CYCLING STORAGE AND PARKING

Both pedestrian and cyclists are to be encouraged to use the network of footpaths in and around the LS SSE development. Adequate surface finishes and sub-base specifications for cycling will be agreed with the Planning Department prior to their implementation.

Domestic Cycle Storage

An 8' x 6' timber garden shed is to be provided to each dwelling specifically for the secure provision of cycle storage within the curtilage of each house.

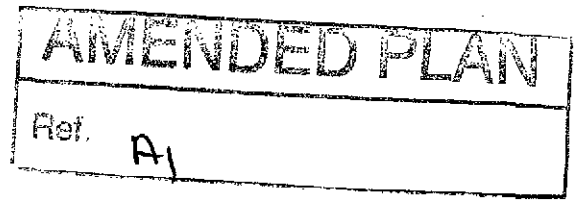
Business Premises

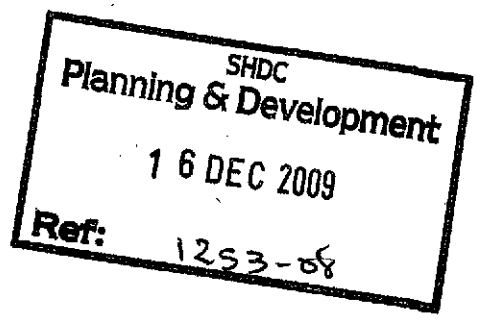
The business premises should each have secure cycle storage for those who work there in accordance with Policy SG15 and Appendix 2 of the Local Plan, together with cycle stands which are convenient for the short-stay needs of visitors.

Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

Appendix Item 12 – Anglian Water

Response to paragraph 8 of C Crew letter dated 2nd February 2009, Planning Application No. H11/1253/08 – Anglian Water Pre-development Report dated 20th February 2009, Ref. 0905/SP29(002)





Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

23 FEB 2009

PRE DEVELOPMENT REPORT PREPARED FOR:

Dr J Harrall

SEARCH ARCHITECTS

89 Gedney Road
Long Sutton
Spalding
PE12 9JU

Land adjacent to 47 Bridge Road, Long Sutton
Proposal: 49 dwellings & 9 commercial units
Your ref: JCB 627

Prepared by: Ms Rosie Tillman
Date: 20 February 2009

If you would like to discuss any of the points in this report please contact me on 01733 414607 or email planningliaison@anglianwater.co.uk.

Important Notice

This report is based on the best current information available. This may change if there is further development in the area or for other reasons. You are advised therefore to renew your enquiry should there be a delay in submitting your application for water supply/sewer connection to re-confirm the situation. The information contained in this report may be used to support an application for planning permission.

Contents

1. Extract of Anglian Water Assets

2. Assets within or close to the boundary of the site

3. Water supply

4. Drainage

5. Budget costs
    - Summary of charges

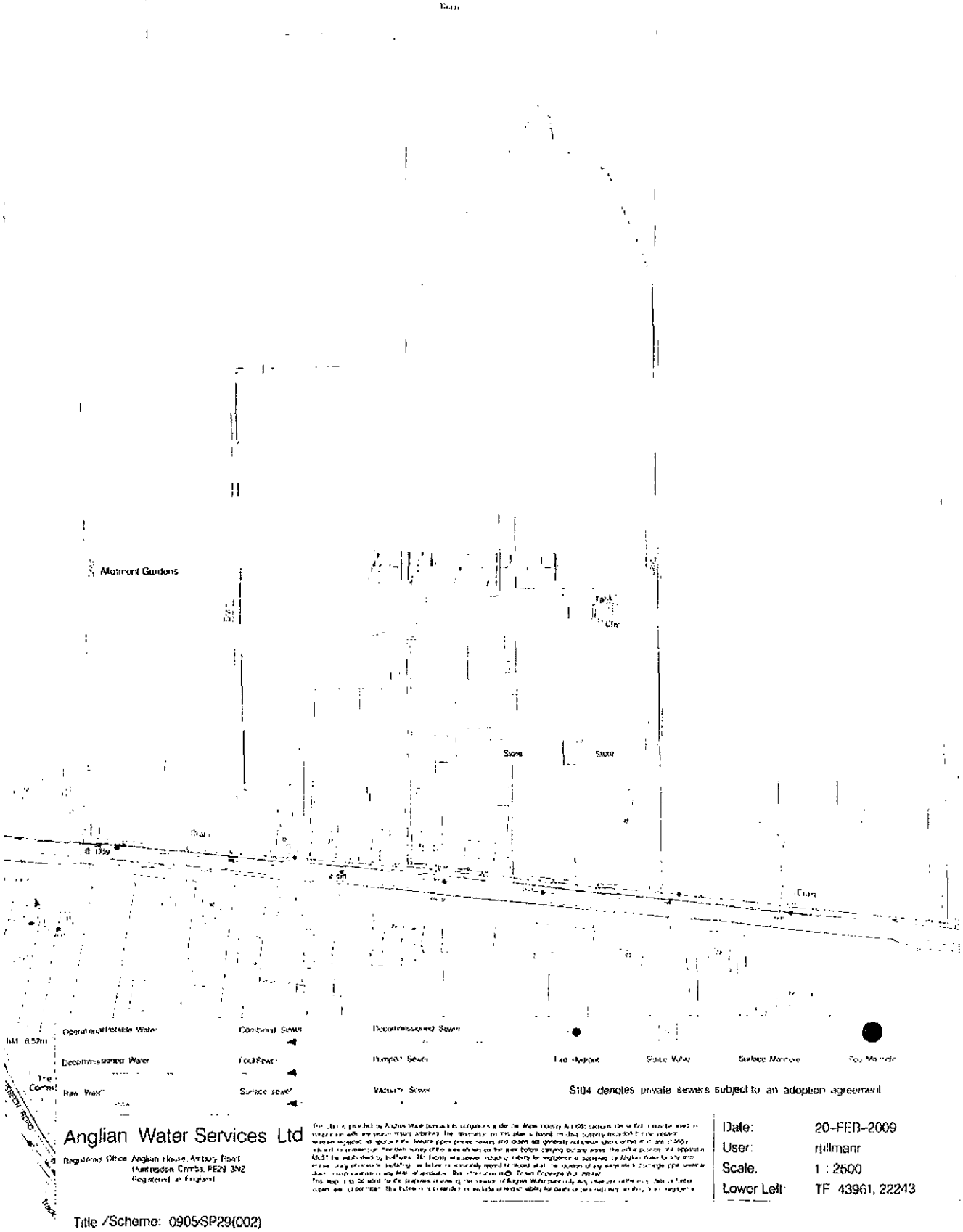
6. Water efficiency

7. Request for refund of pre development enquiry fee form

1. EXTRACT OF ANGLIAN WATER ASSETS

1.1. An extract from our records showing the development site and any Anglian Water assets in the vicinity of the site is attached for your information. However, a more comprehensive plan will be sent direct from our Asset Data Management Centre.

1.2. This plan is provided by Anglian Water pursuant its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but the position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or drain or disposal main or any item of apparatus. This information is valid for the date printed. The plan is produced by Anglian Water Services Limited, trading as Geodesys from Ordnance Survey © Crown Copyright, WU 298492. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other use of the map data or further copies are not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.



Anglian Water Services Ltd

Registered Office Anglian House, Ambury Road, Huntingdon Cambs, PE29 3NZ
Registered in England

Date:	20-FEB-2009
User:	rjillmann
Scale:	1 : 2500
Lower Left:	TF 43961, 22243

Title /Scheme: 0905/SP29(002)

2. ASSETS WITHIN OR CLOSE TO THE BOUNDARY OF THE SITE

2.1. Our records show that there are no public water mains/public sewers or other assets owned by this company within the boundary of the development site. However, you need to be aware that the site may contain private water mains, sewers or other water installations not shown on our records and subsequently are not Anglian Water's responsibility but that of the landowners.

3. WATER SUPPLY

3.1. Information relating to the water supply to this development site was not requested with this enquiry. However, should you require this information at a later date please contact us to discuss on 01733 414690.

4. DRAINAGE

4.1. This site is not currently identified in the Planning Authorities allocation of land for development. The receiving networks/Sewage Treatment Works (STW) has capacity that at the time of writing this report could accommodate this speculative site. However, you need to be aware this may change with the development of other sites in particularly Planning Authority allocated sites that would be served by the network/ STW.

Capacity for speculative sites is not guaranteed.

4.2. For foul water you must make a formal application under Section 106 of the Water Industry Act 1991 prior to commencement of works to obtain the approved method and location of connection.

4.3. Sewers intended for adoption must be constructed in accordance with 'Sewers for Adoption, Sixth Edition' a copy is available from the publisher: Water Research Centre, Frankland Road, Blagrove, Swindon, Wilts. SN5 8YF. Before commencement of any works you are advised to make a formal application under Section 104 of the Water Industry Act 1991. The application form may be downloaded from the website; developer services page, application forms/fact sheets - Section 104 sewers for adoption application form or alternatively we can post to you on request.

Foul

4.4. The foul drainage from this development can be accommodated within the existing sewerage system without the need for any offsite reinforcements and the connection point would be to manhole 1401.

4.5. Domestic foul flows for this site will equate to around 3 litres per second and therefore can be accommodated within the existing sewer network.

Surface Water

4.6. Please note that there are no public surface water sewers within the vicinity of your development and therefore you will need to investigate alternative methods of surface water drainage disposal which is outside the responsibility of Anglian Water and you will need to seek the approval from the local office of the Environment Agency or if relevant the Internal Drainage Board.

Under no circumstances will surface water be permitted to discharge into the foul system.

5. BUDGET COSTS

Please note that any costs indicated in this report are a current estimate and for budget purposes only.

On receipt of applications for supply and connection a quotation will be provided.

A summary of charges 2008/09 is included in this report.

Summary of charges for 2008/2009, a guide to some of our charges from **anglianwater**

Section 1: water connections and infrastructure charges

These charges are applicable from 1 April 2008 to 31 March 2009.

Water connection charges

Per property (including the cost of the meter) for pipes up to and including 32mm diameter. The connection fee includes up to 2 metres excavation in any surface type. Any excavation above 2 metres will be charged at the appropriate rate per linear metre.

Standard connection – boundary box	**£419.00**
Standard connection – boundary box – contaminated land	**£458.00**
Standard connection – internal meter	**£448.00**
Standard connection – internal meter – contaminated land	**£467.00**
Standard connection – 2 connection manifold	**£534.00**
Standard connection – 4 connection manifold	**£975.00**
Standard connection – 4 connection manifold – contaminated land	**£1160.00**
Standard connection – 6 connection manifold	**£1217.00**
Standard connection – 6 connection manifold – contaminated land	**£1509.00**
Standard connection – wall mounted box	**£382.00**
Standard connection – wall mounted box – contaminated land	**£405.00**
Ferrule connection – wall mounted box (developer responsible for excavation and reinstatement)	**£294.00**
Ferrule connection – wall mounted box (developer responsible for excavation and reinstatement) – contaminated land	**£309.00**
Domestic and residential sprinkler connection (joint sprinkler and domestic connection)	**£776.00**
Connections greater than 32mm and up to and including 63mm diameter	**£1609.00**
Connections greater than 32mm and up to and including 63mm diameter – contaminated land	**£1786.00**

Additional charges for excavations longer than 2 metres

Thrust bore: fixed price		**£224.00**
	per linear metre	**£15.00**
Open cut:	part made roads and footpaths per linear metre	**£60.00**
	highway per linear metre	**£101.00**
	verge and open ground per linear metre	**£26.00**

Connections greater than 63mm diameter will be charged on the basis of the work actually involved.

Traffic management charges

Road closure	**£570.00**
Stop/Go board	**£108.00**
Two way traffic lights	**£228.00**
Three way traffic lights	**£343.00**
Four way traffic lights	**£456.00**

Section 1: continued on next page

Abortive visit

Charge per plot/premises for abortive visit where a connection has been requested and the site is not ready	**£131.00**

Infrastructure charges

Standard water infrastructure charge	**£288.00**

Please see infrastructure charges leaflet for more detail.

Note: a 2% surcharge will be applied for any charges paid for by credit card.

VAT information: see section 4

Section 2: wastewater connections and infrastructure charges

These charges are applicable from 1 April 2008 to 31 March 2009.

Wastewater connection charges

Sewer connection vetting and administration fee

Fee for processing and assessment of an application to connect to the public sewer under sections 106-108 of the Water Industry Act 1991. (For the purposes of this charge, a connection will be treated as one connection whether it is for single premises connected by means of a lateral drain or for several premises connected by means of a sewer.)	**£200.00**

Please note: the fee includes the cost of one visit to the site, if that is necessary. If more than one visit is required, a further fee will be payable for each additional visit.

Connection to a vacuum sewer

Charge for making a vacuum sewer connection to an existing pot (including all associated works) per property	**£1511.00**
Charge for making a vacuum sewer connection not involving an existing pot (including all associated works) per property	**£3023.00**

Please note: the above sewer connection administration fee also applies.

Highway drainage connection by Highway Authority (per street)

Fee for approving and entering into an agreement under section 115 of the Water Industry Act 1991 allowing a Highway Authority to connect highway drainage to a public sewer (For the purposes of this charge, a single fee will be payable per street, even though there may be several gully connections in the street.)	**£205.00**

Please note: the fee includes the cost of one visit to the site, if that is necessary. If more than one visit is required, a further fee will be payable for each additional visit.

Building over sewers

Fee for approving to build over or within 3 metres of a public sewer, **where formal consent is granted**	**£273.00**
Fee for approving to build over or within 3 metres of a public sewer, **where no formal consent is granted**	**£162.00**

Further site visits

Fee for extra site visits, per visit	**£61.00**

Section 2: continued on next page

Infrastructure charges

Standard wastewater infrastructure charge	**£288.00**

Please see infrastructure charges leaflet for more detail.

Note: a 2% surcharge will be applied for any charges paid for by credit card.

VAT information: see section 4

Section 3: pre-development enquiries

These charges are applicable from 1 April 2008 to 31 March 2009.

[illegible]

Fee for providing information regarding our ability to supply water and to drain sites for proposed new developments (including an extract from our records showing assets in the vicinity of the development).

Size of development	Water only or wastewater only	Water and wastewater
Up to 10 properties/units	**£193.79**	**£262.30**
11-250 properties/units	**£231.96**	**£326.89**
251 plus properties/units	**£308.30**	**£456.09**

Please note: in some circumstances on site feasibility studies may be required. Where this is the case, the costs of that study will be additional to the above and will be invoiced separately to the Developer.

Note: a 2% surcharge will be applied for any charges paid for by credit card.

VAT information: the above pre-development fees are inclusive of VAT

Section 4: VAT information

As a general rule charges will be zero rated for VAT where construction services/civil engineering services are supplied:

- In the course of the construction of a new domestic dwelling.
- In the course of the construction of certain other qualifying buildings.
- In the course of approved alterations to a listed building.

Charges in respect of construction services/civil engineering services supplied in the course of certain residential conversions, or in the course of renovating certain buildings that have been empty for two or more years, may be taxed at the reduced rate, but only where the work is done wholly within the site of the development.

All work that is not specifically zero rated or taxable at the reduced rate is standard rated.

Included within the above are connection charges, infrastructure charges and capital contributions.

Although VAT is generally applied in the manner outlined above it is not straightforward and its application can vary. If you have any doubts please ask for further information.

Registered Office
Anglian Water Services Limited
Anglian House, Ambury Road
Huntingdon, Cambridgeshire PE29 3NZ
Tel 01480 323000 Fax 01480 323115

Registered in England No 2366656

6. WATER EFFICIENCY

The Code for Sustainable Homes replaced the Ecohomes Standard on 1 April 2007. This code provides guidance on how certain levels of water efficiency can be achieved.

We would encourage you to consider ways in which reductions in water consumption can be achieved so that the impact on this precious resource and the environment can be reduced.

Some areas to be considered:

- Dual flush toilets
- Showers with flow rates in the order of 8-10 litres per minute
- Low/flow/spray taps at Wash hand basins
- Appliances such as washing machines and dishwashers selected for water efficiency as well as energy efficiency
- Efficient pipe work design to ensure domestic hot water appliances (cylinder or combination boiler etc) is located as close as possible to points of use thus ensuring the amount of water needed to be drawn off before hot water is delivered at the required temperature is minimised.
- Water butts/ rainwater collection

anglianwater

REQUEST FOR REFUND OF PRE DEVELOPMENT ENQUIRY FEE

(form to be submitted once water and or wastewater scheme has progressed)

PRE DEVELOPMENT REFERENCE	0905/SP29(002)
COMPANY NAME:	Search Architects
COMPANY ADDRESS:	80 Gedney Road Long Sutton Spalding PE12 9JU
SITE ADDRESS:	Land Adj to 47 Bridge Road Long Sutton
PRE DEV FEE PAID:	£231.96

To be completed by the applicant once water and or wastewater scheme has progressed

AW REFERENCE i.e. work order no. or sewer connection ref no.	
DATE PAYMENT MADE:	

I confirm the above scheme has now been progressed and payment has been made to Anglian Water. I therefore request refund of the Pre Development Enquiry Fee.

Print Name: _____ Signed: _____

Date: _____ Contact Telephone No. _____

Please sign and return completed form to:
Anglian Water, Planning & Equivalence, PO Box 1067, PETERBOROUGH, PE1 9JG

Appendix Item 13 – Affordable Housing Provision

Response to paragraphs 9 and 10 of C Crew letter dated 2nd February 2009, Planning Application No. H11/1253/08

AMENDED PLAN
Rel. A1

SHDC
Planning & Development
16 DEC 2009
Ref: 1253-08

Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

SEARCH ARCHITECTS

RESPONSE TO CHRIS CREW'S LETTER OF 2ND FEBRUARY 2008 – PARAGRAPHS 9 AND 10
RE: PLANNING APPLICATION NO: H11/1253/08

AFFORDABLE HOUSING PROVISION

The Long Sutton SSE concords with SHDC's ***Policy HG – Rural Exceptions***. This it does on each of the prerequisite requirements identified in the Local Plan (Chapter Four, page 61):-

1. Meeting the identified local need for Affordable Housing as stated in South Holland District Council's 'Affordable Housing Delivery Plan' February 2007 and the Council's 'Housing Needs Survey Update 2007' included within the Delivery Plan.
2. Cross Keys Housing Association or another Registered Social Landlord will ensure that the properties remain as Social Housing in perpetuity
3. CABE has described the LS SSE as;

   "In many ways, the sustainable settlement extension for Long Sutton is exemplar and we applaud the Architects commitment to develop a sustainable community"

Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

Appendix Item 14 – Vertical Axis Wind Turbine

Response to paragraph 11 of C Crew letter dated 2nd February 2009, Planning Application No. H11/1253/08

AMENDED PLAN
Ref. A(

SHDC
Planning & Development
16 DEC 2009
Ref: 1253-08

Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

SEARCH ARCHITECTS

FAX COVER SHEET

!Confidential Information!

Attention Jerry Harrall

FAX number 01406 364 471

Description	Noise report LGC Skyrota	
Pages	4	Including cover slip

PAGE 1 of 4

AEL Video
13a Airport Road
Belfast, BT3 9ED

Report on L.G.C Skyrota wind turbine 03/09/08.

Dear Sirs,

I enclose the report sheet for the noise test of the LGC Skyrota Wind Turbine.

This shows a nominal turbine noise at 5mts. However beyond 10mts only the background noise was recorded.

Yours Sincerely,

Stephen McAteer

AEL Video
13a Airport Road West,
Belfast, BT3 9ED.

Tel +44 02890 883555
Fax +44 02890 883539
e-mail aelhire@adt.co.uk

Video

AUDIO/SOUND LEVEL TEST

Client [illegible]	Date: 03-04-08
Location/venue [illegible]	Technician [illegible]
Equipment/unit	Our Ref: 01679
Test unit [illegible]	Serial no. [illegible]

	Up	Down
TEST 1		
Distance [illegible]	Reading 62	61
Comments		
TEST 2		
Distance 10 metres	Reading 53	56
Comments		
TEST 3		
Distance 15 metres	Reading 44	53
Comments		

Approved

CLIENT R. Chadwick

AEL [illegible]

AEL Video
13a Airport Road West,
Belfast, BT3 9ED.

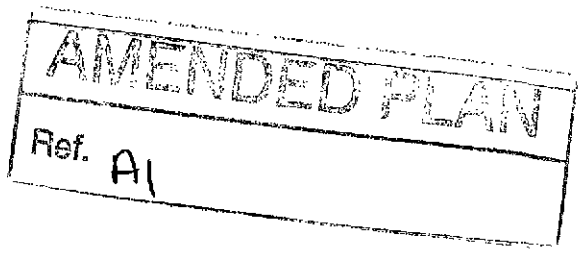
Tel +44 02890 883555
Fax +44 02890 883539
e-mail aelhire@adt.co.uk

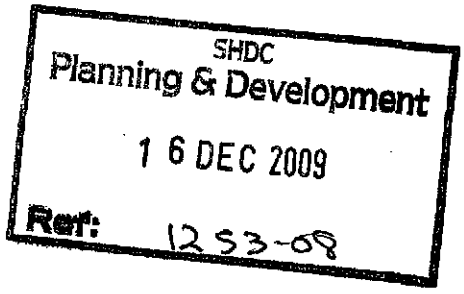
Video

* Sound Level at Turbine typically Background noise only. (54)

Appendix Item 15 – Domestic Waste and Recycling Collection

Response to paragraph 12 of C Crew letter dated 2nd February 2009, Planning Application No. H11/1253/08





Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

DOMESTIC WASTE AND RECYCLING COLLECTION

Waste and recycling collections from the LS SSE are intended to operate in the same way as similar sized residential developments in the District, in so far as their operational timetable.

Unlike other high volume residential developments, waste minimisation is a key characteristic of this projects ethos, both in construction and in occupation. This ethos is informed by evidence based research from some of SEArch's live projects, in which 'zero waste' has been the agenda i.e, *The Long Sutton Work Life Project, Honingham Earth-sheltered Social Housing Scheme* and *Unity Gardens Long Sutton.*

Composting

Putrescible household waste, for home composting is to be encouraged and used on the allotments. Composting bays are to be built into the gardens of each house, as has been implemented at the adjoining development in *Unity Gardens.*

Recycling

In addition to built-in composting bays each dwelling is to have provided, three coloured (blue, yellow and black) proprietary bins, for the recycling of glass, plastic and the separation for landfill waste.

Built within the site curtilage, adjacent the first roundabout is a bespoke depository and collection point for recycling bags.

Landfill

Also adjacent the first roundabout, another bespoke depository area is to be built, this one for landfill collection in black bags.

Zero Waste Policy

A self imposed Zero-Waste Policy for both the LSWLP and CaNeBuZo (Carbon Neutral Business Zone) has seen 100% of all the waste from the construction process diverted from landfill. In occupation the LSWLP has re-categorised the conventional waste stream and now composts all putrescible waste, recycling all glass and plastics with the occasional hard-to-treat waste residual, placed out for kerbside collection.

The benefit of this personal experience has been conveyed to the six households of Unity Gardens with the intention of encouraging a similar waste management strategy.

Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

Appendix Item 16 – Protected Species Report

Response to paragraph 13 of C Crew letter dated 2nd February 2009, Planning Application No. H11/1253/08 – Lapwings Consultants, Ecological Survey, dated March 2009, Ref. 09/02/156

AMENDED PLAN
Ref. A1

SHDC
Planning & Development
16 DEC 2009
Ref: 1253-08

Contact: Dr Jeremy Harrall
SEArch
89 Gedney Road, Long Sutton, SPALDING, Lincs PE12 9JU
Tel. 01406 364646 molearch@searcharchitects.co.uk

ECOLOGICAL SURVEY

PROPOSED SUSTAINABLE SETTLEMENT EXTENSION, BRIDGE ROAD, LONG SUTTON

for

SEARCH ARCHITECTS

Undertaken by
Lapwings Consultants
Banovallum House
Manor House Street
Horncastle
Lincs
LN9 5HF
Tel: 01507 526667

November 2009

Lapwings Consultants Ltd 2009
09/02/156

REPORT OF
ECOLOGICAL SURVEY

PROPOSED SUSTAINABLE SETTLEMENT EXTENSION,
BRIDGE ROAD,
LONG SUTTON,
LINCOLNSHIRE

CONTENTS

1.0 Summary

2.0 Introduction

3.0 Site Description

4.0 Methods

5.0 Results

6.0 Assessment of Nature Conservation Interest

7.0 Potential Ecological Constraints to Development

Figure 1 Site Location

Annex 1 Photographs

1.0 SUMMARY

1.1 Lapwings Consultants Ltd has been commissioned by Search Architects Ltd to undertake an ecological survey of the site of a proposed sustainable settlement extension at a site off Bridge Road in Long Sutton in Lincolnshire. The survey was undertaken on 2 March 2009. This report describes the methods used in the survey, describes the results and makes an assessment of nature conservation interest and outlines potential ecological constraints to the proposed development.

1.2 The site is partly arable land and partly a nursery with buildings, hard standing and areas of rough grassland.

1.3 The site has no statutory nature conservation designation and no such site is adjacent. The nearest statutory site is the Local Nature Reserve of The Shrubberies which is c1.5km north-west at the western side of Long Sutton. The site has no non-statutory nature conservation designation and no such site is adjacent or within at least 1km.

1.4 The habitats of the site are not of significant nature conservation importance, since they are built land, disturbed rough grassland or arable land. None of the plants recorded are of significant nature conservation importance, since they are all common and widespread species of hedges, disturbed ground and grassland in general. No invasive alien plants were seen.

1.5 The site is not of significance for badgers, otters, white-clawed crayfish, reptiles, sheltering or breeding great crested newts, foraging bats and brown hares. The breeding bird community will not be of significant interest since the site is arable or built up, nesting habitats are limited and there are no places where specially protected birds could nest.

1.6 The western and northern boundary drains may be of significance for water voles since the habitat is suitable for this species. The roadside drain along part of the southern boundary is not suitable for water voles therefore it is not important for this species.

1.7 It is not known if the site is of significance for roosting bats.

1.8 There is no constraint to the development of the site from habitats.

1.9 There is no constraint to the development of the site from plants including invasive aliens.

1.10 There is no constraint to the development of the site from badgers, otters, white-clawed crayfish, reptiles, breeding and sheltering great crested newts and brown hares.

1.11 Water voles are a potential constraint but only if the development were to affect the western and northern boundary drains, since the roadside drain along part of the southern boundary is not suitable for this species. Since the development

plans show the retention of a c9m wide easement along the western and northern boundary drains for IDB access, there would be no impact on water voles. Thus, water voles are not a constraint and there is no need for a specific water vole survey to be undertaken nor is mitigation required.

1.12 Breeding birds are a minor constraint but only in the nesting season, which is roughly March to August inclusive. If required by the development, the clearance of trees and shrubs has the potential to destroy any active nests and this would be an offence. In order not to commit an offence, ideally these features should be cleared outside the nesting season. If however this is not possible and work needs to go ahead during the bird nesting season, it can proceed but only after a thorough search of the affected areas has shown that there are no active nests or that the young birds have fledged and left the nest beforehand.

1.13 It is not known if roosting bats are a constraint to the proposed development.

2.0 INTRODUCTION

2.1 Lapwings Consultants is a wholly owned trading company of the Lincolnshire Wildlife Trust with four Directors appointed by the Board of the Trust. The Trust aims to safeguard wildlife and wild places and to promote a better understanding of nature conservation. Lapwings Consultants' service is operated in the interests of good standards of conservation and management and all profits are covenanted to the Trust to enable it to further its aims.

Lapwings Consultants is a member of the Association of Wildlife Trust Consultancies, a body set up by The Wildlife Trusts (Royal Society of Wildlife Trusts), to monitor and advise Trust consultancies on matters relating to professionalism, standards and quality of service.

2.2 The Consultancy has access to a wide range of expertise in key ecological and environmental areas, covering

- Habitat and Species Monitoring and Survey
- Habitat Creation and Restoration
- Wildlife and Countryside Management Plans
- Wildlife Interpretation, Education and Training
- Land Management Advice

2.3 Lapwings Consultants Ltd has been commissioned by Search Architects Ltd to undertake an ecological survey of the site of a proposed sustainable settlement extension at a site off Bridge Road in Long Sutton in Lincolnshire.

2.4 The survey was undertaken on 2 March 2009.

2.5 This report describes the methods used in the survey, describes the results and makes an assessment of nature conservation interest and outlines potential ecological constraints to the proposed development.

3.0 SITE DESCRIPTION

3.1 The site lies on the northern side of Bridge Road in Long Sutton in Lincolnshire. The grid reference of the site is TF 442 225. The site access is directly off Bridge Road via a track between existing houses. The site location is shown in Figure 1.

3.2 To the north there is arable land with field boundary drains. To the east there is arable land, nurseries, other built land, and a tarmac and rough grass track which is bordered on its eastern side by a tall conifer hedge standing over a small dry drain. To the south there are houses and gardens, a garage and Bridge Road, which has further built land on its south side. To the west there is arable land with field boundary drains and an active building site.

4.0 METHODS

4.1 The ecological survey involved a detailed examination of the site and immediate area, in the process recording and mapping the habitats, and recording plants (including invasive aliens), and searching for signs of use by protected species (or making actual sightings) and mapping these where encountered.

4.2 It was not possible to complete the inspection of the site's buildings to determine their actual or potential value for roosting bats.

4.3 A search for existing ecological records for the site and immediate surroundings was undertaken by reference to the National Biodiversity Network (NBN) and MAGIC web sites, and through consultation with Lincolnshire Environmental Records Centre (LERC). Maps and aerial photographs were examined in order to identify ponds or other waterbodies within c500m of the site which could be used by great crested newts for breeding; this was supported by field observations.

5.0 RESULTS

Habitats and Plants

5.1 The site is partly arable land and partly a nursery with buildings, hard standing and areas of rough grassland.

5.2 The northern boundary in the east runs undefined across arable land. In the west the northern boundary is a small wet drain. The drain is c0.75m wide and the water is c0.3m deep; the banks are open and support mown rough grassland of red fescue, cow parsley, cocksfoot, white dead-nettle, hogweed, common ragwort, dandelion, creeping buttercup and broad-leaved dock. The channel supports filamentous algae and small amounts of a water speedwell species, creeping bent, reed canary-grass and bulrush. The eastern site boundary runs partly undefined across arable land and partly it is defined by the edges of buildings and a tarmac track.

5.3 The eastern boundary runs along the top of a small wet drain, which is a continuation of that which forms part of the northern boundary. This section of the drain has 5 culverts. The convoluted southern boundary includes the following: wooden fences; shallow wet roadside drain with rough grassland banks; wire fence; remnant hedge of elder, poplars, horse chestnut and oak; the sides of on-site and off-site buildings; breezeblock wall; and garden hedges with privet, conifers, lilac, small ash trees, ivy and hawthorn.

5.4 Access to the site off Bridge Road is via a bare hard core track. This leads to the nursery complex of buildings and hard standings, with the arable land to the north. The active building site to the west has its site compound (of car park, cabins, spoil mounds and stored materials) next to the access track in the site's south-western corner. There are a few areas of rough grassland around the nursery building complex. These have been disturbed in places and are partly used to store pallets, boxes etc and also hold dumped tree stumps, cut scrub and branches etc. The grasslands are becoming tussocky in places. Typical plants present are common nettle, barren brome, cleavers, cocksfoot, bramble, creeping thistle, ivy, false oat-grass, common ragwort, nipplewort, broad-leaved dock, creeping bent, red fescue, spear thistle, white clover, cow parsley, cats-tail, common couch, Yorkshire fog and perennial rye-grass. Occasionally there are ash saplings, elder bushes, butterfly bush scrub and ornamental plants (tutsan, stinking iris, pendulous sedge). Part of the rough grass in the south fronting Bridge Road used to be a garden and remnant garden plants still occur, such as stinking iris, daffodil, snowdrop, spurge and snow-in-summer. Here also are garden trees and shrubs, including apple, horse chestnut, oak, birch, privet, yucca, yew and spruce.

5.5 Just west of the old greenhouse there is a short length of tall outgrown hedge of blackthorn with elder, ivy, cow parsley, barren brome, common nettle and cleavers. South of the old greenhouse there is a short belt of scrub of coppiced willow, with bramble and common nettle. Scattered around the site on the hard standings of tarmac, earth and concrete there are weeds and ruderal plants, including wall barley, nipplewort, dandelion, daisy, barren brome, perennial rye-grass, common ragwort, common chickweed, willowherbs, spear thistle, hairy

bitter cress, bramble, common nettle, annual meadow-grass, mugwort and creeping thistle, with occasional ash saplings, bramble and butterfly bush.

5.6 The nursery complex has several buildings, as follows:

1. a portakabin serving as offices
2. an in-use packing shed which is part breezeblock and part corrugated asbestos, with a pitched corrugated asbestos roof and concrete floor; it has light roof panel and interior lights
3. an open-sided shed with concrete floor and corrugated asbestos roof
4. a second in-use open fronted packing shed of corrugated metal, corrugated asbestos roof and concrete floor
5. a cold store of brick, concrete floor and corrugated asbestos roof
6. a third packing shed with brick walls, concrete floor and saw-tooth glass roof, with lean-to offices and toilets
7. brick boiler room with chimney and adjacent chemical store, both with a corrugated asbestos roof
8. a large old greenhouse
9. an open fronted and sided store with metal frame and corrugated metal roof
10. the brick base of a former water tower which has an open doorway and which is open inside

5.7 The site has no statutory nature conservation designation and no such site is adjacent. The nearest statutory site is the Local Nature Reserve of The Shrubberies which is c1.5km north-west at the western side of Long Sutton. The site has no non-statutory nature conservation designation and no such site is adjacent or within at least 1km.

Protected Species and Other Fauna

5.8 The wet drains along the western boundary and part of the northern boundary have some potential to support water voles since the habitat is suitable (but no burrows or other signs were seen). The roadside drain along part of the southern boundary is not suitable for water voles since the water is shallow, the drain is partly dry and it is colonised by rats. NBN had a record of water vole from before 1972 from Long Sutton Pit which is c300m west. LERC had no records of water vole for the site or immediate area.

5.9 The wet drains along the western boundary and part of the northern boundary have limited potential to be traversed by otters which are dispersing through the countryside, although there is no habitat which otters could use for shelter. The current distribution of the native white-clawed crayfish in Lincolnshire is restricted to stretches of the upper River Witham near Grantham and it is found nowhere else in the county, although formerly it was. Thus although the site has wet drains on part of its boundary they would support this species. NBN had no records of white-clawed crayfish for the site, immediate environs or the OS 10km grid square in which the site stands (TF 42). NBN had a record of otter from 1960 for Sutton Bridge which is likely to have been made from the River Nene which is at least 3km east of the site. LERC had no records of otter or white-clawed crayfish for the site or immediate area.

5.10 No badger setts or signs of use of the site or immediate area by badgers were seen. NBN had no records of badger for the site, immediate environs or the OS 10km grid square in which the site stands (TF 42). LERC had no records of badger for the site or immediate area.

5.11 No reptiles were seen, and the arable and built site, with its built and arable surroundings, is unlikely to support reptiles. NBN had no records of reptiles for the site, immediate environs or the OS 10km grid square in which the site stands (TF 42). LERC had no records of reptiles for the site or immediate area.

5.12 The arable land part of the site is likely to be used by small numbers of brown hares as part of the wider arable farmland in this locality. The nearest record on NBN of brown hares was from 1973 from Gedney Drove End which is at least 5km north. LERC had no records of hares for the site or immediate area.

5.13 No active birds' nests were seen. One old birds' nest was seen in the tall scrub just west of the old greenhouses. Small numbers of common garden and urban birds are likely to nest on the site, in the scrub and buildings. Small numbers of skylark may nest in the open arable part of the site. No signs of use by barn owls or other specially protected birds were seen (barn owl is reported to be seen hunting over the farmland to the north). Casual records were made of blue tit, wren, mallard and blackbird. LERC had no records of birds for the site or immediate area.

5.14 None of the site's trees has any features which could be used by bats for roosting.

5.15 The potential of the site's buildings for roosting bats is not known.

5.16 Bats coming from off-site roosts, which are likely to be in the surrounding houses, are likely to use the site for feeding as an integral part of the surrounding area. The nearest bat record to the site on NBN was of brown long-eared bat from a locality c2km north from 1984. LERC had no records of bats for the site or immediate area.

5.17 The site has no pond or other waterbody which could be used by great crested newts for breeding. The patches of rough tussocky grassland, the piles of cut scrub and branches etc, and the stored materials offer sheltering habitat for newts if they are breeding in off-site ponds and dispersing to the site to use its terrestrial habitats. The site also offers foraging opportunities for newts. NBN had no records of newts for the site, immediate surroundings or TF 42. LERC had no records of newts for the site or immediate area.

5.18 The OS 1:25,000 Explorer map of the area shows two off-site ponds, the presence of which was confirmed by field inspection on 2 March and a third off-site pond was seen by the field inspection only since it does not appear on the 1:25,000 Explorer map. The pond named Long Sutton Pit is at TF 438 225 and it is c250m west of the site's western boundary with built land, farmland and a building site between. To the north there is a large pond in a garden at TF 439 232 and this is c500m from the site's northern boundary with arable land between. To the south-west there is a large pond next to the B1359 at TF 440

223 and this is c200m from the site's southern boundary with built land between.

5.19 It is likely that the distance to the site from the pond to the north (c500m) and the nature of the habitats between (intensively managed arable land) make it unlikely that even if newts do occur here, they would not be dispersing as far as the site. According to the great crested newt conservation handbook and the Natural England newt mitigation guidelines, at most sites the majority of newts disperse within c250m of breeding ponds, with the density of newts away from ponds decreasing with distance. The distance of dispersal also depends on the quality of the habitats surrounding the breeding ponds, with habitats of lower quality for foraging and sheltering being used less than habitats of better quality. Intensively used arable land is a habitat of poor quality for newts. A small proportion of each population of newts may disperse more than c250m from breeding ponds and Natural England generally accepts a figure of c500m as being a working distance to use in newt mitigation issues as a distance beyond which newts are accepted not to occur.

5.20 The pond named Long Sutton Pit was subject to a great crested newt survey by Helen Scarborough Ecology on 13 October 2008. This concluded that the pond had very limited potential to support breeding newts and that no further survey work for newts was needed at the pond or adjacent land.

5.21 The pond next to the B1359 to the south-west of the site is not shown on the OS 1:25,000 Explorer map. It is therefore of comparatively recent origin. For this pond to support newts, they must be present nearby elsewhere for them to disperse and find it. Since the nearest other pond is Long Sutton Pit which has been shown that it is highly unlikely that any newts occur, the conclusion can be drawn that newts are absent from the B1359 pond.

5.22 Therefore, following the discussion in the paragraphs 5.17 to 5.21 above, it is highly likely that sheltering newts are absent from the application site.

6.0 ASSESSMENT OF NATURE CONSERVATION INTEREST

Habitats and Plants

6.1 The habitats of the site are not of significant nature conservation importance, since they are built land, disturbed rough grassland or arable land.

6.2 None of the plants recorded are of significant nature conservation importance, since they are all common and widespread species of hedges, disturbed ground and grassland in general. No invasive alien plants were seen.

Protected Species and Other Fauna

6.3 The site is not of significance for badgers, otters, white-clawed crayfish, reptiles, sheltering or breeding great crested newts, foraging bats and brown hares.

6.4 The breeding bird community will not be of significant interest since the site is arable or built up, nesting habitats are limited and there are no places where specially protected birds could nest.

6.5 The western and northern boundary drains may be of significance for water voles since the habitat is suitable for this species. The roadside drain along part of the southern boundary is not suitable for water voles therefore it is not important for this species.

6.6 As discussed above in paragraphs 5.18 – 5.21, great crested newts are not present or likely to be present in nearby ponds or they are not likely to disperse to reach the site even if present in off-site ponds, therefore the application site is not of significance for sheltering newts.

6.7 The significance of the site for roosting bats is not currently known.

7.0 POTENTIAL ECOLOGICAL CONSTRAINTS TO DEVELOPMENT

Habitats and Plants

7.1 There is no constraint to the development of the site from habitats.

7.2 There is no constraint to the development of the site from plants including invasive aliens.

Protected Species and Other Fauna

7.3 There is no constraint to the development of the site from badgers, otters, white-clawed crayfish, reptiles, breeding and sheltering great crested newts and brown hares.

7.4 Breeding birds are a minor constraint but only in the nesting season, which is roughly March to August inclusive. Clearance of the site has the potential to destroy any active nests and this would be an offence. In order not to commit an offence, ideally the site should be cleared outside the nesting season. If however this is not possible and work needs to go ahead during the bird nesting season, it can proceed but only after a thorough search of the affected areas has shown that there are no active nests or that the young birds have fledged and left the nest beforehand.

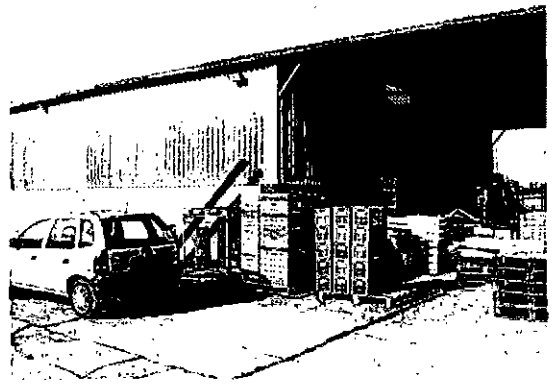
7.5 Water voles are a potential constraint but only if the development were to affect the western and northern boundary drains, since as discussed above, the roadside drain along part of the southern boundary is not suitable for this species. Since the development plans show the retention of a c9m wide easement along the western and northern boundary drains for IDB access, there would be no impact on water voles. Thus, water voles are not a constraint and there is no need for a specific water vole survey to be undertaken nor is mitigation required.

7.6 It is not known if roosting bats are a constraint to the proposed development.

ANNEX 1 PHOTOGRAPHS



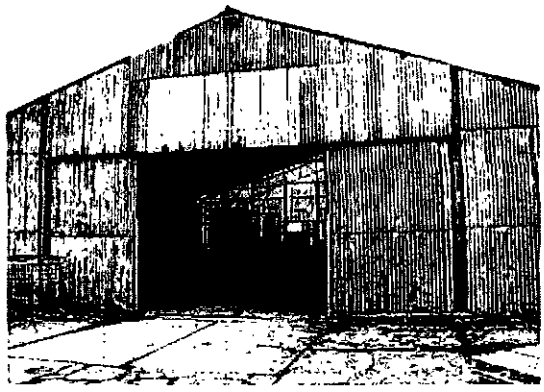
Photograph 1: one of the rough grass areas with Buildings 1 & 2 in background



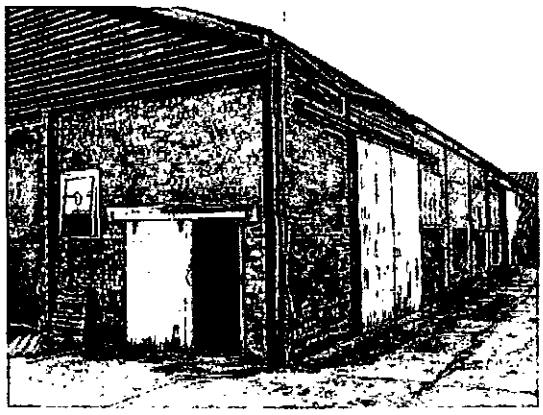
Photograph 2: Building 2, an in-use packing shed



Photograph 3: Building 3, an open sided shed



Photograph 4: Building 4



Photograph 5: Building 6



Photograph 6: the hedge boundary in the south next to the adjacent garage



Photograph 7: the rough grass area in the south



Photograph 8: the roadside southern boundary drain



Photograph 9: the offices and toilets part of Building 7



Photograph 10: the packing shed part of Building 7



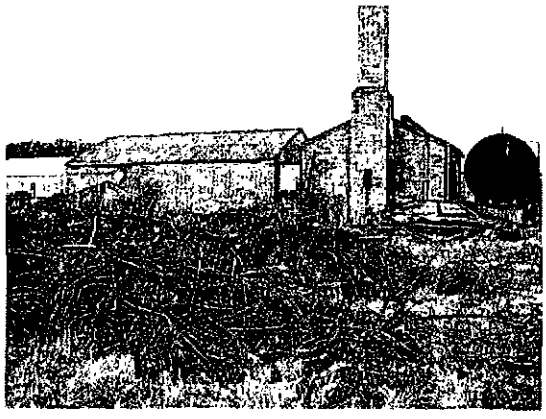
Photograph 11: the track and conifer hedge next to the eastern boundary



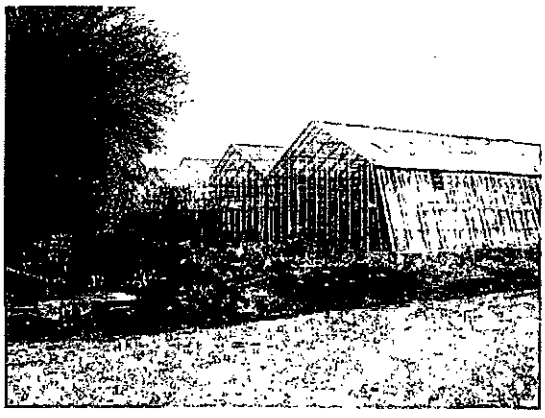
Photograph 12: the coppiced willow scrub *area*



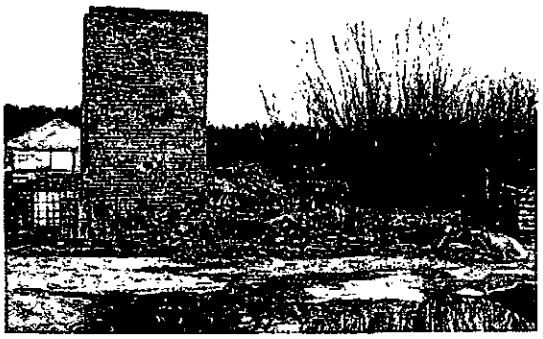
Photograph 13: the area of rough grass in the middle of the site



Photograph 14: Building 8, the chemical store and boiler house



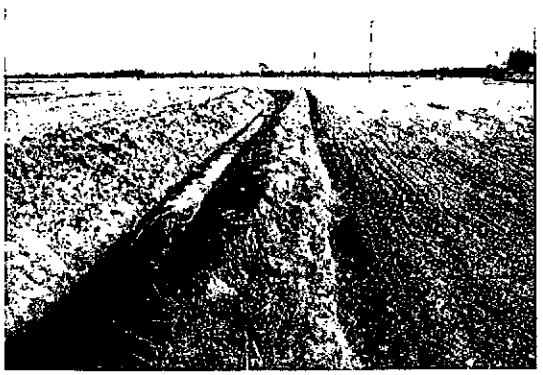
Photograph 15: Building 9, the old greenhouse



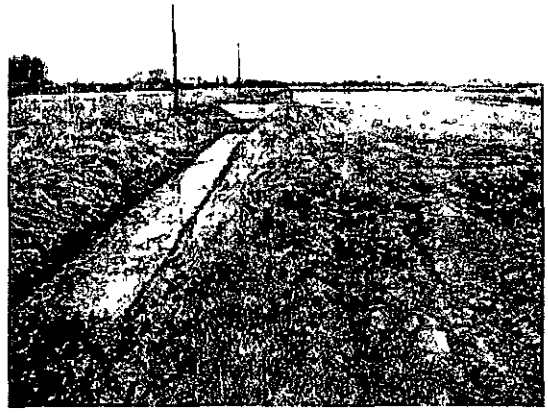
Photograph 16: Building 10, the old water tank support



Photograph 17: the northern arable part of the site

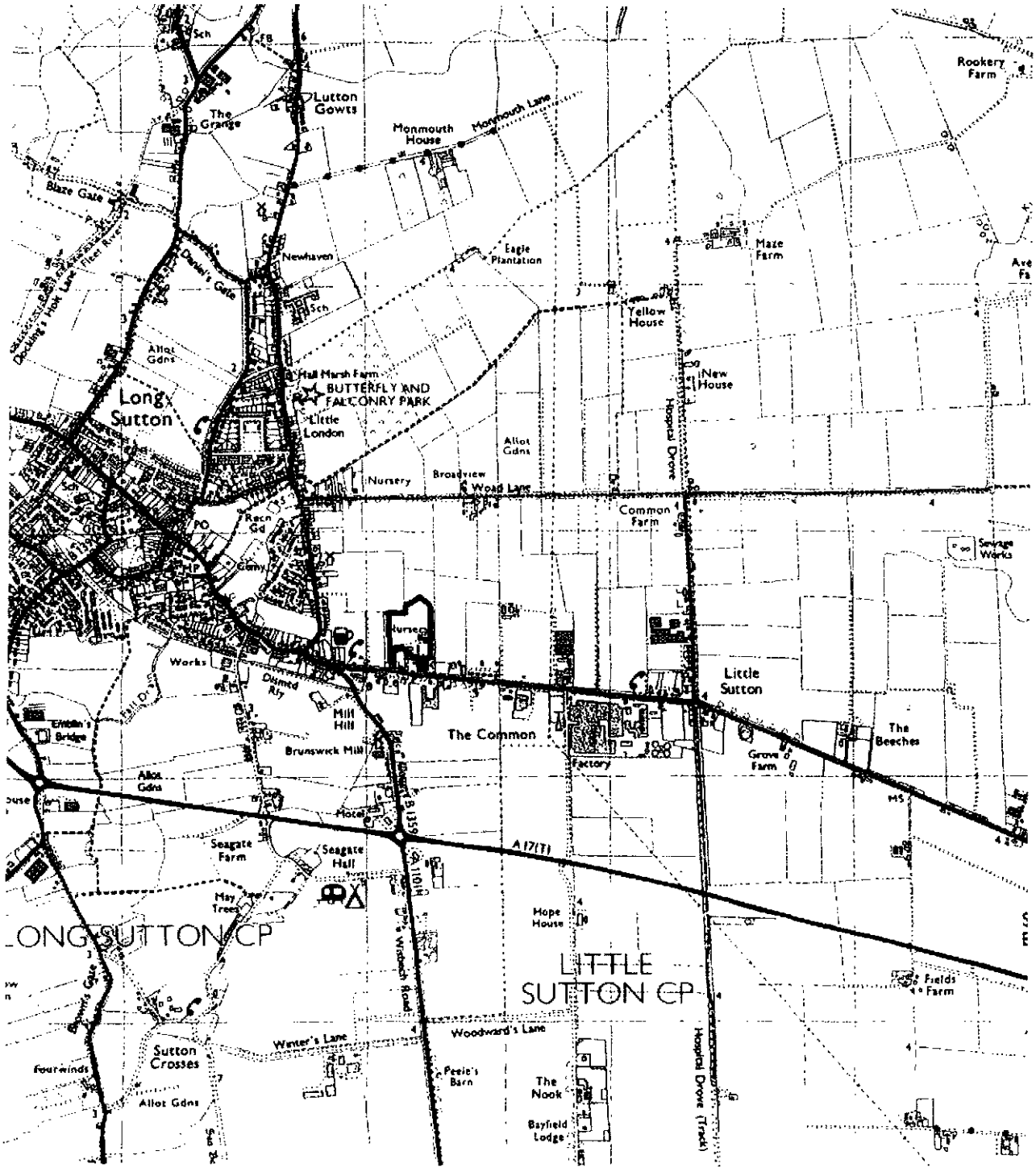


Photograph 18: the drain along part of the northern boundary



Photograph 19: the western boundary drain with culverts

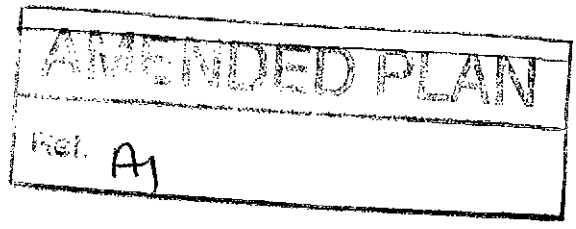
FIGURE 1 SITE LOCATION

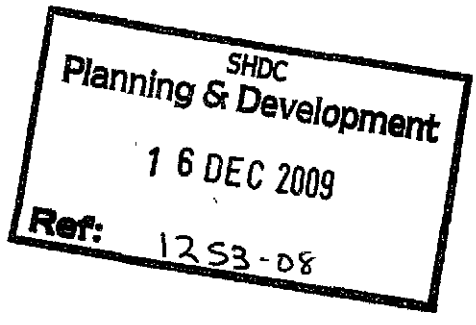


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Appendix Item 17 – Public Open Space

Response to paragraph 14 of C Crew letter dated 2nd February 2009, Planning Application No. H11/1253/08.
Response to CABE's letter of 17th February 2009 to C Crew





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PUBLIC OPEN SPACE

Public 'open-space' provision as defined by PPG17 has been adopted in its broadest application for the Long Sutton Sustainable Settlement Extension and represents 49%(14,129m^2) of the residential site area, exceeding SHDC's minimum requirements as set out in Policy HS11 of 14% of gross site area.

A broad range of open spaces at the Long Sutton SSE include;

1. Natural and semi natural urban green spaces 6%(1,779m^2)
2. Green corridors 14%(3,783m^2)
3. Amenity green spaces 9%(2,603m^2)
4. Allotments 8%(2,236m^2)
5. Accessible countryside 224m (linear dimension)
6. Living street 12%(3,728m^2)

Open space is defined in the Town and Country Planning Act 1990 as, *'land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground.'*

In PPG17 further guidance on the interpretation of 'open-space' is given as, *'open-space should be taken to mean all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity'*

The policy document illustrates the broad range of open spaces that may be of public value:

1. **Natural and semi-natural urban greenspaces** - including woodlands, urban forestry,scrub, grasslands (eg downlands, commons and meadows) wetlands, open and running water,

2. **Green corridors** - including river and canal banks, cycleways, and rights of way;

3. **Amenity greenspace** (most commonly, but not exclusively in housing areas) – including informal recreation spaces, greenspaces in and around housing, domestic gardens and village greens; provision for children and teenagers - including play areas, skateboard parks, outdoor basketball hoops, and other more informal areas (eg 'hanging out' areas, teenage shelters);

4. **Allotments**, community gardens, and city (urban) farms

5. **Accessible countryside in urban fringe** This typology, or variations of it, should be used by local authorities when preparing assessments of need and audits of existing open space and recreational facilities.

6. **Living streets** Within each 'open-space' typology, PPG17 recognises the diversity in use of these spaces and offers further guidance;

   'Local authorities should also recognise that most areas of open space can perform multiple functions. They should take account of the various functions of open space when applying the policies in this document.' These include:

   i.) *strategic functions*: defining and separating urban areas; better linking of town and country; and providing for recreational needs over a wide area;
   ii.) *urban quality*: helping to support regeneration and improving quality of life for communities by providing visually attractive green spaces close to where people live;
   iii.) *promoting health and well-being*: providing opportunities to people of all ages for informal recreation, or to walk, cycle or ride within parks and open spaces or along paths, bridleways and canal banks. Allotments may provide physical exercise and other health benefits;
   iv). *havens and habitats for flora and fauna*: sites may also have potential to be corridors or stepping stones from one habitat to another and may contribute towards achieving objectives set out in local biodiversity action plans;

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vi.) *as a visual amenity*: even without public access, people enjoy having open space near to them to provide an outlook, variety in the urban scene, or as a positive element in the landscape.

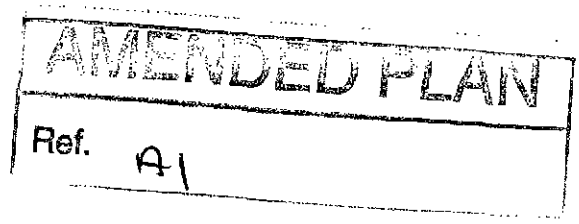
Open-Space provision at the Long Sutton SSE accords with the recommendations of PPG17 and exceeds the minimum requirement of South Holland District Council's Policy HS11 *'Open Space in New Residential Developments'*. An additional area (measuring 3,728 m2), of open-space has also been included at the Long Sutton Project in the form of the Living-Street. Relegating the dominance of the car, the Living Street accommodates pedestrians, prams, wheelchairs and cyclists in equal measure to that of motor vehicles. The Living Street is an extension of the public-open space provision at the Long Sutton SSE.

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SEARCH ARCHITECTS

Appendix Item 18 – CABE

Response to CABE's letter of 17th February 2009 to C Crew





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ARCHITECTS
SUSTAINABLE ECOLOGICAL ARCHITECTURE LTD

Job 627

29 May 2009

BY EMAIL AND POST

FOR THE ATTENTION OF MR C CREW

Planning Department
South Holland District Council
Council Offices
Priory Road
SPALDING
Lincs PE11 2XE

Dear Chris

RE: LONG SUTTON SUSTAINABLE SETTLEMENT EXTENSION (SSE), BRIDGE ROAD, LONG SUTTON – PLANNING APPLICATION REF: H11/1253/08

Thankyou for passing on CABE's letter dated 17th February 2009 in which Thomas Bender conveys the Commissions views of SEArch's proposal for a Sustainable Settlement Extension (SSE) here in Long Sutton.

Please accept my letter as a formal response to *CABE's views*.

I am encouraged by CABE's opening statement;

> *'In many ways, the sustainable settlement extension for Long Sutton is exemplar and we applaud the Architect's commitment to develop a sustainable community.'*

I am further encouraged by their statement regarding the schemes exemplary status, given the SSE is the culmination of a decade of SEArch's evidence based research and development work. CABE go on to cite our adjacent development LESH (Long Sutton Earth-Sheltered Social Housing Scheme) as demonstrating *'....a successful symbiosis of low carbon architecture and innovative living.'* These are indeed reasons to be encouraged by the Commissions views.

Alas, a proportion of their letter is setaside to an unbalanced critique of the scheme, in which several misinformed statements are made by the author. Given SEArch's accumulated evidence based research, and unique first-hand experience of living and working in this field, our critique response is informed and copiously referenced.

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Email mail@searcharchitects.co.uk Website www.searcharchitects.co.uk
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29 May 2009

FOR THE ATTENTION OF MR C CREW

Response to CABE letter of 17th February 2009

'The adjacent, smaller earth-sheltered social housing scheme [LESH] demonstrates a successful symbiosis of low carbon architecture and innovative living. We would like to have seen a similarly ambitious scheme on this larger site [SSE], but we regret to say that we do not think that the current proposal achieves this standard.'

LESH is an ambitious scheme, in that as the originator of the concept and Architect, I have designed the scheme to achieve a greater level of autonomy over essential resources, more than any other UK Social Housing Scheme has achieved to date. One measure of the standards achieved at LESH, is the Code Level 5 accreditation through the CfSH that the scheme has received.[i] We are informed that this maybe the only social rented scheme to achieve this standard.

In contrast, the more ambitious SSE is a natural evolution of LESH which I have designed to attain comparable building performance and environmental standards for a considerably larger scale development which additionally, incorporates work/life opportunities.

Using the CfSH as a means of comparison between the neighbouring schemes, the SSE is anticipated to achieve higher standards than LESH, probably Code Level 6[ii]. As of today, we are not aware of any working and occupied developments in the UK that have achieved these standards at this scale.

'We feel that the current proposal lacks coherence and a sense of place.....'

Dealing first, with the reference to *'....coherence...'*

The design and layout of the SSE is characterised by a logically consistent set of principles (***coherence***) informed by passive solar design techniques, that to date, have not been implemented to this extent in the UK at this scale and as such to my knowledge have no direct architectural precedent.

One of the key strategies that I have incorporated in SSE to reinforce these principles of cohesion, is that each dwelling is orientated south to maximise the passive heating, ventilation and renewable energy potential; in turn, each building cluster, aligns with the suns path, optimising the southerly garden micro-climate opportunities. Subsequently, each 'cul-de-sac' follows an alignment of the sun across the site and collectively each of the streets are held firmly together in a logical form, united as a whole (***coherence***), with a layout derived from the Stereographic Graph[iii].

Having asserted SSE's coherent design strategy, it is necessary to establish what is meant by ***'....sense of place...'*** and how it is that this development can claim to have delivered on this concept.

To elucidate on the term ***'sense of place'*** when applied to the built environment, it is useful to refer to recognised authorities in this area of subjectivity.

George Seddon, one of the most quoted specialists in this field, offers clarity on the use of the phrase in this context,,

> *'It is often used in relation to those characteristics that make a place special or unique, as well as to those that foster a sense of authentic human attachment and belonging.* [iv]

Kevin Lynch, another recognised authority in this field having written extensively on the planning of our existing urban environments, concurs with Seddons explanation and goes on to expand on the application of this concept:

> *'Planning practitioners need to identify new human settlement patterns that recognise the need for a 'sense of place' as the economic functions of the city fade"*

Lynch continues on this theme identifying the tenets of this concept:-

> *'Places should have a clear perceptual identity; be recognisable, memorable, vivid, engaging of our attention. It should be possible for the observer to relate the identifiable features one to another, making an understandable pattern of them in time and place."*

Referring to these informed interpretations of a ***'....sense of place...'*** it is possible to elicit those SSE characteristics that give the development a special and unique quality that we can refer to as giving a ***'....sense of place...'***

On entering the proposed development, travelling north along *'The Avenue'* one will clearly perceive this route as providing a vista to recognisable clusters of dwellings. Each junction along the vista is identified by lozenge roundabouts of diminishing sizes reflecting the reduced vehicular traffic movements along *'The Avenue'*. Twelve metre high VAWT's (Vertical Axis Wind Turbines) located in the centre of the lozenge shaped roundabouts provide landmarks for each junction. This Avenue is framed by rows of Olive trees, hedgerow and the roofs of the first house in each enclave.

Turning left into 'Winter Solstice West' one will clearly perceive the enclave of dwellings as a secure built environment with selective permeability. Reading the building orientation will make immediately apparent their solar bias with fully glazed south elevations on the right-hand-side and in stark contrast the absence of glazing on the left-hand-side's north elevations. An array of vivid building colours and textures will engage the visitors attention (more apparent on the left) providing an individualistic identity for each dwelling. In this way a discernable pattern will emerge and be instantly recognisable.

Given that not one building in the development is replicated, each cluster of dwellings will impart its own identity to a theme, resonating within each enclave, contributing to the uniqueness of the development.

Density [aka urban intensification]

'In general, we think that a higher density would be more appropriate for a development of this type.'

Contrary to CABE's assertions a higher density development at SSE would not be appropriate within the projects frame of reference. Common sense and anecdotal evidence informs us that high density development, while an inherent characteristic of cities, is inappropriate to the margins of a rural Market Town.

In support of this view, recent research concurs that:-

'High density housing will never be successful in isolation and therefore neighbourhood context is critical."

Within the context of South Lincolnshire, in particular the small Market Town of Long Sutton, low population densities shape our neighbourhoods. A distinctive characteristic of this geographical area is that it enjoys one of the lowest population densities in the country, 100 people/Km^2, which is one quarter of the national average of 395 people/Km^2.

The wisdom of high density development policies in the UK is the subject of increasing scrutiny and is emerging as a growing area of research in response to these concerns that has:

> *'....cast some serious doubts on the potential of urban intensification as a tool to achieve sustainable development.'*[viii]

This Paper concludes:

> *'This research raises serious concerns about the effects of intensification policies, their desirability and feasibility.'*[ix]

There will be occasions where the density of a proposed development does not reach the national indicative minimum of 30 dwellings per hectare. PPS3 sets out the desirability of achieving high quality design that has good access to community and green and open amenity space as well as private gardens. Such development should integrate with and complement the character of the area and relate to the surroundings. Whilst the eastern edge of Long Sutton is characterized by relatively mundane estate development, the character is low density and reflects the semi-rural settlement fringe.

To suggest that the density should be higher than that proposed does rather ignore the mixed use character of the proposal, together with the function of the green spaces that make up the housing element and the general character of the area. There is no suggestion as to what that density might be and in the absence of such an explanation we submit that the proposed density is entirely appropriate in this location.

The density of LS SSE is high enough. This project challenges convention in human settlement patterns with an innovative well rehearsed set of design principles derived from sound evidence based research. The LS SSE promises to deliver a place in which the households and businesses alike will engage with their environment and come to recognise it as special.

Layout

We do not think the setting of the houses around the cul-de-sacs helps to improve the community life.

Government guidance, Police advice and current research, assert that cul-de-sacs are one of their preferred street layouts for creating the tenets favouring community life.

Government guidance is clear.

> *'Homes in cul-de-sacs can be highly secure....and should not be joined by networks of footpaths...'*[x]

Crime statistics provided in support of research on cul-de-sacs has shown:

> *'....that linking footpaths [to cul-de-sacs] are probably the main weakness of modern suburban housing development.'* [xi]

The research concludes that cul-de-sacs are:

> *'...potentially safe because offenders have to make a conscious effort to go in.'* [xii]

While CABE may not support the cul-de-sac by name, they do recognise its merits in design and application, this they declare in their critique (of this scheme) in which they have espoused the virtues of LESH in saying that it:

> *'...demonstrates a successful symbiosis of low carbon architecture and innovative living.'* [xiii]

CABE go on to say of LESH's 'design strategies' as having been:

> *'...so successfully applied to the adjacent smaller development.'* [xiv]

LESH is a cul-de-sac. LESH's architect is the SSE's architect. LESH's design strategy is the SSE's design strategy.

Open Space

While the pedestrian paths across the site have the potential to establish links between the different parts of the development, for example the commercial units and houses, we do not think that the present network of paths is successful. Overall we think that the scheme offers too much choice in terms of routes across the site and that this is likely to have an impact on safety and surveillance issues.

We also question whether the paths could join up with the cul-de-sacs in order to bring more activity to these areas.

The provision of *open-space* within the SSE comprises a mixture of greenspaces that challenges established landscape solutions associated with similar more conventional new development. Rather than a biased preoccupation with *open-space* acreage and tree counts, SSE's landscape design solution emphasises the geometry of the green network and quality of spaces there-in created. Making up these greenspaces are perimeter verges, strips, bolts, copse, gap sites, allotments, amenity area and ubiquitous south-facing gardens.

There is a general preference for natural appearing greenspace, in which, it is my view that naturalness is the principal physical attribute of greenspace appreciated most, by stakeholders. Connectivity of these greenspaces I consider highly desirable and is achieved with an extensive network of footpaths within and round the SSE development.

Natural surveillance throughout these footpaths and greenspaces is a key design feature of the SSE layout, where the principle rooms of occupation on the south side of each dwelling overlooks footpaths, greenspaces streets, drives and especially the north elevation of each dwelling.

29 May 2009

FOR THE ATTENTION OF MR C CREW

'roundabouts'

'....we question the quality of the roundabouts and cul-de-sacs.'

The layout of SSE exemplifies Hans Monderman's[xv] concept of Living-Streets (Shared Space) in which pedestrians and vehicles are accommodated compatibly. A further advancement of the roundabouts role in the Living-Street is its lozenge shape, this is designed to alert drivers to restricted vehicular movements in circumnavigating the roundabout. There is evidence offered in the 'Manual for Streets' confirming that the risk of accidents on residential roads can be reduced:

> *....when crossroads are substituted for roundabouts.*[xvi]

Conclusion

We regret to say that if the sustainable elements of this proposal were taken away, there is little left to distinguish it from other less ambitious schemes. We would like to encourage the architect to take advantage of the design strategies so successfully applied to the adjacent smaller development.

The key 'sustainable element' of both LESH and the more ambitious SSE is the site layout pattern. Without the street alignment following the suns-path, the ubiquitous implementation of south facing buildings (passive solar design techniques) would not be possible.

I have developed the SSE 'design strategy' which we have implemented at LESH, through peer reviewed and rigorous evidence based research and development in the commercial arena over a period of ten years. Continuing that process of informed innovation, I have evolved that design strategy at SSE for application at a larger scale and higher density development, while espousing the concomitant environmental credentials derived from the smaller scheme.

It is encouraging that CABE recognises the SSE's environmental credentials as exemplary. In particular, CABE's proposal to see the SSE used as a 'Case Study' for a successful sustainable development' is one which SEArch endorses and wishes to encourage, especially since the SSE is allied to the Government's vision in its White Paper '*Planning for a Sustainable Future*'[xvii]. The SSE proposal seeks to encourage the implementation of some of those principles expressed in the White Paper by developing an exemplar Sustainable Settlement Extension within Long Sutton, in preparation of a low carbon future.

I have designed the Long Sutton SSE to act as a catalyst for change within my home town of Long Sutton, so as to promote, inspire and inform a low carbon society in anticipation of a time of diminishing availability of finite resources such as oil, coal, natural gas, water, and food.