



Lower Thames Crossing consultation: response from the Essex Society for Archaeology and History

1. Introduction

The membership of the Essex Society for Archaeology and History (ESAH) has, since its foundation in 1852, embodied the greatest concentration of expertise on the archaeology and history of Essex. Consequently the Society is well placed to comment on the cultural heritage/historic environment and landscape impacts of the Lower Thames Crossing (LTC). The inclusion of cultural heritage, together with landscape and geology in the Preliminary Environmental Information Report (PEIR) and Environmental Impact Assessment Scoping Report (EIA) is welcome. The presentation in those documents of certain key historic environment data on designated sites, cropmarks and other information derived from the Historic Environment Records, together with initial thoughts on impacts and mitigation is useful. However, there are significant flaws and omissions in the way the cultural heritage/historic environment is treated, in both the PEIR and EIA, which need to be rectified. The views of ESAH are set out below; some key general points are considered first, followed by a selection of specific points.

2. General Points

2.1 Despite the considerable body of data assembled in the PEIR and EIA, nowhere is there any clear appreciation that the archaeological work necessitated by the construction of the LTC will take place in one of Britain's key archaeological landscapes. The proposed route of the LTC cuts across the core of the Greater Thames Estuary (Williams and Brown 1999, Essex County Council et al 2010). The archaeological and environmental evidence incorporated into the areas geological deposits are the corner stone for our understanding of the British Palaeolithic. The estuary has for millennia been a major route way to and from the continent and its archaeology is crucial to our understanding of interaction with continental Europe (e.g. Bradley 2007, 16-21; Needham, 2009). For later periods proximity to London is a key factor. Accordingly, the archaeological evidence from around the Thames Estuary is of particular importance for many, one might even say most periods (e.g. Whittle et al 2011, 348-83, Yates 2011, 20-28, Yates 2012, Evans et al 2016, 477-525). The centrality of the excavations at Mucking, which lies to the east of the route of the LTC, to the understanding of many significant archaeological issues exemplifies this (e.g. Evans et al 2016). Accordingly the extensive archaeological investigations which will be required to mitigate

damage and destruction caused by the LTC will make a very significant contribution to our knowledge and understanding. Indeed it is reasonable to suppose that the results of such work will be important not only locally, but nationally and internationally.

2.2 Currently neither the PIER nor EIA recognise this in any clear and explicit way. In part this is probably the result of the dominance, when considering mitigation, of the need ‘... to mitigate physical impacts through the principle of ‘preservation by record’” to quote a phrase often used in the PIER. Preservation by record has indeed been a core part of archaeological mitigation from at least the introduction of PPG16 in the early 1990s. Whilst it remains an important underlying principle, its drawbacks are now well recognised (e.g. Vander Linden and Webley 2012, 4) it is clear that development led fieldwork should aim to increase understanding of past societies and landscape development. That is why the wording of the National Planning Policy Framework, when considering historic environment/cultural heritage issues, focuses on significance and enhanced understanding, rather than preservation by record. Consequently mitigation of the historic environment impacts of the LTC, must aim to deliver enhanced understanding of the areas past, at a scale which matches the destruction that the LTC will entail. By so doing the archaeological studies resulting from the LTC can make a very significant contribution to our knowledge. That should be made plain in both the PIER and EIA and be a key part of how the archaeological mitigation is presented to the wider public as part of the reasoned justification for the LTC.

2.3 Crossing as it does coastal marshes, gravel terraces, clay lowlands and river/stream valleys the LTC provides a good opportunity to deliver an integrated investigation of the landscape as a whole (Healy 2012, 21). Indeed integration will be a key theme in delivering an effective mitigation of cultural heritage/historic environment impacts. As has been noted elsewhere (Brown, 2014, 197; Evans et al 2016, 508) an earlier road scheme in south Essex provides a pioneering attempt at just such an integrated approach (Wilkinson 1988). The LTC has the opportunity of demonstrating what can now be achieved through a well thought out, properly resourced, programme of 21st century fieldwork, carried out as part of a mitigation strategy in advance of a major road scheme.

2.4 Whilst the PIER and EIA have usefully identified a range of known archaeological sites affected by the LTC, it is apparent that archaeological sites and deposits are likely to be present elsewhere, including in the apparently archaeologically blank areas crossed by the route of the LTC. There are very significant areas of cropmarks within the area, but it should be noted that even where dense cropmarks are known, they will only represent a part of the archaeological features actually present. Furthermore, the absence of cropmarks is by no means likely to be an indication of a lack of archaeological features; that is generally true and maybe particularly so in the area affected by the LTC (Ingle and Saunders, 2011, 81). Clearly extensive evaluation will be required, and trial trenching will be a prominent and essential component of evaluation, perhaps particularly, in areas for which cropmark evidence is not available. The scale, number and form of trial trenching must be carefully considered to ensure adequate recovery of archaeological information (e.g. De Clecq et al 2012, 46-47). Furthermore, it is now apparent that the simple application of routine evaluation techniques will not deliver an effective understanding of potential impacts and appropriate mitigation. Accordingly trial trenching should be supplemented by a suite of techniques tailored to the requirements of this particular archaeological landscape (Vander Linden and Webley 2012, 5; Bradley et. al. 2016, 30-33).

2.5 Such is the significance and complexity of the archaeological landscape traversed by the LTC it is essential that the full field evaluation of the route is completed and submitted prior to any Development Consent Order being granted. This will ensure that a fully informed decision is made and a properly considered cultural heritage/historic environment mitigation strategy developed.

3. Specific Points

3.1 The setting of the Neolithic causewayed enclosure at Orsett, a Scheduled Ancient Monument, will be severely affected by the LTC. The visual effects will be very marked, instead of a largely rural setting overlooking a sequence of small valleys the causewayed enclosure will be flanked by roads and the view across a valley will be replaced by a major road running on an embankment. In addition, a range of archaeological remains will be, or are likely to be, affected by the development. These, besides their intrinsic interest, are pertinent to the setting and significance of the Scheduled Monument. A key impact will be the destruction of a putative Long Mortuary enclosure about 1km west-south-west of the Causewayed Enclosure (Strachan 1996; Ingle and Saunders 2011, 21). In addition the alluvial and colluvial deposits in the valley of the small stream south of the causewayed enclosure will be affected by the main route of the LTC whilst similar deposits in smaller dry valleys west and east of the Causewayed enclosure will be affected by link roads. These landscape elements are essential components of the setting of the Causewayed enclosure (Hedges and Buckley 1978, 221). The colluvial and alluvial deposits in all these valleys will require careful investigation and sampling to understand the nature of the deposits, their relationship to human activity and to recover any environmental or artefactual evidence.

3.2 The LTC runs through an area critical to our understanding of the later Bronze Age in Britain, particularly with regard to the close ties with adjacent parts of continental Europe at that time (e.g. Bradley et al 2016, Champion, 2014, Clark 2009, Lohoërf and Talon 2017, Yates 2012). The Mucking excavations with their Middle Bronze Age field system and two 'Springfield Type' enclosures lie to the west (Evans et al 2016) and the similar 'Springfield Type' enclosure west of Orsett (Ingle and Saunders, 2011,83) lies close to the planned route of the LTC. It is inevitable that the archaeological fieldwork in advance of construction will reveal a range of archaeological sites of this period; the recent excavations at Mill House Chadwell St Mary (Archaeological Solutions 2017) are an example of what may be expected. Furthermore, LTC runs through a great concentration of finds of later Bronze Age metalwork, both hoards and individual objects (e.g. Brown 1996, Yates 2012). The investigation of this material is of great importance for understanding the nature of contemporary settlement in this area, and must play a significant part in the archaeological fieldwork carried out as mitigation of the LTC. This will require specific techniques, notably metal-detector survey, targeted at particular locations (e.g. Bradley 2017, Bradley et al 2016, 32-3, Brown, 1998, 15-17, Yates and Bradley 2010).

3.3 It is likely that the cropmark rectilinear enclosures, trackways and associated field systems, of the scheduled monument east of Orsett, together with the rather similar cropmarks west of Orsett, are likely to be of later Iron Age and Roman date. They are comparable to the evidence from these periods revealed by the excavations at Mucking. A large part of the Scheduled Monument will be destroyed by the LTC and the cropmarks east

of Orsett will be affected by the link road running north from the A13. The investigation of these complexes, together with others elsewhere, such as the rectilinear enclosures adjacent to the Chadwell St Mary Long Mortuary enclosure will enhance our understanding of Iron Age and Roman settlement patterns (e.g. Evans et al 2016, 479-525; Medlycott and Atkinson 2012).

3.4 Such sites are of course inherently likely to be multi-period, and Saxon settlement and cemeteries are one thing that will certainly be encountered in any large scale archaeological investigations along the line of the LTC. This is demonstrated by the excavations, at Barringtons Farm (Milton, 1987), Ardale School (Wilkinson 1988), Orsett Cock, (Carter 1998) Orsett Causewayed Enclosure (Hedges and Buckley 1985) and Mill House, Chadwell St Mary (Archaeological Solutions 2017). The elucidation of the Saxon settlement and economy in this area is particularly crucial given the exceptional importance of the evidence from Mucking (e.g. Hamerow 1993; Hirst and Clark, 2009; Rippon, 2012, 105), and is likely to add significantly to our understanding of the first few centuries after the end of the Roman empire. Later Saxon settlement may prove more elusive, locating and studying it will be important. There are a number of ways in which this may be addressed, radiocarbon dating of otherwise undated features should be considered especially where they form part of possible structures, this approach has greatly extended our understanding of later Saxon settlement in Essex and elsewhere (Rippon 2008 and 2012). In addition targeted use of metal detector survey will be important in identifying settlement of this period when metal artefacts are likely to be more common than, for instance, pottery, and may well be present in the topsoil or topsoil/subsoil interface rather than cut features (e.g. Gregory and Rogerson 1984; Major 1998).

3.5 The area crossed by the LTC has been at the forefront of study of the origin and development of field systems (e.g. Yates 2007) particularly with regard to change and continuity from the Roman, period through the Saxon and medieval periods down to the present day (e.g. Drury and Rodwell 1980, fig. 22; Wilkinson, 1988, 126-8; Rippon 1991; Hunter 2003). This issue must be an integral part of the archaeological work arising from the LTC from the outset. The correct alignment of evaluation trenches and the features they contain will be of considerable importance (Rippon et al, 2015, 149-50, 332). The rectified cropmark plots, and the relationship between the cropmarks, features in the evaluation trenches and main excavations will be essential to investigate landscape development. It would also be imperative to consider the relationship (or lack of it) of the cropmarks and excavated features with boundaries on the 1st edition OS map (Rippon et al, 2015, 332).

3.6 The LTC runs through, a cluster of defensive structures, many of them Scheduled Monuments, such as, Tilbury and Coalhouse forts and their associated gun batteries and anti-aircraft installations. They are a remarkably complete set of monuments illustrating the development of the defence of the Thames estuary and approaches to London. Each is of considerable intrinsic interest, but their group value makes them particularly significant. The LTC runs through the heart of this cluster of monuments, and the utmost care must be taken to protect their settings, particularly in regard to inter-visibility. The use of the flat marshland around these monuments for storing arisings from tunnelling should be a strictly temporary measure. Any permanent raising of the land in such areas would not only seriously affect the settings of these defence sites but would be detrimental to the historic landscape of the south Essex marshes.

3.7 With regard to what is said in the paragraphs above it will be apparent that, when considering new planting, for enhancement of, or mitigation of adverse effects to, the natural environment and landscape, an integrated approach to the natural and historic environment will be essential. That will enable to planting to reflect, conserve and enhance the remarkable historic landscapes of south Essex. Given the importance of understanding the history and nature of landscape development in the area affected by the LTC, it will be important to maximise the recovery of environmental data wherever possible. Particularly important will be the investigation of sequences in marshland and valley bottoms/slopes. This has been touched upon in regard to the Orsett Causewayed enclosure (3.1 above). The environmental sequence in the Mar Dyke valley is well known (Wilkinson 1988; Murphy 1993) and further investigation of those deposits will be of considerable value. It is also important to realise that significant environmental sequences will be present even in quite slight and seemingly unremarkable valleys (e.g. Brown and Germany 2002). A targeted programme of investigation and sampling of these landscape features along the line of the LTC should form an important part of the investigations.

Nigel Brown, BA, MCIfA, FSA, FSA Scot, President of the Essex Society for Archaeology and History 14, The Chase, Boreham, Chelmsford, Essex, CM3 3DY

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