TRANSPORT STATEMENT

TRANSPORT STATEMENT IN RELATION TO THE PLANNING APPLICATION FOR
THE INSTALLATION AND OPERATION OF AN ANAEROBIC DIGESTION FACILITY
INCLUDING THE ERECTION OF SILAGE CLAMPS, DIGESTER TANKS, TECHNICAL
BUILDING, GAS FLARE, WEIGHBRIDGE AND SITE OFFICE/WELFARE BUILDING
AND THE INSTALLATION ANCILLARY PLANT AND EQUIPMENT, ALTERATIONS
TO THE HIGHWAY ACCESS AND INTERNAL ROAD, INSTALLATION OF LAGOONS
AND ATTENUATION POND, HIGHWAY IMPROVEMENTS AND LANDSCAPING AND
ENVIRONMENTAL ENHANCEMENT MEASURES

AT

WORMSLADE FARM
CLIPSTON ROAD
KELMARSH
NORTHAMPTONSHIRE
LE16 9RX

Prepared by:

Phil Plant BSc (Hons) MRICS
Rural Planning Consultant
Mid West Planning Ltd
18 Church Street
Shifnal
Shropshire
TF11 9AA

Tel: 01952 276745
www.midwestplanning.co.uk
phil.plant@midwestplanning.co.uk

November 2015
CONTENTS

1. INTRODUCTION 4

2. EXISTING USE OF THE FARM 5

3. LOCALLY SOURCED FEEDSTOCK 7

4. IMPLICATIONS OF THE SCHEME ON THE A508 TRAFFIC FLOW 7

5. LAYOUT OF THE SITE 8

6. CONCLUSION 9

APPENDIX ONE:-- A508 TRAFFIC MOVEMENT FROM A14 TO A508 LOCAL AUTHORITY BOUNDARY (JUST SHORT OF MARKET HARBOROUGH - DAILY FLOWS
1. **INTRODUCTION**

1.1 This report has been produced by Philip Plant of Mid West Planning Ltd and is based on the information provided by the applicants and the prospective operators of the anaerobic digestion facility at Wormslade Farm.

1.2 Philip Plant holds a Bachelor of Science with Honours Degree in Rural Enterprise and Land Management and is a member of the Royal Institution of Chartered Surveyors.

1.3 Philip Plant is a Director of Mid West Planning Limited and is a former employee of ADAS and Acorus Rural Property Services. Mid West Planning Ltd has been established for over five years and specialises in rural planning consultancy to both the private and public sectors.

1.4 The preparation of this report by Mid West Planning Ltd has been commissioned by the applicant; Mr Stuart Homewood of Raw Energy Ltd.

**Plate One:** Location of application site at Wormslade Farm showing the access to the Clipston Lane, and the junction with the A508.

1.5 The site is located in open countryside at Wormslade Farm, Kelmarsh, Northamptonshire LE16 9RP. Please see Plate One above which shows the location of the site to the west of the A508 highway north of Clipston Road.
2. **EXISTING USE OF THE FARM**

2.1 The field in which the proposed anaerobic digestion facility will be located is all currently laid down to arable production. The farm buildings at Wormslade Farm comprise a large grain storage building which is currently used in association with the farming operation, a small range of traditional buildings, Dutch barn and a disused grain drying building.

![Plate Two: Existing grain storage building and access road.](image)

2.2 The proposals involve the annual movement to the Wormslade Farm anaerobic digestion facility, feedstock consisting of 46,000 tonnes of material comprising:

<table>
<thead>
<tr>
<th>Feedstock/ Digestate</th>
<th>Tonnage</th>
<th>Vehicle Movements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize Silage</td>
<td>18,000</td>
<td>1,286 x 14 tonne farm trailers</td>
</tr>
<tr>
<td>Grass Silage</td>
<td>5,000</td>
<td>351 x 14 tonne farm trailers</td>
</tr>
<tr>
<td>Wholecrop Rye</td>
<td>18,000</td>
<td>1,286 x 16m³ tanker loads</td>
</tr>
<tr>
<td>Slurry</td>
<td>5,000m²</td>
<td>250 x 20m² tanker loads</td>
</tr>
<tr>
<td>Total feedstock</td>
<td>46,000</td>
<td>3,173 vehicle movements in</td>
</tr>
</tbody>
</table>

2.3 In addition to the movement of feedstock to the facility there will be the movement away from the plant and onto surrounding fields of approximately 12,000 tonnes solid digestate and approximately 24,000 tonnes of liquid digestate.

<table>
<thead>
<tr>
<th>Digestate</th>
<th>Tonnage</th>
<th>Vehicle Movements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Digestate</td>
<td>12,000</td>
<td>857 x 14 tonne farm trailers</td>
</tr>
<tr>
<td>Liquid Digestate</td>
<td>24,000m³</td>
<td>1,500 x 16m³ tanker loads</td>
</tr>
<tr>
<td>Total</td>
<td>36,000</td>
<td>2,357 vehicle movements out</td>
</tr>
</tbody>
</table>
2.4 In reality to save time and to maximise efficiency vehicles returning to fields will have the opportunity to carry solid digestate on some return journeys which will reduce the number of vehicle movements for feedstock and digestate transfers. However in a worst-case-scenario a maximum of approximately 5,530 can be expected throughout the year. This equates to 15-16 movements per day on average.

2.5 It is important to remember that the crops grown on the land used for feedstock already generate vehicle movements at harvest time, and throughout the year. Often crops such as grain can be transported much greater distance to their final place of processing or consumption. Likewise, artificial fertilisers are transported many miles from the place of manufacture to the field. The use of locally sourced organic fertiliser in the form of digestate will greatly reduce the carbon footprint relating to the manufacture and transportation of such fertiliser inputs on farms contracted to supply Wormslade Anaerobic Digestion Plant.

2.6 As requested at the public consultation meeting at Great Oxendon, an assessment to quantify peak vehicle movements associated with the movement of feedstock and digestate assumptions have been made. This assessment has necessarily made assumptions about the timing of operations. Seasonal and other factors will affect these assumptions.

![Graph showing vehicle movements by month](image)

**Table One:** Depict estimated vehicle movements associated with feedstock and digestate on a daily basis throughout the year.

2.7 The maize harvest will take place in the autumn. If we assume an 80 day harvest window during October, November and the first 10 days of December each year, there will be some 19 vehicle movements a day attributed to bringing in the maize crop and returning to the field. During this period total peak vehicle movements will be 21 per day of manures brought to the site for feedstock. The use of manures at this time of year will help local farmers meet the no spreading obligation during this part of the year.
2.8 Grass and whole crop silage harvest is likely to take place over a longer period between May and August resulting in peak vehicle movements of approximately 19 per day.

2.9 During December and January when there are no crops to harvest and digestate cannot be applied to the land, vehicle movements will fall to around four to five per day.

3. **LOCALLY SOURCED FEEDSTOCK**

3.1 The recently introduced UK Sustainable Standards for the operation of the anaerobic digestion facility ensure that the operation, including the supply of feedstocks and disposal of the digestate is carried out to the highest standards of sustainable production. These standards are in place to ensure that renewable energy production is in fact sustainably achieved. In order to meet these standards the operator of the facility will have to prepare audited reports about where the feedstock is sourced, where the digestate is disposed of, and how the plant is run. Only locally sourced feedstock using the digestate as a fertiliser replacing artificial fertilisers will meet the required level of sustainability, therefore it is essential to source feedstock from the immediate locality.

3.2 Please refer to the Planning Statement for more information about the UK Sustainability Standards.

3.3 The applicants and operators will have to keep records of the sources of feedstocks and destination of digestate materials to comply with the Environment Agency’s Standard Rules and to be able to demonstrate compliance with the UK Sustainability Standards.

3.4 A suitably worded planning condition ensuring that the Local Planning Authority should be given access to these records to check that the stated quantities are not exceeded and that the feedstock is sourced, and the digestate is disposed of within a ten mile radius of the facility, is considered a reasonable measure to ensure that the anaerobic digestion plant at Wormslade Farm minimises the potential impact on the highway network and maintains a positive economic and employment benefit to the local community.

4. **IMPLICATIONS OF THE SCHEME ON THE A508 TRAFFIC FLOW**

4.1 Data has been obtained for traffic flow on the A508 from year 2000 to 2014. The number of heavy goods vehicle movements has decreased from 271 per day in 2000 to 194 in 2014. This represents a decrease in HGV numbers by 77 vehicles per day, or approximately 28.5% over this period. Please see Appendix One for more information.

4.2 Total vehicle numbers have fallen from 6298 in year 2000 to 5462 in 2014. This represents a decrease in all vehicle numbers by 836 vehicles per day, or approximately 13.25% over this period.
4.3 The decrease in vehicle movements on this section of the A508 is significant and will not be materially affected by the introduction of the Wormslade Anaerobic Digestion Plant traffic.

5. LAYOUT OF THE SITE

5.1 The extract from the site plan (P15-WORMSLADE-AD-003) contained below at Plate Three shows the proposed layout and arrangement of the site with dedicated access road for digester facility traffic.

5.2 Pre-application discussions with Northamptonshire Highways Department confirmed that the existing access onto the Clipston Road would require improvement works to meet current highways standards. The improvement works comprise the establishment of visibility splays to the east and west 4.0m x 215m and the widening of the site access road to 8m in order to accommodate traffic accessing and exiting the site simultaneously. It is recommended by the Landscape Architect in his Landscape and Visual Impact Assessment of the proposals, that the existing roadside hedge is translocated to the new position if possible.
Plate Three: Proposed layout and access improvements to the site.

5.3 County Highways have also recommended widening the road to Clipston from the access to the site to the junction with the A508. This will be widened slightly to 6m for this length of highway.

5.4 As part of the scheme we propose to make highway improvements to the junction of the road to Clipston and the A508 to allow for the safer flow of traffic when vehicles are turning into the road to Clipston. These improvements include increasing the turning radius on the northern side of the junction from 5m to 14m, and on the south side from 5m to 15m, whilst retaining visibility splays of 4m x 215m. Please refer to the plan submitted (ref: HI01-R1-Wormslade-A0-Highway Improvements) for more details about this improvement scheme.
6. CONCLUSION

6.1 This application is to develop and operate a farm based anaerobic digestion plant at Wormslade Farm which will operate using approximately 90% farm crops and 10% agricultural animal faeces only. The resulting bio-methane will be injected directly into the nearby National Gas Grid rather than generate electricity on site or be transported by road from site.

6.2 The vehicle movements required for the transportation of feedstocks and digestate equate to peak season journeys per day of 21. There will be peaks and troughs in vehicle movements, particularly during the maize harvesting season in October, November and early December. The figures for transportation need to be considered in light of the fact that crops are already produced and transported on the land that will be used for feedstock production, as is fertiliser and other inputs, therefore the transportation impacts are somewhat less than stated.

6.3 The vehicle movements associated with the proposed Wormslade Anaerobic Digestion Plant will not have a materially significant impact on the reducing numbers of HGV and all vehicle movements on the A508.

Phil Plant BSc (Hons) MRICS
Planning Consultant
Mid West Planning Ltd.

November 2015.
APPENDIX ONE

A508 TRAFFIC MOVEMENT FROM A14 TO A508 LOCAL AUTHORITY BOUNDARY (JUST SHORT OF MARKET HARBOROUGH - DAILY FLOWS)
<table>
<thead>
<tr>
<th>AADFYear</th>
<th>Motorcycles</th>
<th>Cars</th>
<th>Taxis</th>
<th>Buses</th>
<th>Coaches</th>
<th>LightGoodsVehicles</th>
<th>AllHGVs</th>
<th>AllMotorVehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>35</td>
<td>5303</td>
<td>47</td>
<td></td>
<td></td>
<td>642</td>
<td>271</td>
<td>6298</td>
</tr>
<tr>
<td>2001</td>
<td>39</td>
<td>5319</td>
<td>46</td>
<td></td>
<td></td>
<td>664</td>
<td>271</td>
<td>6339</td>
</tr>
<tr>
<td>2002</td>
<td>42</td>
<td>5309</td>
<td>39</td>
<td></td>
<td></td>
<td>725</td>
<td>252</td>
<td>6367</td>
</tr>
<tr>
<td>2003</td>
<td>52</td>
<td>5357</td>
<td>41</td>
<td></td>
<td></td>
<td>817</td>
<td>246</td>
<td>6513</td>
</tr>
<tr>
<td>2004</td>
<td>34</td>
<td>5084</td>
<td>39</td>
<td></td>
<td></td>
<td>729</td>
<td>202</td>
<td>6088</td>
</tr>
<tr>
<td>2005</td>
<td>31</td>
<td>5080</td>
<td>39</td>
<td></td>
<td></td>
<td>766</td>
<td>197</td>
<td>6113</td>
</tr>
<tr>
<td>2006</td>
<td>71</td>
<td>4928</td>
<td>45</td>
<td></td>
<td></td>
<td>818</td>
<td>262</td>
<td>6124</td>
</tr>
<tr>
<td>2007</td>
<td>70</td>
<td>4800</td>
<td>49</td>
<td></td>
<td></td>
<td>903</td>
<td>285</td>
<td>6107</td>
</tr>
<tr>
<td>2008</td>
<td>63</td>
<td>4534</td>
<td>28</td>
<td></td>
<td></td>
<td>681</td>
<td>189</td>
<td>5495</td>
</tr>
<tr>
<td>2009</td>
<td>66</td>
<td>4479</td>
<td>28</td>
<td></td>
<td></td>
<td>694</td>
<td>173</td>
<td>5440</td>
</tr>
<tr>
<td>2010</td>
<td>58</td>
<td>4394</td>
<td>29</td>
<td></td>
<td></td>
<td>714</td>
<td>175</td>
<td>5370</td>
</tr>
<tr>
<td>2011</td>
<td>63</td>
<td>4408</td>
<td>31</td>
<td></td>
<td></td>
<td>755</td>
<td>182</td>
<td>5439</td>
</tr>
<tr>
<td>2012</td>
<td>58</td>
<td>4284</td>
<td>31</td>
<td></td>
<td></td>
<td>792</td>
<td>185</td>
<td>5351</td>
</tr>
<tr>
<td>2013</td>
<td>59</td>
<td>4205</td>
<td>28</td>
<td></td>
<td></td>
<td>850</td>
<td>187</td>
<td>5329</td>
</tr>
<tr>
<td>2014</td>
<td>61</td>
<td>4264</td>
<td>29</td>
<td></td>
<td></td>
<td>914</td>
<td>194</td>
<td>5462</td>
</tr>
</tbody>
</table>
Proposed Site Layout

Client: RAW Energy

Project: Wormslade Farm AD Facility

Great Oxendon

Northamptonshire

LE16 9RP
1.0 Introduction

1.1 This Construction Traffic Management Plan (CTMP) has been prepared on behalf of RAW Energy to support the proposed development for an Anaerobic Digestion (AD) Facility on land at Wormslade Farm, off the Clipston Road, Kelmarsh, Northamptonshire.

1.2 The works described in this CTMP involve the construction of an AD facility which will generate renewable gas for connection to the local gas distribution network. The AD process will produce a biogas, consisting of methane and carbon dioxide, and this is cleaned, processed and upgraded before being injected into the National Grid. In essence, the AD plant will be an extension of existing agricultural operations. The site masterplan is included in Appendix A.

2.0 Site Location

2.1 The site is currently open agricultural land in arable cultivation, in immediate proximity to the west and south of the site is a range of existing agricultural buildings.

2.2 Access to the site will be from the A508 and then head eastwards along the Clipston Road for a short distance to the site entrance. Pre-application consultation with Verity Chilver, Development Management Engineer at Northamptonshire Highways Department resulted in advice about the required visibility splay from the site on to Clipston Road, and the widening of the road to the junction with the A508. Any works necessary at the site access and any carriageway widening proved to be required would need to be carried out by the developer under a Section 278 Agreement with the local highway authority.

3.0 Local Highway Network

3.1 The junction with the A508 will require improvement which will be of benefit to the community, particularly Clipston village.
4.0 Management of the Plan

4.1 Contact details for the site supervisor/manager are not currently available at this time, but will be provided to the Northamptonshire County Council (Local Planning Authority) prior to commencement of works.

5.0 Traffic Generation

5.1 The largest quantities of material to be delivered to the site will be ready mix concrete and aggregate. It is anticipated that for the construction process approximately 400-500 tonnes of aggregate (20-30 deliveries), a day will be required for the first 60 days (When practical we will use articulated trucks to reduce the number of deliveries). The second phase will relate to the input of concrete and will generate around 50m$^3$ a day (approximately 8 deliveries). The final phase will be for the concrete for internal road construction and during this phase it is anticipated there will be between 10 and 20 deliveries a day.

5.2 Precast silage clamp wall units will be delivered on articulated lorries at a frequency of approximately 3 loads per day, when required. Local residents will be made aware of significant deliveries along the construction route. It is anticipated that the site manager will approach residents individually if necessary.

5.3 Precast tank panels will be delivered by flatbed articulated lorries over a 2 day period, up to 15 loads per day may be required. This will happen on two separate occasions during the course of the project.

5.4 The majority of the deliveries will be made by concrete trucks and low loader vehicles. The average maximum number of deliveries a day will therefore be 25. Based on a 10 hour working day, with a restriction of 2 one-hour peak periods (and therefore allowing 8 hours delivery time), this equates to around a maximum of 3 deliveries per hour. Deliveries of concrete and aggregate at the same time will only occur on 1 or 2 days throughout the construction period. On such
occasions traffic management measures will be in place, as set out further in section 12.

6.0 Traffic Routeing and Distribution

6.1 Further detail of the delivery route is not currently available, it is within the environmental policy procedures of the contractors to source local materials and generally delivery distances dictate cost, therefore it is in all interests to source materials as locally as possible.

6.2 Construction deliveries will not be permitted to reach site via Clipston or Arthingworth. The deliveries will be routed by the A508 only. Deliveries will pass by Great Oxendon on the A508 but will not be permitted to access the village itself.

7.0 Pre-Commencement and Post Construction Highway Condition Survey

7.1 A Pre-Commencement Highway Condition Survey will be carried out on the Clipston Road in conjunction with the Highways Authority prior to the commencement of the project.

7.2 A Post Construction Highway Construction Survey will also be undertaken in conjunction with the Highways Authority to determine if any damage has been caused by construction traffic to the Clipston Road on completion of the project.

8.0 Site Working Hours

8.1 Unless otherwise agreed in writing by the Local Planning Authority, working hours will be Monday-Friday 07:30-18:30 and Saturday 09:00-13:30. At the current time construction activities are not envisaged on Sundays or Bank Holidays.

8.2 Deliveries can be timed outside of network peak periods, if requested by the Local Planning Authority.
9.0 Site Control and Security

9.1 All necessary measures required for the protection of the public have been planned taking into account Section 3 of the *Health and Safety at Work etc. Act 1974* and particularly, the recommendations contained in the *Health and Safety Executive Guidance HSG151 'Protecting the Public – Your next move'*. 

9.2 The site will be made secure at the start of the works and this will be maintained during the construction period. The proposed access junction will be kept unobstructed at all times. The entrance gates will be set back from Clipston Road to enable a minimum of one HGV vehicle to park off the public road.

10.0 Parking and Loading Arrangements / Access to Site

10.1 Principal access to the site will be via Clipston Road. It is understood that the access will be used for construction and operation.

10.2 The site is large enough to accommodate all site parking during the construction period; therefore no additional off-site parking is necessary.

10.3 There are no options available for the use of rail or waterway to deliver materials to the site given its location.

10.4 Vehicular movements to / around / within the site will be controlled in a manner which:

- confines all site traffic to the designated sign-posted routes to limit any potential off-site impact as far as is feasible;
- segregates pedestrian movements from construction and vehicular traffic so far as is reasonably practicable;
- ensures the access is wide enough to accommodate two vehicles, or alternatively prevent two vehicles using the access at the same time through site management/delivery management procedures;
- reversing vehicles are to be avoided so far as reasonably practicable.
11.0 Scheduling Deliveries

11.1 If feasible, a delivery timing/booking system will be adopted, but all deliveries are requested to arrive on site outside the hours of 08:00-09:00 and 17:00-18:00.

11.2 Where applicable, construction material will be procured from local suppliers. This will help to further reduce travelling distances and numbers of deliveries to the site.

12.0 Cranes / Road Closures

12.1 It is not anticipated that any complete road closures will be necessary for the construction of the AD facility. However the Section 278 works and Gas Connection will require some form of Traffic management. This will be carried out in accordance with Chapter 8 guidelines and will be notified to NCC as required.

13.0 Site Tidiness

13.1 Materials will be delivered to site in quantities that can be reasonably stored, to suit site progress and enable uninhibited access around the construction site.

14.0 Control & Prevention of Debris from Public Roads and Places

14.1 There is no intention to remove surplus soils from site and as such it is not anticipated that significant quantities of existing material will be taken from the site.

14.2 All efforts will be made to ensure that soils or debris are not carried on to the public road by vehicles. A pressure washer shall be kept on site to clean wheels of outgoing construction traffic as and when conditions require.

15.0 Noise Control
15.1 Any noise (direct and indirect) generated by the operations necessary for construction work will be assessed and appropriate action will be implemented to protect everyone who could be affected (site personnel, neighbouring personnel in surrounding buildings and general public) as required by *The Control of Noise at Work Regulations 2005*. Noise will be suppressed at source wherever practicable, to comply with the current site environmental conditions and restrictions/regulations.

16.0 **Air Quality and Dust Management Plan**

16.1 Dust is a potential health hazard to anyone in the vicinity (site personnel and the general public) and this includes smoke and fumes. Dust concentration will be maintained below the levels set out in the current edition of *EH 40/2005 Workplace Exposure Limits*.

17.0 **Summary/ Conclusions**

17.1 The site has been reviewed in terms of construction traffic impacts with regards to traffic generation, routeing and general site operations.

17.2 Traffic management measures will be adopted on certain occasions to ensure deliveries can travel to and from the site without causing congestion.
Intentionally Blank