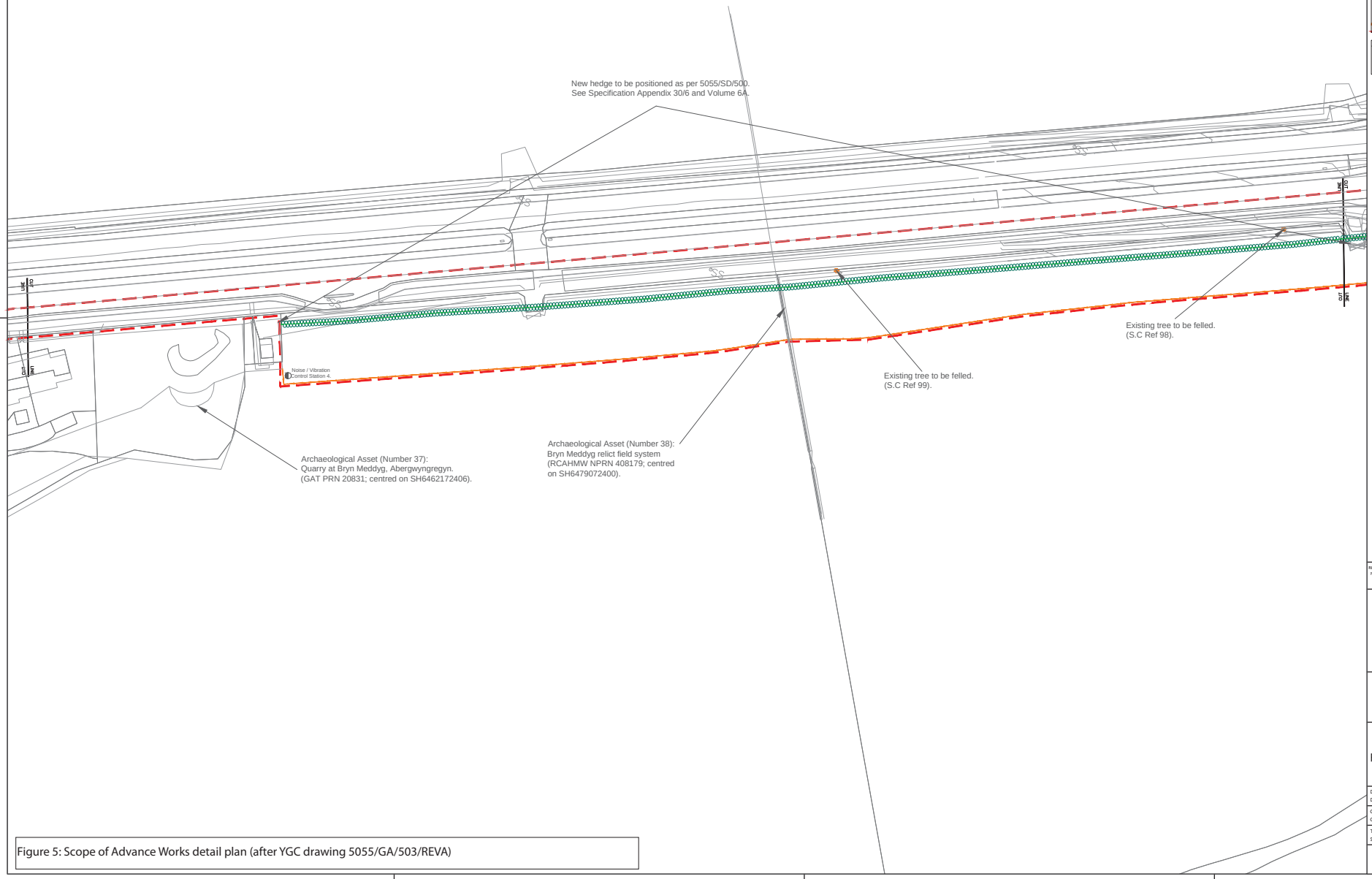


Figure 5: Scope of Advance Works detail plan (after YGC drawing 5055/GA/503/REVA)

CLIENT/CLIENT :

Llywodraeth Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence to drawing H102C with C8/80/15 netting but without barbed wire at the base and without treated timber.
- Existing Trees to remain.
- Existing Trees to be felled.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHKD

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 of 1	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad Drawing No. 5055/GA/503

CYM/ REV A

21/09/2016 15:43:37

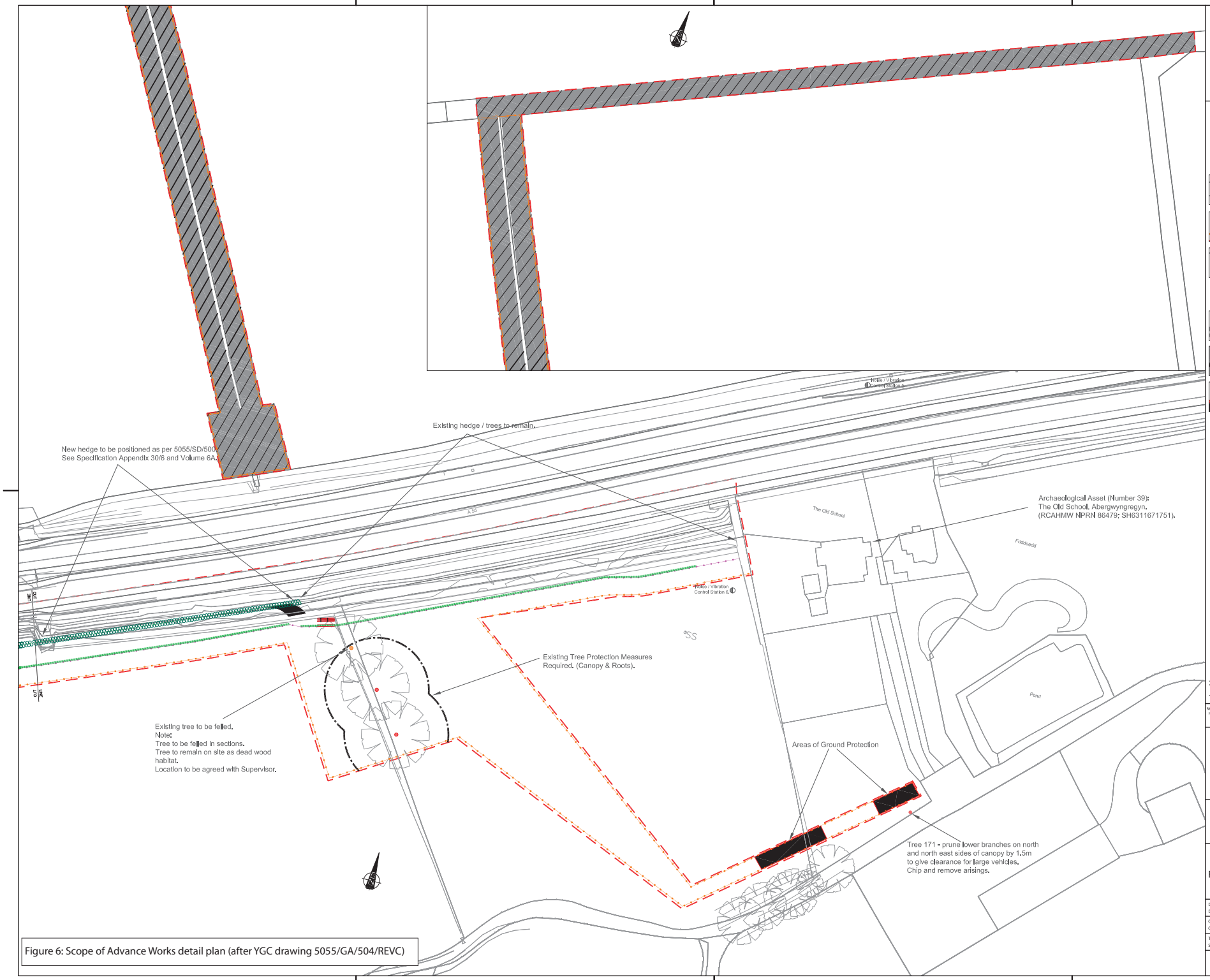


Figure 6: Scope of Advance Works detail plan (after YGC drawing 5055/GA/504/REVC)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Site Extents and Site Clearance Area.
- 1.2m high temporary stock proof fence to drawing H102C with C8/80/15 netting but without barbed wire at the base and without treated timber.
- Existing Trees to remain.
- Existing Trees to be felled.
- Tree Protection Measures Required.
- Area A
- Ground Protection for Trees in accordance with BS 5837

RHIF NO.	NEWIDIADAU/MODIFICATIONS	GAN/BY	DYDDIAD/DATE	GWIRIWYD/CHECKED
2	Areas of Ground Protection for Trees	BW	29/09/10	DMM
1	Amendments to notes on Drawing	BW	05/10	DMM

YGC Fyrdd Roads

CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNIWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNIWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Tudalen Sheet	1 of 1	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad
Drawing No. 5055/GA/504

CYM REV C

05/10/2016 10:53:48

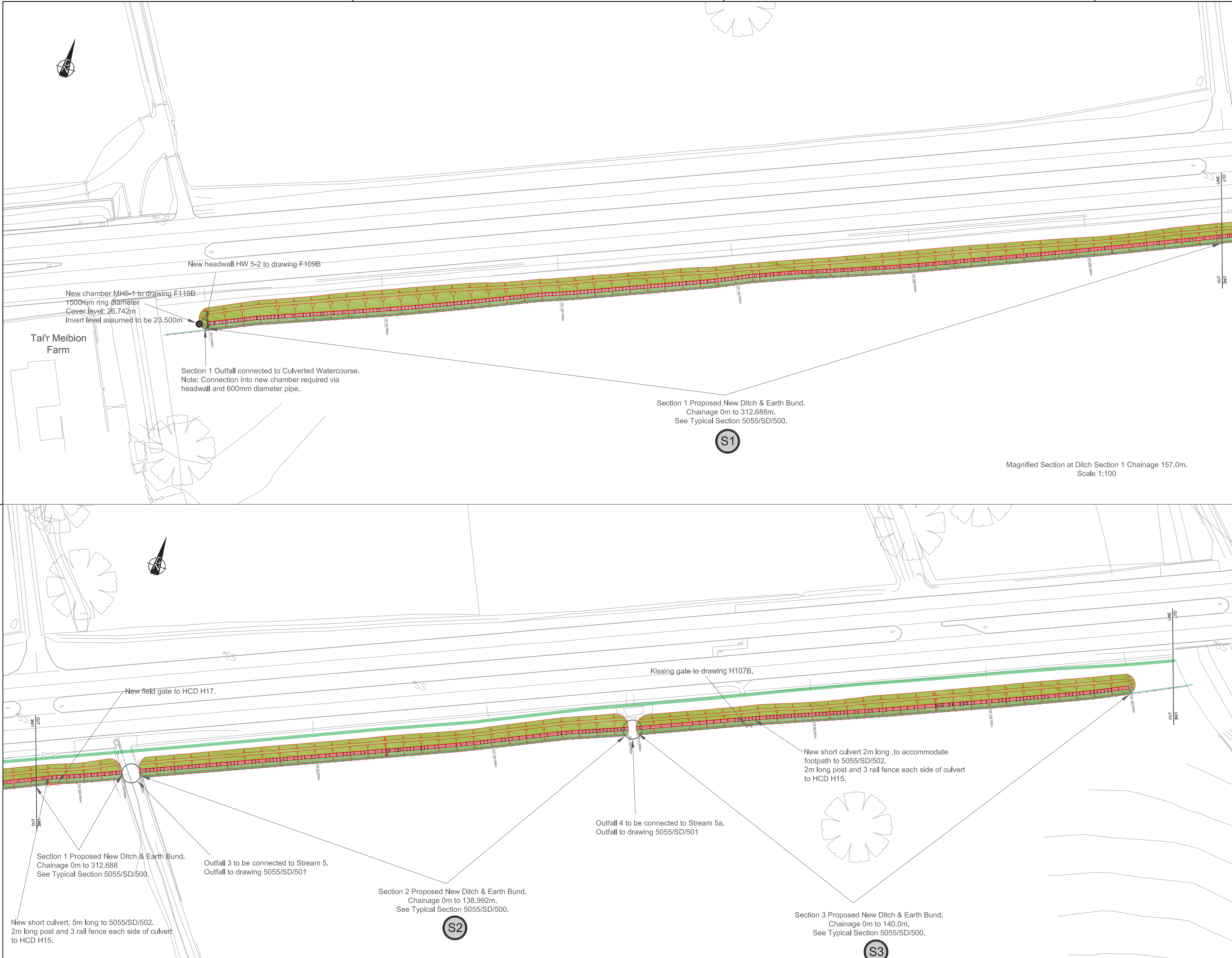


Figure 7: Scope of Advance Works detail plan (after YGC drawing 5055/GA/505/REVB)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

S#	Proposed New Ditch & Section Reference. See 5055/SD/500 for Details.
	Proposed New 1.2m high woven wire fence to drawing H102C with C8/80/15 netting but with barbed wire at base.
	1.2m high temporary stock proof fence as above but without treated timber.
	Environmental Grass Mix A. Refer to Specification Appendix 30/5.
	Environmental Grass Mix B. Refer to Specification Appendix 30/5.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED
1	Amendments to Notes on Drawing	BW	29/09/2016	DMM

YGC Ffyrdd Roads — Cyngor Gwynedd Council

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 o/of 1	GRADDFEYDD : SCALES :	As Shown

Rhif Lluniad Drawing No. 5055/GA/505 — CYWI REV B

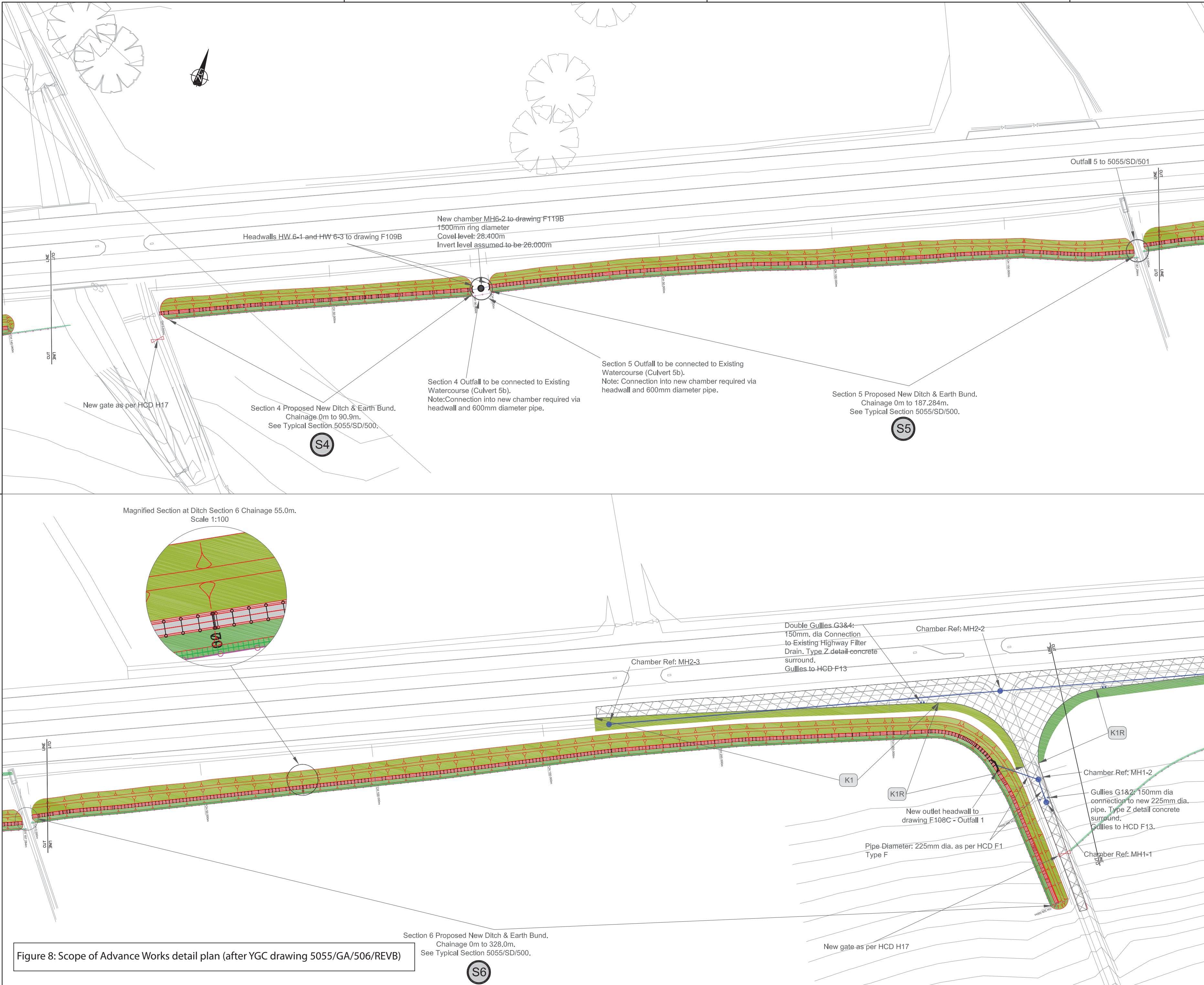


Figure 8: Scope of Advance Works detail plan (after YGC drawing 5055/GA/506/REVB)

CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

S#	Proposed New Ditch & Section Reference. See 5055/SD/500 for Details.
	Proposed New 1.2m high woven wire fence to drawing H102C with C8/80/15 netting but with barbed wire at base.
	1.2m high temporary stock proof fence as above but without treated timber.
	Environmental Grass Mix A. Refer to Specification Appendix 30/5.
	Environmental Grass Mix B. Refer to Specification Appendix 30/5.
	Hedgerow Translocation. See Specification Appendix 30/6 and Volume 6A. (S.C. Ref 01).
	As Specification - Appendix 7/1
K1	Proposed New Type A Kerbs. See SD/B101.
K1R	Proposed New Type A radius Kerbs. See SD/B101.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHECKED
1	Amendments to Notes on Drawing	BW	29/09/2016	DMM

YGC
Ffyrdd Roads

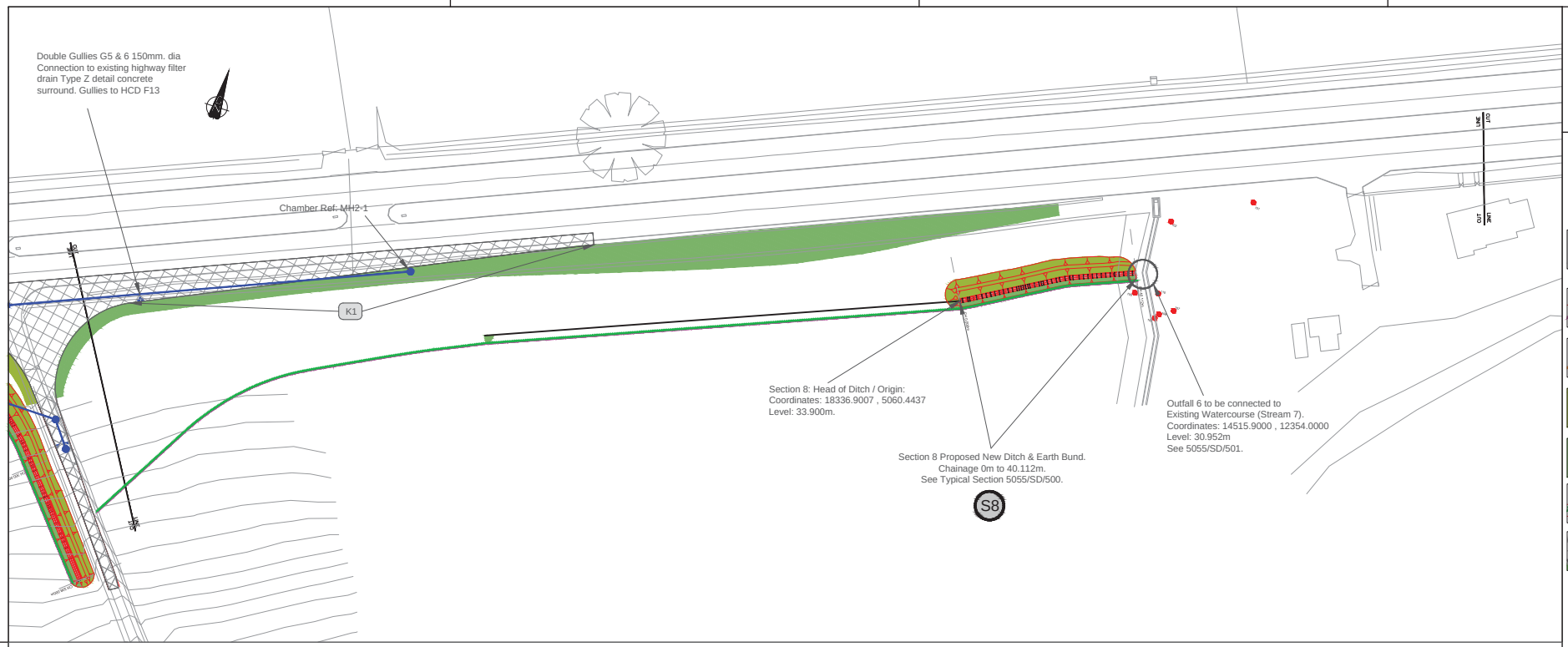
CYNGOR GWYNEDD COUNCIL

CYNLLUN / SCHEME :
A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :
General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 of 1	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad Drawing No. 5055/GA/506 — CYWI REV B



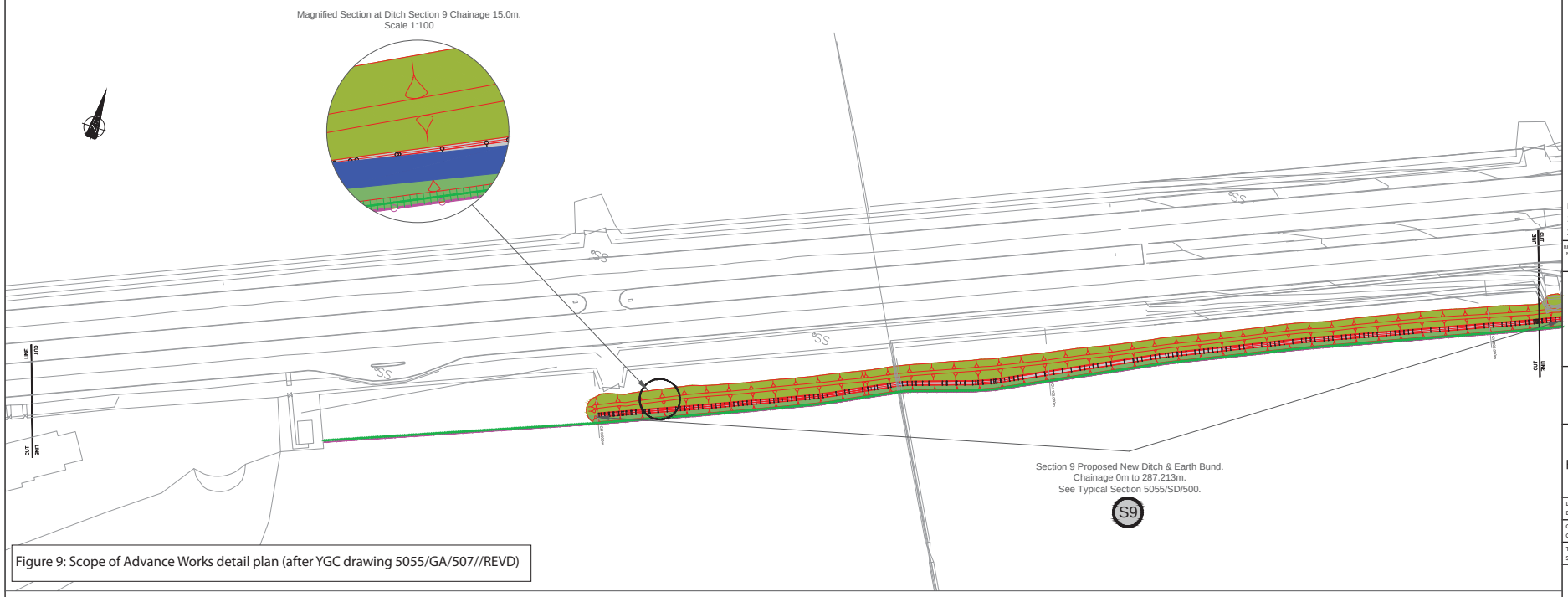


Figure 9: Scope of Advance Works detail plan (after YGC drawing 5055/GA/507//REVD)

CLEIENT/CLIENT :

Llywodraeth Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- S# — Proposed New Ditch & Section Reference. See 5055/SD/500 for Details.
- Proposed New 1.2m high woven wire fence to drawing H102C with C8/80/15 netting but with barbed wire at base.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Environmental Grass Mix A. Refer to Specification Appendix 30/5.
- Environmental Grass Mix B. Refer to Specification Appendix 30/5.
- New Hedgerow. See Specification Appendix 30/6 and Volume 6A.
- Full Carriageway Construction as Specification Appendix 7/1.
- K1 — Proposed New Type A Kerbs. See SD/B101.
- K1R — Proposed New Type A radius Kerbs. See SD/B101.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN BY	DYDDIAD DATE	GWIRIWYD CHKD
D	Additional drainage Note on Drawing	RW	22/09/16	DMM
2	Amendments to Notes on Drawing	RW	20/09/16	DMM
1	Update chainage values	RW	19/09/16	DMM

YGC Fyrdd Roads

CYNGOR GWYNEDD

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 of 1	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad Drawing No. 5055/GA/507

CYWI REV D

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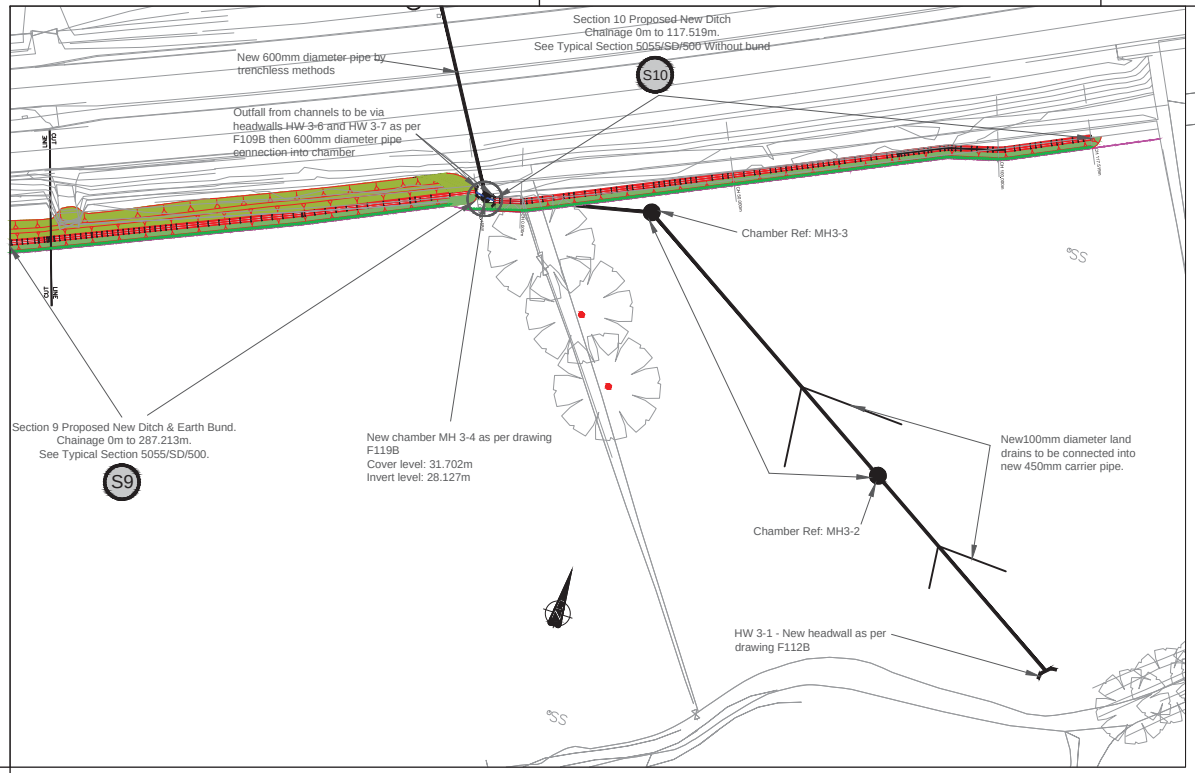
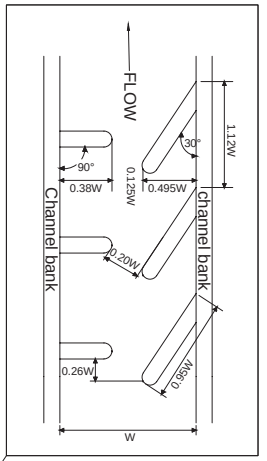
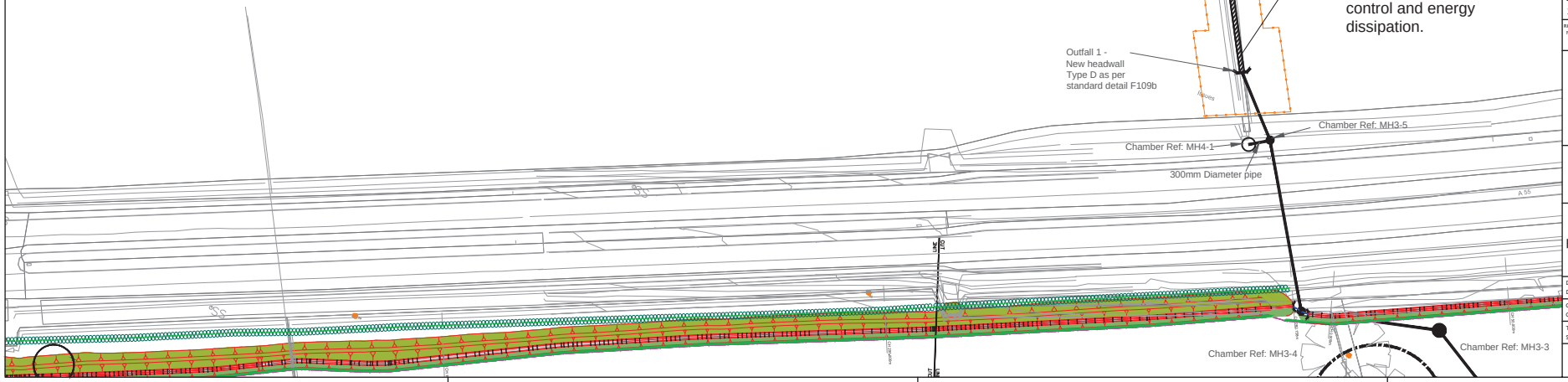


Existing ditch to be lined with heavy duty polypropylene lining (20kg/100m^2) corrugated geotextile material and seeded.



Offset baffle weir to be used in lined ditch approx. 5m downstream of headwall to aid erosion control and energy dissipation.

Figure 10: Scope of Advance Works detail plan (after YGC drawing 5055/GA/508//REVG)



CLEIENT/CLIENT :

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

NODIADAU/NOTES

Key:

- Proposed New Ditch & Section Reference. See 5055/SD/500 for Details.
- Proposed New 1.2m high woven wire fence to drawing H102C with C8/80/15 netting but with barbed wire at base.
- 1.2m high temporary stock proof fence as above but without treated timber.
- Environmental Grass Mix A. Refer to Specification Appendix 30/5.
- Environmental Grass Mix B. Refer to Specification Appendix 30/5.
- New Hedgerow. See Specification Appendix 30/6 and Volume 6A.
- Watercourse to be lined and erosion control measures introduced.

The Baffles are to be formed from green oak timber with a width and a height of 300mm using high tensile steel bars to fix to river bed. The suggested construction method can be found on pages 158 and 159 of the Institute of Fisheries Management's Fish Pass Manual.
Alternatively, 450mm diameter stones set in concrete would also be acceptable.

RHIF NO.	NEWIDIADAU MODIFICATIONS	GAN DRWN	DYDDIAD DATE	GWIRIWYD CHKD
G	Baffle details added	RW	04/10	DMM
5	Insert Temporary Fencing and Amend Notes on Drawing	BW	29/09	DMM
4	Add references to chambers	BW	26/09	DMM
3	Add references to chambers	BW	22/09	DMM
2	Move 600mm pipe 5m East and add in new chamber	SW	21/09	DMM
1	Update chainage values	SW	21/09	DMM

YGC Fyrdd Roads

CYNGOR GWYNEDD

CYNLLUN / SCHEME :

A55 Tai'r Meibion to Abergwyngregyn
J12 to J13

TEITL LLUNIAD / DRAWING TITLE :

General Arrangement, Site Clearance, Fencing Details & Environmental Requirements.

DARLUNWYD GAN : DRAWN BY :	S.Williams	DYDDIAD DARLUNWYD : DATE DRAWN :	21/09/2016
GWIRIWYD GAN : CHECKED BY :	D.M.Meller	DYDDIAD GWIRIWYD : DATE CHECKED :	21/09/2016
Taflen Sheet	1 of 1	GRADDFEYDD : SCALES :	1:500

Rhif Lluniad Drawing No. 5055/GA/508

CYMI REV G

01/10/2016 11:43:14

APPENDIX I

Email from YGC outlining scope of Advance Works (September 2016)

From:	Jones Christopher R (YMG)
To:	John Roberts; Neil McGuiness
Subject:	5055: current scope of advance works
Date:	20 September 2016 16:31:23
Attachments:	image001.gif

John/Neil,

Further to my last email, and your original watching brief proposal, the scope of the advance works currently includes:

1. Excavating the drainage channel and associated bund along the south side of the A55(T).
2. The site clearance necessary for that work.
3. Providing new fencing between the east side of the Tai'r Meibion cattle creep and the eastern end of the scheme at the boundary with The Old School.
4. Translocating/planting a new hedge along this same length.
5. Construction of the diverge and merge tapers for the new access to Y Glyn Farm (but not construction of the link to Bryn Meddyg), associated drainage, kerbing and a strip of carriageway construction to link it with the existing carriageway.
6. Installing a new 600mm diameter pipe under the A55(T) for Stream 8.
7. Installing a new 450mm diameter pipe across the field between the A55(T) and Roman Road just west of The Old School, tying in to the pipe for Stream 8.

Best regards,

Chris

Chris Jones BSc MSc MCIEEM MIEMA
Uwch Swyddog Amgylchedd / Senior Environment Officer

Stryd y Jêl,
Caernarfon,
Gwynedd,
LL55 1SH.

Tel: 01286 679792
Ext: 32792
Email: chrisjones@gwynedd.gov.uk

APPENDIX II

Reproduction of Gwynedd Archaeological Watching Brief Day Sheet (October 2016)

YMDDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD ARCHAEOLOGICAL TRUST		
WATCHING BRIEF DAY RECORD		*Date*
Project name	*Project number*	*Compiler*
Location		
Description		
Times of travelling and on-site		
Drawn record details		
Photographic record details		

YMDDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD ARCHAEOLOGICAL TRUST		
WATCHING BRIEF DAY RECORD		*Date*
Project name	*Project number*	*Compiler*
Location		
Description		
Times of travelling and on-site		
Drawn record details		
Photographic record details		

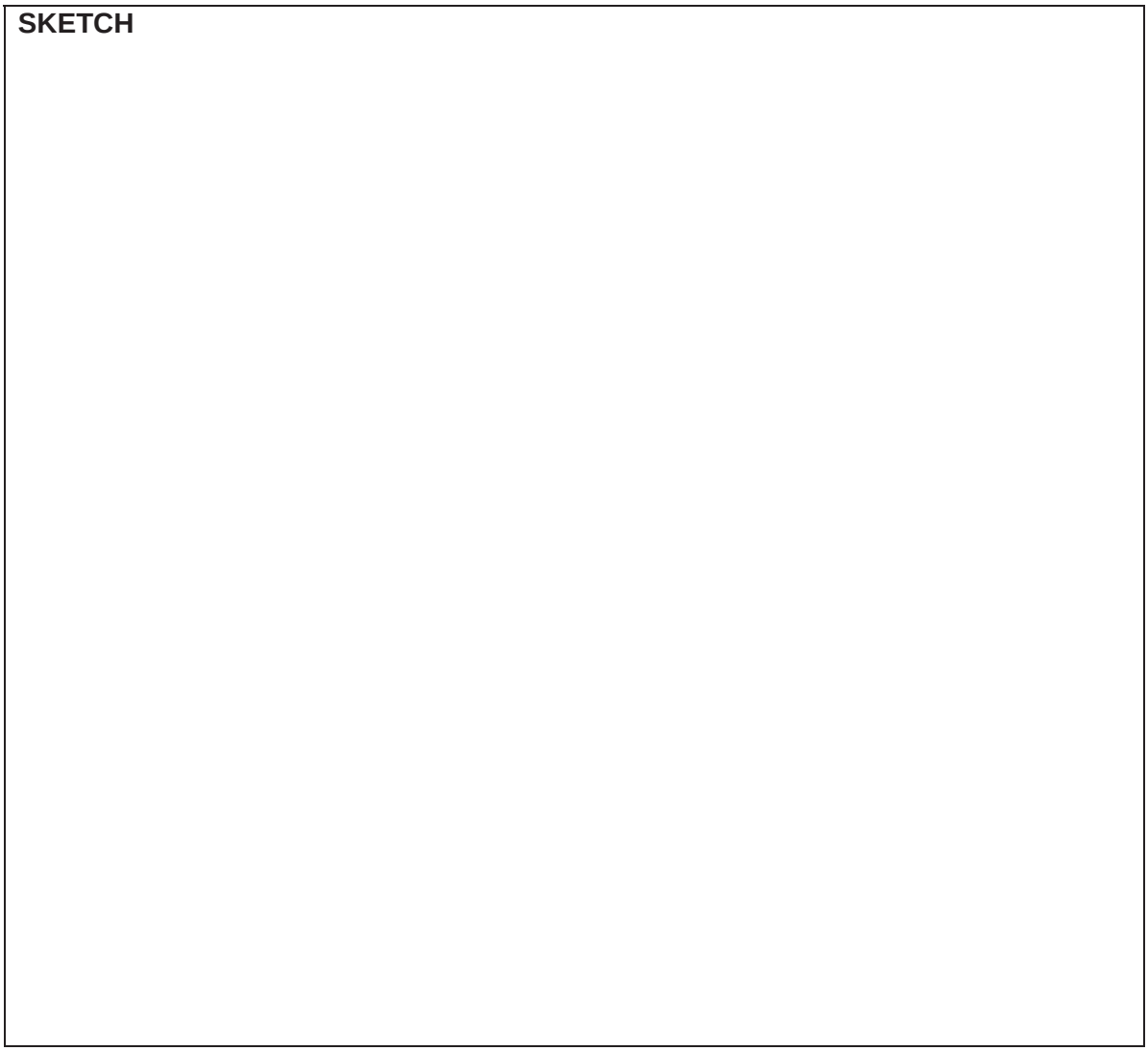
APPENDIX III

Reproduction of Gwynedd Archaeological Trust Context Record Pro-forma (October 2016)

GWYNEDD ARCHAEOLOGICAL TRUST CONTEXT RECORD FORM

SITE CODE	**GRID SQUARE**	**SITE SUB-DIV**	**CONTEXT NUMBER**
CATEGORY/TYPE	**PROVISIONAL DATE/PERIOD/PHASE**		
LENGTH	**BREADTH**	**DIAMETER**	**DEPTH/HEIGHT**
DEPOSIT			**CUT**
1. Compaction			1. Shape in plan
2. Colour			2. Corners
3. Matrix Composition			3. Break of slope top
4. Inclusions			4. Sides
5. Clarity of Interface			5. Break of slope base
6. Other comments			6. Base
7. Methods & conditions			7. Orientation
			8. Truncated (if known)
			9. Other comments
			Draw sketches overleaf
FILLED BY			
FILL OF	This [ ] context		
	Stratigraphic matrix		
PLANS		**SECTIONS**	
Sheet No.		Sheet No.	
Drawing No.		Drawing No.	
PHOTOGRAPHS - Film No./ Frame No.			

SKETCH



DESCRIPTION/INTERPRETATION CONTINUED

APPENDIX IV

Reproduction of Gwynedd Archaeological Trust Photographic Metadata Pro-forma (October 2016)

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Digital Photographic Record Project code and name:

Include main context numbers for each shot, drawing numbers for sections and any other relevant numbers for cross referencing.
Delete any unwanted photos **immediately** from the camera. Regularly upload photographs to computer.

Project Name:			Project Number:				
Photo No.	**Trench**	**Description**	**Contexts**	**Scales**	**View From**	**Initials**	**Date**

APPENDIX II

Photographic Metadata

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_001	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Pre-ex shot of field off Access Point 2.		W	-	14.02.2017	Stuart Reilly	
G2424_WB_2017_002	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Pre-ex shot of field off Access Point 2.		SE	-	14.02.2017	Stuart Reilly	
G2424_WB_2017_003	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Pre-ex shot of field off Access Point 2, along slate fence.		S	-	14.02.2017	Stuart Reilly	
G2424_WB_2017_004	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Pre-ex shot of field off Access Point 2.		SW	-	14.02.2017	Stuart Reilly	
G2424_WB_2017_005	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Start of topsoil strip of bell-mouth off Access Point 2.		W	1x1m	14.02.2017	Stuart Reilly	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_006	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Subsoil strip of bell-mouth off Access Point 2.		W	1x1m	14.02.2017	Stuart Reilly	
G2424_WB_2017_007	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Subsoil strip of bell-mouth and site compiund at Access Point 2.		SW	-	14.02.2017	Stuart Reilly	
G2424_WB_2017_008	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Top/subsoil strip of compound, along eastern edge.		SW	-	14.02.2017	Stuart Reilly	
G2424_WB_2017_009	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Depth of top/subsoil along southern edge of strip.		NW	1x1m	14.02.2017	Stuart Reilly	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_010	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	General view of site compound stripped.		S	1x1m	14.02.2017	Stuart Reilly	
G2424_WB_2017_011	A55 Tai'r Meibion	Watching Brief	Access Point 2 - Site Compound	Depth of top/subsoil along nothern edge of strip.		S	1x1m	14.02.2017	Stuart Reilly	
G2424_WB_2017_012	A55 Tai'r Meibion	Watching Brief	Field 5	Remains of stone land drain running NW-SE		SE	1x1m	20/02/2017	Carol Ryan Young	
G2424_WB_2017_013	A55 Tai'r Meibion	Watching Brief	Field 5	Remains of stone land drain running NW-SE		NE	1x1m	20/02/2017	Carol Ryan Young	
G2424_WB_2017_014	A55 Tai'r Meibion	Watching Brief	Field 5	Trench for hedgerow replanting		NE	1x1m	20/02/2017	Carol Ryan Young	
G2424_WB_2017_015	A55 Tai'r Meibion	Watching Brief	Field 5	Burnt pit [004]	[004] (005)	NE	1x1m	20/02/2017	Carol Ryan Young	PLATE 16

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_016	A55 Tai'r Meibion	Watching Brief	Field 5	NW facing section of burnt pit [004]	[004] (005)	NW	1x1m	20/02/2017	Carol Ryan Young	PLATE 17
G2424_WB_2017_017	A55 Tai'r Meibion	Watching Brief	Field 5	NW facing section of burnt pit [004]	[004] (005)	NW	1x1m	20/02/2017	Carol Ryan Young	
G2424_WB_2017_018	A55 Tai'r Meibion	Watching Brief	Field 6	'Slip road' to NE of compound - topsoil strip		SW	1x1m	21/02/2017	Carol Ryan Young	PLATE 20
G2424_WB_2017_019	A55 Tai'r Meibion	Watching Brief	Field 6	'Slip road' to SW of compound - topsoil strip		NE	1x1m	21/02/2017	Carol Ryan Young	PLATE 21
G2424_WB_2017_020	A55 Tai'r Meibion	Watching Brief	Field 6	'Slip road' to SW of compound - topsoil strip		NW	1x1m	21/02/2017	Carol Ryan Young	PLATE 22
G2424_WB_2017_021	A55 Tai'r Meibion	Watching Brief	Field 6	Strip to Natural in area NE of compound - field 6		SW	1x1m	03/03/2017	Carol Ryan Young	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_022	A55 Tai'r Meibion	Watching Brief	Field 8	Trench for hedge relocation Field 8 SW end		NE	1x1m	09/03/2017	Carol Ryan Young	PLATE 19
G2424_WB_2017_023	A55 Tai'r Meibion	Watching Brief	Field 8	Translocated hedge field 8 NE end		SW	1x1m	09/03/2017	Carol Ryan Young	
G2424_WB_2017_024	A55 Tai'r Meibion	Watching Brief	Field 8	Backfilled trench after Morrison Utilities		SW	1x1m	09/03/2017	Carol Ryan Young	
G2424_WB_2017_025	A55 Tai'r Meibion	Watching Brief	Field 6	Trench for hedge under power line		SW	1x1m	10/03/2017	Carol Ryan Young	PLATE 18
G2424_WB_2017_026	A55 Tai'r Meibion	Watching Brief	Field 7	Hedge in new location in field 7 (from field 6)		NE	-	10/03/2017	Carol Ryan Young	
G2424_WB_2017_027	A55 Tai'r Meibion	Watching Brief	Field 5	Trench dug over gas main		NE	1x1m	14/03/2017	Carol Ryan Young	PLATE 15

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_028	A55 Tai'r Meibion	Watching Brief	Field 8	Slate topped culvert	[006]	SW	1x1m	28/03/2017	Carol Ryan Young	PLATE 14
G2424_WB_2017_029	A55 Tai'r Meibion	Watching Brief	Field 8	Stripped area for 'V' ditching		NE	1x1m	30/03/2017	Carol Ryan Young	
G2424_WB_2017_030	A55 Tai'r Meibion	Watching Brief	Field 8	Stripped area for 'V' ditching		NE	1x1m	31/03/2017	Carol Ryan Young	
G2424_WB_2017_031	A55 Tai'r Meibion	Watching Brief	Field 8	Stripped area for 'V' ditching		NE	1x1m	31/03/2017	Carol Ryan Young	PLATE 13
G2424_WB_2017_032	A55 Tai'r Meibion	Watching Brief	Field 7	Stripped area for 'V' ditching		NE	1x1m	31/03/2017	Carol Ryan Young	PLATE 09
G2424_WB_2017_033	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		SW	1x1m	03/04/2017	Michael Sion Lynes	
G2424_WB_2017_034	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		SW	1x1m	03/04/2017	Michael Sion Lynes	
G2424_WB_2017_035	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		SW	1x1m	03/04/2017	Michael Sion Lynes	PLATE 25

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_036	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		SW	1x1m	03/04/2017	Michael Sion Lynes	
G2424_WB_2017_037	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		SW	1x1m	03/04/2017	Michael Sion Lynes	
G2424_WB_2017_038	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		SW	1x1m	03/04/2017	Michael Sion Lynes	
G2424_WB_2017_039	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road		NE	1x1m	03/04/2017	Michael Sion Lynes	
G2424_WB_2017_040	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_041	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	
G2424_WB_2017_042	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	
G2424_WB_2017_043	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_044	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	PLATE 26
G2424_WB_2017_045	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	
G2424_WB_2017_046	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_047	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	
G2424_WB_2017_048	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	
G2424_WB_2017_049	A55 Tai'r Meibion	Watching Brief	Field 2	Topsoil strip for new haul road - working NW-SE (from next to A55 upwards)		NW	1x1m	04/04/2017	Michael Sion Lynes	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_050	A55 Tai'r Meibion	Watching Brief	Field 7	'V' Ditch at SW of field 7		SW	1x1m	11/04/2017	Carol Ryan Young	PLATE 10
G2424_WB_2017_051	A55 Tai'r Meibion	Watching Brief	Field 7	'V' Ditch in Field 7		NE	1x1m	11/04/2017	Carol Ryan Young	PLATE 11
G2424_WB_2017_052	A55 Tai'r Meibion	Watching Brief	Field 7	Culvert halfway down field 7		NW	1x1m	11/04/2017	Carol Ryan Young	PLATE 12
G2424_WB_2017_053	A55 Tai'r Meibion	Watching Brief	Field 6	'V' Ditch in field 6		SW	-	18/04/2017	Carol Ryan Young	PLATE 06
G2424_WB_2017_054	A55 Tai'r Meibion	Watching Brief	Field 5	'V' Ditching		NE	1x1m	25/04/2017	Carol Ryan Young	
G2424_WB_2017_055	A55 Tai'r Meibion	Watching Brief	Field 4	40m 'V' Ditch at the NE end of field 4		SW	1x1m	26/04/2017	Carol Ryan Young	PLATE 04
G2424_WB_2017_056	A55 Tai'r Meibion	Watching Brief	Field 2	'V' Ditching		NE	1x1m	02/05/2017	Carol Ryan Young	PLATE 02
G2424_WB_2017_057	A55 Tai'r Meibion	Watching Brief	Field 3	'V' Ditching		SW	1x1m	03/05/2017	Carol Ryan Young	PLATE 03
G2424_WB_2017_058	A55 Tai'r Meibion	Watching Brief	Field 1	'V' Ditching		SW	1x1m	04/05/2017	Carol Ryan Young	PLATE 01

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_059	A55 Tai'r Meibion	Watching Brief	Field 2	Excavation of manhole and access pit for dig under A55		W	-	09/05/2017	Carol Ryan Young	
G2424_WB_2017_060	A55 Tai'r Meibion	Watching Brief	Field 2	Excavation of manhole and access pit for dig under A55		S	-	09/05/2017	Carol Ryan Young	
G2424_WB_2017_061	A55 Tai'r Meibion	Watching Brief	Field 2	Excavation of manhole and access pit for dig under A55		S	-	09/05/2017	Carol Ryan Young	PLATE 23
G2424_WB_2017_062	A55 Tai'r Meibion	Watching Brief	Field 4	'V' ditching in field 4 adjacent to the compound - made ground		S	1x1m	17/05/2017	Carol Ryan Young	PLATE 05
G2424_WB_2017_063	A55 Tai'r Meibion	Watching Brief	Field 8	Final 10m of ditching at the NW end of field 8		SE	1x1m	01/06/2017	Carol Ryan Young	

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_064	A55 Tai'r Meibion	Watching Brief	Field 7	Final section of ditching an trench for pipe at SE end of field 7 into watercoarse		NW	1x1m	01/06/2017	Carol Ryan Young	
G2424_WB_2017_065	A55 Tai'r Meibion	Watching Brief	Field 9	Excavation of reception pit for dig under A55		W	1x1m	05/06/2017	Carol Ryan Young	PLATE 24
G2424_WB_2017_066	A55 Tai'r Meibion	Watching Brief	Field 6	Ditch and pit for headwall to connect to existing drain		SW	1x1m	06/06/2017	Carol Ryan Young	PLATE 07
G2424_WB_2017_067	A55 Tai'r Meibion	Watching Brief	Field 6	Slate topped culvert structure [007]	[007]	N	1x1m	06/06/2017	Carol Ryan Young	PLATE 08

File reference	Project name	Project phase	Site sub-division	Description	Contexts	View from	Scale (s)	Date	Originating person	Plates
G2424_WB_2017_068	A55 Tai'r Meibion	Watching Brief	Field 9	Pre-ex shot of 'gully' location along the access track, Field 9		NNW	1x1m	25/07/2017	Stuart Reilly	
G2424_WB_2017_069	A55 Tai'r Meibion	Watching Brief	Field 9	Pre-ex shot of access track in Field 9 prior to excavation of gully		SSE	1x1m	25/07/2017	Stuart Reilly	PLATE 27
G2424_WB_2017_070	A55 Tai'r Meibion	Watching Brief	Field 9	Excavation of gully		NNW	-	25/07/2017	Stuart Reilly	
G2424_WB_2017_071	A55 Tai'r Meibion	Watching Brief	Field 9	SSE face of upcast material being excavated for gully		SSE	1x1m	25/07/2017	Stuart Reilly	PLATE 28

APPENDIX III

Context Register

Context No.	Type	Description	Length	Breadth	Diameter	Depth/Height	Interpretation
001	Deposit	Topsoil: mid-brown silty/sandy clay	n/a	n/a	n/a	average depth of 0.27m	n/a
002	Deposit	Subsoil: mid-brown silty clay	n/a	n/a	n/a	average depth of 0.41m	n/a
003	Deposit	Glacial: yellow sandy clay	n/a	n/a	n/a	n/a	n/a
004	Cut	sub-citcular pit	1.00m	1.22m	1.22m	0.20m	prehistoric
005	Fill	Pit fill	1.00m	1.22m	1.22m	0.20m	prehistoric
006	structure	slate-topped culvert	2.50m	1.00m	n/a	0.30m	post-medieval
007	structure	slate-topped culvert	1.00m	0.72m	n/a	0.53m	post-medieval

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