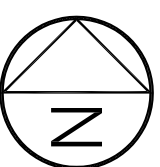


KNIGHT'S HILL, KING'S LYNN

DRAFT RED LINE PLAN




























SCALE @ A3: 1:5000 DATE 09/06/15



Notes

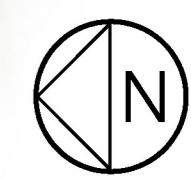
1. Senior football pitch
2. Two full size tennis courts
3. Community orchard
4. Allotments with parking
5. Parking for visitors to Reffley Wood
6. Protected hibernacula areas

Key

	Site boundary		Location of community facilities		LAP LEAP (L) NEAP (N)
	Residential development blocks		Vehicular circulation		Balancing ponds
	Primary building frontage		Potential bus / emergency access only		Swales / Culverts
	Secondary building frontage		Potential emergency access only		Existing ponds
	Landmark / gateway buildings		Bus stops		Footpath / cycle greenways
	Existing public rights of way		Hard landscaped squares		Pedestrian access to Reffley Wood
	Suggested 2.9km 'Dog Walking' route		Green squares		Existing Reffley Wood footpaths
			Traffic calming measures		Retained trees and vegetation
					New trees and Landscaping/ Ecological Mitigation Zones
					Bunding
					Acoustic fencing (along A149)
					Bronze Age Barrow



KNIGHT'S HILL, KING'S LYNN
 DRAFT MASTER PLAN
 SCALE @ A3: 1:5000 DATE 09/06/15
 DWG. REF. CS053683/02E



CAPITA SYMONDS

24th June 2013

Mr Richard Drake
Senior Planner (Minerals & Waste Policy)
Norfolk County Council
County Hall
Martineau Lane
NORFOLK
NR1 2SG

Dear Mr Drake

Land at Knight's Hill, King's Lynn

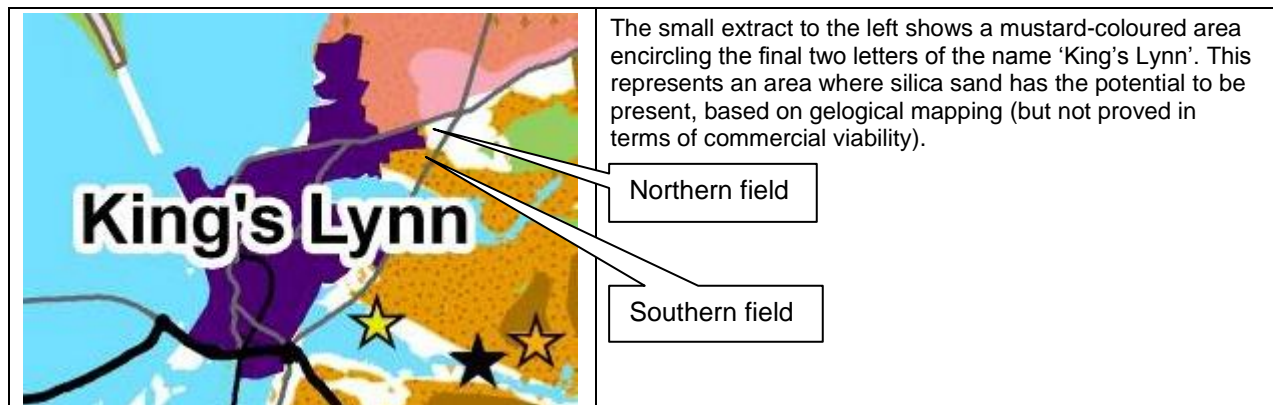
I am writing to you following your telephone discussion of 26 April 2013 with Paul Belton of Januarys concerning the potential development of land at Knight's Hill, on the north western edge of Kings' Lynn.

The attached 'red line' plan shows a site between the north east edge of Reffley Wood and the King's Lynn by-pass (A149) where our client would like to develop housing, in line with the Borough Council's Adopted Local Development Framework Core Strategy, 2011. The site comprises two fields, one of which (the more southerly of the two) is wholly within an area where silica sand may be present, and which is safeguarded under the Norfolk Minerals and Waste Local Development Framework (NMWLDF). The more northerly of the two fields includes a small portion which is also within the safeguarded area.

While the presence of silica sand is not confirmed, I understand that the County Council's concern relates to the potential sterilisation of any underlying mineral resource. Our client's view is that due weight needs to be given to the commercial (as well as technical) viability of whatever resource may be present beneath the site, in order to establish whether or not any potential for sterilisation raises significant issues.

As well as being shown on the 'red line' plan, our client's site is indicated on the following extract from the NMWLDF Key Diagram.

Extract from Minerals Plan Key Diagram: Safeguarding Minerals Sites



Source: Norfolk Minerals and Waste LDF, Key Diagram

Planning, Environment & Design

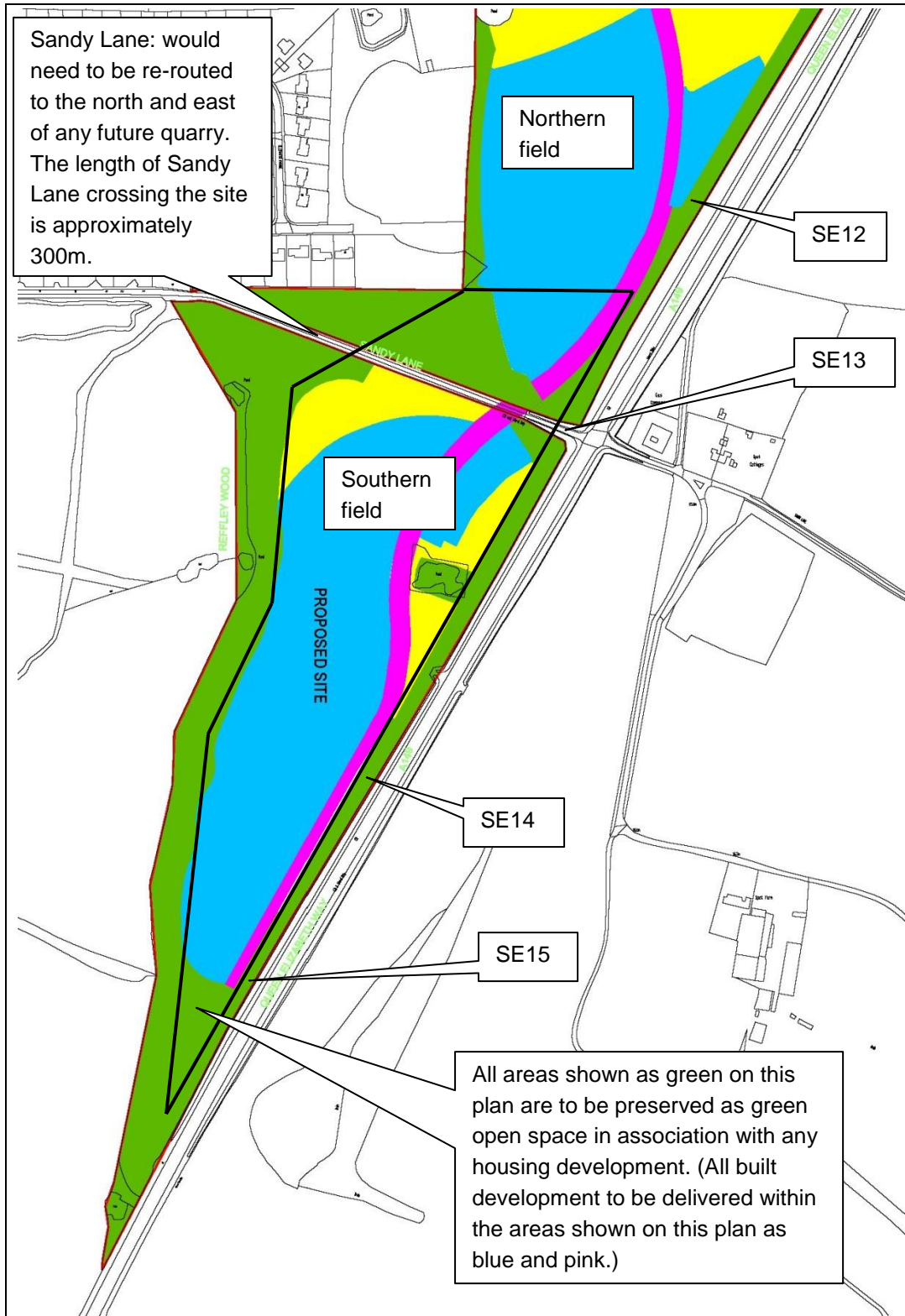
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CAPITA SYMONDS

The (probably) exploitable area within the minerals safeguarding area is about 7.5ha (and no more than 8.0ha), as illustrated on the plan below, and the depth of exploitable sand appears to be no more than 5m, as discussed in more detail below.

Extract from Site Parameter Plan, with potential minerals extraction area delineated by black line. (SE12 to SE15 show locations of historic boreholes)



Source: Capita Symonds, draft of emerging planning application

CAPITA SYMONDS

The ecological and archaeological studies undertaken in connection with our client's proposed application for residential development have identified a need for 'green buffer' areas along the edge of Reffley Wood, and along the edge of the A149. We have for the purposes of this letter assumed that the same general need for set-aside would apply to any minerals application (though we have allowed the exploitable area to edge into some parts of the buffer for the purposes of this letter, as can be seen). There are sizeable trees on the edge of Reffley Wood and significant Root Protection Areas therefore exist, within which any significant excavation could not be supported unless the trees were to be removed. There are also established habitats of protected species along this boundary which would also need to be preserved. Although the viability of the mineral resource would be increased by extending any future quarry westwards through the identified conservation buffer and into Reffley Wood itself, we do not anticipate that this would be feasible given the associated need to clear all or part of the wood. Reffley Wood is an Ancient Woodland and also a County Wildlife Site, and therefore enjoys protection. The land also has a high nature conservation value.

We are therefore for the purposes of this letter assuming that whatever silica sand may lie beneath the wood itself must be treated as unavailable for extraction in the context of the potential development of our site.

The plan above also shows the closest existing housing, and there is a general assumption that permission to extract silica sand would not be given within, say, 100m of the nearest property.

The area illustrated within the black line is 7.5ha. For the purposes of estimating potential reserves, we allow for the quarried area to be 7.0, 7.5 or 8.0ha.

Although we have not dug any dedicated trial pits, we are aware (from BGS mapping) that boreholes were drilled when the A149 by-pass was built. These were not drilled for the purposes of estimating sand reserves, and so must be treated with some caution. However, what they showed was as follows. At location SE12 sand was recorded to a depth of at least 3.96m. At SE13 (at the junction between Sandy Lane and the A149, where Sandy Lane is now in cutting), no sand was found. At SE14 sand was recorded to a depth of at least 3.05m. At SE15 it was recorded to a depth of at least 2.44m. (By way of context, the next borehole to the north, outside the safeguarded area, found no sand). We recognise that sand may well have extended below the point at which the boreholes stopped.

However, historic boreholes have also found groundwater at between 3.6 and 5.0m below ground level. Based on the responses that we have received from the Environment Agency in connection with the proposal for residential development, we know that they would require considerable work to be done before they would allow anyone to work minerals below the water table. The proximity of the site to the Gaywood river would inevitably be a material consideration in any such application. During your informal discussion with Paul Belton I understand it was also accepted that given the land is allocated for housing, significant excavations would not be viable as this would sterilise the land, and excavation to a depth greater than, say, 10m (and arguable rather less) would therefore not be appropriate.

The following simple table shows how much sand would be present under a range of assumptions. For the purposes of these calculations we have assumed that there is no overburden above whatever sand is present, meaning that the true figures are likely to be somewhat lower than shown.

	7.0ha	7.5ha	8.0ha
2m depth	140,000m ³	150,000m ³	160,000m ³
3m depth	210,000m ³	225,000m ³	240,000m ³
4m depth	280,000m ³	300,000m ³	320,000m ³
5m depth	350,000m ³	375,000m ³	400,000m ³
10m depth (extending below water table)	700,000m ³	750,000m ³	800,000m ³

CAPITA SYMONDS

A small extraction site close to Leziate depot would, we assume, be more acceptable in policy terms to Norfolk County Council than a small remote site. A remote site at this location would have to be operated as a 'satellite' quarry, 'feeding' Leziate depot by road. In this case this would require the use of a mixture of trunk roads and minor roads. Access to and from any quarry site would almost certainly have to be onto the A148 (to the north) via the northern field, requiring a sealed access road to be built. We do not anticipate that an exit onto the A149 would be acceptable in highway safety terms.

We understand from Sibelco that they have never evaluated the Knight's Hill site as a potential silica sand quarry, and our position is that given the general constraints on the site we do not believe that extraction there would be viable. We therefore support its inclusion in the area allocated to future residential development, and do not consider that the potential existence of silica sand on such a small and constrained site should prevent the land from being developed. We would welcome clarification of your thoughts in light of the additional information provided above.

Yours sincerely

David Knapman
for Capita Symonds Ltd

Tel 01342 333578
Fax 01342 315927
Email david.knapman@capita.co.uk

cc David Parkin, BC King's Lynn & West Norfolk
Paul Belton, Januarys



via e-mail

Mr D Knapman
Capita Symonds (Planning, Environment &
Design)
Capita Symonds House, Wood Street
East Grinstead, West Sussex
RH19 1UU

NCC contact number: 0344 800 8020

Textphone: 0344 800 8011

copies to
David Parkin

Your Ref:

Date: 9 July 2013

My Ref:

Tel No.:

01603 222349

Email:

richard.drake@norfolk.gov.uk

Dear Mr D Knapman

**Residential Development at Knight's Hill, Norfolk
Mineral Planning Authority response to mineral assessment**

This is an officer level response; and is made without prejudice.

Norfolk County Council in its capacity as the Mineral Planning Authority made a response to the request for a Scoping Opinion submitted by Capita Symonds on behalf of the prospective developer of the land at Knight's Hill, King's Lynn.

Mineral Planning Authority noted that:

"The proposal site includes an area of land that is located on an identified mineral resource (silica sand) on the British Geological Survey (BGS) mineral resources map (2004) as amended by the BGS DiGmap-50 dataset (2009), which is defined as a Mineral Safeguarding Area in the adopted Norfolk Minerals and Waste Core Strategy. There is a history of silica sand extraction in close proximity to the site, which raises the likelihood that viable resources may occur on parts of the site."

The Mineral Planning Authority concluded that any prospective developer of the site would need to carry out a mineral safeguarding assessment in order to comply with the requirements of the Norfolk County Council Minerals and Waste Core Strategy Policy CS16, and policies in the National Planning policy Framework.

Continued.../

Capita Symonds, on behalf of the developer, provided a mineral assessment dated the 24 June 2013. The Mineral Planning Authority has the following comments:

The mineral assessment has made use of historic borehole data held by the British Geological Survey) which has indicated a potential area of exploitable silica sand of approximately 7.5 ha. The assessment has made a series of assumptions in terms of areas which are unlikely to be available for extraction as a result of stand off buffers to protect either residential amenity, or environmental assets such as Reffley Wood. The exact distance of any standoff would normally be determined by assessment of potential impacts in a mineral planning application. However, for the purposes of this assessment, the estimates made seem reasonable and proportionate. The assessment also makes an estimate of the maximum likely depth of any mineral working; again as housing is proposed as the final use of this land, this seems to a reasonable and proportionate estimate.

The assessment has also considered other constraints on the site such as highway access. It is noted that the Capita Symonds have been in contact with Sibelco UK, the silica sand operator in Norfolk, and that they have not previously evaluated the site as a potential extraction location.

The Mineral Planning Authority concludes that the mineral assessment complies with the requirements of Core Strategy CS16, and that the prior extraction of silica sand on this site is unlikely to be viable. This is as a result of the constraints both on site and for highways in terms of accessing the processing works. The relatively low quantities of material which could be extracted, if the site is to remain suitable for residential development, are likely to mean that the site is unviable given the level of constraints, regardless of the quality of the silica sand.

The Mineral Planning Authority considers that the proposed residential development at Knight's Hill will not result in the unnecessary sterilisation of safeguarded silica sand. The mineral assessment should be submitted in support of any future planning application on this site.

Yours sincerely

**Richard Drake
Acting Principal Planning and Policy Officer
(Minerals and Waste Policy)**