

Your ref:

My Ref:  
KAB/15/BB/09

Date:  
21/10/15

**BRIEF TRANSPORT STATEMENT (TS)**

**RELATING TO A PROPOSED INCREASED OUTPUT  
ANAEROBIC DIGESTION PLANT (ADP)**

**ON LAND AT BARLEY BRIGG FARM  
LAXFIELD ROAD, B1117  
STRADBROKE, SUFFOLK.**

Report of:  
Keith A. Berriman

**CONTENTS.**

<b>SECTION</b>	<b>TITLE</b>	<b>PAGE</b>
	<b>EXPERIENCE &amp; QUALIFICATIONS.</b>	<b>3.</b>
<b>1.00</b>	<b>THE HIGHWAY TRAFFIC AND TRANSPORT ISSUES.</b>	<b>4.</b>
<b>2.00</b>	<b>CONCLUSIONS.</b>	<b>11.</b>

**KEITH ANTHONY BERRIMAN - EXPERIENCE & QUALIFICATIONS.**

I am an Incorporated Engineer, a Fellow of the Institution of Engineering & Technology, a Fellow of the Institute of Highway Engineers, a Fellow of the Chartered Institution of Highways & Transportation, and a Chartered Member of the Institute of Logistics and Transport.

I have been engaged in the practise of highway and traffic engineering for forty years, specifically in relation to considering and advising upon development proposals.

I have worked in both the public and private sector since 1975, and have been an independent consulting engineer since 1988.

I provide specialist highway, traffic and transport advice to developers, Local Authorities, planning consultants, architects, interested parties and engineering consultants, on the highway, traffic and transport aspects of all development proposals.

I have advised on all types of development proposals including, residential, commercial, leisure, education, retail, and roadside services developments: having advised on small and large examples of such projects.

Over the years, I have given highway and traffic evidence at many public inquiries, including Section 78 inquiries. Local Plan Inquiries, and Roads Inquiries.

Formerly, I was Head of Highways Development Control at Essex County Council. I am now Director of The Highway Traffic & Transport Consultancy Ltd (The HTTC Ltd).

I have visited the application site, and carried out investigations, for the purposes of providing this report.

Keith A. Berriman  
I.Eng., FIET, FIHE FCIHT, CMILT.

## **1.00 THE HIGHWAY TRAFFIC AND TRANSPORT ISSUES.**

1.01 This brief transport statement (TS) considers the highway traffic and transport issues related to this development proposal, to increase the size of the existing ADP from a 500 Kw AD plant, to a 1.1 Mw AD plant, on land at Barley Brigg Farm, Laxfield Road, Stradbroke, Suffolk. This will require an increase in the feedstock (the material required for the anaerobic digestion process) to be delivered to the ADP. Additionally, there will be an increase in the solid and liquid digestate (the materials produced as a result of the process), and its removal from the site. However, this will be small, in comparison to the feedstock tonnage, as, in the case of this ADP, the usual liquid digestate levels are significantly reduced due to the emphasis on removal of water using driers.

1.02 The original feedstock was slurry and pig manure, which was all supplied internally from the adjacent pig rearing unit, and, therefore required no movement of vehicles on the adjacent highway network. The increased level of feedstock maintains this use of the slurry and pig manure, but, adds other feedstock materials which will necessitate additional vehicle flows on the adjacent highway network.

1.03 However, as will be seen, only a brief TS is necessary to properly deal with these issues, in view of the low level of additional vehicle flows to be produced by this proposal. Indeed, the increased vehicle flow is of such a low order as to be accurately described as “not a material increase in vehicle flows on the highway network”. This is demonstrated in the following paragraphs.

1.04 In that regard, guidance from the Planning Practice Guidance website confirms the following.

*Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a ‘lighter-touch’ evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts).*

and,

*Travel Plans, Transport Assessments and Statements should be:*

- *proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible;*

**Existing conditions, including highway safety.**

- 1.05 The site is located to the east of Stradbroke village, and west of Ashfield Green, and to the north of the B1117, Laxfield Road (see appendices KAB 1, and KAB 2). The application site is identified at KAB 2, and, as will be seen at KAB 2, the site has the benefit of an existing, long term, access to Laxfield Road, B1117.
- 1.06 It should be noted that this section of Laxfield Road, is identified in the Suffolk County Council (SCC) lorry route hierarchy as an hgv local access route, which connects to other local hgv access routes and then to hgv zone distributor routes in the vicinity (B1118), as shown at KAB 3 and KAB 4. Thus, the highway serving the site has been identified as being part of the SCC lorry route hierarchy. It follows that the small number of additional hgv's which will serve the extended ADP use, will be able to use appropriate road routes, as identified by SCC.
- 1.07 Inquiries were made of the SCC Collision Data Section, in relation to the accident history of the existing access. This access serves the existing pig rearing unit, with its hgv flows, and staff and other associated vehicle movements. Over the most recent five year record period, no personal injury accidents have been recorded at the existing access, or on the approaches to the existing access (see KAB 5 & 6).

1.08 Hence, it is the case that the existing access has a good accident record, and is demonstrated to be safe in practical traffic engineering terms.

**Proposed Development and vehicle flows.**

1.09 The proposed development requires the importation of a larger amount of feedstock than originally envisaged, and, requires feedstock to be transported using a small number of hgv's and agricultural tractor/trailer units on the adjacent highway network (and using SCC identified lorry routes). The development also requires digestate to be removed from the site using agricultural tractor trailer units (solid digestate) and agricultural tractor tanker units (liquid digestate).

1.10 However, the level of these additional vehicle flows, even during peak flow months of the year, will be small, even using worst case calculations of those flows. The data submitted by Evolution Planning, to support a request from SCC for an EIA screening opinion, included information as extracted at KAB 7 and KAB 8. I have also made use of the SCC screening opinion notes (see KAB 9, 10 & 11) in my assessment of the worst case hgv flows.

- 1.11 As can be seen at KAB 7 to KAB 11, the total volume of feedstocks is given as 21,000 tonnes, which is made up of:
- a) 6000 tonnes of slurries and manure from the adjacent pig rearing unit (no hgv flows on the highway network);
  - b) 7000 tonnes of energy crops (2000 tonnes from adjacent fields with no hgv flows on the highway network, and 5000 tonnes from farms within 5 miles of the ADP – being imported over the three month’s harvest season of July to September);
  - c) 4000 tonnes of sugar beet pulp (being imported as one load a day to the ADP, but, involving hgv’s that are already taking sugar beet to the factory, and then collecting the pulp as a backload trip);
  - d) 2000 tonnes of chicken litter (brought in from Fressingland by tractor and replacing the current, longer distance, hgv trips to Eye power station); and,
  - e) 2000 tonnes of parsley and mint stalks (collected from Eye using tractors and producing about one load a day for three months, between July and September).

1.12 Taking each of the above feedstock movements, and attributing hgv and tractor flows to them, I assess the following as worst case flows at the site access, based on technical data supplied by the applicant.

<b>Feedstock imported</b>	<b>Vehicle flows at existing access</b>
a) 6000 tonnes manure and slurries	nil
b) 2000 tonnes energy crops	nil
5000 tonnes energy crops [5000/29t hgv]	
172 x 2 trips = 344 trips over 3 months = 344/90 =	4 hgv's/day
c) 4000 tonnes sugar beet pulp – one load per day	2 hgv's/day
d) 2000 tonnes chicken litter – 2000/16t tractor	
125 loads pa = 250 trips pa	
say 6 trips/week for 42 weeks	
say 2 trips/day for 3 days of each week	2 hgv's/day
<b>Digestate removal.</b>	
e) Solid digestate = 12% x 21000t = 2520 t/14t tractor	
180 loads pa = 360 trips pa over whole year	
360/52 = say 6 to 8 trips/week	
say 2 trips/day for 3 or 4 days of each week	2 hgv's/day

f) Liquid digestate = 11% x 21000t = 2310t/15t tanker

154 loads pa = 308 trips pa over 5 months, say 20 weeks

308/20 = say 14 to 16 trips/week

say 4 trips/day for 4 days of each week

4 hgv's/day

NB . Other liquid digestate is pumped directly onto adjacent fields.

1.13 So, even if all these flows coincided on the same day of the week, then the total, two way, hgv flow at the site access would be only 14 hgv's day (7 in + 7 out). If these hgv's were all to access the site to and from the west, then there would only be an additional 14 hgv's per day travelling through Stradbroke i.e. some 2 hgv/hr. However, it seems likely that vehicle flows to and from Fressingland will take place to and from the east, and some of the farms providing the energy crops may also be located such that vehicle flows will not be through Stradbroke. On that basis, the additional hgv flow through Stradbroke will be less than 2 hgv/hr, and mainly throughout only three months of the year. Staff numbers will not increase materially, and, hence, staff vehicle flows will not increase materially.

1.14 On the basis of the above information, it is clear that there will not be any material increase in vehicle flows at the site access, nor will there be any material increase in vehicle flows on the adjacent highway network.

## **2.00 CONCLUSIONS.**

**2.01** The site has an existing, consented ADP, which is proposed to be increased in power output. This requires an increase in feedstocks and will result in a consequent increase in digestate removal from the site.

**2.02** The site has the benefit of an existing, long term access to the B1117, which has been used for vehicle flows related to the existing pig rearing unit.

**2.03** The existing site access has a good accident record, with no personal injury accidents being recorded over a recent five year's record period, and, thus, is demonstrated to be safe in practical traffic engineering terms.

**2.04** There will not be any material increase in vehicle flows at the site access, or on the adjacent highway network.

**2.05** The B1117, and other local roads, are approved hgv routes on SCC's own lorry route hierarchy.

**2.06** It follows, from all this, that there will not be any severe cumulative impacts resulting from this proposal. Hence, this proposal cannot be refused on transport grounds i.e. the NPPF states...

*Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.*

**2.07** Therefore, one must conclude that this development proposal is acceptable in highway, traffic and transport terms.

Your ref:

My Ref:  
KAB/15/BB/09

Date:  
24/09/15

## **APPENDICES**

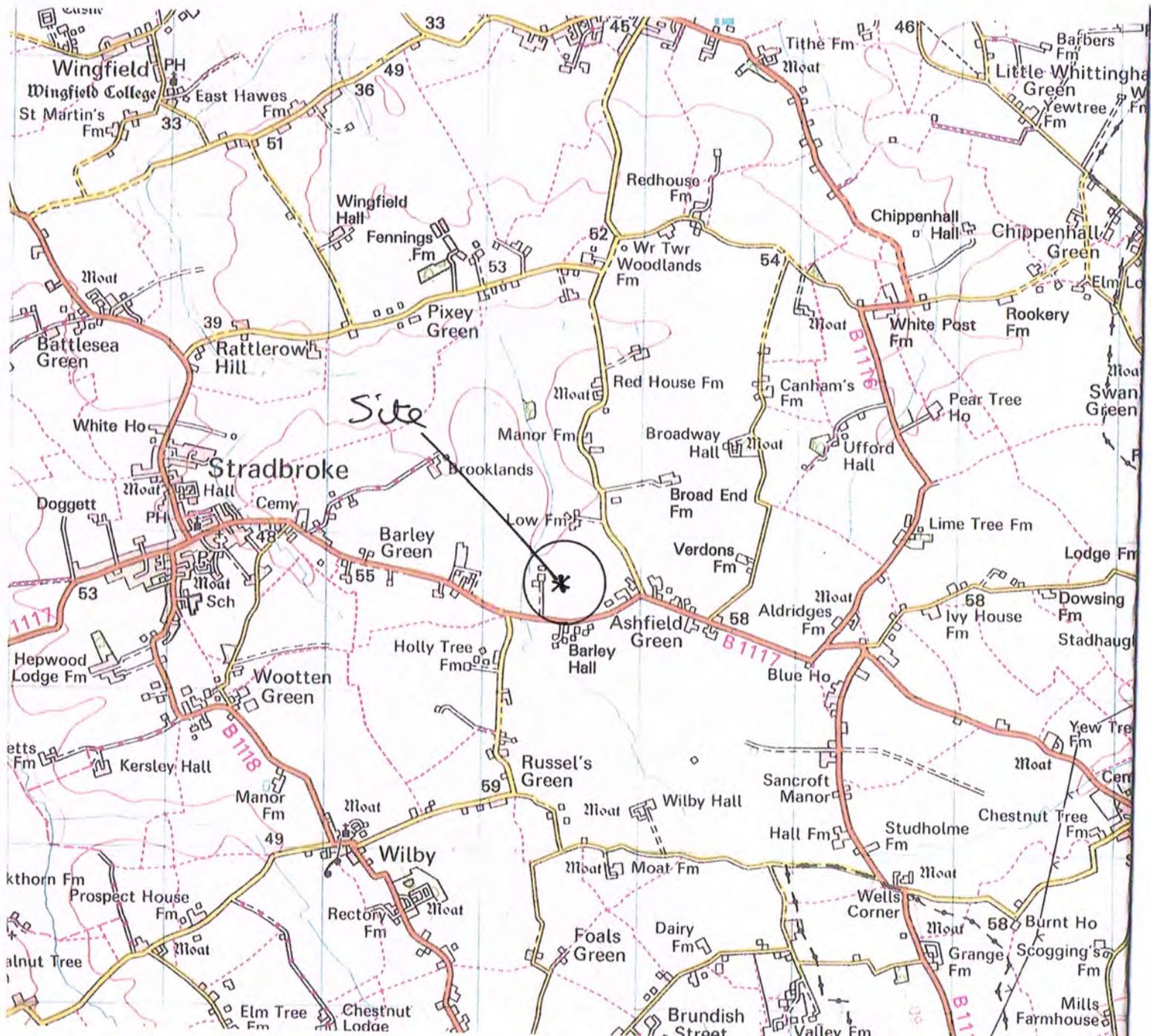
### **BRIEF TRANSPORT STATEMENT (TS)**

**RELATING TO A PROPOSED INCREASED OUTPUT  
ANAEROBIC DIGESTION PLANT (ADP)**

**ON LAND AT BARLEY BRIGG FARM  
LAXFIELD ROAD, B1117  
STRADBROKE, SUFFOLK.**

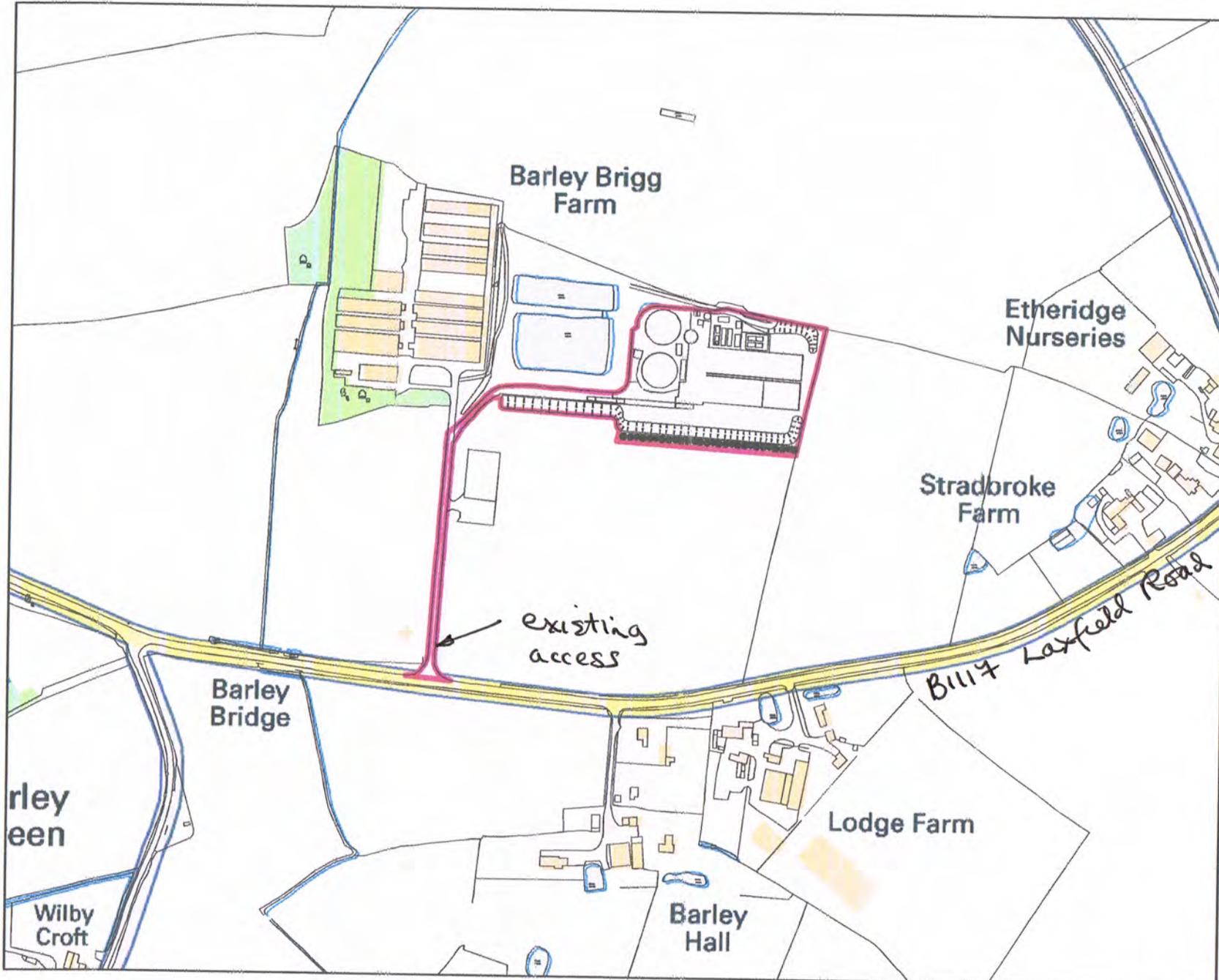
Report of:  
Keith A. Berriman

**Director**  
**Keith A. Berriman I.Eng., FIET, FIHE, FCIHT, CMILT**



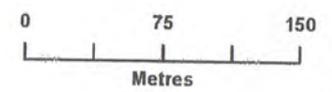
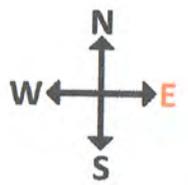
Site

**KAB 1**  
SCALE: NTS



**Key**

Approx. site



Project: E399 Barley Brigg Biogas

Drawing title: EIA Screening Site Location Plan

Drawing no: E399/EIA1

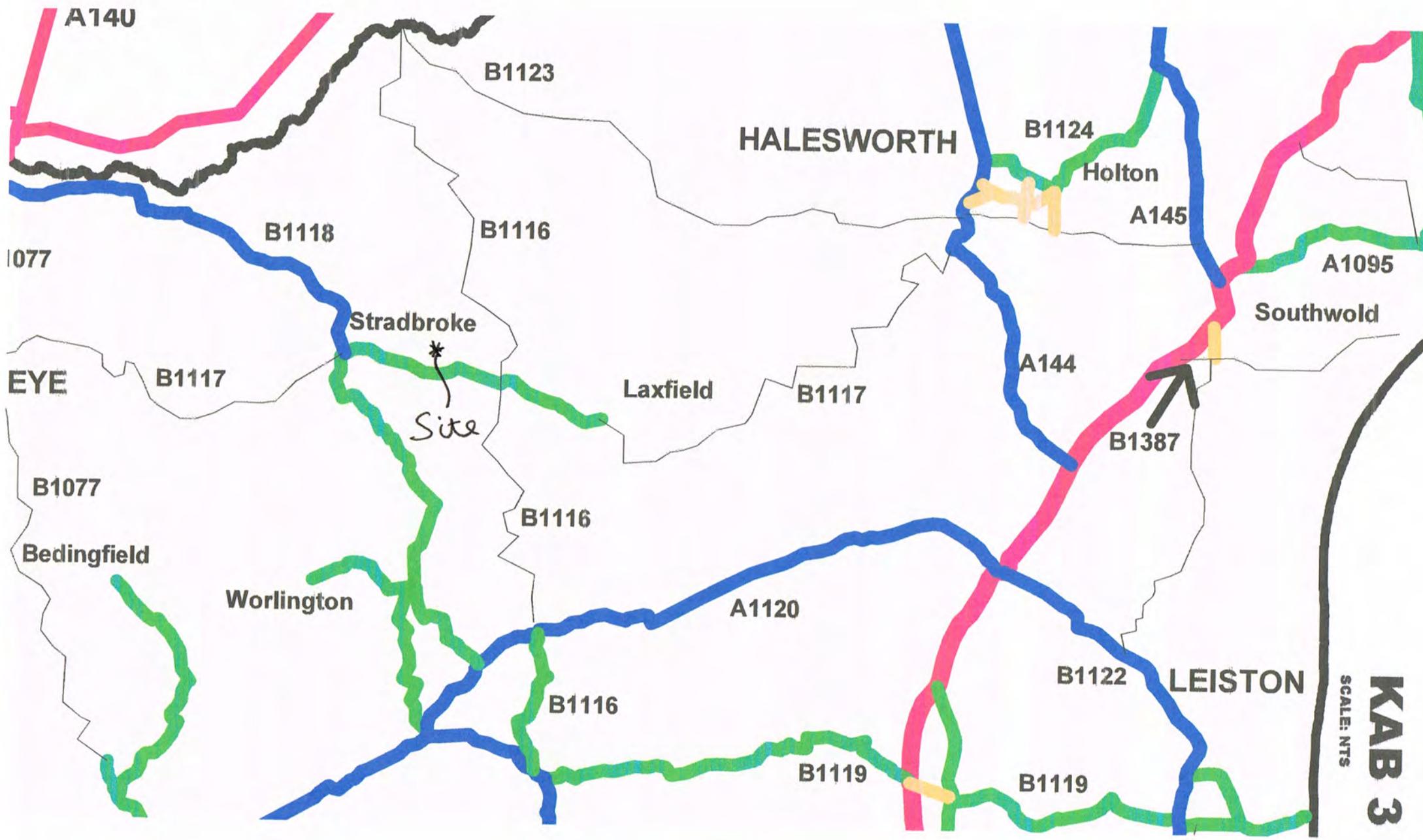
Rev.0 Date: Aug 2015

Scale: NTRS at A4 Drawn:

SCALE: NTRS

**KAB 2**





**KAB 3**  
SCALE: NTS



## Key

Strategic Lorry Routes ( ——— ) - all movements crossing Suffolk should use these, with those starting or ending in the county using them in preference to local lorry routes

Zone distributor routes ( ——— ) – roads within a zone serving as a route directly to a location or as a route to local access routes ( ——— ) which are roads or parts of roads serving as access to a specific location

Weight restrictions on designated lorry route ( ——— )

Weight restrictions – all 7.5T except where shown ( ——— )

**From:** ESE Collision Data [collision.data@suffolk.gov.uk]  
**Sent:** 28 July 2015 08:45  
**To:** kab@the-httc.co.uk  
**Subject:** FW: ACCIDENT DATA - ALL COLLISIONS - B1117 EAST OF STRADBROKE - KAB to SCC - 270715

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Keith

Please see response below.

Kind Regards

**Dawn Lovitt (working days Tues & Thurs)**  
**Collision Data/ Highway Records Technican (Technical Services)**  
**Highway Network Management Group**  
**Economy, Skills and Environment**  
**Suffolk County Council**  
**Endeavour House (L5-B1-63), 8 Russell Road, Ipswich, IP1 2BX**  
**Telephone: 01473 265020**  
**Fax: 01473 216864**  
**Email: [Collision.data@suffolk.gov.uk](mailto:Collision.data@suffolk.gov.uk)**  
**Email: [Highway.records@suffolk.gov.uk](mailto:Highway.records@suffolk.gov.uk)**  
**Web site: [www.suffolk.gov.uk](http://www.suffolk.gov.uk)**

---

**From:** ESE Collision Data  
**Sent:** 27 July 2015 13:45  
**To:** KEITH A BERRIMAN - THE HTTC LTD.  
**Subject:** RE: ACCIDENT DATA - ALL COLLISIONS - B1117 EAST OF STRADBROKE - KAB to SCC - 270715

Hi Keith

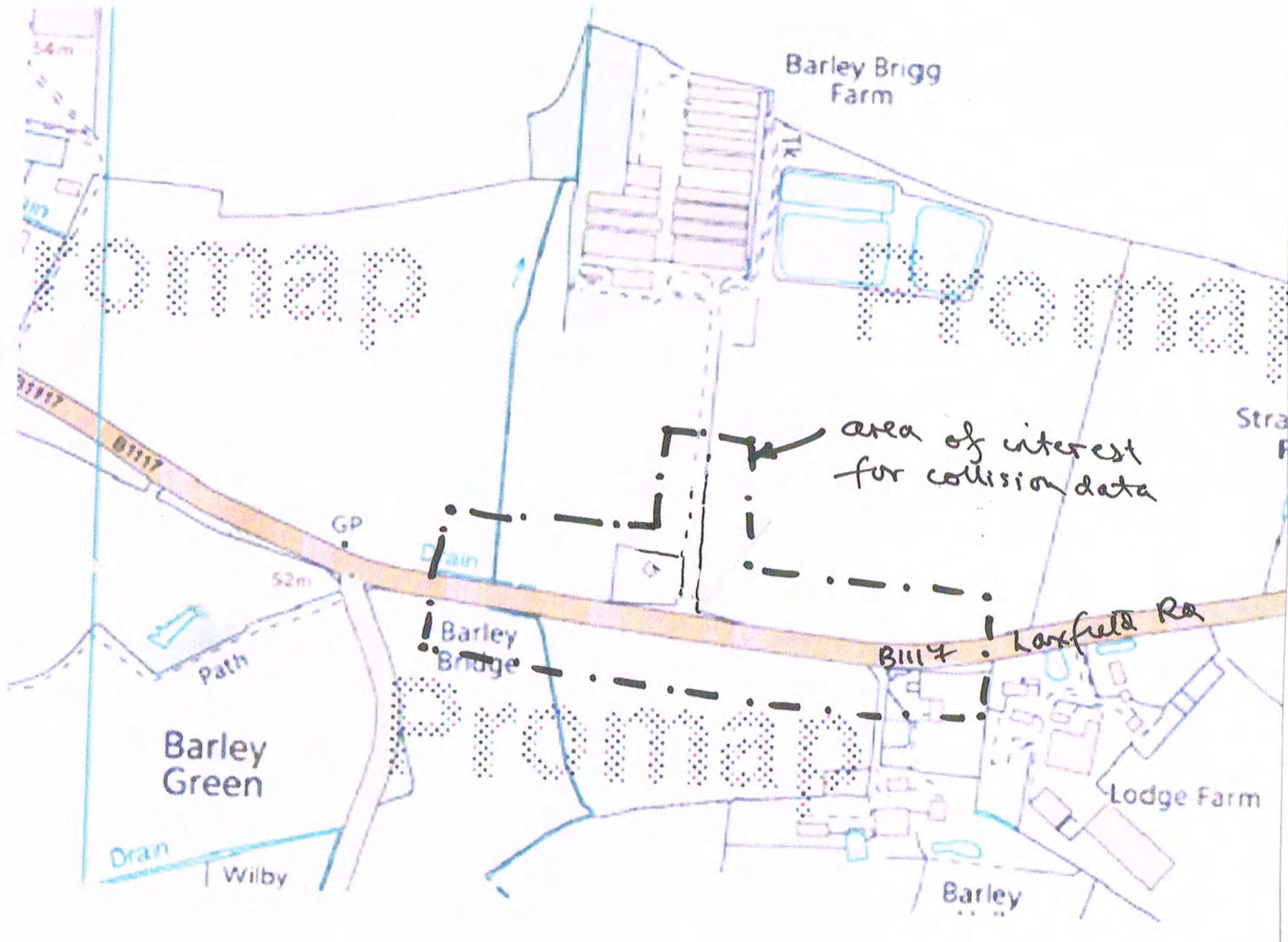
I have checked our data and there have been no recorded personal injury road traffic collisions within your highlighted area during the past five years.

We currently hold data up to 1<sup>st</sup> April 2015.

Kind regards

Susan

Susan Whitehead  
Collision Data  
Highway Network Management Group  
Economy, Skills and Environment  
Suffolk County Council  
Endeavour House (L5-B1), 8 Russell Road, Ipswich, IP1 2BX  
Telephone: 01473 265926  
Fax: 01473 216864  
Email: [Collision.data@suffolk.gov.uk](mailto:Collision.data@suffolk.gov.uk)  
Web site: [www.suffolk.gov.uk](http://www.suffolk.gov.uk)



SCALE: NTS

**KAB 6**

## Description of the site

The operating AD plant is located at Barley Brigg Farm approximately 2.5km east of Stradbroke, Suffolk and is shown on the accompanying site location plan.

The wider site includes the Rattlerow Farms pig rearing unit, a large grain store and large open slurry lagoons. The site is accessed from the B1117.

The site could only be said to be in a 'Sensitive Area' as described in Schedule 3 of the 2011 EIA regs (as amended) because of two listed buildings within 500m.

## Project Description

The Barley Brigg AD plant received planning consent in 2012 from Mid Suffolk District Council for a 500kw AD plant and proposed to use only slurry and pig manure from the adjacent pig rearing unit.

Barley Brigg Biogas Ltd (the operators) now intend to apply for planning permission for a 1.1mw AD plant which processes:

- 6000 tonnes slurries and manure from the adjacent pig rearing unit
- 7000 tonnes of energy crops
- 4000 tonnes sugar beet pulp
- 2000 tonnes chicken litter
- 2000 tonnes parsley and mint stalks

The sugar beet pulp, chicken litter and potentially the parsley and mint stalks are feed stocks classified in planning terms as 'waste' and therefore require the planning application to be directed to the County Council as the waste planning authority.



All feed stocks will be locally sourced as the viability of transporting these feed stocks too far undermines their usefulness to the plant. Primarily harvested during May/June and September/October each year, the energy crops yield totals 7,000 Tonnes. Of this 5000 tonnes is produced by Rattlerow Farms with at least 2000 tonnes sourced from adjacent fields. The remaining 7000 tonnes will be delivered by road; 3000 tonnes in July and 4000 tonnes in September. Crops are transported from the AD plant site where they are unloaded and stored in covered silage clamps. In addition to these energy crops, 8000 Tonnes per annum of additional by-products are fed into the AD Plant. These include sugar beet pulp, chicken litter and mint and parsley stalks. This mix compliments and enhances the digestion process.

Feed stock is supplied to the plant via the feed hopper and feed pit, 365 days a year. This

Our Ref: PL\0192\15  
Date: 25 August 2015  
Enquiries to: Mr Sean Cunniffe  
Tel: 01473 265903  
Email: sean.cunniffe@suffolk.gov.uk



Steven Bainbridge  
Evolution Town Planning LLP  
Opus House,  
Elm Farm Park,  
Thurston,  
Bury St Edmunds  
IP31 3SH

Dear Steven,

**Town and Country Planning (Environmental Impact Assessment) (England & Wales)  
Regulations 2011. Notification of Screening Opinion under Parts 2 & 3**

**Proposal: Anaerobic Digester Plant.**

**Location: Barley Brigg Farm, Laxfield Road, Stradbroke, Suffolk**

**KAB 9**  
SCALE: NTS

17	Are there any routes on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	<p>populated agricultural area.</p> <p>Unlikely - The development would be accessed via the B1117 (Laxfield Road) and is not near to any significant generators of incoming public traffic.</p>	No - The development is not anticipated to lead to significant increases in vehicle movements.
18	Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Likely - There may be impacts on local roads from vehicles bringing feedstock or carrying product between farmland and the site.	<p>No - The site related vehicles would primarily be replacing similar existing agricultural vehicles, a position that SCC Highways has accepted on similar AD plants at Ellough, Bentwaters and Boxford.</p> <p>The feedstock supplied from the pig rearing unit will involve no road movements and will, in fact, reduce road movements of manures from the site.</p> <p>The 7000 tonnes of agricultural feedstock would be produced within a 5 mile radius of the site; 5000 tonnes of which will arrive in the harvest season between July and September.</p>

Sugar beet pulp (4000 tonnes) would be delivered in lorries one load a day mid-September to mid-February on return loads from sugar beet deliveries to factories where the lorries are re loading locally. Therefore, no additional lorry movements would arise as a result of these deliveries.

The chicken litter (2000 tonnes) would be collected from Fressingland by tractor (approximately three miles

22	Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Unlikely - The nearest densely populated area is considered to be the village of Stradbroke 2.1km to the northwest	No - The village of Stradbroke is not expected to be significantly affected in terms of traffic, emissions or visual impacts.
----	--	--	---