

**Rivenhall Integrated Waste Management Facility (IWMF),
Application to Vary Planning Condition 56 of ESS/34/15/BTE
Modification to the Proposed IWMF Stack Height**

**Rivenhall Airfield,
Woodhouse Farm, Woodhouse Lane,
Essex, CO5 9DF**

**Heritage Statement FHM 1:
Setting of Designated Heritage Assets**

NGR TL 82400 20600

**Prepared for
Gent Fairhead & Co. Limited**

**Project No. 2017218
Report No. 2017104v4
Planning Ref. ESS/03/17/BTE**

June 2017

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Summary

The Integrated Waste Management Facility (IWMF) is an implemented planning permission ESS/34/15/BTE. Condition 56 limits the height of the stack, to:

“Only one stack shall be erected on the site to service all elements of the IWMF. The height of the stack shall not exceed 85 m Above Ordnance Datum.”

An application is being made to vary the height of the existing approved stack by 23m to a revised maximum height of 58 m above surrounding ground level (108 m Above Ordnance Datum).

This assessment has considered potential impacts on the setting of Designated Heritage Assets as it pertains to their significance, arising from the proposed variation of the height of the stack. A separate Landscape and Visual Assessment has been undertaken by Hankinson Duckett Associates to consider issues such as landscape character and views.

A total of 105 Designated Heritage Assets have been identified within a 3km Study Area, the majority of which lie over 1km away from the IWMF. The heritage assets are largely rural in character, being farms and country estates, although the landscape in which they are situated has a mixture of rural and industrial land-uses.

The immediate topography around the site forms a flat plateau at about 50 m Above Ordnance Datum, so even vegetation of small stature has the ability to restrict views. Whilst the Stack will, theoretically, be visible from some distance the heritage assets (Listed Buildings) benefit from intervening screening offered by buildings, agricultural barns, hedgerows and woodland area and the orientation and outlook of the Listed Buildings reduce direct views of the stack.

Within the wider landscape the revised stack height of 58 m above surrounding ground level is of an elevation similar to existing landmarks such as the Sheepcotes Hangar mast and the network of high voltage overhead electricity pylons which are around 50 m above surrounding ground level which is also considered likely to reduce its prominence.

A staged assessment, as outlined in national guidance (Historic England 2015) has been undertaken in relation to these assets:

- identified the key components of their setting that make a contribution to their significance; and*
- assessed the effects of the proposed development, whether beneficial or harmful, on that significance.*

*The importance of the designated heritage assets within the study area largely derive from the following factors; their age (survival), associations as groups of assets and architectural value. Whilst the Stack will be, theoretically, visible from many of the heritage assets it will not represent a major effect on those factors from which they derive their significance. Accordingly impacts have been identified as **Neutral/Negligible** to **Slight Adverse**.*

*The zone of theoretical visibility for a 35m stack (as permitted) and the proposed modification to 58m only brings an additional three heritage assets into the ZTV illustrating that the degree of change is not significant. Accordingly the likely effects of a 35m or 58m stack on the designated heritage assets are considered to be largely the same, thus the change in impact is **Neutral**.*

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1.0 INTRODUCTION

1.1 Archaeology South-East (a division of the Centre for Applied Archaeology UCL) has been commissioned by Honace, acting for Gent Fairhead & Co. Limited (the Client) to undertake an assessment of the setting of designated heritage assets (Listed Buildings) within 3km of the proposed stack at the Integrated Waste Management Facility (IWMF) at Rivenhall Airfield (Fig. 1; NGR: TL 82400 20600). The IWMF site is situated within Bradwell Quarry, in areas that have been or will be quarried and landscaped (e.g. Fig. 2).

1.2 Planning Permission ESS/34/15/BTE relates to the IWMF on land at the former Rivenhall Airfield near Braintree in Essex. The Environment Agency (EA) issued a refusal notice against the IWMF's original Environmental Permit Application on 21 December 2016, for the following reason:

“Based on the information that has been provided to us, we are not satisfied that you [Gent Fairhead & Co Limited (the Applicant)] have demonstrated that the proposals reduce emissions and their impact on the environment through the use of Best Available Techniques (BAT) and in particular that the proposed stack height is BAT”

1.3 In its report, the EA agreed with the Applicant's analysis that the IWMF, as currently permitted under planning, is unlikely to contribute to exceedances of any Environmental Standard for human health. However, whilst the implementation of planning permission ESS/34/15/BTE allows the IWMF to be constructed; the IWMF does require an Environmental Permit for its future operations.

1.4 Having considered the EA's detailed decision report, and its consultation responses to local Councillors and members of the public who had expressed concern about the height of the stack, a second (revised) Environmental Permit application has now been made including a higher stack. A planning application is being prepared to correspond with the revised stack height within the new Draft Environmental Permit to vary Condition 56 of the implemented IWMF planning permission (ESS/34/15/BTE) that limits the height of the stack, which states:

“Only one stack shall be erected on the site to service all elements of the IWMF. The height of the stack shall not exceed 85 m Above Ordnance Datum.”

1.5 The existing planning permission established the principle of the IWMF and the stack (85m Above Ordnance Datum (AOD), 35m above existing ground levels) within the landscape, and the revised stack height of 58 m above surrounding ground level (108 m Above Ordnance Datum (AOD) represents a variation in stack height of 23 m. The revised stack height is of a comparable height to that of the existing landmarks within the local landscape such as the nearby Sheepcotes Hangar mast and the network of high voltage overhead electricity pylons which are around 50m above surrounding ground level.

1.6 On the 20 June 2017, the Environment Agency confirmed that it was “minded to” permit the second (revised) environmental permit application which addresses the original consultation responses raised by local Councillors and members of the public who had expressed concern about the height of the stack. A Draft Environmental Permit has been issued for final public consultation and includes details for the 58 m stack height.

- 1.7 This heritage statement has been undertaken to consider the effect of the variation in stack height in relation to designated heritage assets and will be used to update the relevant section of the updated ES.
- 1.8 This report sets out the results of an assessment which focuses on setting issues relating to nearby designated heritage assets in line with the requirements of the *National Planning Policy Framework* (2012) and relevant national guidance, particularly *The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning: 3* (Historic England 2015).
- 1.9 In considering the impact of the revised Stack height on the setting of heritage assets it is important to understand that the ‘setting’ has no intrinsic importance in itself but rather it has a value only to the extent to which it contributes to the significance of the heritage asset in question. A proposed development does not necessarily have to be visible from a heritage asset (or vice-versa) to affect its setting or significance; conversely, a development can be visible from a heritage without affecting its significance. A separate Landscape and Visual Appraisal is being undertaken by Hankinson Duckett Associates. The results from this study have been incorporated where appropriate.
- 1.10 An extensive programme of archaeological works has been undertaken in the area in advance of and during the quarrying excavation works and in relation to the implemented IWMF proposals (Fig. 2). The archaeological works have included fieldwalking, trial trenching, watching briefs and open area excavation works have been reported on elsewhere and the results included in the ES (Chapter 9 Cultural Heritage) Accordingly these are not discussed in detail in this report, but information pertinent to this assessment has been included where appropriate.

2.0 SITE LOCATION AND TOPOGRAPHY

- 2.1 The IWMF site is located east of Braintree, approximately 3km south-east of Bradwell village, approximately 1km to the north-east of Silver End and approximately 3km south-west of Coggeshall. The application site totals 25.3 hectares and includes the access road from the A120 Coggeshall Road. The area for development of the IWMF plant itself lies on the southern part of the former Rivenhall airfield. It is located approximately 1.7km south of Coggeshall Road and includes the nearby (Listed) Woodhouse Farm and its associated buildings. The site for the IWMF overlaps with Bradwell Quarry (Area A2) where sand and gravel extraction with low-level restoration to agriculture/biodiversity/water and woodland is anticipated to be completed by 2018.
- 2.2 The IWMF plant is to be constructed within the former gravel pit, in a void, and it is intended that the roofline of much of the plant would be at a maximum of 10.75m above the surrounding ground levels (Fig. 4). The only exception to this would be the stack – the subject of this report – which will be 58m above the surrounding ground level (108 mAOD). This stack (which would be 7 m in diameter) is situated at the south-east corner of the IWMF site.
- 2.3 The immediate area around the site is, in part, industrial in character – comprising areas of modern extant/former mineral workings and, until recently, elements of the World War II airfield including a T2 type hangar and the site of various maintenance buildings (latterly within an area of woodland). Located on the old airfield to the west of the site is a 48m (above natural ground level) radar mast positioned next to Hangar No. 1, which is approximately 370m west of the site. This radar mast acts as a local landmark and comprises a standard grey steel lattice structure which has an elevation of around 100.5 mAOD. Where extant, the former airfield buildings have often been utilised for business and light industry. The airfield and quarry are superimposed on a primarily rural landscape of areas of arable fields interspersed with areas of woodland, scattered farms and light industrial areas. The Braintree District Historic Environment Characterisation Project (ECC HEM 2010) notes that the area “comprises a rolling landscape of rich agricultural land, predominantly under arable cultivation, but with some important areas of woodland”. Larger scale development is limited to the village of Silver End.
- 2.4 The IWMF site lies on the boulder clay plateau on the interfluvium between the southeast flowing Rivers Brain, to the south-west, and the Blackwater, to the north and north-east (Fig. 3). Although altered, in part by the creation of the airfield, the original aspect of the area, that of a broad north-east to south-west orientated spur of land, is still apparent. A spot level of 51 m AOD lies at the point where the former runway crosses the parish boundary, from which the land continues to rise gradually to the north-west towards Braintree. Being on a plateau, the Site is not overlooked from more elevated surrounding landforms. Whilst the visual horizons from/to the site extend over a considerable distance the topography means that, from ground level, there is intervening screening offered by buildings, agricultural barns, hedgerows and woodland areas

3.0 PLANNING

National Planning Policy

3.1 National Planning Policy Framework

- 3.1.1 Government policies relating to planning are given in the National Planning Policy Framework. Section 12 (paragraphs 126 – 141) of the Framework (*Conserving and enhancing the historic environment*) outlines policies relating to the historic environment and the key role it plays in the Government's definition of sustainable development, the principle which underpins the document.
- 3.1.2 The Framework requires that local planning authorities '*should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment*', recognising that '*heritage assets are an irreplaceable resource*' and should be conserved '*in a manner appropriate to their significance*'.
- 3.1.3 The Framework requires that planning applicants should '*describe the significance of any heritage assets affected*' by their application, '*including any contribution made by their setting*'.
- 3.1.4 The NPPF is supported by Planning Practice Guidance, launched in March 2014. This guidance provides additional information to assist in the interpretation of NPPF policies relating to the historic environment – '*Conserving and enhancing the historic environment*'¹.

Local Planning Policy

3.2 Braintree District Planning Policy

- 3.2.1 The Braintree District Local Plan Review was adopted in 2005; the Council is in the process of preparing Local Development Documents which will supersede the Adopted Local Plan Review.
- 3.2.2 The Adopted Local Plan includes the following policies relating to built heritage assets which have been considered within this assessment:

Policy RLP 95 Preservation and Enhancement of Conservation Areas

The Council will preserve, and encourage the enhancement of, the character and appearance of designated Conservation Areas and their settings, including the buildings, open spaces and areas, landscape and historic features and views into and within the constituent parts of designated areas. Built or other development, within or adjacent to a Conservation Area and affecting its setting, will only be permitted provided that:

- (a) The proposal does not detract from the character, appearance and essential features of the Conservation Area;*
- (b) Any new development is situated in harmony with the existing street scene and building line, and is sympathetic in size, scale and proportions with its surroundings;*
- (c) Architectural details on buildings of value are retained*
- (d) Building materials are authentic and complementary to the building's character.*

¹ (<http://planningguidance.planningportal.gov.uk/blog/guidance/conserving-and-enhancing-the-historic-environment/overview/>)

Policy RLP 100 Alterations and Extensions and Changes of Use to Listed Buildings, and their settings.

Development involving internal or external alterations, extensions and partial demolitions to a listed building or structure (including any structures defined as having equivalent status due to being situated within its curtilage), and changes of use will only be permitted if the proposed works or uses;

(i) do not harm the setting, character, structural stability and fabric of the building (or structure); and

(ii) do not result in the loss of, or significant damage to the building or structure's historic and architectural elements of special importance, and include the use of appropriate materials and finishes. The Council will seek to preserve and enhance the settings of listed buildings by appropriate control over the development, design and use of adjoining land.

- 3.2.3 The Adopted Local Plan also recognises the importance of Listed Buildings and notes that '*...Listed Buildings often comprise or dominate the character of Conservation Areas, lying at the historic core of towns and villages, although a number in the District are in rural locations, where issues affecting their settings can affect wider tracts of land.*'

4.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 4.1 The following section summarises the archaeological and historical background of the IWMF site and its environs. It is based on the results of a series of commissions undertaken on behalf of Gent Fairhead & Co Limited (GFC) and Blackwater Aggregates by Guildhouse Consulting and Archaeology South-East (ASE – formerly Essex Field Archaeology Unit). Cultural Heritage (Archaeology) Statement (OAA 1997) has already been prepared for Rivenhall Airfield and is held in the Essex Historic Environment Record (EHER), together with records of all fieldwork to date within the airfield. In addition, much archaeological work has been undertaken in recent years within the IWMF site boundary and to the north, west and east in connection with Blackwater Aggregates' quarrying operations within Site R, Site A2 and Sites A3 and A4 (Germany 2014, ASE 2014). Only a brief summary of the most pertinent information is presented here.
- 4.2 The Site A2 area of Bradwell Quarry (ESS/32/11/BTE), overlaps with much of the approved and implemented IWMF site, and has resulted in the excavation and recording of a number of archaeological sites identified by a 2006 evaluation (Ennis 2006).
- 4.3 A range of archaeological fieldwork has been carried out in advance of gravel extraction at Bradwell Quarry and Rivenhall Airfield. With particular regard to the IWMF site, these comprise fieldwalking and selective geophysical surveying of much of the airfield during 1991 and 1992 (Medlycott 1991; Johnson 1992), continuous monitoring and piecemeal excavation of the mineral extraction area known as Site R between 1991 and 2010 (Peachey 2003; Allen and Roy 2006; Germany 2006; Ennis 2008), trial-trenching of the IWMF site in 2006 (Ennis 2006), trial-trenching of mineral extraction areas within Sites A2 and A5 (proposed) in 2010 (Germany 2010), and archaeological excavation and monitoring of mineral extraction of parts of Site A2, including areas that also fall within the boundary of the IWMF site, during 2011 to 2014 (Germany in prep.).
- 4.4 The 1991/92 fieldwalking exercise discovered fifteen concentrations of artefacts within Sites A2, A3, A4 and A5 of Bradwell Quarry. One of these, concentration 1, straddled the boundary between Sites A2 and A5, five (concentrations 2, 3, 7, 9 and 10) were located wholly within Site A2, and two were situated within the Sites A3 and A4 area (concentrations 14 and 15 respectively). The geophysical survey targeted the fieldwalking concentrations but found no significant anomalies.
- 4.5 The continuous observation of topsoil stripping and piecemeal excavation of Site R between 1991 and 2010 recorded a small number of archaeological sites and intermittent features and finds. The sites included a Middle Iron Age round-house in the western part and medieval enclosures to its east and north-east. The western enclosure contained a well, pits and post-holes and was possibly part of a small farmstead, while the northern one may have been used for crop processing. The western enclosure continued in a modified form into the late medieval period and was eventually incorporated into a network of post-medieval field boundaries. Evidence of activities of other periods was minimal. Small amounts of Neolithic and later worked flint were present, although there were no concentrations, while Middle Bronze Age pits and finds were present on the northern and southern limits of the area and were possibly related to habitation and domestic activity. Other features comprised several Late Iron Age / Roman ditches and an Early Saxon cremation burial.
- 4.6 In 2006 a pre-determination archaeological evaluation by trial-trenching was undertaken of the IWMF site. The archaeological work identified a low density of prehistoric, medieval and post-medieval remains (Ennis 2006). The most significant of these was a medieval enclosure dated to the late 12th/early 13th century. Other

features in the east of the IWMF site included a single Middle Iron Age pit and a scatter of medieval and post-medieval quarry pits and ditches of low significance. In addition, three WWII structures, all lying in the eastern part of the IWMF site, close to Woodhouse Farm, comprising a Type T2 hanger, a Night Flying Equipment Store and a Floodlight Trailer/ Tractor shed, were the subject of an Historic Building Record which was completed and approved under Planning Condition 11 of the implemented IWMF planning permission ESS/34/15/BTE. These buildings have since been demolished and cleared.

- 4.7 The Site A2 and A5 trial-trenching, undertaken in 2010, discovered three archaeological sites (Germany 2010). One of them lay north of Sheepcotes Farm and contained a small number of Middle Iron Age pits which may have been related to the Middle Iron Age roundhouse found previously. Pits and enclosure ditches dating to the 11th to 13th / 14th-century were also present at the same location and are likely to have been associated with Sheepcotes Farm, an adjacent long-lived settlement that is documented as being founded during or before the 12th century. The second site was situated at the southern end of Site A5 and consisted of a thin scatter of prehistoric pits, one of which produced pieces of Neolithic worked flint. The third site sat north-east of that and probably indicated the location of a Late Iron Age to Roman farmstead. A dense concentration of 13th-century pits was found on the southern edge of the Roman site and is conjectured to have been part of another small farmstead and / or an area of medieval quarrying.
- 4.8 The subsequent archaeological monitoring and excavation of part of Site A2 between 2011 and 2014 revealed a Roman waterhole or well, which was probably part of the previously identified Roman farmstead, and four medieval sites comprising the remains of enclosures, ponds and medieval buildings. The southern-most of these dated to the 12th to mid-13th century and was probably an agricultural working area, complete with large barn or byre, while its counterpart to the north was probably a messuage, dating to the early 13th to 15th century. A series of late 12th/early 13th-century enclosure ditches lay to the west of these sites, while immediately to the east of Sheepcotes Lane an enclosed settlement, including the remains of at least three earth-fast timber buildings of 12th to 14th century date was investigated (Germany forthcoming).
- 4.9 The airfield was constructed by the USAAF in 1943 and was used by the RAF from the summer of 1944 until 1946 (OAA 1997). The construction of the airfield runways, taxiways and aircraft parking bays involved ground levelling and topsoil removal by box-scrappers pulled by tractors and bulldozers and is known to have damaged or destroyed any archaeological remains that were present in the immediate area of the runways. Rubble from London bomb sites was used as hardcore for the levelling of the runways and the infilling of field ditches. Numerous new drainage runs, services and temporary buildings were also constructed. After the war the airfield was used by Marconi Radar as a test site. The majority of the airfield buildings no longer survive and some elements of the airfield, including parts of the runway/ perimeter taxiways and aircraft dispersal bays, were reinstated to farmland after the Second World War.
- 4.10 Following the implementation of the IWMF planning permission, within the footprint of the IWMF construction area, remaining areas of woodland scrub, topsoil, subsoil and hard-standing (remnants of the former airfield comprising brick foundations and concrete tracks and bases) have been removed. Throughout the work ASE maintained an archaeological watching brief which did not identify any features of archaeological importance.
- 4.11 Collectively, the archaeological works which have taken place within the Bradwell Quarry and Rivenhall Airfield area to date strongly suggests that the modern landscape

of Bradwell is largely a 12th-century construct and is derived from a dispersed settlement pattern based upon Bradwell church and hall, isolated tenant farms and cottages, with utility and working areas, such as barns and quarries, connected by narrow roads and farm tracks, all within a network of small fields.

5.0 IDENTIFICATION OF DESIGNATED HERITAGE ASSETS

- 5.1 Heritage assets comprise a site, building, place, area or landscape of heritage interest and thus include both buildings and archaeological sites. Some heritage assets can be nationally designated, by legislation, or locally listed by the local planning authority. Many heritage assets are listed on county historic environment record databases, although this is not a definitive record of potential heritage assets – further examples may exist in an unrecognised or unrecorded form and absence from the Historic Environment Record (HER) database does not lessen the significance of any potential heritage asset.
- 5.2 This assessment is concerned with Designated Heritage Assets; these are of a higher degree of status and significance, some of which enjoy a certain degree of legal protection from development. Nationally designated heritage assets include Listed Buildings, Scheduled Monuments (SM), Conservation Areas, Historic Parks and Gardens and Historic Battlefields.
- 5.3 For the purposes of this assessment, the study area has been defined as an area of 3km radius from the proposed location of the stack and is illustrated on Figure 1. The study utilised the Zone of Theoretical Visibility (ZTV) model prepared by DRaW Design and Assessment (dated 26-05-17) in order to establish the extents of the study area; a copy of this model is provided in Appendix 2.
- 5.4 Data on the Designated Assets was downloaded from the Historic England website as GIS data sets (dated 16 Feb 2017). The relevant data for the study area was then extracted.
- 5.5 Initial data analysis was utilised to place the data within three zones (Fig. 1): within 1km; 1km to 2km; and, 2km to 3km of the stack site. Coggeshall Abbey just sits outside the 3km zone and has a Grade I Listing. The Abbey lies outside the zone of visibility and is located at a lower natural elevation within the local landscape with no view of the stack; it has therefore been screened out of this assessment. A total of 105 Listed Buildings, three Conservation Areas and two Scheduled Monuments have been identified within the ZTV.
- 5.6 Grouping of assets was undertaken where possible; for example some 19 Listed Buildings are present in close proximity at Silver End, are of the same date and form the core of the Conservation Area and as such are grouped. Such groups have been given an alphabetic identifier thus – **B** (Q has not been used). Similarly sites like Crossing Temple, which comprises both below (SM) and above (LB) ground assets, have been grouped.
- 5.7 The location of these groups is illustrated on Fig 1. Where assets have not been identified as part of a group they are shown as individual assets with their 7-figure NHLE List Number. A gazetteer of the Designated Assets can be found in Appendix 1; it lists assets, zones and groups.
- 5.8 The groups of assets can be summarised as follows:

Group	Name (those in bold are within a Conservation Area)	No of Assets in the Group	Zone

A	Woodhouse Farm	3	1
B	Allshot's Farm	2	1
C	Silver Street	19	2
D	Boars Tye Farm	3	2
E	Church/Hall Complex, Bradwell	2	2
F	Rivenhall Place	2	2
G	Porters Farm		2
H	Cressing Village	3	3
I	Cressley's Farm	3	3
J	Cressing Temple (includes SM) and William and Mary Cottages	8	3
K	Rivenhall (incl. SM around the Church)	4	3
L	Leapingwell's Farm and Cottage	3	3
M	Felix Hall	3	3
N ²	Coggeshall (incl. The Grange Barn)	4	3
O	Assets along West Street Coggeshall	12	3
P	Highfields	2	3
R	Issinglass Factory, West Street Coggeshall	5	3
S	Stockstreet (A120)		3
T	Whiteshill Farm (A120)	2	3
U	Park Farm, Bradwell	3	3
V	Perry Green and Holfield	4	3

² Coggeshall Abbey (Grade I) is located to the east of Group N at a lower natural elevation. Coggeshall Abbey has no view of the IWMF stack. Coggeshall Abbey has been considered and screened out of this Heritage Assessment; the proposed increase in IWMF stack height has a Negligible impact on the setting of the Abbey.

6.0 HERITAGE ASSETS AND THE CONTRIBUTION OF SETTING TO THEIR SIGNIFICANCE

6.1 Introduction

6.1.1 The setting of a heritage asset is “... *separate from the concepts of curtilage, character and context*” (Historic England 2015). It is defined by the *NPPF* as:

The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

6.1.2 This assessment of the potential impact of development on the setting of designated heritage assets within the study area (section 5.0. above) has been undertaken in line with the process set out in national guidance (Historic England 2015):

- Identify which heritage assets and their settings may be affected;
- Assess whether, how and to what degree these settings make a contribution to the significance of the heritage asset(s);
- Assess the effects of the proposed development, whether beneficial or harmful, on that significance.

6.2 Visual Impact and Setting

6.2.1 A Zone of Theoretical Visibility (ZTV) has been modelled as part of the Landscape and Visual Assessment using Ordnance Survey Terrain 5 data, assuming a viewer height of 1.7m and a proposed stack height of 35m and 58m above ground level. A copy is provided in Appendix 2. The model notes that: “*The ZTV identifies those areas from which the stack would be theoretically visible. Due to the frequency of hedgerows, structures and low-level vegetation the actual visibility should be significantly less extensive than the drawing indicates.*” (DRaW Design and Assessment ZTV 26-05-17). It should be noted that the increase in the ZTV arising from the modification to the IWMF stack height has only resulted in an additional three assets (Group L) being brought into the ZTV and thus represents a minimal change in terms of the numbers of assets theoretically affected. The change in stack height increases the area of the study area that is theoretically visible from 18.03km² to 20.29km²; that is 63.66% to 71.67%, i.e. a variation of 8.01%.

6.2.2 The designated heritage assets that have been identified as being outside the ZTV by the Landscape and Visual Assessment have been distinguished on Fig. 1. They have been included in this assessment.

6.2.3 In considering the impact of development on the setting of heritage assets it is important to understand that the ‘setting’ has no intrinsic importance in itself but rather it has a value only to the extent to which it contributes to the significance of the heritage asset in question. Therefore, a proposed development does not necessarily have to be visible from a heritage asset to affect its setting or significance; equally, a proposed development can be fully visible from or even directly adjacent to an asset but will not have a significant impact if the setting does not contribute to the significance of the asset or if the development does not fall within that setting if it does contribute. Whilst general issues of visual impact are not necessarily directly relevant when considering the setting of heritage assets views can contribute to the understanding the

significance of an assets; for example where assets were intended to be seen from each other, e.g. beacons (Historic England 2015).

6.3 Assessing the Contribution of Setting to Significance

- 6.3.1 The following section of the report discusses the Designated Assets (Listed Buildings) and considers their key components and contribution of setting as it pertains to their significance. It is organised by Zone and Group. Building descriptions in *italics* are from the Historic England list descriptions.

Zone 1 (Within 1km)

Group A: Woodhouse Farm

- 6.3.2 Woodhouse Farm (Group **A**) is situated to the east of the Stack and within the IWFM consent area. It lies near the western end of the historic route of Pantlings Lane which a track once linked it to. The main access is from the south, from the Woodhouse Lane spur off Hollow Road connecting Kelvedon and Silver End. It includes the following Grade II buildings:

Woodhouse Farmhouse (1123843)

House. Early C17, altered in C18 and C19. Timber framed, plastered with some weatherboarding, roofed with handmade red plain tiles. T-plan comprising 3-bay range facing SW with early C19 axial stack between left and middle bays, and one-bay original rear wing with internal stack at end. C18 extension in left rear angle. 2 storeys. One-bay wing beyond rear stack, of one storey with attics, date uncertain.

Ancillary Building (1123844)

Ancillary building used as bakehouse, brewhouse and stable. C18, extended in C19. Mainly timber framed, weatherboarded and plastered, with some red brick in Flemish bond, roofed with handmade red plain tiles. 3 bays facing approx. SW, with axial internal stack at right end, and C19 stable/cowhouse extension to rear of left end.

Pump (1166918)

Pump. Early C19. Wrought and cast iron and wood. Iron mechanism between 2 wooden posts. Included for Group Value. This is currently removed for safe storage

Other (non-designated) buildings are present in the vicinity which form part of the farm complex. These include feed barns and a feed yard, of likely early 20th century date (JDPP 2015). These are derelict, partially collapsed and overgrown by brambles (JDPP 2015). A concrete block feed stores also present. 'Woodhouse Farm Cottage' lies to the north-east of the farm complex. It is of likely 19th century date (JDPP 2015)

- 6.3.3 The post-medieval buildings lie within and adjacent to a moated site of probable likely medieval date (EHER 8697). The moated enclosure is irregular in plan, being trapezoidal in shape; the roughly parallel western and eastern arms being c.60m and 130m in length respectively. The northern arm is contiguous but southern arm is shorter allowing access to the platform. A plan of the farm by Petchye, dating to 1634 (ERO T/M 460/1) shows no southern arm to the moat, in addition there is a substantial ditch feeding into the northwest corner of the moat, following a natural vale (OAA 1997). The Ordnance Survey records the moat as being 6m wide and 1m deep (8697).

At the time of Petchye's survey an orchard area to the west of the homestead moat, partially surviving in the modern landscape, was also surrounded by a substantial ditch. The house would appear to have been situated roughly in the same position as that of the extant Grade II listed 17th century house.

- 6.3.4 A Heritage Statement (Buildings) was prepared for Woodhouse Farm in 2015 (JDPP 2015) described the buildings as “.....*excellent vernacular buildings; part of the Essex pattern of timber-framed buildings*”, whilst noting that they were (and continue to be) unoccupied and derelict. The area around the buildings is generally wooded, serving to separate the site physically and visually from the nearby World War II airfield perimeter track and buildings and the more recent mineral extraction operations. The wider setting of this group of assets can be interpreted as developing from a historically rural landscape of small fields which was considerably altered in World War II with the construction of the airfield and is now within a largely industrialized landscape of mineral extraction. The extant wider setting of this group of assets is not therefore considered to contribute to the significance of the assets. The stack will (as before) be visible from Woodhouse Farm and the proposed variation in stack height will lead to less than substantial harm on the designated asset.
- 6.3.5 The key components of the historic setting and significance of the heritage assets at Woodhouse Farm (**A**) can be summarised as follows:
- Age and architectural value as a group;
 - Group value of the range of assets present illustrating the continuity of the use of the site through the medieval to post medieval periods;
 - Relationship to water-course feeding the moat;
 - Continuing relationship to the historic road system to the south.
- 6.3.6 The current derelict condition of the building is considered to detract from the setting of this group of assets. However, Woodhouse Farm (**A**) will be redeveloped, refurbished and brought back into beneficial use as offices and a visitor/heritage centre as part of the IWMF works. This will eventually support in mitigating the overall change in setting.

Group B: Allshot's Farm

- 6.3.7 Allshot's Farm (Group **B**) is situated to the east of the proposed Stack outside the IWMF consent area. Historically it was part of the Felix Hall estate (**M**, to the east) and approached from that direction through Upney Wood. The main access is now from the south, from the Woodhouse Lane spur off Hollow Road, thus the modern access is not part of the historic setting. The group includes the following Grade II buildings:

Allshot's Farmhouse (1337612)

House. Circa 1600, extended in C20. Timber framed, plastered, roofed with machine-made red plain tiles. 2 bays aligned approx. NE-SW with stack at NE end; originally the house extended further in this direction, demolished in C20.

Barn c. 45m NW of Allshot's Farmhouse (1169906)

Barn. Circa 1700. Timber-framed, weatherboarded, roofed with corrugated iron. 5 bays aligned approximately east-west with original midstrey to south.

Other (non-designated) buildings are present in the general area including a number of modern buildings. The area is generally used for light industrial purposes; including a scrapyards and car repair works. Its boundaries are partly hedged, with groups of trees present, and these

serve to screen the farmstead itself but not the wider group. There are, for example, glimpsed views of the complex from the fields to the north.

6.3.8 The farm is depicted on a 1605 map (ERO D/DM P3) and may again have origins in the medieval period. Later documents indicate that this farm was part of the Felix Hall manor, formerly Filliol Hall. Members of the Filliol family held knights fees in Kelvedon in the 13th century. The farm was part of the estates of Lord Charles Callis Western of Felix Hall by the mid-19th century (ERO D/CT 196b). Lord Western had purchased the Felix (Filliol) Hall estates in 1796³. The estate was put up for sale in 1913 (ERO SALE/B4005) with “All Shots” being described as “... *an exceptionally fine small sporting estate*”. Blocks of woodland to the south-east are a remnant of Upney Wood, part of this estate. Like Woodhouse Farm (**A**) the wider setting has altered developing from a rural landscape of small fields to being on the edge of the World War II airfield with consequent field boundary loss. Given the changes to the historic landscape in the area and the detracting elements discussed above it is not considered that the wider setting contributes to the significance of the assets.

6.3.9 The key components of the historic setting and significance of the heritage assets at Allshots Farm (**B**) can be summarised as follows:

- Age and group value of the historic buildings;
- Farmhouses outlook is towards the agricultural buildings and the barn opposite;
- Areas of wood, grassland and a pond are present to the south of the farmhouse, these are part of the historic layout of the farm.

6.3.10 The current industrial land-use could be considered to detract from the setting of the assets both visually and by making the group as a whole difficult to read, masking the relationships between the historic features and the surrounding landscape.

Sheepcotes Farmhouse

6.3.11 Sheepcotes Farmhouse (**122600**) is situated on the edge of Zone 1 to the west of the Stack outside the IWMF consent area. The Grade II farmhouse is described as:
A Late C16 or early C17 timber-framed and plastered house built on an L shaped plan with wings to the north-east and south-east. The south west front was re-fronted in the C18 in red brick, with parapet and raised brick bands above the ground and 1st storey windows. 2 storeys. 4 window range, casements. Roof tiled, hipped with a central chimney stack with sunk rectangular panels. The south-west front has a panel inscribed "Rebuilt 1785 AH". An early C16 barn to the south-west of the house has been re-roofed in corrugated iron.

Non-designated modern farm buildings are located to the south and tree lined boundaries separate and screen the farm from the former airfield. The latter site comprises hard-standing, a World War II ‘T2’ Hanger and a prominent radar mast which is almost directly behind the farmhouse as viewed from the road. The residential and working areas of the farm are now distinct from each other.

6.3.12 Whilst the existing building is of post-medieval date Sheepcotes was first documented in the 12th century and an adjacent 13th century ‘service area’ was identified and investigated during trial trenching (Fig. 2). The extant wider setting is therefore quite mixed in character and has seen alteration over the 20th century. The wider setting of these assets is therefore not considered to make a major contribution to the significance of this group of heritage assets.

³ <http://www.maximiliangenealogy.co.uk/felixhall.html>

6.3.13 The key components of the historic setting and significance of the heritage assets at Sheepcotes Farmhouse (**122600**) can be summarised as follows:

- Age of the historic building;
- Continuity of land-use/settlement from the medieval period through to the present.

Zone 2 (Between 1km and 2km)

Silver End - Group C: Silver Street and Group D: Boars Tye Farm

6.3.14 Silver End lies to the south-west of the IWMF. Much of the village is located within a Conservation Area which includes two groups of Grade II buildings; parts of a 1920s Modernist Movement Estate along Silver Street (**C**) and the historic Boars Tye Farm (**D**). A recent Conservation Area Appraisal has been undertaken on the village (ECC 2014); information from which is summarised below.

6.3.15 Silver End is a garden village developed between 1926 and 1932 as a model estate for workers of the metal window-manufacturing firm of Crittalls, who purchased the land in 1925. It was designed as a showcase of modern architecture and Crittall products, the village includes some of the earliest Modern Movement houses in England, and contains the only complete estate of Modern Movement houses in the country.

6.3.16 Prior to the construction of the village the area was a rural area with scattered farmsteads, including Boars Tye Farm, an historic farm, with extant 17th century buildings. This became integral to the 20th century garden village; Bowers Hall and Boars Tye Farms (within the village, **D**) were purchased by the Development Company, cumulatively providing 500 acres of farm-land. The Silver End Trading Society was formed to oversee the scheme providing the village with the best foods as cheaply as possible.

6.3.17 The village hall, designed by C. Murray Hennell, The Manors and the factory, formed the key components of the village. The factory was sited in Western Road away from the formal village centre, focused on the village hall, store and hotel (on Broadway) thus separating industrial and commercial/residential zones. The factory's location allowed access to the main road network to another Crittalls factory at Witham. The first houses to be built were designed by Hennell and constructed adjacent to the north of the factory in Temple Lane. These were artisan cottages constructed of stock bricks, with hipped and slated roofs, and Crittall windows. C.H.B. Quennell designed 18 semi-detached cottages on Temple Lane, including Francis Crittall's own house 'The Manors' and a number of manager's houses either side in Francis Way. Thomas Tait and Fredrick MacManus were responsible for the eastern end of Silver Street and the three houses built for the factory managers, 'Wolverton', 'Craig Angus' and 'Le Chateau'. This area of managers' and worker's housing on the eastern half of Silver Street are all flat-roofed, two-storied, brick-built, painted white and designed in the International Modern style of the late 1920s. The rest of the original Garden Village comprises more flat-roofed housing along the rest of Silver Street, part of Broadway and on Francis Way.

6.3.18 The following individual heritage assets are located in Silver End:

- **1122564** 25-31, Silver Street Terrace Of Four Cottages. 1927 By Thomas Tait
- **1122565** 26-32, Silver Street Terrace Of Four Cottages, 1927 By Thomas Tait In

- **1122566** K6 Telephone Kiosk
- **1122567** Barn To South Of Boars Tye Farmhouse Early 17th Century. Timber Framed 5 Bay Barn With Gabled Midstrey To The South..
- **1122568** 9 And 11, Silver Street Symmetrical Pair Of Cottages, 1927, By Thomas Tait
- **1122569** 5 And 7, Silver Street Symmetrical Pair Of Cottages, 1927, By Thomas Tait
- **1122570** 6 And 8, Silver Street Symmetrical Pair Of Cottages, 1927, By Thomas Tait
- **1122571** 1 And 3, Silver Street Symmetrical Pair Of Cottages, 1927, By Thomas Tait
- **1122572** Granary At Boars Tye Farmhouse 17th Century Timber Framed Granary On Saddle Stones
- **1122573** Boars Tye Farmhouse 17th Century. Timber Framed And Plastered; 2 Storeys And Attics, Clay Peg Tiled Gable Roo
- **1122599** Wolverton A Painted Brick House With A Symmetrical Main Block. With A Flat Boarded Roof And A Parapet And A Single Storey Garage Wing On The North End. Designed By T S Tait In 1928. T
- **1235691** Craig Angus A Symmetrical Painted Brick House With A Boarded Flat Roof And A Parapet. Designed By T S Tait In 1928.
- **1235718** Le Chateau (65 Club) An Asymmetrical Building Of Rendered Brick Designed By T S Tait In 1928, An Early Essay In The Dutch Style Of Dudok. The House Has A Flat Boarded Roof And A Plain Parapet.
- **1235722** Barn To North Of Boars Tye Farmhouse Probably Late 17th Century. Timber Framed 5 Bay Barn With South Facing Midstrey And Later Lean-To Outsheds On Either Side.
- **1235724** 21 And 23, Silver Street Symmetrical Pair Of Cottages, 1927 By Thomas Tait
- **1235726** 22 And 24, Silver Street Symmetrical Pair Of Cottages, 1927 By Thomas Tait
- **1264953** 10 And 12, Silver Street Symmetrical Pair Of Cottages, 1927 By Thomas Tait
- **1338217** 18 And 20, Silver Street Symmetrical Pair Of Cottages, 1927 By Thomas Tait
- **1338219** 17 And 19, Silver Street Symmetrical Pair Of Cottages, 1927 By Thomas Tait
- **1338230** 14 And 16, Silver Street Symmetrical Pair Of Cottages, 1927 By Thomas Tait
- **1338231** 13 And 15, Silver Street Symmetrical Pair Of Cottages, , By Thomas Tait
- **1338256** 2 And 4, Silver Street Symmetrical Pair Of Cottages. 1927 By Thomas Tait

6.3.19 The village is focussed inwards towards the nucleus of the village at the Broadway. The longest views are generally along the roads within the village and into/across public open space. Whilst the garden village was built over the previously agricultural landscape the historic farms (Boars Tye Farm and Bower Hall Farm) were economically incorporated into the new development, becoming integral to the Silver End Trading Society. This link is not however reflected visually with limited views/visibility to the surrounding countryside and the surrounding rural landscape is incidental to rather than integral to the significance of this group of assets

6.3.20 The key components of the historic setting and significance of the heritage assets at Silver End can be summarised as follows;

- Individual architectural value of the assets;
- Group value of the assets as a designed village of the era;
- Links between public open space, residential and industrial space;
- Social hierarchy of space as demonstrated by design/location of managers and workers housing;
- Integration of the historical rural buildings and land-use (Boars Tye) into the more recent designed village;
- Good overall survival of the historic village with the pockets of more recent housing sensitively designed.

Group E: Bradwell Church and Hall

6.3.21 The Bradwell parish church (**1337594**) and the surviving elements of the historic manorial centre are located to the north of the site of the proposed Stack and on the south side of the Blackwater valley where the land drops away towards the river. Church Road links the church/hall complex to Bradwell Village itself. The surroundings are rural in character with bands of woodland and hedged boundaries. The church is relatively small and does not appear prominent in the landscape, being screened by trees and layers of hedgerows. The manorial complex is located to the north of the church, and comprises a listed building in amongst more recent structures. The surrounding rural landscape is incidental to rather than integral to the significance of this group of assets.

6.3.22 Bradwell is not mentioned by name in the Domesday Survey, the first documentary reference dating to 1238, and there is minimal evidence for Bradwell and its church having developed from a late Saxon predecessor. Holy Trinity Church and Bradwell Hall (the seat of the only manor in that parish) lie 1km from the nearest settlement and c. 1.3km north of the middle of Rivenhall Airfield.

6.3.23 The parish church (**1337594**), dedicated to the Holy Trinity, is:
Early C12, altered in C14 and C15. Flint and pebble rubble containing blocks of indurated conglomerate and some Roman tile; original dressings of 'Coggeshall' brick, later dressings of limestone and clunch; porch timber framed and partly weatherboarded; roofs of handmade red plain tiles; belfry and spire timber framed and weatherboarded.

6.3.24 The surviving historic outbuilding (**1123884**), part of the historic manorial complex is:

Part of ancillary building of manor. Early C16. Timber framed, weatherboarded, roofed with handmade red plain tiles. 2 bays facing north-west, formerly of a longer building. 2 storeys. Open implement shed attached to SW, stable attached to NE, neither of special architectural or historic interest. The high quality of the frame and the wide doorhead indicate that this is the remaining part of a building originally of manorial status, probably a court hall or granary/stable range

6.3.25 The key components of the historic setting and significance of the heritage assets at the Church/Hall complex can be summarised as follows:

- Age (survival) of the historic buildings;
- Group Value;
- Links via historic road system to nearby settlements.

Group F: Rivenhall Place

6.3.26 Rivenhall Place (Group F) is situated to the south of the proposed Stack and east of Silver End, between it and Rivenhall village. The group comprises an imposing Grade II* 16th -18th century house (**1122598**) standing in its own grounds with a stream enlarged to form a lake and approached by a 3 arched brick bridge across the lake (**1338253**). The latter was originally built in 1693 and was rebuilt in 1963. The house and grounds are set within the valley of a stream, this was dammed to create a fishpond/lake when the parkland was remodelled in the late 18th century. The following historical background to the estate is summarised from an article in Country Life (2013)⁴.

6.3.27 At the time of Domesday, the Rivenhall estate was held by Earl Eustace of Boulogne and passed to the Crown when his daughter, Matilda, married King Stephen. The Scales family then held it for some 200 years until 1460. The house eventually passed to Thomas Western, a wealthy ironfounder and contractor to Charles II's navy, who bought Rivenhall Place in 1692 remodelling and extending the original red-brick Tudor house. In 1771, Charles Callis Western, later Baron Western, inherited the estate and on reaching his majority in 1788, began redesigning Rivenhall Place; commissioning Repton to redesign the park in 1789-90. The parkland had its origins as a medieval deer park which by the 12th century is thought to have enclosed c. 223ha and was first documented in 1295 (EHER 13749). In 1796 Weston purchased the Felix Hall (**M**) estate in Kelvedon which then became the family seat. Rivenhall Place was rented out and, by the late 1890s was almost derelict. The house was patched up from time to time, requisitioned by the army in World War I and II. Much of the parkland was ploughed up during the latter conflict.

6.3.28 Given that Rivenhall Place sits within a designed landscape it has been deliberately separated from wider rural landscape and thus the latter is incidental to the significance of this group of assets. The key components of the historic setting and significance of the heritage assets at the Rivenhall Place complex can be summarised as follows:

- Age (survival) of historic buildings;
- Architectural value of the historic buildings;
- Group Value of the assets;
- Private space focussed on the mansion and parkland, designed to be separate from the agricultural land around it;
- Key vistas lay within the parkland, for example over the lake;
- Belts of trees restrict views into and out of the park.

Group G: Porter's Farm

6.3.29 Porter's Farm (**G**) lies to the south-east of the proposed Stack and east of Rivenhall Place (**F**). It is on the south side of Parkgate Road and was part of the Felix Hall (**M**) estate. The extant buildings are of post-medieval date but there is an incomplete moat to the west (EHER 8304). The name is probably associated with the family of John Porter (AD1391), and the Porters are also mentioned in a 1541 rental (EHER 8304). The placename and presence of a moat would therefore suggest medieval origins for the farm. Surviving historic documents relating to the farm include conveyances from 1588 onwards in Essex Record Office, and lease and release of 1769 in the possession of the owner (List Description – 1123799). The group is situated on the roadside with woodland on three sides and the surrounding rural landscape is incidental to rather than integral to the significance of this group of assets

⁴ <http://www.countrylife.co.uk/property/country-houses-for-sale-and-property-news/beautiful-period-houses-re-imagined-6560#QCJMIqIzDXVOp7H6.99>

6.3.30 The designated heritage assets in this group comprise:

Porter's Farmhouse (1123799) House. Circa 1600, altered in C18 and C20. Timber framed, plastered, roofed with handmade red plain tiles. 4 bays facing SE with stack to rear of right bay, and C20 single-storey extension beyond. C20 crosswing at left end, extending to rear. C18/19 lean-to along rear of main range, forming a catslide with the main roof.

Barn 40m south-east of Porter's Farmhouse (1171011)Barn. Circa 1700. Timber framed, weatherboarded, main roof thatched, midstrey roofed with handmade red plain tiles

6.3.31 The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value of built heritage and archaeological assets;
- Survival of historical documentation

Rook Hall

6.3.32 Rook Hall (1170991) is situated to the south-east of the proposed Stack and situated on the level ground of the plateau. It is in an isolated position, accessed from a long driveway off the Hollow Road, the same layout as that shown on the Chapman and Andre map of 1777. It is situated in a relatively small plot with some wooded boundaries. Historic mapping, for example the tithe map of 1840 (ERO D/CT 196), shows that there were stands of woodland to the west of the plot, between it and the site of the Stack but these are now much reduced in size. The hall is described as: *House. Circa 1600, extended in C17, C18 and C20. Timber framed, plastered, roofed with handmade red plain tiles. 2 bays aligned NW-SE, with external stack at each end. C17 one-bay extension to SE, C18 one-bay extension to NW. C20 extensions to NE. 2 storeys with attics.* The surrounding rural landscape is incidental to rather than integral to the significance of this asset.

6.3.33 The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age/survival of the building.

Gosling's Farm

6.3.34 Gosling's Farm (1337591) is situated to the north-west of the proposed Stack on the north side of Sheepcotes Lane, which is lined by tall trees and hedgerows. The (listed) timber framed farmhouse is located to the east of a group of farm buildings which include a (listed) brick built cartlodge with granary over it and a timber framed barn which has been converted. The designated heritage assets are described as follows: *Timber framed, plastered, roofed with handmade red plain tiles. 4 bays facing SW with axial stack in second bay from left end, internal stack at left end and C19 external rear stack in right end bay; 2-bay original wing to rear of main stack. One storey with attics. Cartlodge with granary over. Late C18/early C19. Red brick in Flemish bond, and timber framed and weatherboarded, roofed with handmade red plain tiles.*

6.3.35 The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value (association) of the group of buildings.

The surrounding rural landscape is incidental to rather than integral to the significance of this group of assets

Rolph's Farmhouse

6.3.36 Rolph's Farmhouse(122601) is situated to the west of the Stack and north-west of Silver End on Boars Tye Road. It is situated outside the village with some ribbon development to its south. It is described as:

A C17 timber-framed and plastered house with a cross wing at the north- west end, The crosswing is 2 storeys and the main block is 1 storey and attics. 4 window range, double-hung sashes with glazing bars, in flush cased frames. A central 6-pannel door has an open pediment. Roof tiled with 3 flat headed dormers and a C17 chimney stack with 3 diagonal shafts. The house was renovated in the C20

6.3.37 The key components of the historic setting and significance of this building can be summarised as follows:

- Age (survival) of the building.

The surrounding rural landscape is incidental to rather than integral to the significance of this asset.

Curd Hall

6.3.38 Curd Hall(1123140) is located to the north-east of the proposed Stack, between Cut Hedge Lane and the river, which lies to its north. It is situated in a relatively isolated location, accessed down a long private track off Cut Hedge Lane. The historic access would appear to have been from Coggeshall village which lies to the east. The hall was associated with a farm which covered an area of some 190 acres in the 1840s (ERO D/CT 88B), parts of which have been subject to both historic and modern mineral extraction. The former is evidenced in fieldnames – Pit Field and Sandpit/Hither Sandpit and Further Sand Pit fields depicted on a map of 1735 (ERO D/DU 19/4).

6.3.39 The hall is described as:

House. C17, extended in C18 and c.1900. In an estate map of 1735 the house is illustrated as having 3 gables and 2 chimneys. Timber framed, plastered, roofed with handmade red plain tiles. 5 bays facing N with central stack forming a lobby-entrance, and original 2-bay wing to rear of left end. Shorter wing to rear of right end, and lean-to extension beyond, forming a catslide with the roof of the original wing. Extension to right in stock bricks with red brick dressings, c.1900. 2 storeys and unlit attics....In an estate map of 1735 the house is illustrated as having 3 gables and 2 chimneys (Essex Record Office D/DU 19/4).

6.3.40 The timber frame itself is of some significance being illustrated in C.A. Hewett, Some East Anglian Prototypes for Early Timber Houses in America, *Post-Medieval Archaeology* 3, 1969, 108 and 111.

6.3.41 The key components of the historic setting and significance can be summarised as follows:

- Age (.) of the building;
- Architectural value;
- Historical documentation.

The surrounding rural landscape is incidental to rather than integral to the significance of this asset

Bower Hall with Outbuildings

6.3.42 Bower Hall (**1338254**) is situated to the south-west of the proposed Stack and south-east of Silver End, and was one of the farms purchased when the latter was developed. Bower Hall is probably to be associated with Peter 'atte Boure' (1291), the family of Robert de 'Bouser, Boussier, Bourchier' (1327, 1339). It is also mentioned in other 15th century documents (ERO 8092). The extant hall and outbuildings are of post-medieval date but are situated within a moated enclosure. This, and the historical record, would suggest that it has medieval origins. This group of heritage assets would historically have been rural in character but are now on the edge of the developed area of Silver End with which they have a historical association.

6.3.43 The buildings are described as follows:

A C17 timber-framed and plastered house built on an L shaped plan with wings to the west and north. A C19 range has been added to the south and there are C19-C20 alterations and additions to the east. 2 storeys. The windows are C20 casements. Roofs tiled, with a C17 chimney stack with moulded brick cap and diagonal shafts. The interior has exposed beams, C17 doors with original fittings and C17 panelling. RCHM (3). To the south of the house there are a number of timber-framed and weatherboarded outbuildings and barns, now roofed with corrugated asbestos.

6.3.44 The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value (association of the buildings);
- Group value (association of archaeological and built heritage assets);
- Association with the development of Silver End.

Ford Farm

6.3.45 Ford Farm (**1122614**) lies to the south of the proposed Stack and south-east of Rivenhall Place, on the western side of the stream that runs through the grounds of the latter. It lies on level ground and is not visible from the road, being screened by trees. It is described as:

A C15 timber-framed and plastered house with cross wings at the north west and south east ends. There are C17 additions at the north west end and at the rear. The house has been renovated in the C20. C17 barn south

6.3.46 The key components of the historic setting and significance of this group of assets relates to;

- Age (survival) of the buildings;
- Group value (association of the buildings).

The surrounding rural landscape is incidental to rather than integral to the significance of this asset.

Zone 3 (2km to 3km)

6.3.47 Given the distance of the designated heritage assets within Zone 3, being 2km to 3km from the Stack only summary information, sufficient to identify the assets is provided here. Their significance principally lies with their age (survival) and in some instances their group value. They are generally located within a rural landscape, but some have a more urban/industrial character; being situated adjacent to main roads. Many of the assets are working farmsteads so the relationship with the landscape is less specific/more generic than it would be if they were part of a designed landscape, thus the character of the landscape is incidental to the significance of the assets rather than integral to it.

Cressing Village (Group H)

6.3.48 The following designated heritage assets are located within the study area and Cressing Village (Group H):

- **1337619** *Parish Church Of All Saints C12-C15, Extended And Restored In C19.*
- **1123858** *Springwaters / Tithings. House, Now 2 Cottages. Circa 1500, Altered and extended at several periods*
- **1168666** *Horseshoes Wrongly Shown On OS Map As Ph. House. C15, Altered In Late C16, C17 And C19.*

6.3.49 The following designated heritage assets are grouped around Cresley's Farm (Group I):

- **1168706** *Cresley's Farmhouse Wrongly shown on OS map as New House. House. Early C17, extended in C20. Long early C20 wing behind left end, connecting house with C18/19 ancillary building, and C20 extension in E angle, with rear jetty.*
- **1123859** *Barn 30 Metres North Of Cresley's Farmhouse Wrongly shown on OS map as New House. Barn. Early C17.*
- **1278016** *Barn 55 Metres North West Of Cresley's Farmhouse Wrongly shown on OS map as New House. Barn. Early C17. C19 byre extending SE from SW endl. Timber framed, plastered, roofed with handmade red plain tiles. 4 bays facing SW, with axial stack in second bay from right end, and partly external stack at left end.*

6.3.50 The following designated heritage assets are situated at Cressing Temple (Group J) located on the edge of the study area. This is a significant group which also includes a scheduled monument.

- **1168891** *CRESSING TEMPLE FARMHOUSE House. Late C16, altered in C18 and C19. Timber framed, plastered and roughcast, roofed with handmade red plain tiles.*
- **1123865** *THE BARLEY BARN. Early C13, altered in early C16 and C17. Timber framed, plastered and weatherboarded, roofed with handmade red plain tiles, plinth of red brick in irregular bond.*
- **J 1123866** *3 THE WHEAT BARN, Barn. Mid to late C13, altered in early C16 and C18. Timber framed, brick-nogged and partly weatherboarded, roofed with handmade red plain tiles, on plinth of red brick in various bonds.*
- **1123867** *3 GRANARY/STABLES BLOCK Granary/stables block, converted to court house. Late C16, altered in 1623 and C19. Timber framed, plastered and weatherboarded, with some exposed imitation framing and C19 brick nogging, base wall of red brick in English bond; roofed with handmade red plain tiles. C19 extension in front angle, with lean-to roof of slate. 2 C20 gabled extensions to rear, with 2 catslide extensions. C19 single-storey extension to*

rear right, forming a lean-to at right end, of painted brick in Flemish bond, roofed with red clay pantiles.

- **1169011** WAGGON LODGE Waggon lodge. C18. Timber framed, weatherboarded, roof thatched.
- **1168978** 3 WALL ENCLOSING WALLED Wall. C17, altered in C18/19. Red brick in English and irregular bond.
- **1123864** WILLIAM AND MARY COTTAGES Pair of attached cottages, now one house. Late C18. Timber framed and red brick in Flemish bond, roofed with handmade red plain tiles. These lay out of the farm complex but in relatively close proximity.

6.3.51 The following designated heritage assets are located in the vicinity of Rivenhall Village (Group **K**):

- **1122613** RIVENHALL HALL A late C16 timber-framed and plastered house with cross wings at the east and west ends with the upper storeys jettied on the south front. There is a C17 addition at the north side.
- **1306464** RIVENHALL FARM COTTAGES A range of C17-C18 timber-framed and weatherboarded cottages.
- **1169594** CHURCH OF ST MARY AND ALL SAINTS Anglican parish church. C10 timber church, rebuilt in stone in circa late C10 or early C11, chancel extended circa early C14, west tower and west end of nave rebuilt in early C18; remodelled in 1838 by J A Repton; altered and south porch built in 1878. Rendered flint and brick. Slate roofs. Situated within a Scheduled Monument.
- **1122612** RIVENHALL CHURCH OF ENGLAND PRIMARY SCHOOL and SCHOOL HOUSE Two adjoining mid C19 flint and stone buildings.

6.3.52 The following designated heritage assets are located in the vicinity of Leapingwells (Group **L**):

- **1305774** LEAPINGWELL'S FARMHOUSE House. C16, C17 and early C19. Timber framed, plastered, roofed with handmade red plain tiles.
- **1305775** Barn. Early C17. Timber framed, plastered and weatherboarded, roofed with corrugated iron. 5 bays aligned NE-SW with original aisle to SE and original midstrey to NW. Lean-to extension in N angle
- **1337628** House, now cottage. Circa 1600, altered in C19. Timber framed, plastered, roofed with handmade red plain tiles; stacks of red brick and yellow brick.

6.3.53 The following designated heritage assets are located in the vicinity of Felix Hall situated within a parkland (Group **M**). They are located outside the ZTV.

- **1123797** FELIX HALL Mansion. C18, reduced in size in 1939, severely damaged by fire in 1940. Red brick in Flemish bond, formerly stuccoed, now mainly exposed, unroofed. Rectangular range facing SE. 2 storeys and basement.
- **1305802** THE CLOCK HOUSE Service and stable range, now a house. Mid-C18, converted in C20. Red brick in Flemish bond, roofed with red clay pantiles.
- **1337627** THE ORANGERY Service wing of mansion, now a house. Circa 1750, for John Williams, converted C20. Red brick in Flemish bond, roofed with slate.

6.3.54 The following designated heritage assets are located in the vicinity of Coggeshall Village, on the western edge of the village and within a conservation area Group **N**):

- **1123112** THE GRANGE BARN Barn. C12/early C13 origin, rebuilt in C14, altered in C18, restored 1984. Timber framed, weatherboarded, roofed with handmade red plain tiles.
- **1123113** THE GRANGE Wrongly shown on OS map as Grange Farm. House. Circa 1600, altered in C18 and C19. Timber framed, plastered, roofed with handmade red plain tiles. Main range facing NNW with 2 axial stacks. 2-bay rear wing at left end, and 2-bay rear wing near right end, with external stack to right.
- **1123114** 14, 16 AND 18, GRANGE HILL House, now range of 3 attached cottages. Early C17, altered in C19. Timber framed, plastered, roofed with handmade red plain tiles. N **1123115** GRANGE HILL COTTAGES Range of 4 attached cottages. Early C19, altered in later C19 and C20. Timber framed, roughcast rendered and plastered, with some weatherboarding, roofed with handmade red plain tiles.

6.3.55 The following designated heritage assets are located along West Street, Coggeshall (Group O):

- **1123107** 3 108, WEST STREET Crosswing of former hall house, now a house. C15, altered in early C19 and C20. Timber framed, with exposed framing at front, plastered elsewhere, roofed with handmade red plain tiles. 3-bay range with gable end to road, originally the crosswing of a hall house to the right, the remainder replaced c.1600 by the present no. 106
- **1170824** 106 AND 106A, WEST STREET House, now 2 houses. Late C16 and c.1600, altered in early C19 and C20. Timber framed, partly plastered, partly exposed, roofed with handmade red pantiles. The main range is no. 106, the rear wing is no. 106A
- **1305829** 91 AND 93, WEST STREET House, now 2 houses. Circa 1600, altered in C20. Timber framed, plastered, roofed with interlocking concrete tiles.
- **1337600** 95-103, WEST STREET House, now 3 houses. Late C16, altered in C19 and C20. Timber framed, plastered, roofed with handmade red plain tiles. 4 bays facing N, with central stack. Full-length catslide extension to rear.
- **1337921** GRIGG'S FARMHOUSE House. C17 and early C19, altered in C20. Timber framed, plastered with some painted brick, roofed with handmade red plain tiles.
- **1170976** 105, WEST STREET House. C17, altered in C18 and C20. Timber framed, plastered, roofed with handmade red plain tiles. 3 bays facing N, with central stack.
- **1123896** 89, WEST STREET House. C17, altered in C19 and C20. Timber framed, plastered, roofed with handmade red plain tiles.
- **1170834** 110, WEST STREET House. Circa 1600, altered in C19 and C20. Timber framed, with exposed framing at front, plastered elsewhere, roofed with handmade red plain tiles. **1123108** 112, WEST STREET House. Early C17, altered in early C19. Timber framed, mainly plastered, framing exposed to left, roofed with handmade red plain tiles. 3-bay crosswing of main range to right (now no. 110, item 9/218, q.v.).
- **1305891** 114 AND 116, WEST STREET House. Late C18, extended in C19 and C20. Red brick in Flemish bond, partly painted, partly plastered, roofed with handmade red plain tiles.
- **1123897** 3 MILEPOST Mile-post. Early C19. Cast iron and oak. Of triangular plan, with one surface facing NW embossed 'Coggeshall 1', and one surface facing NE embossed 'Braintree 6'.
- **1337962** 104, WEST STREET Part of house and shop, now a house. Circa 1500, altered in early C19 and C20. Timber framed, with exposed original and

inserted framing to front and part of right return, remainder plastered; front pitch of roof slated, remainder of handmade red plain tiles.

- 6.3.56 The following designated heritage assets are located at Highfields Farm (Group **P**):
- **1123106** *Cart lodge, now house. C17, converted 1986. Timber framed, mainly weatherboarded with some C20 red brick in English bond, roofed with handmade red plain tiles.*
 - **1170814** *HIGHFIELDS FARMHOUSE Shown on OS map as nos. 96 and 98, West Street. House. Circa 1600, altered in C18 and C19, seriously damaged by fire c.1977 and restored.*
- 6.3.57 The following designated heritage assets are located along West Street, Coggeshall and are the remains of a tannery/isinglass factory (Group **R**):
- **1376098** *Parts of tannery, gelatine and isinglass works including mill, warehouse and beam house. A complex building, including probable original gelatine/isinglass works of 1847/8 to south west, western tannery building of pre-1853 to south east, mill building to north west dating between 1853 and 1875 and later warehouse to north west in existence by 1875. Built of brick with slate roof and sash or casement windows.*
 - **1376099** *Office, formerly probably office or workshop. Built between 1853 and 1875 and similar in style to the western mill building to the north. Red bricks in Flemish bond with slate roof. One storey.*
 - **1376100** *Stable with hayloft over. part probable tannery building, later house. Shown on Tithe map of 1853 but could date from late C18 and therefore part of the original tannery buildings on this site.*
 - **1376101** *Finings House And Drying House*
- 6.3.58 The following designated heritage assets are located along the A120 in the vicinity of Stock Street (Group **S**). These are a mix of farm and residential properties, perhaps tied cottages.
- **1123090** *STOCK STREET FARMHOUSE House. Late medieval and c.1600, altered in C18*
 - *, extended in late C19, renovated c.1966. Timber framed, C18 facade of red brick in Flemish bond, plastered elsewhere, roofed with handmade red plain tiles.*
 - **1123092** *73 AND 74, STOCK STREET House, now 2 cottages. C16 and early C17, altered in C19 and C20. Timber framed, plastered and weatherboarded, roofed with handmade red plain tiles.*
 - **1123093** *75 AND 76, STOCK STREET Pair of attached cottages. Late C18/early C19, extended in C20. Timber framed, plastered, roofed with handmade red plain tiles*
- 6.3.59 The following designated heritage assets are located at Whitshill Farm, situated on the A120 (Group **T**):
- **1123888** *WHITESHILL FARMHOUSE House. Early C17, extended in C18 and C19. Timber framed, plastered, roofed with handmade red plain tiles*
 - **1123889** *Barn. C18. Timber framed and weatherboarded, base wall of red brick in English bond, roofed with corrugated asbestos.*
- 6.3.60 The following designated heritage assets are located at Parkhouse Farm, on the edge of Bradwell Village (Group **U**). They lay outside the ZTV.
- **1337595** *DOVECOTE APPROXIMATELY 15 METRES SOUTH WEST OF PARK FARMHOUSE Dovecote, converted to a granary. C17, converted in*

C18/early C19. Timber framed, weatherboarded, roofed with handmade red plain tiles

- **1168426** *PARK FARMHOUSE House. Early to mid C16, extended in C18 and C19. Timber framed, plastered with some exposed framing, roofed with handmade red plain tiles.*
- **1168440** *PARK HOUSE House. Early C18, altered in early C19. Gault brick in Flemish bond, roofed with slate. Rectangular plan facing NE with one axial stack, one internal stack at left end, one rear stack at right end.*

6.3.61 The following designated heritage assets are located at Perry Green (Group **V**):

- **1123882** *PERRY GREEN FARMHOUSE House. C16, altered in C18 and C20. Timber framed, roughcast rendered, roofed with handmade red plain tiles*
- **1337593** *Barn. C16, altered in C19. Timber framed, weatherboarded, roofed with handmade red plain tiles.*

6.3.62 The following designated heritage assets are located at Holifield, on the northern edge of the study area (Group **W**):

- **1337922** *Dovecote and stables. C18. Red brick in Flemish bond, roofed handmade red plain tiles. Square plan with entrance to NE.*
- **1123186** *Retaining wall of ha-ha. C18. Red brick in Flemish bond. Extends from the S corner of the garden of Holifield Grange north-westerly for approximately 150 metres, where it joins a plain brick wall. Relates to an earlier house on the same site as the present Holifield Grange*

6.3.63 The following individual heritage assets are located within Zone 3:

- **1171147** *MONK'S FARM COTTAGES House, now 3 attached cottages. Late C16, altered in C17 and C20.*
- **1168513** *SILVER BIRCHES House. C16, altered in C20.*
- **1123800** *COTCROFT COTTAGE House. C17 or earlier. Timber framed, roughcast rendered, with some weatherboarding, roofed with handmade red plain tiles.*
- **1169367** *SCRIP'S COTTAGE (AT REAR OF SCRIP'S HOUSE) House. C17, extended in C20. Timber framed, weatherboarded, roofed with handmade red plain tiles.*
- **1123798** *PARK FARMHOUSE House. Early C16 or earlier, altered in early C17, C18 and C20. Timber framed, plastered, roofed with machine-made red plain tiles.*
- **1123190** *VINYARD COTTAGE House. Late C17, altered in C20. Timber framed, plastered, roofed with handmade red plain tiles.*
- **1338232** *3 EGYPT FARMHOUSE Late C15 timber-framed and plastered house with cross wings at the north and south ends. A C18 addition was built at the east end of the north cross wing*

7.0 DEVELOPMENT PROPOSALS

- 7.1 The IWWMF comprises a main building, 218m by 254m under a double arched roof, with other buildings around its perimeter (Fig. 4). The IWWMF buildings as a whole will be situated within an area where the ground level has been reduced and thus its roofline will be 10.75m above ground level and not project above existing and new screening woodland.
- 7.2 The only element of the proposed IWWMF development that would project above the existing tree screen would be the Combined Heat and Power (CHP) stack.
- 7.3 To minimise its impact, the stack will be constructed of reflective materials to minimise its visual impact by reflecting back changes in weather and lighting conditions in the local environment; and the IWWMF operations will be controlled to ensure there will be no visible plume. The single IWWMF stack (7 m in diameter) will stand at 58 m above surrounding ground level at a maximum elevation of 108 mAOD.
- 7.4 Photomontages of the stack have been included as Fig. 5.
- 7.5 Woodhouse Farm (A) will be redeveloped and refurbished as parts of the IWWMF works – bringing the currently derelict historic buildings back into beneficial use.

8.0 ASSESSMENT OF THE EFFECTS OF THE PROPOSED INCREASE IN STACK HEIGHT

- 8.1 The following section of the report considers the potential effects of the proposed development on the settings of heritage assets (as it pertains to their heritage significance). The following discussion represents the considered view of ASE.
- 8.2 The landscape in which the IWMF is located is historically rural in character but has subsequently become industrialised/urbanised to degree, with the construction of the garden village at Silver End (originally incorporating and surrounding a metals window factory), the construction of the World War II airfield and the extensive (ongoing) mineral extraction and restoration works. The latter is more prevalent to the north of the site, between the IWMF and the A120. Electricity pylons are present in parts of the study area and the radar mast at Sheepcotes is also prominent from a number of locations. The revised stack height is of an elevation similar to these existing landmarks. In considering the effect of the raising of the proposed height of the stack it is acknowledged that a number of the assets lie within the Zone of Theoretical Visibility (Appendix 2). The change in the stack height by 23m has however only brought an additional three assets into the ZTV, Group L. This illustrates that the degree of change represented by the variation from the permitted stack height (35m) to a revised height of (58m) is not significant. It should also be noted that the model represents a 'worst case' scenario – taking into account major visual barriers (over 8m in height) but not intervening screening, such as hedges buildings and bunds, to be found at eye-level.
- 8.3 In considering the effect of the raising of the proposed height of the stack it is acknowledged that a number of the assets lie within the Zone of Theoretical Visibility; and that the increase in height will increase the degree of prominence for some assets (particularly those in Zone 1 – within 1km). Photomontages showing examples of the stack in the landscape are provided in Fig. 5. However, the significance of the designated heritage assets within the study area, discussed in detail above, can be seen to largely derive from the following factors; their age (survival), associations as groups of assets and architectural value. Many of the assets are working farmsteads so the relationship with the landscape is less specific/more generic than it would be if they were part of a designed landscape. The wider rural setting is acknowledged as being visually appealing but does not particularly contribute to the significance of the heritage assets; i.e., the character of the landscape is incidental to the significance of the assets rather than integral to it. Accordingly the impacts on this wider setting arising from the increase in stack height will not represent a major effect on those factors from which they derive their significance.
- 8.4 For the purposes of this assessment likely effects of a 35m or 58m stack on the designated heritage assets, unless otherwise indicated, are considered to be largely the same. Impacts have been defined as:
- Neutral – adverse/beneficial effects cancel each other out and/or no effect
 - Negligible - No discernible change to the setting of the asset as it pertains to its significance
 - Minor Adverse - A slight change in the setting of the asset as it pertains to its significance

Zone 1 (within 1km)

- 8.5 The heritage assets within Zone 1 are potentially those most affected by the proposed development, given their proximity to it.
- 8.6 Woodhouse Farm (Group **A**) is situated within the IWMF consent area. The key components of the historic setting and significance of the heritage assets at Woodhouse Farm (**A**) can be summarised as follows:
- Age and architectural value as a group;
 - Group value of the range of assets present illustrating the continuity of the use of the site through the medieval to post medieval periods;
 - Relationship to water-course feeding the moat;
 - Continuing relationship to the historic road system to the south.
- But:
- The current derelict condition of the building is considered to detract from the setting of this group of assets.
- 8.7 The IWMF scheme, as consented, will change the permitted road access to Woodhouse Farm, i.e. access to and from Woodhouse Farm will be via the IWMF access road. The existing access via Woodhouse Lane, will cease to be used in the future for vehicles; however, this historical route will be retained as a public footpath. This change is not considered to be significant and has been accepted in the current IWMF permission. The IWMF scheme also includes proposals for the re-development and refurbishment of the Woodhouse Farm complex. Under IWMF's planning permission ESS/34/15/BTE, planning condition 64 relates to the proposed redevelopment and refurbishment works that will be undertaken at the Woodhouse Farm Listed Building complex and will be subject to building recording/ Listed Building consent. A planning application for Listed Building Consent for the proposed redevelopment and refurbishment of the Woodhouse Farm complex was submitted to Braintree District Council on GFC's behalf by the Johnson Dennehy Planning Partnership (JDPP).
- 8.8 The stack will (as before) be visible from Woodhouse Farm and the proposed variation in stack height. The stack will be visible from the Woodhouse Farm complex but will not impact on the key factors from which this group of assets derives its significance. Given the current physical setting and condition of this group of assets the proposed reuse and landscaping associated with the IWMF are an improvement, and thus are considered to mitigate any overall change. The overall effect of increasing the height of the stack is considered **Neutral** and thus will lead to less than substantial harm on the designated asset.
- 8.9 Allshot's Farm (Group **B**) is situated to the east of the proposed Stack outside the IWMF consent area. Other (non-designated) buildings are present in the general area including a number of modern buildings. The area is generally used for light industrial purposes; including a scrapyards and car repair works. The key components of the historic setting and significance of the heritage assets at Allshots Farm (**A**) can be summarised as follows:
- Age and group value of the historic buildings;
 - Farmhouses outlook is towards the agricultural buildings and the barn opposite;
 - Areas of wood, grassland and a pond are present to the south of the farmhouse, these are part of the historic layout of the farm.
- 8.10 Glimpsed views of the proposed Stack may occur from this complex but will not disrupt any of the factors from which this group of assets derive their significance. Given the extant industrial use of much of this site the addition of the stack is not considered to

represent a significant change and thus the overall effect of increasing the height of the stack is considered to be **Negligible**.

- 8.11 Sheepcotes Farmhouse (**122600**) is situated on the edge of Zone 1 to the west of the proposed Stack outside the IWMF consent area. Non-designated modern farm buildings are located to the south and tree lined boundaries separate and screen the farm from the former airfield. The latter site comprises hard-standing, a World War II 'T2' Hanger and the prominent radar mast which is almost directly behind the farmhouse as viewed from the road.
- 8.12 The key components of the historic setting and significance of the heritage assets at Sheepcotes can be summarised as follows:
- Age of the historic building;
 - Continuity of land-use/settlement from the medieval period through to the present.
- 8.13 Glimpsed views of the Stack may occur from this complex but will not disrupt any of the factors from which this group of assets derive their significance. Given presence of the radar mast looming over the farmhouse the addition of the stack is not considered to represent a significant change and thus the overall effect of increasing the height of the stack is considered to be **Negligible**.

Zone 2 (Between 1km and 2km)

- 8.14 Silver End lies to the south-west of the IWMF. Much of the village is located within a Conservation Area which includes two groups of Grade II buildings; parts of a 1920s Modernist Movement Estate along Silver Street (**C**) and the historic Boars Tye Farm (**D**). The village is focussed inwards; the longest views are generally along the roads within the village and into/across public open space. Whilst the village became economically linked to the nearby farms when the Development Company and Silver End Trading Society were established in the 1920s this is not reflected visually with limited views/visibility to the surrounding countryside. The key components of the historic setting and significance of the heritage assets at Silver End can be summarised as follows;
- Individual architectural value of the assets;
 - Group value of the assets as a designed village of the era;
 - Links between public open space, residential and industrial space;
 - Social hierarchy of space as demonstrated by design/location of angers and workers housing;
 - Integration of the historical rural buildings and land-use (Boars Tye) into the more recent designed village;
 - Good overall survival of the historic village with the pockets of more recent housing sensitively designed.
- 8.15 The stack will not disrupt any of the key factors from which Silver End gains its significance, and impacts of increasing the height of the stack on its setting are therefore considered **Neutral**.
- 8.16 Bradwell Church and Hall (Group **E**) *also lie outside the zone of visibility*. The key components of the historic setting and significance of the heritage assets at the Church/Hall complex can be summarised as follows:
- Age (survival) of the historic buildings;
 - Group Value;
 - Links via historic road system to nearby settlements.

The stack will not disrupt any of the key factors from which these assets gain their significance and impacts of increasing the height of the stack on setting are therefore **Neutral**.

8.17 Rivenhall Place (Group **F**) is situated to the south of the proposed stack and east of Silver End, between it and Rivenhall village. The group comprises an imposing Grade II* 16th-18th century house (**1122598**) standing in its own grounds with a stream enlarged to form a lake and approached by a 3 arched brick bridge across the lake (**1338253**). The key components of the historic setting and significance of the heritage assets at the Rivenhall Place complex can be summarised as follows:

- Age (survival) of historic buildings;
- Architectural value of the historic buildings;
- Group Value of the assets;
- Private space focussed on the mansion and parkland, designed to be separate from the agricultural land around it;
- Key vistas lay within the parkland, for example over the lake;
- Belts of trees restrict views into and out of the park.

8.18 Whilst glimpsed views of the proposed Stack may be visible from this complex and thus a degree of visual impact can be anticipated the focus of these assets is inwards to the private space rather than outward to the countryside. As the stack will not disrupt any of the key factors from which these assets gain their significance, impacts of increasing the height of the stack on setting are therefore **Negligible**.

8.19 Porter's Farm (**G**) lies to the south-east of the proposed Stack and east of Rivenhall Place (**F**). The group is situated on the roadside with woodland on three sides. The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value of built heritage and archaeological assets;
- Survival of historical documentation.

Again, whilst there may be some glimpsed views of the Stack, it will not disrupt any of the key factors from which these assets gain their significance; impacts of increasing the height of the stack on setting are therefore **Negligible**.

8.20 Rook Hall (**1170991**) is situated to the south-east of the Stack and situated on the level ground of the plateau and has an outlook with little screening towards the Stack. The key components of the historic setting and significance of the asset can be summarised as follows:

- Age/survival of the building

There may be distant views of the Stack from this asset, although these will not disrupt any of the key factors from which these assets gain their significance; impacts of increasing the height of the stack on setting are therefore **Slight Adverse**.

8.21 Gosling's Farm (**1337591**) is situated to the north-west of the Stack on the north side of Sheepcotes Lane, which is lined by tall trees and hedgerows. The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value (association) of the group of buildings.

There are a number of prominent electricity pylons in this area, which visually intrude on the rural landscape. There may be glimpsed views of the Stack from this asset although these will be limited by the permanent screening mound of the quarry and it

will not disrupt any of the key factors from which these assets gain their significance; impacts of increasing the height of the stack on setting are therefore **Negligible**.

- 8.22 Rolph's Farmhouse (**122601**) is situated to the west of the proposed Stack and north-west of Silver End. The key components of the historic setting and significance of this group of assets can be summarised as follows:

- Age (survival) of the building.

This asset lies outside the Zone of Theoretical Visibility and the stack will not disrupt any of the key factors from which these asset gains their significance; impacts of increasing the height of the stack on setting are therefore **Neutral**.

- 8.23 Curd Hall (**1123140**) is located to the north-west of the proposed Stack, between Cut Hedge Lane and the river, which lies to its north. It is situated in a relatively isolated location, accessed down a long private track off Cut Hedge Lane. The key components of the historic setting and significance can be summarised as follows:

- Age (survival) of the building;
- Architectural value;
- Historical documentation.

Whilst there may be some glimpsed views of the Stack it will not disrupt any of the key factors from which these assets gain their significance impacts of increasing the height of the stack on setting are therefore **Negligible**.

- 8.24 Bower Hall with Outbuildings (**1338254**) is situated to the south of the proposed Stack and south-east of Silver End, and was one of the farms purchased when the latter was developed. The key components of the historic setting of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value (association of the buildings);
- Group value (association of archaeological and built heritage assets);
- Association with the development of Silver End.

This group of assets is screened by trees and vegetation and, whilst there may be some views of the Stack, it will not disrupt any of the key factors from which these assets gain their significance; impacts of increasing the height of the stack on setting are therefore **Negligible**.

- 8.25 Ford Farm (**1122614**) lies to the south of the proposed Stack and south-east of Rivenhall Place, on the western side of the stream that runs through the grounds of the latter. It lies on level ground and is not visible from the road, being screened by trees. The key components of the historic setting of this group of assets can be summarised as follows:

- Age (survival) of the buildings;
- Group value (association of the buildings);

Whilst there may be some glimpsed views of the Stack it will not disrupt any of the key factors from which these assets gain their significance; impacts of increasing the height of the stack on setting are therefore **Negligible**.

Zone 3 (2km to 3km)

- 8.25 Whilst it is acknowledged that there are some 64 individual Designated Heritage Assets within this zone and that 53 of these lie within the Zone of Theoretical Visibility it is considered that the distance of these assets from the Stack render any effect on them as **Negligible**. The revised stack height of 58 m above surrounding ground level is of an elevation similar to existing landmarks such as the Hangar mast and the network of high voltage overhead electricity pylons which are around 50 m above surrounding

ground level (e.g. Fig 5) – thus the degree of change to the existing landscape around these assets is slight.

9.0 CONCLUSIONS

- 9.1 This assessment has considered impact on setting of Designated Heritage Assets as it pertains to their significance, arising from the proposed variation of the height of the IWMF stack (which has planning permission), by 20 m to a revised maximum height of 58 m above surrounding ground level (108 mAOD). A separate Landscape and Visual Assessment has been undertaken by Hankinson Duckett Associates to consider issues such as landscape character and views.
- 9.2 A total of 105 Designated Heritage Assets have been identified within a 3km Study Area, the majority of which lie over 1km away from the IWMF. The heritage assets are largely rural in character, being farms and country estates, although the landscape in which they are situated has a mixture of rural and industrial land-uses.
- 9.3 A staged assessment, as outlined in national guidance (Historic England 2015) has been undertaken in relation to these assets:
- identified the key components of their setting that make a contribution to their significance; and
 - assessed the effects of the proposed development, whether beneficial or harmful, on that significance.
- 9.4 The landform around the Site forms a flat plateau at about 50 m Above Ordnance Datum, so even vegetation of small stature has the ability to restrict views. There are limited elevated viewpoints from which to oversee the Site. Whilst the Stack will, theoretically, be visible from some distance the heritage assets (Listed Buildings) benefit from intervening screening offered by buildings, agricultural barns, hedgerows and woodland area and the orientation and outlook of the Listed Buildings reduce direct views of the stack. The physical design aims to reduce the prominence of the structure by the means of reflective cladding and absence of a plume. Within the wider landscape the revised stack height of 58m above surrounding ground level is of an elevation similar to existing landmarks such as the Sheepcotes Hangar mast and the network of high voltage overhead electricity pylons which are around 50 m above surrounding ground level which is also considered likely to reduce its prominence.
- 9.5 The importance of the designated heritage assets within the study area can be seen to largely derive from the following factors; their age (survival), associations as groups of assets and architectural value. Many of the assets are working farmsteads so the relationship with the landscape is less specific/more generic than it would be if they were part of a designed landscape. The wider rural setting is acknowledged as being visually appealing but does not particularly contribute to the significance of the heritage assets; i.e., the character of the landscape is incidental to the significance of the assets rather than integral to it. Accordingly, impacts have been identified as **Neutral/Negligible** to **Slight Adverse**.
- 9.6 The zone of theoretical visibility (Appendix 2) for a 35m stack (as permitted) and the proposed modification to 58m only brings an additional three heritage assets into the ZTV illustrating that the degree of change is not significant. Accordingly, the likely effects of a 35m or 58m stack on the designated heritage assets are considered to be largely the same, thus the change in impact is **Neutral**.

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