Shelton Road, Corby, Northamptonshire

Proposed Energy Recovery Facility

TRANSPORT ASSESSMENT

Prepared by: Entran Ltd

DATE: February 2019

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1. INTRODUCTION

1.1. This Transport Assessment (TA) has been prepared by Entran Ltd in support of a planning application for an Energy from Waste facility on land located to the north of Willowbrook East Industrial Estate and west of Shelton Road, Corby. Full details of the proposed development are contained in Section 4 of this report.

1.2. Early pre-application discussions have been held with the highway authority Northamptonshire County Council (NCC) and planning authority, Corby Borough Council (CBC). A scoping note was issued to the highway authority in December 2018 and a scoping response was received in January 2019. Details of the scoping exercise are included as **Appendix A.**

1.3. This TA has been developed following the scoping discussions with the highway authority and feedback from earlier, similar applications on this site; it takes account of the comments received as well as local and national guidance.

1.4. Guidance published by the DfT and the Ministry for Housing, Communities and Local Government (MHCLG) in 2007 (DCLG at that time) provided advice on the content and preparation of Transport Assessments and Transport Statements. It also assists stakeholders to determine whether an assessment may be required and, if so, what the level and scope of the assessment should be.

1.5. The 2007 document brought the Guidance on transport assessment up to date with these changes in Government policy, and expanded it to address the assessment of the potential implications of development proposals on the entire transport system.

1.6. In 2014, DCLG published a suite of Planning Practice Guidance in support of the National Planning Policy Framework (NPPF), including advice entitled “Travel Plans, Transport Assessments and Statements”. This guidance supersedes the 2007 DfT but is far less detailed and generally covers the overarching principles and main points for consideration. For this reason, many local highway authorities still refer to the 2007 guidance when considering certain detailed matters in determining the transport related effects development.

1.7. This TA describes the local transport network and the previous planning history of the application site. A description is provided of the development proposals including site layout, means of access and vehicular operations. This TA includes an assessment of the predicted vehicle trips associated with the proposed development and an analysis of the transport effects when compared to the lawful use of the site.

Report layout

1.8. Section 2 of this report provides a description of the site and its location. Section 3 then describes the local transport network including the road network, bus provision, pedestrian and cycle facilities and rail station location. Section 4 provides details of recent traffic counts and sets out baseline traffic conditions. Section 5 describes the development proposals including means of access. Section 6 includes an analysis of travel by different modes to the proposed facilities including vehicle trip generation.

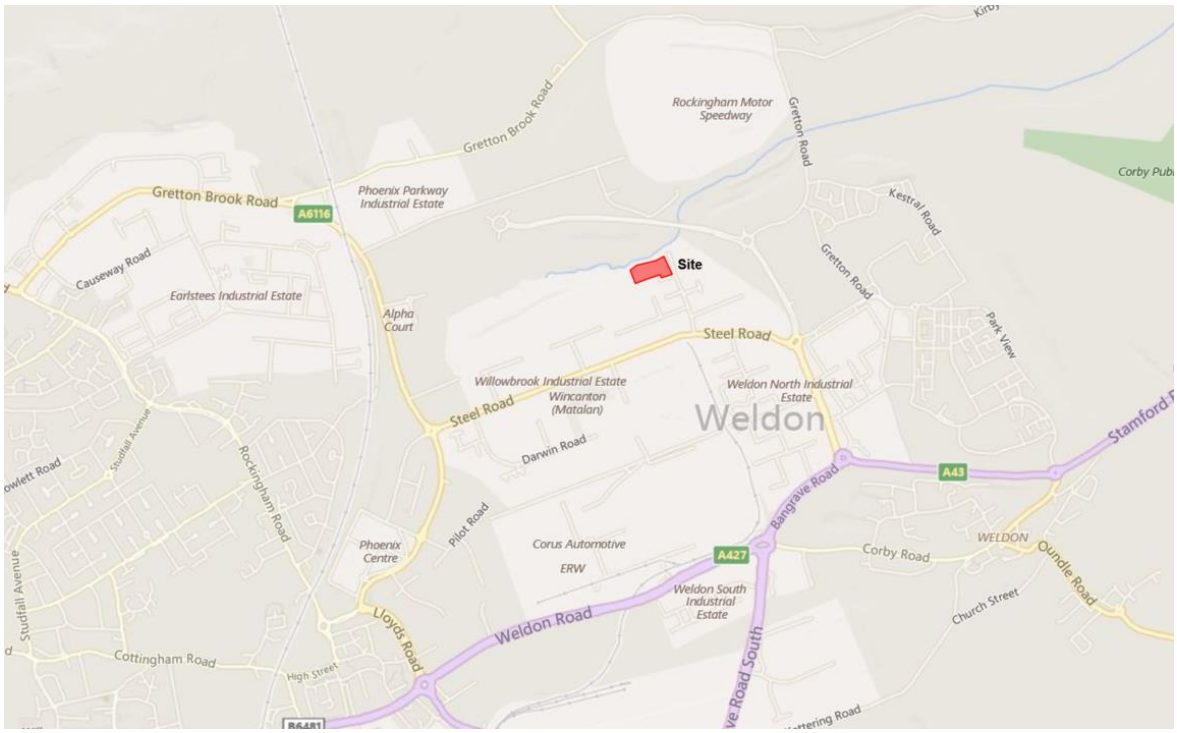
1.9. Section 7 describes the Staff Travel Plan to be implemented as part of the proposals. Section 8 details the proposed Delivery & Servicing Plan for the development. Section 9 considers the transport impacts of the proposed development, potential mitigation and compares the proposed development with the existing use of the Site and the extant planning permission.

1.10. Section 10 provides a summary of the assessment and draws conclusions from its findings.

2. SITE LOCATION AND DESCRIPTION

2.1. The Site is located to the west of Shelton Road and to the north of the Willowbrook East Industrial Estate. The site is bounded on its southern edge by unit F-N (Harlow House) of the Willowbrook East Industrial Estate. To the west is an existing car storage and distribution operation. The general Site location is shown by Figure 2.1 below:

Figure 2.1 - Site Location



2.2. The Site has an existing vehicular access onto Shelton Road, which is located at the southeast corner of the site. This is shared with a parcel of land located immediately to the south.

2.3. The Site is currently used for car storage. The Site has surfacing, internal access roads and lighting in place and is able to store 1125 cars. We are informed that the wider car storage site (6.5 hectares including the application Site) has capacity to store 3000 cars.

2.4. There are two accesses to the wider car storage area, from Baird Road and also from Shelton Road at the location of the Site Access. At present, Paragon (who lease the site) choose to only use the access from Baird Road for their operation, which means the car storage site currently fills up from West to East.

2.5. At its peak we understand the whole 6.5 hectares was regularly full of cars (up to 3000 at a time) which meant that the application Site was in constant use. The whole 6.5 hectares is still leased for this purpose but as the business is less intensive than it was a few years ago the western half of the wider site is currently used more than the eastern half. The application Site is therefore in use for car storage but at present it is only used at times of peak demand.

2.6. Of course, if the economic or trading situation were to alter the Site could be used at its previous intensity. Furthermore, if Paragon chose to re-open the western access the Site would be used to capacity again even at current levels of operation. We would therefore suggest that the Site should be described as ‘partially vacant’ but benefitting from an existing use for car storage.

Recent planning history

2.7. Planning permission was granted for a similar facility on this site in February 2014. This use is classed as Sui Generis. The application references for the consented scheme are:

- NCC Ref: 13/00079/WASFUL
- CBC Ref: 13/00278/COC
- ENC Ref: 13/01600/NCC

2.8. The scheme was for an Energy from Waste (EfW) facility, re-using the existing access onto Shelton Road with some minor alterations. The planning application for the consented scheme was supported by a full Transport Assessment (July 2013) and a Transport Assessment Addendum (November 2013) which assessed the operational capacity of three junctions within an agreed study area. The TA and its addendum demonstrated that the EfW facility would have no material effect on the operation or safety of the public highway.

2.9. A further application for a different form of EfW facility was granted planning permission in September 2016 (NCC Ref: 16/00028/WASFUL; CBC Ref: 16/00274/COC). That application was supported by Technical Note 3 – Transport Statement (June 2016). The traffic generation for the 2016 scheme was shown to be less than the 2013 scheme and so the highway authority raised no objections subject to a number of conditions and obligations.

2.10. The 2016 planning permission is still valid and so the approved EfW facility represents the lawful use of the Site.

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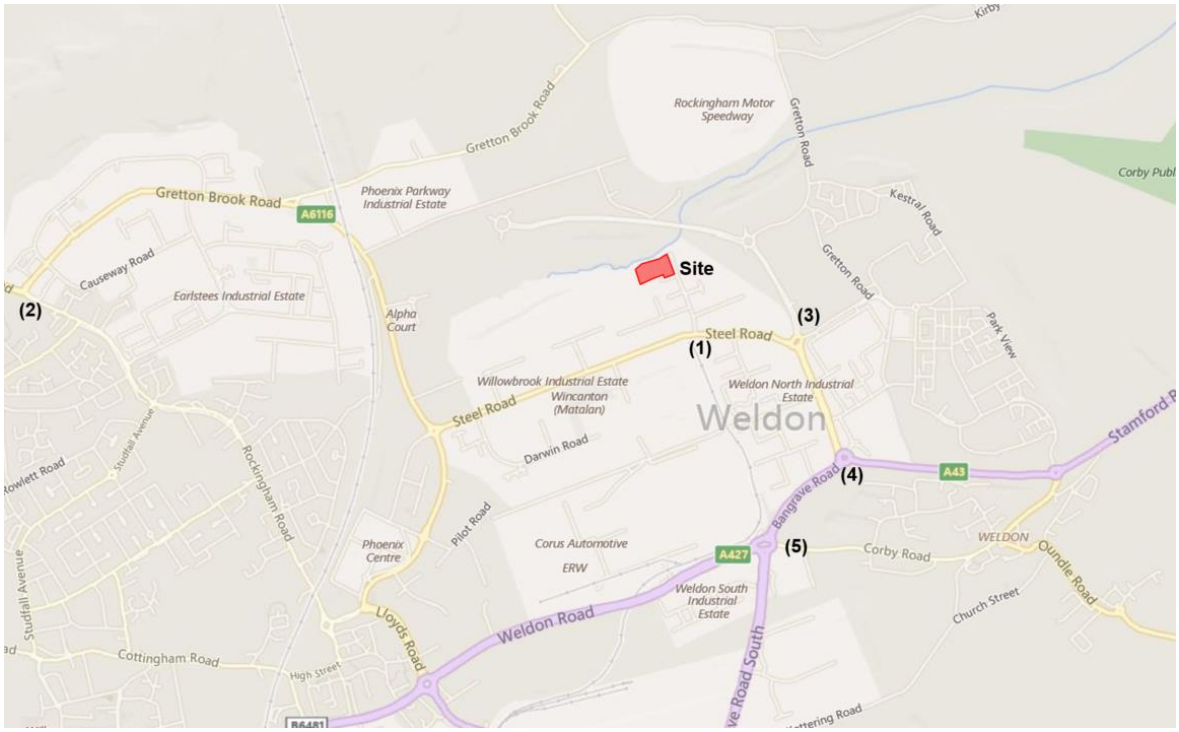
3. LOCAL TRANSPORT NETWORK

General

3.1. Figure 3.1 below illustrates the road network surrounding the Site. The Site currently takes access from Shelton Road, which is a 7.3 m wide industrial estate road serving part of Willowbrook East Industrial Estate. Shelton Road is an adopted public highway with a 30 mph speed limit and is bounded by a footway to the western side and a grassed verge to the eastern side.

Figure 3.1 – Local Highway Network



3.2. Shelton Road is street-lit with no parking restrictions. A plan illustrating the limit of adopted highway, provided by NCC is included as **Appendix B**. The extent of adopted highway continues to a point north of the existing Site access.

3.3. There are currently a set of locked gates across Shelton Road located approximately 110 metres south of the northern extent of the publically maintained highway, however the highway authority has no record of any traffic order permitting the erection of these gates on highway land, so they may be illegal or the highway records may be incomplete. At the highway authority's request further investigations have been carried out by contacting NCC's highway maintenance team to seek to understand the nature of these gates. They have no record of their installation but confirm that they should not be sited within the public highway. Once requirement of the previous planning permissions on this site was that the developer would remove the gates and reinstate the highway at their own expense under a Section 278 Agreement with the highway authority. It is anticipated that a similar arrangement would apply to any permission granted for the current scheme.

3.4. Shelton Road joins the A6116 Steel Road at a large three arm priority ghost island junction (1) with Shelton Road forming the minor arm. Steel Rd is an important single carriageway local distributor road link through the existing industrial and commercial area to the north west of Corby and provides a key east-west link between the A6006 (via Phoenix Way) and the A43.

3.5. Steel Road is street-lit with wide grassed verges and there are footways provided to the north side with an additional footway on the south side of Steel Road to the east of the Shelton Road junction. The speed limit on Steel Road is 40 mph.

3.6. Some 1400 metres to the west of the Steel Road/Shelton Road junction is the A6116 Phoenix Parkway/Steel Road roundabout (2). This is a four arm 50m ICD roundabout with uncontrolled pedestrian crossing facilities on each arm at the deflection islands. Phoenix Parkway leads north and west towards the A6006, whilst to the south, Phoenix Parkway leads towards the town centre and the A427 Weldon Rd.

3.7. About 470 metres to the east of the Shelton Road/Steel Road junction, Steel Road meets a four arm roundabout (3) linking Steel Road, Birchington Road and the part-completed Corby Northern Orbital Relief Road (CNOR) which is a dual carriageway road which will connect Steel Road with Mitchell Rd on the A6116 Phoenix Parkway. This junction is street-lit with anti-skid on each approach, with uncontrolled pedestrian crossing facilities provided. To the south of this roundabout junction, Steel Road becomes a dual carriageway with a 40 mph limit.

3.8. Further to the south, Steel Road meets the A43 at a five arm 70m ICD roundabout junction (4). To the west of this junction the A43 is dual carriageway, whilst to the east the A43 is single carriageway. The national speed limit applies at this roundabout and also on the A43 approaches. This junction is street-lit with anti-skid surfacing on each approach, and there are uncontrolled pedestrian crossing facilities provided.

3.9. To the southwest on the A43, is the junction of A427 Weldon Rd and A43 Bangrave Rd (5). This junction forms a small five arm roundabout gyratory with an overall diameter of 105 metres. This junction is street-lit and the national speed limit applies.

3.10. All local main highway links and junctions are fully designed to accommodate HGV movements which occur regularly given the location within an established industrial estate.

Pedestrians

3.11. Acceptable journey distances on foot vary depending on the purpose of the journey, the environment in which the journey is taking place and of course the individual walking. Prior to being superseded by the National Planning Policy Framework (NPPF) PPG13 suggested that walking offers the greatest potential to replace short car trips for journeys less than 2km.

3.12. The IHT guide 'Providing for Journeys on Foot' suggests that for journeys to work a desirable walking distance would be 500m, an acceptable walking distance would be 1km and the preferred maximum walking distance would be 2km, in line with the PPG13 advice.

3.13. Figure 3.2, appended to this report shows that the nearest substantial residential catchment (as the crow flies) is Priors Hall Park, which is located about 1,300 metres east of the Site.

3.14. This site is only partially built but has permission for 5,100 new homes, together with a District Centre, two neighbourhood centres, open space, hotel and schools. When this development is fully built-out there will be residential elements within 800 metres of the site and the District Centre will be located within 1,100 metres.

3.15. Other residential areas are located in Weldon about 1,600m to the south east of the Site, and in Corby, 1,800m to the south west. However, the Corby to Melton Mowbray railway line creates some additional unavoidable severance for some walking journeys towards the west.

3.16. Existing residential areas are therefore considered to be within the thresholds recommended by the IHT guidance.

3.17. An audit of pedestrian facilities around the site has been undertaken which reveals reasonably good provision for those undertaking walking trips in the local area.

3.18. The footway along the western side of Shelton Road is (whilst currently a little overgrown in places) of a reasonable standard and is well lit. There are wide grassed verges separating the footway from the carriageway which should help to reduce intimidation by large vehicles, improve safety and ultimately improve the qualitative aspects of undertaking a local journey on foot. It is noted that the footway currently stops some 30m south of the site access and that previously planning permissions were subject to a new length of footway being constructed on the western side of Shelton Road as far as the site access.

3.19. Further to the south, there is no footway provided on the southern side of Steel Road on the west side of the Shelton Road junction, but this should not form any issues as there is a wide footway on the north side, and crossing points are provided at suitable location on pedestrian desire lines.

3.20. Due to the scale and dispersed nature of the industrial estate there are a fairly limited number of local destinations which might lead to journeys being undertaken on foot on a regular basis by staff working at the proposed development; however, this is subject to change as a result of the on-going construction of the Priors Hall development to the east of the Site, which will help lead to the creation of more walking journeys on a day to day basis. The Priors Hall site includes a District Centre which will be within 18 minutes' walk or 1,500 metres of the site together with extensive residential areas.

Cycle

3.21. Figure 3.3 illustrates that a fairly wide residential area can be reached within easy cycling distance of the Site.

3.22. There is a range of cycle infrastructure available in proximity to the site. Although there are no dedicated facilities provided on Shelton Rd itself, to the east of the site on Steel Road there are sections of dedicated shared off-road cycle facilities leading north, east and south from the Steel Road/Birchington Road roundabout. There are junction crossing points and refuge islands provided to aid cyclists.

3.23. The cycle facilities continue south along Steel Road leading to the A34/Steel Road roundabout and then along Bangrave Road and Weldon Road. There is a cycle facility on Birchington Road heading towards the proposed District Centre.

3.24. It is understood that there are proposals to extend the local off-road cycle facilities from Steel Road/ Birchington Road roundabout along Steel Road, past Shelton Road and then southwards along Phoenix Parkway leading to Phoenix Retail Park, Corby Rail station, Corby Town Centre and the surrounding residential areas. It is expected that facility would come forward as part of the Priors Hall development. Once this is complete, there will be a very good cycle link from the Site to new District Centre, and to the south west and Corby.

3.25. Cycle parking is also provided in Corby Town Centre, Phoenix Retail Park and also at Corby Railway Station. It is anticipated that cycle parking will also be provided in the new District Centre to the East of the site in Priors Hall.

Bus

3.26. The nearest bus stop is located on Steel Road approximately 400 metres walk from the site. This is within the recommended 400 metres in the IHT publication 'Planning for Public Transport in Development'. The route to the eastbound bus stop can be comfortably walked in 5 minutes. The bus stop has a 'flag' and timetable located within the wide verge on the northern side of Steel Road. It is noted that as part of previous applications the highway authority requested a short length of additional footway across the verge to the edge of carriageway to assist bus passengers using this stop.

3.27. The corresponding westbound bus stop on Steel Road is located approximately 500 metres or 6 minutes' walk from the Site, on the opposite side of the road, close to the junction of Steel Road and Sallow Road and also the crossing point over Steel Road.

3.28. Bus stops at this location are request stop only and include a bus flag and a timetable on the westbound stop. Full bus timetables can be found at www.traveline.info or www.northamptonshire.gov.uk but the main bus services are summarised below:

Table 3.1 – Bus Route Summary

No	Details	Duration	Frequency
2	Corby Town Centre – Railway Station – Weldon Industry – Priors Hall	13:42-18:42	2 services Eastbound, 4 services Westbound
2a/2c	Kingsthorpe-Danesholme-Corby Town Centre –Willow Brook Industry – Priors Hall	05:55-22.15	5 services
18	Corby – Little Stanion – Brigstock – Thrapston - Raunds	07:02 – 17:51	2 hours
X4 gold	Corby Town Centre – Railway Station – Weldon Industry – Priors Hall	08:21 – 18:19	Hourly each way

3.29. Table 3.1 shows that the nearest bus stops benefit from reasonably good bus provision. The services which stop within 5 minutes' walk of the Site provide access to a wide area including Corby Rail Station and Town Centre at a reasonable frequency and duration during the day and evenings. The duration and frequency of these services are suitable for those working conventional office hours and shifts.

Train

3.30. The nearest rail station to the Site is Corby Station which is located to the south-west of the Site and about 3.6km or 14 minutes' cycle. Frequent services (approximately every hour) are operated between Corby and Kettering and north towards Melton Mowbray. Most services continue towards London St Pancras as well as many intermediary stops. Cycle parking is available at the station, and the bus services identified in Table 3.1 also call at the station.

Accessibility audit summary

3.31. It is clear that many opportunities exist to travel to and from the site on foot, by bike, by bus or using local and national rail services. There are anticipated to be further improvement to the existing facilities as part of the on-going Priors Hall development, which in itself will provide additional opportunities. The site is therefore well placed to promote travel by sustainable modes of transport for all staff and visitors.

4. BASELINE TRAFFIC CONDITIONS

Baseline Flows

4.1. The Site has an existing use as car storage but benefits from an extant planning permission for a similar EfW facility. For a complete assessment the 'baseline' against which the proposed development should be assessed is taken as being the existing conditions, plus an assessment when compared to the extant permission.

4.2. As part of the original EfW application three junctions were examined in detail to establish the development's effect on operation capacity. These were:

- Shelton Road / Steel Road priority junction
- A6116 Steel Road / Phoenix Parkway roundabout;
- A6116 Steel Road / Birchington Road roundabout.

4.3. Given the very low level of development traffic expected at peak times, the proposed development impact was shown to be well within day to day variation at junctions further from the development. Indeed the detailed PICADY and ARCADY analysis showed that the 2013 EfW facility had no material effect on the operational capacity of the highway network.

4.4. Notwithstanding the above, a new manual classified turning count was undertaken at the junction of Shelton Road / Steel Road in July 2018. Full details of the traffic count are included as **Appendix C** the data is summarised in Table 4.1 below:

Table 4.1 – Summary of Traffic Count Data (two-way)

	Link	0800-0900	1700-1800	12 hr (0700-1900)
1	Shelton Road	226	192	2,131
2	Steel Road (W)	1,100	1,092	10,004
3	Steel Road (E)	1,110	1,104	9,957

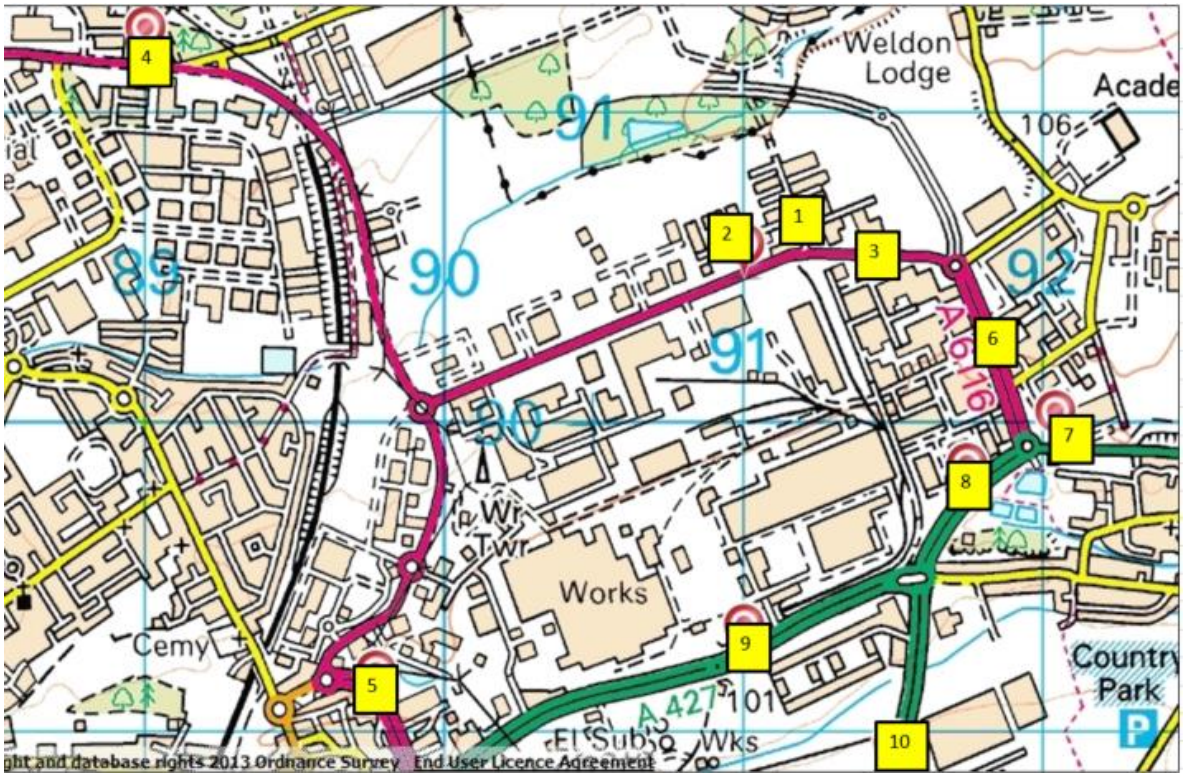
4.5. In addition, the DfT has permanent traffic monitoring at 7 sites located on the A6116 Phoenix Parkway, A43 and A427. It is therefore possible to derive the Average Annual Daily Flow (AADF) in 2018 at the 10 locations* as summarised below. The DfT data is provided at **Appendix D** and summarised in Table 4.2.

**The 24 hour AADF flow for Shelton Road is interpolated from the 2018 manual traffic count and the observed 24 hour profile on the surrounding network.*

Table 4.2 – Summary of DfT AADF Traffic Count Data (two-way)

	Link	Daily AADF (24hr)
1	Shelton Road	2532
2	Steel Road (w)	9240
3	Steel Road (E)	9240
4	Phoenix Parkway (N)	13529
5	Phoenix Parkway (S)	19738
6	Steel Road (S)	12143
7	A43 (E)	10782
8	A43 Bangrave Rd	14855
9	A427 Weldon Road	11415
10	A43 Bangrave Road (S)	9826

Figure 4.1 – AADF survey sites



4.6. These daily baseline link flows have been used to inform the proportional increase in traffic resulting from the proposed redevelopment of the Shelton Road Site.

5. PROPOSED DEVELOPMENT

5.1. The proposed development comprises a new Energy from Waste (EfW) facility. The proposal retains many aspects and principles of the 2016 consented development including:

- The facility will treat refuse derived fuel (RDF) and residual material and will generate 23 MWe;
- All of the processes and materials will be contained within a sealed building, operating under negative pressure;
- The development accords with the waste hierarchy as all materials will have been subject of pre-treatment;
- The development will use the existing Site access from Shelton Road;
- When operational the proposed development will generate 30 FTE jobs.

5.2. The change in technology requires the boilers to be vertical rather than horizontal, thus necessitating an increase in building height.

5.3. The planning application is framed by a maximum receipt of some 260,000 tonnes of material per year which is more than the extant consent. This increase in the throughput of feedstock will have an effect on the likely number of vehicle movements, but the change will not be directly proportional. This is explained further in Section 6.

Means of access

5.4. The proposed form of access would be via a simple priority junction onto the Shelton Road at the location of the existing access to the car storage site. The layout of this access is shown in **Appendix E**.

5.5. The site access has been designed around the swept path of a 16.5m long articulated HGV, being the largest vehicle likely to visit the site. The access has been designed such that all vehicles can enter and leave in a forward gear with ample stacking capacity within the site so that no queuing will occur on Shelton Road. In practice, the predicted frequency of vehicle movements is sufficiently light that it is unlikely that more than one vehicle will arrive at any one time but the layout allows for such an eventuality.

5.6. All commercial vehicles entering and leaving the site will do so via a weigh-bridge.

5.7. A vehicle swept path analysis of the internal access roads has been carried out using the proprietary computer program AutoTrack. Full details are included as **Appendix F**.

5.8. The safe operation of the site access has been given careful consideration. Vehicles entering and leaving the site are segregated by a raised kerb and fenceline. All vehicles entering the site will enter a barrier-operated processing area where they will be released one at a time onto the entry weighbridge. All commercial vehicles leaving the site will do so via the exit weighbridge adjacent to the gatehouse. The layout has been designed to allow for vehicles to queue without affecting internal manoeuvres at the tipping hall, or preventing staff vehicles from leaving safely. It is important to note, however, that queuing is not expected to be a regular occurrence so this is a cautious design provision. Staff leafing in vehicles will not be required to use the weigh bridge so a dedicated bypass lane is included in the exit design. Finally, a segregated pedestrian path is provided across the site access and into the site from where it leads to all pedestrian access points within the Site. The means of access has been designed with safety in mind for all users. The proposed access layout is an improvement on the existing arrangement and an improvement when compared to the 2016 consent.

5.9. Shelton Road is an industrial estate road and is therefore considered suitable to accommodate additional minor increases in HGV movements as it has been designed for this purpose. The priority junction of Shelton Road and Steel Road is generous in proportions and includes a ghost island right turn lane with excellent forward visibility, together with good egress visibility for vehicles emerging from Shelton Road. There is a speed limit in force of 30 mph on Shelton Road and 40 mph on Steel Road and the local roads are fully street lit.

Parking

5.10. The proposed development includes 37 parking spaces, including two spaces suitable for disabled drivers. This comprises operational car parking for staff and visitors plus an allowance for shift change-overs. This additional allowance is important to ensure no parking takes place on the internal circulation roads or loading/unloading areas while the shifts are changing. The proposed parking does not exceed CBC/NCC maximum parking standards of 1 space per 55sq.m GFA for B2 use-class nor 1 space per 120sq.m for B8 storage and distribution.

5.11. Electric vehicle charging points (EVCP's) will be provided for staff at a 20% active, 20% passive ratio to encourage the uptake of electric vehicles.

5.12. NCC previously requested that dedicated parking should be provided for mini-buses or coaches in connection with educational visits to the facility. Accordingly, a dedicated coach parking area has been provided adjacent to the car park, allowing passengers to be set down onto the internal footway.

5.13. Secure, cycle parking will be provided close to the site offices in the form of a covered bike shelter. At least 10 cycle parking spaces will be provided. Given the specific nature of the proposed operations, this is considered more appropriate than a strict adherence to CBC/NCC minimum standards of 1 space per 500sq.m for B2 use class or 1 space per 1000sq.m for B8 storage and distribution.

6. TRIP GENERATION

6.1. The impact of the proposed development is determined by comparing the net increase in journeys between the existing and proposed uses. Accordingly, the DfT Guidance on Transport Assessment (March 2007) advises at paragraph 4.7 that baseline traffic data should be derived as follows:

*"**Baseline transport data***

- *The quantification of person trips generated from the existing site and their modal distribution, or, where the site is vacant or partially vacant, the person trips which might realistically be generated by any extant planning permission or permitted uses;"*

6.2. As described in Section 2, the existing use of the Site is for car storage. The Site was assessed for redevelopment as an ERC in 2013 and then again in 2016. The 2013 assessment included a detailed junction capacity analysis and the 2016 planning permission is extant. For this reason the transport effects of the proposed development are derived by comparing the proposed development with the permitted use of the site. For completeness, the traffic associated with the existing use, 2013 ERC and 2016 ERC are described below for comparative purposes.

Existing Use (car storage)

6.3. Table 6.1 provides a simple summary of the calculation of the number of HGV trips that might realistically be generated by the Site when fully utilised for its current car storage use. This assessment covers 70%-100% occupancy which provides a range of 48-68 HGV trips per day. The most probable upper capacity is 80%, at which level the site would generate **55 HGV trips**.

Table 6.1 – Summary of Trips Generated from Existing Use on Site

	70% occupancy	**80% occupancy**	**90% occupancy**	**100% occupancy**
Delivery Transporters	88 (=788 / 9)	100 (=900 / 9)	113 (=1013 / 9)	125 (=1125 / 9)
Collection Transporters	263 (=788 *3)	300 (=900 *3)	338 (=1013 *3)	375 (=1125 *3)
Total Transporter Trips Required *(Assume Collection Transporters also used for Delivery)*	525 (=263 * 2)	600 (=300 * 2)	675 (=338 * 2)	750 (=375 * 2)
Assumed Turnaround per car	11 days			
Transporters per day	24 (=263/11)	27 (=300/11)	31 (=338/11)	34 (=375/11)
HGV trips per day	**48** (=34*2)	**55** (=27*2)	**61** (=31*2)	**68** (=34*2)

Detailed traffic impact assessment 2013

6.4. Based on a throughput of 195,000 tonnes per annum Table 6.2 below shows the number of HGVs that were predicted to be generated by the ERC proposed in 2013. These figures informed the subsequent detailed junction capacity analyses.

Table 6.2 – Large Goods Vehicle Trips (2013 ERC)

Vehicle	Ave payload	Tonnes per day	Ave. veh per day	Trips per day
Materials IN				
Bulk trailer	20t	348t	17	35
Commercial Waste	8t	70t	9	17
Refuse vehicle	7t	70t	10	20
Skips	15t	209t	14	28
Materials OUT				
Recyclates	15t	137t	9	18
Disposal	20t	14t	1	1
Vitrified slag	20t	14t	1	1
Liquid fertiliser	38m^3	75t	2	4
Solid fertiliser	20t	32t	2	3
TOTAL			**64**	**128**

6.5. In addition to vehicle movements associated with delivery and collection of materials the site ERC would have employed 25-30 full time staff of whom up to 10 would be on site at any one time. Taking account of staff working office hours and staff working shifts there would be 16 staff travelling to and from the ERC each day, equating to 32 staff multi-modal movements. It was agreed that this would result in 22 car trips per day.

6.6. The above calculations showed that a robust assessment derives a total of **128 HGV movements plus 22 staff car trips per day** for the 2013 proposed Energy Recovery Centre. The combined gross total of HGV and staff vehicle trips was therefore 150 vehicle trips per day.

6.7. By assigning the predicted traffic levels to the predicted daily profile the Site's peak period was shown to be between 1pm-2pm during one of the shift changes during which period the 2013 ERC would have generated a total of 14 vehicle trips. This exercise also provided an accurate forecast for the predicted development traffic during the highway peak periods of 8am-9am and 5pm-6pm (13 and 10 trips respectively).

6.8. However, for a robust assessment the average hourly HGV figure of 11 trips was combined with the 5 staff trips equating to **16 vehicle trips** during each highway peak period. According to the predicted daily profile this was an over-estimation but was used as the basis for the traffic impact assessment to ensure a robust assessment.

Extant consent ERC 2016

6.9. As stated earlier, the 2016 planning application was supported by Technical Note 3 (Transport Statement) which used the same methodology as the 2013 assessment to derive predicted vehicle trips.

6.10. The revised proposal in 2016 was for a gasification ACT facility that used slightly different technology to the previous scheme. The planning application was still framed by a maximum receipt of 195,000 tonnes of material per year. In terms of transport impact, the key difference between the earlier scheme and the 2016 proposal was that the revised proposal was expected to receive predominantly pre-prepared fuel. The significance of this was that pre-prepared fuel would be delivered in bulk loads rather than a range of vehicle sizes and loads. There would also be no recyclates to be taken back off site from loads of pre-prepared fuel. The resultant HGV trips are shown in Table 6.3 below.

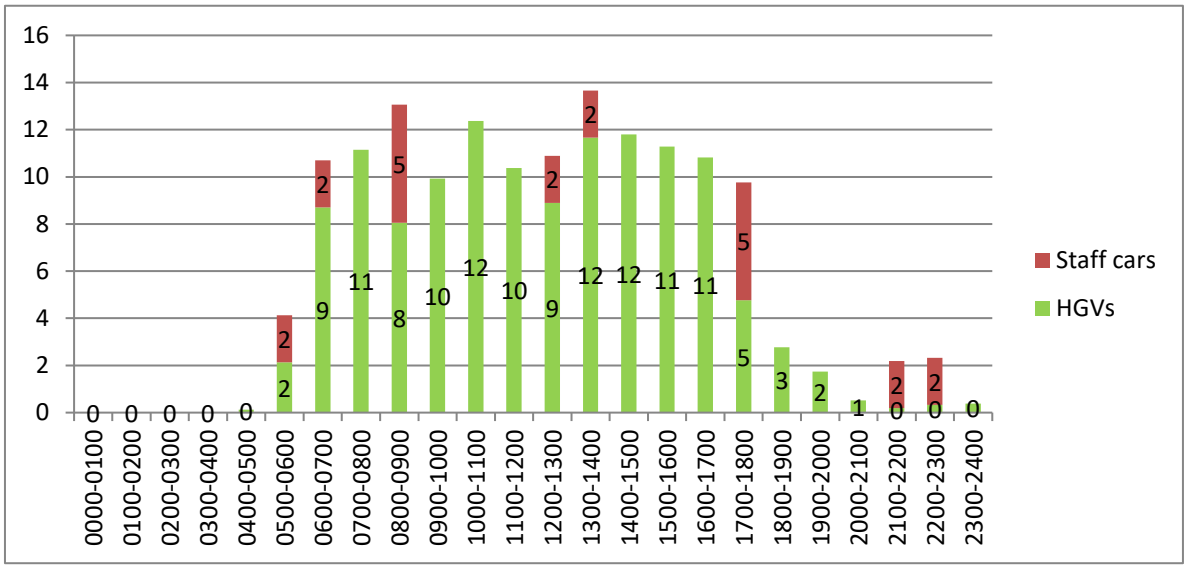
Table 6.3 – Large goods vehicle trips (2016 ERC)

150k tpa into gasifier		**T per day**	**ave load**	**V per day**	**trips**
IN					
20 t artics	Fuel deliveries	534.8	20	27	53
18 t tipper	Bottom ash export	96.3	18	5	11
20 t tanker	APCR export	25.3	20	1	3
OUT					
20 t tanker	Activated Carbon	0.2	20	0	0
20 t tanker	Lime	4.6	20	0	0
20 t tanker	SNCR reagent	21.9	20	1	2
20 t artics	Rejected waste to landfill	5.3	20	0	1
				35	**70**
45k tpa mixed waste		**T per day**	**ave load**	**V per day**	**trips**
IN					
20 t artics	Delivery	80.2	20	4	8
8t rigid	Delivery	40.1	8	5	10
7t refuse	Delivery	40.1	7	6	11
OUT					
15t	Recyclates (30%)	48.1	15	3	6
20t	Rejected waste to landfill	3.2	20	0	0
				18	**36**
			TOTAL	**53**	**106**

6.11. Table 6.3 demonstrates that if the approved facility were to receive all feedstock in the form of pre-prepared fuel then it would generate 70 HGV trips per day. If, however, it were also to receive a proportion of mixed waste then that figure would rise to 106 HGV trips per day. When the 22 staff car trips are added to the predicted HGVs the total traffic associated with the extant consent would be 128 trips per day. This would be 22 less than the previous scheme (11 arrivals and 11 departures). As a consequence no further junction capacity analyses were carried out in 2016 in support of the revised ERC proposal.

6.12. Technical Note 3 did not specify hourly vehicle movements but if the same 2013 methodology had been applied to the 106 HGV trips and 22 staff trips the result would have been as shown in Figure 6.x below. This shows Am and PM highway peak traffic generation of 13 and 10 vehicle trips respectively. The peak site traffic generation would be 14 trips between 1pm and 2pm during one of the shift changes.

Figure 6.1 – Extant consent daily traffic profile



Proposed development

6.13. The derivation of the expected number of vehicle trips was set out in the Scoping Note and subsequently agreed with NCC. There are no appropriate sites in the TRICS vehicle trip databases for the proposed use and therefore vehicle trips for the proposed EfW facility are derived from first principles based on average payloads of known vehicle types and the total volume of material to be delivered and collected.

6.14. The current proposal is for an EfW facility that uses different technology from either of the previously approved schemes. The new planning application is framed by a maximum receipt of some 260,000 tonnes of material per year. This increase in the throughput of feedstock will have an effect on the likely number of vehicle movements, but the change will not be directly proportional.

6.15. Given that the proposal remains in the early stages of planning, the feedstock supplier has not yet been confirmed. The facility has the potential to treat household and commercial waste. If the facility was to receive all commercial waste in bulk loads then the vehicle trips would be minimised. However, to enable flexibility, and as the supplier of the feedstock is likely to evolve and change during the lifetime of the facility, the traffic generation has been calculated on the more onerous assumption that the feedstock is all domestic waste. Under this scenario proposed facility would receive waste deliveries from a number of local waste authorities; some material would be delivered in bulk loads, but some would be delivered in smaller vehicles with an average payload of 12t or 7.5t. This would have an effect on the total number of vehicle trips.

6.16. In addition to feedstock deliveries, the on-site processes will require a number of other materials to be delivered to site including auxiliary fuel (LPG or LFO) as well as adsorbents for air quality control. Finally, residual material will need to be collected and taken off site such as incinerator bottom ash (IBA), boiler ash and ferrous materials. These are all taken into account when calculating predicted vehicle movements.

6.17. Table 6.4 below shows the predicted large goods vehicles associated with the proposed Energy Recovery Facility.

Table 6.4– Predicted large goods vehicle trips

260k tpa into Energy Recovery		T per day	ave load	V per day	trips
IN					
Bulk loads 22t	Waste deliveries	633	22	29	58
Waste veh 7.5t	Waste deliveries	158	7.5	21	42
Waste veh 12t	Waste deliveries	144	12	12	24
Tanker	*Aux fuel*	2	24.68	0	0
2.5t rigid	*Urea*	1	2.5	0	1
25t tanker	*Lime*	17	25	1	1
2.5t rigid	*PAC*	1	2.5	0	1
				63	**127**
OUT					
10t rigid	IBA	187	10	19	37
10t rigid	Boiler ash	5	10	0	1
10t rigid	Filter	14	10	1	3
25t tanker	APCR	47	25	2	4
10t RoRo skip	Ferrous material	14	10	1	3
				24	**48**
			TOTAL	**87**	**175**

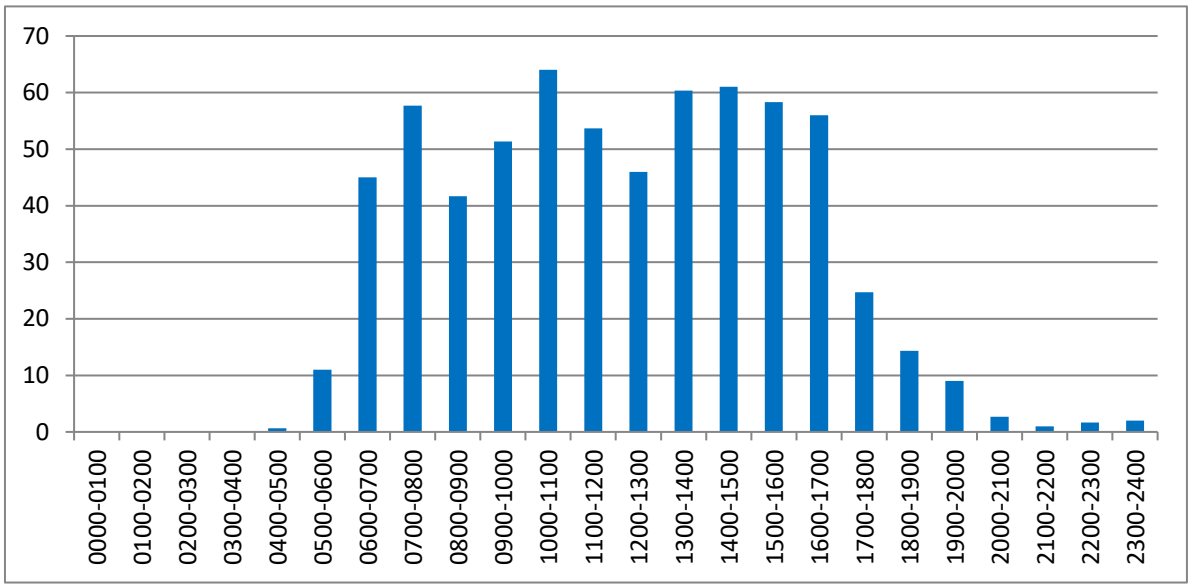
Items in italics represent materials for which a number of options exist. For example, auxiliary fuel could be LPG or LFO but both would be delivered by tanker. Similarly, adsorbents could be in the form of dry powder or pellet form but the assumptions in the above table represent a reasonable worst case in terms of deliveries.

6.18. Table 6.4 demonstrates that the proposed facility would be likely to be serviced by 87 HGVs per day compared to the 64 HGVs per day associated with the originally approved scheme or the 53 associated with the extant consent. This therefore represents an increase of 23-34 HGVs across the working day.

6.19. The development is designed to operate 24 hours a day but it is unlikely that the HGV trips would be spread equally across the whole day. If there were no other data it would be appropriate to assume that one-third of HGV trips take place overnight (between 7pm and 7am) and two-thirds during the day. This would equate to 5 HGV trips per hour over night and 9 or 10 trips per hour during the day. If deliveries were to be restricted to daytime only there would be an average of 15 HGV trips per hour. However, for a robust assessment daily profile testing has been carried out in order to inform peak hour traffic impact assessment.

6.20. The previously approved daily profile predictions were based on an automatic traffic survey at a site in Surrey currently used for waste materials recovery, storage and distribution. The automatic traffic counter surveyed 24 hour flows over a full week in order to establish average daily flows and profiles. Whereas that site is not used for energy recovery it does have a similar feedstock in terms of commercial and industrial waste and the type and size of HGVs are similar to those expected to serve the Proposed Development. For this reason, whereas the number of vehicle movements is different, the daily arrival and departure profile is a good model for the Proposed Development. This profile is shown in Figure 6.1 below.

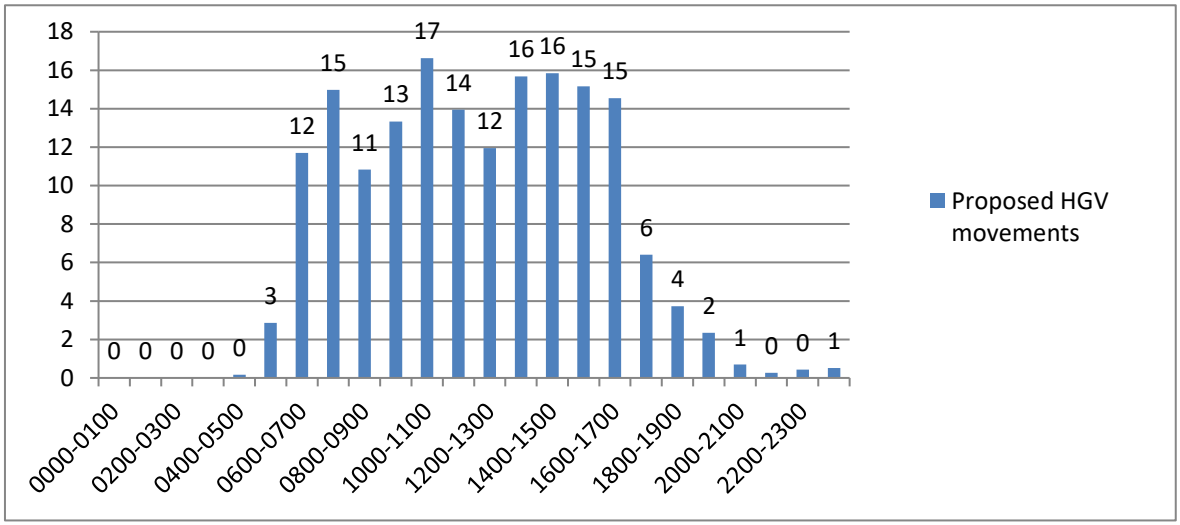
Figure 6.2 – Observed Daily Profile; Surrey C&I Waste Site.



6.21. Figure 6.2 shows that even with no restrictions on the hours of operation the observed Site generates the vast majority of its vehicle movements between 6am-6pm. For the purpose of this assessment it would be reasonable to assume that the HGV movements associated with the Proposed Development could adopt a similar profile. This concentration of vehicle movements is a far more onerous assessment than the assumption of two-thirds daytime and one-third night time as it results in a greater number of trips per hour and can therefore be considered a very robust assessment.

6.22. When the predicted level of HGV trips (175 per day) is assigned to the observed daily profile the result is as illustrated in Figure 6.2 below.

Figure 6.3 – Daily Profile of Predicted HGV trips



6.23. This shows that during the highway peak periods of 0800-0900 and 1700-1800 the Proposed Development would generate 11 HGV trips and 6 HGV trips respectively. However, in each case the development would generate 15 HGV trips in the preceding hour. For this reason and for a very robust assessment the average figure of 15 HGV trips can be used for peak hour traffic impact assessment.

6.24. It should be noted, however, that Figure 6.2 shows HGVs only, with no staff car trips added. Figure

6.4 below illustrates the combined HGV and car trips combined.

Figure 6.4 – Daily Profile of Combined trips

6.25. By assigning the predicted traffic levels to this observed daily profile it is clear that the Site's peak period is between 10-11am during which period the Proposed Development would generate a total of 17 vehicle trips. This exercise also provides an accurate forecast for the predicted development traffic during the highway peak periods of 8am-9am and 5pm-6pm (15 and 14 trips respectively).

6.26. This assessment demonstrates that the proposed development would generate a peak of 17 vehicle trips (8 or 9 vehicles arriving and then departing) in any one hour. The predicted traffic during the highway peak periods (0800-0900 and 1700-1800) is less than the 16 trips that was used previously for the detailed junction capacity analyses. That robust traffic impact assessment, based on 16 vehicle trips in an hour, showed that the 2013 ERC would have no material effect on any part of the highway network. It is therefore reasonable to conclude that the current proposal, generating less peak hour traffic, would also have no effect on highway capacity or safety.

6.27. When compared to the extant 2016 planning permission the proposed development would generate just 2 additional trips in the AM peak and 4 additional trips in the PM peak. This represents just one or two additional vehicles arriving and then departing across a 60 minute period. This would be less than daily variation and imperceptible to other highway users; it would have no effect on highway safety or operational capacity.

7. STAFF TRAVEL PLAN

Introduction

7.1. As stated in the introduction, this TA has been developed to seek to influence modes of travel to the proposed redevelopment rather than merely predicting travel patterns and providing mitigation.

7.2. The movement of goods and materials associated with the ERC will clearly require transportation by road. These are addressed in the Delivery & Servicing Plan; however, the facility will be operated by a range of staff for whom a Staff Travel Plan will be appropriate.

7.3. This Staff Travel Plan has been prepared in accordance with the DfT document 'The Essential Guide to Travel Planning' and the National Planning Practice Guidance on Travel Planning (2014).

7.4. Details of the site location, proposed development and accessibility by sustainable modes of transport are contained in Sections 2, 3 and 4 of this TA.

7.5. The site will generally employ 30 FTE staff including staff working conventional office hours and shift workers). A total of 17 staff will travel to and from the Site each day equating to 34 staff movements per day.

7.6. The proposed development will provide appropriate infrastructure to encourage sustainable travel and will also provide information and incentives where practicable.

7.7. The effects of travel choices on our environment, our health and our quality of life are well documented. Sources describe how increases in road traffic have produced unsustainable levels of congestion and pollution. The effects can be felt at a local level through poor air quality, noise and busier roads and at a global level through suggested linkages to climate change. Journeys by road are becoming slower and more unreliable causing problems for business and stress to drivers.

7.8. There has been a significant increase in the proportion of individuals travelling to work by car. Over 80% of car journeys to work are driver only. Even a small modal shift in home-work-home journeys away from the car would result in a considerable reduction in traffic congestion at peak times.

7.9. Travel planning must be realistic and should not expect to remove car usage altogether. Instead, an effective travel plan will maximise the use of sustainable travel to achieve more sensible and appropriate use of the private car. If every car commuter used an alternative to the car on just one day a week, car usage levels for commuting would be reduced by as much as 20% immediately, with commuter parking requirements also reduced by up to 20%.

Surveys

7.10. The effectiveness of the Staff Travel Plan and the measures proposed will need to be monitored and reviewed in partnership with the local authorities. This review process will identify the most effective measures and key motivators influencing people's travel choices. A sample questionnaire is included as **Appendix G** to this report.

7.11. Identifying these 'key motivators' is very important as it will allow the Travel Plan Co-ordinator (TPC) to focus funds and resources on those areas most likely to affect people's travel choices. For example, there is no benefit in providing excessive cycle storage or discounted bus travel if the early surveys show that such very expensive measures would have little or no influence on employees' desire to cycle or use the bus. Instead, the measures should be tailored to the findings of the surveys and needs of staff. DfT guidance is clear that Travel Plans and their measures must not be based on a 'one size fits all' approach. Of course, if such measures score highly in future surveys then they will need to be included in the TPC's regular reviews of targets and measures as set out below.

7.12. It will be the responsibility of the TPC to conduct surveys of staff travel patterns. The surveys will aim to establish:

- Current modal split
- Modes used occasionally
- Reasons for modal choice
- Attitudes to more sustainable modes
- What measures would persuade people to change to more sustainable modes

7.13. A number of suggestions for improvements could be included within the travel survey. The list need not be exhaustive, but should provide an insight into the type of measures that would be required to cause worthwhile modal shift towards each of the more sustainable modes of transport.

7.14. The schedule of monitoring and review will be as follows:

Table 7.1 –Schedule of TP Surveys and Reviews

Survey	Review / report
1. Within 3 months of occupation	• Include questions about current travel and intended travel to new site. • Review survey findings and report to local authority within 1 month of survey. • Feedback findings to staff within 1 month of local authority review. • TPC to implement review outcomes prior to Survey 2.
2. Three years after survey 1.	• Identify actions from Review 1 • Review survey 2 findings, and report to local authority within 1 month of survey. • Feedback findings to staff within 1 month of local authority review. • TPC to implement review outcomes prior to Survey 3
3. Five years after survey 1.	• Identify actions from Review 2 • Review survey 3 findings, and report to local authority within 1 month of survey. • Feedback findings to staff within 1 month of local authority review. • TPC to implement review outcomes

7.15. The schedule of monitoring and review could be augmented by interim spot counts to review progress throughout the year if required.

Objectives

7.16. In line with Central Government policies and guidance, the primary objectives of the TP are to:

- Remove travel as a barrier to social inclusion;
- Discourage the use of unsustainable modes of transport and enable staff to make travel choices that benefit themselves and their community;
- Raise awareness of alternative modes of transport and thus encourage a modal shift towards more sustainable travel modes;
- Minimise single car occupancy and total staff vehicle kilometres.

Targets

7.17. The facility will only have up to 10 staff on site at any one time and more than half the daily staff will be shift workers. There are no equivalent sites in the TRICS database so it is not possible to accurately predict initial travel behaviour. For this reason it is neither possible nor appropriate to set mode share targets for the development until the first travel survey has been carried out. This will be within three months of first occupation. However, whereas the initial travel survey is required in order to set a baseline, it is possible to set provisional targets for modal shift, whatever that baseline may show.

7.18. Table 7.2 below shows provisional modal shift targets for each mode for three and five years after occupation. The baseline mode share will be derived from the first travel survey at which time these modal shift targets can be assessed and adjusted if necessary. The 2011 Travel to Work census data for the district of Corby would suggest that the average existing mode share by car driver is 66.5% with 11% passenger, 1% by train, 6% by bus, 3% cycle and 9% on foot.

Table 7.2 – Target Mode Shift

	Driver	Car pass'	Walk	Cycle	Bus	LUL	Rail
Baseline	TBC	TBC	TBC	TBC	TBC	TBC	TBC
3 years	-5%	-2%	+2%	+1%	+2%	+1%	+1%
5 years	-10%	-5%	+5%	+2%	+4%	+2%	+2%

7.19. The TPC will identify mode share percentages from the travel surveys and report these to the local authorities and staff in accordance with the schedule of surveys and reviews. It is important to note that with such a small number of staff a change in a single journey to work can have a 10-15% impact on the mode share results.

TP Co-ordinator

7.20. A Travel Plan Co-ordinator (TPC) will be appointed for the facility. As the end occupiers are not known at this stage it is not possible to specify who this person will be; however, as the facility will have management and administrative staff on-site it is likely that a senior member of staff will be given the role of TPC. The TPC will be a named person whose contact details will be provided to all staff. The TPC will not be a full-time position but the named TPC will be available full-time. The TPC will have responsibility for provision of information to staff and for carrying out travel surveys and reporting their results to the planning authority.

7.21. With such a small staff presence it will not be necessary to introduce measures such as marketing or travel plan websites but travel planning will be a standard agenda item at all team/staff meetings.

Measures

7.22. For a development of this kind and scale travel planning measures will comprise infrastructure, information and incentives. Those measures specified as *Secured* will be delivered by the developer prior to first occupation as part of the capital expenditure of the development. Those measures referred to as *Potential* are available for the TPC to consider as part of the year 3 and year 5 review process.

7.23. The Potential measures are available to the TPC if the mode share targets have not been met. These additional measures must be carefully matched against the 'key motivators' identified in the staff surveys. Potential measures will be funded by the operator. The action plan is therefore as illustrated in Table 7.3 below:

Table 7.3 – TP Action Plan

Timescale	Measures	Delivery
Development	Secured	Developer
Year 3	Potential (as required)	Operator
Year 5	Potential (as required)	Operator

7.24. Table 7.4 below summarise those measures secured as part of the development as well as potential future measures at the disposal of the TPC:

Table 7.4–Staff Travel Plan Measures

Measures to encourage walking	
Secured	**Potential**
• High quality hard and soft landscaping scheme including internal footways • Changing facilities and lockers • Showers • Drying area for clothes • Staff kitchen • Marketing – promotional material	• Additional pedestrian signage; • Financial incentives for walkers; • Free or subsidised wet weather/high vis clothing; • Walking clubs; • Events to encourage walking (walkers' breakfast first Wednesday of the month etc.) • Personalised travel planning;

cont.

Measures to encourage cycling	
Secured	**Potential**
• Secure, lit cycle parking close to entrances; • Good on-site lighting; • Lockers for staff; • Showers and changing facilities; • Staff kitchen	• Financial incentives for cyclists (e.g. mileage rate for work related journeys); • Free or subsidised wet weather/high vis clothing; • Bicycle user group (BUG); • Training for those who are not confident cyclists; • Provision of, or payment for, bike maintenance (possibly on site as part of course); • Negotiated discount with local bike shop – additional special rate for folding bikes; • Salary sacrifice tax-free cycle purchase scheme for staff; • Interest free bike loan for staff; Events to encourage cycling (cyclists' breakfast first Wednesday of the month etc.)
Measures to encourage use of public transport	
Secured	**Potential**
• Interest free season ticket loans for annual season tickets for staff; • Policy to state that all staff are expected to use public transport for work related journeys where this is a realistic option; • Marketing – promoting the use of public transport in all written and electronic material; • Bus routes and timetable information available to all staff.	• Financial incentives for bus/train users (e.g. mileage rate for work related journeys); • Discount on bus/train season tickets; • Travel pack (including bus routes and bus/train timetable info) • Personalised travel planning;

cont.

Measures to reduce impact of car travel	
Secured	**Potential**
• Active promotion of car share; • Restricted on-site car parking provision; • On-site parking for disabled drivers; • Policy to state that all staff are expected to use public transport for work related journeys where this is a realistic option; • Marketing – promoting the use of sustainable transport in all written and electronic material;	• Motorcycle parking provision. • Permits issued on basis of need; • Financial incentives for sustainable transport users (e.g. preferential mileage rate for work related journeys); • Guaranteed taxi home (if required) for car sharers; • Reduced rate at local car-hire company. • Personalised travel planning;

Securing and enforcement

7.25. This TP can be secured by Grampian style planning condition requiring the document to be approved by the planning authority prior to the development being occupied.

7.26. The schedule of monitoring and review will be the responsibility of the TPC and will ensure an on-going partnership between the Council and the site operators. Any enforcement of the planning condition will fall within the jurisdiction of the local planning authority.

Funding

7.27. As the development is speculative with no known operator at this stage it is not possible to identify a funding stream. However, as stated earlier the site will have a responsibility to appoint the TPC. At that time the operator will also need to agree a protocol for funding the on-going management and maintenance of the Travel Plan. This information will be included with the first travel survey within three months of first occupation.

8. DELIVERY & SERVICING PLAN

8.1. The Delivery & Servicing Plan (DSP) forms part of a three-part Transport Implementation Strategy (TIS) which is intended as a live management document for the construction and operation of the proposed development and comprises:

- Staff Travel Plan (STP);
- Delivery & Servicing Plan (DSP); and
- Construction Management Plan (CMP).

8.2. This DSP highlights the implications of the proposed development with regard to existing and also proposed servicing constraints. This takes into consideration adopted methods of good design practice. This DSP has been prepared in accordance with the Freight Transport Association document *'Designing for Deliveries'* and TfL's guidance document "*Managing freight effectively: Delivery and Servicing Plans'.*

8.3. The DSP has three main elements:

- A plan to reduce the number of trips, particularly in the peak period, justified by a transport assessment that considers the benefits of using consolidation;
- A plan showing when and where deliveries and servicing can take place safely and legally; and
- Details of contractual changes requiring suppliers and servicing companies to reduce the number of trips and to use legal loading facilities.

8.4. The impact of selective supplier contractual arrangements will help provide major benefits to the following:

- **Efficiency** of the economy will improve as commercial vehicle Penalty Charge Notices (PCNs) are reduced by the contractual use of legal loading facilities and scheme-registered operators. Reliability will also increase as freight operators reduce trips and make more off-peak and out-of-hours deliveries;
- **The environment** will improve through a reduction in congestion, the take-up of initiatives such as consolidation and the promotion of a long-term shift to more sustainable forms of freight; and
- **Society** will benefit from a reduction in casualties as freight vehicles make more use of off-peak and out-of-hours delivery and servicing times. The use of legal loading plans for cash-in-transit activities - and access to the Commercial Vehicle Education Unit's local insight into problem areas – will also cut the number of thefts.

8.5. This DSP forms an integral part of the Transport Assessment in response to formal pre-application scoping discussions with NCC. It is intended to be a live document, drawn up in consultation with the local highway authority and used as a management tool by operator of the proposed development. This document has been prepared prior to the development commencing and with no known operators. The effectiveness of this DSP will be continually monitored and may evolve over time in partnership with the highway authority in order to promote and influence best practice at this site.

Delivery facilities

8.6. The site access has been designed around the swept path of a 16.5m long articulated HGV, being the largest vehicle likely to visit the site. The access has been designed such that all vehicles can enter and leave in a forward gear with ample stacking capacity within the site so that no queuing will occur within the public highway. In practice, the predicted frequency of vehicle movements is sufficiently light that it is unlikely that more than one vehicle will arrive at any one time but the layout allows for such an eventuality.

8.7. All commercial vehicles entering and leaving the site will do so via a weigh-bridge.

8.8. A vehicle swept path analysis has been carried out using the proprietary computer program AutoTrack. Full details are included as **Appendix F.**

8.9. All feedstock will be delivered directly into the tipping hall building (operated under negative pressure). The building is designed so that dedicated bays are provided for the delivery of material to the site, and separate locations are provided for the direct collection of materials to be taken off-site.

Consolidation

8.10. The trip generation assumptions in the TA assume a worst case where vehicles deliver waste leave empty and vehicles that collect recyclables arrive empty. As part of this DSP the operator is required to consolidate those trips where practicable such that vehicles leaving the site should be used to take recyclable material away. This consolidation may be influenced by specific contracts with waste and recycling companies but the objective of the DSP is to consolidate deliveries and collections wherever possible.

Environmental considerations

8.11. As stated earlier deliveries will take place within a building that operates under negative pressure in order to eliminate external dust or odour.

8.12. All vehicles transferring material to or from the site will be required to comply with the Environmental Protection Act and will therefore be required to transfer material in enclosed containers or covered vehicles as required by the Act.

Office deliveries

8.13. Office deliveries are expected to comprise, stationery, welfare supplies and sundry items which will all be scheduled deliveries. Postal deliveries will not be scheduled and will be directed to the visitor spaces in the car park.

First time deliveries

8.14. Provisions will be made for first time deliveries. This will ensure that there is a safe and secure location to drop parcels off delivered out of hours. This will reduce the need for return visits etc.

Refuse collection

8.15. Due to the nature of the site there will be no need for refuse collection, even for the office and administrative functions. Any waste generated by the administrative and staffing functions will be processed by the ERC rather than taken off-site.

Hours of delivery

8.16. There are no legal highway constraints limiting the hours of delivery. There are also no physical constraints within the Site limiting hours of delivery. From a highway capacity perspective it would therefore be best practice to permit deliveries 24 hours a day rather than compressing deliveries into a shortened time-frame in order to minimise the number of vehicle movements during any given hour.

Route management

8.17. The Site takes access from Shelton Road a purpose built industrial standard road which in turn provides access to A6116 Steel Road and wider road network. This primary road network also links to the A43. It is anticipated than due to the location of commercial and industrial premises in the local area that the majority of HGVs will route to and from the A43, A6006, A427 Weldon Rd and A43 Bangrave Rd but with some waste also coming from within the local industrial estates thus potentially reducing the number of “external trips” onto the local network.

8.18. The local road network is therefore considered suitable for HGV traffic with no known height or weight restrictions in the vicinity which would affect the site operation. Notwithstanding this, all vehicles will be directed by the highest category routes available. It is not envisaged that any HGV traffic will require access to Gretton Road to the east of the site leading to Gretton Brook Road, especially as this does not lead to any major industrial and commercial premises. Following the completion of the Corby Northern Orbital Relief Road (CNOR) some traffic from the site may use this route to access the north of Corby.

Promotion of HGV rather than LGV

8.19. In some locations such as town centres, conservation areas, or residential areas DSP’s promote the use of light vehicles rather than heavy vehicles. This results in a greater number of trips but by smaller vehicles. In the case of this proposed development there are no restrictions on the size of vehicle (other than legal limits) so best practice in this instance is to promote the use of fewer but larger vehicles where practicable. As stated earlier, the size and type of vehicle will be influenced by the origin of material being sourced for the plant and the necessary contracts in place. Notwithstanding this, the operator will promote the use of larger vehicles where possible to reduce the total number of vehicle trips.

Construction Management Plan (CMP)

8.20. Prior to commencement on site a comprehensive CMP will be submitted to the planning and highway authorities for approval.

8.21. The route management strategy will apply equally during the construction phase as for the operational phase. During this phase the principles of the DSP will be applied to the CMP.

8.22. Prior to commencing on site the developer will be obliged to:

- Enter into an agreement or licence with the highway authority to carry out any work within the public highway required to be implemented prior to commencement;
- Carry out any such works.

8.23. During construction the developer will be obliged to:

- Establish and maintain an area for turning vehicles on site so that all vehicles can enter and leave in a forward gear;
- Establish and maintain an area for site workers to park on site;
- Establish and maintain a wheel-was facility for the use of all vehicles leaving the Site.

9. TRANSPORT IMPACT

9.1. Section 6 identifies that the proposed Energy from Waste facility will generate relatively few peak hour vehicle movements. All traffic will enter and leave the site from Shelton Road and distribute onto A6116 Steel Road. Steel Road leads west towards Corby and the A6116 Phoenix Parkway, which in turn leads to the A6006 and A427.

Assessment Years

9.2. The Proposed Development is assumed to become operational by 2023. For this reason the year of occupation is deemed to be 2023. In accordance with the DfT Guidance on Transport Assessment the design year is five years after occupation, which in this case is 2028. For a robust assessment (with an optimistic view of the future economic climate and to take account of committed development) 2023 flows have been derived by applying low NRTF growth to the 2018 figures. This is equivalent to an annualised growth rate of 1%, whereas the DfT data on the A43/A6116 and A427 suggests an annualised growth rate of 0.5% over the period 2008-2018; therefore the use of low NRTF growth rates in this instance is considered robust and adequately takes account of committed development.

Trip Generation

9.3. The trip generation of the proposed development was considered in Section 6. A summary of the expected gross trip generation of the site is given in Table 9.1.

Table 9.1 – Combined HGV and Staff Vehicle Trips (Gross)

	Arrive	Depart	Total
0800-0900	9	6	15
1700-1800	7	7	14
Daily	98	98	197

9.4. The net increase in vehicle trips, when compared to the extant permission (as per the calculations shown in Table 6.1 and described in paragraph 6.21), is given Table 9.2.

Table 9.2 – Combined HGV and Staff Vehicle Trips (Net increase)

	Arrive	Depart	Total
0800-0900	1	1	2
1700-1800	2	2	4
Daily	35	35	69

9.5. It is clear that the net change in vehicle movements when compared to the lawful use of the site would have no material effect on the operational capacity or safety of the local highway network.

9.6. Notwithstanding the above, and for a very robust assessment, an additional analysis of the proportional increase in traffic on the highway network has been conducted, comparing the gross predicted traffic generation with the current observed traffic levels.

Traffic distribution

9.7. As stated earlier, the precise origin of waste material being brought to Site cannot be known at this stage, other than it will be sourced from the local area. For that reason it is not possible to carry out an origin and destination route mapping exercise. The most appropriate method for deriving traffic distribution was identified at the scoping stage of the assessment to be based on the existing baseline turning proportions at the local surveyed junctions.

9.8. Table 9.3 illustrates the existing turning proportions at the Shelton Road/Steel Road junction.

Table 9.3 – Distribution of Development Trips

Peak	Arm	Arrivals	Departures
AM	Steel Road (E)	46.2%	46.2%
	Steel Road (W)	53.8%	53.8%
PM	Steel Road (E)	40.0%	49.0%
	Steel Road (W)	60.0%	51.0%

9.9. The traffic survey data demonstrates that about half of the traffic on Steel Road (W) heads to and from Phoenix Parkway (N). To the east, the majority of traffic on the Steel Road (E) continues southbound on Steel Road towards the A43. This distribution has therefore been applied to the proposed development traffic.

9.10. Further link based flow data is available from the DfT on the A43, A427 and A6116 which summarises average annual daily traffic flows. This data source also provides an accurate record of traffic growth or decline over a 10 year period. The DfT AADF figures are included as **Appendix D**.

9.11. The DfT figures were used to help determine the current link flows on the A43, 427 and A6116 to help demonstrate changes in flows over time. In each case NRTF low growth was greater than observed growth from 2000-2010 and therefore this was used for a robust assessment. The resultant AADT flows on the highway network surrounding the Site are summarised in Table 9.4 below:

Table 9.4 – Baseline AADT Two-way Traffic Link Flows

Link	2023	2028	%HGV	%PSV
1. Shelton Rd	2620	2689	19.1%	0.0%
2. Steel Rd (West of Shelton Rd)	9570	9818	10.1%	0.7%
3. Steel Rd (East of Shelton Rd)	9570	9818	10.1%	0.8%
4. Phoenix Way (N)	14013	14375	8.1%	0.8%
5. Phoenix Way (S)	20443	20971	5.3%	0.5%
6. Steel Rd (South of Birchington Rd)	12576	12902	10.1%	0.7%
7. A43 (East of Steel Rd)	11167	11455	16.0%	0.3%
8. A43 Bangrave Rd (West of Steel Rd)	15385	15783	11.5%	0.4%
9. A427 Weldon Rd	11822	12128	3.2%	0.6%
10. A43 Bangrave Rd (South of A427)	10177	10440	14.0%	0.3%

9.12. The data shown in Table 9.4 reveals a high proportion of HGV traffic on Steel Road which would be expected given the location of the Site within an established industrial estate. Currently, about one in five daily vehicles on Shelton Road and one in ten on Steel Rd is an HGV.

Proportional increases

9.13. Based on the existing turning proportions, there is little or no development traffic distributed to Birchington Road. This would be expected given the source and destination of HGV movements and therefore practically no traffic is distributed using Gretton Road to the east of the site leading to Gretton Brook Road.

9.14. The change in AADT daily flows on the highway network surrounding the Site are summarised in Table 9.6 below. The development traffic has simply been apportioned to each link of the A43, A427 and A6116 according to the balance in AADT base flows.

Table 9.5 – Proportional Increase in AADT Two-way Traffic Flows (gross traffic generation)

Link	2023	2023 + Dev	2028	2028 +Dev	% incr
1. Shelton Rd	2620	2816	2689	2885	7.3%
2. Steel Rd (West of Shelton Rd)	9570	9677	9818	9925	1.1%
3. Steel Rd (East of Shelton Rd)	9570	9659	9818	9907	0.9%
4. Phoenix Way (N)	14013	14067	14375	14429	0.4%
5. Phoenix Way (S)	20443	20485	20971	21014	0.2%
6. Steel Rd (South of Birchington Rd)	12576	12647	12902	12973	0.5%
7. A43 (East of Steel Rd)	11167	11190	11455	11479	0.2%
8. A43 Bangrave Rd (West of Steel Rd)	15385	15418	15783	15816	0.2%
9. A427 Weldon Rd	11822	11848	12128	12153	0.2%
10. A43 Bangrave Rd (South of A427)	10177	10199	10440	10462	0.2%

Traffic Impact

9.15. The above information has been used to help determine the likely impact of the proposed development on the local highway network. Table 9.2 demonstrates that the net increase in peak hour vehicle trips would be less than daily variation and would have no effect on any part of the highway network. Section 6 also illustrates that the proposed development would generate fewer peak hour vehicle trips than the figures used previously to conduct detailed junction capacity analyses at three junctions within the agreed study area. It is evident that the proposed development will have no peak hour effects.

9.16. Table 9.5 illustrates that the traffic generation from the Proposed Development would result in a material proportional increase in daily traffic on the Shelton Road approach to the Shelton Road/Steel Road junction. However, these figures are based on the gross development traffic, not the net change compared to the potential existing use of the site (car storage) or the extant planning permission (2016 ERC).

9.17. The proportional increase in traffic on all other parts of the highway network is around 1% or less which is demonstrably less than daily variation and therefore imperceptible to other highway users.

Highway improvements.

9.18. The above analysis demonstrates that no mitigation measures are required; however, the development will deliver a range of local transport improvements to support sustainable travel behaviour and to rectify existing anomalies. The proposed highway improvements comprise:

- New length of 1.8m wide footway on the western side of Shelton Road
- Removal of the existing gates across Shelton Road and reinstatement of verge and carriageway
- New 1.8m wide metalled link between the footway and carriageway on Steel Road adjacent to existing flag stop (below).

Figure 9.1 – Proposed bus stop improvement

9.19. All highway improvement works listed above will be secured by condition and delivered by the developer by means of a Section 278 Agreement with NCC.

9.20. Mitigation may be 'hard' highway capacity improvements or 'soft' traffic reduction measures. In this case, it has been demonstrated that the highway impact of the proposed development would be negligible and therefore no mitigation measures are required. However, the staff travel plan and DSP may be able to further reduce the impact from that shown.

10. SUMMARY AND CONCLUSIONS

10.1. This TA has been prepared alongside a Transport Implementation Strategy, comprising a Staff Travel Plan (TP) and a Delivery & Servicing Plan (DSP) and Construction Management Plan (CMP), which together provide the opportunity to reduce staff dependence on travel by private car and seeks to influence all travel to and from the site rather than merely assessing its impact.

10.2. The development generally comprises the re-use of an existing employment site for the development of an Energy from Waste facility.

10.3. The Site has a good level of accessibility by sustainable modes of travel. Residential areas lie within a preferred 2km walking distance of the site to the east, west and south. The emerging Priors Hall development to the east of the Site creates a large mixed use site including residential use within a reasonable walking distance and a wider residential catchment can be reached by bicycle. The site has bus stops within 400 metres walk of the site with a regular frequency bus service to Corby Town Centre and Corby Rail Station, where there is cycle parking provided.

10.4. The internal layout of the site has been designed to allow for all vehicles to enter and leave the site in a forward gear and to prevent any queuing on the public highway. The development will include weigh bridges for all commercial vehicles entering and leaving the Site.

10.5. The transport impact of the proposed development has been determined by a first principles analysis of the trips that might realistically be generated by the existing, proposed and lawful uses of the Site. This was set out in the scoping stage of assessment and subsequently agreed by the Local Highway Authority. The expected gross daily trip generation of the site would be 175 HGV trips and 22 staff car trips, of which 14 or 15 could occur in the network peak hours.

10.6. The assessment has shown that the existing car storage and distribution operation on the Site is capable of creating around 55 HGV trips per day but the extant planning permission for an ERC would generate 106 HGV trips and 22 staff car trips. Importantly, a comprehensive traffic impact assessment was carried out in connection with an earlier proposal for this site and demonstrated that 16 additional peak hour vehicle trips would have no material effect on the operational capacity or safety of the local highway network. The same conclusion therefore applies to the traffic associated with the Proposed Development.

10.7. The DSP promotes consolidation of vehicle usage but for a robust assessment this TA assumes that all delivery vehicles depart empty and all collection vehicles arrive empty.

10.8. Even taking account of the effect of compounding these very robust assumptions, the assessment has demonstrated less than 1% increase in peak time or daily vehicle movements on most local roads and local junctions. This increase is less than the known daily variation on Steel Road, and would be imperceptible to other road users.

10.9. The one exception is Shelton Road where the very low baseline flows on Shelton Road approach during the AM peak hour result in a large proportional increase when development traffic is added. The actual additional vehicle numbers are very low, particularly when compared to the extant planning permission. There are no known operational issues at the Shelton Road/Steel Road junction in the AM peak from observations made during the traffic surveys, and therefore the additional vehicle trips as a result of the development, added to the low baseline flows, is not expected to lead to any material changes in operational performance.

10.10. It is therefore reasonable to conclude that the low traffic flows from the proposed development can be accommodated without need for ‘hard’ highway capacity improvements, and the proposed ‘soft’ traffic reduction measures implemented through the Staff Travel Plan and DSP would be adequate to provide a mechanism to control any minor residual impacts should they occur.

10.11. The proposed development will deliver local highway improvements, not as mitigation but in order to provide appropriate highway infrastructure to promote sustainable travel behaviour.

10.12. An assessment of the means of access to serve the site has been undertaken and has concluded that, subject to some minor improvements, the existing access will be adequate to serve the proposed development. The site access has been designed around the swept path of a 16.5m long articulated HGV, being the largest vehicle likely to visit the site. The access has been designed such that all vehicles can enter and leave in a forward gear with ample stacking capacity within the site so that no queuing will occur on Shelton Road. In practice, the predicted frequency of vehicle movements is sufficiently light that it is unlikely that more than one vehicle will arrive at any one time but the layout allows for such an eventuality.

10.13. For the reasons set out in this Transport Statement it is concluded that there is no reason why the proposed development should be refused on grounds of highway capacity, impact on the transport network or sustainability.

Appendix A

Scoping Exercise

DATE: December 2018

Shelton Road, Corby

TRANSPORT STATEMENT – SCOPING NOTE

Proposed Renewable Energy Facility

1. Introduction

1.1. This Scoping Note has been prepared to inform pre-application discussions in connection with a planning application for an Energy from Waste (EfW) facility at Shelton Road, Corby. Planning permission was granted for a similar facility on this site in February 2014. This use is classed as Sui Generis. The application references for the consented scheme are:

- NCC Ref: 13/00079/WASFUL
- CBC Ref: 13/00278/COC
- ENC Ref: 13/01600/NCC

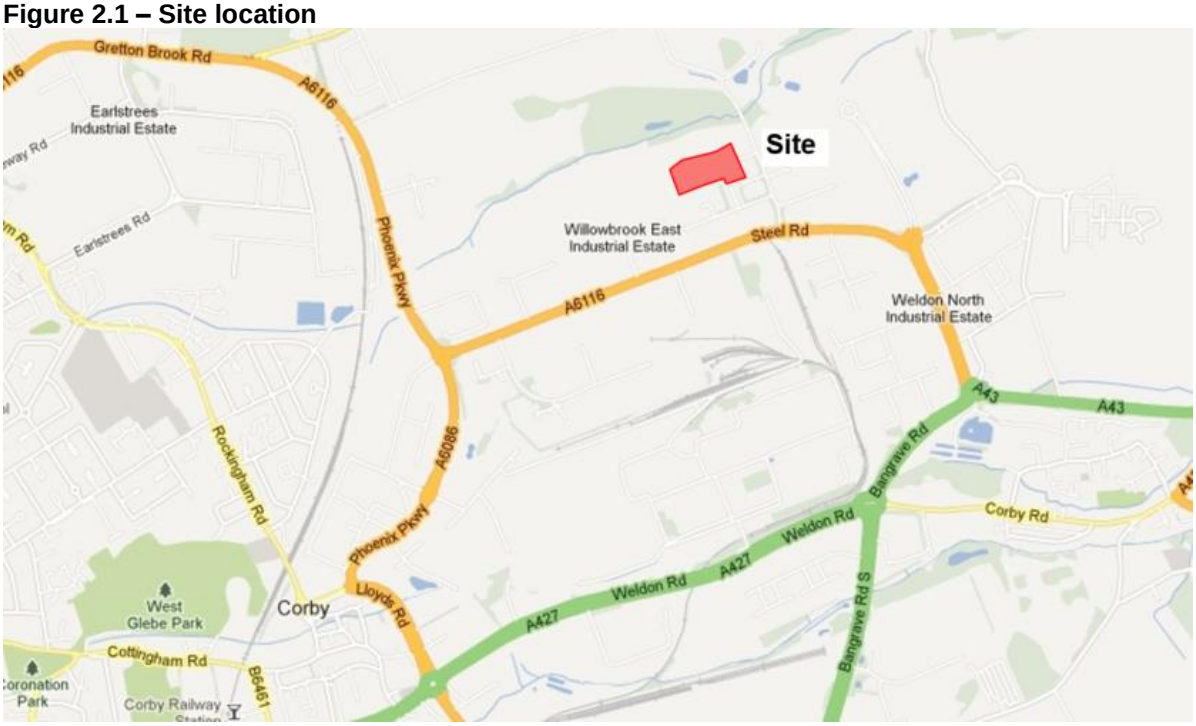
1.2. The planning application for the consented scheme was supported by a full Transport Assessment (July 2013) and a Transport Assessment Addendum (November 2013) which assessed the operational capacity of three junctions within an agreed study area. A further application for a different form of EfW facility was granted planning permission in September 2016 (NCC Ref: 16/00028/WASFUL; CBC Ref: 16/00274/COC). The traffic generation for the 2016 scheme was shown to be less than the 2013 scheme and so the highway authority raised no objections.

1.3. A revised scheme is now being proposed. The purpose of this note is to explain the transport implications of the revised proposal and to agree the scope of the Transport Statement to be submitted in support of the new planning application.

2. Development site

2.1. The Site is located to the west of Shelton Road and to the north of the Willowbrook Industrial Estate. A site location plan is included as Figure 2.1 below. The Site has been most recently used for car storage. Land to the west of the Site is still in use for this purpose and generates HGV movements onto Arkwright Road and Steel Road.

Figure 2.1 – Site location



2.2. The Site has an existing access onto Shelton Road, shared with a parcel of land located immediately to the south. The access has sufficient geometry to accommodate HGV traffic. An internal access road runs from east to west; however, this access road will need upgrading to serve the Proposed Development. Shelton Road is adopted public highway to a point north of the existing site access but there are currently locked gates across Shelton Road to the south of the site access, preventing access to the Site. The highway authority has no record of any traffic order permitting the erection of the gates on highway land so they may be illegal or the highway authority's records may be incomplete. The gates will need to be removed to enable access to the Site. Shelton Road provides direct access onto Steel Road (A6116), a major local distributor road, by means of a ghost right turn lane. This junction has appropriate geometry to accommodate the HGV traffic associated with the proposed development.

3. Traffic impact

3.1. During previous discussions with Northamptonshire County Council it was agreed that as the site is vacant or partially vacant the permitted use of the site should be used for any baseline traffic assumptions. In agreeing this, NCC referred to the DfT Guidance on Transport Assessment (March 2007) which advised at paragraph 4.7 that baseline traffic data should be derived as follows:

"Baseline transport data
The quantification of person trips generated from the existing site and their modal distribution, or, where the site is vacant or partially vacant, the person trips which might realistically be generated by any extant planning permission or permitted uses;"

3.2. In 2014 DCLG (now MHCLG) published a suite of Planning Practice Guidance including advice entitled "Travel plans, transport assessments and statements in decision taking". The 2007 guidance has been superseded by the PPG as current government guidance on the transport related effects of development, but many highway authorities still refer to it as useful advice on detailed matters of transport assessment.

3.3. On this basis the impact of the proposed development is determined by comparing any net change in journeys between the potential travel demand of the permitted use and the predicted travel demand of the proposed use.

3.4. When the 2013 application was considered, the baseline travel demand was therefore calculated based on the former car storage use. For the current planning application the baseline position will be the consented energy recovery facility.

4. Consented scheme

4.1. Planning permission was granted in 2013 for an 8-12 MW ACT Pyrolysis facility, 2-3 MW AD plant and solar PV array. The approved energy recovery facility was designed to receive 195,000 tonnes of feedstock per year (128k for the ACT and 67k for the AD). Of the 128k tpa, 30% would be recovered for recycling, 2% would be taken off site for disposal and 50% of the material used in the AD plant would be removed from site after processing. The scheme included the necessary plant and equipment to receive mixed waste and process it into fuel on-site.

4.2. Due to the mixed-source nature of the material being used as feedstock the vehicle trip calculations were based on deliveries taking place in a number of vehicle types with average payloads ranging from 7t to 20t. The resultant large good trips were as shown in Table 4.1 below:

Table 4.1 – Consented scheme large goods vehicle trips

Vehicle	Ave payload	Tonnes per day	Ave. veh per day	Trips per day
Materials IN				
Bulk trailer	20t	348t	17	35
Commercial Waste	8t	70t	9	17
Refuse vehicle	7t	70t	10	20
Skips	15t	209t	14	28
Materials OUT				
Recyclates	15t	137t	9	18
Disposal	20t	14t	1	1
Vitrified slag	20t	14t	1	1
Liquid fertiliser	38m^3	75t	2	4
Solid fertiliser	20t	32t	2	3
TOTAL			**64**	**128**

5. Proposed development

5.1. The current proposal is for an EfW that uses different technology from the approved scheme. The planning application is likely to be framed by a maximum receipt of some 260,000 tonnes of material per year. This increase in the throughput of feedstock will have an effect on the likely number of vehicle movements, but the change will not be directly proportional.

5.2. Given that the proposal remains in the early stages of planning, the feedstock supplier has not yet been confirmed. The facility has the potential to treat household and commercial waste. If the facility was to receive all commercial waste in bulk loads then the vehicle trips would be minimised. However, to enable flexibility, and as the supplier of the feedstock is likely to evolve and change during the lifetime of the facility, the traffic generation will be calculated on the more onerous assumption that the feedstock is all domestic waste. Under this scenario proposed facility would receive waste deliveries from a number of local waste authorities; some material would be delivered in bulk loads, but some would be delivered in smaller vehicles with an average payload of 12t or 7.5t. This would have an effect on the total number of vehicle trips.

5.3. In addition to feedstock deliveries, the on-site processes will require a number of other materials to be delivered to site including auxiliary fuel (LPG or LFO) as well as adsorbents for air quality control. Finally, residual material will need to be collected and taken off site such as incinerator bottom ash (IBA), boiler ash and ferrous materials. These are all taken into account when calculating predicted vehicle movements.

5.4. Table 5.1 below shows the predicted large goods vehicles associated with the proposed facility:

Table 5.1 – Predicted large goods vehicle trips

260k tpa into Energy Recovery		T per day	ave load	V per day	trips
IN					
Bulk loads 22t	Waste deliveries	633	22	29	58
Waste veh 7.5t	Waste deliveries	158	7.5	21	42
Waste veh 12t	Waste deliveries	144	12	12	24
Tanker	*Aux fuel*	2	24.68	0	0
2.5t rigid	*Urea*	1	2.5	0	1
25t tanker	*Lime*	17	25	1	1
2.5t rigid	*PAC*	1	2.5	0	1
				63	**127**
OUT					
10t rigid	IBA	187	10	19	37
10t rigid	Boiler ash	5	10	0	1
10t rigid	Filter	14	10	1	3
25t tanker	APCR	47	25	2	4
10t RoRo skip	Ferrous material	14	10	1	3
				24	**48**
			TOTAL	**87**	**175**

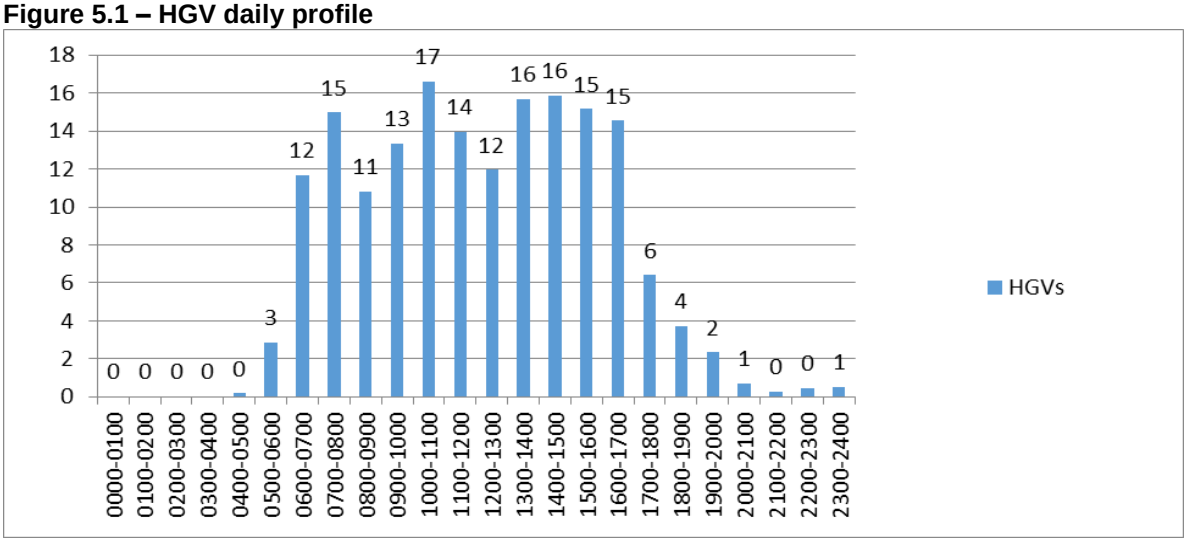
Items in italics represent materials for which a number of options exist. For example, auxiliary fuel could be LPG or LFO but both would be delivered by tanker. Similarly, adsorbents could be in the form of dry powder or pellet form but the assumptions in Table 5.1 represent a reasonable worst case in terms of deliveries.

5.5. Table 5.1 demonstrates that the proposed facility would be likely to be serviced by 87 HGVs per day compared to the 64 HGVs per day associated with the consented scheme. This therefore represents an increase of 23 HGVs across the working day.

5.6. The Transport Assessment submitted in support of the approved scheme established a likely daily profile for HGV and staff movements; it assessed the effect of **16 vehicle trips** in the highway peak hours representing the worst case combination of HGVs and staff cars. That TA (including the subsequent Addendum) included detailed junction capacity analyses of three junctions, and an assessment of the proportional increase at a further four junctions, and demonstrated that the approved development would have no material effect on any part of the local highway network.

5.7. When the daily profile is applied to the predicted 175 HGV trips, the result would be as shown below.

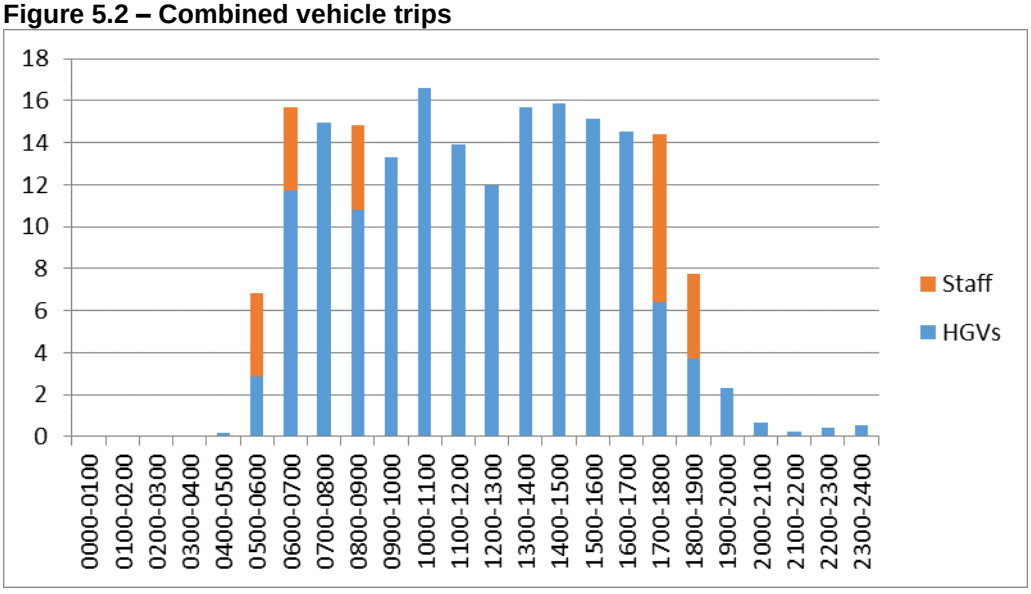
Figure 5.1 – HGV daily profile



5.8. This shows a peak of **17 HGV trips** (9 arrivals and 8 departures) between 10am-11am. The AM and PM peak HGV trips would be 11 and 6 trips respectively.

5.9. The proposed facility will operate on two 12-hour shifts per day with 5 staff per shift. There will be a further 5 staff working conventional office hours. For a robust assessment it is assumed that 80% of staff will arrive as car drivers with just 20% being passengers or travelling by sustainable modes. This is considered to over-estimate staff vehicle trips and is therefore a robust assessment. When staff trips are taken into account, the combined vehicle trips would be as shown below.

Figure 5.2 – Combined vehicle trips



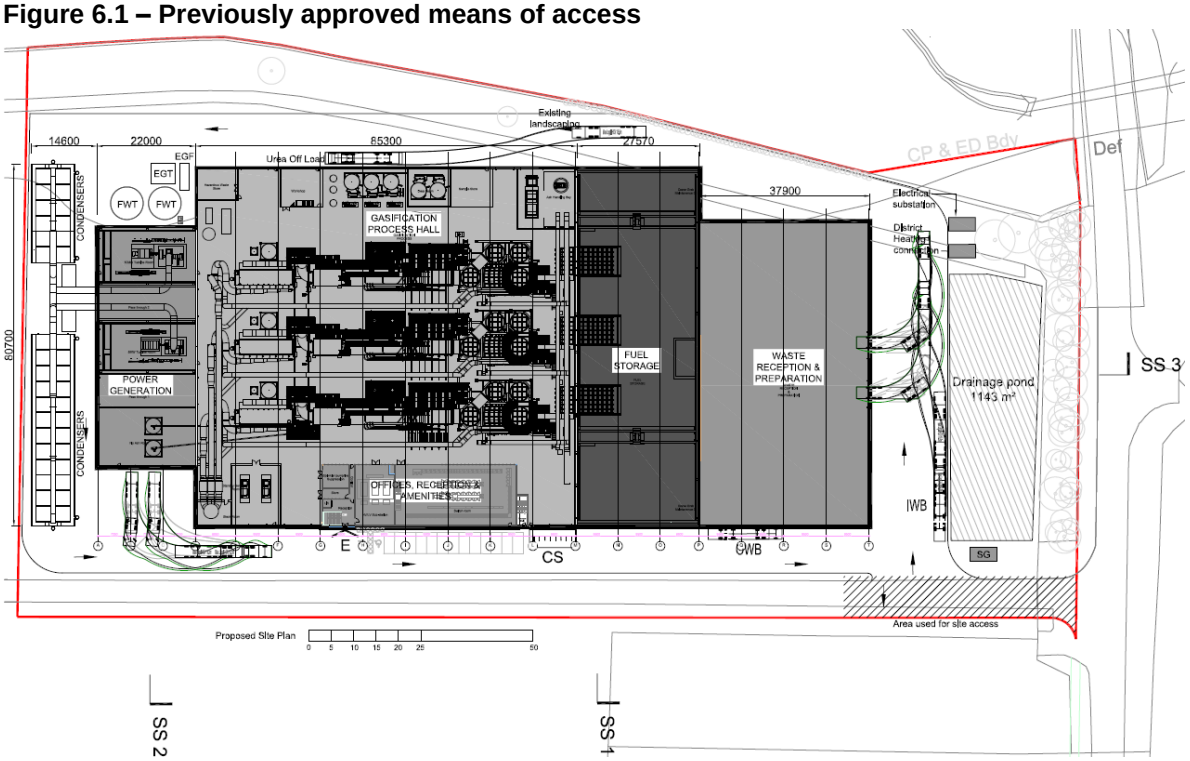
5.10. Figure 5.2 shows that the peak combined vehicle trips would still result in a peak of 17 vehicle trips per hour. The total AM and PM vehicle trips would be 15 and 14 trips respectively.

5.11. The proposed development therefore represents no material change in vehicle trips when compared to the 16 trips per hour assessed as part of the consented scheme. Full details will be included with the TS.

6. Means of access

6.1. The proposed development takes access from Shelton Road in the same location and the same form as the consented scheme. Figure 6.1 below shows the approved access from Shelton Road, including swept path analyses.

Figure 6.1 – Previously approved means of access



6.2. The internal layout has changed so a new swept path analysis will be carried out to demonstrate that the largest vehicles expected to visit the site (16.5m artic) can enter and leave the site in a forward gear and manoeuvre comfortably within the site. A site layout plan and HGV swept path analysis will be included with the TS.

7. Transport Implementation Strategy

7.1. The original Transport Assessment incorporated a three-part Transport Implementation Strategy (TIS) which comprised:

- Staff Travel Plan
- Delivery & Servicing Plan (DSP)
- Construction Management Plan (CMP)

7.2. Planning permission was granted subject to final versions of these three documents being submitted to and approved by the Council prior to development. The same conditions and obligations in respect of the TIS should apply to the revised proposals.

7.3. The DSP and CMP both include a route management strategy which directs all drivers of large vehicles to the highest category road available and away from minor roads and villages. The final versions of these management documents will be secured by planning condition and will be submitted to and approved by the planning authority prior to development.

8. Conclusion

8.1. This Scoping Note describes the transport effects of a revised application for a renewable energy facility at Shelton Road, Corby. The evidence shows that the proposed development would generate more HGV movements per day than the previously approved development for this site, but that the peak hour trips (whether HGVs or total traffic including staff vehicles) would not be materially different from those assessed in the TA which supported that consented scheme. That TA demonstrated that the consented scheme would have no material effect on the operational capacity of the local highway network; the evidence therefore illustrates that the revised proposals would also have no material effect on the capacity or safety of the surrounding highway network.

8.2. The Transport Statement to be submitted in support of the current proposals will include full details of existing highway conditions, including baseline traffic flows on the local highway network as well as facilities for pedestrians, cyclists and public transport passengers. It will take account of the Corby Town Transport Strategy (2015). The proposed development will be supported by a three-part Transport Implementation Strategy to manage the movement of people and goods to and from the site during the construction and operational phases.

From: NCC - highwaysdcCorby
Sent: 11 January 2019 13:11
To: Richard Fitter
Subject: RE: Energy Recovery Facility, Corby

Richard

We have reviewed the suggested scope of assessment set out in a Scoping Note (Entran, December 2018). The Scoping Note is generally acceptable to Northamptonshire Highways (NH), however the LHA would raise the following observations for particular consideration/clarification:

- The existing and proposed access points should be fully clarified in the Transport Statement, with an appropriate level of design detail and swept path analysis. These will be required to demonstrate that the access proposals are 'safe and suitable' in accordance with NPPF. Given the shared nature of the access, a Stage 1 Road Safety Audit with satisfactory Designer's response may be appropriate.
- It may be beneficial to undertake further enquiries into the nature of the 'illegal' gates referred to in the Scoping Note.
- The trip netting set out in the document assumes that the 2013 development is the consented land use, however the introduction to the document suggests that this was superseded with a 2016 consent which generated less trips. The 2016 consent should therefore be used for the basis of netting against the permitted land use and consideration of whether the proposed land use would have a material impact.
- The Transport Statement should also clarify whether any off-site mitigation was agreed in connection with the consented application and if so whether this is going to be followed through to the current application.
- NH confirms that a Staff Travel Plan, Delivery and Servicing Plan and Construction Management Plan will be required in due course.
- All references to previous consents and background in the Transport Statement should be easily traceable; appended extracts of relevant documentation would assist NH in this regard.

Regards,
Development Management
Northamptonshire Highways
One Angel Square, Angel Street
Northampton, NN1 1ED
Mobile: [redacted]
Email: highwaysdcCorby@kierwsp.co.uk
Web: www.kierwsp.co.uk

From: Richard Fitter
Sent: 11 December 2018 09:20
To: NCC - highwaysdcCorby
Cc: Dunderdale, Clare
Subject: RE: Energy Recovery Facility, Corby

Thank you for your prompt response which is very much appreciated.

Please find attached our TS Scoping Note which describes the previously consented development for this site, the new proposals and the scope and content of the TS which will accompany the new planning application (taking account of DM2).

I trust this information is of use to you but please do not hesitate to contact me if you have any queries or require anything further at this stage. I look forward to hearing from you shortly.

Kind regards,

Richard Fitter
Director

Tel: [redacted]
Mob: [redacted]
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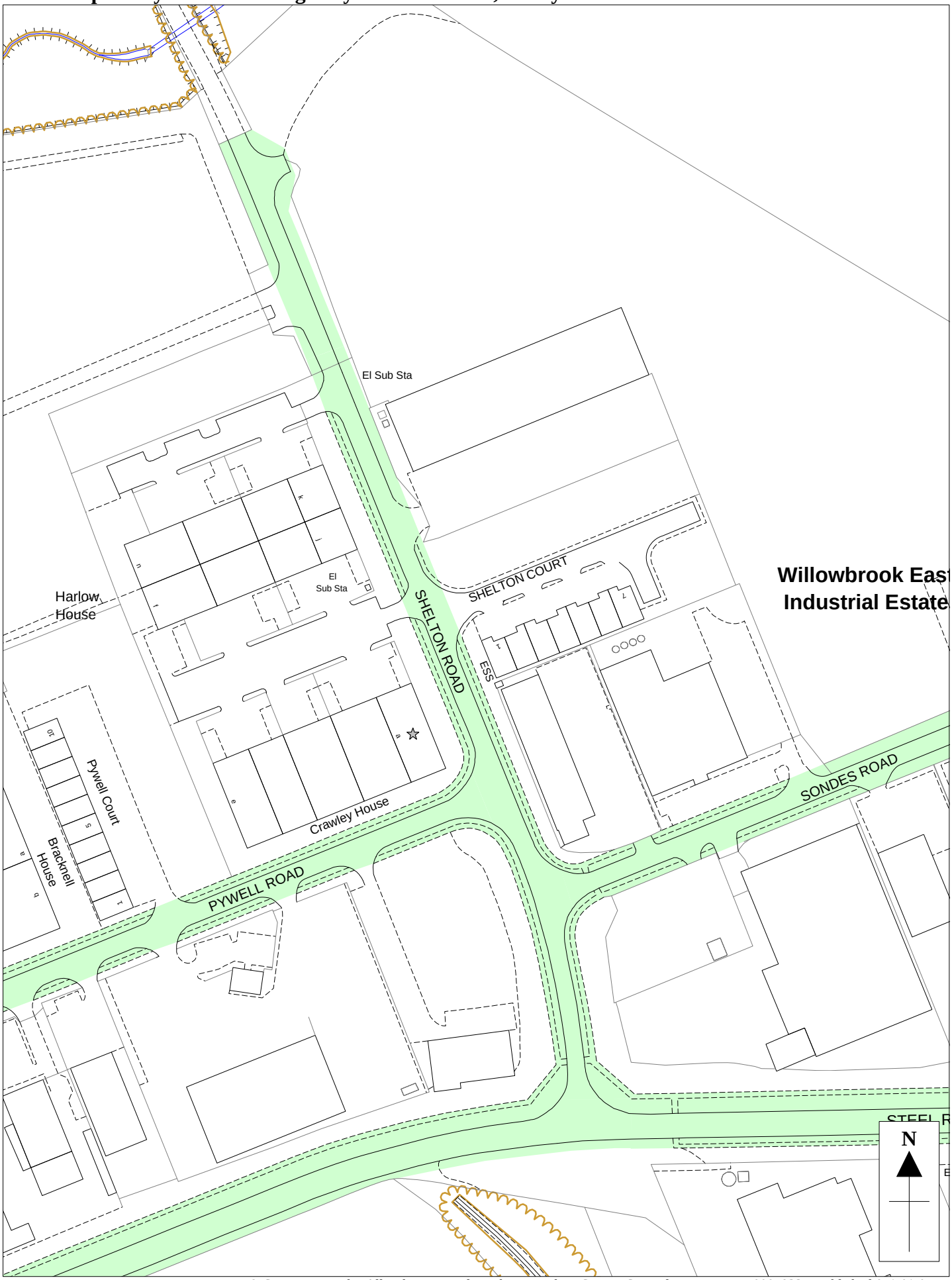
Appendix B

Adopted Public Highway

Extent of publicly maintained highway - Shelton Road, Corby

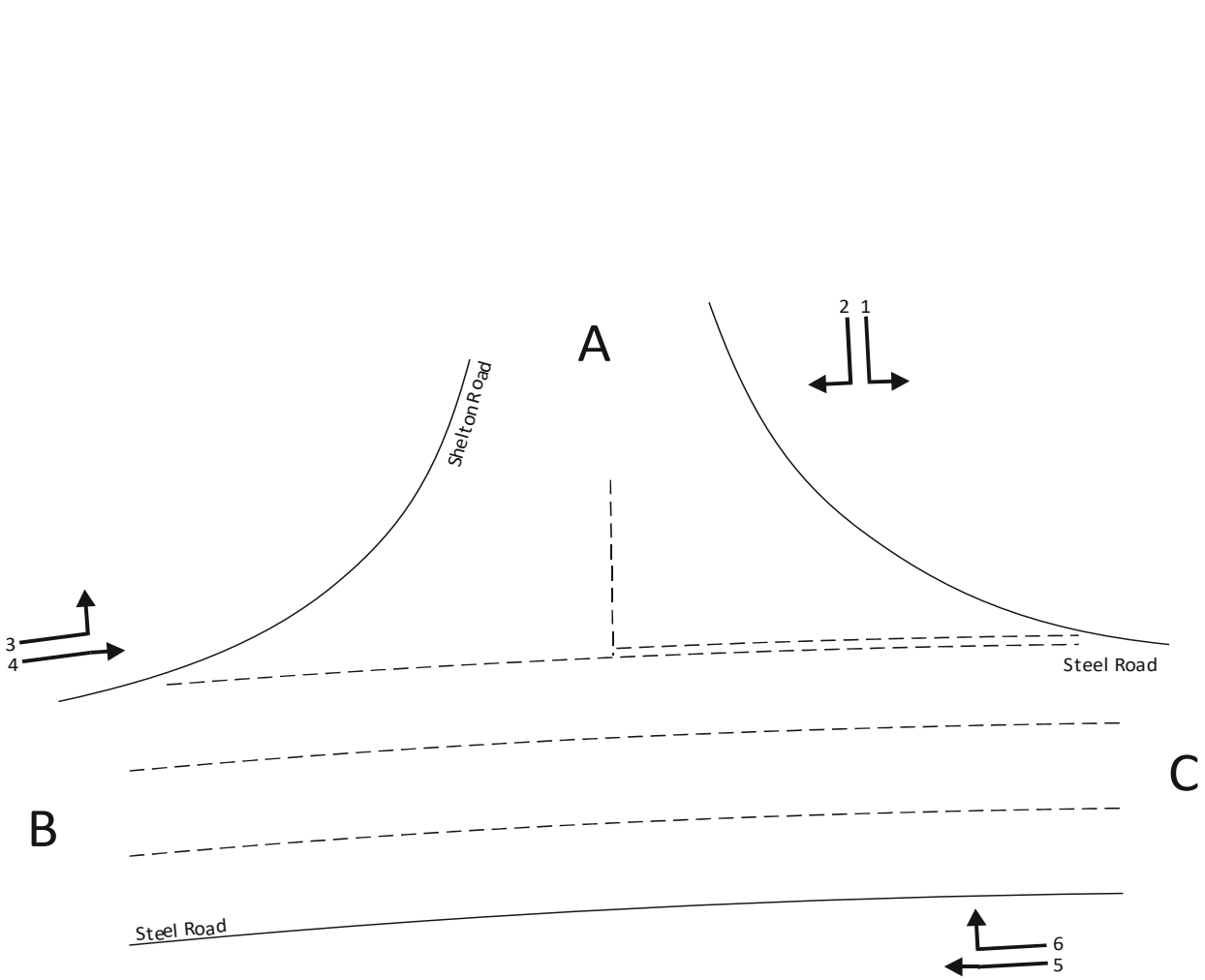
Scale 1:2000



Northamptonshire County Council

Appendix C

Traffic Count Data



AXIOM
Traffic Limited

For and on behalf of:

DMMason
Engineering Consultants Ltd

CORBY

Wednesday 04 July 2018

0700-1900

Drawing N°: **23237 - 01**

Site: **1**

Location: **Shelton Road / Steel Road**

MANUAL CLASSIFIED COUNTS

JOB REF: 23237

JOB NAME: CORBY

SITE: 1

LOCATION: SHELTON ROAD / STEEL ROAD

DATE: 04/07/2018

DAY: WEDNESDAY

MANUAL CLASSIFIED COUNTS

JOB REF: 23237

JOB NAME: CORBY

SITE: 1

LOCATION: SHELTON ROAD / STEEL ROAD

DATE: 04/07/2018

DAY: WEDNESDAY

MANUAL CLASSIFIED COUNTS

JOB REF: 23237

JOB NAME: CORBY

SITE: 1

LOCATION: SHELTON ROAD / STEEL ROAD

DATE: 04/07/2018

DAY: WEDNESDAY

TIME	MOVEMENT 1 FROM SHELTON ROAD TO STEEL ROAD (E)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	1	2	0	2	0	0	0	5
07:15	4	2	1	3	0	0	0	10
07:30	3	1	0	2	0	0	0	6
07:45	0	0	2	1	0	0	0	3
H/TOT	8	5	3	8	0	0	0	24
08:00	3	1	0	2	0	0	0	6
08:15	3	3	1	1	0	0	0	8
08:30	5	3	3	2	0	0	0	13
08:45	3	1	1	3	0	0	0	8
H/TOT	14	8	5	8	0	0	0	35
09:00	0	3	2	2	0	0	0	7
09:15	3	1	3	2	0	0	0	9
09:30	1	1	2	1	0	0	0	5
09:45	1	2	1	1	0	0	0	5
H/TOT	5	7	8	6	0	0	0	26
10:00	1	2	2	2	0	0	0	7
10:15	2	3	3	3	0	0	0	11
10:30	1	3	2	2	0	0	0	8
10:45	3	0	2	2	0	0	0	7
H/TOT	7	8	9	9	0	0	0	33
11:00	3	5	0	1	0	0	0	9
11:15	3	2	2	2	0	0	0	9
11:30	4	3	0	4	0	0	0	11
11:45	3	1	0	1	0	0	0	5
H/TOT	13	11	2	8	0	0	0	34
12:00	1	0	1	1	0	0	0	3
12:15	8	6	1	1	0	0	0	16
12:30	6	7	1	3	0	0	0	17
12:45	8	2	2	2	0	0	0	14
H/TOT	23	15	5	7	0	0	0	50
13:00	8	2	3	3	0	0	0	16
13:15	5	2	3	2	0	0	0	12
13:30	5	1	2	2	0	0	0	10
13:45	2	1	3	4	0	0	0	10
H/TOT	20	6	11	11	0	0	0	48
14:00	24	0	1	0	0	0	0	25
14:15	6	3	0	6	0	0	0	15
14:30	8	2	3	1	0	0	0	14
14:45	12	2	0	3	0	0	0	17
H/TOT	50	7	4	10	0	0	0	71
15:00	11	2	0	0	0	0	0	13
15:15	2	2	1	2	0	0	0	7
15:30	5	4	2	1	0	0	0	12
15:45	5	0	0	3	0	0	0	8
H/TOT	23	8	3	6	0	0	0	40
16:00	12	4	1	2	0	0	0	19
16:15	11	6	1	1	0	0	0	19
16:30	13	1	3	2	0	0	0	19
16:45	15	2	1	2	0	0	0	20
H/TOT	51	13	6	7	0	0	0	77
17:00	37	4	3	0	0	2	0	46
17:15	6	1	0	3	0	0	0	10
17:30	17	0	0	1	0	1	0	19
17:45	10	0	1	0	0	0	0	11
H/TOT	70	5	4	4	0	3	0	86
18:00	11	4	0	0	0	0	0	15
18:15	9	0	0	3	0	0	0	12
18:30	2	2	0	1	0	0	0	5
18:45	2	0	0	0	0	0	0	2
H/TOT	24	6	0	4	0	0	0	34
P/TOT	308	99	60	88	0	3	0	558

TIME	MOVEMENT 2 FROM SHELTON ROAD TO STEEL ROAD (W)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	4	0	0	2	0	1	0	7
07:15	1	0	2	0	0	0	0	3
07:30	3	0	0	0	0	0	0	3
07:45	7	1	1	0	0	0	0	9
H/TOT	15	1	3	2	0	1	0	22
08:00	3	0	0	0	0	0	0	3
08:15	7	0	1	0	0	0	0	8
08:30	6	2	1	0	0	0	0	9
08:45	7	4	2	0	0	0	0	13
H/TOT	23	6	4	0	0	0	0	33
09:00	3	3	1	1	0	0	0	8
09:15	4	3	0	0	0	0	0	7
09:30	2	3	1	0	0	0	0	6
09:45	4	4	3	0	0	0	0	11
H/TOT	13	13	5	1	0	0	0	32
10:00	5	1	3	1	0	0	0	10
10:15	4	1	0	0	0	0	0	5
10:30	6	0	2	2	0	0	0	10
10:45	3	0	2	1	0	0	0	6
H/TOT	18	2	7	4	0	0	0	31
11:00	3	1	0	0	0	0	0	4
11:15	5	3	0	3	0	0	0	11
11:30	3	5	0	0	0	0	0	8
11:45	6	6	1	0	0	0	0	13
H/TOT	17	15	1	3	0	0	0	36
12:00	13	2	1	0	0	0	0	16
12:15	9	1	0	0	0	0	0	10
12:30	6	5	2	0	0	0	0	13
12:45	6	1	1	0	0	0	0	8
H/TOT	34	9	4	0	0	0	0	47
13:00	7	3	0	0	0	0	0	10
13:15	8	3	2	1	0	0	0	14
13:30	8	4	1	0	0	0	0	13
13:45	10	2	1	0	0	0	0	13
H/TOT	33	12	4	1	0	0	0	50
14:00	39	3	1	1	0	0	0	44
14:15	14	3	0	0	0	0	0	17
14:30	11	2	1	0	0	0	0	14
14:45	14	1	0	0	0	0	0	15
H/TOT	78	9	2	1	0	0	0	90
15:00	11	3	0	1	0	0	0	15
15:15	4	3	4	0	0	0	0	11
15:30	27	2	0	0	0	1	0	30
15:45	10	1	0	0	0	0	0	11
H/TOT	52	9	4	1	0	1	0	67
16:00	8	2	1	1	0	0	0	12
16:15	9	2	2	0	0	0	0	13
16:30	9	0	2	0	0	0	0	11
16:45	22	0	1	0	0	0	0	23
H/TOT	48	4	6	1	0	0	0	59
17:00	29	0	0	0	0	0	0	29
17:15	10	1	0	0	0	0	0	11
17:30	12	2	0	0	0	0	0	14
17:45	8	1	0	1	0	0	0	10
H/TOT	59	4	0	1	0	0	0	64
18:00	7	1	0	0	0	1	0	9
18:15	5	1	0	0	0	0	0	6
18:30	2	0	0	0	0	0	0	2
18:45	4	0	0	0	0	0	0	4
H/TOT	18	2	0	0	0	1	0	21
P/TOT	408	86	40	15	0	3	0	552

TIME	MOVEMENT 3 FROM STEEL ROAD (W) TO SHELTON ROAD							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	5	1	0	0	0	0	0	6
07:15	8	0	0	0	0	1	0	9
07:30	17	2	0	1	0	1	0	21
07:45	18	2	1	3	0	0	0	24
H/TOT	48	5	1	4	0	2	0	60
08:00	11	0	1	0	0	0	0	12
08:15	21	3	0	0	0	0	0	24
08:30	20	5	1	0	0	0	0	26
08:45	12	0	0	0	0	1	0	13
H/TOT	64	8	2	0	0	1	0	75
09:00	5	6	4	0	0	0	0	15
09:15	4	4	1	0	0	0	0	9
09:30	5	4	2	1	0	0	0	12
09:45	4	2	2	0	0	0	0	8
H/TOT	18	16	9	1	0	0	0	44
10:00	4	1	1	0	0	0	0	6
10:15	9	5	2	1	0	0	0	17
10:30	4	1	2	0	0	0	0	7
10:45	6	1	1	1	0	0	0	9
H/TOT	23	8	6	2	0	0	0	39
11:00	1	2	1	0	0	0	0	4
11:15	5	7	0	0	0	0	0	12
11:30	8	2	1	0	0	0	0	11
11:45	4	2	3	1	0	0	0	10
H/TOT	18	13	5	1	0	0	0	37
12:00	6	3	1	0	0	0	0	10
12:15	7	4	1	0	0	0	0	12
12:30	7	2	3	1	0	0	0	13
12:45	4	0	0	0	0	1	0	5
H/TOT	24	9	5	1	0	1	0	40
13:00	9	3	2	0	0	0	0	14
13:15	8	3	1	0	0	0	0	12
13:30	20	3	2	1	0	0	0	26
13:45	18	4	3	0	0	0	0	25
H/TOT	55	13	8	1	0	0	0	77
14:00	12	3	1	0	0	0	0	16
14:15	9	2	0	0	0	0	0	11
14:30	14	1	1	0	0	0	0	16
14:45	14	2	2	0	0	0	0	18
H/TOT	49	8	4	0	0	0	0	61
15:00	6	1	2	0	0	0	0	9
15:15	4	2	1	1	0	0	0	8
15:30	5	2	0	2	0	0	0	9
15:45	2	0	1	0	0	0	0	3
H/TOT	17	5	4	3	0	0	0	29
16:00	4	4	2	1	0	0	0	11
16:15	4	2	2	1	0	0	0	9
16:30	5	2	3	0	0	0	0	10
16:45	8	0	1	0	0	0	0	9
H/TOT	21	8	8	2	0	0	0	39
17:00	5	1	0	0	0	0	0	6
17:15	1	1	0	0	0	0	0	2
17:30	8	2	0	0	0	0	0	10
17:45	7	1	0	0	0	0	0	8
H/TOT	21	5	0	0	0	0	0	26
18:00	1	0	0	0	0	0	0	1
18:15	3	1	0	0	0	0	0	4
18:30	3	1	0	0	0	0	0	4
18:45	1	0	0	0	0	0	0	1
H/TOT	8	2	0	0	0	0	0	10
P/TOT	366	100	52	15	0	4	0	537

TIME	MOVEMENT 4 FROM STEEL ROAD (W) TO STEEL ROAD (E)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	27	8	7	5	0	0	0	47
07:15	40	8	2	8	1	1	0	60
07:30	57	11	6	2	0	1	1	78
07:45	84	11	4	5	1	0	2	107
H/TOT	208	38	19	20	2	2	3	292
08:00	83	16	7	9	0	0	0	115
08:15	110	16	3	8	6	0	0	143
08:30	71	14	9	6	1	2	0	103
08:45	81	11	8	10	0	1	0	111
H/TOT	345	57	27	33	7	3	0	472
09:00	48	8	4	3	0	0	0	63
09:15	51	13	10	6	1	1	0	82
09:30	34	16	15	5	0	0	0	70
09:45	38	10	3	6	1	0	0	58
H/TOT	171	47	32	20	2	1	0	273
10:00	36	7	8	8	0	0	0	59
10:15	39	14	4	12	1	0	0	70
10:30	29	8	6	12	0	0	0	55
10:45	41	4	7	6	1	0	0	59
H/TOT	145	33	25	38	2	0	0	243
11:00	44	4	7	6	0	0	0	61
11:15	33	13	7	14	1	0	0	68
11:30	44	18	9	7	0	0	0	78
11:45	38	15	5	14	1	0	0	73
H/TOT	159	50	28	41	2	0	0	280
12:00	53	10	5	9	0	0	0	77
12:15	64	9	6	4	1	0	0	84
12:30	66	13	10	14	0	0	0	103
12:45	68	14	9	9	0	1	0	101
H/TOT	251	46	30	36	1	1	0	365
13:00	68	16	9	8	1	1	0	103
13:15	69	16	9	8	1	2	0	105
13:30	72	13	10	12	1	0	0	108
13:45	73	8	10	10	1	0	0	102
H/TOT	282	53	38	38	4	3	0	418
14:00	99	13	8	6	0	0	0	126
14:15	55	9	10	8	1	0	0	83
14:30	57	6	9	7	0	0	0	79
14:45	59	14	6	12	5	1	0	97
H/TOT	270	42	33	33	6	1	0	385
15:00	60	12	2	13	0	3	0	90
15:15	52	10	9	9	1	1	0	82
15:30	43	12	3	6	0	0	0	64
15:45	58	19	5	6	0	0	0	88
H/TOT	213	53	19	34	1	4	0	324
16:00	98	14	3	9	0	2	0	126
16:15	71	10	3	9	0	0	0	93
16:30	86	10	5	2	0	1	0	104
16:45	97	19	4	8	0	0	0	128
H/TOT	352	53	15	28	0	3	0	451
17:00	163	18	3	6	0	0	0	190
17:15	102	12	4	6	1	1	0	126
17:30	119	9	5	6	0	0	0	139
17:45	71	4	9	4	0	0	0	88
H/TOT	455	43	21	22	1	1	0	543
18:00	82	3	3	2	0	2	0	92
18:15	62	6	3	1	0	0	0	72
18:30	50	1	1	4	1	1	0	58
18:45	35	4	1	1	0	0	0	41
H/TOT	229	14	8	8	1	3	0	263
P/TOT	3080	529	295	351	29	22	3	4309

TIME	MOVEMENT 5 FROM STEEL ROAD (E) TO STEEL ROAD (W)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	42	8	3	14	1	1	0	69
07:15	47	13	4	6	0	1	1	72
07:30	77	8	1	8	1	0	0	95
07:45	109	17	4	14	0	1	0	145
H/TOT	275	46	12	42	2	3	1	381
08:00	92	19	7	10	0	0	1	129
08:15	99	25	3	7	4	0	0	138
08:30	105	14	4	12	2	0	0	137
08:45	84	16	5	10	0	1	0	116
H/TOT	380	74	19	39	6	1	1	520
09:00	60	17	1	5	2	0	0	85
09:15	50	12	2	11	0	0	0	75
09:30	48	11	4	8	1	0	0	72
09:45	49	14	9	15	0	0	0	87
H/TOT	207	54	16	39	3	0	0	319
10:00	49	17	10	7	1	0	0	84
10:15	37	17	2	6	0	0	0	62
10:30	42	15	3	16	1	0	0	77
10:45	31	15	12	8	1	1	0	68
H/TOT	159	64	27	37	3	1	0	291
11:00	30	8	5	8	1	0	0	52
11:15	25	6	4	7	0	0	0	42
11:30	53	9	9	11	1	0	1	84
11:45	43	15	7	12	0	0	0	77
H/TOT	151	38	25	38	2	0	1	255
12:00	84	15	6	7	1	0	0	113
12:15	63	17	7	11	0	0	0	98
12:30	70	14	3	8	1	0	0	96
12:45	64	19	11	10	0	0	0	104
H/TOT	281	65	27	36	2	0	0	411
13:00	61	16	8	18	0	2	0	105
13:15	55	12	6	14	1	0	0	88
13:30	60	6	9	13	1	0	0	89
13:45	55	14	6	7	1	0	0	83
H/TOT	231	48	29	52	3	2	0	365
14:00	86	18	2	12	1	0	0	119
14:15	40	20	8	16	0	1	0	85
14:30	74	11	3	14	1	1	0	104
14:45	56	10	8	8	0	0	0	82
H/TOT	256	59	21	50	2	2	0	390
15:00	116	13	11	9	6	0	0	155
15:15	66	14	11	8	0	0	0	99
15:30	56	10	2	11	0	0	0	79
15:45	71	17	7	16	1	0	0	112
H/TOT	309	54	31	44	7	0	0	445
16:00	110	15	8	13	2	1	0	149
16:15	76	11	8	6	4	0	0	105
16:30	102	9	13	19	0	0	0	143
16:45	113	7	7	7	1	1	0	136
H/TOT	401	42	36	45	7	2	0	533
17:00	124	9	6	8	0	0	0	147
17:15	99	14	4	8	1	3	0	129
17:30	89	6	0	3	0	0	0	98
17:45	71	5	2	6	1	0	0	85
H/TOT	383	34	12	25	2	3	0	459
18:00	76	10	1	6	0	0	0	93
18:15	37	5	0	6	0	0	0	48
18:30	43	3	2	1	1	1	0	51
18:45	32	7	1	4	0	1	0	45
H/TOT	188	25	4	17	1	2	0	237
P/TOT	3221	603	259	464	40	16	3	4606

TIME	MOVEMENT 6 FROM STEEL ROAD (E) TO SHELTON ROAD							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	9	0	0	1	0	0	0	10
07:15	7	0	0	3	0	0	0	10
07:30	13	2	0	1	0	0	0	16
07:45	36	1	1	0	0	0	0	38
H/TOT	65	3	1	5	0	0	0	74
08:00	17	3	0	2	0	0	0	22
08:15	16	3	2	2	0	0	0	23
08:30	16	2	2	0	0	0	0	20
08:45	14	1	3	0	0	0	0	18
H/TOT	63	9	7	4	0	0	0	83
09:00	1	2	0	1	0	0	0	4
09:15	9	2	0	4	0	0	0	15
09:30	11	0	3	4	0	0	0	18
09:45	8	3	2	2	0	1	0	16
H/TOT	29	7	5	11	0	1	0	53
10:00	5	0	0	2	0	0	0	7
10:15	0	2	0	3	0	0	0	5
10:30	4	2	2	4	0	0	0	12
10:45	3	1	1	2	0	0	0	7
H/TOT	12	5	3	11	0	0	0	31
11:00	4	3	1	5	0	0	0	13
11:15	3	1	0	2	0	0	0	6
11:30	4	4	0	0	0	0	0	8
11:45	4	5	1	1	0	0	0	11
H/TOT	15	13	2	8	0	0	0	38
12:00	2	3	2	5	0	0	0	12
12:15	7	1	1	2	0	0	0	11
12:30	1	0	5	3	0	0	0	9
12:45	11	2	1	1	0	0	0	15
H/TOT	21	6	9	11	0	0	0	47
13:00	4	2	0	0	0	0	0	6
13:15	8	2	0	1	0	0	0	11
13:30	8	1	0	1	0	0	0	10
13:45	10	2	0	1	0	0	0	13
H/TOT	30	7	0	3	0	0	0	40
14:00	5	3	0	2	0	0	0	10
14:15	6	0	0	1	0	0	0	7
14:30	8	1	0	3	0	0	0	12
14:45	8	3	0	4	0	0	0	15
H/TOT	27	7	0	10	0	0	0	44
15:00	2	1	3	1	0	0	0	6
15:15	1	4	2	1	0	0	0	8
15:30	3	1	2	0	0	0	1	7
15:45	2	3	0	1	0	0	0	6
H/TOT	7	11	5	3	0	0	1	27
16:00	3	0	2	1	0	0	0	6
16:15	2	1	3	1	0	0	0	7
16:30	1	0	0	0	0	0	0	1
16:45	5	0	1	1	0	0	0	7
H/TOT	11	1	6	3	0	0	0	21
17:00	3	0	1	0	0	0	0	4
17:15	4	2	0	0	0	0	0	6
17:30	1	0	1	1	0	0	0	3
17:45	1	0	1	1	0	0	0	3
H/TOT	9	2	3	2	0	0	0	16
18:00	3	1	0	0	0	0	0	4
18:15	1	0	0	0	0	0	0	1
18:30	2	0	0	2	0	0	0	4
18:45	0	1	0	0	0	0	0	1
H/TOT	6	2	0	2	0	0	0	10
P/TOT	295	73	41	73	0	1	1	484

MANUAL CLASSIFIED COUNTS

JOB REF: 23237

JOB NAME: CORBY

SITE: 1

LOCATION: SHELTON ROAD / STEEL ROAD

DATE: 04/07/2018

DAY: WEDNESDAY

AXIOM Traffic Limited

MANUAL CLASSIFIED COUNTS

JOB REF: 23237

JOB NAME: CORBY

DATE: 04/07/2018

DAY: WEDNESDAY

LOCATION: SHELTON ROAD / STEEL ROAD

AXIOM Traffic Limited

MANUAL CLASSIFIED COUNTS

JOB REF: 23237

JOB NAME: CORBY

DATE: 04/07/2018

DAY: WEDNESDAY

LOCATION: SHELTON ROAD / STEEL ROAD

AXIOM Traffic Limited

JOB REF: 23237

JOB NAME: CORBY

DATE: 04/07/2018

DAY: WEDNESDAY

TIME	TO ARM A SHELTON ROAD								FROM ARM A SHELTON ROAD								TIME	TO ARM B STEEL ROAD (W)								FROM ARM B STEEL ROAD (W)								TIME	TO ARM C STEEL ROAD (E)								FROM ARM C STEEL ROAD (E)							
	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT		CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT		CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	14	1	0	1	0	0	0	16	5	2	0	4	0	1	0	12	07:00	46	8	3	16	1	2	0	76	32	9	7	5	0	0	0	53	07:00	28	10	7	7	0	0	0	52	51	8	3	15	1	1	0	79
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H/TOT	113	8	2	9	0	2	0	134	23	6	6	10	0	1	0	46	**H/TOT**	290	47	15	44	2	4	1	403	256	43	20	24	2	4	3	352	**H/TOT**	216	43	22	28	2	2	3	316	340	49	13	47	2	3	1	455
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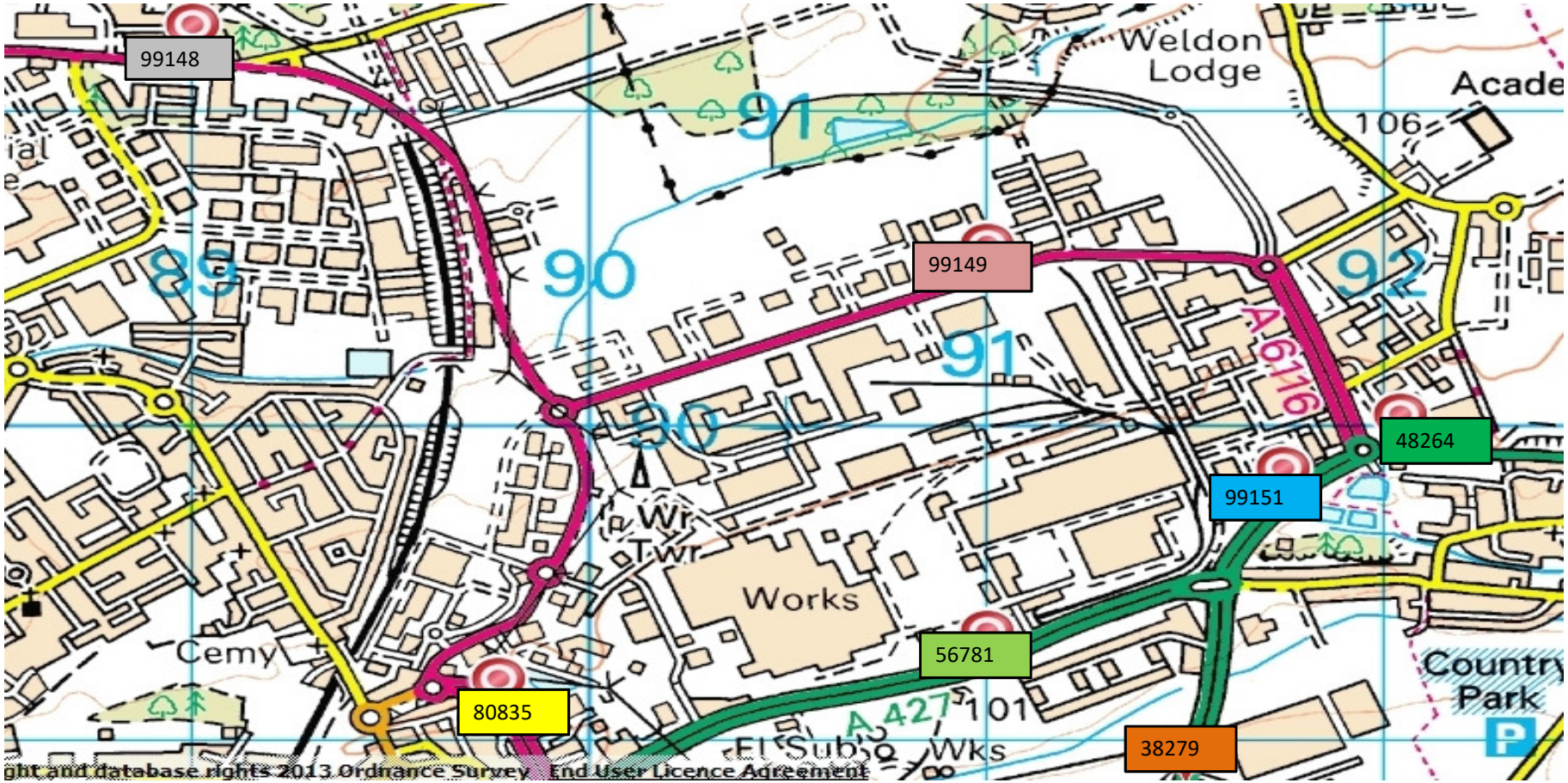
H/TOT	14	4	0	2	0	0	0	20	42	8	0	4	0	1	0	55	**H/TOT**	206	27	4	17	1	3	0	258	237	16	8	8	1	3	0	273	**H/TOT**	253	20	8	12	1	3	0	297	194	27	4	19	1	2	0	247
P/TOT	661	173	93	88	0	5	1	1021	716	185	100	103	0	6	0	1110	**P/TOT**	3629	689	299	479	40	19	3	5158	3446	629	347	366	29	26	3	4846	**P/TOT**	3388	628	355	439	29	25	3	4867	3516	676	300	537	40	17	4	5090

Appendix D

DfT AADF Data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Wr
T Wr
Works
Cemy
A427
101
Wks
Country
Park
P
ght and database rights 2013 Ordnance Survey End User Licence Agreement

AADFYear	CP	Estimation_m	Estimation_meth	Region	LocalAuthc	Road	RoadCateg	Easting	Northing	StartJuncti	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	Cars	Taxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5AxleF	V3or4Axle	V5AxleArtic	V6orMore	AllHGVs	AllMotorVehicles
2000	38279	Estimated	Estimated using p	East Midla	Northampt	A43	TA	491498	288857	A6086	A427	1.7	1.06	13	86	5268		27	942	405	69	102	182	346	392	1496	7819
2001	38279	Estimated	Estimated using p	East Midla	Northampt	A43	TA	491498	288857	A6086	A427	1.7	1.06	11	95	5284		27	974	399	80	102	163	303	449	1496	7876
2002	38279	Counted	Manual count	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	48	6672		21	1099	435	82	92	197	481	249	1536	9376
2003	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	59	6732		21	1238	427	85	99	184	419	270	1484	9534
2004	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	60	6738		19	1248	443	93	112	173	367	292	1480	9545
2005	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	56	6732		19	1311	433	89	116	151	316	304	1409	9527
2006	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	48	6921		17	1375	441	88	124	142	292	341	1428	9789
2007	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	47	6740		19	1517	481	96	148	132	299	377	1533	9856
2008	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	47	6491		21	1517	453	102	148	119	272	380	1474	9550
2009	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	2	49	6413		21	1546	412	100	140	104	221	347	1324	9353
2010	38279	Counted	Manual count	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	32	41	6346		28	1378	279	37	84	119	507	305	1331	9124
2011	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	28	45	6365		29	1458	284	41	97	93	503	323	1341	9238
2012	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	26	42	6186		29	1530	287	45	111	68	469	323	1303	9089
2013	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	26	42	6072		26	1642	286	48	124	50	446	328	1282	9065
2014	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	21	43	6157		27	1765	284	52	132	52	424	360	1304	9296
2015	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	21	41	6084		27	1889	284	56	132	65	425	362	1324	9367
2016	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	20	41	6160		27	2040	298	53	152	67	397	374	1341	9610
2017	38279	Estimated	Estimated using p	East Midla	Northampt	A43	PA	491498	288857	A6086	A427	1.7	1.06	21	40	6153		26	2159	307	55	157	68	398	384	1369	9748

AADFYear	CP	Estimation_m	Estimation_meth	Region	LocalAuthc	Road	RoadCateg	Easting	Northing	StartJuncti	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	Cars	Taxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5AxleF	V3or4Axle	V5AxleArtic	V6orMore	AllHGVs	AllMotorVehicles
2000	48264	Estimated	Estimated using p	East Midla	Northampt	A427	TA	492039	289927	A427	A47 WALD	1.5	0.93	1	70	5719		28	983	512	71	114	170	341	385	1593	8393
2001	48264	Estimated	Estimated using p	East Midla	Northampt	A427	TA	492039	289927	A427	A47 WALD	1.5	0.93	1	77	5736		28	1016	505	83	114	152	299	440	1593	8450
2002	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	1	76	5805		30	1096	520	92	127	145	273	506	1663	8670
2003	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	1	93	5857		31	1235	511	95	136	136	238	547	1663	8879
2004	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	1	96	5863		27	1245	529	104	155	127	208	593	1716	8947
2005	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	1	89	5857		27	1307	518	100	159	111	180	619	1687	8967
2006	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	1	74	6021		25	1372	527	99	171	105	166	693	1761	9253
2007	48264	Counted	Manual count	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	40	6548		23	1251	444	65	196	165	524	330	1724	9586
2008	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	40	6305		25	1251	418	69	196	149	476	333	1641	9262
2009	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	42	6229		25	1275	379	69	185	130	386	304	1453	9024
2010	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	37	6111		25	1312	397	69	159	147	356	299	1427	8912
2011	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	41	6130		27	1388	405	76	183	114	352	317	1447	9033
2012	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	38	5958		27	1456	410	83	209	83	328	317	1430	8908
2013	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	38	5848		24	1563	407	89	234	62	312	322	1426	8900
2014	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	39	5930		25	1680	405	96	248	64	297	354	1463	9138
2015	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	0	38	5860		26	1799	405	103	249	79	298	356	1490	9212
2016	48264	Counted	Manual count	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	7	59	7555		35	1507	281	69	109	85	485	406	1435	10592
2017	48264	Estimated	Estimated using p	East Midla	Northampt	A427	PA	492039	289927	A427	A47 WALD	1.5	0.93	7	57	7546		34	1595	290	71	113	87	486	417	1464	10696

AADFYear	CP	Estimation_m	Estimation_meth	Region	LocalAuthc	Road	RoadCateg	Easting	Northing	StartJuncti	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	Cars	Taxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5AxleF	V3or4Axle	V5AxleArtic	V6orMore	AllHGVs	AllMotorVehicles
2000	56781	Counted	Manual count	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	145	38	9278		155	1112	297	27	40	50	106	66	586	11169
2001	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	139	40	8990		162	1120	283	30	39	41	84	68	545	10857
2002	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	145	42	9134		164	1201	267	30	40	37	73	75	522	11063
2003	56781	Counted	Manual count	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	274	152	9436		105	1115	196	18	69	26	101	45	455	11263
2004	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	221	100	9558		86	1227	239	24	91	27	95	53	529	11500
2005	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	188	82	9118		81	1308	259	25	105	22	77	51	539	11128
2006	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	294	71	8945		76	1328	249	24	107	17	60	49	506	10926
2007	56781	Counted	Manual count	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	121	53	10556		108	1476	205	37	128	31	127	66	594	12787
2008	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	136	51	10324		94	1507	204	42	135	27	111	64	583	12559
2009	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	136	56	10551		93	1529	186	42	128	25	96	62	539	12768
2010	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	137	53	10488		106	1633	198	42	112	29	91	62	534	12814
2011	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	151	45	10457		100	1823	202	46	129	23	94	68	562	12987
2012	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	143	43	10294		109	1845	204	50	147	16	84	65	566	12856
2013	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	141	48	10203		114	1917	206	54	167	12	79	66	585	12867
2014	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	137	46	10480		109	2050	211	60	183	11	65	62	592	13277
2015	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	127	40	10687		118	2150	200	62	174	13	62	60	571	13566
2016	56781	Counted	Manual count	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	200	65	9472		63	1300	140	42	32	19	81	43	356	11255
2017	56781	Estimated	Estimated using p	East Midla	Northampt	A427	PA	491000	289238	A6086	A43	1.8	1.12	201	63	9460		61	1376	144	44	33	19	81	44	364	11324

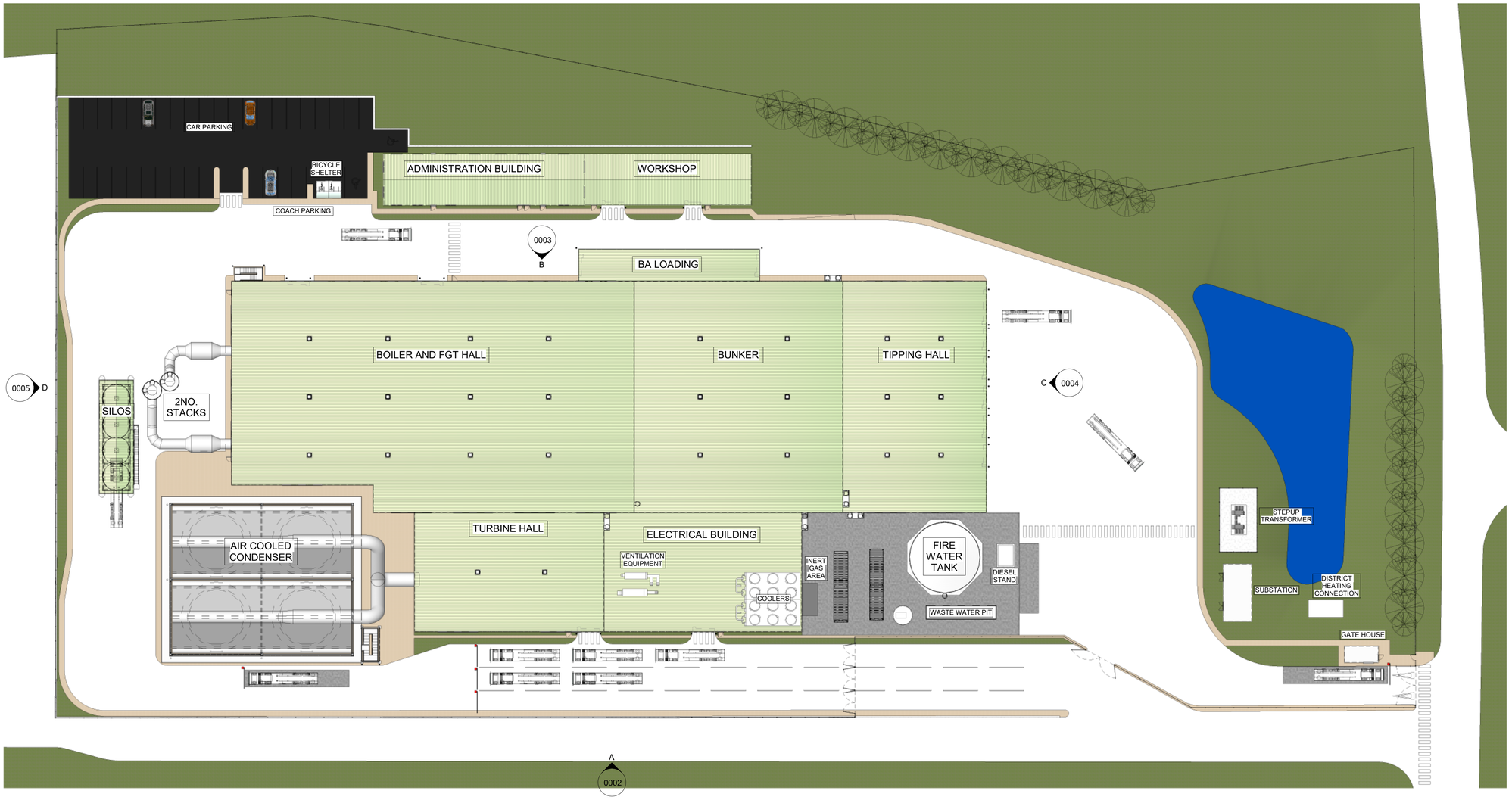
AADFYear	CP	Estimation_m	Estimation_meth	Region	LocalAuthc	Road	RoadCateg	Easting	Northing	StartJuncti	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	Cars	Taxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5AxleF	V3or4Axle	V5AxleArtic	V6orMore	AllHGVs	AllMotorVehicles
2007	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	44	89	9546		179	1352	214	33	33	16	30	31	357	11523
2008	80835	Counted	Manual count	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	49	85	9336		155	1381	214	37	35	14	26	30	356	11313
2009	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	49	95	9541		153	1402	195	37	33	13	22	29	329	11520
2010	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	49	90	9484		173	1497	207	38	29	15	21	29	339	11583
2011	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	54	76	9456		163	1671	210	42	33	12	22	32	351	11717
2012	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	51	73	9308		177	1691	212	46	38	8	20	30	354	11603
2013	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	50	81	9226		185	1757	214	50	43	6	19	31	362	11612
2014	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	49	77	9477		178	1879	219	55	47	6	15	29	371	11983
2015	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	45	68	9664		192	1971	208	57	44	7	15	28	358	12254
2016	80835	Estimated	Estimated using p	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	42	67	9815		178	2153	211	56	50	7	13	28	365	12577
2017	80835	Counted	Manual count	East Midla	Northampt	A6086	PA	489770	289090	A427	A6116	1.6	0.99	92	58	15929		103	2461	377	76	61	39	290	187	1030	19581

AADFYear	CP		Estimation_m	Estimation_meth	Region	LocalAutho	Road	RoadCateg	Easting	Northing	StartJunctio	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	CarsTaxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5Axle	V3or4Axle/	V5AxleArtic	V6orMore/	AllHGVs	AllMotorVehicles
2000	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	25	84	8884	26	1490	485	64	29	130	218	168	1094	11578
2001	99148		Counted	Manual count	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	52	89	9466	29	1658	565	100	71	132	281	197	1346	12588
2002	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	54	93	9618	29	1777	534	102	73	120	245	216	1290	12807
2003	99148		Counted	Manual count	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	128	241	8861	78	1236	573	110	100	59	227	155	1224	11640
2004	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	103	158	8976	64	1361	698	142	133	59	214	181	1427	11986
2005	99148		Counted	Manual count	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	31	93	8874	50	1489	590	105	120	86	443	170	1514	12020
2006	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	47	81	8706	46	1511	569	99	122	69	349	162	1370	11714
2007	99148		Counted	Manual count	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	61	65	9044	21	1693	455	87	101	66	214	110	1033	11856
2008	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	68	62	8845	18	1730	454	97	106	57	187	107	1008	11663
2009	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	68	69	9039	18	1756	413	95	100	53	161	104	926	11808
2010	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	68	66	8985	20	1875	440	97	87	62	153	105	944	11890
2011	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	75	56	8958	19	2093	447	106	100	50	158	116	977	12103
2012	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	71	54	8818	21	2118	452	116	114	35	141	111	968	11978
2013	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	70	60	8740	22	2201	456	126	130	26	134	112	983	12006
2014	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	68	57	8977	21	2354	467	139	142	23	109	106	986	12395
2015	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	63	50	9155	22	2468	443	143	135	27	105	102	954	12651
2016	99148		Counted	Manual count	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	72	53	9799	30	2106	442	67	161	57	353	217	1297	13284
2017	99148		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	489000	291167	A6086	Rockinghar	2.9	1.8	72	51	9787	29	2229	456	69	167	58	354	223	1326	13422

AADFYear	CP		Estimation_m	Estimation_meth	Region	LocalAutho	Road	RoadCateg	Easting	Northing	StartJunctio	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	CarsTaxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5Axle	V3or4Axle/	V5AxleArtic	V6orMore/	AllHGVs	AllMotorVehicles
2000	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	48	57	6350	54	945	425	49	59	93	214	185	1025	8431
2001	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	46	60	6153	57	951	405	55	57	75	169	191	952	8173
2002	99149		Counted	Manual count	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	82	41	6748	36	1005	351	49	58	115	299	179	1051	8881
2003	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	74	58	6498	35	1091	341	51	62	111	266	198	1029	8711
2004	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	60	38	6582	28	1201	414	65	82	111	251	232	1155	9004
2005	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	50	31	6280	27	1281	448	68	94	92	203	226	1131	8750
2006	99149		Counted	Manual count	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	77	86	5918	66	914	447	44	38	64	246	105	944	7928
2007	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	48	83	5823	60	962	415	41	39	51	215	99	860	7788
2008	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	53	79	5696	51	982	415	46	41	44	187	96	829	7637
2009	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	53	89	5821	51	996	377	46	39	41	161	93	757	7714
2010	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	53	84	5786	58	1064	401	46	34	48	153	94	776	7768
2011	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	59	71	5768	55	1187	407	50	39	39	158	103	796	7877
2012	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	56	68	5678	60	1201	412	54	44	27	141	98	776	7783
2013	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	55	76	5628	63	1248	415	59	51	20	134	100	778	7793
2014	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	53	72	5781	60	1335	425	66	55	18	109	94	767	8015
2015	99149		Counted	Manual count	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	113	71	6665	75	1202	251	43	75	53	337	187	947	8961
2016	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	105	70	6769	70	1313	255	42	85	55	299	184	920	9142
2017	99149		Estimated	Estimated using p	East Midla	Northampt	A6116	PA	491000	290467	A427(T)	A6086	2.5	1.55	101	70	6720	65	1382	253	43	87	57	298	191	930	9167

AADFYear	CP		Estimation_m	Estimation_meth	Region	LocalAutho	Road	RoadCateg	Easting	Northing	StartJunctio	EndJunctio	LinkLength	LinkLength	PedalCycle	Motorcycle	CarsTaxis	BusesCoaches	LightGoods	V2AxleRigi	V3AxleRigi	V4or5Axle	V3or4Axle/	V5AxleArtic	V6orMore/	AllHGVs	AllMotorVehicles
2000	99151		Estimated	Estimated using p	East Midla	Northampt	A427	TA	491743	289757	A43(T)	A6116	0.6	0.37	29	83	9921	112	1335	603	92	132	216	518	400	1961	13412
2001	99151		Estimated	Estimated using p	East Midla	Northampt	A427	TA	491743	289757	A43(T)	A6116	0.6	0.37	27	87	9614	118	1344	576	102	128	175	410	414	1805	12968
2002	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	29	90	9768	118	1441	545	104	131	159	357	455	1751	13168
2003	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	26	128	9406	114	1565	528	106	138	153	318	503	1746	12959
2004	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	21	85	9529	94	1723	643	136	184	155	300	589	2007	13438
2005	99151		Counted	Manual count	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	20	60	9840	102	1452	659	70	200	171	509	316	1925	13379
2006	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	32	53	9653	95	1474	636	66	203	136	401	301	1743	13018
2007	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	20	51	9499	86	1553	591	61	208	108	351	285	1604	12793
2008	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	23	48	9290	75	1585	590	68	220	93	306	275	1552	12550
2009	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	23	53	9494	75	1608	536	68	208	86	264	266	1428	12658
2010	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	23	51	9437	85	1717	571	68	182	100	251	269	1441	12731
2011	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	26	43	9409	81	1916	580	74	209	80	259	297	1499	12948
2012	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	25	41	9262	88	1939	586	81	238	56	231	283	1475	12805
2013	99151		Counted	Manual count	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	26	37	10048	62	1758	446	53	135	112	742	404	1893	13798
2014	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	25	35	10321	59	1881	457	59	148	100	606	382	1752	14047
2015	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	23	31	10525	64	1972	434	61	141	118	583	368	1704	14295
2016	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	22	30	10689	59	2154	440	60	159	123	517	362	1660	14593
2017	99151		Estimated	Estimated using p	East Midla	Northampt	A427	PA	491743	289757	A43(T)	A6116	0.6	0.37	22	29	10676	58	2280	453	62	164	125	518	372	1694	14737

Appendix E
Proposed site layout



1 Site Plan
1 : 400

Rev	Revision Description	By	Chk	Date
P1	First Issue	CL		25.01.19

SCALE @ A1	ISSUING OFFICE	MSJ PROJECT NUMBER
1 : 400	Leeds	218097

STATUS	PURPOSE OF ISSUE
S2	INFORMATION

MSJ Melia Smith & Jones

Melia Smith & Jones
Consulting Civil & Structural Engineers
Vinery Court
58 Cardigan Lane
Leeds LS4 2LD
0113 2306080
www.msj.co.uk

COBALT ENERGY ENGINEERING | PROJECTS | OPERATIONS

Cobalt Energy Ltd
West Road House
26a West Road
Buxton
Derbyshire SK17 6HF
www.cobaltenergy.co.uk

PROJECT

Energy Recovery Centre, Shelton Road

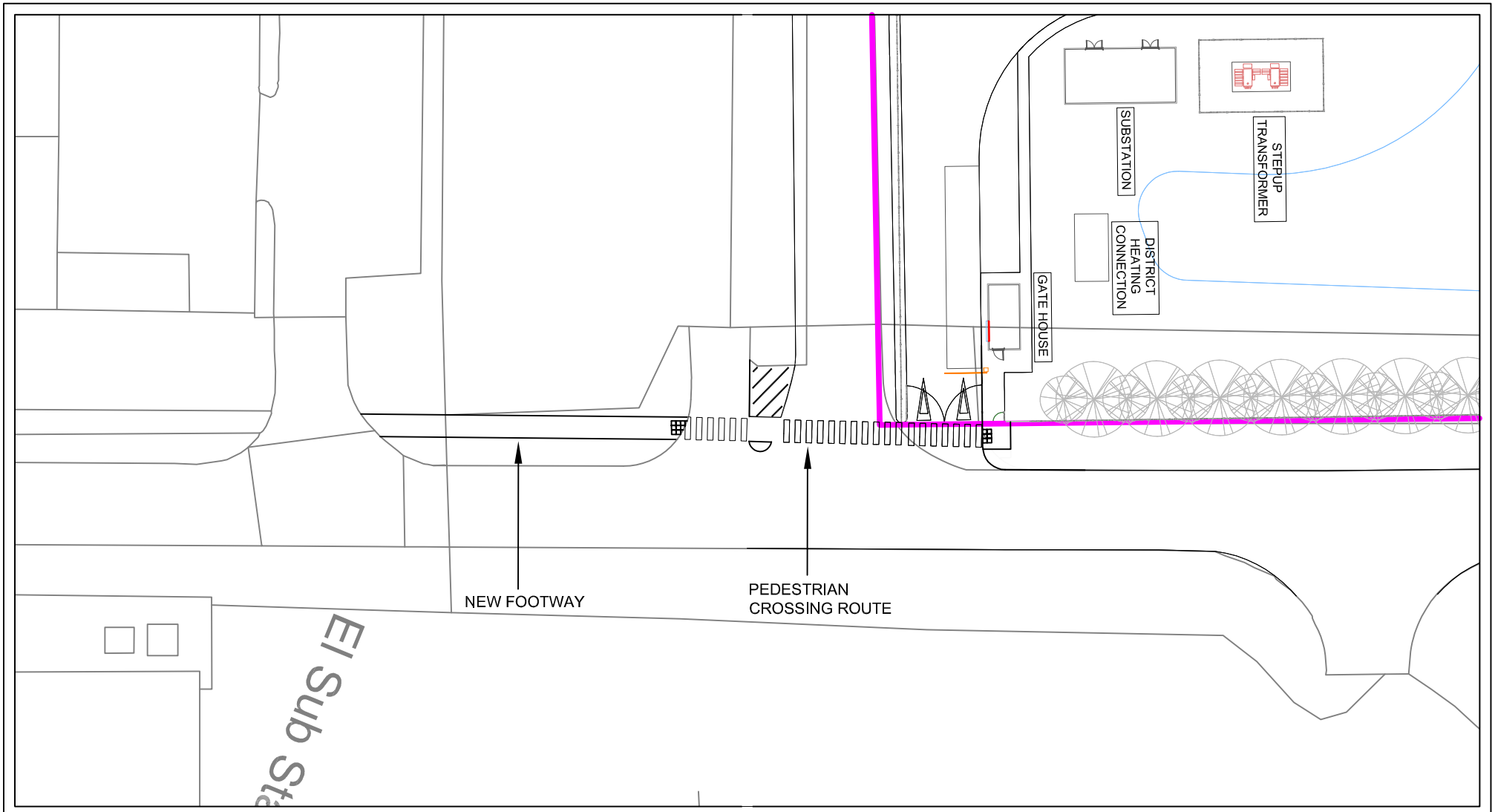
TITLE

Site Plan

CLIENT

Cobalt Limited

DRAWING NUMBER	REV
218097-0001	P1



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environmental & transportation
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PROJECT TITLE ENERGY RECOVERY CENTRE, SHELTON ROAD

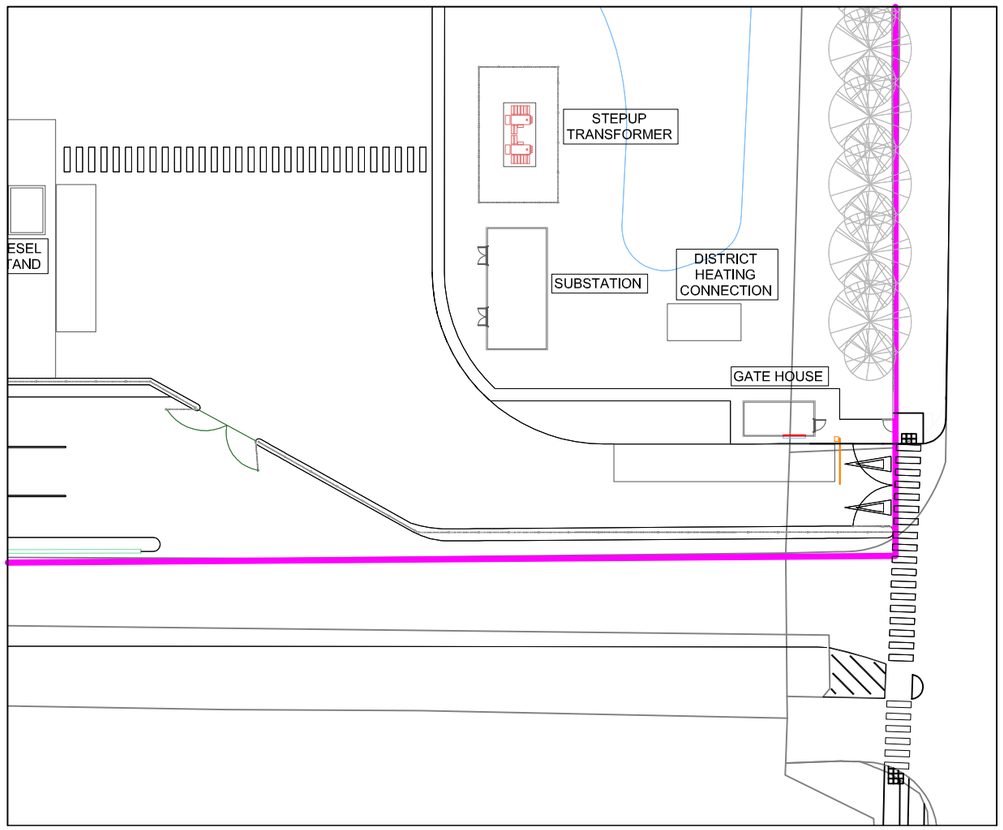
DRAWING TITLE ACCESS ARRANGEMENT

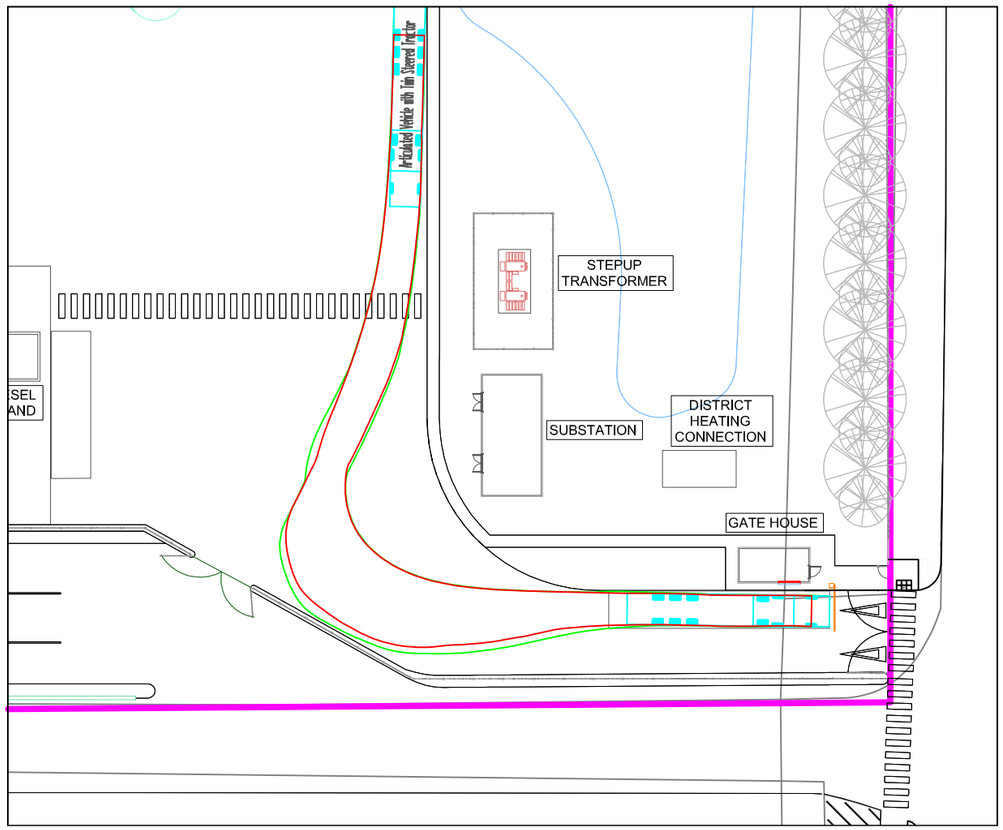
DATE 02/2019	SCALE 1:500 AT A4	STATUS	
DRAWN SOA	CHECKED RF	APPROVED RF	
DRG SIZE A4	DRAWING NUMBER TP5686-SK205	REV -	

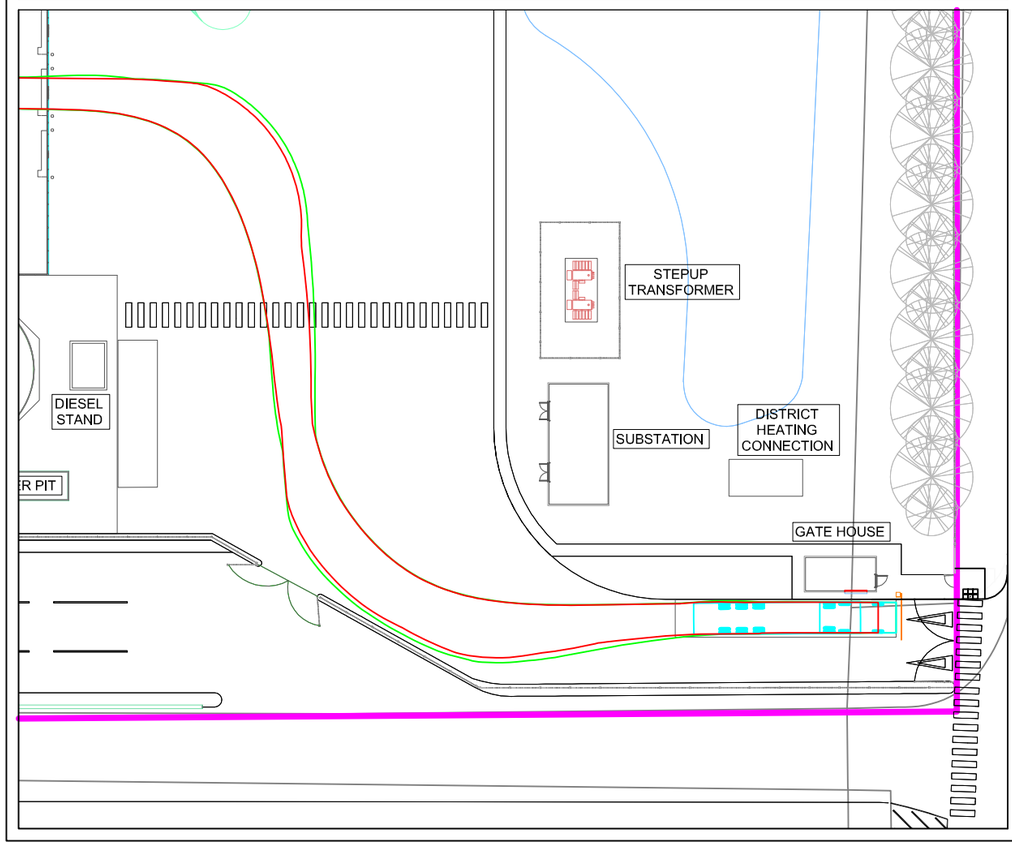
N

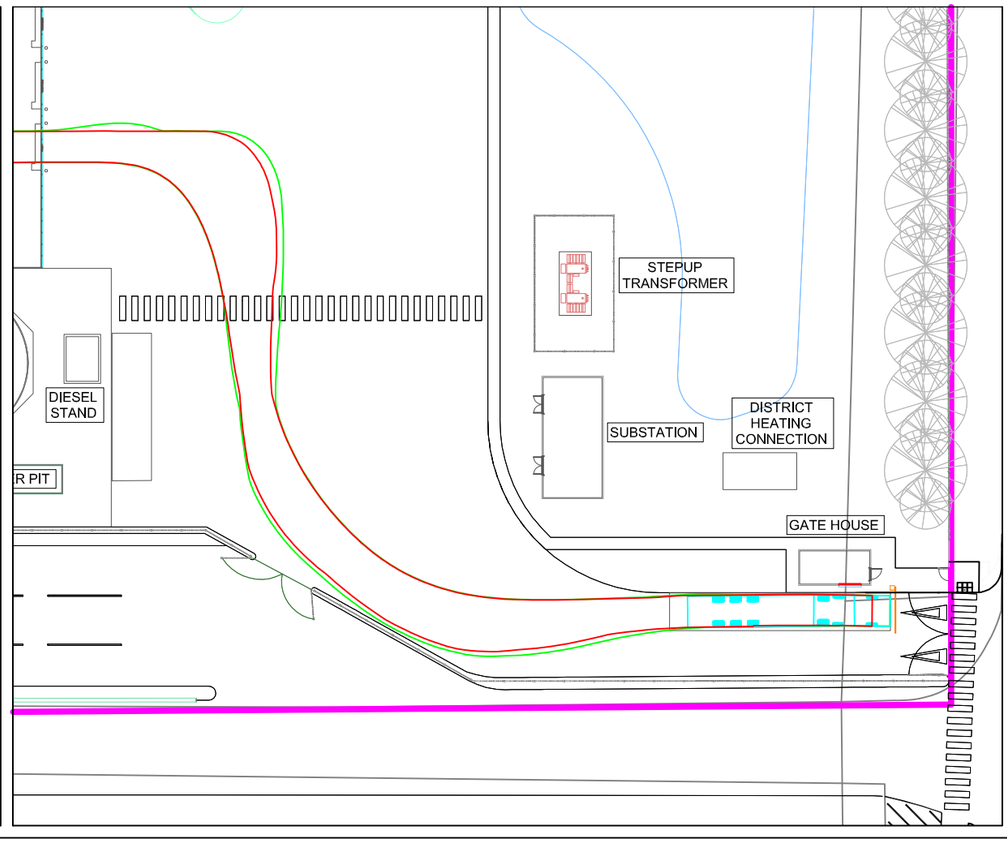
Appendix F

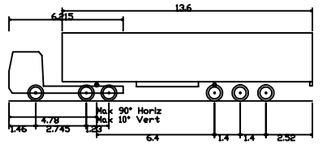
Swept Path Analyses











Articulated Vehicle with Twin Steered Tractor

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m

N

REV	DATE	REVISION DETAILS	BY

entran
environmental & transportation
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PROJECT TITLE
ENERGY RECOVERY CENTRE,
SHELTON ROAD

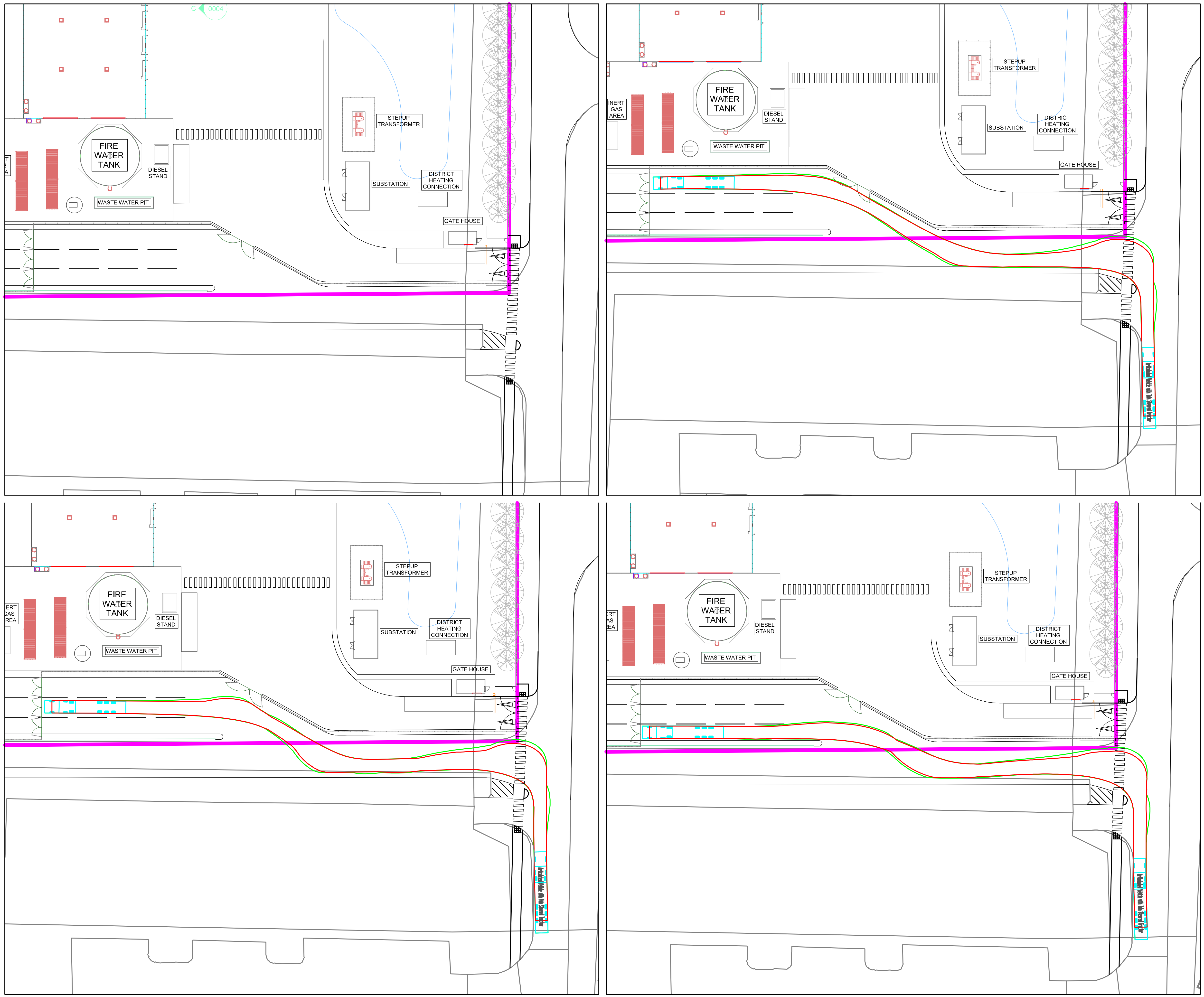
DRAWING TITLE
SWEPT PATH ANALYSIS
ARTICULATED VEHICLE

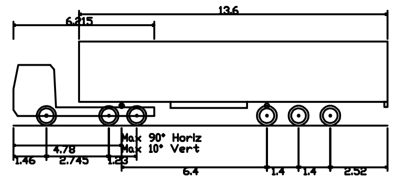
CLIENT / ARCHITECT
CORBY LIMITED

STATUS

SCALE		DRAWN
1:500	AT A3	SOA
CHECKED		APPROVED
RF		RF

DRG SIZE	DATE	DRAWING NUMBER	REV
A3	02/2019	TP5686-SK201	-





Articulated Vehicle with Twin Steered Tractor

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Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m

N

REV	DATE	REVISION DETAILS	BY

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PROJECT TITLE
ENERGY RECOVERY CENTRE,
SHELTON ROAD

DRAWING TITLE
SWEPT PATH ANALYSIS
ARTICULATED VEHICLE

CLIENT / ARCHITECT
CORBY LIMITED

STATUS

SCALE		DRAWN
1:750	AT A3	~SOA
CHECKED		APPROVED
RF		RF

DRG SIZE	DATE	DRAWING NUMBER	REV
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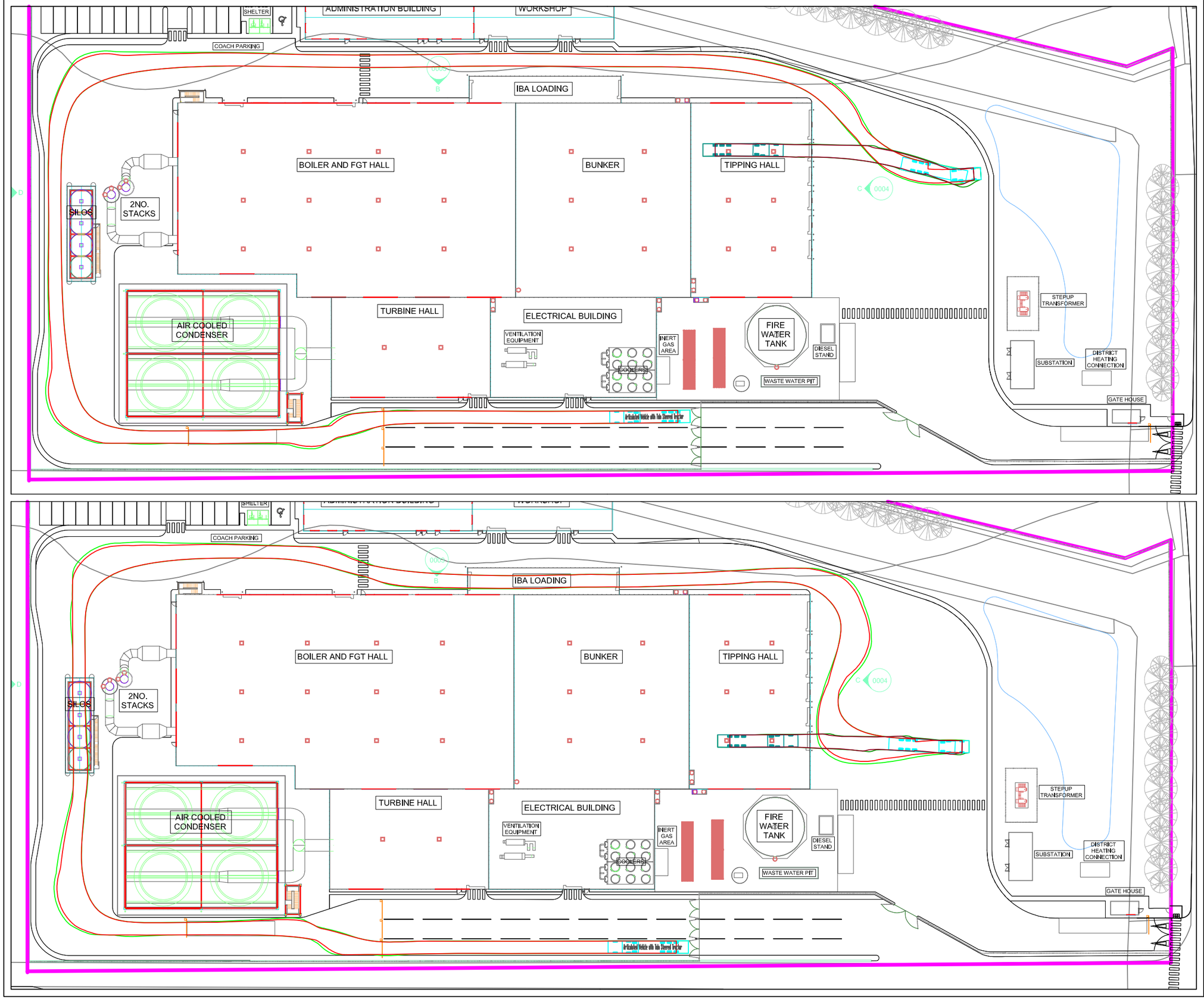

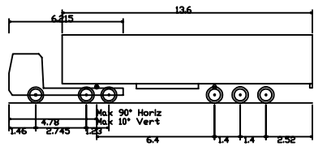

Articulated Vehicle with Twin Steered Tractor

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m

N

REV	DATE	REVISION DETAILS	BY

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PROJECT TITLE
ENERGY RECOVERY CENTRE, SHELTON ROAD

DRAWING TITLE
SWEPT PATH ANALYSIS ARTICULATED VEHICLE

CLIENT / ARCHITECT
CORBY LIMITED

STATUS

SCALE		DRAWN
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CHECKED		APPROVED
RF		RF

DRG SIZE	DATE	DRAWING NUMBER	REV
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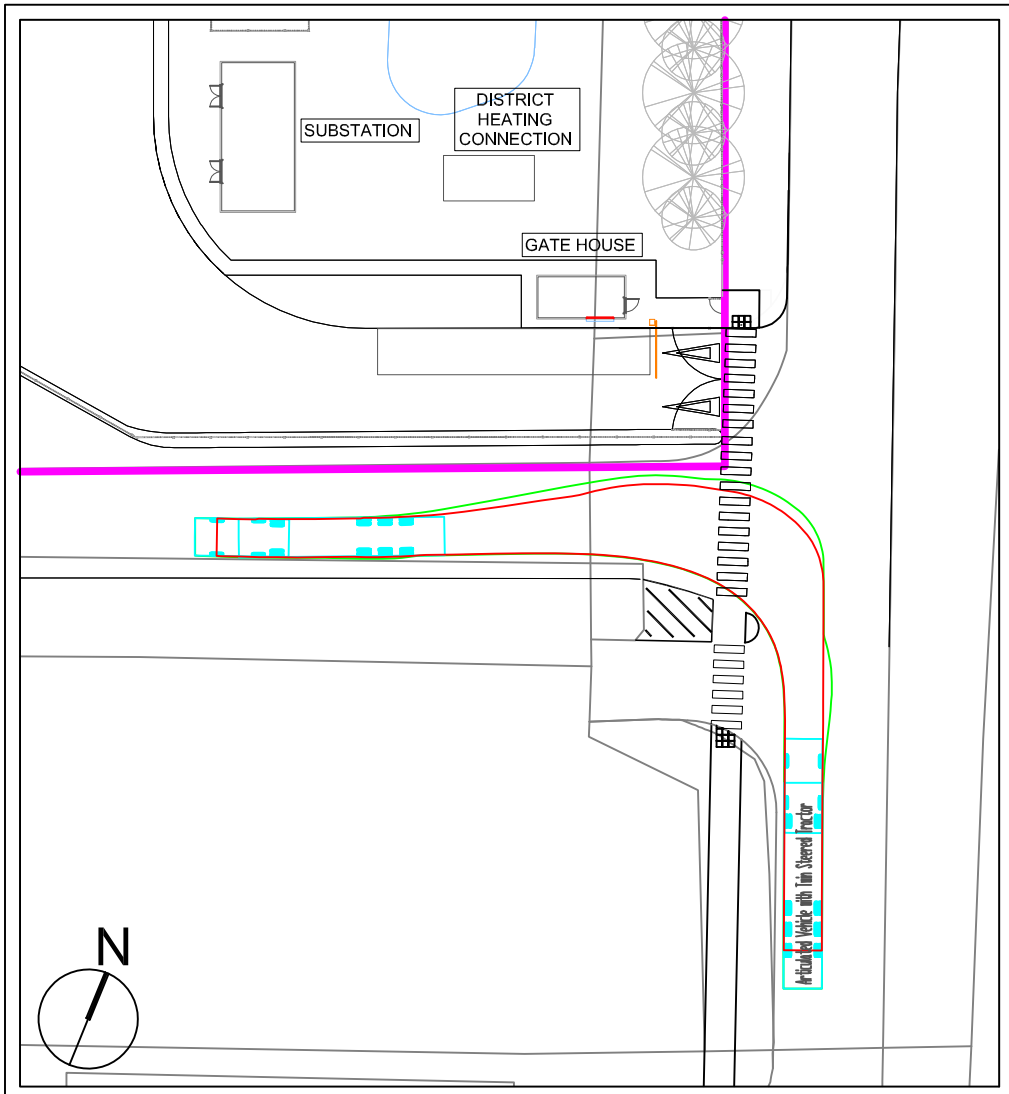

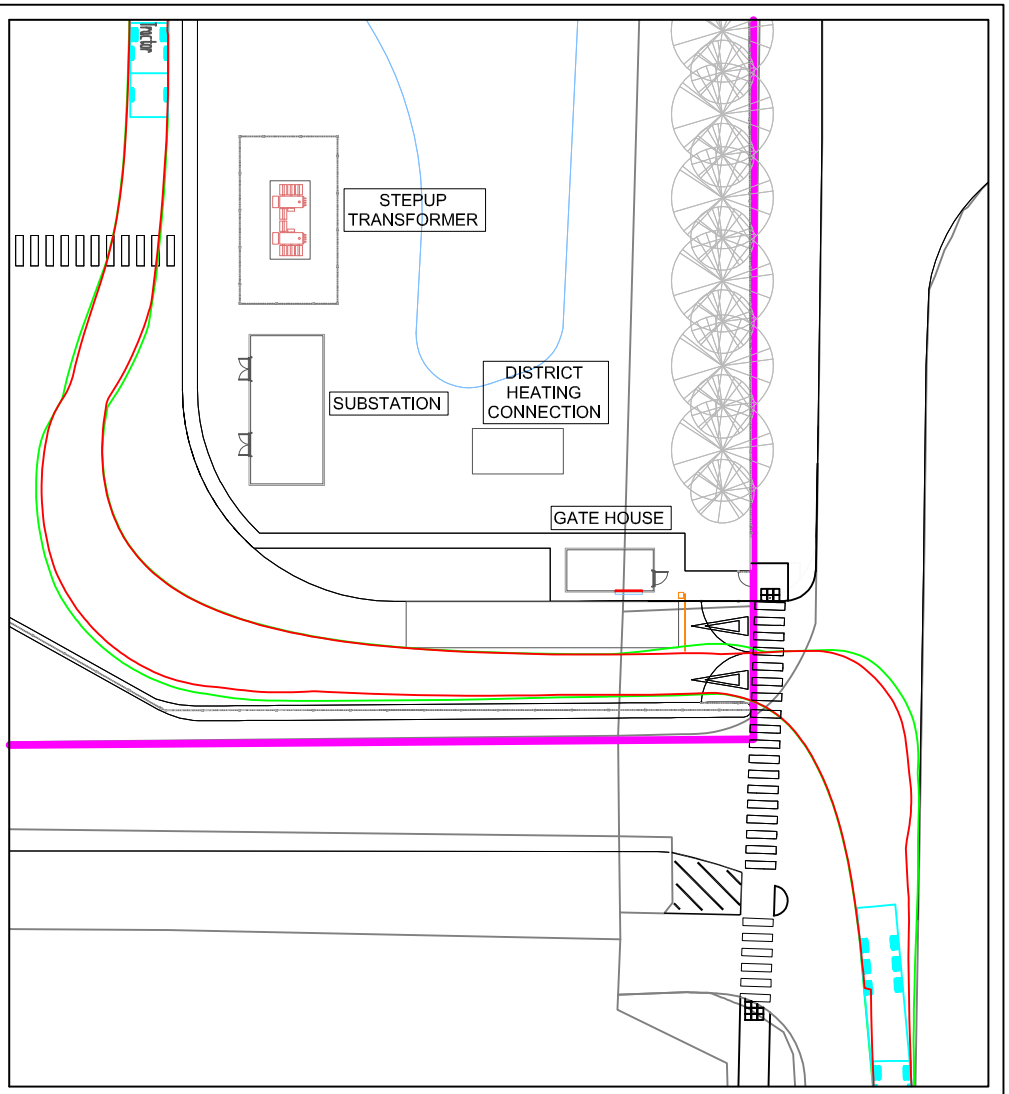

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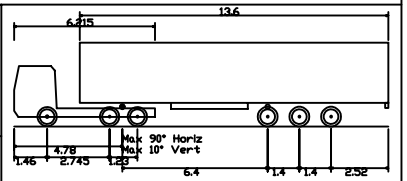
PROJECT TITLE ENERGY RECOVERY CENTRE, SHELTON ROAD

DRAWING TITLE SWEPT PATH ANALYSIS - ARTICULATED VEHICLE

DATE 02/2019	SCALE 1:500 AT A4	STATUS
DRAWN SOA	CHECKED RF	APPROVED RF
DRG SIZE A4	DRAWING NUMBER TP5686-SK204	REV -



Articulated Vehicle	
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Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m

Appendix G

Staff Travel Survey

STAFF TRAVEL SURVEY

All staff are being surveyed on the way that they travel to work. The data will be used exclusively to develop and promote measures to improve the journey to work for all employees and visitors.

Please take five minutes to complete the questionnaire and return it to the main office in the envelope provided.

Company Name : …….. Location/Site : …….

Journey to Work Details

1. Home Postcode (required for mapping purposes only) | | | | | | | | |

2. How do you normally travel to work?*(Please tick appropriate box)*

- Car (Driver) ☐
- Car (Passenger) ☐
- Bus ☐
- Train ☐
- Motorcycle ☐
- Cycle ☐
- Walk ☐
- Other ☐

3. If you normally travel to work by car do you ever use public transport? *(Please tick one box)*

Yes ☐ No ☐

If yes, how often do you use public transport to travel to work? *(Please tick one box)*

- One or two times a week ☐
- Once a week ☐
- Once a fortnight ☐
- Less frequently ☐

4. Does your journey to or from work include a school (or other) drop off or pick up? *(Please tick one box)*

Yes ☐ No ☐

5. How far do you travel to work? ☐☐☐ Km's ☐☐☐ miles

6. How long does it normally take you to travel to work, door to door? ☐☐☐ mins

7. Where do you usually park if you drive to work? *(Please tick appropriate box)*

- Company car park ☐
- Public Car Park ☐
- On-Street paid parking ☐
- On-street free ☐

8. Do you usually pay to park? *(Please tick one box)*

Yes ☐ No ☐

If you usually pay to park, how much do you normally pay?

Cost(pence) ☐☐☐

9. Do you currently give a colleague a lift to or from work? *(Please tick one box)*

Most Days ☐ Occasionally ☐ Never ☐

Personal Transport Options

10. How often is a car available to you for commuting to work? *(Please tick one box)*

- Most days ☐
- Occasionally ☐
- Never ☐

11. How often is a bicycle available to you for commuting to work? *(Please tick one box)*

- Most days ☐
- Occasionally ☐
- Never ☐

12. If you drive to work is the car that you use a company car? *(Please tick one box)* Yes ☐ No ☐

13. Why do you normally travel to work the way you do? *(Please tick up to three boxes)*

- No alternative ☐
- No public transport nearby ☐
- Cheapest way ☐
- Quickest way ☐
- Gives me flexibility ☐
- Reliable ☐
- Health reasons ☐
- Need car for work in the day ☐
- Other ☐

14. Which of the following would encourage you to use the bus or train more for your journey to work? *(Please tick up to three boxes)*

- More direct bus routes ☐
- More frequent bus services ☐
- Better facilities at bus shelters ☐
- Discount tickets/passes from work ☐
- More convenient bus drop-off points ☐
- More frequent rail services ☐
- Better connections from work to rail ☐
- Better bus/rail information at work ☐
- Nothing ☐
- Other ☐

15. Which of the following changes would encourage you to cycle to work more? *(Please tick up to three boxes)*

- Improved cycle paths ☐
- Improved cycle parking at work ☐
- Improved changing/showering facilities ☐
- More lockers at work ☐
- Arrangements to buy bicycles at a discount ☐
- Nothing ☐
- Other ☐

16. Have your patterns of travel to work changed in the last twelve months? *(Please tick one box)* Yes ☐ No ☐

If yes which of the following is applicable? *(Please tick one box)*

- Drive more ☐
- Use public transport more ☐
- Walk/cycle more ☐
- Drive less ☐
- Use public transport less ☐
- Walk/cycle less ☐

17. Would you be prepared to car share? *(Please tick one box)* Yes ☐ No ☐

If yes then what would be most likely to encourage you to car share? *(Please tick more than one box)*

- Help in finding sharers ☐
- Free taxi travel home if let down by sharer ☐
- Reserved parking for car sharers ☐
- Reduced parking charges for car sharers ☐
- Other ☐

Work Details

18. Job Title :

19. What hours do you normally work? Start time ☐☐☐☐ Finish time ☐☐☐☐

20. Do you work flexi-time? *(Please tick one box)* Yes ☐ No ☐

21. Do you use a vehicle in the course of your work? *(Please tick one box)* Yes ☐ No ☐

Personal Details

Male ☐ Female ☐

Age *(Please tick relevant box)*

Under 24 ☐ 25 - 34 ☐ 35 - 44 ☐ 45 - 54 ☐ Over 55 ☐

Miscellaneous

Do you have any general comments about your journey to work that you would like to make, or are there any particular issues that you feel could be addressed in the development of the company travel plan.

Thank You for your cooperation.
We would like to ensure you that all of your answers will remain confidential and will only be used to assist in the development of a company travel plan.
Please return your completed form to the main office.