

Caisteal Bharraich, Tongue Supporting Statement

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Caisteal Bharraich
1467J
Ben Loyal Estate
Sutherland

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Executive Summary

Caisteal Bharraich is a small structure with a large presence in its local area due to a prominent location that provides wide-reaching views for miles around. Although little is known of its history, the picturesque ruined building has associations with both the Norse warriors of the 11th century and the origins of the Sutherland Clan Mackay in the 15th century. For both tourists and locals alike, it provides a fascinating and enigmatic link back through centuries of history. It has a simple, robust character, born out of its position as an iconic landmark on the north coast of Scotland.

In spite of many decades, and possibly centuries, without maintenance or repair in an exposed hilltop location, the roofless building has survived remarkably well. Comparison with MacGibbon & Ross' 19th century records suggests that relatively little has visibly changed over recent decades. However, slow but progressive deterioration now means that parts of the building are in a dangerous condition and will decline rapidly if not addressed in the immediate future. The time has come for a comprehensive programme of repair works to stabilise the building for many more years to come, providing the opportunity to also enhance the visitor experience at the same time through sensitive interventions.

This Supporting Statement identifies the qualities that make Caisteal Bharraich special, and which should be conserved or enhanced as part of any scheme of repair works. It also sets out the conservation philosophy and policies that will be used to guide the twin objectives of repair and the enhancement of access, safety, understanding and enjoyment.

As part of the overall Wildland project, extending across Ben Loyal and the adjacent estates, repair works at Caisteal Bharraich have been specified by conservation architects and structural engineers to address all of the points outlined by HES in their earlier architect's reports, and will be implemented by experienced masonry conservation contractors acting under the scrutiny of archaeologists. The existing walls will be carefully consolidated using lime mortar to match the existing materials and capped using a more durable lime-based mortar, and the section of wall that collapsed in 2015 will be carefully rebuilt using original materials salvaged from the site. In addition, a small new entrance stair, internal stair and discreetly positioned viewing platform will be formed to improve visitor access and safety. Interpretation sign boards will be sensitively located to better inform visitors both about the monument site and the wider landscape visible around them.

1.0 Introduction

1.1 Purpose

This report is intended to advise on the condition of the remaining fabric of Caisteal Bharraich, also known as Castle Varrich, near Tongue in Sutherland, and to make recommendations on the repair works required to halt further serious deterioration and bring it to a safe structural condition.

In addition, this report will also advise on the feasibility of improving public access and safety on the site whilst repair works are carried out.

An application is shortly to be made to Historic Environment Scotland for Scheduled Ancient Monument Consent and for a repairs grant under the Ancient Monuments & Archaeological Areas Act 1979 and the Ancient Monuments (Scotland) Order 1996. The information provided within this report also aims to support this application.

1.2 Designations

Caisteal Bharraich is a Scheduled Ancient Monument (no. SAM 1896), and it consists of the ruined remains of a small stone building and an area of open ground (see Appendix A) within Ben Loyal Estate. The castle was first Scheduled in 1938, although it was rescheduled in 2002 with a much larger site boundary to ensure protection of all possible surrounding archaeological remains.

The monument lies within the Kyle of Tongue National Scenic Area.

The footpath up to the site is designated as a Core Path.

1.3 Background

For many years there has been growing local concern about the future of the building and how it might be best saved for future generations. The condition of the building, which has been ruinous for at least two centuries, has deteriorated leading to a localised collapse of part of the east wall in early 2015 and general instability in several areas. Signage is in place to notify visitors that the structure is dangerous.

Although the site is in private ownership, it is publicly accessible. The signposted footpath and interpretive signage has recently been constructed by the Community Council with grant aid, connecting the site with the nearby village of Tongue. Access both up to and inside the building is restricted by its hilltop location and its height above ground level.

Ben Loyal Estate was recently purchased by a new private owner, who is seeking to repair and conserve this local landmark for future generations as part of a wider scheme to regenerate the Estate and the wider community (see Appendix D for details).

In early 2015, Groves-Raines Architects Ltd. and other specialist consultants were employed to advise on the condition of the castle and to prepare this report to enable repair works to be carried out.

1.4 Limitations

These recommendations are based on purely visual inspections of the remains of the castle carried out at various times between 2013 and 2015..

Inspection was available from ground level only and those parts of the structure that are built in, covered up or otherwise inaccessible have not been inspected. No opening up work, specialist investigation or testing has been carried out thus far and it is therefore possible that some aspects of these proposals may have to be revised when such further analysis is undertaken. Survey has however been undertaken using a 3D digital laser survey, ensuring accuracy of measurements and coverage of wallheads.

This report is prepared for the sole use our client and liability cannot be accepted for its use by any other party.

2.0 History and Description

2.1 Location and access

The castle sits on a prominent and exposed hilltop 84m above the Kyle of Tongue on the north coast of western Sutherland, several miles to the north of Ben Hope and Ben Loyal. The site is a popular tourist destination as it provides striking views across the surrounding landscape as it is visible for miles around. The nearby village of Tongue, just to the east, is an ancient settlement on the east shore of the Kyle, with its name coming from the Norse word 'Tunga', meaning tongue or spit of land.

Access is via a recently-constructed 1.5km gravelled footpath running from the village, across a burn via a narrow wooden footbridge, and up the steep hillside. The path is designated as a Core Path by Highland Council, and has been enhanced by several benches and a signboard just outside the boundary of the monument site. Vehicle access from public roads to the site is only possible with the permission of the neighbouring landowner across their property.

Once inside the monument boundary, access into the building is via steep, rough tracks across the grass and a climb of approximately 1m up to the doorway. The interior of the building itself has a very rough and uneven floor partly covered by fallen masonry.



Fig. 1: Location Map

Fig. 2: Location plan



Fig. 3: Aerial view from NW showing the modern footpath up to the site



Fig. 4: Detailed aerial view from above

2.2 Outline history

Caisteal Bharraich comprises a small and ancient ruinous structure, of unknown date. The origin of the castle's name is also mysterious, possibly deriving from 'Beruvik', which was where the Norse Thorfinn fought a sea battle in the 11th century or from the Gaelic for 'castle of the Lochaber man', a reference to Iain Abrach, a son of a local Mackay chief who is said to have hidden in a nearby cave during the 15th century. The First Statistical Account (1791-99) relays this second account. Some even believe that the castle is the original seat of the Clan Mackay, although its minuscule size and hilltop location make this unlikely.

Various 19th century and more recent sources suggest several possible uses for the building; a guardhouse, a watchtower, a cell for a religious man, a landmark for passing ships, a community gathering place, or even a grain store. MacGibbon & Ross, late 19th century building historians, suggest that it may have been a one room house accessed by a ladder, used by the medieval Bishops of Caithness as a lodging place when they travelled between their residences. They surmised that it would have had two upper storeys, possibly with an attic and a parapet, and a vaulted ground floor stable below.

In 2002 the previous owner of the building considered carrying out repairs and as a result Historic Environment Scotland (HES) prepared an Architect's Advisory Report outlining the condition of the building and proposed repair methods. It

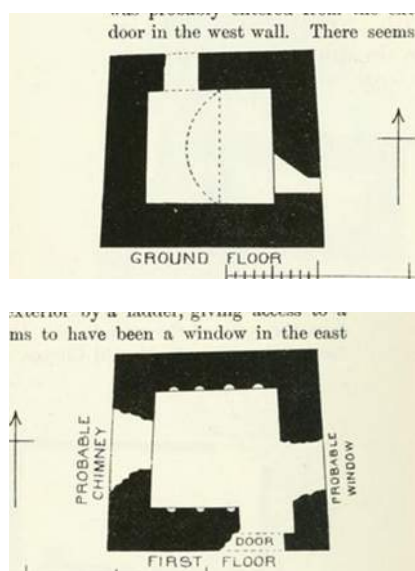


Fig. 6: M&R Extracts from Fig. 188 - plans



Fig. 5: MacGibbon & Ross Fig. 187 - a somewhat inaccurate view from NE

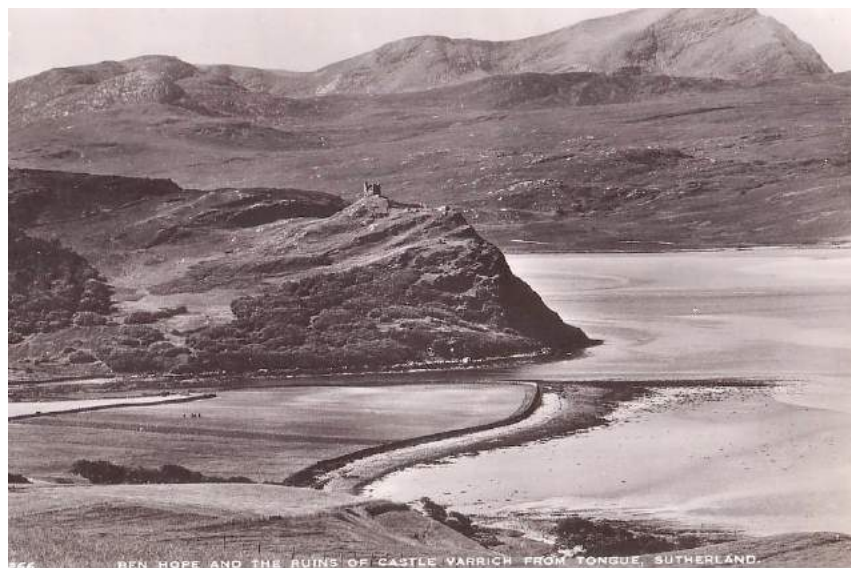


Fig. 7: Undated historic photographic postcard view from NE



Fig. 8: Undated historic postcard as Fig. 4

appears that no repair works were carried out at this time. In early 2015 an area of the east wall collapsed, prompting HES to prepare an Addendum report suggesting that parts of the building were in imminent danger of further collapse.

2.3 Description

The building is roughly square and measures approximately 7.7m along its south face and 7m along each of the other three faces. The walls are between 1.5-1.8m thick, and are between 5.6-8.6m high, although the rocky metamorphic outcrop it sits on is steeply sloping.

The building is constructed of roughly coursed metamorphic and robust sandstone rubble in large blocks with more regularly shaped stones at openings and corners. A mortar sample has been taken from the area of recent collapse and analysed by the Scottish Lime Centre Trust. The material was found to consist of lime with beach sand containing both large and small shell fragments.

The remaining building consists of four walls, of varying heights, with a floor level around 1m above the external ground level, and a single door opening and possibly evidence of a window or door opening at first floor level. Changes in coursing, stone type and jointing on the exterior suggest that the structure may have been rebuilt at some point in the past, although there are no written records to confirm this suggestion. Internally, there are the remains of a vaulted



Fig. 9: North wall



Fig. 10: East wall



Fig. 11: West wall



Fig. 12: South wall

ceiling to the ground floor, and vertical slots in the upper walls suggest that there may have been a floor or roof above this level with timbers built into the walls, much like the cruck roofs of local, single storey vernacular dwellings. Although the internal space is generally rectangular, the exterior plan of the building is irregular, resulting in walls that vary in thickness. Small patches of wall plaster remain in sheltered parts of the interior.

Since 2002 the Scheduled site has been enlarged beyond the boundary of the building to include an area of open ground approximately 110m (north to south) by 75m (east to west) as it is possible that this area may also include archaeological remains below ground level. The RCAHMS record for the site also notes that there are remnants of walls extending for 20m on a rocky outcrop to the north of the castle.

2.4 Use

Caisteal Bharraich is an unroofed, informal visitor attraction with no other use. There are no wardens or facilities at the monument other than a signboard outside the Scheduled Monument boundary, erected when the Core Path was created.

2.5 Health & Safety

As described in 2.1, access up to the site and within the monument boundary is limited by naturally steep topography, although this has been improved somewhat by the modern footpath with benches that provide resting places. Access into the building is somewhat hazardous due to the approximately 1m climb up to the entrance threshold that is made up of loose rubble. In addition, there are currently some loose areas of masonry at high level, uneven flooring and some low areas of walling inside the building that could also pose falling-masonry, trip and fall-from-height hazards to visitors.

2.6 Ecology

Ecology surveys have been carried out during 2015, and these have determined that the site shows no evidence of bats and has low potential as a bat roost.



Fig. 13: Internal view looking West - showing remnants of vaulted ground floor and wall slots



Fig. 14: Internal view of SE corner

3.0 Significance

This section addresses the architectural, archaeological, historical and landscape significance of Caisteal Bharraich using internationally recognised categories for weighing significance. The levels of significance adopted here, based on those established by James Semple Kerr (*The Conservation Plan*, 1996) are:

- Exceptional - important at national to international levels;
- Considerable - important at regional level or sometimes higher;
- Some – of local to regional significance e.g. a building or structure that is included in a local (non-statutory) list or makes a strong contribution to a conservation area;
- Little – of limited heritage or other value;
- Negative or intrusive features - those that actually detract from the value of the site.

In addition to these levels of significance, TAN 8: The Historic Scotland Guide to International Conservation Charters (1997) notes that a number of charters use the concept of integrity to define the key components of a site. The essential types of integrity, or value, that may be attached to a place are:

- Structural and technological;
- Social;
- Spatial;
- Aesthetic;
- Contextual.

The Scheduled Monument itself is of *considerable* architectural, archaeological, historical and landscape significance and sensitivity for the following reasons:

- The form and fabric of the standing monument as it is a rare example of a substantial ancient ruin that has been the subject of little, or no, modern alteration;
- The long cultural and historical associations of the site, in particular with the Clan Mackay since the 15th century;
- The form of the building as an iconic landscape element, both drawing the eye and providing spectacular views out across the surrounding countryside;
- The potential for both standing and undisturbed below-ground archaeology both within and around the building.

Negative or intrusive features are the recently-constructed access footpath from Tongue and signage, both of which are located outside the boundary of the Scheduled Monument. These modern features have changed the approach to the building but do not impact upon the skyline and distant views of the site.

In addition to the assessment of significance, above, the formal designation of the site as a scheduled monument indicates that it has been given legal protection as a monument of national importance under the Ancient Monuments and Archaeological Areas Act 1979.



Fig. 15: View from across the Kyle of Tongue, looking SE



Fig. 16: View from site towards to North Sea

4.0 Condition Assessment

Please also refer to the Structural Engineer's Condition Note, included as Appendix B.

4.1 External elevations generally

Exposure of the unprotected wallheads and a lack of maintenance over a long period of time has led to a loss of mortar generally: walls are open-jointed as pointing is missing; at cracks there are large voids where wall core material has been washed out; and there are many large and small pockets of missing facing stones. In addition, there is some vegetation growth, mainly near ground level.

North elevation - This wall contains an external door opening with corbelled head. The sill of this opening is well above the current external ground level, and heavily eroded so that it is impossible to confirm the original internal floor level. To the east side of the door there is a change in the masonry following a roughly vertical line; the stones are smaller, flatter and darker than to the east.

East elevation - The centre of the wall is the location of the recent collapse down to the internal floor level, with the rubble from the collapse mainly left inside the building. Several cantilevering stones have been left at high level and these are a danger. This is some evidence, in the form of what might be smooth jambs and perhaps stubs of a sill and lintel, to suggest that there was a window opening at first floor level, which has possibly contributed to the recent collapse. A mortar sample was taken from the area of collapse, and found to consist of lime mortar incorporating local beach sand



Fig. 17: View of North doorway



Fig. 18: View of East elevation before collapse of early 2015



Fig.19: View of East elevation during 2015, following collapse



Fig. 20: View of North wall masonry change

aggregate.

South elevation - The centre of the south wall has experienced significant movement and there is now a large semi-vertical crack and pockets of missing facing stones exposing the wall core.

West elevation - The centre of the west wall bows outwards, possibly as a result of mortar erosion within the wall. There is also some loose masonry at wallhead level.

Wallheads - None of the walls appear to be at their original full height, now being at a variety of levels, and the wall core is fully exposed as a result.

4.2 Interior generally

The masonry walls show extensive cracks, the worst being to the north side of the east wall, and some large areas of facing-stone loss. The remains of a stone vaulted ceiling are evident on the north and south internal elevations, although this is not built into the east and west walls. Above the vault there are a number of vertical slots in the walls, possibly evidence of built-in timbers forming a timber floor or roof structure. The interior of the door opening on the north wall has been eroded and some of the jamb stones have been lost. The sill of this opening has been lost, and this area is also eroded, partly by visitors climbing into the building. There is some lime plaster evident on internal walls. The original ground floor level cannot be ascertained at present due to the large amount of rubble and sandy material, the latter of which is probably the remnants of mortar from collapsed walls.

4.3 Grounds

The footpath up to the monument boundary has been recently-constructed and is in good condition, although the footbridge across the burn may have required recent repairs and is not suitable for contractor's vehicle access. Once inside the monument boundary, access is via narrow tracks over the grass and exposed bedrock that show no significant erosion at present although some are quite steep.

4.4 Summary

Caisteal Bharraich was abandoned at some point well before the First Statistical Account in the late 18th century, as it was recorded as an ancient ruin of uncertain origin at that point, and it has been allowed to deteriorate ever since. There is no evidence of recent maintenance or repair, and no visible evidence of cementitious mortars having been used.

There is evidence of instability and movement as the walls, in particular the south and west faces, are bulging and bowing. The prominent location of the building has led to significant loss of mortar and stone weathering externally. General erosion and destabilisation, possibly exacerbated by a small amount of vandalism or wear associated with visitors, have combined to produce a need for a wide range of consolidation and repair works. Of particular concern are the condition of the south elevation and the internal vaulting. The building is in a dangerous condition and warning notices have been erected. Further deterioration is considered highly likely unless a suitable programme of conservation and repair works is instigated in the near future.



Fig. 21: View of South wall showing significant loss of facing stones



Fig. 22: West Elevation



Fig. 23: View of North door threshold



Fig. 24: view of wallhead slots on North elevation



Fig. 23: Internal view of plaster remnants over North doorway



Fig. 24: Internal view of South elevation



Fig. 25: Internal view of east elevation and area of recent collapse



Fig. 26: Detail view of collapse area

5.0 Basis for Proposals

5.1 Conservation philosophy

The philosophical approach to repairing the structural fabric of the castle and improving access will be based on the principles set out in the Historic Scotland heritage policy document *The Conservation of Architectural Ancient Monuments in Scotland* (2001). Of specific importance to the current proposals are the following:

- All works will aim to have a minimum impact on the monument, be reversible and consistent with ensuring the monument's continued survival and stability.
- All phases of the monument's structural history deserve respect and conservation.
- All works should be fully recorded.
- There should be a presumption against restoration of any element or component part of the castle unless supported by sufficient evidence, both physical and documentary.

5.2 Policy framework

All works to the castle will be based on the following project policies:

1. All works must comply with the Ancient Monuments and Archaeological Areas Act (1979) and relevant Scottish national policy, i.e. the Scottish Historic Environment Policy (SHEP) (2011), which specifies that:
 - A minimum level of intervention, consistent with simply conserving cultural significance, is usually preferred.
 - All alterations must be justified and take into account the significance of not just the specific site as a whole but also of individual features. The greater the cultural significance of a feature, the less likely it is that alteration would be justified.
 - Extensive alterations will only be permitted in order to achieve long-term conservation gains or considerable public benefits, and must be balanced against any negative impacts on cultural significance.
 - Proposals must be carefully and sensitively designed, preferably by experienced conservation professionals. They must also be well planned and carried out on site, and where appropriate they should be reversible.
2. No works will be commenced until all statutory and legal requirements have been complied with. These also include those relating to Disability Discrimination, Safety of Occupants, Health & Safety and Nature Conservation.
3. All works of intervention to the site should be based on best practice and be guided by relevant conservation charters and standards. Amongst the most valuable of these documents are *The Burra Charter* (ICOMOS, 1999), *The Stirling Charter* (Historic Scotland, 2000) and, from a practical standpoint, the Historic Scotland publication *The Conservation of Architectural Ancient Monuments in Scotland: Guidance on Principles* (2001).
4. The approach will be to take preventative measures in the areas of maintenance and security to safeguard the future of the site.
5. Any proposals to alter, repair or restore any part of the site should be designed and supervised by an archaeologist and architect or other suitable professional accredited in building conservation. Other consultants employed such as structural engineers, building or quantity surveyors etc. should also be suitably qualified and experienced and, where applicable, accredited in building conservation.
6. Select and employ only contractors or specialists with a proven track record in conservation work. This policy recommendation is made with particular reference to any proposed repair or other works to the building (i.e. building contractors), but also applies to gardening, tree work, mowing regimes etc.
7. Maintenance provision will be considered as part of the design of any works and regularly reviewed to ensure that the conservation needs of the site are met. A system of quinquennial surveys should be introduced, undertaken by an appropriately qualified architect or surveyor accredited in building conservation.
8. The castle is generally in a poor and dangerous condition. The current warnings to visitors must be maintained. Further restrictions on public access to the site must be put in place and strictly maintained until basic stabilisation and other necessary works are implemented as appropriate.
9. Any new development, such as to improve access and signage, will be of appropriate scale and architectural character and be designed to have the minimum possible impact on the most archaeologically and visually sensitive areas of the monument site.

5.3 Objectives

5.3.1 Repair works are intended to focus on stabilising the building in its current condition, using the guiding principles of minimum intervention and reversibility. The repair techniques used are to be of the lowest level of intervention required to stabilise the monument for a good number of years, taking into consideration the limited budget available both now and in subsequent years. The only 'new' masonry work will be the reconstruction of the part of the east wall that collapsed in 2015, using photographic evidence to identify the fallen stones and rebuild them in their former positions as closely as possible.

5.3.2 As part of the larger Wildland Project (see Appendix D for Wildland Limited Principles), our client is seeking to conserve historic buildings in their ownership and to sensitively improve access, both intellectually and physically, understanding and enjoyment of heritage in the local area. Caisteal Bharraich forms a small but significant part of this project, which accords with para. 3.19 of the SHEP policies on Scheduled Monument Consent.

At present, physical access is difficult and unsafe due to the c.1m climb up to the entrance doorway and the possibility of falls from heights. Damage is also occurring to the entrance doorway threshold and some other limited areas, possibly as a result of visitors clambering up and accidentally disturbing masonry. Information on the history of the site and the original form of the building is limited and currently provided by a single signboard with a simple illustration. These works would focus on increasing visitor access, safety and appreciation, again using the guiding principles of minimum intervention and reversibility, and would be integrated with the consolidation and repair works in order to reduce their impacts.

5.4 General Matters

All works are to be carried out in accordance with the relevant sections of the Health & Safety at Work Act and the Construction (Design & Management) Regulations 2015. All scaffolding is to be freestanding and no ties will be permitted into existing stone masonry. Ends of all scaffolding are to be kept back from masonry surfaces and protected with plastic caps or foam packing as necessary.

All masonry repairs of other works involving the use of lime-based mortars are to be carried out between March and September to avoid freezing temperatures and allow time for the lime used in repairs to achieve initial carbonation before the onset of winter.

Impacts on the surrounding site, an area that is sensitive both archaeologically and for its scenic value, are to be taken into consideration throughout the project and minimised wherever possible in order to reduce disturbance.

6.0 Proposals

6.1 Archaeological & monitoring works

Before any works commence on site, a Scheme of Works and a Written Scheme of Investigation (WSI) must be prepared by the Archaeologist and agreed with HES. This will identify whether any below-ground archaeology will need to be investigated and recorded both within the building and the wider monument site.

There will also be a requirement for ongoing archaeological input throughout the works on site, particularly as there is the potential to discover buried archaeological remains or other features when carrying out the repairs works and any interventions. In general, rubble on the internal floor of the building is only to be removed following consultation with the Archaeologist, and where necessary for Health & Safety reasons and/or so that it can be reused in the consolidation works (reducing the amount of new stone that is brought onto site).

Upon completion of works, a system of quinquennial (5-yearly) surveys will be commenced to ensure that the fabric building is maintained properly in the future in accordance with project policy 7. These surveys should be carried out experienced conservation professionals. In addition, regular maintenance inspections are to be undertaken by the Estate management team for the sake of both the historic building and visitors. A check for safety and fabric condition at the start and end of the visitor season each year, and after any significant weather events such as major storms, would be the minimum recommendation.

6.2 Objective 1 - Repair

Please also refer to the drawings and documents produced by the Archaeologist, Architect and Engineer.

Sequence of work

1. Contractor to establish any areas of loose or potentially unstable masonry prior to commencing any works. If there are areas of immediate concern preventing contractor starting step 2. inform Engineer and Architect.
2. Prior to commencing any duntakings, a full photographic survey of the existing masonry is to be undertaken in collaboration with Archaeologist.
3. Identify, with input from Structural Engineer, areas of masonry that may require duntaking to make the working area safe. Any such areas are to be fully recorded and stones individually numbered prior to duntaking.
4. Once the immediate work area is safe, the contractor is to go about the task of salvaging fallen stone. The contractor should refer to the provided photographs of the East Wall prior to collapse and attempt to find key facing stones. Prominent stones visible in the photos of pre-collapse should be numbered on the photos and matching stones found on site correspondingly numbered with chalk.
5. Set aside all usable stone, in a safe and secure area, and clear ground internally and round castle perimeter from all loose material and vegetation.
6. Erect scaffold to allow full access to building
7. Contractor to mark and record all stones in areas marked for duntaking and then carefully take down to well consolidated stone.

Clearance and demolitions

- Vegetation growth should be removed from the walls.
- Root growth into the joints of the masonry to be removed.
- Take down partial area of walls only as indicated on drawings.

Treatment of wallheads

- Full perimeter of wall head to receive a suitable lime-based mortar capping with a mortar mix subject to discussion and prior approval by HES. Capping to be a minimum of 50mm thick. Consideration is to be given to soft-capping the wallheads using turf and/or the existing vegetation following detailed inspection on site. Exposure, the condition of the specific wallheads and the long-term maintainance requirements would be considered at that time.

General repairs to rubble stone walls

- Generally rake out existing pointing and cracked, damaged or decayed mortar. Take care not to rake out more than is necessary and not to destabilise masonry in the process.
- Carefully cut out frost damaged and badly cracked stone; replace with stone to match existing if the existing stone cannot be reused.
- Take down local areas where masonry in very poor condition and where disturbed by root growth; salvage stone for reuse wherever possible.
- Prior to taking down, contractor to record existing bond & pattern to allow new/salvaged masonry to match.
- Re-use existing stone in original location where possible.
- Rebuild using salvaged stone laid in lime mortar; coursing, size of stones, pattern of pinnings & joint widths to match existing. Any new stone required is to be sourced to match existing - stone type to be agreed with Architect and HES

prior to ordering.

- Generally replace missing pinning stones using new/savaged stone (size and pattern to match existing) and repoint using a lime mortar to Architect's specification.
- Where rebuilding portions of walling, allow for infilling voids within the rubble core with thinned lime mortar to consolidate fill prior to stone replacement. This is to be done where raking edges of wall are being left to ensure that there are no voids and that facing stone has a sound backing and, where required, stainless steel fixings have good substrate to fix into.
- All external faces require to be comprehensively tamped and pointed with a lime-based mortar to match the analysed sample taken from site. If used to fill voids, any grout mix is to be agreed with HES prior to implementation.

6.3 Objective 2 - Improving access, safety and appreciation

A range of options was considered in order to meet the objective to significantly improve access, safety and appreciation of the monument. These are listed below, in order of scale, together with a brief outline of pro's and con's:

1. Do nothing beyond the required consolidation and repairs as set out under 6.1 - Neutral impact at no additional cost.
2. Add or improve interpretation i.e. site signboards - Slight improvement to intellectual access only, at a small cost.
3. As 2. and improve access and safety by adding steps at the entrance doorway and a railing to prevent falls from the opening in the east wall - A small improvement to physical and intellectual access at a modest cost.
4. As 3. and add an internal stair and elevated platform to allow views from the first floor level (probably the original living level for occupants) - Many benefits to the public at a medium cost. With careful siting and design this intervention could be largely freestanding and concealed within the building.
5. As 4. and reinstate a roof over the viewing platform to allow the building to be used and enjoyed in all weathers and for a much greater portion of the year - The maximum benefits to the widest range of visitors, but at the greatest financial cost. This option would have the greatest impact on the original fabric and appearance of the building both internally and externally, and would therefore have the greatest possibility for creation of negative or intrusive impacts. A roof would, however, provide some weather protection to the existing fabric of the building.

While options 1-3 would all be worthwhile exercises, as they would secure the long-term future of the monument, they would not completely fulfil this secondary objective. Options 2 & 3 would go some way towards improving access and understanding but it is unlikely that they would markedly increase enjoyment of the site and hence be of sufficient interest to bring in new visitors who would not otherwise have climbed up to this rural site.

Options 4 & 5 were then considered in more detail using the project policies and the following criteria:

- Visual impact (see Policies 1 & 9)
- The philosophical approach taken, namely to ensure minimal physical impact, reversibility and a presumption against restoration of elements without evidence (see also Policy 1)
- Material selection & maintenance (see Policy 7)
- Health and Safety & insurances (see Policies 2, 4 & 8)

6.3.1 Option 5

Option 5, our client's favoured approach as it would provide the greatest enhancement to the visitor experience, was explored first. The reinstatement of any roof would be the hardest option to justify as its impact on the visual appearance and character of the building has the capacity to be hugely intrusive, both on the site and at a distance from key viewpoints.

A modern roof structure was initially considered and discounted as it would be far too visually intrusive if positioned above the wallheads, and conversely not provide adequate views to justify the cost and physical impacts if positioned below the highest wallheads.

Further investigation was then made into the existing structure and its history. This research showed that there is too little left of the upper walls, and no firm written or illustrative evidence of the building when last roofed, to be able to determine the original structural form of the roof with any certainty. There are many similar roofed buildings in Scotland and the north of England, but a large amount of conjecture and irreversible alteration would be required in any restoration in this instance.

Although the introduction of a new roof would have some benefits for the existing fabric of the building (additional weather protection of the wallheads and interior), as well as to visitors, it was decided that on balance these positive impacts would be outweighed by the negative impacts on cultural significance and so this option was not considered further.

6.3.2 Option 4

Option 4, the proposal to provide improved interpretation, a new access stair at the entrance doorway, and a new viewing

platform inside the building, was initially conceived as:

- A timber external stair up to the external doorway;
- A large timber internal stair and viewing platform the full width of the north elevation, fixed to a new concrete slab;
- Interpretation boards both attached to the existing building and as a freestanding board to the north.

Following consideration against the same criteria as Option 5, it was decided to change the material for new structures from timber to galvanised/stainless steel. This will increase the lifespan of the structures and minimise maintenance, and reduce both visual and physical impacts as the sections used would be both slenderer and lighter. In addition, it was decided to minimise physical interventions still further by attaching interpretation (signboards) only to the new structures. Images (Fig's. 27-32) of the castle from three key viewpoints have been prepared to show the building both before and after the proposals. These locations were chosen as they present views of the building from the closest public roads. These show that the new stair and viewing platform would be visible from certain angles, particularly from the east, but most likely this would only be possible with the aid of a zoom camera lens or equivalent. With the naked eye, we believe that the new structures would be imperceptible unless you were very close to the building e.g. on the footpath up to the castle.

Finally, after further consideration of both safety and archaeological potential of the existing internal floor, the surface of which is sloping and largely made up of the rubble and mortar that has fallen into the building over the centuries, the proposals (see drawings and Fig's. 27-34) were finalised as:

- A lightweight steel external stair up to the entrance doorway;
- A matching steel mesh floor inside the castle (reducing erosion of the existing floor and providing a level surface);
- A small steel spiral stair and viewing platform (minimising fixings to the existing fabric/ground and providing panoramic views without the need to climb on the existing structure);
- High quality interpretation boards positioned on new structures or outside the monument site
- All steel is to have a brushed/galvanised or similar non-reflective finish to reduce visual impacts still further. Use of paint would be avoided to reduce maintenance.
- All open balustrades are to be infilled with lightweight steel mesh to minimise the visibility of the structures whilst ensuring safety

Although Building Regulations are not applicable in this instance, it will be possible to provide a new internal stair and access platform with a protective barrier of min.1100mm high that is largely concealed by the existing, repaired wallheads. This would provide spectacular views from the approximate level of the original first floor, whilst minimising visual impacts. A new access stair, although visible externally on the north elevation at close view, would have a limited impact on the overall appearance of the building. Similarly, new interpretation could be located either outside the boundary of the monument site, or in positions with minimal visual impact such as fixed to the new access stair structure.

Physically, all new elements would be designed to be distinct from, and subservient to, the original fabric of the building. Non-ferrous point fixings would be minimised in number and discreetly located to tie in with masonry being repaired/rebuilt or bedrock rather than untouched historic fabric if at all possible (the exact locations would be determined on site for approval by HES). There would be no restoration of any elements.

The maintainability of the proposals is important as it will impact on the long-term cost of the works, their appearance and the safety of visitors. We are proposing that the new structures are built using stainless/galvanised steel as it is very durable in the most challenging of environments when properly designed and specified. A viewing platform at high level should also enable better access to check on the condition of high level masonry than is possible at present.

Forming a new entrance stair and viewing platform with secure protective barriers and non-slip surfaces should help to improve safety, widen the range of people that could access the building and want to climb up to the site, and reduce instances of visitors climbing on the historic fabric and causing accidental damage. The interventions that are proposed would certainly add a new dimension to the visitor experience.

On balance, at Caisteal Bharraich we believe that the negative impacts of Option 4, such as the need for a limited number of removable fixings into bedrock within the building, can be mitigated sufficiently that they will be outweighed by the considerable positive benefits of increased public access and understanding. Therefore, there would be no detrimental effect on the *Considerable* significance of this building.



Fig. 27: View of castle from approximately 1.2km away at Point A (see Fig. 34) taken using zoom camera lens. Image taken prior to wall collapse.



Fig. 28: Enlarged view of castle from approximately 1.2km away at Point A (see Fig. 34) with collage representation of proposed stair & viewing platform. Please note that this does not represent the view visible with the naked eye - refer to Fig.29.



Fig. 29: View of castle from approximately 0.9km away at Point B (see Fig. 34) on A838 showing visibility with naked eye.



Fig. 30: View from Point A (see Fig. 34) showing visibility with naked eye.



Fig. 31: View of castle from approximately 1.4km away at Point C (see Fig. 34) using zoom camera lens and showing castle as existing.



Fig. 32: Enlarged view of castle from Point C (see Fig. 34) showing proposed access steps at the entrance on the North elevation.



Fig. 34: Map showing approximate position of camera in above photographs.

Appendices

- A Statutory Scheduling Details
- B Structural Engineer's Condition Note
- C Caisteal Bharraich, Sutherland Mortar Analysis Report - Scottish Lime Centre Trust
- D Wildland Limited Principles

6x67

IN THE MATTER OF THE ANCIENT MONUMENTS ACTS, 1913 AND 1931.

To Major Douglas Graham Moncrieff Wright of Kinmonth, Elcho Park, Rhynd, Perth

the owner of the Monument known as Caisteal Bharrach (in ruins) occupying an area of ground measuring twenty-four feet square, the north-east corner of said area being situated eighty yards east-south-east of high water mark at its nearest point on the east shore of the Kyle of Tongue, one thousand one hundred and ninety yards north-west of the north-west corner of the westmost building at Cnoc-a-mhuilinn Kennels and one thousand one hundred and thirty yards west by south of the north-west corner of Tongue Hotel

being the subjects indicated in red colour on the annexed plan and being part of the property known as the Farm of Ribigill or Ribighill

situated in the Parish of Tongue

and

County of Sutherland.

In accordance with the provisions of Section 6 of the Ancient Monuments Act, 1931, the Commissioners of His Majesty's Works and Public Buildings hereby give you notice that it is their intention to include the Monument above specified in a list of monuments to be published by them under Section 12 of the Ancient Monuments Consolidation and Amendment Act, 1913.

Dated this ^{Twenty-}ninth day of December, 1938.

By Order of the Commissioners.

Patrick Duff

Secretary.

I Henry Everett (Officer in Secretariat) in the Office of the Commissioners of H.M. Works and Public Buildings duly authorised by them in that behalf hereby certify that the notice of which the foregoing is a duplicate together with a copy of the plan annexed and signed as relative hereto was served on the before named Major Douglas Graham Moncrieff Wright of Kinmonth

by posting on the Twenty-ninth day of December, 1938

between the hours of four o'clock and five o'clock afternoon at the
Edinburgh

Hope Street Post Office, ~~London~~, a copy of the same to him

in a registered letter addressed as follows:— Major Douglas Graham Moncrieff Wright of Kinmonth, Elcho Park, Rhynd, Perth.

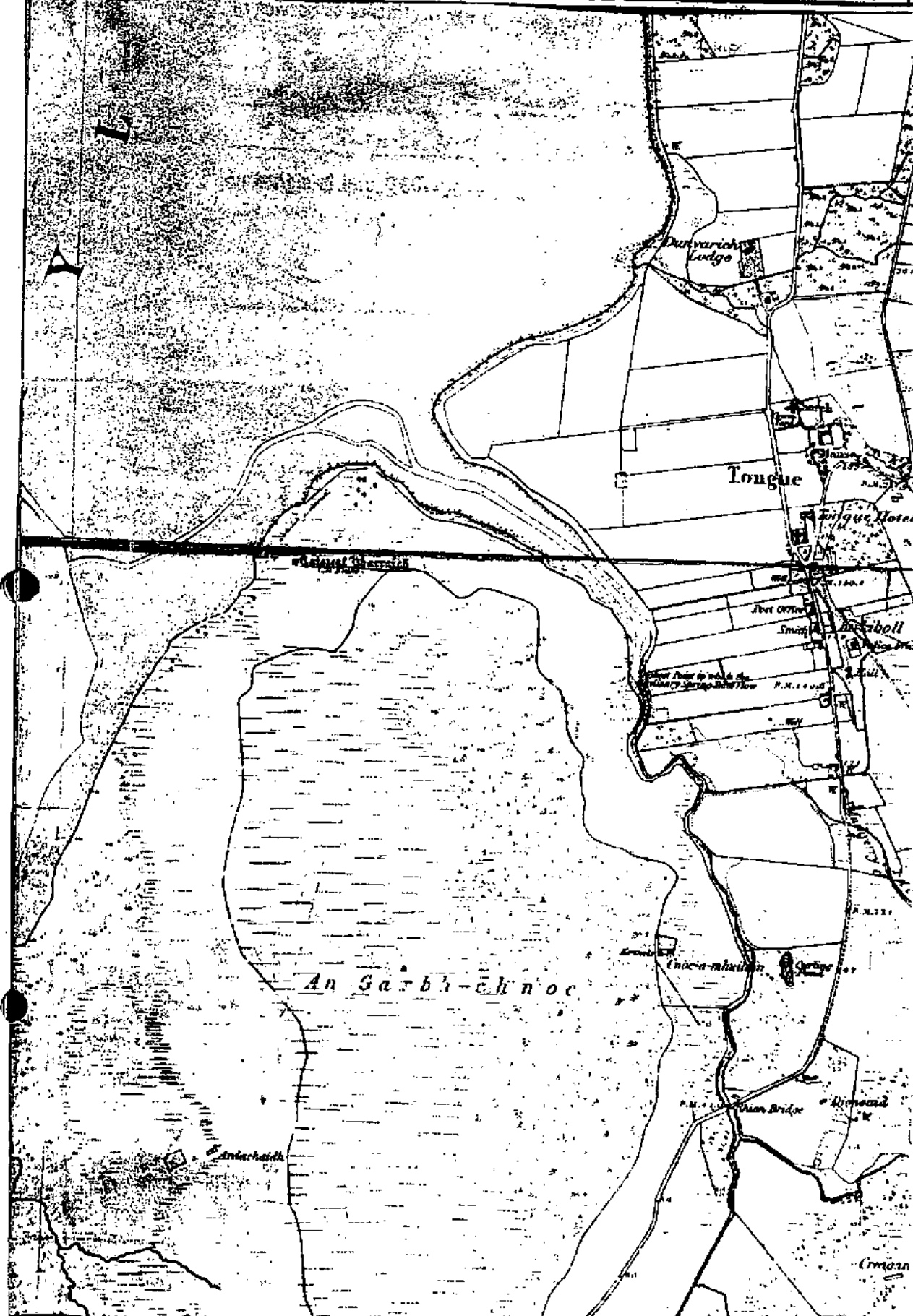
Register on behalf of the within named Commissioners of His Majesty's Works and Public Buildings in the Register of the County
of Sutherland

Henry Everett

Heather Luff
W. S.,
Edinburgh, Agent.

TONGUE PARISH.

SUTHERLAND XXV & XVI.



CAISTEAL BHARRAICH.

John

H.M.
OFFICE OF
WORKS.

Walter Finlay,
W.L.,
55 Frederick Street,
Edinburgh, 2

11th February, 1939.
James Forbes.

Sutherland Lit 44. 235

23 MAR 1939

C 15/
J. J.

SU 80
D P
3/64512

OFFICE
OF
SERVICE OF NOTICE

By the Commissioners of H.M.
Works etc. under Sections 6
and 16 of the Ancient Monuments
(Means Act 1931.

1939.

Affecting Caisteal Bharraich
in the Parish of Tongue and
County of Sutherland.

WALTER FINLAY, W.S.,
Solicitor to H.M. Works &c.

DE SS NE 001

Bx 67

THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979
ENTRY IN THE SCHEDULE OF MONUMENTS

The monument known as Caisteal Bharraich, tower comprises the remains of a small tower house standing upon the summit of a promontory high above the Kyle of Tongue. The area to be scheduled includes the tower house and an area around it that has the potential for the survival of associated archaeology. The area is irregular in shape and has maximum dimensions of 110m from its westernmost point to its easternmost, and 75m from its northernmost to southernmost points. The monument, which lies in the Parish of Tongue and the County of Sutherland as shown outlined in red on the Plan annexed and executed as relative hereto and which forms part of the subjects described in the Disposition by John Graham Moncrieff in favour of Count Adam Wilhelm Joseph Knuth dated 24 November 1989 and recorded in the Division of the General Register of Sasines for the County of Sutherland on 8 December 1989 (the present owner whereof being Count Knuth, Ben Loyal Estate, Loyal Lodge, Tongue, Lairg), is hereby included in the Schedule of Monuments appearing to the Scottish Ministers to be of national importance compiled and maintained by them under section 1(1) of the Ancient Monuments and Archaeological Areas Act 1979.

Subscribed by Owen Kelly, Director, Properties in Care with Historic Scotland, being an officer of the Scottish Ministers at Edinburgh on the 14th day of March Two thousand and two, before this witness Lesley Macdonald, of Longmore House, Salisbury Place, Edinburgh.

Lesley Macdonald Witness

[Signature] Director, Properties in Care

Register on behalf of the Scottish Ministers in the Register of the County of Sutherland.

An Officer of the Scottish Ministers

THE ANCIENT MONUMENTS AND
ARCHAEOLOGICAL AREAS ACT 1979

Entry in the Schedule of Monuments

2002

Re: The Monument known as
Caisteal Bharraich, tower

in the Parish of Tongue
County of Sutherland

Search Sheet No: 458

Historic Scotland
Longmore House
Salisbury Place
Edinburgh

MFA11373

1896

THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979
CERTIFICATE OF EXCLUSION FROM SCHEDULE

THE SCOTTISH MINISTERS hereby certify that the Monument aftermentioned is hereby excluded from the Schedule of Monuments appearing to the Scottish Ministers to be of national importance compiled and maintained by them under section 1(1) of the Ancient Monuments and Archaeological Areas Act 1979, viz.,

Monument known as Caisteal Bharraich (in ruins) in the County of Sutherland being the Monument described in the Certificate of Service of Notice by the Commissioners of His Majesty's Works and Public Buildings dated 29 December 1938 and recorded in the Division of the General Register of Sasines for the County of Sutherland on 11 February 1939.

Subscribed by Owen Kelly, Director, Properties in Care with Historic Scotland, being an officer of the Scottish Ministers at Edinburgh on the 3rd day of March Two thousand and two, before this witness Lesley Macdonald, of Longmore House, Salisbury Place, Edinburgh.

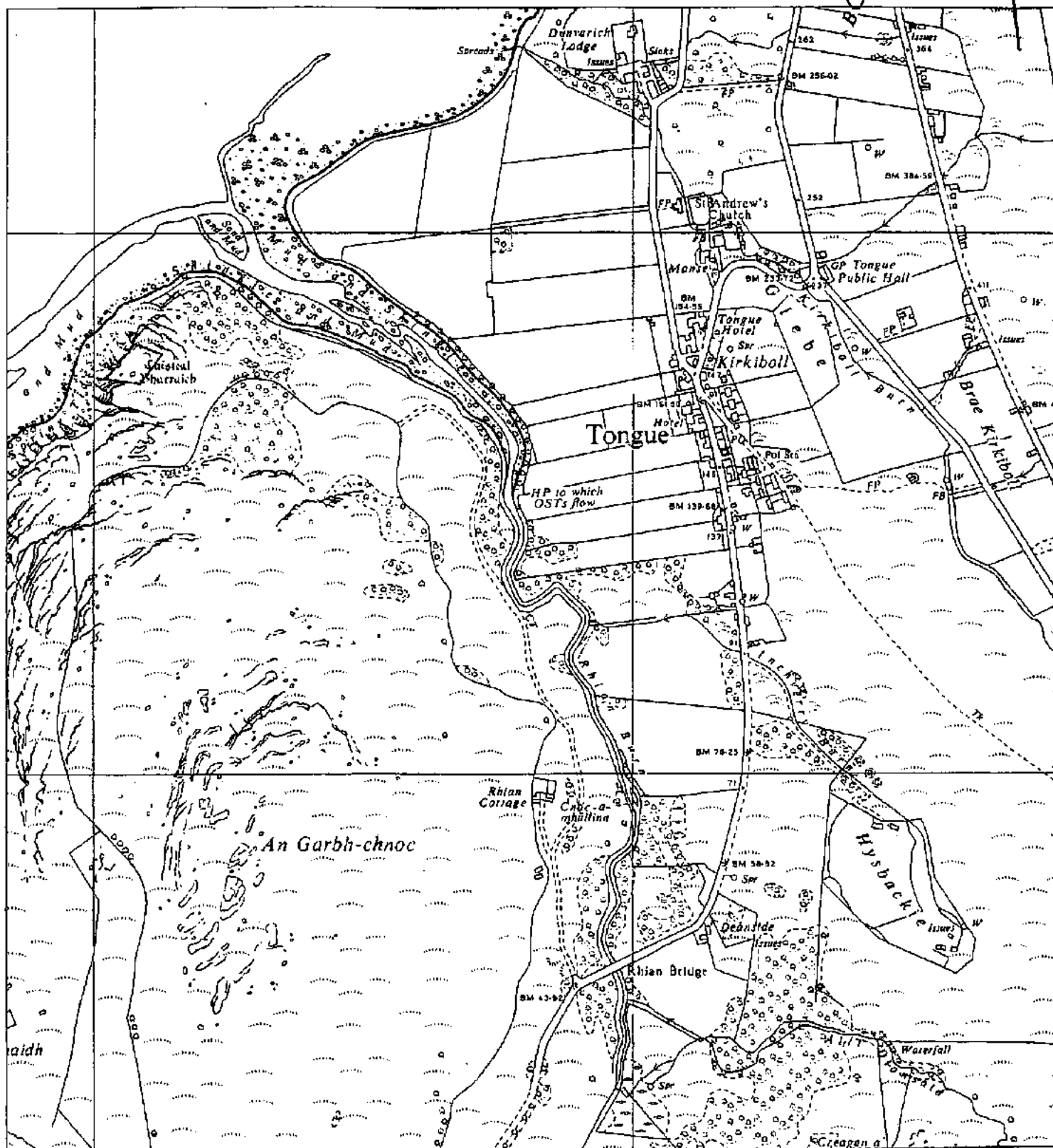
Lesley Macdonald Witness

Owen Kelly Director, Properties in Care

Register on behalf of the Scottish Ministers in the Register of the County of Sutherland.

An Officer of the Scottish Ministers

This is the plan referred to in the entry in the Schedule affecting Caisteal Bharraich, tower dated: 4 March 2002 and is signed as relative thereto.



Caisteal Bharraich, tower

Tongue Parish
Scheduled Area



Sheet: NC55NE

Scale 1:10000

100 0 100 200 300 400 Meters

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THE ANCIENT MONUMENTS AND
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Salisbury Place
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the owner of the Monument known as Caisteal Bharraich (in ruins) occupying an area of ground measuring twenty-four feet square, the north-east corner of said area being situated eighty yards east-south-east of high water mark at its nearest point on the east shore of the Kyle of Tongue, one thousand one hundred and ninety yards north-west of the north-west corner of the westmost building at Cnoc-a-mhuilinn Kennels and one thousand one hundred and thirty yards west by south of the north-west corner of Tongue Hotel

being the subjects indicated in red colour on the annexed plan and being part of the property known as the Farm of Ribigill or Ribighill

situated in the Parish of Tongue

and

County of Sutherland.

In accordance with the provisions of Section 6 of the Ancient Monuments Act, 1931, the Commissioners of His Majesty's Works and Public Buildings hereby give you notice that it is their intention to include the Monument above specified in a list of monuments to be published by them under Section 12 of the Ancient Monuments Consolidation and Amendment Act, 1913.

Dated this ^{Twenty-}ninth day of December, 1938.

By Order of the Commissioners.

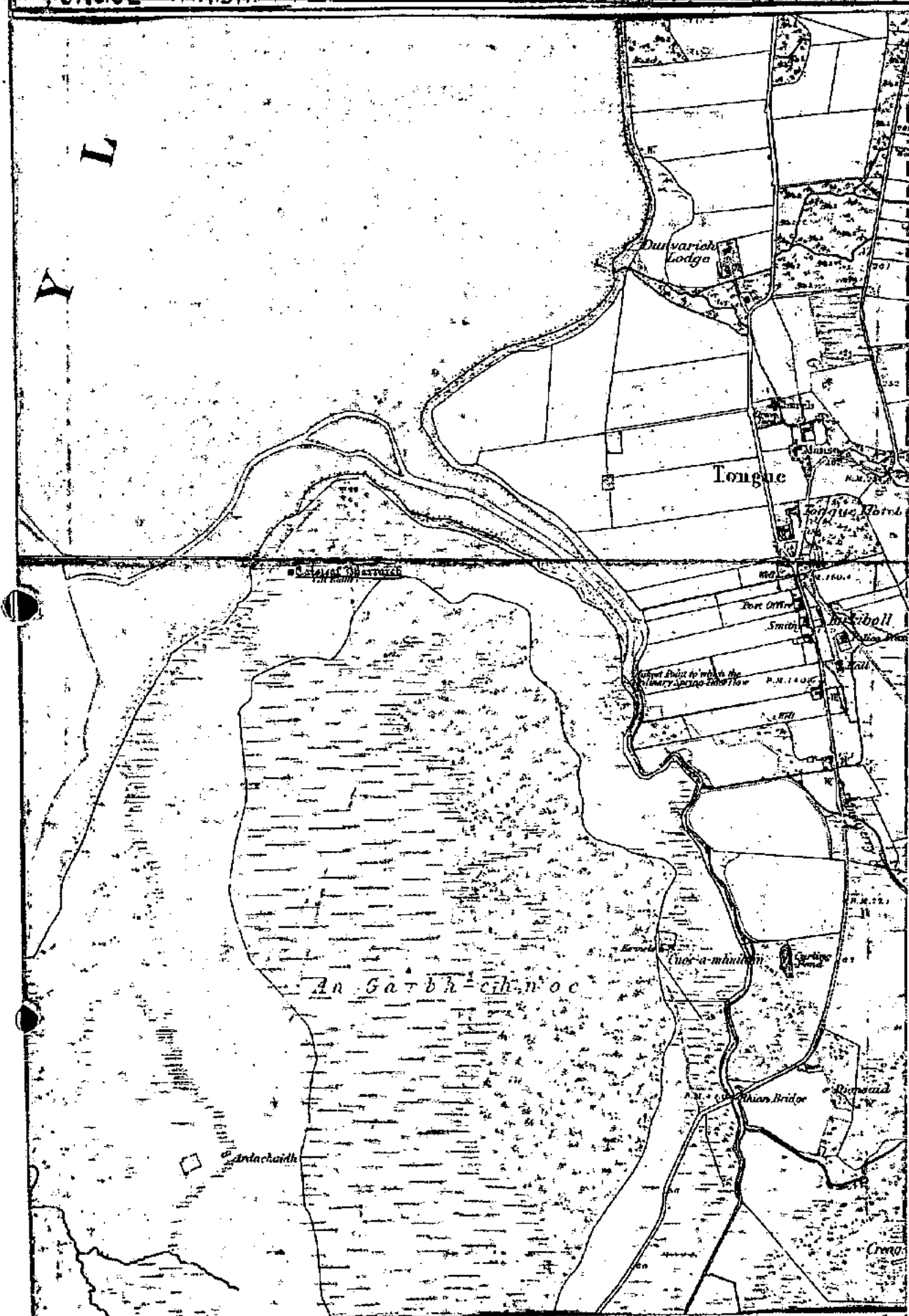
Patrick Duff

Secretary.

I, Henry Everett (Officer in Secretariat) in the Office of the Commissioners of H.M. Works and Public Buildings duly authorised by them in that behalf hereby certify that the notice of which the foregoing is a duplicate together with a copy of the plan annexed and signed as relative hereto was served on the before named Major Douglas Graham Moncrieff Wright of Kinmonth by posting on the Twenty-ninth day of December, 1938 between the hours of four o'clock and five o'clock afternoon at the Edinburgh Hope Street Post Office, ~~London~~, a copy of the same to him in a registered letter addressed as follows:— Major Douglas Graham Moncrieff Wright of Kinmonth, Elcho Park, Rhynd, Perth.

Register on behalf of the within named Commissioners of His Majesty's Works and Public Buildings in the Register of the County of Sutherland.

Henry Everett
W. S.,
Edinburgh, Agent.



CAISTEAL BHARRAICH.

Paterson

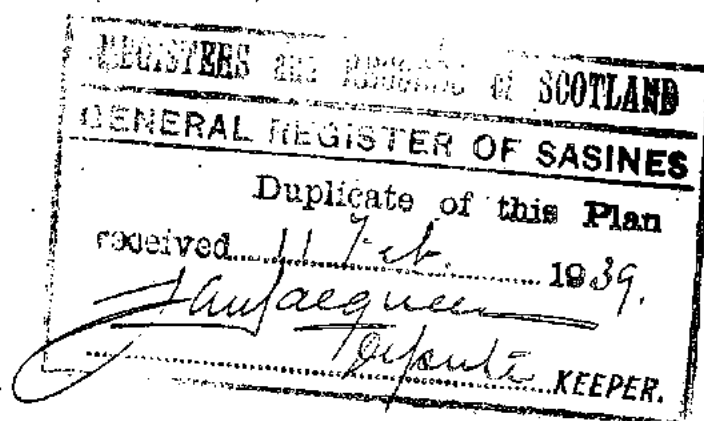
H.M.
OFFICE OF
WORKS.

This is the plan referred to in my Certificate of Service.

Notice affecting Caisteal Bharraich in the Parish
of Tongue and County of Sutherland

dated 29th December 1838 and is signed as
relative thereto.

T. G. G. G. G.



Walter Finlay,
W. L.,
55 Frederick Street,
Edinburgh, 2.

11th February, 1939.
James Forbes.

Sutherland Lib 77. 235

23 MAR 1939

C 15/
Jan.

SU 80
D P
Sutherland
3/64512

OF

SERVICE OF NOTICE

By the Commissioners of H.M.
Works etc. under Sections 6
and 16 of the Ancient Monuments
Act 1931.

1

1939.

Affecting Calsteal Bharrach
in the Parish of Tongue and
County of Sutherland.

WALTER FINLAY, W.S.
Solicitor to H.M. Works &c.

2x67

HISTORIC SCOTLAND

Tel: 0131 668 8762

Fax: 0131 668 8765

RECORDED DELIVERY

Director of Planning
Highland Council
Glenurquhart Road
Inverness
IV3 5NX

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AMH/1235/2/3

H.C. PLANNING AND DEVELOPMENT SERVICE		
- 2 MAY 2002		
PASS TO	INITIALS	DATE
CL	CL	25
JW		

30 April 2002

Dear Sir

ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979 AMENDED ENTRIES IN THE SCHEDULE OF MONUMENTS

I am directed by the Scottish Ministers to inform the Council that they have amended the entries in the Schedule of Monuments appearing to them to be of national importance, compiled and maintained by him under section 1 of the Ancient Monuments and Archaeological Areas Act 1979, relating to the monuments situated in the Council's area and known as

1. Caisteal Bharraich, tower
2. Bilbster, chambered cairn 1040m NNE of Bylbster Bridge
3. Druim Baile Fuir, stone circle, cairns, hut circles and enclosure
4. Lamington Park, long cairn 950m E of Locan o'Chlaidheimh
5. Rait Castle

I enclose copies of the exclusion certificates and new entries (together with a copy of each original scheduling Certificate they amend) and I shall be glad if you will bring them to the attention of all staff concerned.

I am copying this letter and enclosures to your Council's Archaeologist.

Yours faithfully

Pamela Wood
MRS P WOOD

DMC03004.042

Longmore House, Salisbury Place, Edinburgh EH9 1SH Telephone 0131 668 8600

WE SAFEGUARD THE NATION'S BUILT HERITAGE AND PROMOTE ITS UNDERSTANDING AND ENJOYMENT

1896

THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979
CERTIFICATE OF EXCLUSION FROM SCHEDULE

THE SCOTTISH MINISTERS hereby certify that the Monument aftermentioned is hereby excluded from the Schedule of Monuments appearing to the Scottish Ministers to be of national importance compiled and maintained by them under section 1(1) of the Ancient Monuments and Archaeological Areas Act 1979, viz.,

Monument known as Caisteal Bharraich (in ruins) in the County of Sutherland being the Monument described in the Certificate of Service of Notice by the Commissioners of His Majesty's Works and Public Buildings dated 29 December 1938 and recorded in the Division of the General Register of Sasines for the County of Sutherland on 11 February 1939.

Subscribed by Owen Kelly, Director, Properties in Care with Historic Scotland, being an officer of the Scottish Ministers at Edinburgh on the 3rd day of March Two thousand and two, before this witness Lesley Macdonald, of Longmore House, Salisbury Place, Edinburgh.

Lesley Macdonald Witness

Owen Kelly Director, Properties in Care

Register on behalf of the Scottish Ministers in the Register of the County of Sutherland.

An Officer of the Scottish Ministers

THE ANCIENT MONUMENTS AND
ARCHAEOLOGICAL AREAS ACT 1979

Certificate of Exclusion from Schedule

2002

Re: The Monument known as
Caisteal Bharraich (in ruins)

in the Parish of Tongue and
County of Sutherland

Search Sheet: 458

Historic Scotland
Longmore House
Salisbury Place
Edinburgh

THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979
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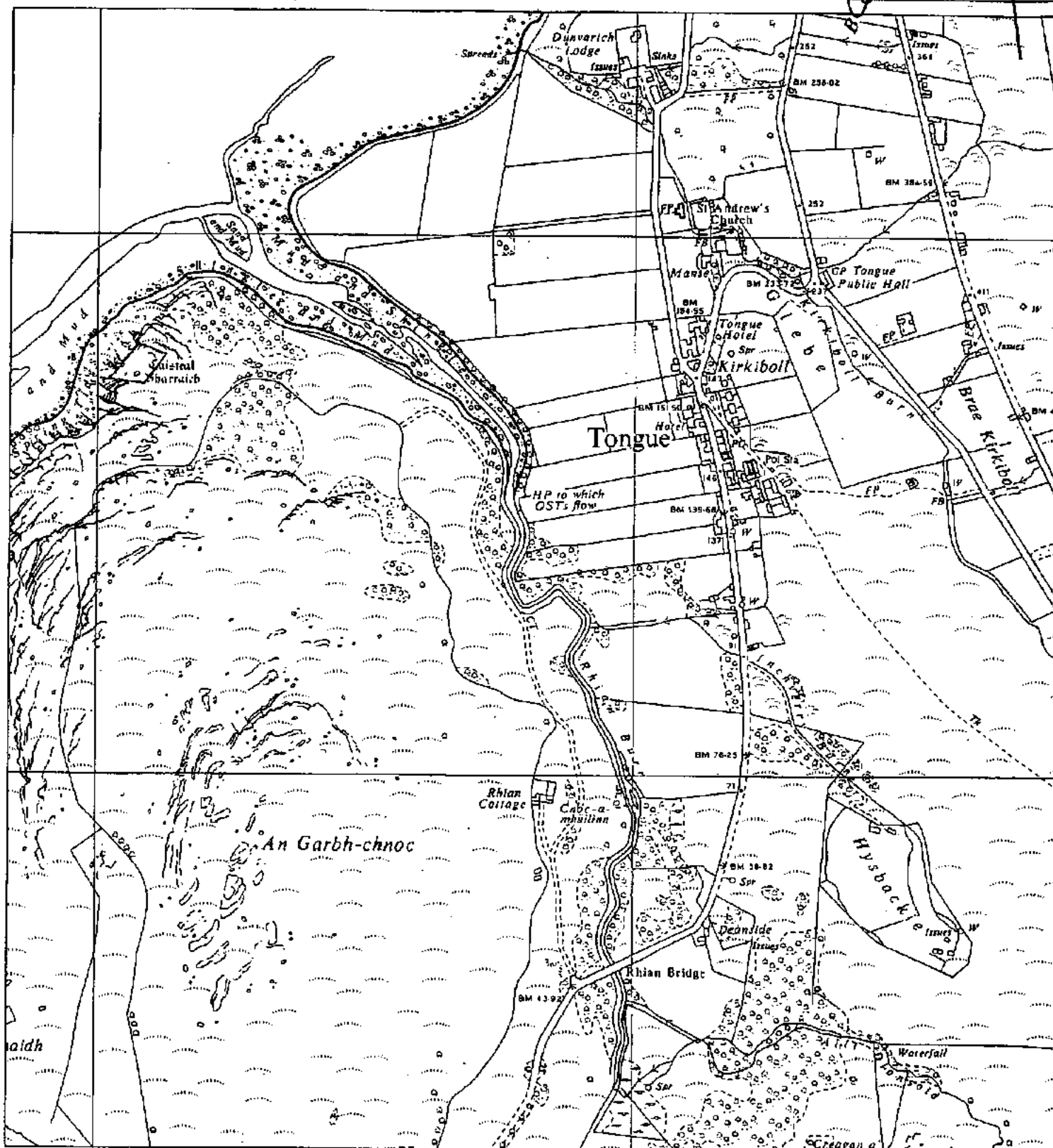
Lesley Macdonald Witness

[Signature] Director, Properties in Care

Register on behalf of the Scottish Ministers in the Register of the County of Sutherland.

An Officer of the Scottish Ministers

This is the plan referred to in the entry in the Schedule affecting Caisteal Bharraich,
tower dated: 4 March 2002 and is signed as relative thereto.



Caisteal Bharraich, tower

Tongue Parish

Scheduled Area



Sheet: NC55NE

Scale 1:10000

100 0 100 200 300 400 Meters

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THE ANCIENT MONUMENTS AND
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To Major Douglas Graham Moncrieff Wright of Kinmonth, Elcho Park, Rhynd, Perth

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By Order of the Commissioners.

Patrick Duff

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between the hours of four o'clock and five o'clock afternoon at the Edinburgh

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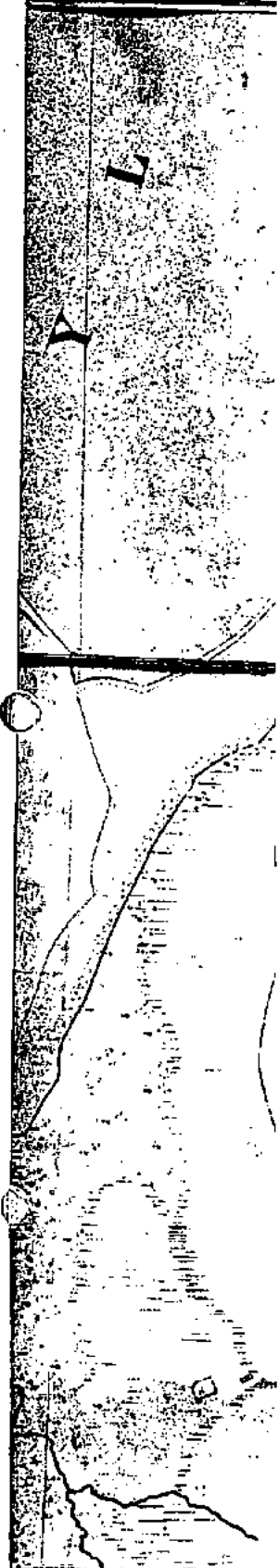
in a registered letter addressed as follows:— Major Douglas Graham Moncrieff Wright of Kinmonth, Elcho Park, Rhynd, Perth.

- Register on behalf of the within named Commissioners of His Majesty's Works and Public Buildings in the Register of the County of Sutherland.

Henry Everett
W. S.,

Edinburgh, Agent.

TONGUE PARI



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CAISTEAL

REGISTERS and RECORDS of SCOTLAND

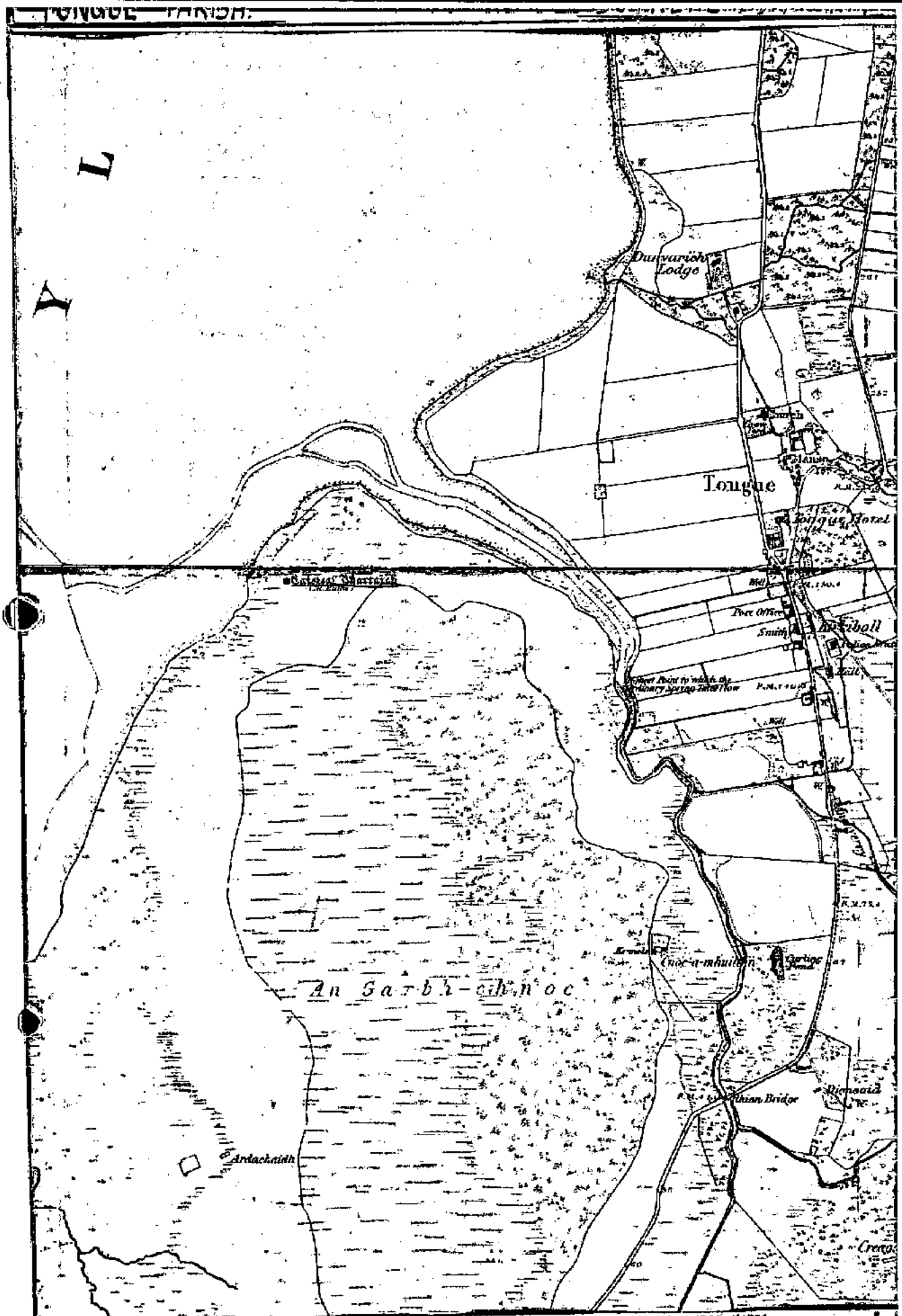
GENERAL REGISTER OF SABBINES.

County of Sutherland.

BOOK 74 FOLIO 235

PRESENTED & REGISTERED 11 February 1939.

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CAISTEAL BHARRAICH.

Latent

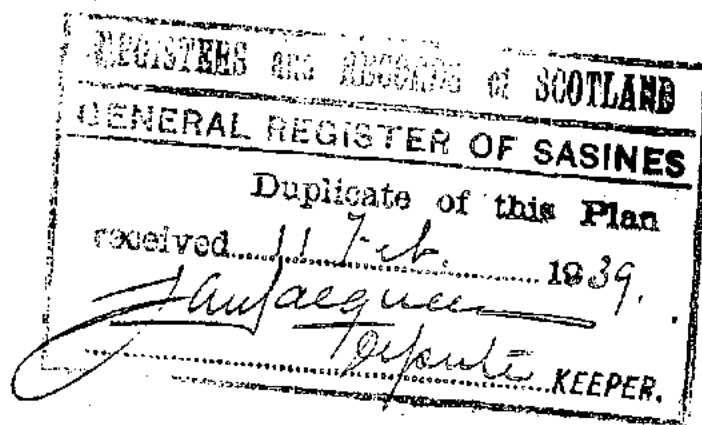
H.M.
OFFICE OF
WORKS.

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Notice affecting Caisteal Bharraich in the Parish
of Tongue and County of Sutherland.

dated 29th December 1838 and is signed as
relative thereto.

J. H. Everett



2767

SU 80 3/64517
DP *Sutherland*

C E R T I F I C A T E

OF

SERVICE OF NOTICE

By the Commissioners of H.M.
Works etc. under Sections 6
and 16 of the Ancient Monumen-
:ments Act 1931.

V

1939.

Affecting Caisteal Bharraich
in the Parish of Tongue and
County of Sutherland.

WALTER FINLAY, W.S.
Solicitor to H.M. Works &c.

C 15/
Jan

23 MAR 1939

W. Sutherland, 1939.
James Finlay

Sutherland & Co. 47. 235

Walter Finlay,
55 Frederick Street,
Edinburgh, 2

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Caisteal Bharraich, Tower

Description

The monument comprises the remains of a small tower house standing upon the summit of a promontory high above the Kyle of Tongue. Its history is unknown although it is said to have belonged to the Bishop of Caithness who stayed here on his way from his castle at Scrabster to his property of Balnakiel. The monument was first scheduled in 1938. On this occasion, an inadequate area was included to protect all of the archaeological remains: the present rescheduling rectifies this.

The tower, measuring externally 7.5m along the south wall and 6.7m along the other three sides, stands to first floor height. It is constructed of random rubble and is bonded in shell lime. The tower appears to have been of two storeys with a single chamber on each floor, perhaps with an attic; the slots for the roof ties still survive. The ground floor, entered from the N, was vaulted, as is demonstrated by the remains of the springing. The ground floor also had a window through the east wall; only the E ingo now survives. The ground floor does not communicate with the first floor, indicating that the first floor had an external doorway. A plan by MacGibbon & Ross (1887-92) shows a first floor doorway through the S wall. However, it is now impossible to confirm this interpretation.

To the N of the tower there is a scarp showing traces of walling, which extend NW for 20m from a rock outcrop near the tower to the coastal cliff.

The area to be scheduled includes the tower house and an area around it that has the potential for the survival of associated archaeology. The area is irregular in shape and has maximum dimensions of 110m from its westernmost point to its easternmost, and 75m from its northernmost to southernmost points, as marked in red on the attached map.

National Importance
No information available.

Other Information
No information available.

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Monument Information

Index Number
1896

Parish
TONGUE

NGR 1
NC580567

NGR 2
Council
HIGHLAND

Category
Secular

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12 Jun 2002

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THE ANCIENT MONUMENTS AND
ARCHAEOLOGICAL AREAS ACT 1979

Entry in the Schedule of Monuments

2002

Re: The Monument known as
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2

in the Parish of Tongue
County of Sutherland

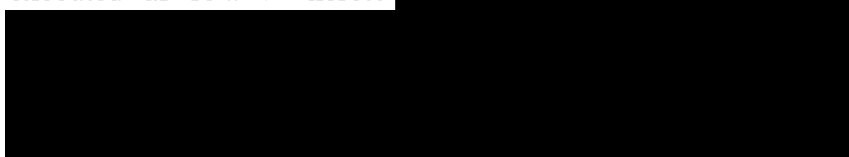
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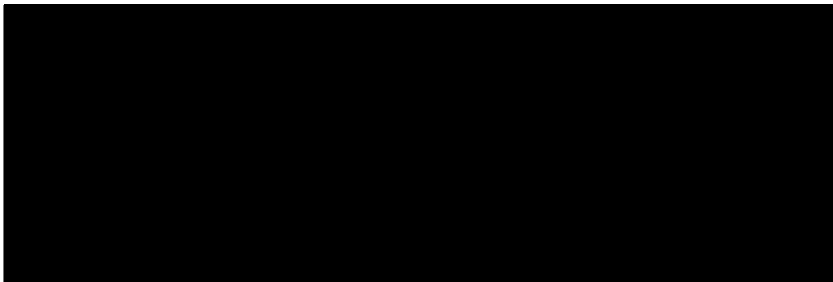
MFA11373

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ENTRY IN THE SCHEDULE OF MONUMENTS

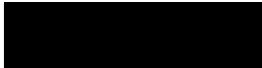
The monument known as Caisteal Bharraich, tower comprises the remains of a small tower house standing upon the summit of a promontory high above the Kyle of Tongue. The area to be scheduled includes the tower house and an area around it that has the potential for the survival of associated archaeology. The area is irregular in shape and has maximum dimensions of 110m from its westernmost point to its easternmost, and 75m from its northernmost to southernmost points. The monument, which lies in the Parish of Tongue and the County of Sutherland as shown outlined in red on the Plan annexed and executed as relative hereto 

 is hereby included in the Schedule of Monuments appearing to the Scottish Ministers to be of national importance compiled and maintained by them under section 1(1) of the Ancient Monuments and Archaeological Areas Act 1979.

Subscribed by Owen Kelly, Director, Properties in Care with Historic Scotland, being an officer of the Scottish Ministers at Edinburgh on the 4th day of March Two thousand and two, before this witness Lesley Macdonald, of Longmore House, Salisbury Place, Edinburgh.

 Director, Properties in Care

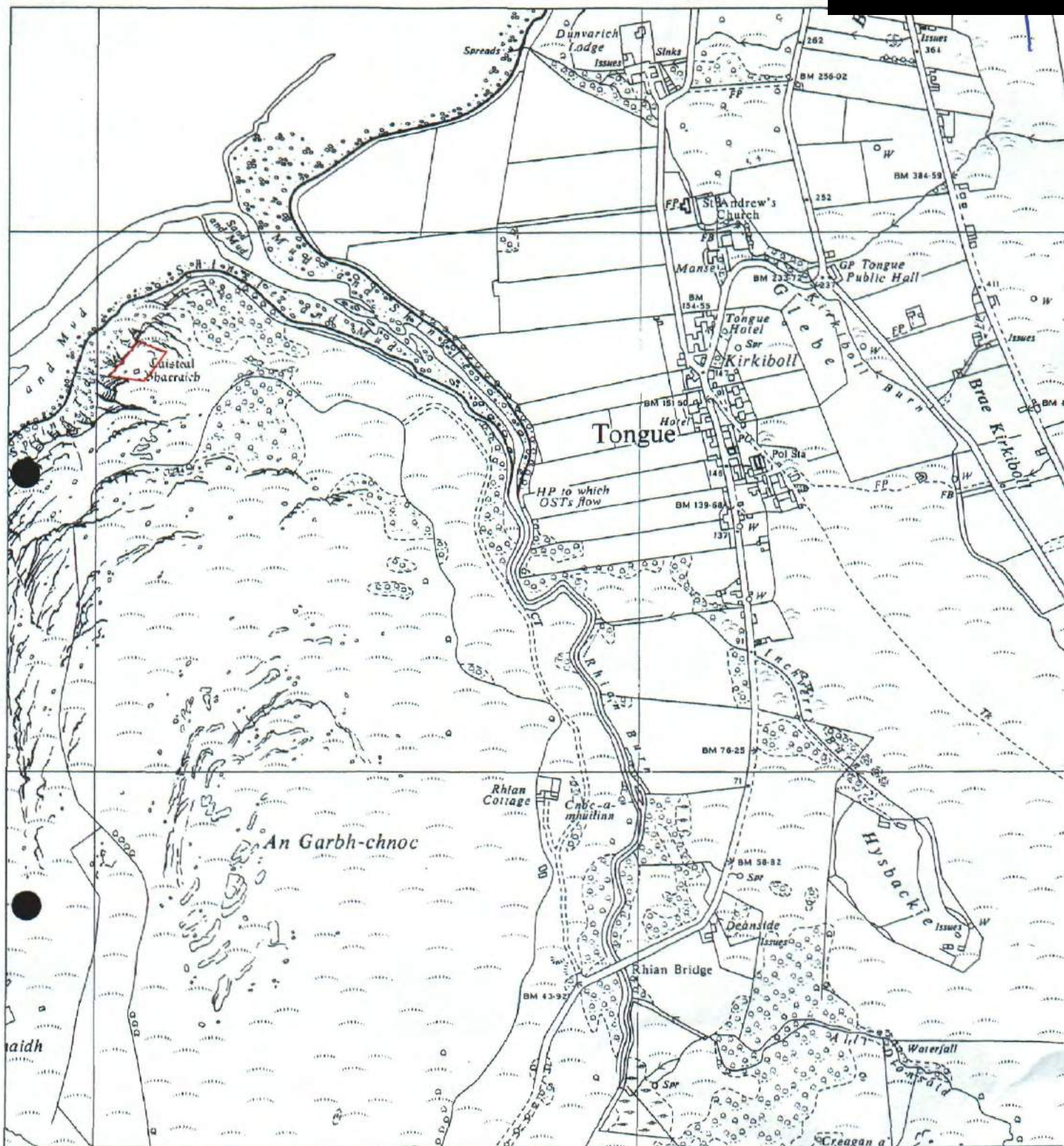
Register on behalf of the Scottish Ministers in the Register of the County of Sutherland.


An Officer of the Scottish Ministers

MFA11473

REGISTERS OF SCOTLAND
GENERAL REGISTER OF SASINES
COUNTY OF SUTHERLAND
FICHE 54 FRAME 2
PRESENTED AND RECORDED ON 12 JUN 2002

This is the plan referred to in the entry in the Schedule affecting Caisteal Bharraich, tower dated: 4 March 2002 and is signed as relative thereto.



Caisteal Bharraich, tower

Tongue Parish

Scheduled Area



Sheet: NC55NE

Scale 1:10000

100 0 100 200 300 400 Meters

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with
Groves-Raines

Caisteal Bharraich
Tongue
Lairg
Sutherland



Condition Note

April 2015

David Narro Associates

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Job No. 15.256

SUMMARY

This condition note summarises the condition of the surviving remains of Caisteal Bharrach (Castle Varrich). It will also identify the remedial works that are likely to be required as part of the consolidations of the remaining fabric of the castle.

Notes prepared by

Rebecca Sampson

MEng

for David Narro Associates

1.0 Introduction

David Narro Associates were appointed as Consulting Structural Engineers to carry out a visual structural appraisal of Caisteal Bharraich, near Tongue, Sutherland. The notes are to consider the condition of the main surviving parts of the castle and to identify in general terms any structural repairs that should be carried out as part of a general consolidation of the building.

We visited the site on the 16th April 2015, the notes are based on observations of this visit. These observations were made from ground level around the building and within. No calculations regarding stability of structural forms have been carried out nor an inspection to determine the bearing capacity of the foundations.

Caisteal Bharraich is a scheduled historic monument (as per Historic Scotland from 1938) as is the surrounding area 110m East to West by 75m north to South that is of archaeological interest.

2.0 Observations and Discussion

2.1 General

The castle is located on a crop of metamorphic bedrock on the foot of Ben Loyal between the waters Kyle of Tongue and Loch Loyal. Access to the castle included a steep rural footpath with a pedestrianised footbridge. The river it crosses there is a possibility of forming a temporary bridge for a quadbike and trailer to pass on. The route was generally dry and rocky; there had been good weather for the past few days.

The history and use of the structure remains unknown, there is indication that it had been constructed as early as the 16th century under the ownership of the Bishop of Caithness. The structure bears directly onto this as seen at the North Western corner of the structure. The walls are constructed of large courses of what appears to be a combination of metamorphic and robust sandstones with a shell lime mortar. At both openings and corners the shape of stone is more regular and rectangular.

Attempts at a rebuild have been made on the wall, this is indicated by the slight change in the laying of the wall. The dates of these rebuilt sections are unknown.

There is evidence of instability and movement within the castle including bulging and bowing of the South and West faces of the structure. As there is no internal structure to fix the walls together, the walls themselves have started to move over the years. Due to its location the structure is very exposed, causing weathering to the masonry and significant external loss of mortar.

Pockets internally indicated the original internal structure that has been suggested to be a stone vaulted ceiling at ground level. It is understood that it was a two storey structure therefore access to the first floor must have been externally. Evidence of this access is no longer apparent.

2.2 Photographs

The photographs shown were taken during our visit in April 2015.



Photograph 1 & 2

Access to the site is somewhat limited. If a temporary bridge can be constructed then a quadbike & trailer (or similar) would be suitable. Fencing and controlled pedestrian gates will need to be removed temporarily for access.



Photograph 3

The above photograph 3 shows the underlying bedrock as a metamorphic material, as expected of this location. The bedrock itself appears to be in good condition, no evidence of erosion that may affect the footing of the structure. During the consolidation works scaffolding is needed to be raised to support the facades and assist in the repair works. This scaffolding can be anchored into the bedrock, care must be taken around the west and northern areas due to the very steep topography.



Photograph 4

The South elevation of the structure appears to initially be 2 separate leafs, however upon closer inspection it can be deduced this formation is due to significant movement within the centre of the wall panel. A series of pinning back facing stones to the core of the wall is required. Where this is not feasible the stones should be taken down and re-laid using a suitable mortar. Note that the relaying of the wall should be done to imitate the original courses. There is a pocket of stone missing due to weathering of the walls at the bottom left. This is seen in photograph 5 below.



Photograph 5

The original mortar of the structure consists of a sand, shell and lime material typical for its location and age. This is seen in the above photograph. Due to the erosion of the mortar there is localised pocketing of the stones within the wall as seen on the Southern elevation. The core of the stones are still embedded suitably in the wall, a

packing exercise should be carried out to finish the face of the wall. Packing should be carried out sensitively, using the same stone where possible and a suitable lime mortar.



Photograph 6 & 7

The east elevation has an existing opening that has collapsed. It was highlighted that this elevation was the location of the recent collapse to the Northern, right hand side, of the elevation. The exposed rock face in photo 7 shows the recent collapse in 2005. There are still some stones that appear to be unstable at the southern side of the east elevation that should be taken down or re-laid to ensure stability of the elements. This should be considered for all wall heads for the castle. A soft copping such as turf should be considered to assist in keeping the inner walls dry.



Photograph 8

The north elevation again shows signs of rebuild externally in that the lay of stone varies on the right hand side from that of the original lay of the left. There appears to be no significant movement however the mortar is again deteriorated and on this face there is some plant growth within the lower courses of the wall. Sensitive removal of vegetation should be carried out. Repointing the wall with a suitable mortar to ensure stability is recommended.



Photograph 9 & 10

The west face of the wall shows signs of movement in the wall, in particular bulging at the middle. This movement may be caused by the internal structure no longer giving stability and the mortar eroding allowing for movement within the facing stones. An exercise of repointing with a suitable lime mortar will somewhat consolidate the structure.



Photograph 11 & 12

The internal face of the southern elevation is shown on the left hand side, the internal face of the north and west elevation on the right hand side. Both photos show evidence of the vaulted ceiling internally as shown above extensive cracking may have formed from uneven collapse of the vault, creating a pull on the wall. Due to the history and what it currently represents this is not an area we would want to rebuild unless necessary. A pinning exercise should be carried out to stabilise the remains of the vaulted ceiling.



Photograph 13 & 14

The opening on the north face has weathered to an extent that the mortar is eroded and the larger stones framing the opening have become loose and fallen. The consolidation works should include temporary propping of the structure whilst the loose stones are removed, the existing structure is repointed and the frame is re-laid all with a lime mortar to suit.

3.0 Comments on Remedial Works

The works likely to be required as part of a consolidation of the surviving parts of the castle above include the following:

1. Providing additional support to loose and/or poorly supported masonry. This can largely be provided via 'rough racking' although non-ferrous pinning may also be required.
2. Making good wallheads by means of taking down and rebedding the top one to two courses of stonework where the existing is damaged or loosened by mortar loss.
3. Providing some means of protection to all wallheads. This can be achieved by some form of soft capping.
4. All pointing should be checked, it is assumed that most has eroded and/or undergone repair. Open joints or areas of loose mortar will likely need repointing. However consideration must be taken to avoid unnecessary or ill-informed interventions.
5. South elevation and internal vaulting require extensive repairs. A series of pinning back facing stones to the core of the wall is required. Where this is not feasible the stones should be taken down and re-laid using a suitable mortar. Note that the relaying of the wall should be done to imitate the original courses.
6. Propping of the existing wall is the responsibility of the Contractor. This should be thoroughly considered due to the sensitivity of the structure and agreed with a Structural Engineer.

Issues to be considered when planning this work include the following:

7. The site is a Scheduled Ancient Monument. The approval for all work on site – to include permanent remedial works and temporary works where they impact on the fabric of the building or surrounding ground (e.g. foundation bases) – will need the consent of Historic Scotland before any work can be started. This includes any general works to improve access paths etc..
8. Access to site. There is no direct access from a public highway to the site; the small path will suffice for smaller vehicles. Temporary removal of fences will have to be agreed with the adjacent land owners. A temporary bridge may also be required as the current footpath will not suffice. A small area by the castle for storage may be used, dependant on the size required.
9. The local topography around the castle limits the working area. A fall arrest system/prevention should be in place in particular at the western and northern elevations of the castle due to the steep drops. The erection of scaffolding anchored into bedrock should be suitable for the proposed works.



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MORTAR ANALYSIS REPORT

AP 2752
Caisteal Bharraich
Sutherland

Sample S1
Bedding Mortar

SITE	Caisteal Bharraich
CLIENT	Groves-Raines Architects Ltd
DATE SAMPLE RECEIVED	21/07/2015
ANALYSIS DATES	21/07/2015 – 04/08/2-15
CLIENT REQUIREMENTS	Standard Mortar Analysis
STRUCTURE DATE	16 th Century
STRUCTURE TYPE	Ruinous Castle
MORTAR DATING	?Original
LOCATION/ FUNCTION IN BUILDING	Bedding mortar
CONDITION OF SAMPLE RECEIVED	The sample received consisted of a bag containing intact pieces of mortar plus fines. Size of largest piece = 63mm x 67mm x 46mm Total mass of sample received = 230.84 grams

SUMMARY AND INTERPRETATION OF ANALYSIS RESULTS

The mortar appears to consist of a moderately hydraulic lime binder, prepared as a 'hot lime' mortar by slaking quicklime and sand together in one operation.

The aggregate had the appearance of an 'as dug' sand. The colour of the mortar assessed against the Munsell Soil Colour Charts was found to be 10YR 8/3 'very pale brown'.

The mix ratio of the sample is approximately 1 part moderately hydraulic quicklime to 0.75 parts aggregate (by volume). To closely replicate this mortar both technically and aesthetically, use (nominally by volume) 1 part NHL 3.5 (suggest Otterbein NHL 3.5 for its 'buff' colour) and 2 parts recommended sand. See also the attached mortar performance chart to assist in specifying appropriate mortars.

This mortar analysis report is **NOT** intended as a repair specification. Details of repair specifications based on information from this report should also take account of prevailing site conditions, including stone type and condition, location and function of the new mortar, building details, exposure, seasonal working etc.

ANALYTICAL PROCEDURES

The selected sample of material was dried to a constant weight and examined under a binocular microscope at x40 magnification. Degree of carbonation of the sample was determined using phenolphthalein indicator, which will react with any uncarbonated lime.

An assessment of the binder type was made by evaluating the physical characteristics of the mortar based on our knowledge, experience and understanding of materials.

Application of 10% Hydrochloric acid to the sample resulted in dissolution of the binder enabling relative proportions of lime (and gypsum) to aggregate to be determined; where appropriate, proportions of insoluble binder were determined and factored into this calculation. Subsequent aggregate characterisation was undertaken by means of dry sieve analysis and microscopic analysis.

The analysis results and interpretations made from it provide information on the composition and characteristics of the mortar sample(s) received by the SLCT laboratory. **Provided the sample was representative of the mortar generally**, the analysis will give a reasonable indication of the original materials and provide a **basis for specification** of repair mortars. If more detailed information is required (for example, for purposes of historic research) more sophisticated analytical procedures can be undertaken.

MORTAR EXAMINATION AND ANALYSIS



Plate 1. The total sample received (dish c.160mm diameter).



Plate 2. A freshly broken face of the sample at higher magnification highlighting the visible aggregate; composed of large shell fragments, lime inclusions, coal fragments, lithic fragments and quartz grains.

PROCEDURE	OBSERVATIONS
PRELIMINARY VISUAL ANALYSIS OF SAMPLE	The sample was received as fully carbonated intact pieces of mortar plus fines. The sample is moderately firm and friable. There was significant visible aggregate present in the sample, composed primarily of large rounded quartz grains, rounded lithic fragments, bivalve shell fragments, muscovite and lime inclusions. Some of the larger aggregate grains were easily dislodged with nail pressure. The sample experienced a moderate water absorption rate, indicating a moderately connected pore structure within the sample. The total sample weighed 230.84g and the largest intact piece measured 63mm x 67mm x 46mm
EXAMINATION OF PREPARED SAMPLE BY BINOCULAR MICROSCOPE (X40 MAGNIFICATION)	Once dried the mortar was found to be 10YR 8/3 'very pale brown' when assessed against the Munsell Soil Colour Charts. When assessing the sample by means of binocular microscope it was found to contain very few pores, with the only visible pores < 1mm in diameter. The sample contained a large range of aggregate grain and lime inclusion sizes. The largest visible lime inclusion measured 6 mm in diameter, however most other lime inclusions were significantly smaller: <1.5 mm in diameter.

ACID DISSOLUTION & FILTRATION

PROCEDURE	OBSERVATIONS/COMMENTS	
DISSOLUTION OF BINDER USING 10% HCl	On addition of the acid to the powdered sample there was a very strong reaction that continued in intensity for 10 mins. After this time it died down, but remained active after 30 mins of acid immersion.	
FILTRATION	GRADE: 20	PAPER TYPE: Whatman Type 41

CONSTITUENTS OF ANALYSIS SAMPLE

MATERIAL	WEIGHT (g)	COMMENTS
A: DRY WEIGHT OF ANALYSIS SAMPLE	228.21	Mass of sample analysed (before acid digestion).
B: DRY WEIGHT OF ALL INSOLUBLES	181.65	Insoluble residue recovered after acid digestion (before sieving).
C: DRY WEIGHT OF INSOLUBLE BINDER	16.31	Determined from microscopic examination of filter residue (presence of insoluble hydraulic components can be confirmed by XRD analysis).
D: (B-C) DRY WEIGHT OF AGGREGATE	165.34	Corrected for retention of hydraulic components or other non-soluble reaction products.
E: (A-D) DRY WEIGHT OF LIME	62.87	Including insoluble binder where present.
MOISTURE CONTENT (%)	0.77	Based on mass of sample before and after drying.
OTHER	-	Gypsum and other non-binder related contaminants or reaction products.

AGGREGATE GRADING & CHARACTERISATION

SIEVE PERFORATION SIZE*	AGGREGATE RETAINED (g)	UNDISSOLVED BINDER (%)	CORRECTED AGGREGATE WEIGHT (g)	% OF AGGREGATE	COMMENTS
8mm	16.44	5	15.62	9.50	Sub-angular – sub-rounded spherical – elongate mica-rich buff sandstone fragments, broken cockle shells, and dark red-pink crystalline igneous/metamorphic rock.
4mm	37.51	5	35.63	21.60	Sub-angular – sub-rounded mixed lithic fragments composed of buff mica-rich sandstone, red-pink granite and gneiss, and other mixed mica-rich metamorphic rock, quartz grains, and broken white-grey bivalve shell fragments.
2mm	27.33	15	23.23	14.10	Angular – sub-rounded quartz and feldspar grains, broken angular white-grey bivalve shell fragments, and mixed lithic fragments composed of red-pink gneiss and other mixed metamorphic rock.
1mm	22.55	20	18.04	10.90	Predominantly sub-angular – rounded quartz and feldspar grains and lower percentages of broken shell fragments and mixed metamorphic rock fragments.
500µm	23.59	15	20.05	12.10	Sub-angular – rounded quartz and feldspar grains and a lower percentage of broken grey shell fragments, coal fragments and mixed lithic fragments composed of red-pink gneiss and white biotite-rich rock.
250µm	29.38	5	27.91	16.90	A high percentage of sub-

					angular – sub-rounded quartz and feldspar grains and lower percentages of muscovite flakes, pyrite, coal fragments and mixed lithic fragments.
125µm	15.53	0	15.53	9.40	The same as above.
63µm	5.98	0	5.98	3.60	Generally indiscernible, but dark speckles and 'shine' suggests coal fragments and muscovite, respectively.
< 63µm including filter residue	3.10	0	3.10	1.90	Indiscernible.

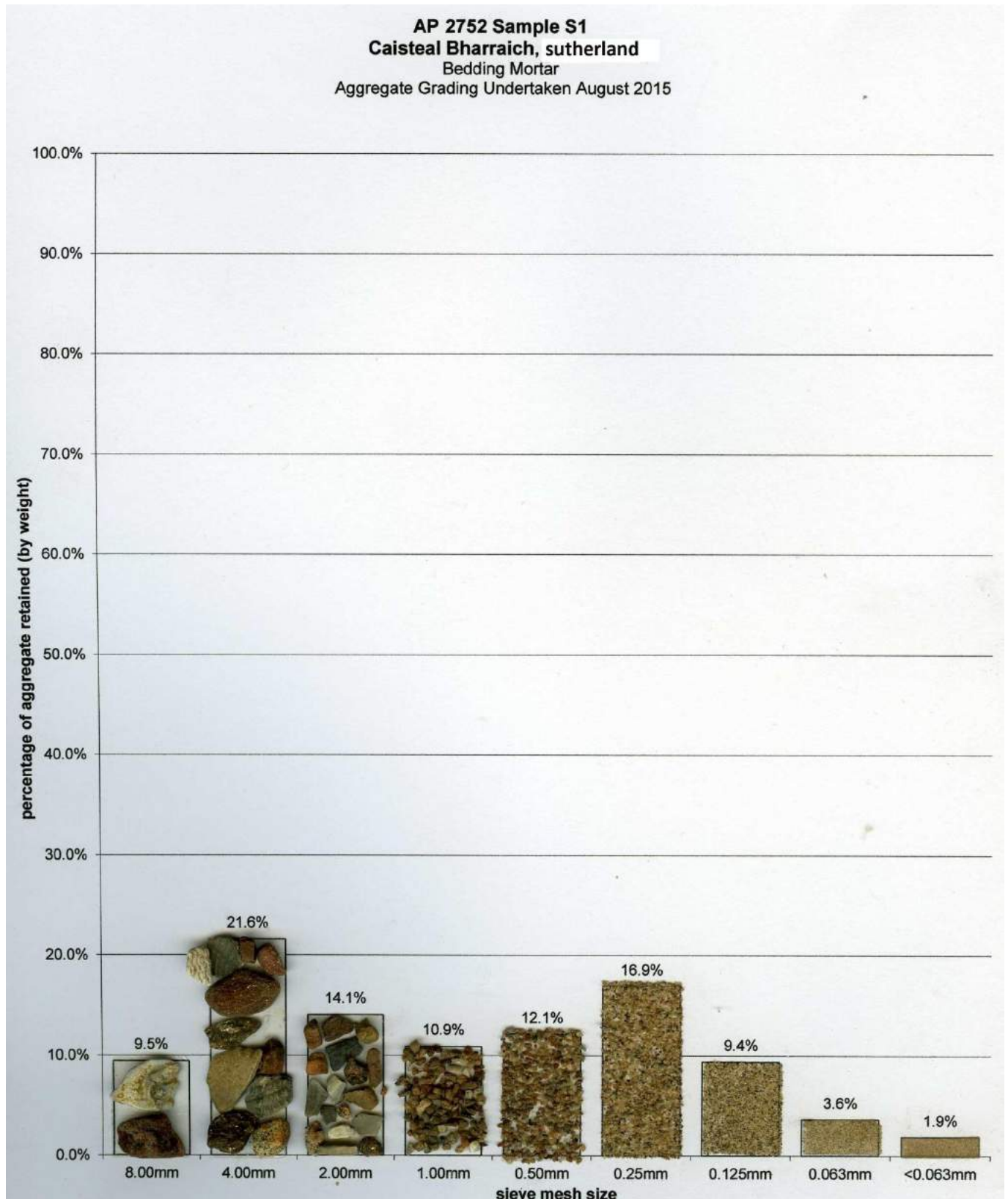
*Sieve perforation sizes correspond to those stated in BS EN 1015.1:1999

The aggregate isolated from this sample is retained from sieve mesh size 8mm down, with the highest percentage of aggregate retained at sieve mesh size 4mm, with 21.60%. The aggregate is composed of a high percentage of sub-rounded quartz and feldspar grains, broken bivalve shell fragments, with evidence of cockle shells, mixed lithic fragments composed of red-pink granite, gneiss and biotite-rich metamorphic rock, coal fragments and pyrite. The coarse fractions are dominated by shell fragments and mixed lithic fragments of pink-red gneiss, granite and buff mica-rich sandstone. The fine fractions are characterised by quartz and feldspar grains, with muscovite flakes giving a characteristic 'shine' to the fine fractions, and coal fragments influencing the darker colour of the aggregate. See aggregate profile below.

Because sand and gravel aggregates are ultimately derived from the weathering of solid rock, most aggregates contain coarse grained rock fragments and finer mineral grains. Physical weathering breaks down the rock fragments within the aggregate into the constituent minerals, resulting in smaller and rounder particles; chemical weathering breaks down unstable minerals, such as feldspars resulting in the formation of clay, which may be washed away. Both weathering processes eventually result in the formation of quartz-rich sand.



Aggregate Profile of the Aggregate Separated from the Mortar Sample



AGGREGATE MATCHING

The closest commercially available matching aggregate, from the SLCT Sands and Aggregates Database taking into account location, grading, grain size, colour and texture is BEACH SAND from DURHAM QUARRY (see aggregate profile below). This aggregate is retained from sieve mesh size 4mm down, with the highest percentage of aggregate retained at sieve mesh size 0.250mm with 37.4%. Durham Beach sand is the only beach sand within the SLCT Sands and Aggregates Database. It has a lighter colour to the analysed sample, containing a lower percentage of coarse material and a similar percentage of fine aggregate.

Alternatively, it would be worthwhile to investigate any available aggregate from local beaches to the building. It is likely that local beach sand was used in the original mortar mix, and would most certainly represent the best aggregate match for the mortar. Unfortunately, due to environmental constraints and permission rights, this might not be a viable option. However, if this option is considered, then it would be possible for the Scottish Lime Centre Trust to undertake any aggregate matching that is needed.

Contact details for this quarry are listed below.

Durham Quarry
Supplied by:
Masons Mortar
77 Salamander Street
Leith
EH7 6JZ

Tel: 0131 555 0503

However, the named source(s) is/are not the only potentially suitable source(s) available, but is/are the closest, with respect to visual characteristics and physical properties, on the basis of the work carried out to date, on the sample submitted to examination.

The currently available aggregate samples held in the Scottish Lime Centre Trust's Aggregates Database are provided by the individual quarries/operators and therefore we have to assume that they are representative of the aggregate being produced at the time of receipt of the sample. As with all quarries the actual properties of the aggregate available will be dependent on the area being worked at any given time and it is, therefore, always prudent to obtain samples of the current production for comparison with the aggregate to be matched, prior to ordering supplies for a particular project/application.

Quarries can change hands, open or close down with a relatively high frequency and therefore the source(s) identified

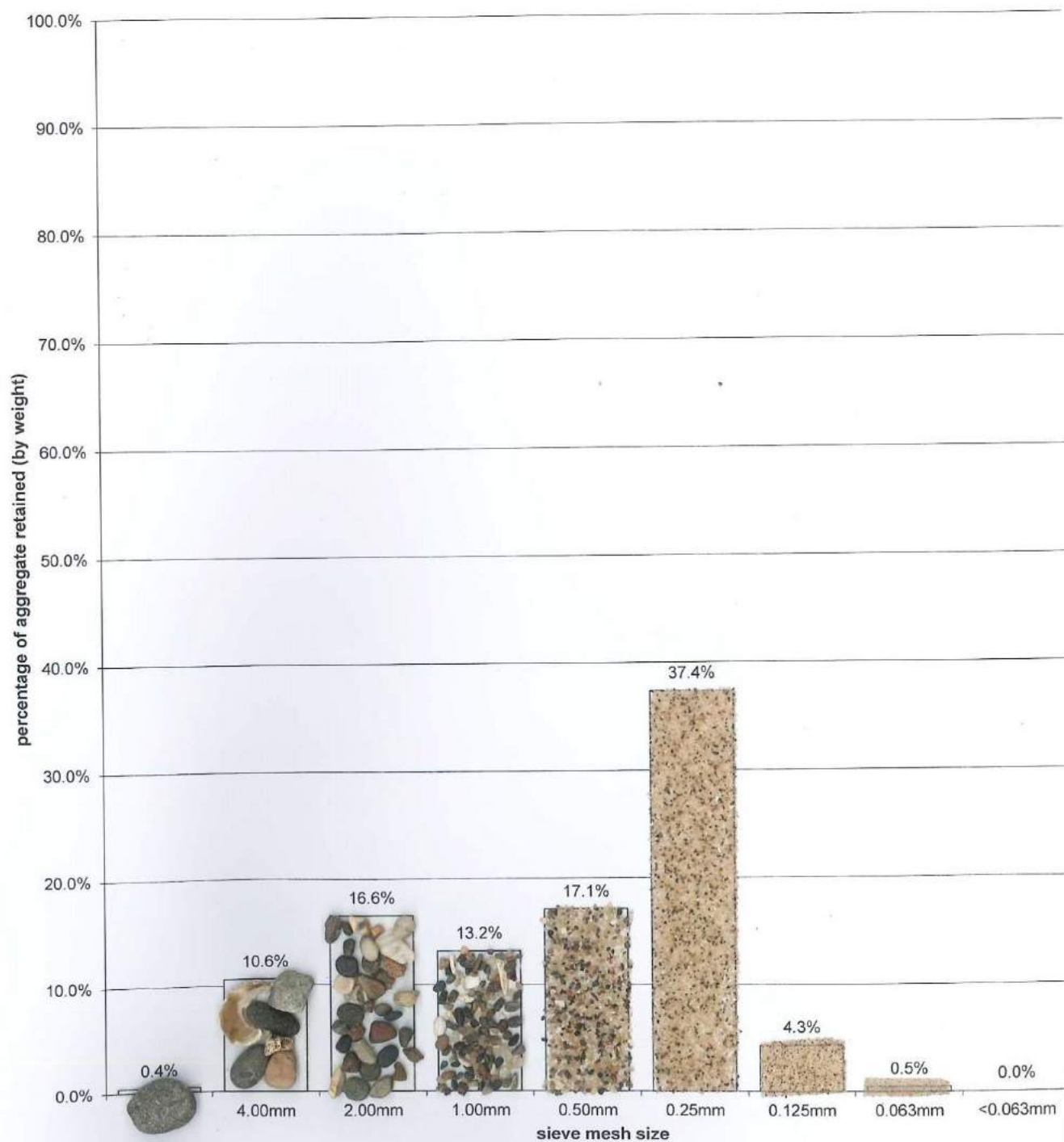
above may become unavailable with no notice. If you are unable to obtain one of the above aggregates within 6 months of us completing this report then we will identify a new source free of charge (after this time period a charge will be incurred).

***If ordered please say that the aggregate was identified by the Scottish Lime Centre Trust.**



Aggregate Profile of the Closest Matching Currently Available Aggregate: Beach sand, Durham Quarry

EQ.16a Durham Quarry
Beach Sand
Durham, England
Aggregate Grading Updated June 2015



PROPORTIONS OF ANALYSIS SAMPLE

The sample proportions give the relative weights of aggregate and carbonated or set lime, unless otherwise stated.

LIME	:	AGGREGATE
1	:	2.6

PROBABLE ORIGINAL MIX

The original mix gives the relative weights of the mortar constituents as mixed on site and before carbonation. From the nature of the binding matrix of the mortar sample and from information gained from the analysis, it is probable that the mortar was made up from a moderately hydraulic quicklime.

1 PART MODERATELY HYDRAULIC QUICKLIME	:	3.9 AGGREGATE (BY WEIGHT)
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Please note that the proportions given above relate to the sample supplied, this is not a specification.

If a repair specification is required please contact us, and we can arrange for one of our surveyors/consultants to visit and inspect the building/structure, evaluate the relevant requirements, and subsequently provide recommendations and/or specifications for construction and repair work.

Fig 2 – Wildland Limited Principles

WILDLAND LIMITED PRINCIPLES

- Conserving and protecting the nature of the Wildland will always be our first and foremost priority at Wildland Limited.
- In managing and protecting the Wildland, the approach will always be one of assisting the natural processes of nature.
- Our vision of Wildland is not one of a deserted Scotland. Appropriate recreational, forestry, farming and sporting activities will all be encouraged in order to strengthen and support the local rural communities.
- The right of responsible access in Scotland will be fully supported.
- We are committed to conserving the many ruined buildings, tumbledown lodges and historic routes which mark an earlier era of settlement. We will endeavour to foster new uses for these buildings in line with the wider Wildland Limited principles.
- Wildland Limited will continue to support science - ecologists, geologists, geomorphologists, and many others who come to visit and study in these Estates.
- The highest standards of practice in terms of the natural environment and the built environment will be implemented where good ecological and practical built design will ensure a sustainable future for the Wildlands.
- By following these principles, we seek to create a new and sustainable business model for the Wildland Northern Estates, one that will encourage the creation of vibrant communities set within a unique, world-class visitor destination.