Snowdon Mill: Porthmadog



Level 3 archaeological building record

GAT Project No. 2057 Report No. 806 May, 2009

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Snowdon Mill: Porthmadog

Report No. 806

Prepared for Q Williams Construction on behalf of Belgrave Homes

May 2009

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Snowdon Mill, Porthmadog



Figure 1: Location of Snowdon Mill development plot detailing individual structures

Summary

A level three survey has been undertaken in advance of redevelopment works at Snowdon Mill, Porthmadog. The mill was built as a steam-powered corn mill operating conventional mill stones in 1862. By 1889 a second building had been added and modern roller milling machinery installed. The mill went out of use in the mid-20th century and the machinery was sold or scrapped. Remains of two sack hoists were located and recorded as part of the survey. In the later 20th century the building was used for a variety of purposes, and a pottery was established. The building is now to be redeveloped into a series of apartments.

1.0 PROJECT BACKGROUND

Gwynedd Archaeological Trust has been asked by Q Williams construction on behalf of Belgrave Homes to provide an archaeological record in advance of a development at Snowdon Mill, Porthmadog NGR SH57063895. The development is located the north-eastern edge of Porthmatowards dog. It is proposed to convert the former mill buildings at Snowdon Mill into 21 residential units. The former mill, originally known as Portmadoc (sic) Flour mill, grade II listed (Record No. 4431) listed for its is industrial archaeological interest as a rare surviving mid-nineteenth century steam-powered flour mill. The building comprises two parallel ranges with ancilliary structures (Figure 1):

P Building A

Three storey mill building, built in 1862. Entrance at Snowdon Street. Located at the south east corner of the development.

Building B

Three storey pebble-dashed domestic building, Ty'r Felin, attached to Building A. Located at south-west corner of the development.

Building C

Four storey mill building built in the later 1880's. Located at the northwest corner of the development.

Building D

Three storey multi-phased building linking A and C. Now demolished.

Building E

The engine house, boiler, chimney and other associated features. Now demolished at an unknown date

The works include the demolition of modern features, as well as demolition of the link buildings (building D), the lean-to extensions on the south-east elevation of building A, facing Snowdon Street and the abutting wall of the old engine house on the north-east elevation of building A. The conversion involves the creation of new openings and extensive refurbishment of the internal and external building fabric.

Building D was demolished prior to the programme of archaeological works.

2.0 PROJECT REQUIREMENTS

The project requirements are for an archaeological building record of Snowdon Mill, prior to the development work. Gwynedd Archaeological Planning Service (GAPS) prepared a design brief for this project (ref. D1071; reproduced in Appendix I), in response to planning application C06D/0159/44/CR. The design brief states that the archaeological building record should be roughly commensurate with the English Heritage 'Understanding Historic Buildings: a guide to good recording practice' (2006) building recording Level 3 and should include the following elements:

- Written account 1-3, 5-13, 22;
 - 2, 3, 6-9;
 - Photographs 1-9.

Drawings

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3.0 HISTORIC BACKGROUND

The Portmadoc Flour Mill, marked on some maps as 'Corn mill' was built in what Dr D. Rh Gwyn (Gwyn, D. 2006) has noted to have been Porthmadog town's 'first industrial estate'. Located on the eastern margin of the town, where prevailing winds would have tended to blow the smoke from the industrial chimneys out into the Glaslyn flood-plain, the mill was flanked by the gasworks, a sawmill, a slate-slab works and a foundry/ engineering works. There was also the Cambrian Mills, operated by Robert Hughes, grain merchant, in 1871 (Census), that seems to have been located somewhere close to the Cambrian Railway Station.

The buildings were built to house the Porthmadoc Flour Mills, a steam-powered roller mill. It is shown on the 1871 Tremadog estate plan and 1885 plan of Porthmadog Harbour as a single range, but by the 1889 Ordnance Survey a range was added to the west side, which was originally detached but by the 1900 Ordnance Survey was shown to be linked. It was converted to other uses in the 20th century.

3.1 First historic phase

The printed history of Porthmadog (Davies 1913) stated that the mill (i.e., the first building) was erected in 1862 (as seen on the date plaque) by Messrs M. and J. Roberts, of Bangor, who owned it until it was in 1890. Trade directories (Slater's) in the sold 'Millers' sub-section of the Portmadoc [sic] entry identify the operators of the 'Steam Mill' as Mesach and John Roberts in the years 1868, 1876, 1880 and 1890. It is possible that they were brothers, but this cannot be ascertained. Their previous history in Bangor has not been researched, but it would be surprising if they were not involved in the milling trade, very possibly in some major way, as the capital investment of the Porthmadog mill must have been very great.

In 1871 (Census, Snowdon Street, Porthmadog) the house adjoining the Old Mill was occupied by John Roberts (aged 61), described as a miller, and master employing 7 men. His birthplace was



Figure 2: Ordnance Survey. County series first edition, Caernarfonshire I.6. 1889

Holyhead. In occupation with John Roberts was his 69-year old wife, Catherine (born in Llaniestyn, Caerns), nephew John Roberts (aged 21), a clerk (presumably in the mill office) and born at Bangor. There was also a domestic servant, 27-year old Margaret Williams from Llanbadrig, Anglesea. The birth of John Roberts (Jnr) – possibly the son of the 'missing' co- proprietor Mesach - in Bangor in 1850 gives some credence to the statement in the local history book (Davies 1913) that the founding owners came from Bangor.

The only primary manuscript source referring to the Portmadoc Flour mill is a letter from harbour-master W. E. Morris to the owner of the Porthmadog Estate, F. W. A. Roche, dated 30 September 1884 [Caernarfon Archives XM 4229/ 14]. Discussing the harbour accounts, Morris stated that imports had been less in that accounting period because the steam mill had been under repair over the previous four months, and its customers had resorted to purchasing flour brought in by rail on the Cambrian Railway.

One secondary source that may be connected with the Portmadoc Steam Flour Mill, rather than its rival Cambrian Mill, is an article on reminiscences of the history of Caernarfon (T.J., 1924) containing the following story about steam boilers that were manufactured by the de Winton Foundry, Caernarfon....

"I remember two mishaps which occurred in connection with boilers that were being taken to Portmadoc to be used in a flour-mill. At one place on the way the wagon in which they were being taken actually sank in the road. Those who went on that journey delighted in recalling the affair. The mill was afterwards destroyed by fire."

The concluding phrase of the above quote, if true, creates a problem in that no other source (particularly Davies 1913) give any hint of such a catastrophe. It would not be a surprise if this had happened, as fires in flour mills were well-known. However, the Old Mill as it stands is not of a fire-proof design, and although it could very well have burnt down, it would surely not have been rebuilt to the same flammable timber-framed specification. Perhaps this is an embellishment to the story by T.J.



Plate 1: Postcard view (M. Morris) of the mill c. 1900.

With reference to these boilers, if they were for the Portmadoc mill rather than the Cambrian one, then at least one of them, if not both must have been the old boilers visible in the postcard view (M. Morris) of the mill c. 1900. One old boiler can be seen in this photograph in use as a water tank for the new boiler plant (see below). The other old boiler, most certainly a double-flue one, can be seen lying in the roadway outside the mill curtilage. It is difficult to estimate their size, but they would have required a very long lowloader to transport both boilers in one load, though that is the information given as recalled some 60 years after the event. Perhaps the second incident that was not subsequently recounted by T.J. was a reoccurrence of the same problem on a second journey, or perhaps to an accompanying low-loader, if the boilers had been moved individually. The fact that these boilers were being transported by road rather than by sea suggests that they were heavy, and beyond the capability of any loading crane at Caernarfon or Porthmadog harbours. Note that the option to use the rail transport to Porthmadog from Caernarfon was not available until 1867 (from the Hendy terminus of the Carnarvonshire Railway on the

outskirts of town), and it was not until 1869 that the London & North Western Railway's new 'Town Line' provided a direct link from the Union Foundry to the standard-gauge rail network.

As a codicil to the Thomas & de Winton likely connection with the Portmadoc Steam Flour Mill, it is very possible that the former also supplied the steam engine for the mill if the boilers were also destined for that site. Having two boilers suggests a requirement for continuous working (with one normally being 'washed-out' cold whilst the other boiler was in steam), and possibly the need to feed a relatively large engine. Thomas & De Winton were manufacturing mainly horizontal single cylinder engines of around 14 h.p. at this time (of the typical type illustrated by their sole surviving engine Glynllifon workshops), but did make at the some double cylinder versions up to about 30 hp. It is unfortunately not known how much power requirement the Old Mill's machinery would have totalled.

Although it has been assumed that Messrs



Figure 3: Ordnance Survey. County series second edition, Merioneth I.6. 1900

Roberts' Steam Mill had only the old grinding stone type of plant, the 1886 Trade Directory (Carnarvonshire, 1886) entry specifies ...

"Roberts, M. and J., Snowdon st (steam roller mills)"

This specific phrasing, meant to impress potential customers by the modernity of the enterprise, is probaby the only historical evidence available regarding the mill production plant pre-1896. This was application an early of the new roller technology (but only a part-change in technology), on a par with the similar re-equipping of flour mills in Ireland from c.1880. Roller milling, enthusiastically adopted in the USA, provided more of the fine flour for white bread, and the increased competition from imported flour was the reason that the Irish mills particularly re-equipped in that decade, and this was probably the same impetus for the Roberts' of Porthmadog. (Bielenberg, 2003; Clarke 2002).

3.2 Second historic phase

The printed history of Porthmadog (Davies 1913) stated that the business was sold in 1890 to a Liverpool company, Messrs W. & J. Caroë, who then

operated the business under the title 'The Portmadoc flour Mill Co'; they were still in occupation when the history book was published in 1913. No research has been undertaken on the background of the purchasers, but it would be surprising if they were not in the grain milling business at Liverpool. It is assumed that the quoted purchase date is correct, as this was close to the date of writing the history, and the author could have visited the mill to elucidate the information.

To corroborate the sale / purchase date, the 1891 Census was consulted to check the occupancy of the mill house. At that date, the Roberts family had departed, and it was occupied by mill manager Stephen Harrow, aged 44 (born in Richmond, Yorkshire), together with his 18-year-old daughter Bessie (born at Halton, Cleveland) as housekeeper (suggesting that the his wife may be deceased)], and his very young sons Percy (aged 5, born at Liverpool) and Reginald (aged 4, born at Stockton-on-Tees). Mr Harrow was thus a very-travelled man, possibly having worked for Messrs Caroë since at least the time of birth of Percy in 1886. Further details of him are to be found in the quoted report (CDH, 1896),



Figure 4: Ordnance Survey. County series third edition, Caernarvonshire XL.6. 1917

below.

In 1895 (Slater's Directory) the operator is confirmed as the 'Portmadoc Flour Mill Co., Snowdon Street.'

A detailed description of the just-completed New Mill plant and the management appeared in Carnarvon & Denbigh Herald, 25 December 1896, p.8. under the title...

ENTERPRISE IN SOUTH CARNARVONSHIRE The New Portmadoc Flour Mills Co.

This was a part-promotional report of a banquet hosted by the mill company, apparently to celebrate the completion of the New Mill (see quoted text, below].

In his report, the correspondent referred to the importance of the mill to the history of the town over the previous 30 years. He stated that there were a "great number" (not specified) of employees, and "... all were being kept by the new manager". This phrase suggests a contemporary change, but this is unclear, as Mr Harrow was there in 1891 – see above. How-

ever, the subsequent part of the report does refer to the celebration of the event of formation of the *"new company"*, but again the details elude us.

The report continued...

"During the time of the late proprietor John Roberts, the machinery was subjected to a great deal of wear and tear, and the new proprietors deemed it advisable to entirely renovate the machinery throughout the premesis. In this branch they went to a considerable expense, introducing as many as possible of the latest modern improvements, in order to successfully compete with the various mills both in and out of the Principality."

The next interesting portion of the text continued...

"The services of Mr Harrow, a gentleman who has had extensive experience and who has been mill manager to several of the leading firms in the Midlands, were secured as erector and designer of the plant. Mr Newcombe was appointed foreman. The engineers are Messrs Teasdale Bros., Darlington.; general manager Mr W. R. Freund, secretary Mr Maldoom, commercial travellers J. E. Hughes and C. H. Edwards, with J. Lloyd and J. Evans etc as assistants. To celebrate the event of the formation of the new company, a banquet was given by the proprietors..... in the Commercial Hotel......."

The party was then given a tour of the mill, where the correspondent noted...

"On the first floor we found 18 sets of rollers, including a very fine set made by Hind & Lund, and of the latest design. On the next floor, 12 Victoria purifiers by Higginbotham. On the third floor are the two large size plansifters by Geo Luther of Brunswick, also more purifiers and a complete set of G. T. Smiths' centrifugals. In addition to the above there is a remarkably fine complete wheat-conditioning plant and a fine installation of wheat-cleaning machinery by Howes of London. In the new engine house adjoining, there has been erected a compound tandem compound horizontal engine by Messrs Teasdale Bros., Darlington. This engine, which has a stroke of 28", cylinders 13 and 24 [inches, bore diamater], length 24 ft overall, is probably one of the finest pieces of workmanship ever turned out by that famous firm. When we saw it, the engine was running smoothly and easily, and, considering it as 120 horse power, was consuming extraordinarily little coal. Altogether, it may be doubted whether the new mill has its equal in Wales."

The cutting from the mill's promotional material (Myfanwy Morris Collection, printed, but not dated, though by its content probably late C19th – early C20th) states...

"The Portmadoc Flour Mill Co is one of the oldest concerns in town, having been founded in 1862. It is now equipped with the latest apparatus, including an Allen's Bedford Vertical oil engine, a Greenhill & Craig grinding machine, four pairs of "stones" and corn and meal elevators. It is interesting to note that this is one of the very few mills which grind today with "stones" – an inestimable advantage, thus retaining all the nutritious properties of the flour and preserving the "nutty" flavour to animal feed. A daily goods service to all parts of North and Mid-Wales is maintained."

There is correspondence and plan (dated 1919) in the National Archive (Kew) (Rail 1957/ 1962) regarding the now long-gone 'shed at Beddgelert siding'. This siding was the transhipment point from the 2-foot gauge 'Croesor Tramway' (legally then titled the Portmadoc, Beddgelert and South Snowdon Railway) and the standard gauge Cambrian Railways, and was located a few hundred yards to the north of the mill (the site is now 'Gelert's Farm' works of the Welsh Highland Heritage Railway). The other party in the correspondence is not recorded in the web-search entry, but it was either the Cambrian Railways or the PBSSR. Information about this is most readily obtained from railway history text (Boyd 1988 passim), though some of the claims in that text are of dubious accuracy.

Neither is the content of this correspondence recorded on the index; it may have been for repairs, or charges for use, but probably not its erection, which must have been much earlier. This 'shed' was probably the covered area on the Beddgelert siding wharf that provided a shelter for loading spoilable material goods such as bags of flour in wet weather from narrow gauge trucks to the standard gauge wagons. The narrow gauge Croesor track, which passed the boundary of the curtilage of the mill, was obviously being used to carry bags of flour up to the Beddgelert siding, as was its tracks from the harbour most probably carrying the raw grain from the ships to the mill (Boyd 1988, pp.116 - 117). There was another 'loading shed' adjacent to the mill (also removed without a trace and the site refashioned into the new Welsh Highland Railway track bed),

covering a loop (continuous siding) of the narrow gauge railway, that would have been used for loading the trucks under cover – just as important as keeping the bags dry on the transhipment wharf. Whilst the Croesor (PBSSR) track remained horse drawn, it was possible to have an all-over roof on this shed, covering both of the double tracks at this point, but when steam-powered services were introduced on the railway in 1923 (as the new Welsh Highland Railway), the former arrangement could not continue (see Boyd 1989 for further details of this era). Thus, the 'shed' was rebuilt as an awning only covering the east loop. The changes can be seen in photographs in a railway history book (Mitchell and Smith 1993) [appended to this report].

The 'Portmadoc Flour Mills' was listed in the Wales Trade Directory (but without any further detail) in the years 1935, 1936 and 1942. No directories of more recent years are available in the archives, and thus the date of closure of the business cannot be ascertained. It is likely that local oral sources could furnish information about the post-1942 era.

A studio pottery called 'Portmadoc Pottery' was set up in the former mill building in the late 1970's which operated through to the mid 1990's. It was run by Jenny Morgan and her husband, though other potters also operated from there, and the mill was often used for pottery exhibitions. Three kilns were sited in the base of the link building, and were serviced by a tram line and turntable (see fig 17). Only the kiln footings were available for survey.

4.0 RESULTS

The recording of Snowdon Mill took place on the 3,8,11,16th December 2008 and 9th January 2009. The photo surveys of the buildings were completed using a Nikon D40X SLR (10 megapixel). The measured floor plans of the domestic building (building B) and the basement of the mill buildings A and C, as well as the north-east elevation of the remaining engine house wall, the pottery track and turn table and both winches from mill buildings A and C were completed using a Leica reflectorless electronic distance measurer (REDM).

The archive is held by GAT under project number G2057, with the photographic images stored on the jpeg interchangeable format.

5.0 BUILDING DESCRIPTION

5.1 Building A

Building A is the earliest of the mill buildings, built in 1862, as recorded on the date plaque on the southeast elevation. It is a four storey building constructed of roughly coursed large slate blocks and a slate roof. Building B, Ty'r Felin (Mill house) is contemporary with building A and is attached to the south-west.

5.1.1 External



Plate 2: South-east elevation prior to the lean-to demolition

5.1.1.1 South east elevation (fig 5)

The south-east elevation contains regular rows of seven replacement casement windows in original openings, three smaller to the south west and four larger to the north west. The replacement windows are all of either single light or 12 lights. Three middle windows to the south-west have been partly blocked due to the construction of the later lean-to. The second ground floor window to the north-west was originally a larger opening. A date stone above the door reads: "RG BR AD 1862".

A lean-to, which was demolished before the survey took place, allowed access to the ground floor of the building. The original weatherboard lean-to surrounded the main access to the building. An additional pebble dash lean-to was constructed to the left of this at an unknown date (early 20th century) and a new door constructed using an original window opening (see figure 5).

5.1.1.2 North-east elevation (fig 5)

The north east elevation is largely a later rebuild, and is built of thinner blocks and a higher density of mor-

tar to that of the south eastern elevation. The Ordnance survey maps of 1889, 1900 and 1917 (figures 2-4) show the changes over these years to the northeast end of the building. Some time after 1917 the north end was demolished and the building shortened to its present length. Original masonry is visible on



Plate 3: North-east elevation showing former lean-to engine house

the lower courses of the east corner of the gable end, but the remainder of the gable wall was rebuilt at this stage, and the use of smaller thinner slate blocks is clearly visible.

The engine house was formerly attached to the north east elevation. The present gable contains a single window in the second floor, and a door into the basement. A series of small, blocked openings lead from the former lean-to engine house into the basement and ground floor

5.1.1.2 North west elevation

The north west elevation, is of less regular blocks than the front, but still roughly coursed. The link building was constructed to join the two mills together, and covered much of this wall, apart from the south end, which was lit by a pair of windows on the first floor, and a single window and a door (used in association with an internal winch) on the second floor. There is a blocked window on the ground floor, and a door through the link building into the basement. Prior to the construction of the link building the OS map shows extensions on this side, one of which was contemporary with the main building and tied in to it, as shown by the remains of quoins are still visible. The openings have been changed over the years, but a door to each floor was located one above the other in the north-west corner with two regularly spaced windows south of each, and smaller windows south again, as on the front of the building.



North-east elevation

Figure 5: Elevations of south-east side and north-east gable, Building A

5.1.2 Internal

5.1.2.1 Basement

At the south end the ground floor above is supported on two rows of three regularly spaced timber columns. The columns sit on large rectangular raised wooden bases, with yet another intermediate support between the base and the column and between the top of the column and the supported beam. This would suggest the columns are reused from an earlier building, though the bases and upper spacers are present to help spread the load. The columns are chamfered on each corner, and support two principal beams running across the building. Timber joists are tennoned into the beams, and support a planked floor above. The floor of the basement is of large slate slabs. In the middle of the west side, the joists are replaced by large beams closely spaced, indicating the need to support heavier machinery above (image 6). In the centre of the floor here is a large brick support, or wall, partly supporting the heavier beams.

Against the west wall are two massive masonry blocks (image 2), certainly used for supporting machinery as bolts still protrude from them, and may well at some time have supported a primary drive wheel or possibly an engine. An opening in the wall lies above the blocks. There are also a large concentration of notches on the north-west ceiling of the basement.



Figure 6: Basement plan of building A



Image 1: Basement north-west view showing masonry supporting blocks



Image 2: Basement room south-east view of large timber columns and bases



Image 3: Basement room south-east view of large internal brick support



Image 4: Basement room south-east view of external door



Image 5: Basement room north-west view showing evidence of bearing supports



Image 6: Basement north-west view showing close spacing of ceiling supports

5.1.2.2 Ground floor

At the time of survey the north east of the ground floor had been removed to basement level, therefore information could not be gained from this area. At the south-east end of the ground floor are six evenly spaced posts supporting the first floor. These are said to have been reused masts or spars from ships and are of different shapes and sizes. A number of chamfered square posts support the ceiling in the remainder of the floor, though the majority have been removed.

The entrance from the main street lay in the centre of the south-east wall onto the road. The window alongside was converted into a second door when the additional lean-to was created. There are two blocked windows to the south-west and additional doors have been created in the north west wall with the creation of the link building.

A large concentration of notches on the north-west celling of the ground floor are seen over the same area as the machine activity in the basement. This floor may have contained the grinding stones due to the large load bearing columns below.

Two hatches are seen in the south west of the ceiling. One of which links to the winch on the second floor.



Figure 7: Ground floor plan of building A



Image 1: Ground floor. South west view of columns



Image 2: Ground floor. Detailed view of columns which could have been reused masts or spars from ships



Image 3: Ground floor. North-west view of original window openings



Image 4: Ground floor. North-west view of blocked window



Image 5: Ground floor. A large consentration of notches on the north-west ceiling.



Image 6: Ground floor. Hatch in the south-west of the ceiling which links to the winch on the second floor

5.1.2.3 First floor

Entrance onto this floor is by stairs in the north-east corner. The floor above is supported on a series of square chamfered wooden posts, in rows of two, three and two at the south end. The remainder has been much disturbed, and the original arrangement cannot now be ascertained. The joists are tenoned into the main beams.

A large concentration of notches on the north-west ceiling of the first floor are seen over the same area

as the machine activity in the basement and the notches of the ground floor.

A hatches can be seen in the south west of the ceiling which link to the winch on the second floor.

On the south-west of the first floor there is an area of oil stain on the ceiling suggesting machine activity in this area.



Figure 8: First floor plan of building A



Image 1: First floor. North-east view of first floor



Image 2: First floor. South-east view of 16 light replacement windows in original openings



Image 3: First floor. North-west view of original window openings



Image 4: First floor. North-east view of replacement door associated with link building



Image 5: First floor. Hatch in the south-west of the ceiling which links to the winch on the second floor



Image 6: First floor. A large concentration of notches on the north-west ceiling.

5.1.2.4 Second floor

This floor appears to have been a single open space, and would traditionally have been used for storage of grain and flour in sacks. Entrance was via internal stairs in the north-east corner, or through a door out into the link building. The roof trusses are principally of a king-post type, with diagonal braces, though two are of the queen-post type. A winch (see 5.1.2.5) lay supported on the tie-beams, to winch items up through the trapdoors visible in each floor.



▶ 1 Image number and the direction taken

Figure 9: Second floor plan of building A



Image 1: Second floor. North-east view of the 12 light gable window and belt box



Image 2: Second floor. South-west view of roof trusses with diagonal braces to allow for belts.



Image 3: Second floor. South-east view of the one of the two sky lights in the roof



Image 4: Second floor. North-east view of the second floor



Image 5: Second floor. North-west view of replacement door associated with link building



Image 6: Second floor. South-west view of original window openings

5.1.3 Sack hoist

A belt-driven sack hoist remained in the roof to the south west of building A. It was used to winch sacks through a trap door in the floor, though the winch is also in-line with an external door in the gable end, and whilst it may have been used to winch sacks up to this door, the exact method of doing so cannot presently be resolved. A rope or chain would have passed down through a small hole in the centre of the trapdoors, as the sacks were pulled up the pressure would have forced the doors open, and they would then have closed under gravity after the sack had passed through. A more complete example of a hoist found in Building C is described below. Both hoists were similar, but only the tension roller and lever arm remained in building A (fig 10).



Image 1: Hoist. Building A. South-west view



Image 2: Hoist. Building A. North-east view



Image 3: Hoist. Building A. South-east view



Image 4: Hoist. Building A. North-east view



Figure 10: Second floor plan of building A

5.2 Building B

Building B, Ty'r Felin is a three storey pebble-dashed domestic building contemporary and attached to building A, It is located at the south-west corner of the development (See figure 1).

5.3.1 External

5.3.1.1 South-west elevation

A 3-storey extension built on to the south-west elevation, containing bathrooms and access to the basement, had already been demolished before the survey was carried out. The remainder of the elevation contains five 2- light casement windows in original openings (plates 4 and 5).



Plate 4: South-west elevation showing the demolished 3 storey extension



Plate 5: South-west elevation prior to the demolished of the 3 storey extension

5.3.1.2 South-east elevation

The south-east elevations is pebble-dashed and contains no openings.

5.3.1.2 North-east elevation

The north-east elevation is the front access to the building. The elevation is pebble dashed to the ground floor and large slate blocks, roughly coursed below this. There are 6 2 light casement windows in original openings. The roof is slate



Plate 6: North-east elevation showing pebble dashed to the ground floor and large slate blocks, roughly coursed below



Figure 11: Elevations of building B

5.2.2 Internal

5.2.2.1 Basement

The basement consists of three rooms, the entrance (B1) which is now demolished. Room B2 has replacement 2 light casement windows and a boarded door in original openings. All walls but the south-east are panelled up to 1.5m. On the south-east wall is a range made by Owen Roberts & Co of Porthmadog. Either side of this range are built in moulded cupboards. The

panelled and moulded staircase leads to the ground floor. The floor is tiled through from B2 to B3.

B3 has been used as a wet room and contains concrete plinths. It has a replacement 2 light casement window in an original opening



Figure 12: Basement plan of building B



Image 1: Basement room 2 (B2). South west view of the basement external door and casement window



Image 2: Basement room 2 (B2). North west view of staircase leading to the ground floor.



Image 3: Basement room 2 (B2). South east view of range



Image 4: Basement room 2 (B2). South east view of range plaque



Image 5: Basement room 2 (B2). North east view of the doorway between room 1 and room 2.



Image 6: Basement room 3 (B3). North west view showing wet room facilities

5.2.2.2 Ground floor

The ground floor consists of four rooms, one of which (G1) which is now demolished. Ty'r Felin is accessed through the front door in the north-east elevation into the hallway G2, where decorative moulded stairs (image 1) lead up to the first floor. The double door halfway through the hallway contains stain glass.

G3 contains moulded skirting boards and door surrounds. The window is a replaced casement window

in its original opening, which still retains it's original mouldings and panels. A modern gas fire place is seen in the south east elevation in the location of the original fireplace.

G4, which is the location of the kitchen and therefore the work surfaces mask many of the features, contain moulded skirting boards and door surrounds. The window in the south-west wall is a replaced casement window in an original opening.



Figure 13: Ground floor plan of building B



Image 1: Ground floor room 2 (G2). North west view of staircase to the first floor



Image 3: Ground floor room 3 (G3). North east view of replacement casement window with original panels



Image 5: Ground floor room 4 (G4). North west facing view of replacement casement window.



Image 2: Ground floor room 2 (G2). North east view of front door and hallway



Image 4: Ground floor room 3 (G3). South east view gas fire in original fireplace location



Image 6: Ground floor room 4 (G4). North east facing view of replacement door in original frame.

5.2.2.3 First floor

The first floor consists of four rooms, one of which (F1) is demolished. The floor is accessed up a staircase with turned balusters and decorated outer string.

F3 contains 2 replacement casement windows in there original moulded and panelled opening. The original location of the fireplace can be seen in the area of decorative hearth tiles. The skirting boards have been replaced and the door in the south-east wall has been replaced but it retains it's original moulded opening.

F4 contains a replacement casement windows in there original moulded and panelled opening. The door in the north-west wall has been replaced but it retains it's original moulded opening. The skirting boards are original and moulded



Figure 14: First floor plan of building B



Image 1: First floor room 2 (F2). North west view of the staircase to second floor



Image 2: First floor room 2 (F2). North west view of the staircase to second floor



Image 3: First floor room 3 (F3). North east facing image of replacement casement windows with original panels



Image 4: First floor room 3 (F3). South east view tiled fire surround.



Image 5: First floor room 4 (F4). South west view of replacement casement window in original opening



Image 6: First floor room 4 (F4). North west view of replacement door in original frame

5.2.2.4 Second floor

The second floor consists of four rooms. The floor is accessed up a moulded staircase into S1.

S2, S3 and S4 all contains a moulded door surround

(with a replacement door) and skirting boards and with replacement casement windows in there original openings.



Figure 15: Second floor plan of building B



Image 1: Second floor room 2 (S2). North east view of replacement casement window in original opening.



Image 2: Second floor room 2 (S2). South west view of replacement door in original frame.



Image 3: Second floor room 3 (S3). South west view of replacement door in original frame.



Image 4: Second floor room 3 (S3). North east view of replacement casement window in original opening.



Image 5: Second floor room 4 (S4). South west view of replacement casement window in original opening.



Image 6: Second floor room 4 (S4). North west view.

5.3 Building C

Building C is a four storey mill building located at the northwest corner of the development. It was built in 1896, and supplemented the milling stones of the earlier mill with a series of 18 sets of rollers, and a series of purifiers on the upper floors (see history above for a detailed description of the machinery). The walls, thought largely rendered, are shown in the north-east elevation to be of roughly coursed slate blocks, with larger quoins and slate lintels. The roof is of slate.

5.3.1 External

5.3.1.1 South West elevation (plate 7)

The south west gabled elevation is rendered and painted white. On its ground floor it has a replacement door and enlarged flanking windows. On the three floors above this are 3 superimposed boarded doors under shoulder heads with 6 light casement windows on either side. A bracketed and gabled former hoist can be seen above the third floor.

5.3.1.2 North West elevation (plate 8)

The north west elevation is cement rendered, except for the rubble stone basement. It has replacement windows in larger openings on its far right and a blocked doorway to the left of this. The elevation has 21 casement windows in original openings and nine lateral braces which link to the beams inside.





Plate 8: South east view of the north west elevation

5.3.1.3 North east elevation

The north east gable end has exposed slate stone rubble laid in rough courses and larger rectangular quoins. A replacement door is flanked by casement windows one of which (right) is blocked. The ground floor has three 6-light windows in original openings and the two upper floors have nine casement windows in the original openings.

5.3.1.4 South east elevation

The south east elevation is of roughly coursed blocks and has been greatly disturbed by the edition of the link building. The upper floor windows are all blocked and nine doors have replace windows due to the creation of the link building.

31



Figure 16: Elevations of building C

5.2.2 Tramway tracks and turntable

The tracks (0.5 m wide) which cover the entire length of the basement of building C and continued via a central turn table to a door in the north-west elevation of building A are thought to have been created for the use of the pottery, which was established at Snowdon Mill in the late 70's. but their bases could still be seen opposite the turntable. Three tracks also led off from the turntable in a north-east direction.

The kilns had been removed by the time of the survey



Figure 17: Pottery track and turntable



Image 1: North west view of the track and turntable.



Image 2: North west view of the kiln feet.



Image 3: North west view of track



Image 4: South west view of track, turntable and kiln feet.



Image 5: North west view of the track inside the basement of building C



Image 6: South west close up view of the track inside the basement of building C

5.2.3 Internal

1

5.2.3.1 Basement

The basement is divided by cast iron columns which continue through the full height of the building. Six bays are divided by two equally spaced columns across the building. The two columns within the second bay from the south of the basement are replaced by a segmental arched arcade of two stone pillars, which in turn support the iron posts above. The floor of the basement is of large slate slabs.



Figure 18: Basement plan of building C



Image 1: Stone archways with cast iron posts supported above



Image 2: Detail of stone archways with cast iron posts supported above



Image 3: Detail of cast iron posts with blocked windows behind



Image 4: 2 light casement windows in the north west facing elevation



Image 5: North west view of crossed support braces



Image 6: Detail of cast iron posts

5.2.3.2 Ground floor

The ground floor is divided by cast iron columns which continue through the full height of the building. The south west wall has replacement door and enlarged flanking windows. On the north west wall there are replacement windows in larger openings on its far right and a blocked doorway to the left of this. The windows are replacement casement windows in original openings. 3 windows in the south east wall have been converted to doors with the addition of the link building.



Figure 19: Ground floor plan of building C



Image 1: South west view of replacement window and enlarged flanking windows



Image 2: North west view of replacement window in original larger opening and blocked door



Image 3: South west view of ground floor



Image 4: North west view of replacement casement windows in original openings



Image 5: Detail of cast iron posts with double beams for reinforced support



Image 6: North east detailed view of shoot

5.2.3.3 First floor

▶1

The first floor was originally accessed by a stair well to the north-west which is now demolished. The floor is divided by the ten cast iron columns which continue through out the building.

Archive evidence suggests that this floor originally contained 18 rollers.

This floor contains replacement casement windows in original openings, 4 of these windows have been blocked in the south-east elevation and 2 in the same elevation converted to doors.

There are 2 hatches to the south-west which relate to the hoist on the third floor.



Figure 20: First floor plan of building C



Image 1: South west view of replacement casement windows in original openings



Image 2: South west view of boarded door in original opening



Image 3: North east view of first floor



Image 4: North west view of replacement casement windows in original openings and opening for demolished staircase



Image 5: South west view of crossed support braces



Image 6: Hatch located to the south west taken from below

5.2.3.4 Second floor

1

The second floor is accessed by a stair well to the south-west. The floor is divided by the ten cast iron columns which continue through out the building.

Archive evidence suggests that this floor originally contained 12 purifiers.

This floor contains replacement casement windows

in original openings, 4 of these windows have been blocked in the south-east elevation and 2 in the same elevation converted to doors.

There are 2 hatches to the south-west which relate to the hoist on the third floor.



Figure 21: Second floor plan of building C



Image 1: North east view showing replacement casement windows in original openings, cast iron posts and staircase



Image 2: South east view of blocked windows



Image 3: South west view of boarded door in original opening



Image 4: North east view of brace



Image 5: Hatch or opening located to the south west taken from below



Image 6: Hatch located to the south west taken from below

5.2.3.5 Third floor

The first floor is accessed by a stair well to the northwest as well as a stair case to the north-east. The floor is divided by the ten cast iron columns which continue through out the building.

Archive evidence suggests that this floor originally contained 2 plansiffers, purifiers and a complete set of centrifugals. This floor contains replacement casement windows in original openings, 5 of these windows have been blocked in the south-east elevation.

There are a variety of hatches and openings to the south-west, one of which is a double door hatch, which relate to the hoist on the positioned above.



Figure 22: Second floor plan of building C



Image 1: Re-used timber with faint text suggesting PR 188?



Image 2: South-west view of boarded door and flanking replacement casement windows



Image 3: North-east view of blocked window



Image 4: South-west view



Image 5: Hatch or opening located to the south west taken from below



Image 6: Hatch located to the south west taken from below

5.2.4 Sack hoist

A belt-driven sack hoist remains in the roof of building C. It was used to winch sacks through a trap door in the floor. The winch is also in-line with an external door in the gable end, and whilst they it may have been used to winch sacks externally, the exact method of doing this cannot presently be resolved. A rope or chain would have passed down through a small hole in the centre of the trapdoors, as the sacks were pulled up the pressure would have forced the doors open, and they would then have closed under gravity after the sack had passed through.

Power was transmitted through a lay shaft to a large cast pulley or drive wheel, from which a belt drove a

smaller pulley located above, also of cast iron. This smaller pulley was attached to and drove the chain barrel, the central shaft being held in place by bearings either side. From the chain barrel the chain passed over a secondary pulley suspended over the trapdoors, and then down through the trapdoors. When not in use the drive belt remained loose, but when required a tension roller or wheel was pulled onto the belt, which tensioned it and caused the chain barrel to turn. The tension wheel was operated by means of a long cord, which passed through each floor, and was attached to a long curved lever-arm which in turn moved the tension roller.



North-west facing elevation

North-east facing elevation

Figure 23: Sack hoist building C

6.0 References

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Myfanwy Morris Collection of Porthmadog history (Caernarfon Archives XM 4302 and XS 4302). Sorce on the mill is XS 4302/ 4/ scrap book/ photo album, of which the first two pages (ref XS 4302/ 4/ 1 - 2) cover this topic. The pages contain cuttings

from promotional material, a letter head, and three photographs. One is a postcard (p2, and of very good clarity) of the general view from the east that was published in M. Morris' book. The other (p.1) is a view along the approach street, looking east, showing the mills and railway crossing on the occasion of the marriage of the manager (Mr Harrow)'s daughter (Bessie) in 1904, whence the attached house was addorned with bunting. The third photograph (p.2) is of the workforce of around ten persons (named) in 1890.

Myfanwy Morris, *Porthmadog – Yesterday's Tide* (Gwynedd Arcchives and Museum Service, Caernarfon, nd – recent) ISBN 0-901337. General photograph (Plate 34) of mill from south east (see also original in CRO XS 4302/ 4/ 1, above). Plate 35 is of a printed advertising sheet, and plate 36 is of the mill staff (as described in CRO XS 4302, above).

T.J. ... author of a series of articles under the main title 'Reminiscences of Carnarvon' published in the *Carnarvon & Denbigh Herald* in the 1920s. The story of the Porthmadog flour mill boilers is recounted in Part XXII – 'Work Done at the Old Foundry' [i.e., the Union Foundry of Thomas & de Winton, later De Winton & Co.], that was most likely published in the 5 December 1924 issue [undated photocopies in the late D. C. Clayton's 'De Winton' research notes, in posession of Dr G. P Jones].

V. Mitchell and K. Smith, *Branch Lines around Porthmadog 1923-46* (Middleton Press, Midhurst, 1993) ISBN 1-873793-13-8. Photographs 53 –54 (with notes) of narrow-gauge railway loading shed adjacent to the mill.

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Wales Trade Directory (Trade Directories Ltd, Edinburgh). Sample years consulted 1935, 1936 and 1942 (dictated by availability of copies in Caernarfon Archives).

cast pulley from which a belt drove a smaller pulley, also of cast iron, above. This smaller pulley was attached to and drove the chain barrel, which was held in place by bearings either side. The chain would have left the chain barrel, then over a secondary pulley suspended over the trapdoors, and then down through the trapdoors. The drive belt was not tensioned until the winch was required to haul up sacks, then a small roller fixed into a hinged frame from which a long curved arm protruded, was pulled, by means of a rope attached to the end of the arm, onto the belt. This tensioned the belt and set the chain barrel turning to haul the sacks up through the floors. Appendix I

DESIGN BRIEF FOR ARCHAEOLOGICAL BUILDING RECORD

Gwynedd Archaeological Planning Service

Site: Snowdon Mill, Snowdon Street, Porthmadog

Date: 18th November 2008

National Grid Reference: 257063, 338952

Planning reference: C06D/0159/44/CR

This design brief is only valid for six months after the above date. After this period Gwynedd Archaeological Planning Service should be contacted.

It is recommended that the contractor appointed to carry out the archaeological mitigation visits the site of the proposed development and consults the Regional Historic Environment Record (HER) for north-west Wales before completing their specification. Gwynedd Archaeological Planning Service cannot guarantee the inclusion of all relevant information in the design brief.

Key elements specific to this design brief have been highlighted.

1.0 Site Location and Description

- 1.1 For the purposes of this brief the site comprises Snowdon Mill, Snowdon Street, Porthmadog.
- 1.2 The property is situated on the eastern edge of the town of Porthmadog.
- 1.3 Porthmadog is located at the mouth of the Afon Glaslyn estuary, Gwynedd, North-West Wales.

2.0 Archaeological Background

- 2.1 Porthmadog Harbour was constructed by W. A. Madocks between 1821 and 1825. It became a centre for the export of slate from Blaenau Ffestiniog during the later nineteenth century when Porthmadog expanded and developed as a significant port town.
- 2.2 Snowdon Mill was established as a corn mill in 1862 on a plot of land adjacent to Llyn Bâch. It is a grade II listed building (Record No. 4431) listed for its industrial archaeological interest as a rare surviving mid-nineteenth century steam-powered flour mill.
- 2.3 The building fabric reveals several clear phases of construction and use however very little information about the mill's history is currently readily available.
- 2.4 The structure initially consisted of a three-storey building with basement fronting Snowdon Street. This older mill building, positioned to the south east of the site, retains a number of original features, fixtures and fittings including a date stone on the south east elevation. The interior includes timber columns which differ in design and position on each floor.
- 2.5 The mill building to the north west of the site is a four storey structure with basement. This building was constructed during the later 1880s and still

retains trapdoors and iron columns. The roof space is specially reinforced using iron ties and strengthened beams to support a large hoist with winding mechanism, apparently in situ.

- 2.6 The basement of the mill contains some large stone supports used as a base for former machinery. Evidence of more recent uses of the site also survives in the form of two large kilns and a short track-bed associated with pottery manufacture.
- 2.7 Any below ground archaeological potential has been reduced due to substantial recent disturbance around the site. There is some potential for the discovery of remains associated with the mill or for evidence connected with the Croesor Tramway.
- 2.8 Further historic details may be revealed during the renovation works; In particular during demolitions, the removal of interior partition walls and external render, the refurbishment of roofs and the removal of interior fabric, fixtures and fittings.
- 2.9 The reports below must be consulted in relation to this brief.
- 2.10 Documentation

English Heritage, 2006. Understanding Historic Buildings A guide to good recording practice. English Heritage, London.

Gwyn, D. 2006. Gwynedd: Inheriting a Revolution - *the Archaeology of Industrialisation in North-West Wales*. Phillimore, Chichester.

Palmer, M. & Neaverson, P. 1998. Industrial Archaeology: *Principles and Practice.* Routledge, London.

Welsh Highland Heritage Newsletter Issue No. 38, December 2007. Snowdon Mill Turnout Mystery. ISSN 1462-1371

3.0 The nature of the development and archaeological requirements

- 3.1 The building is to be converted to 21 residential units. The works include the demolition of the link buildings, the lean-to extensions facing Snowdon Street and the abutting wall of the old engine house on the north east elevation. The conversion involves the creation of new openings (mainly on the north-east elevation) and extensive refurbishment of the internal and external building fabric.
- 3.2 This is a *design brief* for a programme of archaeological works to mitigate the impact of the development to be undertaken following planning consent, according to guidelines set out in Welsh national planning guidance (*Planning Policy Guidance Wales 2002*), Welsh Office Circular 60/96 (*Planning and the Historic Environment: Archaeology*) and Welsh Office Circular 61/96 (*Planning and the Historic Environment: Historic Buildings and Conservation Areas*). The programme of works will comprise a **building record** to be made in advance of the proposed renovations.
- 3.3 This *design brief* should be used by the archaeological contractor as the basis for the preparation of a detailed written archaeological *specification*. The specification must be submitted to the Gwynedd Archaeological Planning Service for approval before the work commences.
- 3.4 The *specification* should contain, as a minimum, the following elements:
 - Non-technical summary.

- Details of the proposed works as precisely as is reasonably possible, indicating clearly on a plan their location and extent.
- A research design which sets out the site-specific objectives of the archaeological works.
- Reference to the relevant legislation.
- Health and Safety considerations.
- Monitoring procedures.
- Field methodology.
- The level and grade of all key project staff.
- A timetable for the proposed works including contingency costs (if appropriate).
- The intended method of publication.
- Archive deposition.

4.0 Mitigation detail

4.1 The programme of archaeological works to **mitigate** the impact of the development will consist of a programme of building recording.

4.2 Building record detail

4.3 The building record should be roughly commensurate with the English Heritage 'Understanding Historic Buildings: a guide to good recording practice' (2006) Level 3 and should include the following elements:

•	written account	1-3, 5-13, 22;
•	drawings	2, 3, 6-9;
•	photographs	1-9.

- 4.4 Before new records are prepared, existing sources of information should be found and examined for their adequacy. Such information may be found in drawings, photographs, published and unpublished accounts.
- 4.5 The **written account** should draw on a range of available resources and discuss the building's significance, origins, development and use. The Historic Environment Record, the National Monuments Record, the University of Bangor and the local archive, held at Caernarfon County Record Office, should be visited.
- 4.6 Where evidence cannot be adequately obtained through photography the **drawings** must include measured plans of the existing floors and elevations and should also include sketches of any significant industrial detailing within the building.
- 4.7 **Photographs** should be detailed and must record all features, room spaces and elevations to illustrate the building's appearance and structure and to support an historical analysis. Each print should be clearly labelled with the subject, orientation and the date taken, and cross-referenced to its negative and or digital file (see 4.8 & 4.9).
- 4.8 Both black-and-white and colour photography should be used where appropriate.

- 4.9 If utilising digital technology, high resolution images (preferably in tiff. format) must be produced. These should be presented within the report as a hard copy and a compact disc must be included as an archive to accompany the report.
- 4.10 Further information may be revealed during the course of the conversion and a programme of **archaeological observation** may therefore be required.
- 4.11 Adequate resource must be made to implement the archaeological programme in conjunction with the proposed demolitions, stripping out and ground works. Effective communication between the site contractor and the archaeologist will be required.
- 4.12 The programme of works needs to be coordinated with the archaeological contractor so that there is adequate opportunity and time allowed to identify, investigate and record any remains which may be relevant, in accordance with the Archaeological Standards.
- 4.13 The archaeological contractor will ensure that sufficient resource is made available for the programme to result in an archive report.
- 4.14 The report should specifically include the following:
 - a) a copy of the design brief and agreed specification,
 - b) a location plan,
 - c) a plan illustrating the location and direction of any photographs or drawings,
 - d) full dimensional and descriptive detail, a full bibliography of sources consulted,
 - e) An archive compact disc.

5.0 General requirements

- 5.1 The archaeological recording must be undertaken by an appropriately qualified individual or organisation, fully experienced in work of this character.
- 5.2 Details, including the name, qualifications and experience of the project director and all other key project personnel (including specialist staff) should be communicated to the Gwynedd Archaeological Planning Service and all written work attributed to an author(s).
- 5.3 Contractors and subcontractors are expected to conform to standard professional guidelines. The following are of particular relevance in this instance:-
 - English Heritage's 2006 <u>Understanding Historic Buildings: A guide to</u> good recording practice.
 - Richards, J. & Robinson, D. 2000. Digital Archives from Excavation and Fieldwork: *Guide to Good Practice*. Second Edition. The Archaeology Data Service Guide to Good Practice. Oxbow Books. <u>http://ads.ahds.ac.uk/project/goodguides/excavation/</u>
 - The Institute of Field Archaeologists 1985 (revised 2006) <u>Code of</u> <u>Conduct.</u>

- The Institute of Field Archaeologists 1990 (revised 2002) <u>Code of</u> <u>Approved Practice for the Regulation of Contractual Arrangements in</u> <u>Field Archaeology</u>.
- The Institute of Field Archaeologists 1994 (revised 2001) <u>Standard and</u> <u>Guidance for Archaeological Desk-Based Assessment</u>.
- The Institute of Field Archaeologists 1994 (revised 2001) <u>Standard and</u> <u>Guidance for an Archaeological Watching Brief</u>.
- The Institute of Field Archaeologists 1996 (revised 2001) <u>Standard and</u> <u>Guidance for the Archaeological Investigation and Recording of Standing</u> <u>Buildings or Structures</u>.
- The Institute of Field Archaeologists 2001 <u>Standard and Guidance for the</u> <u>Collection, Documentation, Conservation and Research of Archaeological</u> <u>Materials</u>.
- The Institute of Field Archaeologists 1999 <u>Standard and Guidance for the</u> <u>Collection, Documentation, Conservation and Research of Archaeological</u> <u>Materials</u>.
- 5.4 Many people in North Wales speak Welsh as their first language, and many of the archive and documentary references are in Welsh. Contractors should therefore give due consideration to their ability to understand and converse in Welsh.
- 5.5 The archaeological contractor must satisfy themselves that all constraints to groundworks have been identified, including the siting of live services, Tree Preservation Orders and public footpaths. Gwynedd Archaeological Planning Service bears no responsibility for the inclusion or exclusion of such information within this brief.
- 5.6 Any changes to the specifications that the archaeological contractor may wish to make after approval by this office should be communicated to Gwynedd Archaeological Planning Service and approved.
- 5.7 Care must be taken in dealing with human remains and the appropriate environmental health regulations followed. Gwynedd Archaeological Planning Service and the local Coroner must be informed immediately human remains are discovered.
- 5.8 Arrangements for the long-term storage and deposition of all artefacts must be agreed with the landowner and Gwynedd Archaeological Planning Service before the commencement of investigation.
- 5.9 The involvement of Gwynedd Archaeological Planning Service should be acknowledged in any report or publication generated by this project.
- 5.10 A full archive including plans, photographs, written material and any other material resulting from the project should be prepared in accordance with standard guidance. All plans, photographs and descriptions should be labelled, cross-referenced and lodged in an appropriate place (to be agreed with Gwynedd Archaeological Planning Service) within six months of the completion of the project.
- 5.11 Two copies of the bound report must be sent to the address below, one copy marked for the attention of the Development Control Archaeologist, the other for attention of the HER Officer, who will deposit the copy in the HER.

5

6.0 Curatorial monitoring

6.1 The project will be monitored by Gwynedd Archaeological Planning Service to ensure the fulfilment of the brief and specifications. The Development Control Archaeologist will normally review the progress of reports and archive preparation. The archaeological contractor must inform Gwynedd Archaeological Planning Service in writing of the proposed start dates for the project and any subsequent phases of work.

7.0 Glossary of terms

7.1 Archaeological Contractor

A professionally qualified individual or an organisation containing professionally qualified archaeological staff, able to offer an appropriate and satisfactory treatment of the archaeological resource, retained by the developer to carry out archaeological work either prior to the submission of a planning application or as a requirement of the planning process.

7.2 Archaeological Curator

A person, or organisation, responsible for the conservation and management of archaeological evidence by virtue of official or statutory duties. In northwest Wales the archaeological advisor to the Local Planning Authorities is the Development Control Archaeologist, who works to the Welsh Archaeological Trust's Curators' Code of Practice.

7.3 Archive

An ordered collection of all documents and artefacts from an archaeological project, which at the conclusion of the work should be deposited at a public repository, such as the local museum.

7.4 Brief

The Association of County Archaeological Officers (1993) defines a *brief* as an outline framework of the planning and archaeological situation which has to be addressed, together with an indication of the scope of works that will be required.

7.5 *Historic environment Record (HER)*

A documentary record of known sites in a given area. In north-west Wales the HER is curated by the curatorial division of the Gwynedd Archaeological Trust.

7.6 Specification

The Association of County Archaeological Officers (1993) defines a *specification* as a schedule of works outlined in sufficient detail to be quantifiable, implemented and monitored.

7.7 Watching brief

A formal programme of observation during non-archaeological excavation works in order to identity, investigate and record any archaeological remains which may be present, in accordance with the Archaeological Standards.

8.0 Further information

8.1 This document outlines best practice expected of an archaeological assessment but cannot fully anticipate the conditions that will be encountered as work progresses. If requirements of the brief cannot be met they should

only be excluded or altered after gaining written approval of the Gwynedd Archaeological Planning Service.

8.2 Further details or clarification of any aspects of the brief may be obtained from the Development Control Archaeologist at the address below.

Ashley Batten Swyddog Rheolaeth Datblygiad - Development Control Officer

GWASANAETH CYNLLUNIO ARCHAEOLEGOL GWYNEDD - GWYNEDD ARCHAEOLOGICAL PLANNING SERVICE

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