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Smeaton Bing, Dalkeith

Cultural Heritage Assessment

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Smeaton Bing, Dalkeith

Cultural Heritage Assessment

1 Cultural Heritage

Introduction

- 1.1 This section considers the impact of the proposed development on cultural heritage interests, and identifies measures that should be taken to mitigate adverse impacts, where practical. It has been prepared by CFA Archaeology Ltd and is informed by information provided by Historic Scotland and East Lothian Council Archaeology Service in the Council's Scoping Opinion (June 2008).
- 1.2 The specific objectives of the cultural heritage study were to:
 - Identify the cultural heritage baseline through desk-based assessment and reconnaissance field survey;
 - Consider the proposed development site in terms of its archaeological and historic environment potential;
 - Assess the potential and predicted effects of the development of the site on the baseline cultural heritage resource, within the context of relevant legislation and planning policy guidelines;
 - Propose measures, where appropriate, to mitigate any predicted adverse impacts.
- 1.3 Figure 1 shows the sequence of historical development of coal mining activity on the proposed development site while Figures 2 and 3 show the locations of the cultural heritage sites and features identified by study overlaid on an aerial photograph of the bing (Figure 2) and set against the proposed development layout (Figure 3). Details of the cultural heritage sites are given in Appendix 1, which also provides a summarised assessment of the relative importance of each.
- 1.4 Figure 4 shows the proposed development in its wider landscape context along with the locations of the key receptors identified by Historic Scotland that lie within 1km of the proposed development site boundary. These sites are listed in Appendix 2.

Sources of Information

- 1.5 The study was conducted in accordance with the Institute for Archaeologists' Code of Conduct (2006) and Standard and Guidance for Archaeological Desk-Based Assessment (2001).
- 1.6 Information contained in Section 4.11 – 4.20 of the Scoping Opinion (East Lothian Council June 2008) has been taken into account during the assessment. Sites of cultural heritage interest listed in Section 4.15 have all been assessed.
- 1.7 Up-to-date information was obtained from appropriate sources on the locations of cultural heritage sites with statutory protection and non-statutory designations either within or in the vicinity of the proposed development area.
- 1.8 Information on previously recorded archaeological sites and monuments within and within 1 km of the proposed development area was obtained from the National Monuments Record of Scotland (NMRS).
- 1.9 An assessment was made of vertical aerial photograph collections held by The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). Sorties dating from 1946 to 1998 were examined.
- 1.10 Ordnance Survey maps and other historic maps held by the Map Library of the National Library of Scotland were examined, to provide information on sites of potential archaeological interest and on the historic land-use development of the proposed development area. The National Archives of Scotland map collection database was searched for any other archive maps pertaining to the proposed development site.

- 1.11 Bibliographic references were consulted to provide background and historical information. The Statistical Account of Scotland 1791-99 and the New Statistical Account 1845 were consulted as possible sources of information on historic settlement and land-use, but no attempt was made within the remit of this study to conduct detailed historical analysis.
- 1.12 A list of the sources consulted during the study is included at the end of this section.

Consultations

- 1.13 In its scoping opinion (19 June 2008) East Lothian Council required that a non-invasive walk-over survey and evaluation of the site be undertaken to augment the results of a desk-based study of the site and its environs (para 4.11 - 4.12). The opinion (para 4.15) noted that there are no Scheduled Ancient Monuments, no Category A Listed Buildings and no designed landscapes within the proposed development area, and no sites proposed for scheduling either within or in its near vicinity. However, three SAMs, one historic garden, and six Category B and six Category C(S) Listed Buildings were identified in the vicinity of the proposed development whose settings could be affected. The Council provided a copy of Historic Scotland's general principles for the assessment of impacts on the settings of Cultural Heritage resources (Historic Scotland 2007).
- 1.14 The scoping opinion noted that the Council's Archaeology Service holds little information on Smeaton Bing other than that it is of 20th century date and is associated with historical mining in the Midlothian / East Lothian area. The bing is regarded as being a cultural heritage feature in its own right.
- 1.15 The Council required that the potential impact on the cultural heritage resource should consider both construction and operation impacts and that, where necessary, appropriate mitigation should be presented.

Baseline

Proposed Development Site (Figures 1 – 3)

- 1.16 Four cultural heritage sites (1-3 and 5) have been identified within the proposed development site boundary together with one site (4) which runs along the northern edge of the proposed development site. All of these sites relate to early 20th century mining activity.
- 1.17 Prior to the development of Dalkeith Colliery on the site in 1903 the area was enclosed farmland; the site being shown on the Ordnance Survey 1st edition map (1854) as divided into four roughly square fields and on the 2nd edition (1895) as divided into two long rectangular fields, each aligned roughly NE to SW.
- 1.18 Dalkeith Colliery (1) began production of coal on the site around 1903 (Oglethorpe 2006). At its peak, in 1947, the operation consisted of three surface mines (Dalkeith 1, 2 and 3) and employed 83 people. The mine closed in 1948. The sequence of development and abandonment of the mine and its subsequent use as a spoil bing is shown as Figure 1. During its final phase the mine comprised four main buildings and several smaller buildings set around the SW end of a short branch rail siding (2) extending off the Ormiston and Macmerry Branch Railway (4). The mine also had two conjoined reservoirs and two filtering ponds, lying a short distance to the NE of the main buildings. The mine formerly lay in what is now the SW corner of the proposed development area, close to the Smeaton Shaw road junction.

- 1.19 Four blocks of miners cottages (3), with associated garden plots attached to their SE frontages, were built alongside the B6414 public road sometime between 1909 and 1915; presumably to house miners working at the colliery. The 1915 Ordnance Survey map shows the four blocks set within a large roughly rectangular enclosure extending to the rear of the cottages with a recreational football ground attached to the NW side of the enclosure. Vertical aerial photographic coverage from 1948 indicates that the southwesternmost block of cottages had been demolished at that date and Figure 1d shows that by 1957 the housing had all been abandoned and largely demolished. The NAS also holds a number of historical maps of Dalkeith Colliery and of the Monktonhall to Macmerry branch railway. Those examined as part of this assessment include coal seam plans (RHP 93501 and 93583-4) and Ordnance Survey maps at 1:2,500 scale with building numbers and other notations included.
- 1.20 By 1967 the site was being used for the deposition of mining spoil and only one of the former mine buildings was still upstanding (Figure 1e). By 1989 the bing (5) had achieved its current size and is marked by the Ordnance Survey as disused with disused mine workings to the north. The bing is a visible relict of former mining in the area, although it now stands isolated and remote from any of the historical mining sites with which it was formerly associated.
- 1.21 Figure 2 shows the various related elements of the colliery overlaid on a modern aerial photograph and Figure 3 shows the same features in relation to the proposed development layout. Appendix 1 provides additional descriptions of each of the features and a summary assessment of the relative importance of each.

Importance of Archaeological Resource

- 1.22 The sites identified by the study within the proposed development site boundary all relate to historical mining in the Midlothian and East Lothian coal fields. The mine (1) was a small and short-lived enterprise and of early 20th century date. For its associations within a local mining history context the mine is of local importance. However, it is not known what if anything survives of the mine buildings or former working, therefore the site is judged to be of unknown but no more than local importance.
- 1.23 Three sites are of lesser importance. The mine sidings (2) and former branch railway (4) have been dismantled and removed. The bing (5) is a spoil heap of accumulated mining waste and is of negligible archaeological value, although it has some value as a relict landscape feature and reminder of past mining heritage.
- 1.24 The former miners' cottages (3) were built in the early 20th century and demolished prior to 1957. It is not known what if anything survives of these buildings, therefore, the site is judged to be of unknown but no more than local importance.

Archaeological Potential

- 1.25 The proposed development site was enclosed farmland until the early 20th century, at which time a small and short-lived colliery with associated housing was established. Following the closure of the mines, the site was used as a repository for mining waste from other nearby pits and it is now a disused spoil tip. No finds or archaeological discoveries have been reported during the previous exploitation of the site. The accumulated spoil heaps overlie much of the former mine and it is unknown what if anything of the former buildings and mine workings might survive within or below the spoil deposits. Ground investigation works reported in the Land Quality Statement (Wardell Armstrong, 2008) identified building rubble in two boreholes and in seven trial pits (TP 5 and TPs 7-12), in areas that correspond to the mapped locations of former buildings (see also Chapter 10: Geology and Soils).

- 1.26 Within 1km of the proposed development site boundary there are records of seven probable prehistoric sites, including the six SAMs discussed below. The SAMs all appear to be small enclosed settlement sites of probable Iron Age date. The seventh site is a record of a pit alignment (NT36NE 36) which lies immediately to the east of Queen Mary's Mount (6204). Possible prehistoric burials have also been recorded at nearby Cousland (NT36NE 17). Other archaeological records in the NMRS relate to 19th and 20th century coal mining activities.
- 1.27 Given the nature and extent of the previous mining operations across the proposed development site the potential for the survival of features pre-dating the mining activity is considered to be low to negligible. It is, however, possible that there are surviving remains of the early 20th century mine including, for example, the remains of buildings or of other structures, or mine adits and shafts. It is considered that there is a moderate to high potential for the preservation of remains of the former mining activity; although it is not known what the state of preservation of any remains might be. The proposed site access road, which would enter the site from the north, from the A6124, and location of the proposed SUDS lagoon are areas that have some archaeological potential. This land, to the north of the existing bing has been undisturbed greenfield agricultural land since at least the 18th century when the area is shown as cultivated ground on Roy's Military Survey map (1747-55).

External Receptors (Figure 4)

- 1.28 Six SAMs, six category B and six category C(S) listed buildings and one historic garden and designed landscape lie within 1 km of the site boundary. Five of the SAMs are cropmark sites in arable fields, the sixth being partially preserved earthworks lying in woodland within the Carberry designed landscape. With the exception of Chalkieside Farmhouse (10876), all of the listed buildings have some association with Carberry Tower and its designed landscape.
- 1.29 The five cropmark SAMs are all ditched enclosures, varying in size and shape from 90 m long by 75 m wide and trapezoidal or roughly rectangular in shape to 40m by 30 m and oval or pear-shaped in plan. They are of unknown date, but some may be Iron Age (Maxwell 1970). Queen Mary's Mount (6204) is the remains of a probable Iron Age fort.
- 1.30 Carberry Tower (10872) is a baronial mansion with a complex building history with 17th, 18th and 19th century additions around an original 16th century tower. Other buildings within and around the periphery of the designed landscape are all of later 19th century date. Chalkieside farmhouse (10876) is of probable 17th century origin with later additions.
- 1.31 Carberry designed landscape is Inventory registered and considered to be nationally important for its phased landscape development and historical associations with Mary Queen of Scots and to the Elphinstone family.

Assessment Methodology

- 1.32 The types of impacts on cultural heritage interests are assessed in the following categories:
- Direct: where there would be a physical impact on a site caused by the proposed development. Direct impacts may be caused by a range of activities associated with the construction and operation of proposed development. Construction activities may, for example, include: ground reduction and site levelling works, excavations for building foundations and public utilities and services installation. In addition, ground disturbance, such as caused by vehicle movement, and soil and overburden storage, may produce irreversible impacts upon archaeological features. Direct impacts on cultural heritage features are normally adverse, permanent and irreversible.
 - Indirect: where the setting of a site may be affected. Indirect impacts may arise from new development reducing views to or from cultural heritage features with

important landscape settings, may result from increased noise or vibration, or may cause increased fragmentation of the historic landscape and the loss of connection between its component parts. Such impacts are likely to occur during the construction phase of the development and persist through the operational phase. Indirect impacts on cultural heritage features can be adverse, neutral or beneficial in effect.

- Uncertain: where there is a risk that the works may impinge on a site. For example, where it is not clear where the location of a site is or where its boundaries lie, or where the baseline condition of a site has not been established satisfactorily from desk-based study and reconnaissance field survey alone.

1.33 Potential impacts, direct and indirect, have been assessed in terms of their longevity, reversibility and nature (beneficial / neutral / adverse).

- Beneficial impacts are those that contribute to the value of a receptor through enhancement of desirable characteristics or the introduction of new, positive attributes. In terms of cultural heritage, beneficial impacts include those that add to an appreciation of the receptor and/or its setting.
- Neutral impacts occur where the development can be accommodated comfortably by the receptor while neither contributing to nor detracting from the value of the receptor.
- Adverse impacts are those that detract from the value of a receptor through a reduction in, or disruption of, valuable characterising components or patterns, or the introduction of new inappropriate characteristics. In terms of cultural heritage, adverse impacts include those that detract from an appreciation of the receptor and/or its setting, or compromise views to or from the receptor.

1.34 The assessment of significance of impacts was undertaken using two key criteria: the importance of the receptor and the magnitude of the development impact. The importance of cultural heritage resources is assessed principally according to the criteria set out in Scotland's Historic Environment Policy 2008 (SHEP), Annex A: Model Policies in Scottish Planning Policy 23: Planning and the Historic Environment (SPP 23), and in the Memorandum of Guidance on Listed Buildings and Conservation Areas 1998 (Memorandum).

1.35 The main thresholds of archaeological importance are sites of national importance, protected by statute, and sites with non-statutory designations of regional or local importance. Sites of national importance comprise those sites protected by scheduling under the Ancient Monuments and Archaeological Areas Act 1979 (1979 Act), and sites of "schedulable quality". Scheduling is an ongoing process and not all sites of "schedulable quality" are currently scheduled. Some Council SMRs contain a Non-Statutory Register (NSR) of archaeological sites and monuments, some of which are considered to be of national importance but which are not protected by scheduling. East Lothian does not currently hold such a register. Sites of regional or local importance are those that do not merit scheduling, but which have significance within a regional or local context. This may, for example, apply to their importance to regional or local history, or they may be the only local example of a monument type. A final category in Table 1, sites of lesser importance, covers those archaeological or historic environment features that are of little intrinsic cultural heritage value and the find-spots of artefacts now removed.

1.36 For Listed Buildings, the Memorandum states that Category A listed buildings are of national or international importance, Category B buildings are of regional or more than local importance, and Category C(S) structures are of local importance. Historic Gardens and Designed Landscapes listed in the Inventory of Gardens and Designed Landscapes in Scotland are considered to be nationally important.

Table 1: Definitions of Importance of Cultural Heritage Resources

Importance	Site types
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International / National	World Heritage Sites Scheduled Ancient Monuments Category A Listed Buildings Inventory status Historic Gardens & Designed Landscapes Outstanding Conservation Areas
Regional	Archaeological sites and areas of distinctive regional importance Category B Listed Buildings Conservation Areas
Local	Archaeological sites and areas of local importance Category C(s) listed buildings Unlisted buildings and townscapes of some historic or architectural interest
Lesser	Other archaeological sites of little intrinsic value Find-spots

1.37 Magnitudes of impact are assessed in the categories high, medium, low and imperceptible and are described in Table 2.

Table 2: Definitions of Magnitude of Impact

Level of magnitude	Definition
High	Major impacts fundamentally changing the baseline condition of the receptor, leading to total or major alteration of character or setting
Medium	Moderate impacts changing the baseline condition of the receptor materially but not fundamentally, leading to partial alteration of character or setting
Low	Minor detectable impacts which do not alter the baseline condition of the receptor materially
Imperceptible	A very slight and barely distinguishable change from baseline conditions, approximating to the “no change” situation
None	No change from baseline condition

1.38 Table 3 combines these criteria to provide an assessment of whether an impact is considered to be significant or not significant in terms of the Environmental Impact Assessment (Scotland) Regulations 1999.

Table 3: Definitions of Magnitude of Impact

Magnitude of Impact	Importance of Monument			
	National / International	Regional	Local	Lesser
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate / Minor	Minor	Negligible	Negligible
Imperceptible	Minor	Negligible	Negligible	Negligible

1.39 *Moderate* and *major* impacts are considered to be *significant*. Sites of national importance are more capable of absorbing low magnitude temporary and reversible indirect impacts on their setting than they are low magnitude permanent and irreversible impacts on their character. For that reason low magnitude direct impacts on sites of national importance are considered to produce *moderate* and *significant* impacts, whereas low magnitude impacts on the settings of such sites are considered to produce *minor* and *not significant* impacts.

Potential Impacts

- 1.40 The potential impacts on cultural heritage interests include direct effects resulting from re-shaping the existing bing profile and the associated material movement, and from construction activities associated with the proposed new buildings (ground reduction, and excavations for foundations, services and utilities) and construction of the proposed access road and SUDS lagoon. Indirect impacts would arise as a result of the change to the baseline character of the bing and its perception from locations in the wider landscape. Other factors that could affect the settings of cultural heritage sites and features include elevated ambient noise levels, new lighting and increased traffic and vibration during the construction and operation phases. Information relating to these factors can be found elsewhere in this Environmental Statement (ES).
- 1.41 The nature of the previous activity on the site, mining followed by spoil tipping, is such that it is not known what, if anything, survives of the former buildings (1 and 2) on the site. The railway (4) and sidings (2) have been dismantled and removed sometime between 1957, when they last appear on Ordnance Survey maps, and 1975, when aerial photographs reveal that the track beds are no longer present.

Construction Impacts

- 1.42 Earth movement, required by re-shaping the bing profile and the creation of a site access road and SUDS lagoon, could have a direct impact on any surviving structural remains of former buildings that may survive in the affected areas.
- 1.43 Any surviving remains of the former Dalkeith Colliery buildings (1) that were once present alongside the B6414 public road would be concealed beneath the reconfigured bund.
- 1.44 Ground reduction work and/or excavation for building foundations and for services and utilities installation within the newly created bunded enclosure are very unlikely to have a direct impact on any surviving remains of former Dalkeith Colliery buildings, mine workings, the reservoirs and/or the filtering ponds (1) in that area as the proposed new ground level would not extend to the pre-spoil tip ground level.
- 1.45 Any surviving remains of Smeaton Cottages (3), formerly present alongside the B6414 public road, would be concealed beneath the reconfigured bund.
- 1.46 The proposed site entrance and access road off the A6124 would cross previously undisturbed agricultural land and any ground reduction works or topsoil removal could expose and disturb any surviving features of archaeological interest that may be present.
- 1.47 The creation of a SUDS lagoon close to the proposed site entrance and on previously undisturbed agricultural land could disturb any surviving features of archaeological interest that may be present.
- 1.48 Reshaping and landscaping the bing (5) to provide a screening bund around the proposed on-site buildings would change the present irregular appearance of the feature, directly altering its perception in the landscape from a relict industrial feature to one that is managed and landscaped.

Operational Impacts

- 1.49 Re-shaping the bing and establishing new vegetation growth over it would result in a different perception of the feature in the landscape, from an irregular and obviously industrial feature to a more regular and landscaped embankment or bund. The proposed buildings within the newly created, bunded enclosure would not be visible from most locations in the surrounding area; the building rooflines in general being below the level of the top of the surrounding bund. The possible exception to this could be views from the higher ground above and to the south of Chalkieside Farm, from where it may be possible to see into some of the site.
- 1.50 No significant indirect and adverse impacts are predicted on the settings of any of the identified external receptors within 1 km of the proposed development site boundary.
- 1.51 The nature of the indirect impacts that would affect 13 sites (Appendix 2): six SAMs, two Category B Listed Buildings, four Category C(S) Listed Buildings and one Historic Garden and Designed Landscape, is judged to be neutral in character, on the basis that the proposed development could be accommodated whilst neither contributing to nor detracting from either the setting of, or the cultural heritage value of, the affected receptors.
- 1.52 Four Category B and two category C(S) Listed Buildings would receive no impact on their settings as all lie within the wooded policies of the Carberry Designed Landscape with no unobstructed view of the proposed development. Furthermore, their individual and collective relationships are with the gardens and designed landscape and each of the other buildings that make up the group within the designed landscape.
- 1.53 The magnitude of the predicted impact on the settings of the receptors is assessed as a change to the baseline setting and reflects the fact that the bing in its present form is already a feature of the local landscape but disassociated from its original context.
- 1.54 In the case of two of the category C(S) listed buildings (10927 and 10929) the predicted impact is judged to be of medium magnitude (i.e. a material but not fundamental change) and of minor significance. Both of these listed buildings are residential cottages which lie close to the northern boundary of the proposed development site. Reshaping the bing would bring the earthwork bund closer to the buildings but the proposed development would be screened from view by the bund and proposed planting. The cottages predate the mining activity on the site and the development of the bing. The proposed re-modelling and landscaping of the bing would, therefore, not represent an adverse effect and may in fact be regarded as beneficial.
- 1.55 In five cases: two SAMs (6205 and 6211), two category B listed buildings (10871 and 10873), and Carberry designed landscape, the impact on their settings arising from the re-shaping of the bing would be of low magnitude (detectable but not material) and of minor significance. The two SAMs are cropmark sites on private farmland with no visible above ground components, although there are wide views from the two locations and the bing is presently a notable element in those views. The two listed buildings are screened from view of the proposed development site by the Carberry boundary wall and trees within the designed landscape. Their setting includes the Carberry designed landscape, of which they are a constituent part, and the small group of cottages at Crossgates. The buildings predate the development of the bing and the proposed re-modelling and landscaping of the bing would, therefore, not represent an adverse effect and may in fact be regarded as beneficial.
- 1.56 In the case of two category C(S) listed buildings (10876 and 10928) the impact would be of low magnitude and negligible significance. Chalkieside farmhouse (10876) stands within an open farmland setting on high ground with later farm buildings around and adjoining it. There are open views to the north from the farm and the bing is a prominent feature in those views. However, the farm predates the development of the bing and the proposed re-modelling and landscaping of the bing would, therefore, not represent an adverse effect and may in fact be regarded as beneficial.

- 1.57 In the case of four other SAMs (6204, 6210, 6212 and 6213) the impact of the proposed development on the setting of the monument would be of imperceptible magnitude and of minor significance. Queen Mary's Mount (6204) lies within the Carberry designed landscape and is screened from the proposed development site by mature woodland. Three cropmark sites (6210, 6212 and 6213) lie beyond high ground to the SSE of the proposed development and would be screened from view of the development by intervening topography.

Mitigation Measures

- 1.58 In accordance with the guidance contained in SPP 23 and PAN 42, the preferred option for mitigation is preservation of important remains *in situ* wherever practicable and by record where preservation is not possible. There are no upstanding or visible sites or features within the proposed development site that would warrant preservation *in situ*. All surviving features would remain buried beneath the existing spoil or the reconfigured material forming the new enclosing bund.
- 1.59 All construction phase mitigation measures are subject to the agreement and approval of East Lothian Council and would be set out in a Written Scheme of Investigation (WSI) for the Council's approval, through its archaeological advisors, prior to the commencement of construction works on site. The WSI would include preparing a record of the present topography and appearance of the bing, an appropriate scope of archaeological investigation to be agreed with ELCAS and preparation and distribution of an archive of information to appropriate repositories.
- 1.60 The mitigation measures presented below take account of the planning guidance and present options for ensuring proper recording of any remains that may be present within the proposed development area and encountered by and affected by construction activities.
- CH1 A topographic survey of bing has been carried out in connection with the proposed development (see Chapter 10). To supplement this record a photographic record would be made of the existing bing and deposited with the East Lothian Council Historic Environment Records (HER), along with the topographic survey. This record will also be deposited with the NMRS and made available to local history centres, including the Scottish Mining Museum.
- CH2 To allow the identification and recording of any currently buried and unidentified remains of archaeological significance that may be revealed or disturbed by development works, a watching brief, if required, would be conducted during construction works in archaeologically sensitive areas, to a strategy to be agreed with East Lothian Council. The main areas of interest in this regard would be the proposed access road leading into the site from the north, adjoining the A6124, and the site of the proposed SUDS lagoon.
- CH3 If significant discoveries are made during archaeological monitoring, and preservation *in situ* of any sites or features is not possible, provision would be made for the excavation, where necessary, of any archaeological remains. This provision would include the consequent production of written reports on the findings, with post-excavation analyses and publication of the results of the work, where appropriate.
- CH 4 The results of this study, the topographic survey and photographic record of the bing and any results arising from any mitigation work undertaken will be incorporated into a single report and deposited with the East Lothian Council Historic Environment Records (HER), with the NMRS and local history centres at Haddington and Loanhead.

Assessment of Residual Effects

Permanent

- 1.61 Reshaping the existing bing profile (5) would lead to a permanent change to the character of this relict historic mining feature. The change is judged to be of minor significance.

Construction

- 1.62 Taking into account the possibility of the recovery of archaeological information relating to the former mining activities on the site and preservation by record, the residual effect on the cultural heritage resource within the proposed development site arising from construction activities is judged to be of minor significance.

Operational

- 1.63 There would be detectable minor or negligible, not significant impacts on the settings of six SAMs, six listed buildings and one designed landscape in the wider landscape, all of which lie within 1 km of the proposed development site boundary. These effects would arise from the change of use of the site and the proposed landscaping of the bing profile.

Summary

- 1.64 A desk-based assessment and a reconnaissance field survey have been carried out for the proposed development site and five sites of cultural heritage interest have been identified within the site boundary, including the proposed site access route. These cultural heritage sites all relate to historical 20th century mining, which was carried out on the site between 1903 and 1948. Six SAMs, all probable prehistoric settlement sites, 12 listed buildings, and one historic garden and designed landscape lie within 1 km of the proposed development site boundary.
- 1.65 The archaeological potential of the proposed development site has been assessed and judged to be variable; there is a low or negligible potential for discoveries pre-dating the mining phase, but a moderate to high potential for the preservation of remains relating to mining activity on the site, either building remains or former mine workings.
- 1.66 Potential impacts on any surviving buried remains have been identified, arising from the re-shaping and landscaping of the bing and from the creation of an access road from the A6124. Mitigation measures have been put forward to ensure that any archaeological features that are encountered during the construction phase are identified and adequately recorded prior to their loss where possible.
- 1.67 Potential impacts on the settings of cultural heritage receptors in the wider landscape have been considered and it is judged that there would be no significant impact on any of those identified arising from the proposed development. Eleven receptors within 1 km of the proposed development would receive indirect impacts of minor significance and two would experience impacts of negligible significance.
- 1.68 Residual impacts on the cultural heritage resource have been identified as being the loss of a minor element of the historic landscape, through reshaping the bing and potential disturbance or destruction of buried mining remains of 20th century date. The possible recovery of archaeological information relating to the former mining land-use would offset the loss of any physical structures.

- 1.69 Taking into account the proposed mitigation measures the residual impact of the proposed development on cultural heritage interests would be the loss of some minor relict historic land-use features and the possibility of the recovery of archaeological information relating to the mine workings. Overall, it is considered that the proposed development would not significantly affect the cultural heritage resource and would not conflict with the aims of Local Plan Policies ENV 3 (Listed Buildings), ENV 7 (Scheduled Monuments and Archaeological Sites) or ENV8 (Historic Gardens and Designed Landscapes).

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Aerial Photos

Sortie	Frames	Date	Scale
106G/UK/0011	6084-6082	15/04/1946	1:25,000
541/A/0393	4315-4312	18/05/1948	1:10,000
OS 75/292	38-35	28/06/1975	1:7,300
508/88	77-76	27/05/1988	1:24,000
89 - 189	27-28	21/05/1989	1:8,000
96 - 165	221-220	15/06/1996	1:8,300
98 - 526	45-43	03/05/1998	1:8,300

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Thomson, J (1821) *Edinburgh Shire*.

RHP 33726 (1947) Ordnance Survey 1/2500 plan (Midlothian, Sheet VIII.4) marked in and round Dalkeith Colliery and Smeaton Cottages: 1947 or post

RHP 43916 (1947) Ordnance Survey 1/2500 plan (Midlothian, sheet VIII.4) marked at and round Dalkeith colliery and Smeaton cottages

RHP 93501 Plan of Smeaton Shaw Farm, adjacent to Monktonhall, Ormiston and Macmerrie Branch of North British Railway, also showing site of Dalkeith Colliery

RHP 93583-84 (ca 1910) Copy plans of proposed pits and great seam workings of Dalkeith Colliery

APPENDIX 1: Sites and Features within the Proposed Development Site

Site No	Site Name	Site type	Easting	Northing	NMRS No	Source	Site description	Site Importance	Magnitude of Impact	Significance of Effect
1	Smeaton Shaw, Dalkeith 1, 2 and 3	Coal mine (Site of)	33637	66858	NT36NE 91	NMRS: Historic maps: APs	<p>The NMRS holds a record for Dalkeith 1, 2 and 3 Colliery, at Smeaton, owned by A G Moore & Company. Production commenced around 1903 and the mine was closed and abandoned in 1948. At its peak (1947) the mine consisted of three surface mines and employed 83 people (M K Oglethorpe 2006).</p> <p>The development of the mine is shown on the various OS maps dated 1909, 1915, 1938, 1957. The 1909 map depicts the mine as comprising a group of five or six buildings and a reservoir set within an enclosure at the Smeaton Shaw junction, close to the smithy. By the time of the 1915 map the mine had developed to its full extent and consisted of some eight blocks of buildings, two reservoirs, a set of filter beds. The mine remained in that form on the 1938 map, but its contraction is evident by the time of the 1957 edition. The last mine buildings were finally removed some time between 1967 and 1988. Evidence from vertical aerial photographs suggests that the last buildings had been at least partially</p>	Unknown (Local)	High	Unknown (Moderate)

							<p>demolished by that date.</p> <p>The mine no longer survives. There are no visible features pertaining to the former works, although occasional large blocks of bonded brick wall can be seen amidst the bing spoil, in particular within the scrub woodland close to the public road.</p>			
2		Railway Sidings (former course of)				Historic maps; APs	<p>A set of railway sidings branching off the Ormiston & Macmerrey Line to serve Dalkeith Colliery, is first depicted on the 1909 OS map. The track layout is modified by the time of the 1915 OS map and remained in that configuration until at least 1957. The sidings are not shown on the 1967 OS map.</p> <p>The railway sidings no longer survive.</p>	Lesser	High	Unknown (Minor)
3	Smeaton Cottages	Miners Cottages (Site of)				Historic maps; APs	<p>Four blocks of miners cottages, named as 'Smeaton Cottages', are first shown on the 1915 OS map, along the north side of the public road. The cottages have small garden plots to the south side and are set within a large single enclosure aligned roughly NE-SW. To the NW of the cottages and attached to the enclosure is a rectangular 'Football Ground'. The cottages and the Football Ground are also shown on the 1938 OS map but are not shown on the 1957 map. On the 1957 map, what appears to be one block of</p>	Unknown (Lesser)	High	Unknown (Minor)

							<p>unroofed cottages is shown, in the NE of the long enclosure. On the 1967 OS map the cottages and the enclosure are no longer shown, the area by then partly occupied by a coal bing. Evidence from vertical aerial photographs shows that the southwesternmost block of cottages were no longer present in 1946.</p> <p>The cottages and enclosures no longer survive.</p>			
4	North British Railway	Railway (former course of)				Historic maps; APs	<p>A single track railway line, part of the Monktonhall, Ormiston and Dalkeith branch lines and owned by the North British Railway company (ca 1867-72). Known as the Ormiston & Macmerrie Branch Line, the line ran from Monktonhall to the Bellyford and Tynemouth Mines near Ormiston.</p> <p>The railway trackbed is now dismantled. To the north west of Crossgates Bridge there is no surviving traceable course of the line. On the east side of the bridge the former railway continues to Ormiston as the Pencaitland Railway Walk.</p>	Lesser	None	None
5	Smeaton Bing	Mining				Historic maps; APs	<p>Smeaton bing is of a moderate size and is comprised of mining waste and shale arranged in two principal depositions. To the west, alongside the road to Smeaton Shaw, is the smaller deposit - roughly oval in plan and roughly</p>	Lesser	High	Minor



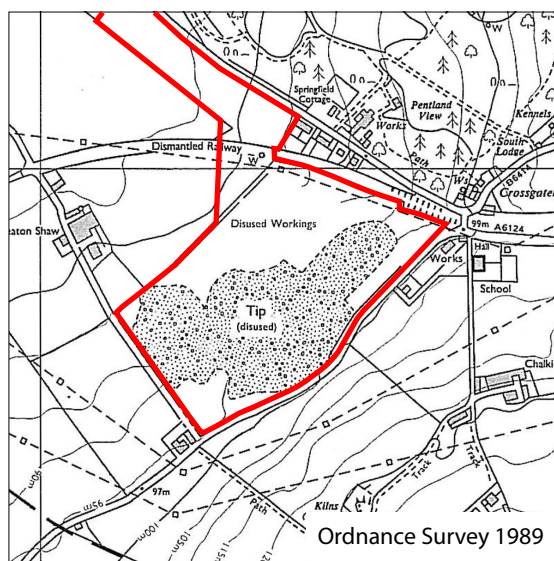
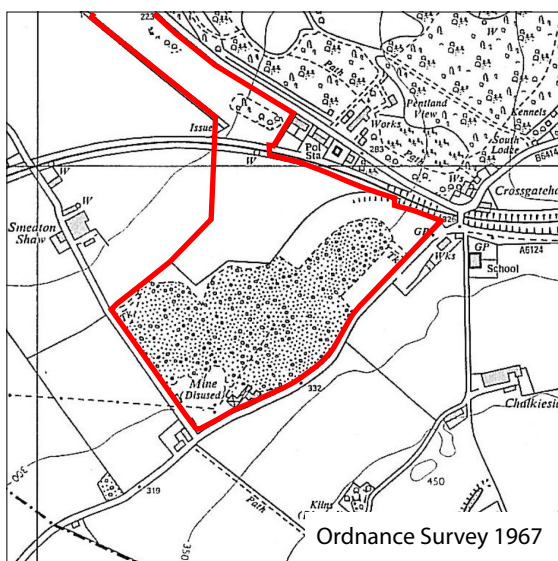
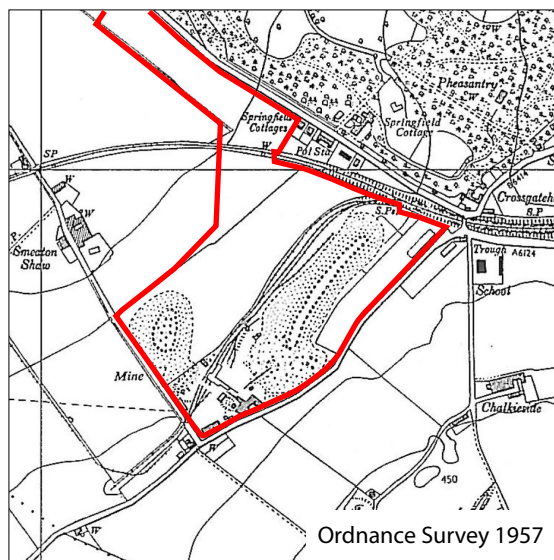
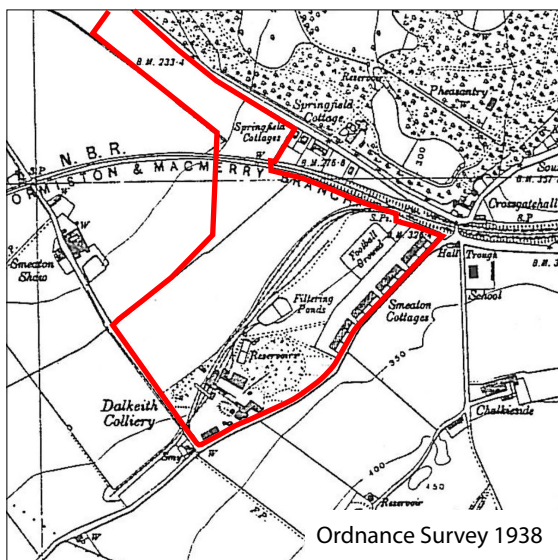
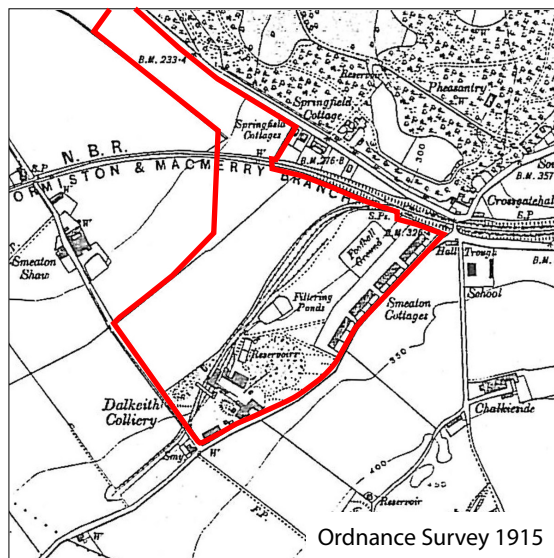
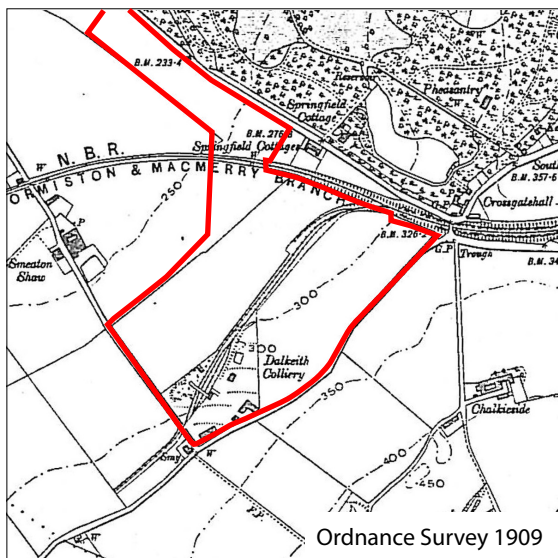
							<p>conical in profile. The larger deposit is oblong in plan and aligned NE-SW. The bings are not depicted on the 1938 OS map but both are visible on aerial photographs from 1946.</p> <p>Smeaton Bing survives in the form depicted on the 1989 OS map.</p>			
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APPENDIX 2: List of External Receptors within 1 km of Site Boundary

Ref No	Site	Easting	Northing	Status	Importance	Distance to the development (km)	Effect type	Impact Magnitude	Significance of predicted effect
6204	Queen Mary's Mount, fort	337382	669536	SAM	National	0.9	Indirect; neutral	Imperceptible	Minor
6205	Chalkieside, enclosure 500m SW of	33646	66826	SAM	National	0.3	Indirect; neutral	Low	Minor
6210	Easter Cowden, enclosure 200m E of	33657	66757	SAM	National	1.0	Indirect; neutral	Imperceptible	Minor
6211	Chalkieside, enclosure 600m SW of	33624	66818	SAM	National	0.3	Indirect; neutral	Low	Minor
6212	Chalkieside, enclosure 400m SSW of	33667	66812	SAM	National	0.5	Indirect; neutral	Imperceptible	Minor
6213	Chalkieside Quarry, enclosure	33692	66825	SAM	National	0.6	Indirect; neutral	Imperceptible	Minor
10867	Carberry House	33667	66995	Category B Listed	Regional	1.1	None		
10869	Carberry Tower with Terraces and Sundial	33630	66967	Category B Listed	Regional	0.6	None		
10870	Carberry Tower, Game Larder	33631	66972	Category B Listed	Regional	0.7	None		
10871	Carberry Tower, Main Gate and Gate-Lodge	33690	66904	Category B Listed	Regional	0.4	Indirect; neutral	Low	Minor
10873	Carberry Tower, South Gate-Lodge	33690	66904	Category B Listed	Regional	0.4	Indirect; neutral	Low	Minor
10874	Carberry Tower Stables	33642	66975	Category B Listed	Regional	0.7	None		
10866	Carberry Gardens	33663	6993	Category C(S) Listed	Local	1.0	None		
10872	Carberry Tower, North Lodge Quadrants and retaining walls	33591	66986	Category C(S) Listed	Local	1.0	None		
10876	Chalkieside Farmhouse	33687	66862	Category	Local	0.3	Indirect;	Low	Negligible



				C(S) Listed			neutral		
10927	Springfield, Glamis Cottage (with railings)	33649	66907	Category C(S) Listed	Local	0.1	Indirect; neutral	Medium	Minor
10928	Springfield, Pentlands View	33665	66911	Category C(S) Listed	Local	0.2	Indirect; neutral	Low	Negligible
10929	Springfield, Strathmore Cottage	33647	66908	Category C(S) Listed	Local	0.1	Indirect; neutral	Medium	Minor
	Carberry Tower	33640	66970	HGDL	National	0.2	Indirect; neutral	Low	Minor



Key:
Site Boundary



Fig. No:

1

Revision:

Client:

Hamilton Waste & Recycling Ltd

Title:

Cultural Heritage: Historical Ordnance Survey Maps

Project:

Smeaton Bing



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GM

Page No:

Scale: 0 0.5 1km







IFA-registered archaeological organisation

Key:

- Site Boundary
- Designed Landscape
- Cat B Listed Building
- Cat C(S) Listed Building
- Former Buildings
- Former Railway






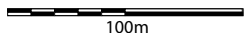
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Fig. No:	2	Revision:	
Title:			
Cultural Heritage: Constraints			

Project:	
Smeaton Bing	

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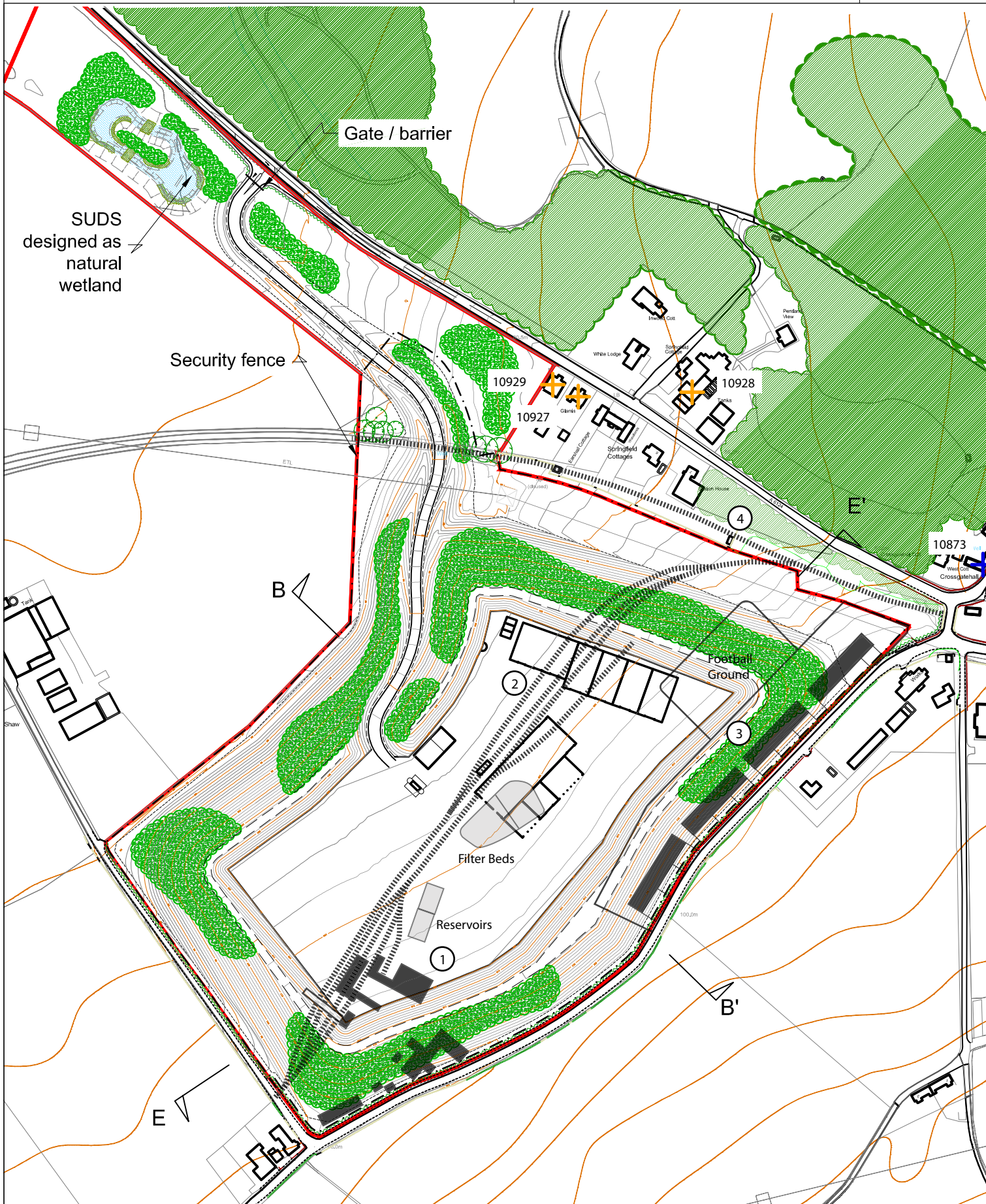


100m

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Key:		
 Site Boundary	+ Cat B Listed Building	
 Former Mine Buildings	+ Cat C(S) Listed Building	
 Former Railway		

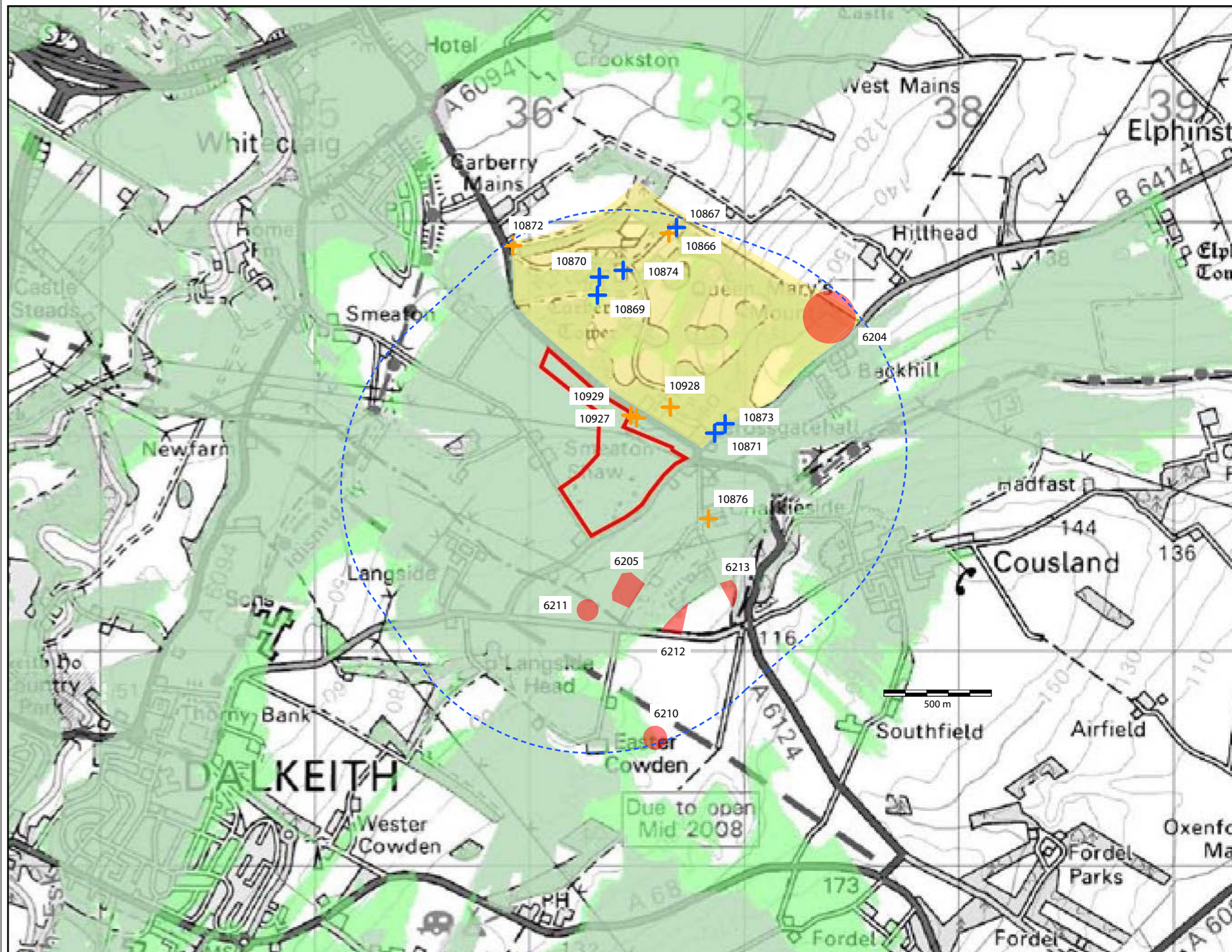
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Title:	Cultural Heritage: Constraints				
Project:	Smeaton Bing				



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IFA-registered archaeological organisation

Key:

- Site Boundary
- 1 Km Buffer
- Existing Bing Visibility
- Reshaped Bing Visibility
- Scheduled Ancient Monument
- + Cat B Listed Building
- + Cat C(S) Listed Building
- Designed Landscape



Fig No: 4 Revision:

Title:
Cultural Heritage: External
Receptors

Project:
Smeaton Bing



Scale:
500 m

Client:
Hamilton Waste & Recycling Ltd

Drawn by: GM Page No: