

Scheduled Monument Consent: Report on Handling



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Case information

Reference/Case ID	201600648		
Scheduled Monument	Bothwell Castle, Uddingston		
Index no	M90038	Grid Ref	NS688593 268800.0000 659300.0000
Date of Application	06 May 2016	Application Received	06 May 2016
Summary of proposed works	Repair Latrine Tower masonry, repair yetts to Latrine Tower openings and soft cap head of Latrine Tower.		

1. Summary recommendation

This report recommends that consent be granted with conditions.

2. Background

Site description. Bothwell Castle is one of the most significant medieval buildings in Scotland, and saw successive phases of redevelopment from the late 13th century through to the late 17th century, before serving as a quarry for the masonry of the nearby Bothwell House in the early 18th century. The 20th century saw large-scale consolidation of most of the castle, both prior to and after the site was taken into State care. The south curtain wall of the castle is a complex multi-phase feature, with a projecting latrine tower located midway along its length. The masonry of this tower has seen considerable reconstruction work in the early 20th century, particularly in the 1930s. Much original and replacement masonry is in a failing condition, and this proposal relates to the need to consolidate the exterior, wallhead and interior of the tower.

Pre-application discussions. The outline proposals have been separately peer-reviewed on two occasions by Heritage Management Directorate, and feedback from these formed the basis of pre-application advice to Conservation and Maintenance Directorate. In outline, this advice concluded that the proposals should be supported by an options appraisal, a full assessment of the historic environment impacts, and a detailed structural justification for the chosen methodology.

Planning history. The castle has seen several campaigns of consolidation since the early 20th century. Recent consolidation by Historic Scotland/HES has been concentrated on the north-west curtain wall, including extensive indenting, repair and

replacement work and the creation of a soft-capping to the wallhead (consented in 2012, completed in 2016). No planning consent is required for the proposed works.

3. Proposals

In outline, the Latrine Tower repairs comprise:

- masonry repairs to stonework including introducing structural ties, and repointing work
- repairs to yetts in openings, and temporary removal of blockings to medieval openings
- laying stone slabs over the open latrine shaft, and soft capping the wallhead of the tower

Overview. Comparison of two photographs of c. 1899 and 1955 show that approximately 70% of the exterior masonry of the Latrine Tower is original, but that the lower third of the outer face of the tower is a substantive rebuild dating to that period. The large rectangular opening in the outer face was also created in this period, although there was no substantive evidence for this being a historic form. There is extensive stone replacement and indenting from the same period across much of the rest of the tower. Much of the medieval and 20th-century masonry has decayed, and to a much greater degree than that of the adjacent curtain wall. The causes may relate to a number of factors, including salt corrosion from the latrines, water ingress from the wallhead and interior of the courtyard, and poor quality of the stone used. The result is that the failing stones are no longer providing adequate support for overlying masonry, leaving a significant risk of stone loss.

The upper courses of stonework have much less decay, but the lack of support from underlying courses or of tying stones has allowed the beds between these stones to widen, accelerating mortar loss. This is particularly a problem on the arrises of the tower, where some localised cracking can be observed. The wallhead of the tower has an open latrine shaft surrounded by rough-racked conservation masonry, and water penetration into the fabric from this shaft and the wallhead is substantial.

The condition of this masonry has caused considerable structural instability that would only increase if not addressed.

The applicant has proposed works within the interior of the latrine shaft, but the shaft cannot be examined for the presence of bats and other protected species until opening up works have occurred. As HES cannot grant consent in such circumstances as bats may be disturbed, the applicant has agreed to withdraw this aspect of the consent. Documents submitted to date have not been revised to take this into account, but no further consideration is given to this element of the works as they are not the subject of this application.

Options appraisals. Two options appraisals have been produced, one for the overall consolidation of the masonry, and the other for the treatment of the wallhead. The options considered for overall consolidation are:

- Indent those stones so decayed they are no longer adequately fulfilling their structural or weathering function. Exercise judgement to retain stones which might need replacement in the longer term. Introduce helical bar stainless steel structural ties within masonry bed joints. Repoint in lime mortar. This option is preferred because it would secure the monument using established conservation techniques. This option is also supported by the conclusions of an impact assessment by our Cultural Resources Advisor (see below).
- Replace all failed stones, and *all* stones in poor condition, with new masonry and some structural steelwork. This option is rejected because it will be possible to repair or retain some stones that (while in poor condition) would be likely to maintain their structural integrity for the foreseeable future.
- Replace failed stones using conservation brick, and insert brickwork in front of stones that are beginning to fail. This option is rejected because the harder brick would lead to significant erosion of adjacent surfaces, require very extensive supporting steelwork, and would create a surface treatment that would greatly differ from the rest of the castle fabric.
- Use of an external steelwork 'cage' to retain masonry, along with replacement only of failed stones. This option is rejected because it would require extensive drilling into the masonry, and would also obscure much of the tower's surfaces.
- A 'do-nothing' option, rejected because the risk of collapse presents health and safety risks, as well as adverse impacts on cultural significance and on organisational reputation.

The options considered for the treatment of the wallhead are:

- Repairing and levelling out the rough-racking, sealing the latrine shaft with a slab and ventilator, and turf-capping the entirety of the wallhead. This option is preferred as it is consistent with wallhead treatment elsewhere on the site, would require only small-scale and sustainable maintenance, would greatly reduce water ingress, and represents conservation best practice.
- Repairing and adding to the existing rough-racking. This option is rejected as it will lead to an extensive and ongoing maintenance programme, which is less likely to be affordable in the present climate, and does not represent best practice in dealing with water penetration issues.
- Repairing the existing rough-racking on the perimeter, and adding a concrete cap which would duct water to a rainwater chute running down through the latrine shaft. This is rejected because it does not represent best practice, and would require extensive physical intervention and considerable maintenance which is not likely to be sustainable.
- A 'do-nothing' option, rejected because this would cause failure of the facing masonry, would leave a residual health and safety risk, and would require further works in the near future.

Masonry repairs. Up to 47 stones across the three external faces of the tower have been identified as requiring indenting from present inspection, with a further 48 stones identified as probably requiring indenting once closer inspection is possible during the works. An area of failed and missing facing stones comprising the lower third of the south elevation (up to 99 stones) would also be closely examined for potential replacement, with up to 70 of these stones likely to require indenting, and the remaining 29 requiring replacement. These elements of the work would mean that localised dismantling of contiguous areas of stone would be necessary, and accurate recording of individual stones before removal is proposed.

The existing cementitious mortar would be completely raked out, and repointing undertaken using a mix that would match existing original samples from elsewhere on the castle (and probably matching that used in the NW curtain wall works). The lime mortar assessment would be supported by the analysis of any available samples from the original areas of masonry, so that the new mortar can replicate the qualities of any *in situ* original mortar.

Up to 25 helical stainless steel bars of 6mm diameter would be inserted horizontally, each one running around the three external faces of the tower, in order to provide adequate support for the repaired masonry. Each bar would be inserted between 55 and 70mm back from the face of the repaired masonry, inserted into a cementitious grout, and then pointed up with up to 20mm of an appropriate lime mortar.

Yett repairs and access works

There are four iron yetts protecting openings at the tower. A large one seals off the large rectangular void on the front (south) elevation. In the interior of the latrine tower at courtyard level, the latrine shaft is capped by an iron yett, and the linking passage between that latrine and the large rectangular void is sealed by another iron yett. These items are all of similar construction. All appear to date to the repairs to the site carried out in 1984, when the north curtain wall of the castle was constructed to control access to the interior.

The fixings and ironwork are in good condition, but the masonry surrounding the fixings is failing to provide adequate support for them. The masonry repairs outlined above would deal with that issue. It is proposed to remove the yetts and fixings from the masonry as it is being conserved, and to replace them once the masonry has been repaired appropriately.

The latrine shaft formerly opened into a pit excavated at the base of the outer face of the latrine tower. This pit was excavated in 1934-5 to expose the shaft outfall and not backfilled. Significant medieval pottery remains were recovered from the pit, which was not archaeologically recorded. The open outfall was then sealed with an iron plate and new sandstone masonry to match the existing. Satisfactory inspection of the shaft interior would require the removal of the iron plate and the 1930s masonry. It is proposed to remove the plate and masonry after they have been recorded, and to reinstate them upon completion of the work. It is also proposed that the turf within the pit should be removed in order to fully assess the join between the original masonry and the 1930s material. No Written Scheme of Investigations has been

supplied, so the precise methodology for this is not presently known. However, the removal would only be of the turf layer and not subsurface deposits.

Soft capping of tower and laying slabs over open latrine shaft. This would involve repairing the existing rough-racking with an appropriate lime mortar. A level surface around the latrine shaft would be created using four new stone blocks on one side of the shaft opening. The shaft void would be sealed using a stone slab cover and a ventilation shaft protruding slightly above the level of the wallhead (the latter would not be visible from the ground). The whole wallhead would then be covered and protected by a turf capping laid on a clay layer, itself separated from the masonry by a protective waterproof membrane.

Some disturbance of the rough-racking is proposed in order to accommodate the four sandstone blocks. The levels of the wallhead mean that these blocks are required to support one end of the stone capping. Underlying original masonry would not be disturbed. This would be undertaken in order to avoid the alternative, which would involve removal of all the rough-racking immediately around the shaft, and building up all four sides of the shaft in new masonry.

4. Representations received

No representations have been received. The owner of the site is South Lanarkshire Council, who have been consulted by the applicant.

5. Report

a) Policy considerations

The application should be viewed with the following legislative and policy considerations in mind:

Ancient Monuments and Archaeological Areas Act 1979 (as amended)

- Part 1 Section 2 - Control of works affecting an ancient monument. This is what you will have used to decide if SMC is required for the works described.
- Part 1 Section 2 (3) – authorises works where Scottish Ministers or Historic Environment Scotland have granted consent (scheduled monument consent) for the execution of the works where the works are executed in accordance with the terms of the consent and of any conditions attached to the consent.
- Part 1 Section 2 (4) - allows consent to be granted with conditions.
- Part 1 Section 2 (5a) – allows Historic Environment Scotland to include a condition reserving specified details of the works.

Historic Environment Scotland Policy Statement (HESPS)

3.16. Works on scheduled monuments should therefore normally be the minimum level of intervention that is consistent with conserving what is culturally significant in a monument.

3.17. As each monument will require treatment specific to its individual nature, characteristics, significance and needs, any proposed change to it must be fully and explicitly justified.

3.18. Scheduled monument consent applications must be considered in terms of the cultural significance of the monument and the impact that the proposals would have upon this cultural significance. The more important particular features of the monument are to its cultural significance, the greater will be the case against interventions which modify these features.

3.19. Extensive intervention will only be allowed where it is clearly necessary to secure the longer-term preservation of the monument, or where it will clearly generate public benefits of national importance which outweigh the impact on the national cultural significance of the monument. Such public benefits could come from, for example, interventions which make public access to scheduled monuments easier, or assist public understanding, or will produce economic benefits once the works are completed.

3.20. Where change is proposed, it should be carefully considered, based on good authority, sensitively designed, properly planned and executed, and where appropriate in the context of an individual monument, reversible.

3.22. Where consent for the range of works set out in paragraph 3.4 is granted, conditions are normally applied to ensure the works are undertaken in an appropriate manner. Common requirements are:

- a. the use of appropriate assessment methodologies to determine the full impact of any proposed management, use or development;
- b. the avoidance of irreversible change particularly wherever its effects cannot be adequately assessed;
- c. that where change is necessary, strategies should be adopted to mitigate its impact and limit intervention;
- d. that the management and execution of alteration, including remedial work, is sympathetic to the historic character;
- e. that appropriate skills and techniques, materials and construction techniques are specified where appropriate;
- f. that an appropriate level of record is made before, during and after any work and deposited in local and national archives, and, where appropriate, published;
- g. that it is possible, on close inspection, to differentiate new work from old particularly on masonry structures;
- h. that any archaeological excavation or other intrusive investigation should be based upon a detailed research strategy, with adequate resources, using

appropriately skilled and experienced archaeologists with a satisfactory record of the completion and publication of projects (see Note 3.10); and,
i. that the design, planning and execution of works on scheduled monuments are undertaken by people with appropriate professional and craft qualifications, skills and experience.

b) Assessment

The options appraisal for masonry repairs

The rationale for rejecting the alternative options for the masonry repairs are:

- A 'do-nothing' option would ultimately lead to masonry loss, potential collapse, and risks to health and safety and to HES' reputational reputation
- brickwork would be aesthetically jarring, and would lead to higher levels of erosion on adjacent stonework
- a steelwork cage would obscure the masonry and involve a high level of physical intervention
- replacement of all failing stones and stones that may fail in the near-future would be too extensive an intervention, as many failing stones can be repaired now or in the near future

All of these options have the potential to adversely impact on the cultural significance of the monument, through creating conditions for further damage to occur, obscuring the form of the tower, or radically changing its appearance. On balance, it is reasonable that these options have been rejected, as such change should not be considered where an alternative option with lesser impact is viable. The preferred option is considered in more detail below.

The options appraisal for soft capping the tower

The rationale for rejecting the options for waterproofing the wallhead of the latrine tower are:

- A 'do-nothing' option presents a risk of further water penetration into the wallhead, accelerating the rate of decay and presenting risks to health and safety and to HES' reputation.
- Adding a concrete cap with some new rough-racking, and inserting a downpipe within the latrine chamber would require extensive physical intervention, including a drain outlet
- Repairing and replacing the existing rough-racking no longer represents best conservation practice, and would lead to significant long-term cost/maintenance issues that could only be met through use of scaffolding

The first two options have the potential to significantly adversely impact on the cultural significance of the structure, as one would lead to further loss and decay of masonry, and the other would require extensive archaeological intervention in a case where this could be avoided. The third option (rough-racking) would be consistent with the wider appearance of the castle wallheads, and with much of the wider HES estate and other maintained monuments. As such, it would not be inconsistent with

the cultural significance of the monument, and may still be appropriate for certain parts of the site in future. However, the most recent wallhead repairs at Bothwell used soft-topping, which is consistent with expected best practice on the HES estate and across the sector. Therefore, the soft-topping option has been considered in more detail below.

The impact of masonry repairs, structural steelwork and repointing

The alternative options appraised by the applicant (taking no action/brick replacement/steel caging/full replacement of all failed and failing stones) have been rejected on the grounds of their adverse impacts, as outlined above. It is therefore clear that the proposed option of indenting and/or replacement of failed stones is generally appropriate. The impact of this method has to be considered in terms of impacts on cultural significance.

A total of 194 stones have been identified for repair. Indenting of 47 stones and possible indenting of 48 stones on the elevations of the tower would represent an extensive intervention in their own right, without the further need to deal with the lower area of the outer face of the tower. Of the 99 stones identified by the applicant in that lower area, 70 need indenting and 29 may need complete replacement (that need can only be established on close inspection once works are underway). Stones that are in a poor state and likely to fail in the medium-to-long-term would not be indented or replaced, which would mean that the total number of stones subject to these works would be less than 194. Overall, this would mean that the physical appearance of the masonry would be radically different from its present state, and would differ substantially in appearance from much of the castle. There would be loss of some historic masonry through indenting and replacement of original stonework. The contribution of that masonry to cultural significance lies not just in the form of the tower itself, but is imbued in every stone – each of which was cut by a medieval mason to precisely fit within the wall. This loss of historic masonry is therefore potentially a significant adverse impact on cultural significance.

However, the overall form of the tower would match the existing form, and no attempt would be made to undo the construction details erroneously created between c. 1899 and 1955. While the form of masonry repair would be visually jarring, it would be less intrusive than the alternatives while still preserving the essential form of the original tower. Where stone tooling or individual mason's marks are apparent, there would be replicated in the indent or replacement, further preserving the appearance of the masonry. The areas of repair would be readable as such, as their fresher appearance would plainly reveal them to be repairs. Therefore, the loss of original masonry would be partly offset by attempts to both blend in the general form of the replacement masonry, and recreate specific known details of individual stones, while avoiding spurious recreation of unknown features. This form of repair is in accordance with conservation philosophy, as it proposes replacement and indenting where they are the only viable alternatives, and it also avoids replacement and indenting where this can be avoided. In this case, it is accepted that this may mean that a further campaign of repair may be required in the future to

some presently-sound masonry, but this would avoid the need to intervene now when it cannot be fully justified.

On balance, the potentially significant adverse impact from the masonry repairs would be mitigated by the moderate and reasonable approach to stone repair and replacement that is proposed, and the fact that this method is essential to preserving the overall form of the tower in a safe condition. The residual impact can therefore be characterised as being of a slight adverse nature.

The 25 helical bars that are proposed would lie behind the face of the repaired wall within masonry joints, and would provide support for repaired and existing masonry which is spreading and cracking due to the lack of tying stones within the fabric. This would represent a significant addition of modern material to the fabric of the tower, even if not visible once repairs would be completed. This has potential for adverse impact on the monument, as it introduces an alien element to medieval fabric. However, the intervention would not have a direct impact on historic fabric, as the joints are wider than the 6mm bars, and arrises and pointing mortar appear to be decayed at the proposed locations. The applicant has also provided a short statement (integrated into the revised Supporting Statement of 03 June) from HES' structural engineer, stating that the number of bars proposed represents the minimum number required to maintain the structural stability of the tower. This steelwork would therefore prevent any further deterioration of the overall structure. On balance, the impact on cultural significance of the helical bars would not be of an adverse nature.

Raking out and repointing with a NHL mortar matched to original mortar after analysis of samples from undisturbed contexts would involve the potential loss of failing original mortar, which could represent an adverse impact on the cultural significance of the monument. However, much original mortar would be retained within the core and interior surfaces of the tower, and would remain available for further study. Any original mortar that would be raked out would be of a failing nature, and likely to lead to further loss and erosion of the adjacent masonry. On balance, this particular impact would be not be of an adverse nature.

The impact of yett repairs and access works

The yetts and their fixings are of 1980s vintage, set in masonry that dates between c.1899 and 1955. As the ironwork and fixings would be repaired and reinstated to match existing and the masonry in to which it is set is in need of repair and indenting, there would be no adverse impact on the cultural significance of the monument.

The opening-up of the base of the latrine shaft would involve the removal of an iron plate and conservation masonry likely to date between the 1930s and 1955. The iron plate is of negligible cultural significance. The conservation masonry represents a significant episode in the State care of the tower, and this work does contribute to an understanding and appreciation of the monument. However, this contribution is offset by the fact that it makes it difficult to 'read' the latrine shaft as such, as it would

ordinarily be expected that such a shaft would be open. It also provides an element of security to the site, as it precludes access through the shaft by intruders. On balance, removal and subsequent replacement of this masonry would not have an adverse impact on the cultural significance of the monument.

The removal of turf within the pit outside the shaft has the potential to adversely impact on the cultural significance of the monument. We do not know how the pit was re-excavated in the 1930s, so original and undisturbed stratigraphy or artefacts could still remain in situ, just below the turf layer. The applicant has proposed to record this removal archaeologically, but has not provided a Written Scheme of Investigation (WSI). If a suitable WSI were to be seen and approved by Heritage Management, it is likely that the risk of disturbance to unexcavated remains could be avoided. A condition attached to this consent could stipulate this. This would mean that the residual risk to the cultural significance of the monument would be of a minimal nature.

The impact of soft capping the tower, and capping the latrine shaft

This aspect of the works has the potential to adversely impact on the cultural significance of the monument, as it would introduce a grassy sward on the top of the tower that would be clearly visible from the entirety of the south face of the castle, and would be very different in appearance from adjacent wallheads. The uppermost part of the ventilator would be concealed in all views from the ground (including within the castle), although both it and the soft capping would be clearly visible from the air. The four sandstone blocks used to level up the top of the latrine shaft before capping it would also introduce a modern element into the fabric, and this could also potentially adversely effect the cultural significance of the monument.

Soft capping is increasingly being used as a wallhead treatment on monument conservation projects across Scotland, and has gradually achieved widespread acceptance where it has been deployed. The same technique has already been used on the repairs to the north-west curtain wall at Bothwell, and this is now an accepted part of the structure. In addition, many unmaintained monuments have developed a natural soft capping. Therefore, while the final appearance of the latrine tower from the ground would be different from its present state, it would not be jarring either in terms of the appearance of parts of the rest of the castle, or of monuments elsewhere. Moreover, the options appraisal has set out that a higher level of physical intervention and a greater maintenance cost would be incurred by the alternative options. Finally, the soft-capping would be more effective than rough-racking in preventing water ingress to the masonry, so would contribute to the future stability of the structure. On balance, soft-capping the tower would not have an adverse impact on the cultural significance of the monument.

Sealing the shaft and ventilating it has been proposed in order to minimise the levels of water ingress down the shaft and into the masonry. The shaft is not presently visible from ground level, or from any publicly-accessible position within the castle, and is only visible from the air. Therefore, the contribution that the shaft makes to the

cultural significance of the monument can only be appreciated by a very few people at most. The shaft would be preserved under the capping, and the stone capping would not make direct contact with original fabric, thus preserving the shaft opening in the present condition. The capping would also enhance the condition of the latrine tower, through adequate ventilation and reduction in the amount of water ingress. On balance, the sealing and ventilating of the shaft would not represent an adverse impact on the monument.

The introduction of the four sandstone blocks to level up the wallhead around the shaft opening would directly impact on rough-racked material, as it would have to be partly levelled off to accept the blocks (without any intervention to the original masonry). The rough-racking probably dates to the 1930s with subsequent repairs, and this represents a significant episode in the State care of the tower. This work does contribute to an understanding and appreciation of the monument. However, this contribution is offset by the fact that it does not represent the appearance of the underlying original masonry. The contribution that the rough-racking makes to the cultural significance of the monument is therefore not high. This loss would facilitate a means of preventing water ingress while still ventilating the shaft, and is a more minimal intervention than alternatives that have been examined. Therefore, the loss of a small proportion of the rough-racking of the tower to accept the four sandstone blocks would not represent an adverse impact on the cultural significance of the monument. It is noted that Cultural and Natural Resources propose to take a photographic record of this element of the works.

c) Other material considerations, including impact of the works on Protected Species and Places

None predicted, as the applicant does not intend to presently proceed with the works to the interior of the latrine shaft, which has the potential to disturb bats. See Protected Species and Places Assessment for details.

d) Conclusion

The impact of the masonry repairs would be of an adverse nature due to the change in the appearance of the repaired masonry compared with the rest of the castle and the loss of historic fabric. However, this impact is justified as it represents an appropriate repair method which prevents further loss of masonry, while avoiding intervention into stonework that can be considered for repair at a later date. It would also preserve the form of the tower, would be readable as an honest repair, and would prevent further loss or damage to the monument. On that basis, this aspect of the works would be consistent with the Policy Statement, paragraph 3.16, as they represent the minimum level of intervention that is consistent with conserving what is culturally significant in a monument.

The structural steelwork and repointing works would not have an adverse impact on cultural significance, and are therefore also consistent with the Policy Statement, paragraph 3.16.

The yett repairs and associated access works would not have an adverse impact on cultural significance, if the removal of turf from the latrine pit excavation were to be monitored under archaeological conditions. It is therefore considered reasonable and necessary to control this aspect of the works under an appropriate condition, which is proposed below. If this condition is accepted, this aspect of the works would also be consistent with the Policy Statement, paragraph 3.16.

The soft-capping and latrine shaft capping works would not have an adverse impact on cultural significance, and are consistent with the Policy Statement, paragraph 3.16.

All of these repairs are also fully consistent with the Policy Statement, paragraph 3.20 as outlined above, as the alternative methods of repair have been established to be high-impact, and the proposed method is carefully considered, based on good authority, and sensitively designed.

The applicant proposes to consult with HES Cultural Resources Directorate where there is any doubt about individual aspects of this work, and to give two weeks' notice of the commencement of any major phase within the project. It is not considered necessary to propose a monitoring/notification condition in this case.

On that basis, the proposed repairs are consistent with national policy on scheduled monuments, and it is recommended that consent is granted.

6. Recommended decision

Subject to compliance with the schedule of conditions, the works proposed are considered acceptable in meeting the terms of national policy for scheduled monuments, and also accounting for other material considerations.

I recommend consent is **granted, subject to the condition detailed below.**

7. Conditions

1. No turf removal or other ground works shall be undertaken until a Written Scheme of Investigation (WSI) has been submitted for approval by Historic Environment Scotland's Heritage Management Directorate.

Reason: to ensure that turf removal or other ground works are archaeologically monitored.

8. Approval

Officer	John Malcolm	Date	29/06/2016
Approved by	John Raven	Date	29/06/2016

Historic Environment Scotland – Longmore House, Salisbury Place, Edinburgh, EH9 1SH

Scottish Charity No. **SC045925**

VAT No. **GB 221 8680 15**

Annex A – list of supporting documents

1. Drawing (A4) 1:2500 Location Plan dated 21/04/2016
2. Drawing Identified Original Stones from 1899 Photo 90038-150714-002A
3. Drawing Shaft & internal Areas Consolidation 90038-150714-003B
4. Drawing Proposed Consolidation Works 90038-150714-004B
5. Drawing Proposed Soft Capping details 90038-150714 005
6. Supporting Statement Annex A dated 03/06/2016
7. Options Appraisal: Proposed Masonry & Structural Repairs Annex B dated 02/05/2016
8. Options Appraisal: Proposed Capping Treatment Annex C dated 02/05/2016
9. General & Detail Photo A4 sheets Annex D dated 02/05/2016
10. Archive Photo A4 Sheets Annex E dated 02/05/2016
11. Environmental Impact Statement by HES CRA Dated May 2016