

# REDCAR ENERGY CENTRE APPENDIX 10.1

## Transport Assessment

JNY10538-01  
Redcar Energy Centre  
Version A  
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# 1 INTRODUCTION

- 1.1.1 This Transport Assessment (TA) has been prepared by RPS on behalf of Redcar Holdings Limited to support a planning application for the proposed Redcar Energy Centre (REC) at Redcar Bulk Terminal. The site location plan is attached at **Annex A**.
- 1.1.2 The proposed REC would provide a long-term sustainable waste management and energy generation operation located adjacent to the former steel works at land at Redcar Bulk Terminal comprising of the following elements:
- a Material Recovery Facility (MRF) incorporating a Bulk Storage Facility;
  - an Energy Recovery Facility (ERF); and,
  - an Incinerator Bottom Ash (IBA) Recycling Facility.
- 1.1.3 A site layout plan is attached at **Annex B**. The key operational components of which the REC is comprised may operate as a single facility or as standalone projects independent of each other with some or no inter-relationship. The ERF may receive residual waste directly from the MRF and from elsewhere. The IBA Recycling Facility is intended to receive IBA directly from the ERF but could also import IBA from elsewhere.
- 1.1.4 In addition to being well served by road, all three operational components have the potential to bring waste and materials into and out of the site using the rail and port infrastructure in the wider area.
- 1.1.5 The MRF would receive up to approximately 200,000 tonnes per annum (tpa) of MSW and/ or C&I waste. The specialist facility would separate, recover and store the waste, sorting it into recyclable and non-recyclable materials i.e. residual waste. The proposed ERF would be capable of generating up to 49.9 MW(e) of electricity from up to approximately 450,000 tpa of waste, depending on calorific value.
- 1.1.6 The IBA from the ERF process would be transferred along an inclined conveyor system to the bottom ash reception bunker where it is stored prior to being transferred to the process building. Any imports of IBA would be by vessel over the dock. The area for the ash plant would have a capacity of about 220,000tpa, with an import target of 100,000tpa.
- 1.1.7 This TA assesses the transport implications of REC and forms an appendix to the Environmental Statement (ES) submitted in support of the planning application.
- 1.1.8 The TA has been prepared in accordance with the Ministry of Housing, Communities and Local Government publications 'National Planning Policy Framework' (NPPF), 2019, 'Planning Practice Guidance: Travel Plans, Transport Assessments and Statements in Decision-Taking' (PPG), 2014, and the Department for Transport (DfT) publication Circular 02/2013: 'The Strategic Road Network and the Delivery of Sustainable Development', 2013.
- 1.1.9 Section 2 sets out the existing situation and assesses the adjacent highway network, road safety, facilities for pedestrians and cyclists, public transport facilities and existing traffic flows. Section 3 provides full details of the project, whilst an assessment is made against current local and national policies in respect to transport in Section 4.
- 1.1.10 Future year traffic flows are set out in Section 5 and details of the likely trip generation, distribution, assignment and mode share of trips is set out in Section 6. An assessment of the likely transport impact is set out in Section 7.
- 1.1.11 A summary is provided in Section 8, where it is concluded that there are no transport or highway related reasons for not granting consent to the project.



## 2 EXISTING SITUATION

### 2.1 Introduction

2.1.1 This section considers the current site use, location and transport network. This includes the walking, cycling and public transport facilities available within proximity of the site. It also assesses the local highway network and Personal Injury Accidents on the highway network for the last five years.

### 2.2 Site Location and Description

- 2.2.1 The Application Site is located approximately 4.5 km west of Redcar town centre and 8.5 km to the north east of Middlesbrough town centre. The Application Site occupies an area of approximately 10.1 hectares (ha) and currently forms part of the Redcar Bulk Terminal. The Application Site is predominantly open land which has been used for the storage of materials from the terminal. There are also a number of small corrugated metal buildings located in the east of the Application Site.
- 2.2.2 The industrial site and associated infrastructure of the Teesside Steel Works borders the eastern edge of the Application Site, with several of its outlying buildings making up the southern border of the Application Site.
- 2.2.3 An access road for the Redcar Bulk Terminal (located on the eastern bank of the River Tees) runs along the south west of the Application Site. The north eastern boundary abuts the Teesmouth and Cleveland Coast Site of Scientific Interest (SSSI). The surrounding landscape to the south, east and west is dominated by industrial activity with the Northumbrian Water Sewage Works, British Steel Redcar Station and Redcar Bulk Terminal within approximately 2 km of the site.

### 2.3 Highway Network

2.3.1 The Application Site is accessed from the public highway network via the South Tees Development Corporation access, taken from a five-arm roundabout with A1085 Trunk Road and the Wilton Site access road. Beyond which, traffic generated at the site travels along A1085 Trunk Road to the north east, and along A1085 Trunk Road, the A66 and A1053 to the south west.

#### A1085 Trunk Road

- 2.3.2 The A1085 Trunk Road is a dual carriageway road that routes from the A1053 to the south west, to the A1042 / A1085 Corporation Road junction to the north east. There is street lighting and a combined foot / cycleway on both sides of the carriageway. To the north of the access road roundabout, the A1085 Trunk Road reduces to a single carriageway road
- 2.3.3 The A1085 continues to the east where it provides access to Redcar, continuing parallel to the coast to Marske-by-the-Sea, and routes south to join the A174.
- 2.3.4 To the south west of the Application Site, the A1085 Trunk Road provides access to a number of industrial sites such as British Steel and UK Wood Recycling. This section of the road network adjacent to the River Tees is heavily industrialised, and A1085 Trunk Road provides no access to residential dwellings between the A1053 junction and the Application Site access roundabout.
- 2.3.5 The A1085 Trunk Road has a central grass strip as a central reservation within the vicinity of the access road roundabout. The five-arm roundabout from which the Application Site access road is taken from is a relatively flat grassed roundabout, therefore vehicles on each arm have good visibility of several arms of the roundabout.

## A1053 Greystone Road / Tees Dock Road

- 2.3.6 The A1053 Greystone Road routes from the A1085 Trunk Road via a signalised five-arm roundabout with the A1085 and Wilton International site access. The A1053 is part of the Strategic Road Network and is maintained by Highways England. It is a dual carriageway road subject to the national speed limit.
- 2.3.7 The A1053 Greystone Road routes south-east for approximately 2km where it joins the A174, which is also part of the Strategic Road Network and maintained by Highways England. To the west of the A1085 Trunk Road roundabout, the A1053 Tees Dock Road routes for approximately 300 metres to join the A66 via a three-arm roundabout.
- 2.3.8 The combined foot / cycleway along the A1085 Trunk Road routes across the A1053 Greystone Road arm of the five-arm roundabout; however, it does not extend along the A1053 Greystone Road towards the A174. The combined foot / cycleway instead routes west of the roundabout along the A1053 Tees Dock Road to the A66 roundabout.

## A174

- 2.3.9 The A174 routes from the A1053 Greystone Road via a four-arm roundabout to the south-west the A74 is a strategic road maintained by Highways England, and routes across the southern perimeter of Middlesbrough. The A174 provides access to key strategic roads and residential areas in south Middlesbrough before joining the A19 via a grade-separated four-arm roundabout.

## 2.4 Facilities for Pedestrians and Cyclists

### Pedestrian Access

- 2.4.1 Access to the Application Site is via a series of internal access roads from the A1085 Trunk Road which serves the industrial area. The internal road merges with the A1085 Trunk Road as a single road via a roundabout approximately 2.7km to the south east of the Application Site.
- 2.4.2 There are footways along all the adjacent roads, generally with street lighting. These provide links to the whole of the surrounding urban and residential areas. The above shows that walking distances of up to 2 miles to a place of work is not uncommon; such a distance includes the northernmost residential areas to the north of Redcar.

### Cycle Access

- 2.4.3 Paragraph 2.9 of TA91/05 states: 'Nearly three quarters of all journeys are less than 5 miles in length, distances that could easily be cycled by the majority of people'.
- 2.4.4 Paragraph 2.11 goes on to state that 'Cycling is used for accessing a variety of different destinations, including educational facilities, shops and places of work, up to a range of around 5 miles'.
- 2.4.5 Paragraph 1.5.1 of LTN2/08 (Cycle Infrastructure Design) states: 'Urban networks are primarily for local journeys. In common with other modes, many utility cycle journeys are under three miles (ECF, 1998), although, for commuter journeys, a trip distance of over five miles is not uncommon'.
- 2.4.6 The A1085 Trunk Road has a combined foot/cycle way along its length, which provides cycle access to Redcar to the northeast, and the eastern sections of Middlesbrough to the south west. Much of the surrounding road network, including the A1053 towards the A66 has a network of combined foot / cycleways which can be utilised by staff and visitors at REC.

2.4.7 The above shows that cycling distances of up to 5 miles to a place of work is not uncommon; such a distance includes Redcar, and Middlesbrough urban areas and there are recognised cycle routes upon which to do so.

## 2.5 Bus Services

2.5.1 There are bus stops located on West Coatham Lane, approximately 150m to the east of the Application Site Access / A1085 Trunk Road junction. Services 62, 62A and 64 operate from these bus stops, routeing between Middlesbrough, Redcar and New Marske with approximately three services per direction every hour. All of these services provide further public transport services to origins and destinations further afield.

## 2.6 Rail Services

2.6.1 Redcar Railway Station is located approximately 3.2km from the Application Site and is accessed on foot or by cycle via the A1085 Trunk Road. It is located on the Tees Valley Line with services to Darlington, Saltburn, Bishop Auckland and Manchester Airport.

## 2.7 Traffic Flows

2.7.1 The Application Site benefits from its proximity to the Strategic Road Network. The Application Site is located within a heavily industrialised area where there are large proportions of HGVs and the highway network is designed to accommodate these. All HGVs associated with the proposed development would utilise the network of A roads within the vicinity of the Application Site which route from the wider highway network.

2.7.2 The Department for Transport publishes street-level traffic data for road-links on the motorway, 'A' road and minor road network in Great Britain. The latest information available covers 2018. Additionally, Highways England directly monitor the speed and flow of roads using on road sensors.

2.7.3 Annual Average Daily Traffic flow (AADT) data from the following locations for 2018 has been obtained from the Department for Transport:

- A1085 Trunk Road South of Access Roundabout;
- A1053 between A66 and A1085 Trunk Road junction;
- A1053 between A66 and A174 Junctions;
- A66 between A1053 and A171 Junctions;
- A1085 Trunk Road, between junction with A1053 and junction with Normanby Road;
- A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane;
- A174 between the A1053 and A171;
- A1042 between the A1085 trunk Road and Waveney Road junction; and
- A1085 Trunk Road between A1042 and Thrush Road junctions.

2.7.4 The observed 2018 traffic flow datasets are attached at **Annex C** and summarised in **Table 2.2**.

**Table 2.2: 2018 AADT Traffic Flows**

Link	2018 Annual Average Daily Traffic Flows	
	Total	HGV
A1085 Trunk Road South of Access Roundabout	17262	760
A1053 between A66 and A1085 Trunk Road junction	22379	1611
A1053 between A66 and A174 Junctions	13686	1179
A66 between A1053 and A171 Junctions	22354	2862
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	10328	94
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	12454	144
A174 between the A1053 and A171	30428	1718
A1042 between the A1085 Trunk Road and Waveney Road junction	9347	165
A1085 Trunk Road between A1042 and Thrush Road junctions	9884	111

## 2.8 Road Safety

- 2.8.1 PIA data was obtained from Crashmap for the most recent five-year period for the surrounding highway network within the vicinity of the Application Site. The area for which data was obtained includes A1085 Trunk Road from the Application Site access junction, and the A1053 junction to the south where HGVs would join the strategic road network.
- 2.8.2 Crashmap updates its database after receiving the official data from the Department for Transport. This occurs annually and in 2017 and 2018 it was in late September, and it was expected that it will revert to the last-June date in future.
- 2.8.3 The most recent PIA data available runs to June 2019. Based on this, Crashmap data for the five-year period from July 2014 to June 2019 has been analysed below.
- 2.8.4 There were twelve injury accidents during the five-year period, all of which resulted in slight or serious injury. There were no fatal injury accidents. All injury accidents occurred at the locations as described below:
- Three slight injury accidents occurred on the north section of circulatory carriageway of the Application Site Access / A1085 Trunk Road roundabout;
  - One serious injury accident occurred on the eastern section of the circulatory carriageway of the Application Site Access / A1085 Trunk Road roundabout;
  - One serious injury accident occurred on the south-eastern section of the circulatory carriageway of the Application Site Access / A1085 Trunk Road roundabout;
  - One slight injury accident occurred on A1085 Trunk Road approximately 310 metres north of the A1085 Trunk Road / British Steel access roundabout;
  - One slight injury accident occurred on the circulatory carriageway of the British Steel access / A1085 Trunk Road roundabout;

- Two serious accidents occurred approximately 50 metres south of the British Steel access / A1085 Trunk Road roundabout;
- Three slight injury accidents occurred on the circulatory carriageway of the A1085 Trunk Road / A1053 Greystone Road roundabout.

2.8.5 From the analysis undertaken, there are a low number of injury accidents and all occurred at different locations, which suggests there are no aspects with the local highway network that contribute to a road safety issue.

## 2.9 Summary

2.9.1 This section has demonstrated that REC is accessible by a range of modes of travel. PIA data demonstrates a low level of injury accidents on the surrounding roads and junctions.

## 3 DEVELOPMENT PROPOSALS

### 3.1 Introduction

3.1.1 The proposed development includes the following key operational components:

- a Material Recovery Facility incorporating a Bulk Storage Facility;
- an Energy Recovery Facility; and,
- an Incinerator Bottom Ash Recycling Facility.

3.1.2 The key operational components of which the REC is comprised may operate as a single facility or as standalone projects independent of each other with some or no inter-relationship.

3.1.3 The ERF may receive residual waste directly from the MRF and from elsewhere. The IBA Recycling Facility is intended to receive IBA directly from the ERF but could also import IBA from elsewhere.

3.1.4 In addition to being well served by road, all three operational components have the potential to bring waste and materials into and out of the site using the rail and port infrastructure in the wider area.

#### Components of the ERF and MRF

3.1.5 The plant would be capable of processing up to 450,000 tonnes of residual waste each year, generating up to 49.9 MW(e) of electricity from up to approximately 450,000 tonnes per annum of waste, depending on calorific value.

3.1.6 The mixed waste stream would have a predicted average net calorific value<sup>1</sup> of 9.2 MJ/kg but could vary typically in the range 7.5-11 MJ/kg. Throughput is therefore variable, rather than constant, as the plant would be designed to operate at constant steam conditions.

3.1.7 The precise sources of treated waste fuel have yet to be determined as they would be subject to the securing of commercial contracts. It is, however, envisaged that the majority of the throughput would be made up of Refuse Derived Fuel (RDF) or Commercial and Industrial (C&I) waste sourced regionally and nationally. Municipal Solid Waste (MSW) would also be sourced where contracts are available but would not be relied upon.

3.1.8 Waste would be delivered to the plant by HGVs and weighed upon entry. The residual waste would arrive at the ERF either directly or via the adjacent MRF.

3.1.9 On entering the Application Site, waste vehicles accessing the ERF directly would follow the access road within the site to stop on the inbound weighbridge and be weighed. Once weighed they would go to the tipping hall to unload waste into the bunker. After leaving the tipping hall, the waste vehicles would travel via the outbound weighbridge to the site exit. The site layout has been designed to operate as a one-way system for all HGV traffic, which is segregated from staff and visitor vehicular access.

3.1.10 The location of the tipping hall on the Application Site allows space to accommodate waste vehicles queuing on site. An HGV queuing zone would be located in the central reserve between the site entrance and the weighbridges for vehicles entering the site, to prevent any traffic queuing on external roads. There is the capacity to accommodate seven of the largest HGVs at the

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<sup>1</sup> The calorific value of a waste fuel is a measure of how much energy is available per tonne of the fuel.



weighbridge without interrupting other accesses, but the site is not likely to be a nuisance in this regard in any event as it is remote from other road users.

- 3.1.11 Non-combustible items such as metals, glass and other inert materials pass along the grate and fall off the end as incinerator bottom ash. At the end of the grate, the hot IBA would be deposited into an ash extractor, which is filled with water ('quenched'), to reduce its temperature. The quenched bottom ash passes through vibrating fingers that are designed to separate out oversize materials (around 300mm in size). The residual bottom ash would be transferred along a conveyor system to the bottom ash reception bunker located at the adjacent IBA Facility.

### **IBA Facility**

- 3.1.12 The IBA from the ERF process would be transferred along an inclined conveyor system to the bottom ash reception bunker where it is stored prior to being transferred to the process building.
- 3.1.13 Any imports of IBA would be by vessel over the dock. The area for the ash plant would have a capacity of about 220,000tpa, with an import target is 100,000tpa.
- 3.1.14 The IBA material would be removed from the facility by vehicles for onward delivery. The recovered ferrous and non-ferrous metals would be stored separately in containers pending their removal from the IBA Recycling Facility for recycling.
- 3.1.15 The IBA which is delivered to the IBA Recycling Facility may contain material which is not completely combusted and thus suitable for reprocessing at the energy from waste facility. Such will be separated, stored, loaded to vehicles and returned to the ERF.
- 3.1.16 All IBAA leaving the site will be sheeted. All materials will leave the site via the internal access roads and ultimately joining the A1085 Trunk Road.

## **3.2 Site Access**

- 3.2.1 Access to the Application Site is via a series of internal access roads from the A1085 Trunk Road which serve the industrial area. The internal road merges with the A1085 Trunk Road as a single road via a roundabout approximately 2.7km to the south east of the site. The A1085 provides a strategic access to Middlesbrough and beyond to the north and south via the A19.
- 3.2.2 The Application Site would be served by a new access road which would be taken from the internal access road serving the industrial area. The access road would provide a two lane ingress and two-lane egress incorporating an 'In' and 'Out' weighbridge with a Gatehouse located to the west of the access road. The Application Site is broadly rectangular in shape with the exception of the access road and the northern part of the site, which is defined by the existing shape of the coastline. The three operational components split the Application Site into three distinct areas: the MRF to the west, the ERF occupying the area to the east, and the IBA Recycling Facility to the north.
- 3.2.3 The Application Site layout provides one-way circulation around the site with direct access to each of the distinct operational components. Parking facilities would be provided at the MRF and ERF facility.

## **3.3 Hours of Operation**

- 3.3.1 The REC would operate 24 hours a day, 7 days a week throughout the year except during shutdown periods for maintenance and repair.
- 3.3.2 It is assumed that each line would achieve approximately 91% availability as a result of planned and unplanned downtime. A two-line plant provides operational flexibility during periods of

maintenance, enabling one line to be shut down whilst the second continues to operate. Planned maintenance activities would be for approximately three weeks per line per year.

- 3.3.3 The facility would run 24hrs per day, but it is anticipated that the majority of deliveries will be between 08:00 – 18:00.

## Staff

- 3.3.4 The REC would employ up to 100 full time equivalent employees comprising operation and maintenance staff, clerical and administrative staff and plant management. The ERF plant operations and maintenance staff would be employed within up to five shift teams. In addition, approximately 100 additional contractors will be temporarily employed during the planned annual shutdowns.

## 3.4 Car and Cycle Parking

- 3.4.1 The Application Site layout provides one-way circulation around the site with direct access to each of the distinct operational components. Parking facilities would be provided at the MRF and ERF facility.
- 3.4.2 Traffic access and movement around the Application Site has been designed to ensure efficiency and to maximise vehicle and pedestrian safety. All vehicles delivering waste, IBA, process reagents or removing process residues or products, along with maintenance vehicles, would follow the designated internal access routes and be suitably distanced from staff parking areas.
- 3.4.3 There are no parking standards for these proposals; therefore, the number of parking spaces to be provided has been based upon staff numbers and operator experience. A separate car park with 41 car parking spaces would be provided in front of the MRF facility, giving pedestrian access to the MRF office building. 50 car parking spaces are provided to the side of the ERF facility giving direct pedestrian access to the Office element incorporated into the ERF building. Cycle parking would also be provided for both staff and visitors comprising of 12 cycle spaces, with more to be made available on demand.



## 4 TRANSPORT RELATED POLICIES

### 4.1 National Policy Guidance

#### National Planning Framework (NPPF)

4.1.1 National policy in relation to the transport planning of developments is set out in the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2019). Section 9 'Providing Sustainable Transport – Considering Development Proposals' states the following:

4.1.2 Paragraph 108 states that:

*"In assessing site that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) Safe and suitable access to the site can be achieved for all users; and*
- c) Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

4.1.3 Paragraph 109 states that:

*"Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety or residual cumulative impacts on the road network would be severe."*

4.1.4 Paragraph 111 states that:

*"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement of transport assessment so that the likely impacts of the proposal can be assessed."*

4.1.5 With regard to parking, Paragraph 105 of the NPPF states that:

*"If setting local parking standards for residential and non-residential development, policies should take into account:*

- The accessibility of the development;*
- The type, mix and use of the development;*
- The availability of and opportunities for Public Transport;*
- Low car ownership levels; and*
- the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles."*

4.1.6 Paragraph 106 states that:

*“Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with Chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.”*

## **Planning Practice Guidance (PPG) ‘Travel Plans, Transport Assessments and Statements in Decision-Taking’ (March 2014)**

- 4.1.7 *Planning Practice Guidance - Travel Plans, Transport Assessments and Statements in Decision-Taking* provides a concise report on the use and importance of Transport Assessments / Statements and Travel Plans.
- 4.1.8 The guidance states that Transport Assessments / Statements and Travel Plans can positively contribute to:
- “encouraging sustainable travel;
  - lessening traffic generation and its detrimental impacts;
  - reducing carbon emissions and climate impacts;
  - creating accessible, connected, inclusive communities;
  - improving health outcomes and quality of life;
  - improving road safety; and
  - reducing the need for new development to increase existing road capacity or provide new roads.”
- 4.1.9 The guidance states that Transport Assessments / Statements and Travel Plans should be proportionate to the size and scope of the proposed development, be tailored to particular local circumstances and be established at the earliest practicable possible stage of a development proposal.
- 4.1.10 With regard to parking, the guidance moves away from the use of maximum parking guidance and Paragraph 008 states that:

*“Maximum parking standards can lead to poor quality development and congested streets; local planning authorities should seek to ensure parking provision is appropriate to the needs of the development and not reduced below a level that could be considered reasonable.”*

## **4.2 Local Planning Policy and Guidance**

### **Redcar and Cleveland Local Plan (adopted May 2018)**

- 4.2.1 The Redcar & Cleveland Local Plan sets out the vision and overall development strategy for the Council’s area and how it will be achieved for the period until 2032.
- 4.2.2 The local plan sets out that Redcar and Cleveland has faced significant challenges such as the decline in its traditional employment base and the cessation of steel making in Redcar, a reducing population and increasing urban disadvantage, and seeks to provide the policy framework to meet these challenges and to deliver sustainable development across the borough.
- 4.2.3 Paragraph 1.109 of the Local Plan states the following:

*“We need to ensure new and existing development is serviced by well-planned and phased utility infrastructure: energy, water and sewerage. As our communities and economy grow, it is vital the we manage growth by planning for infrastructure for the longer term, reducing demand on resources and services. These are exacerbated by an ageing water and sewage infrastructure system, together with the urgent need to reduce the amount of waste going to landfill and the unavoidable impacts of climate change including increased risks from flooding. We, therefore, need to take the opportunity to reconsider how we manage the planning and provision of critical infrastructure.”*

- 4.2.4 Policy SD 6 of the Local Plan relates to Renewable and Low carbon Energy. Paragraph 2.44 of the Local Plan states that the policy covers the full range of renewable energy schemes, including wind, solar, tidal, district heating, biomass and energy from waste.
- 4.2.5 Policy SD 6 states that renewable and low carbon energy schemes will be supported and encouraged, and will be approved where their impact is, or can be made, acceptable. In determining applications for renewable and low carbon energy, and associated infrastructure, the following issues will be considered: impact on residential amenity, environmental impacts, scale of proposal; local topography and siting of proposal to minimise harm, including through reasonable mitigation, operational and other relevant constraints; and cumulative impacts of proposals.
- 4.2.6 The Council has prepared an Infrastructure Delivery Plan (IDP) to sit alongside the Local Plan. The IDP outlines some of the infrastructure (such as transport, schools, health services and open space) that is needed to help new communities prosper.

### **Redcar and Cleveland Infrastructure Delivery Plan (adopted November 2016)**

- 4.2.7 The Redcar and Cleveland Infrastructure Delivery Plan was prepared to support the Redcar and Cleveland Local Plan. The Local Plan sets out how the borough will develop over the period to 2032, identifying where homes, employment, services and infrastructure will be delivered and the type of places and environments that will be created.
- 4.2.8 The delivery plan sets out that Redcar and Cleveland benefits from good highways provision catering for heavy vehicles and industrial uses with good linkages between the South Tees, Greater Eston and Redcar and the strategic highway network. The A174 and the A66 link the main urban areas of the borough through to the A19(T) to the west.
- 4.2.9 The Delivery Plan highlights a number of congestion hotspots which are to be utilised by the proposed REC:
- A19 Tees Viaduct and Stockton Road Interchange with A66;
  - A66 particularly through Middlesbrough and Stockton; and
  - A174/A1053 Greystone Road network, the key route to and from Teesport and the industrial and petrochemical centres.
- 4.2.10 However, several targeted local highway network improvements have already been delivered as the first stage of tackling these challenges. These include:
- The £13.5m North Middlesbrough Accessibility Scheme, comprising a number of highway improvements to the A66; and
  - The roundabout interchange at the A19(T)/A174(T) has been signalised on the three trunk road approaches as the first stage of the Teesport Access Improvements scheme.
- 4.2.11 The Delivery Plan also states the following:

*“Prior to its inclusion within the Local Growth Fund process, TVU developed a Local Major Transport Scheme Prioritisation Local Major Transport Scheme Prioritisation, Tees Valley Unlimited, July 2013 list of schemes for funding from 2015, based on schemes arising from the AAP. This provided the basis for the immediate key projects outlined in the 2014 Strategic Economic Plan (SEP). The development of the SEP and subsequent work has identified additional schemes, which TVU will be seeking funding for. These include:*

- *To improve linkages between the South Tees Industrial area and the local highway network (particularly the A66 and A1085) which links to the strategic highway network of the A19. This includes junction improvements on the A66 which have recently been completed;*
- *A proposed east to west extension to Dockside Road, that will particularly provide better access to the Port / riverside and open the surrounding land up to development; and*
- *Improvements to Greystones roundabout to improve strategic highway capacity.”*

4.2.12 The proposed REC will utilise the existing good highways provision already catering for heavy vehicles, with good linkages between the South Tees, Redcar and the strategic highway network, as set out in the Redcar and Cleveland Infrastructure Delivery Plan.

### **Redcar and Cleveland Local Transport Plan 2011-2021 (adopted March 2011)**

4.2.13 The Council's third round Local Transport Plan (LTP3) sets out how the Council will seek to improve transport services and facilities in the coming years in order to address local issues and the key national aims of:

- Supporting Economic Growth;
- Reducing Carbon Emissions;
- Promoting Equality of Opportunity;
- Contributing to Better Safety, Security and Health; and,
- Improving Quality of Life and a Healthy Natural Environment.

4.2.14 The LDP states that it is anticipated that there will be significant further investment, particularly in the chemical and energy sectors, both at Wilton and in the South Tees area:

*“Further expansion of facilities at Teesport will create local jobs in the borough, taking advantage of the good labour force that is readily available in Redcar & Cleveland. Such developments will also reduce the distance goods are transported around the country compared with the use of Southern ports, although it is recognised that local transport issues on the approaches to the Port will need to be managed in partnership with the Highways Agency. Major improvements to junctions on the A174(T) and A1053(T) trunk roads, funded by PD Teesport to accommodate their developments, are currently being implemented and will be complete by the end of 2010.*

*All of the above proposals will create new jobs in deprived areas and help reverse decline in these areas, bringing about an improvement to quality of life. However, they will also generate further transport implications that need to be carefully planned for in conjunction with partners in industry and the Highways Agency, in terms of goods vehicle movements and access to new jobs. They could create pressures for vehicle movements on the strategic road network, particularly at roundabouts on and between the A66, A1053(T), A174(T) and A19(T). These potential pressures will need to be addressed to enable full economic advantage to be taken of the regeneration, but in a manner that does not undermine strategies for the growth of sustainable transport use.”*

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4.2.15 This TA and associated ES Chapter address the transport implications as a result of REC.

## 5 FUTURE YEAR BASELINE TRAFFIC FLOWS

### Future Assessment Year

- 5.1.1 The timing of the project would be dependent on securing planning permission and the discharge of planning conditions. The indicative construction programme envisages approximately 32 months from start on site to end of commissioning.
- 5.1.2 Assuming that planning permission is granted for the facility in winter 2020, the following development timescales are anticipated:
- Notice to Proceed to Contractor: 1<sup>st</sup> Quarter 2021.
  - Clearance and Demolition: 2<sup>nd</sup> Quarter 2021.
  - Commencement of Construction: 3<sup>rd</sup> Quarter 2021.
  - Commissioning: 1<sup>st</sup> Quarter 2024.
  - Commercial Operation: 2<sup>nd</sup> Quarter 2024.
- 5.1.3 Discussions with Redcar and Cleveland Borough Council have identified a number of emerging sites in the local area. As the first year of operation is anticipated to be 2024, the future assessment year of 2024 has been adopted. Based upon the assessments set out below, if a different future year was chosen, after the year of opening, then the conclusions would remain the same, hence an assessment year of 2024 is considered suitable.
- 5.1.4 The future year baseline scenario of 2024 has been created by applying traffic growth rates to the observed traffic flows and then adding in the traffic flows of 'committed developments', i.e. developments that have planning consent but are not yet generating traffic on the network.
- 5.1.5 Before adding in any committed development traffic flows, growth rates have been applied to the observed traffic flows set out in Table 2.2 using the DfT software TEMPRO (version 7.2) to create base 2024 traffic flows. The TEMPRO software presents the output of the DfT's National Trip End Model which forms part of the National Transport Model (NTM). The DfT's Webtag guidance Unit 3.15.2 advises the use of NTM in preference to the National Road Traffic Forecasts (NRTF) as the NTM data is based on a more up-to-date model.
- 5.1.6 It should be noted that growth rates include allowances for background traffic growth as well as development growth. In some instances, the application of growth rates and the addition of traffic flows from committed developments and cumulative developments (i.e. emerging developments that do not yet have planning consent) can result in double counting of traffic flows.
- 5.1.7 In this instance, given that a 2024 baseline year is being developed, any such effect of double counting is likely to be low and so no adjustments to the growth rates have been made. The TEMPRO growth rates obtained are listed in Table 5.1.

**Table 5.1: Growth Rates**

Road Type	Growth Rate 2018 – 2020	Growth Rate 2018-2024
Urban Principal Road	1.027941	1.052596

- 5.1.8 The resultant 2024 growthed traffic flows are set out in Table 5.2.



**Table 5.2: 2024 Growthed Traffic Flows**

Link	2024 Annual Average Daily Traffic Flows	
	Total	HGV
A1085 Trunk Road South of Access Roundabout	18170	800
A1053 between A66 and A1085 Trunk Road junction	23556	1696
A1053 between A66 and A174 Junctions	14406	1241
A66 between A1053 and A171 Junctions	23530	3013
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	10871	99
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	13109	152
A174 between the A1053 and A171	32028	1808
A1042 between the A1085 Trunk Road and Waveney Road junction	9839	174
A1085 Trunk Road between A1042 and Thrush Road junctions	10404	117

### Committed and Cumulative Developments

- 5.1.9 As part of the assessments, committed development sites and cumulative development sites are also considered.
- 5.1.10 Developments that already have planning consent have already been through that process and have identified any highway and transport improvements that may or may not be necessary to mitigate their impact. There is no further opportunity for these developments to provide additional highway or transport mitigation and so these developments and their highway and transport schemes are treated as committed within any future year scenarios.
- 5.1.11 For this reason, those developments (traffic flows and their highway and transport mitigation schemes) form part of a future transport baseline scenario for any other developments that follow. In doing that, the impact of development proposals that follow consented developments is able to be determined in the knowledge of what has already been consented in transport and highways terms along with the need for any additional highway and transport improvements that may be necessary.
- 5.1.12 Other developments that emerge at the same time are treated together and are cumulatively assessed against the baseline scenario described above to determine their cumulative impact and their cumulative highway and transport mitigation requirements (if required).
- 5.1.13 A detailed assessment has been undertaken of all planning applications in the surrounding area and allocated sites. From a transport perspective, their status (i.e. consented, awaiting determination or allocated), traffic generation, their study area and the study area of this TA have all been analysed to determine how they have been considered within this TA.
- 5.1.14 A full list along with comments are attached at **Annex D**. In summary, there are four sites that have planning consent that would generate a significant level of traffic onto the study area of this TA that need to be considered as a committed development and form part of the future year baseline scenario. These sites are set out in **Table 5.3** below.

**Table 5.3: Committed Developments**

Site No.	Site Name	Application number	Status	Submitted / Decision Date	Status
2	Kirkleatham Lane	R/2016/0663/OOM	The construction of the development is proposed to start in 2020.	Granted 25/05/17	TA assumed base year of 2026, assume half of dwellings constructed by end of 2023 based on construction starting in 2020.
4	Teesside Combined Cycle Power Plant (CCPP)	R/2018/0364/NID	Predicted peak construction year of 2021, operational year of 2023	DCO made 05/04/19, granted	Not built, to be operational in 2023.
6	Peak African Minerals Ltd.	R/2017/0876/FFM	Application states that the refinery would need to be ready to receive the ore concentrate towards the end of 2019 / early 2020.	Granted 16/01/18	Not built but could be fully operational by 2024.
7	York Potash Port and Materials Handling Facilities	TR03002	DCO made 20/07/16	DCO granted on 20/07/2016	Not built, construction period is approximately 29 months in a phased program and could be operational by 2024.

5.1.15 The traffic flows predicted to be generated by these committed developments have been taken from their respective Transport Assessments that supported their planning applications. The committed development traffic flows are attached at **Annex E**.

### 2024 Baseline Traffic Flows

5.1.16 Traffic flows on the local highway network are the observed traffic flows with the addition of traffic growth and committed developments. The resultant 2024 baseline traffic flows are set out in **Annex F** and a summary is provided in **Table 5.4**.

**Table 5.4: 2024 Baseline Traffic Flows**

Link	Annual Average Daily Traffic Flows	
	Total	HGV
A1085 Trunk Road South of Access Roundabout	18622	843
A1053 between A66 and A1085 Trunk Road junction	24194	1798
A1053 between A66 and A174 Junctions	14785	1338
A66 between A1053 and A171 Junctions	24143	3090
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	10910	102
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	13132	155



Link	Annual Average Daily Traffic Flows	
A174 between the A1053 and A171	32502	1837
A1042 between the A1085 Trunk Road and Waveney Road junction	10097	177
A1085 Trunk Road between A1042 and Thrush Road junctions	10662	120

## 6 TRIP GENERATION, MODE SHARE AND ASSIGNMENT

### 6.1 HGV Movements

6.1.1 Estimates of the potential HGV movements from waste arisings are set out in Table 6.1.

Source	Annual Tonnage	Vehicle Type / Load Size	Daily HGV Movements
<b>ERF Waste Imports / Exports</b>			
Bulked Waste (75%)	337,500	20	61
Direct Waste (25%)	112,500	6	68
<b>Total</b>	<b>450,000</b>	-	<b>129</b>
<b>MRF Waste Imports</b>			
Bulked Waste (75%)	150,000	20	27
Direct Waste (25%)	50,000	6	30
<b>Total</b>	<b>200,000</b>	-	<b>57</b>
<b>MRF Waste Exports</b>			
Bulked	200,000	20	36
<b>Total</b>			<b>222</b>

6.1.2 In addition, to waste arisings, HGVs will also be generated by consumables and exports as set out in Table 6.2.

**Table 6.2: Consumables / Exports HGV Trip Generation**

Source	Annual Tonnage	Frequency of vehicle movements	Daily HGV Movements
IBA	105000	Daily	18
APCR	20000	Daily	4
Lime	5040	Daily	1*
Carbon	840	Weekly	1*
Fuel Oils	168,000 Litres	Monthly	1*
<b>Total</b>			<b>25</b>

Note: Summation differences due to figures rounded to the nearest whole number

6.1.3 When the development is operational, assuming 75% of waste is bulked via a Waste Transfer Station (WTS) and 25% is delivered to the site directly by RCVs, initial estimations suggest there would be 247 two-way HGV movements per day.

### 6.2 Staff Movements

6.2.1 The REC would employ up to 100 full time equivalent employees comprising operation and maintenance staff, clerical and administrative staff and plant management. The ERF plant operations and maintenance staff would be employed within up to five shift teams. In addition, approximately 100 additional contractors will be temporarily employed during the planned annual shutdowns.

- 6.2.2 Although there would be up to 100 new staff on site, there would be shift working. As a result, not all would be on site on the same day. It is assumed that there would be 5 admin staff on site working 09:00 to 17:00 each day. The remaining 95 staff would work across the four remaining shifts, consisting of two 12-hour shift teams each of 24 staff (24 staff working 07:00 to 19:00 and 24 staff working 19:00 to 07:00). The shift workers would all arrive during the hour before their shift and depart during the hour after.
- 6.2.3 To estimate the likely mode of transport that staff would use to travel to and from the Application Site, the 2011 Census Journey to Work data has been analysed for the local area. The Application Site is located within the northern edge of Middle Layer Super Output Area (MSOA) E02002517 : Redcar and Cleveland 003.
- 6.2.4 Details of these areas including their coverage are attached at **Annex G** and a summary of their mode shares for each are set out in **Table 6.3**.

**Table 6.3: Staff Mode Share**

Method of travel to work	MSOA E02002517 : Redcar and Cleveland 003
Driving a car or van	81.8%
Passenger in a car or van	8.0%
Public Transport	3.0%
Motorcycle, Scooter or Moped	0.8%
Taxi	0.4%
Bicycle	2.8%
On foot	3.0%
Other	0.2%
<b>Total</b>	<b>100%</b>

Note: Summation differences due to figures rounded to the nearest whole number

- 6.2.5 The Application Site access road is hard surfaced and is some 2.7km long between the site and the highway. Although the census data demonstrates that there is some scope for staff to travel via sustainable means to the site, the length of the internal access road from the A1085 Trunk Road to the Application Site will likely reduce the number of staff walking and using public transport to route to site.
- 6.2.6 To form a robust assessment, it is assumed that each staff member would travel to the Application Site via single occupancy vehicle; however, the census data demonstrates that there is potential for staff to travel via sustainable means to the site.
- 6.2.7 The temporal distribution of staff is set out in **Table 6.4** below.

**Table 6.4: Temporal Distribution of Staff Car Movements**

Hour Begin	Staff Car Arrivals	Staff Car Departures	Two-way Staff Car Movements
00:00	0	0	0
01:00	0	0	0
02:00	0	0	0
03:00	0	0	0
04:00	0	0	0
05:00	0	0	0

Hour Begin	Staff Car Arrivals	Staff Car Departures	Two-way Staff Car Movements
06:00	24	0	24
07:00	0	24	24
08:00	5	0	5
09:00	0	0	0
10:00	0	0	0
11:00	0	0	0
12:00	0	0	0
13:00	0	0	0
14:00	0	0	0
15:00	0	0	0
16:00	0	0	0
17:00	0	5	5
18:00	24	0	24
19:00	0	24	24
20:00	0	0	0
21:00	0	0	0
22:00	0	0	0
23:00	0	0	0
<b>Total</b>	<b>53*</b>	<b>53*</b>	<b>106*</b>

Note: Summation differences due to figures rounded to the nearest whole number

## 6.3 Trip Distribution and Assignment

### HGVs

- 6.3.1 In total, REC would generate approximately 247 two-way HGV movements. It is expected that the majority of waste HGVs would route to and from the A1053 Greystone Road and A66. Some HGVs would route to / from the north along A1085 Corporation Road or to / from the A1042 Kirkleatham Lane if there was a local collection from that area.
- 6.3.2 REC would be a regional facility and it is envisaged that Teesside and the North East would form the waste arisings. To estimate the likely routeing of HGVs, census population data has been used as a proxy for the local collection areas and has been analysed. This includes deriving census data from MSOAs in population centres such as Redcar, Newcastle upon Tyne, Sunderland, Scarborough, Darlington. The census data is within **Annex H** and REC HGV traffic flows are attached at **Annex I**.

### Staff

- 6.3.3 Census 2011 Journey to Work data has formed the basis of the assumptions of staff vehicle routeing. An analysis of the MSOA E02002517 : Redcar and Cleveland 003 in terms of mode share is set out above and the same MSOA has been used to estimate the distribution of staff, as attached at **Annex J** and as summarised in **Table 6.5**.

**Table 6.5: Staff Distribution**

	A1085 Trunk Road North	A1042	A174 North	A174 South	A66	Longlands Road / A1085 Trunk Road
Distribution	5.4%	31.7%	1.7%	26.1%	20.2%	14.9%

Note: Summation differences due to figures rounded to the nearest whole number

6.3.4 Staff movements have been assigned onto the network in accordance with the above distribution and the resultant movements along links throughout the day are attached at **Annex K**.

## 6.4 Development Traffic Flow Scenarios

6.4.1 The REC Development flows are attached at **Annex L**. The resultant 2024 baseline plus REC traffic flows along links are attached at **Annex M** and summarised in Table 6.6.

**Table 6.6: 2024 Baseline Plus REC Traffic Flows**

Link	Annual Average Daily Traffic Flows	
	Total	HGV
A1085 Trunk Road South of Access Roundabout	18928	1083
A1053 between A66 and A1085 Trunk Road junction	24395	1978
A1053 between A66 and A174 Junctions	14866	1390
A66 between A1053 and A171 Junctions	24344	3270
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	10933	108
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	13154	161
A174 between the A1053 and A171	32581	1888
A1042 between the A1085 Trunk Road and Waveney Road junction	10134	181
A1085 Trunk Road between A1042 and Thrush Road junctions	10672	124

## 7 TRANSPORT ASSESSMENT

### 7.1 Introduction

- 7.1.1 To consider the effects of the traffic generated by the construction of the proposed development, an assessment of traffic flow increases has been undertaken against the 2024 baseline traffic flows.
- 7.1.2 In order to obtain estimations of peak hour traffic flows, 2018 traffic flow data was obtained from Highways England for the A1053 between the A1085 Trunk Road and A174 junctions. The data was obtained from 1<sup>st</sup> January 2018 to 31<sup>st</sup> December 2018 to correspond with the 2018 AADT data obtained from all links which was sourced from the DfT. The data provided breaks down the average traffic flows hour-by-hour, which was then used to calculate the percentage of traffic during the peak hours.

### 7.2 Link Assessment

#### Development Traffic Link Assessment

- 7.2.1 The REC operational traffic flows have been assessed against the 2024 baseline traffic flows as attached at **Annex N** and as summarised in **Table 7.1**.

**Table 7.1: Summary of REC Traffic Increases**

	2024 Baseline	Development Traffic	% Impact
<b>A1085 Trunk Road South of Access Roundabout</b>			
AM peak hour	1500	27	1.81%
PM peak hour	1535	27	1.77%
12 hr (7am-7pm)	15310	276	1.80%
24 hr	18622	306	1.64%
<b>A1053 between A66 and A1085 Trunk Road junction</b>			
AM peak hour	1948	19	0.98%
PM peak hour	1995	19	0.95%
12 hr (7am-7pm)	19892	192	0.96%
24 hr	24194	201	0.83%
<b>A1053 between A174 and A1085 Junctions</b>			
AM peak hour	1191	7	0.55%
PM peak hour	1219	7	0.54%
12 hr (7am-7pm)	12156	68	0.56%
24 hr	14785	81	0.55%
<b>A66 between A1053 and A171 Junctions</b>			
AM peak hour	1944	19	0.98%
PM peak hour	1991	19	0.96%
12 hr (7am-7pm)	19849	192	0.97%
24 hr	24143	201	0.83%
<b>A1085 Trunk Road, between junction with A1053 and junction with Normanby Road</b>			
AM peak hour	879	1	0.16%

	2024 Baseline	Development Traffic	% Impact
PM peak hour	900	1	0.16%
12 hr (7am-7pm)	8970	15	0.17%
24 hr	10910	22	0.20%
<b>A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane</b>			
AM peak hour	1057	1	0.13%
PM peak hour	1083	1	0.13%
12 hr (7am-7pm)	10797	15	0.14%
24 hr	13132	22	0.17%
<b>A174 between the A1053 and A171</b>			
AM peak hour	2617	6	0.24%
PM peak hour	2680	6	0.24%
12 hr (7am-7pm)	26723	66	0.25%
24 hr	32502	78	0.24%
<b>A1042 between the A1085 trunk Road and Waveney Road junction</b>			
AM peak hour	813	2	0.25%
PM peak hour	833	2	0.24%
12 hr (7am-7pm)	8301	22	0.27%
24 hr	10097	37	0.37%
<b>A1085 Trunk Road between A1042 and Thrush Road junctions</b>			
AM peak hour	859	1	0.09%
PM peak hour	879	1	0.08%
12 hr (7am-7pm)	8766	8	0.09%
24 hr	10662	10	0.10%

7.2.2 As can be seen, the AADT percentage increases in traffic along the highway as a result of REC are in the order of less than 1% and up to a maximum of 1.64%. These increases are negligible and are not considered to result in a severe impact upon the highway network.

## Cumulative Traffic Link Assessment

7.2.3 There is one site that has a live planning application awaiting determination and which will be a cumulative development, as set out in **Table 7.2**. This does not form part of the future year baseline scenario but is included as a cumulative assessment.

**Table 7.2: Sites with a Live Planning Application Considered as a Cumulative Development**

Source	Type of Application	Location	Description	Planning Reference	Status
Redcar and Cleveland Borough Council	Energy	Grangetown Prairie Energy Recovery Facility	Outline application for the construction of an energy recovery facility (REF) and associated development.	R/2019/0767/OOM	Application submitted 19/12/19

7.2.4 The cumulative and REC traffic flows have been assessed against the 2024 baseline traffic flows attached at **Annex O**. The impact assessment is attached at **Annex P** and summarised in **Table 7.3**.

**Table 7.3: Summary of Cumulative Development Traffic Increases**

	2024 Baseline	Cumulative Traffic	% Impact
<b>A1085 Trunk Road South of Access Roundabout</b>			
AM peak hour	1500	27	1.81%
PM peak hour	1535	27	1.77%
12 hr (7am-7pm)	15310	276	1.80%
24 hr	18622	306	1.64%
<b>A1053 between A66 and A1085 Trunk Road junction</b>			
AM peak hour	1948	23	1.21%
PM peak hour	1995	19	0.95%
12 hr (7am-7pm)	19892	269	1.35%
24 hr	24194	284	1.17%
<b>A1053 between A174 and A1085 Junctions</b>			
AM peak hour	1191	11	0.93%
PM peak hour	1219	7	0.54%
12 hr (7am-7pm)	12156	90	0.74%
24 hr	14785	104	0.70%
<b>A66 between A1053 and A171 Junctions</b>			
AM peak hour	1944	37	1.90%
PM peak hour	1991	19	0.96%
12 hr (7am-7pm)	19849	501	2.52%
24 hr	24143	532	2.20%
<b>A1085 Trunk Road, between junction with A1053 and junction with Normanby Road</b>			
AM peak hour	879	1	0.16%
PM peak hour	900	1	0.16%
12 hr (7am-7pm)	8970	15	0.17%
24 hr	10910	22	0.20%
<b>A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane</b>			
AM peak hour	1057	1	0.13%
PM peak hour	1083	1	0.13%
12 hr (7am-7pm)	10797	15	0.14%
24 hr	13132	22	0.17%
<b>A174 between the A1053 and A171</b>			
AM peak hour	2617	6	0.24%
PM peak hour	2680	6	0.24%
12 hr (7am-7pm)	26723	66	0.25%
24 hr	32502	78	0.24%
<b>A1042 between the A1085 trunk Road and Waveney Road junction</b>			
AM peak hour	813	2	0.25%



	2024 Baseline	Cumulative Traffic	% Impact
PM peak hour	833	2	0.24%
12 hr (7am-7pm)	8301	22	0.27%
24 hr	10097	37	0.37%
<b>A1085 Trunk Road between A1042 and Thrush Road junctions</b>			
AM peak hour	859	1	0.09%
PM peak hour	879	1	0.08%
12 hr (7am-7pm)	8766	8	0.09%
24 hr	10662	10	0.10%

7.2.5 As can be seen, the percentage increases in traffic along the highway as a result of REC plus cumulative sites are in the order of less than 1% and up to a maximum of 2.20%. These increases are negligible.

### 7.3 Impact Upon Road Safety

7.3.1 Section 2 contains an analysis of PIA data and concludes that there does not appear to be anything in relation to the existing highway layout or geometries that contribute to a road safety concern.

7.3.2 There are already HGV movements along all of the highway network and there is nothing to suggest that operational HGVs would create a road safety issue.

7.3.3 It is considered that REC traffic would not create in any road safety issues that would result in an unacceptable impact on highway safety.

### 7.4 Impact upon Sustainable Modes of Transport

7.4.1 REC staff may use sustainable modes of transport. During the periods when REC staff would arrive and depart on site, the footways, cycleways, bus services and train services in the vicinity of the site generally have available capacity.

7.4.2 REC staff are not predicted to be at a level that will impact upon the capacity of these modes of transport, and it is considered that the proposed development would not impact upon sustainable modes of transport.

### 7.5 Summary

7.5.1 The above assessments demonstrate that REC traffic flows would not result in any noticeable increases along the local road network and would not create or materially impact upon any congestion that may occur during the day.

7.5.2 The link assessments set out in this section demonstrate that the impacts of REC are negligible during the AM and PM peak hours.

7.5.3 It is therefore concluded that REC traffic flows would not result in a severe impact along the local road network or an unacceptable impact on highway safety.

## 8 SUMMARY AND CONCLUSIONS

- 8.1.1 This Transport Assessment (TA) has been prepared by RPS on behalf of Redcar Holdings Limited to support a planning application for the proposed Redcar Energy Centre (REC) at Redcar Bulk Terminal.
- 8.1.2 The proposed REC would provide a long-term sustainable waste management and energy generation operation located adjacent to the former steel works at land at Redcar Bulk Terminal comprising of the following elements:
- Material Recovery Facility incorporating a Bulk Storage Facility;
  - an Energy Recovery Facility; and,
  - an Incinerator Bottom Ash Recycling Facility.
- 8.1.3 This TA has been prepared in accordance with discussions with Highway Officers at Redcar and Cleveland Borough Council, and in accordance with recognised guidance and best practice documents. Discussions were in direct relation to the ES chapter as part of the ES scoping exercise; however, this has also been applied to the TA.
- 8.1.4 The REC would be operational 24/7, however, HGV movements would primarily be between 08:00 and 18:00 Monday to Sunday.
- 8.1.5 The REC would create up to 100 new jobs. Some of these would be shift workers and the remainder would be admin workers. This results in a total of up to 53 staff on site per day and up to 106 two-way staff vehicle movements.
- 8.1.6 In addition to 106 two-way staff movements, the development proposals would generate approximately 247 two-way HGV movements per day.
- 8.1.7 The site is accessible by a range of sustainable modes of transport modes and accords with relevant transport related policies.
- 8.1.8 The assessment of REC traffic flows upon baseline traffic flows demonstrate the predicted increases are negligible, and within expected day-to-day variances in traffic flow. It is therefore concluded that the impact of the REC on the local highway network would be negligible, and would not result in any severe impacts on the road network or unacceptable impact on highway safety.
- 8.1.9 There are therefore no transport or highways related reasons for not approving the application for the proposed REC.

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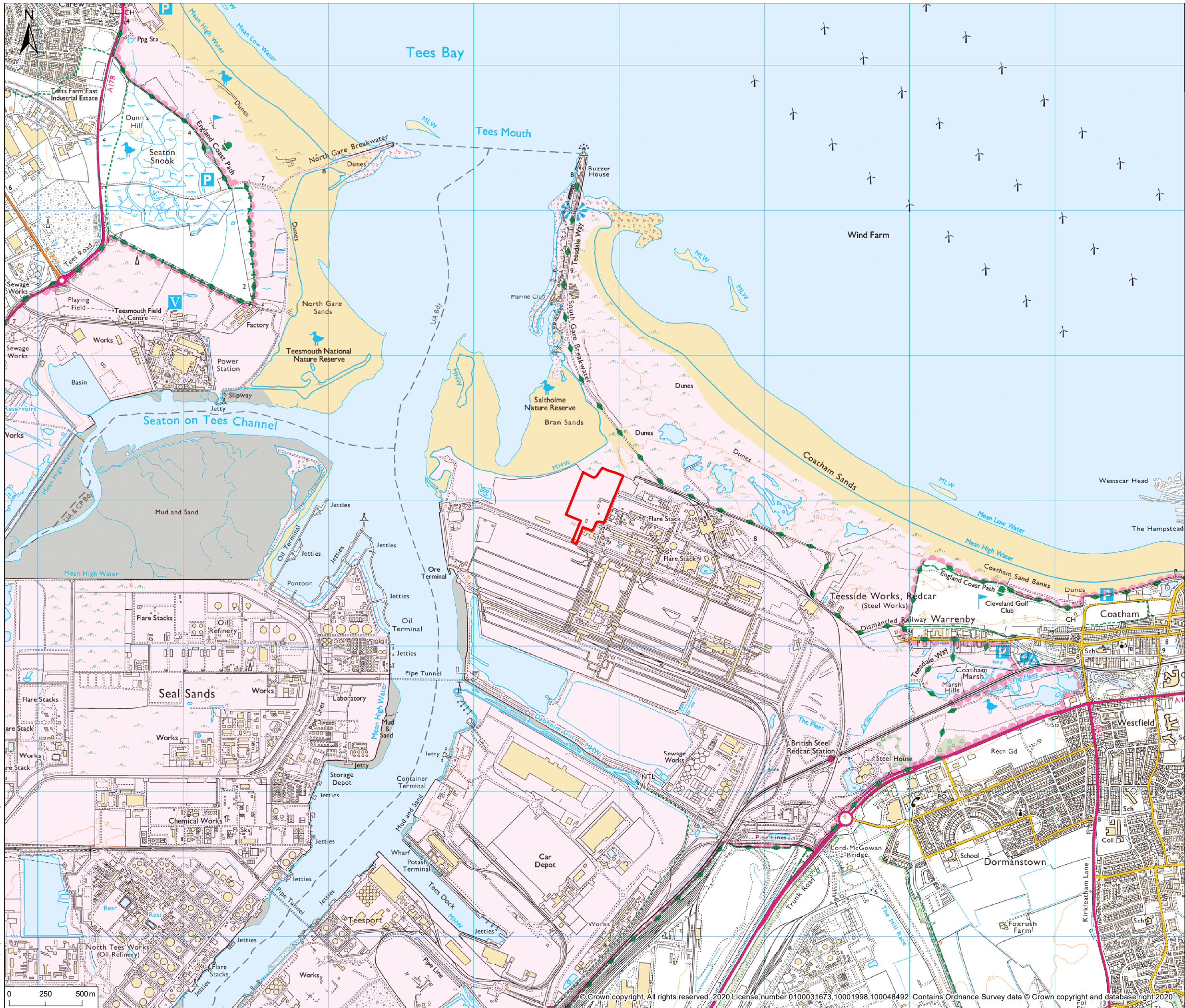
## Annexes

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## Annex A

### Site Location Plan





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 Notes  
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 2. If received electronically it is the recipient's responsibility to print to correct scale. Only written dimensions should be used.

**Legend**

Site Boundary

Rev	Description	By	CB	Date



20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH  
 T: +44(0)1235 821 888 E: rps@rpsgroup.com

Client **Redcar Holdings Limited**

Project **Redcar Energy Centre**

Title **Site Location Plan NTS**

Status **DRAFT**      Drawn By **BG**      PM/Checked By **CR**

Project Number **OXF11366**      Scale @ A3 **1:25,000**      Date Created **JUL 2020**

Figure Number **1**      Rev **-**

[rpsgroup.com](http://rpsgroup.com)

\\eur-mpls-02\projects\11366 PMAC ERM\TechDrawings\11366-0030-01.mxd



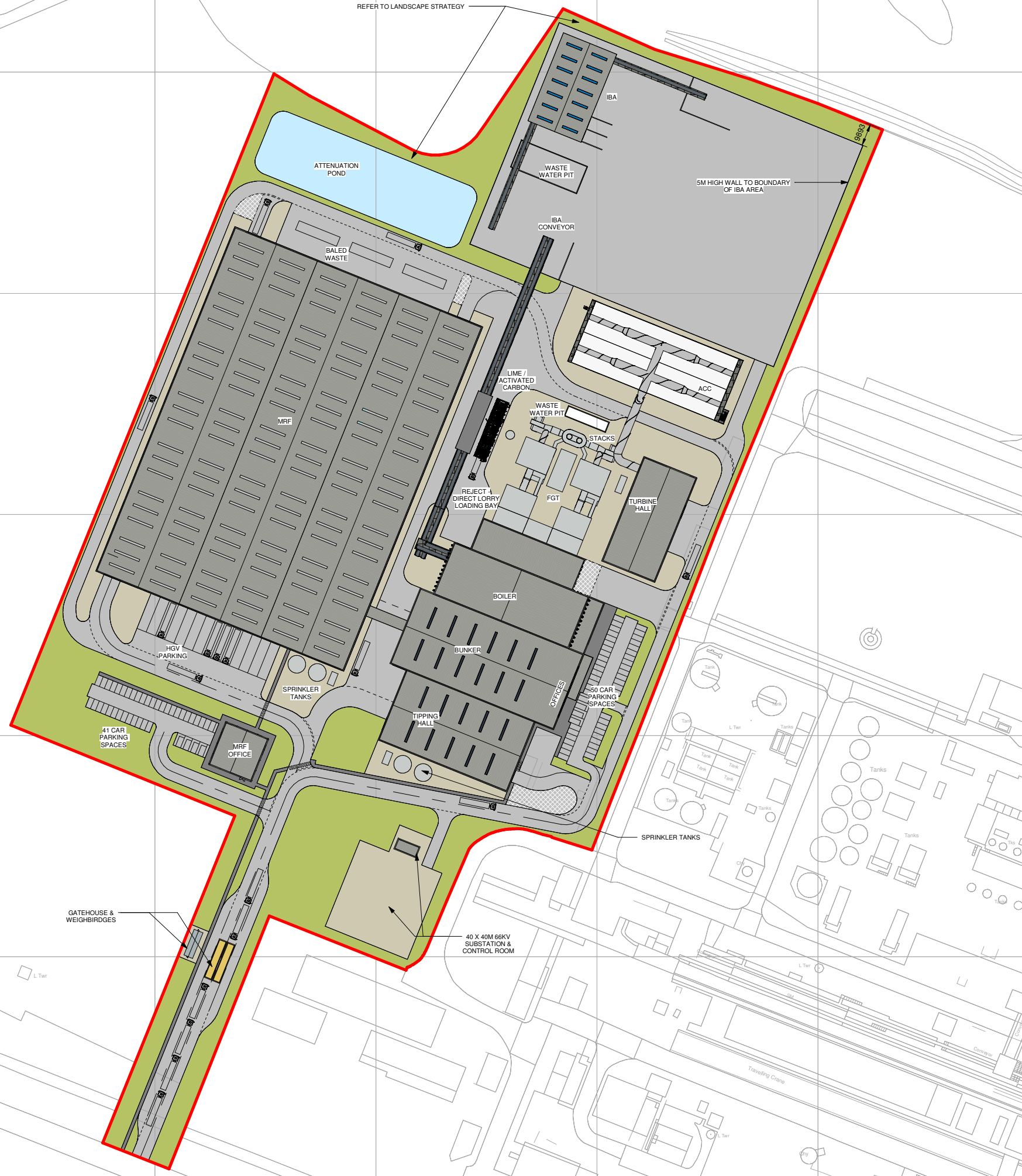
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## Annex B

### Site Layout Plan



REFER TO LANDSCAPE STRATEGY




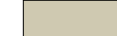



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**Notes**

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2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.

**Legend**

-  Concrete
-  Landscaped Area
-  Trees & Shrubs
-  Aggregate Crushed Stone
-  Footpath

Rev	Description	By	CB	Date



20 Western Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SH  
T: +44(0)1235 821 888 E: rps@rpsgroup.com

Client **Redcar Holdings Limited**

Project **Redcar Energy Centre**

Title **Proposed Site Layout Plan NTS**

Status	Drawn By	PM/Checked By
<b>DRAFT</b>	<b>ET/BG</b>	<b>CR</b>

Project Number	Scale @ A3	Date Created
<b>OXF11366</b>	<b>NTS</b>	<b>JUL 2020</b>

Figure Number	Rev
<b>2</b>	<b>-</b>

[rpsgroup.com](http://rpsgroup.com)

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## Annex C

### 2018 Traffic Flow Data













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## Annex D

### Committed / Cumulative Development Long List

Reference	Name	Application Reference	Description	Distance from Site	Planning Status	Assessed within ES / TA?	Description
<b>Tier 1</b>							
1	Ground preparation for Soil for Storage	R/2019/0427/FFM	Demolition of structures and engineering operations associated with the ground preparation and temporary storage of soil and its final use in the remediation and preparation of land for regeneration and development.	1.96 km	Granted 27/09/19	No	No TS / TA / ES Chapter setting out traffic flow data
2	Kirkleatham Lane	R/2016/0663/OOM	A development entailing the creation of up to 550 residential units, with associated access, landscaping and open space. The proposal has been granted outline consent, with the access having been constructed and issues being examined through Reserve Matters. The construction of the development is proposed to start in 2020.	3.97 km	Granted 25/05/17	Yes	"Due to the location and current highway network in the vicinity of the site the proposed dwellings would not warrant a requirement for the proposal to be supported by an EIA."  Peak hours assessed 07:45-08:45, 16:30-17:30 identified by traffic survey.  8% of traffic routes along A1085 Trunk Road, 11% on A174 East
3	Port Blyth Biomass Power Station	R/2008/671/EA <a href="https://infrastructure.planninginspectorate.gov.uk/projects/north-east/port-blyth-new-biomass-plant/?ipcsection=docs">https://infrastructure.planninginspectorate.gov.uk/projects/north-east/port-blyth-new-biomass-plant/?ipcsection=docs</a>	Proposed construction of a 300 Mw biomass fired renewable energy power station on land adjacent to the main southern dock at Teeside on the south bank of the River Tees.	2.62 km	Granted 24/07/13	No	Work ceased in 2014, and project dropped.  <a href="https://www.bbc.co.uk/news/uk-england-tyne-26466442">https://www.bbc.co.uk/news/uk-england-tyne-26466442</a>
4	Teesside Combined Cycle Power Plant (CCPP)	R/2018/0364/NID	Construction of a 1,700MWe combined-cycle gas turbine power station at Wilton International	5.18 km	DCO made 05/04/19, granted	Yes	Access taken from A1053 Greystone Road. Predicted peak construction year of 2021, operational year of 2023
5	Northern Gateway Container Terminal	R/2006/0433/OO	Proposed container terminal at Teesport, Grangetown, with granted planning permission and reserved matters for landscaping.	1.29 km	Granted 04/10/07	No	Revision order in 2018. "The proposal is to extend the 2008 HRO by 10 years until 8th May 2028."
6	Peak African Minerals Ltd.	R/2017/0876/FFM	Planning permission has been granted for this proposed refinery extracting rare earth minerals (neodymium, praseodymium, cerium, lanthanum) from the ore concentrates, although no further action has progressed.	4.78 km	Granted 16/01/18	Yes	"In total (including staff), it is estimated that 185 daily two-way movements would be generated, with 78 two-way movements in the morning peak hour (08:00 to 09:00) and 34 two-way movements in the evening peak hour (17:00 – 18:00). Of these, there would be 78 daily two-way HGV movements, 44 of which would be in the morning peak hour. No HGV movements are predicted to occur in the evening peak hour, as site deliveries would be constrained to between 08:00 and 17:00 hrs. There would be a need for around 1,500 loaded containers per year to be delivered to the site."  "The refinery would therefore need to be ready to receive the ore concentrate towards the end of 2019 / early 2020."  Takes access from the Wilton International access road
7	York Potash Port and Materials Handling Facilities	TR03002 R/2014/0626/FFM R/2014/0627/FFM R/2017/0906/OOM R/2018/0139/VC R/2018/0649/CL	A Development Consent Order Proposed has been granted for this port facility on Teesside for the export of polyhalite bulk fertiliser. Other applications relate to: Polyhalite granulation and storage facility; Winning and working of polyhalite by underground methods; Overhead conveyor and associated storage facilities; Amendments to approved layout and size of buildings, ponds etc Proposed use of land for mineral transfer apparatus	681 m	DCO made 20/07/16	Yes	"During the operational phase, the Harbour facilities would require 26 employees during Phase 1, increasing to 36 employees by Phase 2, of which 18 would be required on any one day. The 18 employees would then be further disaggregated into three shifts, resulting in a peak daily demand of 10 employees on site at any one time. During the operational phase, it is not proposed that there would be any regular HGV movements from the Harbour facilities; save for incidental deliveries such as for maintenance and refuse collection. Therefore, the traffic impact associated with the operational phase would be inconsequential and is not considered further within this TA. "

8	Grangetown Prairie Energy Recovery Facility	R/2019/0767/OOM	Outline application for the construction of an energy recovery facility (REF) and associated development.	4.34 km	Application submitted 19/12/19	Yes	No traffic during the PM Peak hours, seems to be considered favorably in comments with the LHA / HE
9	Proposed new buildings, plant upgrade, swale and associated parking	19/2161/FUL	Erection of new plant, new buildings and extensions to existing buildings. Works to include Warehouse D Extension, Boiler House Structure, Amenities & Workshop Building, Drum Storage Workshop Extension, Amenities extension, 2 no. Warehouse buildings, Contractors cabins, Gate House and Weighbridge, Receivers, Driers, Extension to existing Tank Farm, Tanker Offloading stations, Process and control buildings, Installation of new and replacement cooling towers and industrial apparatus, Pipe Bridge, Swale and the demolition of old plant and buildings.	2.54 km	Granted 21/02/20	No	Location won't utilise the same road network
10	Graythorp Energy Centre	H/2019/0275	Energy recovery (energy from waste) facility and associated infrastructure.	4.36 km	Decision pending	No	Doesn't utilise same highway network
11	Redcar and Cleveland Borough Council	R/2020/0075/F3M	Demolition of existing cinema and replace with new cinema including external terraces; landscaping and temporary sea wall. Regency Cinema TS10 1AU	4.16km	Decision pending	No	No Transport Statement / Assessment or details of traffic flows
12	Scott Brothers	R/2020/0223/FF	Erection of a soil and aggregates recycling and washing plant facility including welfare cabin and associated car parking and landscaping Land off John Boyle Road, Grangetown	4.63km	Application submitted 04/05/20	No	Although the site will generate vehicle movements over an 11hr period (111 arrivals and 111 departures), no transport assessment on the local highway network has been undertaken and it does not state where HGVs will be routeing from
13	Mr Milen	R/2020/0100/FFM	Demolition of vacant agricultural buildings and replace with 3 blocks of 2 storey modular buildings comprising 20 residential units, office and energy centre including associated ca parking, boundary fencing and gates and communal landscaping.  Westfield Barn, the Green, Dormanstown TS10 5NA	3.22 km	Application submitted 21/04/20	No	No Transport Statement / Assessment or details of traffic flows. The location and scale of development will not generate traffic on our network.
<b>Tier 2</b>							
14	Able South Bank	R/2019/0331/SCP	A port-based development for the Offshore Marine Energy Sector (offshore wind turbines) for land at South Bank, Redcar. The use of the port will include HGV for transporting and storing and assembling the components of an offshore wind turbine (OWT).	3.51 km	Scoping opinion issued 27/06/19	No	The scoping report sets out the the ES chapter will cover Traffic & Transportation; however, there is no traffic flow data available to incorporate into the assesment.
15	Net Zero Teesside Project - Cluster	NSIP <a href="https://infrastructure.planninginspectorate.gov.uk/projects/north-east/the-net-zero-teesside-project/?ipcsection=docs">https://infrastructure.planninginspectorate.gov.uk/projects/north-east/the-net-zero-teesside-project/?ipcsection=docs</a>	This proposal comprises the development of a Combined Cycle Gas Turbine (CCGT) gas-fired generating station and gas, electricity and cooling water connections and a CO2 pipeline for the transport CO2 to an offshore geological storage area.	951 m	Scoping direction issued	No	During the operational phase of the development, it is anticipated that there will be a work-force of approximately 100 people that will be required on a shift basis to be spread over a 24 hour period. Staff will travel to and from work in a variety of directions. Fuel will be delivered by pipeline and other operational and maintenance consumables will be managed to be kept as low as is reasonably practicable. Therefore, it is considered that the effects of operational traffic would be negligible and a detailed assessment of the operational phase of the development is not proposed for the ES.
<b>Tier 3</b>							
16	St Hildas Church	H3.11	Allocated in the Redcar and Cleveland Borough Council 2018 Local Plan for 25 units	4.39 km	Allocation	No	Doesn't utilise our network
17	Teesside Combined Cycle Power Plant (CCPP)	EG1	General employment development focusing on logistics (B8 Use Class), manufacturing and engineering (B2 Use Class)	1.64km	Allocation	No	Doesn't utilise our network



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## Annex E

### Committed Development Traffic Flows

**Committed AADT Flows**

Link	Two-Way			One-way		
	AADT	HGVs	Lights	AADT	HGVs	Lights
A1085 Trunk Road South of Access Roundabout	452	43	409	226	21	204
A1053 between A66 and A1085 Trunk Road junction	638	102	536	319	51	268
A1053 between A66 and A174 Junctions	379	97	282	190	49	141
A66 between A1053 and A171 Junctions	613	77	536	306	39	268
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	39	3	36	20	1	18
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	23	3	20	12	1	10
A174 between the A1053 and A171	474	29	445	237	14	223
A1042 between the A1085 Trunk Road and Waveney Road junction	258	3	255	129	1	128
A1085 Trunk Road between A1042 and Thrush Road junctions	258	3	255	129	1	128

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## Annex F

### 2024 Baseline Traffic Flows













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## Annex G

### Census Mode Share Data

**WP703EW - Method of travel to work (2001 specification) (Workplace population)**

ONS Crown Copyright Reserved [from Nomis on 14 June 2020]

population All usual residents aged 16 to 74 in employment in the area the week before the census  
units Persons  
area type 2011 super output areas - middle layer  
area name E02002517 : Redcar and Cleveland 003

Method of travel to work	2011	
All categories: Method of travel	8,964	
Work mainly at or from home	171	
Underground, metro, light rail or	1	0.0%
Train	27	0.3%
Bus, minibus or coach	235	2.7%
Taxi	33	0.4%
Motorcycle, scooter or moped	73	0.8%
Driving a car or van	7,189	81.8%
Passenger in a car or van	707	8.0%
Bicycle	245	2.8%
On foot	264	3.0%
Other method of travel to work	19	0.2%
	<b>8,793</b>	<b>100%</b>

Mode of Travel	Mode Share
Driving a car or van	81.8%
Passenger in a car or van	8.0%
Public Transport	3.0%
Motorcycle, Scooter or Moped	0.8%
Taxi	0.4%
Bicycle	2.8%
On foot	3.0%
Other	0.2%
<b>Total</b>	<b>100.0%</b>

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

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## Annex H

### Census Population Data

## KS101EW - Usual resident population

ONS Crown Copyright Reserved [from Nomis on 9 June 2020]

population All usual residents  
 units Persons  
 rural urban Total  
 variable All usual residents

Local authority: district / unitary (prior to April 2015)	2011	Population Percentages	Likely Route to Site	Percentage of HGV Traffic
Scarborough	108,793	1.7%	A174 North / A1053 / Trunk Road	50%
	108,793	1.7%	A1042 / Trunk Road	50%
Hambleton	89,140	2.7%	A174 South / A1053 / Trunk Road	100%
Richmondshire	51,965	1.6%	A66 / Trunk Road	100%
Ryedale	51,751	0.8%	A174 North / A1053 / Trunk Road	50%
	51,751	0.8%	A174 South / A1053 / Trunk Road	50%
Harrogate	157,869	4.9%	A174 South / A1053 / Trunk Road	100%
York	198,051	6.1%	A174 South / A1053 / Trunk Road	100%
Redcar and Cleveland	135,177			100%
Middlesbrough	138,412			100%
Stockton-on-Tees	191,610	5.9%	A66 / Trunk Road	100%
Hartlepool	92,028	2.8%	A66 / Trunk Road	100%
Darlington	105,564	1.6%	A66 / Trunk Road	50%
	105,564	1.6%	A174 South / A1053 / Trunk Road	50%
County Durham	513,242	15.8%	A66 / Trunk Road	100%
Sunderland	275,506	8.5%	A66 / Trunk Road	100%
Gateshead	200,214	6.2%	A66 / Trunk Road	100%
Newcastle upon Tyne	280,177	8.6%	A66 / Trunk Road	100%
South Tyneside	148,127	4.6%	A66 / Trunk Road	100%
Northumberland	316,028	9.7%	A66 / Trunk Road	100%
North Tyneside	200,801	6.2%	A66 / Trunk Road	100%
	<b>3,254,455</b>	<b>92%</b>		

## KS101EW - Usual resident population

ONS Crown Copyright Reserved [from Nomis on 9 June 2020]

population All usual residents  
 units Persons  
 rural urban Total  
 variable All usual residents

Area	Population (2011)	Likely Route to Site	Percentage of HGV Traffic	% of total
msoa2011:E02002515 : Redcar and Cleveland 001	6,810	Trunk Road North	100%	0.2%
msoa2011:E02002516 : Redcar and Cleveland 002	5,734	Trunk Road North	100%	0.2%
msoa2011:E02002517 : Redcar and Cleveland 003	5,380	Trunk Road North	50%	0.1%
	5,380	A1053 / Trunk Road	50%	0.1%
msoa2011:E02002518 : Redcar and Cleveland 004	10,723	Trunk Road North	100%	0.3%
msoa2011:E02002519 : Redcar and Cleveland 005	7,045	A1042 / Trunk Road North	100%	0.2%
msoa2011:E02002520 : Redcar and Cleveland 006	13,176	A1042 / Trunk Road North	50%	0.2%
	13,176	A174 North / A1053 / Trunk Road	50%	0.2%
msoa2011:E02002521 : Redcar and Cleveland 007	5,958	A1042 / Trunk Road North	50%	0.1%
	5,958	A174 North / A1053 / Trunk Road	50%	0.1%
msoa2011:E02002523 : Redcar and Cleveland 009	6,514	A1085 Trunk Road / Longlands Road	50%	0.1%
	6,514	A66 / A1053 / Trunk Road	50%	0.1%
msoa2011:E02002524 : Redcar and Cleveland 010	5,394	A1085 Trunk Road North	100%	0.2%
msoa2011:E02002525 : Redcar and Cleveland 011	8,357	A1085 Trunk Road / Longlands Road	100%	0.3%
msoa2011:E02002526 : Redcar and Cleveland 012	7,454	A1042 / Trunk Road North	100%	0.2%
msoa2011:E02002527 : Redcar and Cleveland 013	5,177	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002529 : Redcar and Cleveland 015	5,736	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002530 : Redcar and Cleveland 016	6,519	A1042 / Trunk Road North	50%	0.1%
	6,519	A1085 Trunk Road North	50%	0.1%
msoa2011:E02002532 : Redcar and Cleveland 018	6,261	A174 South / A1053 / Trunk Road	100%	0.2%
msoa2011:E02002533 : Redcar and Cleveland 019	5,758	A174 South / A1053 / Trunk Road	100%	0.2%
msoa2011:E02002534 : Redcar and Cleveland 020	5,758	A174 South / A1053 / Trunk Road	100%	0.2%
msoa2011:E02006812 : Redcar and Cleveland 021	7,353	A174 South / A1053 / Trunk Road	100%	0.2%
msoa2011:E02006910 : Redcar and Cleveland 022	10,070	A1085 Trunk Road / Longlands Road	100%	0.3%

**172,724**  
**3,254,455**

**4.2%**

## KS101EW - Usual resident population

ONS Crown Copyright Reserved [from Nomis on 9 June 2020]

population All usual residents  
 units Persons  
 rural urban Total  
 variable All usual residents

Area	Population (2011)	Likely Route to Site	Percentage of HGV Traffic	% of total
msoa2011:E02002496 : Middlesbrough 001	11,646	A66 / A1053 / Trunk Road	100%	0.4%
msoa2011:E02002497 : Middlesbrough 002	6,268	A66 / A1053 / Trunk Road	100%	0.2%
msoa2011:E02002498 : Middlesbrough 003	8,584	A66 / A1053 / Trunk Road	100%	0.3%
msoa2011:E02002499 : Middlesbrough 004	7,516	A66 / A1053 / Trunk Road	50%	0.1%
	7,516	A1085 Trunk Road / Longlands Road	50%	0.1%
msoa2011:E02002500 : Middlesbrough 005	5,919	A66 / A1053 / Trunk Road	50%	0.1%
	5,919	A1085 Trunk Road / Longlands Road	50%	0.1%
msoa2011:E02002501 : Middlesbrough 006	5,346	A66 / A1053 / Trunk Road	50%	0.1%
	5,346	A1085 Trunk Road / Longlands Road	50%	0.1%
msoa2011:E02002502 : Middlesbrough 007	9,615	A1085 Trunk Road / Longlands Road	100%	0.3%
msoa2011:E02002503 : Middlesbrough 008	6,515	A66 / A1053 / Trunk Road	100%	0.2%
msoa2011:E02002504 : Middlesbrough 009	9,711	A66 / A1053 / Trunk Road	50%	0.1%
	9,711	A1085 Trunk Road / Longlands Road	50%	0.1%
msoa2011:E02002505 : Middlesbrough 010	6,254	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002506 : Middlesbrough 011	5,932	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002507 : Middlesbrough 012	6,027	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002508 : Middlesbrough 013	5,074	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002509 : Middlesbrough 014	5,583	A1085 Trunk Road / Longlands Road	100%	0.2%
msoa2011:E02002510 : Middlesbrough 015	5,712	A174 South / A1053 / Trunk Road	100%	0.2%
msoa2011:E02002512 : Middlesbrough 017	5,305	A174 South / A1053 / Trunk Road	100%	0.2%
msoa2011:E02002513 : Middlesbrough 018	8,844	A174 South / A1053 / Trunk Road	100%	0.3%
msoa2011:E02002514 : Middlesbrough 019	8,967	A174 South / A1053 / Trunk Road	100%	0.3%
msoa2011:E02006811 : Middlesbrough 020	9,594	A174 South / A1053 / Trunk Road	100%	0.3%

**166,904**

**3,254,455**

4.3%

100.0%

Assuming majority of waste arrives from Teeside area

Link Number	Description	Wider Area	Redcar	Middlesborough	Total
		HGV Percentages	HGV Percentages	HGV Percentages	HGV Percentages
1	A1085 Trunk Road South of Access Roundabout	89.9%	2.8%	4.3%	97.0%
2	A1053 between A66 and A1085 Trunk Road junction	71.4%	0.1%	1.5%	72.9%
3	A1053 between A66 and A174 Junctions	18.6%	0.9%	1.5%	20.9%
4	A66 between A1053 and A171 Junctions	71.4%	0.1%	1.5%	72.9%
5	A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	0.0%	1.0%	1.6%	2.6%
6	A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	0.0%	1.0%	1.6%	2.6%
7	A174 between the A1053 and A171	18.6%	0.8%	1.2%	20.5%
8	A1042 between the A1085 Trunk Road and Waveney Road junction	0.8%	0.8%	0.0%	1.7%
9	A1085 Trunk Road between A1042 and Thrush Road junctions	0.0%	1.9%	0.0%	1.9%

---

## Annex I

### HGV Traffic Flows



REC HGV Traffic Flows																								
Link 1																								
A1085 Trunk Road South of Access Roundabout																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
09.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
10.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
11.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
12.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
13.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
14.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
15.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
16.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
17.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

**HGV Trip Generation**

- 247 Two-way HGV Movements  
If 75% waste input is bulked
  
- 10 hour working day for assessment purposes

**Percentage of HGV Traffic**

- 97% Link 1
- 73% Link 2
- 21% Link 3
- 73% Link 4
- 3% Link 5
- 3% Link 6
- 21% Link 7
- 2% Link 8
- 2% Link 9

12 hr	120	120	120	120	240	240	120	120	120	120	240	240	120	120	120	120	240	240	120	120	120	120	240	240
18 hr	120	120	120	120	240	240	120	120	120	120	240	240	120	120	120	120	240	240	120	120	120	120	240	240
24 hr	120	120	120	120	240	240	120	120	120	120	240	240	120	120	120	120	240	240	120	120	120	120	240	240

REC HGV Traffic Flows																								
Link 2																								
A1053 between A66 and A1085 Trunk Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
09.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
10.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
11.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
12.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
13.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
14.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
15.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
16.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
17.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180
18 hr	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180
24 hr	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180

REC HGV Traffic Flows																								
Link 3																								
A1053 between A174 and A1085 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
09.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
10.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
11.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
12.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
13.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
14.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
15.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
16.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
17.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	26	26	26	26	52	52	26	26	26	26	52	52	26	26	26	26	52	52	26	26	26	26	52	52
18 hr	26	26	26	26	52	52	26	26	26	26	52	52	26	26	26	26	52	52	26	26	26	26	52	52
24 hr	26	26	26	26	52	52	26	26	26	26	52	52	26	26	26	26	52	52	26	26	26	26	52	52

REC HGV Traffic Flows																								
Link 4																								
A66 between A1053 and A171 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
09.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
10.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
11.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
12.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
13.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
14.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
15.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
16.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
17.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180
18 hr	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180
24 hr	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180	90	90	90	90	180	180

REC HGV Traffic Flows																								
Link 5																								
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
09.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
10.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
11.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
12.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
13.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
14.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
15.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
16.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
17.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	3	3	3	3	6	6	3	3	3	3	3	3	6	6	3	3	3	3	3	3	6	6	3	3	3	3	3	3	6	6
18 hr	3	3	3	3	6	6	3	3	3	3	3	3	6	6	3	3	3	3	3	3	6	6	3	3	3	3	3	3	6	6
24 hr	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	3	3	3	3	3	3	6	6

REC HGV Traffic Flows																									
Link 6																									
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane																									
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average						
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	
00.00																									
01.00																									
02.00																									
03.00																									
04.00																									
05.00																									
06.00																									
07.00																									
08.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
09.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
10.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
11.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
12.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
13.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
14.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
15.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
16.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
17.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	
18.00																									
19.00																									
20.00																									
21.00																									
22.00																									
23.00																									

12 hr	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	3	3	3	3	3	3	6	6
18 hr	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	3	3	3	3	3	3	6	6
24 hr	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	6	6	3	3	3	3	3	3	3	3	3	3	6	6

REC HGV Traffic Flows																								
Link 7																								
A174 between the A1053 and A171																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
09.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
10.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
11.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
12.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
13.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
14.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
15.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
16.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
17.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	25	25	25	25	51	51	25	25	25	25	51	51	25	25	25	25	51	51	25	25	25	25	51	51
18 hr	25	25	25	25	51	51	25	25	25	25	51	51	25	25	25	25	51	51	25	25	25	25	51	51
24 hr	25	25	25	25	51	51	25	25	25	25	51	51	25	25	25	25	51	51	25	25	25	25	51	51

REC HGV Traffic Flows																								
Link 8																								
A1042 between the A1085 trunk Road and Waveney Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	4	4
18 hr	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	4	4
24 hr	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	4	4	2	2	2	2	4	4

REC HGV Traffic Flows																								
Link 9																								
A1085 Trunk Road between A1042 and Thrush Road junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00																								
07.00																								
08.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.00																								
19.00																								
20.00																								
21.00																								
22.00																								
23.00																								
12 hr	2	2	2	2	5	5	2	2	2	2	5	5	2	2	2	2	5	5	2	2	2	2	5	5
18 hr	2	2	2	2	5	5	2	2	2	2	5	5	2	2	2	2	5	5	2	2	2	2	5	5
24 hr	2	2	2	2	5	5	2	2	2	2	5	5	2	2	2	2	5	5	2	2	2	2	5	5

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## Annex J

### Staff Distribution Data

usual residence : 2011 super output area - middle layer	E02002517 : Redcar and Cleveland 003	% Route to Site					Percentage of Staff						
		Trunk Road North	Trunk Road North / A1042	A1053 / A174 North	A1053 / A174 South	A1053 / A66	Longlands Road / Trunk Road	Trunk Road North	Trunk Road North / A1042	A1053 / A174 North	A1053 / A174 South	A1053 / A66	Longlands Road / Trunk Road
E02001013 : Bolton 030	1			100%				0	0	0	1	0	0
E02001104 : Oldham 007	1			100%				0	0	0	1	0	0
E02001110 : Oldham 013	1			100%				0	0	0	1	0	0
E02001118 : Oldham 021	1			100%				0	0	0	1	0	0
E02001263 : Trafford 005	1			100%				0	0	0	1	0	0
E02001514 : Barnsley 006	1			100%				0	0	0	1	0	0
E02001567 : Doncaster 029	1			100%				0	0	0	1	0	0
E02001593 : Rotherham 016	1			100%				0	0	0	1	0	0
E02001646 : Sheffield 036	1			100%				0	0	0	1	0	0
E02001655 : Sheffield 045	1			100%				0	0	0	1	0	0
E02001682 : Gateshead 001	1					100%		0	0	0	0	1	0
E02001684 : Gateshead 003	3					100%		0	0	0	0	3	0
E02001686 : Gateshead 005	1					100%		0	0	0	0	1	0
E02001691 : Gateshead 010	1					100%		0	0	0	0	1	0
E02001697 : Gateshead 016	1					100%		0	0	0	0	1	0
E02001698 : Gateshead 017	2					100%		0	0	0	0	2	0
E02001708 : Newcastle upon Tyne 001	1					100%		0	0	0	0	1	0
E02001709 : Newcastle upon Tyne 002	1					100%		0	0	0	0	1	0
E02001711 : Newcastle upon Tyne 004	1					100%		0	0	0	0	1	0
E02001712 : Newcastle upon Tyne 005	1					100%		0	0	0	0	1	0
E02001721 : Newcastle upon Tyne 014	2					100%		0	0	0	0	2	0
E02001726 : Newcastle upon Tyne 019	2					100%		0	0	0	0	2	0
E02001729 : Newcastle upon Tyne 022	1					100%		0	0	0	0	1	0
E02001730 : Newcastle upon Tyne 023	2					100%		0	0	0	0	2	0
E02001733 : Newcastle upon Tyne 026	2					100%		0	0	0	0	2	0
E02001740 : North Tyneside 003	2					100%		0	0	0	0	2	0
E02001743 : North Tyneside 006	1					100%		0	0	0	0	1	0
E02001746 : North Tyneside 009	1					100%		0	0	0	0	1	0
E02001747 : North Tyneside 010	3					100%		0	0	0	0	3	0
E02001748 : North Tyneside 011	2					100%		0	0	0	0	2	0
E02001754 : North Tyneside 017	1					100%		0	0	0	0	1	0
E02001757 : North Tyneside 020	3					100%		0	0	0	0	3	0
E02001758 : North Tyneside 021	1					100%		0	0	0	0	1	0
E02001759 : North Tyneside 022	1					100%		0	0	0	0	1	0
E02001762 : North Tyneside 025	1					100%		0	0	0	0	1	0
E02001766 : North Tyneside 029	2					100%		0	0	0	0	2	0
E02001767 : North Tyneside 030	1					100%		0	0	0	0	1	0
E02001768 : South Tyneside 001	2					100%		0	0	0	0	2	0
E02001770 : South Tyneside 003	1					100%		0	0	0	0	1	0
E02001773 : South Tyneside 006	1					100%		0	0	0	0	1	0
E02001774 : South Tyneside 007	1					100%		0	0	0	0	1	0
E02001777 : South Tyneside 010	1					100%		0	0	0	0	1	0
E02001780 : South Tyneside 013	1					100%		0	0	0	0	1	0
E02001781 : South Tyneside 014	2					100%		0	0	0	0	2	0
E02001782 : South Tyneside 015	1					100%		0	0	0	0	1	0
E02001785 : South Tyneside 018	1					100%		0	0	0	0	1	0
E02001786 : South Tyneside 019	4					100%		0	0	0	0	4	0
E02001788 : South Tyneside 021	3					100%		0	0	0	0	3	0
E02001789 : South Tyneside 022	1					100%		0	0	0	0	1	0
E02001790 : South Tyneside 023	4					100%		0	0	0	0	4	0
E02001791 : Sunderland 001	2					100%		0	0	0	0	2	0
E02001792 : Sunderland 002	1					100%		0	0	0	0	1	0
E02001793 : Sunderland 003	1					100%		0	0	0	0	1	0
E02001795 : Sunderland 005	2					100%		0	0	0	0	2	0
E02001797 : Sunderland 007	2					100%		0	0	0	0	2	0
E02001798 : Sunderland 008	2					100%		0	0	0	0	2	0
E02001800 : Sunderland 010	1					100%		0	0	0	0	1	0
E02001804 : Sunderland 014	2					100%		0	0	0	0	2	0
E02001805 : Sunderland 015	2					100%		0	0	0	0	2	0
E02001806 : Sunderland 016	1					100%		0	0	0	0	1	0
E02001807 : Sunderland 017	2					100%		0	0	0	0	2	0
E02001809 : Sunderland 019	1					100%		0	0	0	0	1	0
E02001810 : Sunderland 020	1					100%		0	0	0	0	1	0
E02001811 : Sunderland 021	2					100%		0	0	0	0	2	0
E02001812 : Sunderland 022	5					100%		0	0	0	0	5	0
E02001815 : Sunderland 025	2					100%		0	0	0	0	2	0
E02001816 : Sunderland 026	2					100%		0	0	0	0	2	0
E02001818 : Sunderland 028	1					100%		0	0	0	0	1	0
E02001819 : Sunderland 029	1					100%		0	0	0	0	1	0
E02001820 : Sunderland 030	1					100%		0	0	0	0	1	0
E02001821 : Sunderland 031	1					100%		0	0	0	0	1	0
E02001822 : Sunderland 032	2					100%		0	0	0	0	2	0
E02001838 : Birmingham 012	1			100%				0	0	0	1	0	0
E02002098 : Solihull 018	1			100%				0	0	0	1	0	0
E02002151 : Wolverhampton 003	1			100%				0	0	0	1	0	0
E02002271 : Kirklees 001	1			100%				0	0	0	1	0	0
E02002329 : Kirklees 059	1			100%				0	0	0	1	0	0
E02002330 : Leeds 001	1			100%				0	0	0	1	0	0
E02002341 : Leeds 012	1			100%				0	0	0	1	0	0
E02002345 : Leeds 016	1			100%				0	0	0	1	0	0
E02002396 : Leeds 067	1			100%				0	0	0	1	0	0
E02002434 : Leeds 105	1			100%				0	0	0	1	0	0
E02002460 : Wakefield 023	1			100%				0	0	0	1	0	0
E02002472 : Wakefield 035	1			100%				0	0	0	1	0	0
E02002475 : Wakefield 038	1			100%				0	0	0	1	0	0
E02002483 : Hartlepool 001	29			100%				0	0	0	29	0	0
E02002484 : Hartlepool 002	14			100%				0	0	0	14	0	0
E02002485 : Hartlepool 003	16			100%				0	0	0	16	0	0
E02002487 : Hartlepool 005	9			100%				0	0	0	9	0	0
E02002488 : Hartlepool 006	19			100%				0	0	0	19	0	0
E02002489 : Hartlepool 007	14			100%				0	0	0	14	0	0
E02002490 : Hartlepool 008	13			100%				0	0	0	13	0	0
E02002491 : Hartlepool 009	13			100%				0	0	0	13	0	0
E02002492 : Hartlepool 010	19			100%				0	0	0	19	0	0
E02002493 : Hartlepool 011	24			100%				0	0	0	24	0	0
E02002494 : Hartlepool 012	13			100%				0	0	0	13	0	0
E02002496 : Middlesbrough 001	69					100%		0	0	0	0	69	0
E02002497 : Middlesbrough 002	58					50%	50%	0	0	0	0	29	29
E02002498 : Middlesbrough 003	64					50%	50%	0	0	0	0	32	32
E02002499 : Middlesbrough 004	62						100%	0	0	0	0	0	62

E02002500 : Middlesbrough 005	72					50%	50%	0	0	0	0	36	36
E02002501 : Middlesbrough 006	83						100%	0	0	0	0	0	83
E02002502 : Middlesbrough 007	98						100%	0	0	0	0	0	98
E02002503 : Middlesbrough 008	53					100%		0	0	0	0	53	0
E02002504 : Middlesbrough 009	95					100%		0	0	0	0	95	0
E02002505 : Middlesbrough 010	60						100%	0	0	0	0	0	60
E02002506 : Middlesbrough 011	36						100%	0	0	0	0	0	36
E02002507 : Middlesbrough 012	68			33%	33%		33%	0	0	0	23	23	23
E02002508 : Middlesbrough 013	63			50%			50%	0	0	0	32	0	32
E02002509 : Middlesbrough 014	62			50%			50%	0	0	0	31	0	31
E02002510 : Middlesbrough 015	53			100%				0	0	0	53	0	0
E02002512 : Middlesbrough 017	94						100%	0	0	0	0	0	94
E02002513 : Middlesbrough 018	89						100%	0	0	0	0	0	89
E02002514 : Middlesbrough 019	159						100%	0	0	0	0	0	159
E02002515 : Redcar and Cleveland 001	311	50%	50%					156	156	0	0	0	0
E02002516 : Redcar and Cleveland 002	273	50%	50%					137	137	0	0	0	0
E02002517 : Redcar and Cleveland 003	349	50%	50%					175	175	0	0	0	0
E02002518 : Redcar and Cleveland 004	557			100%				0	557	0	0	0	0
E02002519 : Redcar and Cleveland 005	319			100%				0	319	0	0	0	0
E02002520 : Redcar and Cleveland 006	540			100%				0	540	0	0	0	0
E02002521 : Redcar and Cleveland 007	142			100%				0	142	0	0	0	0
E02002523 : Redcar and Cleveland 009	177						100%	0	0	0	0	0	177
E02002524 : Redcar and Cleveland 010	176			100%				0	176	0	0	0	0
E02002525 : Redcar and Cleveland 011	289			50%	50%			0	0	145	145	0	0
E02002526 : Redcar and Cleveland 012	253			100%				0	253	0	0	0	0
E02002527 : Redcar and Cleveland 013	90			100%				0	90	0	0	0	0
E02002529 : Redcar and Cleveland 015	172			50%			50%	0	0	0	86	0	86
E02002530 : Redcar and Cleveland 016	123			100%				0	123	0	0	0	0
E02002532 : Redcar and Cleveland 018	130					100%		0	0	0	130	0	0
E02002533 : Redcar and Cleveland 019	150					100%		0	0	0	150	0	0
E02002534 : Redcar and Cleveland 020	186					100%		0	0	0	186	0	0
E02002535 : Stockton-on-Tees 001	57					100%		0	0	0	0	57	0
E02002536 : Stockton-on-Tees 002	37					100%		0	0	0	0	37	0
E02002537 : Stockton-on-Tees 003	37					100%		0	0	0	0	37	0
E02002538 : Stockton-on-Tees 004	36					100%		0	0	0	0	36	0
E02002539 : Stockton-on-Tees 005	55			33%	33%		33%	0	0	0	18	18	18
E02002540 : Stockton-on-Tees 006	46					100%		0	0	0	0	46	0
E02002541 : Stockton-on-Tees 007	44					100%		0	0	0	0	44	0
E02002542 : Stockton-on-Tees 008	36					100%		0	0	0	0	36	0
E02002543 : Stockton-on-Tees 009	36					100%		0	0	0	0	36	0
E02002544 : Stockton-on-Tees 010	43					100%		0	0	0	0	43	0
E02002545 : Stockton-on-Tees 011	31					100%		0	0	0	0	31	0
E02002546 : Stockton-on-Tees 012	24					100%		0	0	0	0	24	0
E02002547 : Stockton-on-Tees 013	40					100%		0	0	0	0	40	0
E02002548 : Stockton-on-Tees 014	43					100%		0	0	0	0	43	0
E02002549 : Stockton-on-Tees 015	49					100%		0	0	0	0	49	0
E02002550 : Stockton-on-Tees 016	32					100%		0	0	0	0	32	0
E02002551 : Stockton-on-Tees 017	31					100%		0	0	0	0	31	0
E02002552 : Stockton-on-Tees 018	52					100%		0	0	0	0	52	0
E02002553 : Stockton-on-Tees 019	54					100%		0	0	0	54	0	0
E02002554 : Stockton-on-Tees 020	26					100%		0	0	0	26	0	0
E02002555 : Stockton-on-Tees 021	81					100%		0	0	0	81	0	0
E02002556 : Stockton-on-Tees 022	109					100%		0	0	0	109	0	0
E02002557 : Stockton-on-Tees 023	194					100%		0	0	0	194	0	0
E02002558 : Stockton-on-Tees 024	94					100%		0	0	0	94	0	0
E02002559 : Darlington 001	13					100%		0	0	0	0	13	0
E02002560 : Darlington 002	8					100%		0	0	0	0	8	0
E02002561 : Darlington 003	13					100%		0	0	0	0	13	0
E02002562 : Darlington 004	8					100%		0	0	0	0	8	0
E02002563 : Darlington 005	6					100%		0	0	0	0	6	0
E02002564 : Darlington 006	5					100%		0	0	0	0	5	0
E02002565 : Darlington 007	11					100%		0	0	0	0	11	0
E02002566 : Darlington 008	7					100%		0	0	0	0	7	0
E02002567 : Darlington 009	5					100%		0	0	0	0	5	0
E02002568 : Darlington 010	12					100%		0	0	0	0	12	0
E02002569 : Darlington 011	25					100%		0	0	0	0	25	0
E02002570 : Darlington 012	6					100%		0	0	0	0	6	0
E02002571 : Darlington 013	7					100%		0	0	0	0	7	0
E02002572 : Darlington 014	9					100%		0	0	0	0	9	0
E02002573 : Darlington 015	19					100%		0	0	0	0	19	0
E02002631 : Blackburn with Darwen 017	1					100%		0	0	0	1	0	0
E02002658 : Kingston upon Hull 007	1					100%		0	0	0	1	0	0
E02002670 : Kingston upon Hull 019	1					100%		0	0	0	1	0	0
E02002671 : Kingston upon Hull 020	1					100%		0	0	0	1	0	0
E02002684 : East Riding of Yorkshire 001	1			100%				0	1	0	0	0	0
E02002699 : East Riding of Yorkshire 016	1			100%				0	1	0	0	0	0
E02002704 : East Riding of Yorkshire 021	1			100%				0	1	0	0	0	0
E02002712 : East Riding of Yorkshire 029	1			100%				0	1	0	0	0	0
E02002729 : North East Lincolnshire 004	1					100%		0	0	0	1	0	0
E02002745 : North East Lincolnshire 020	3					100%		0	0	0	3	0	0
E02002748 : North East Lincolnshire 023	1					100%		0	0	0	1	0	0
E02002766 : North Lincolnshire 018	1					100%		0	0	0	1	0	0
E02002770 : North Lincolnshire 022	1					100%		0	0	0	1	0	0
E02002773 : York 002	1					100%		0	0	0	1	0	0
E02002774 : York 003	2					100%		0	0	0	2	0	0
E02002777 : York 006	1					100%		0	0	0	1	0	0
E02002781 : York 010	3					100%		0	0	0	3	0	0
E02002793 : York 022	1					100%		0	0	0	1	0	0
E02003107 : South Gloucestershire 018	1					100%		0	0	0	1	0	0
E02003309 : Thurrock 014	1					100%		0	0	0	1	0	0
E02003400 : Reading 012	1					100%		0	0	0	1	0	0
E02003557 : Southampton 009	1					100%		0	0	0	1	0	0
E02003770 : Huntingdonshire 018	1					100%		0	0	0	1	0	0
E02003794 : Cheshire West and Chester 022	1					100%		0	0	0	1	0	0
E02003795 : Cheshire West and Chester 025	1					100%		0	0	0	1	0	0
E02003800 : Cheshire West and Chester 030	1					100%		0	0	0	1	0	0
E02003802 : Cheshire West and Chester 033	1					100%		0	0	0	1	0	0
E02003808 : Cheshire West and Chester 044	1					100%		0	0	0	1	0	0
E02003810 : Cheshire West and Chester 047	1					100%		0	0	0	1	0	0
E02003847 : Cheshire West and Chester 009	1					100%		0	0	0	1	0	0
E02003860 : Cheshire East 008	1					100%		0	0	0	1	0	0
E02004064 : Chesterfield 010	1					100%		0	0	0	1	0	0
E02004290 : County Durham 002	2						100%	0	0	0	0	2	0
E02004291 : County Durham 005	2						100%	0	0	0	0	2	0
E02004293 : County Durham 011	2						100%	0	0	0	0	2	0



E02004294 : County Durham 013	2				100%		0	0	0	0	2	0
E02004298 : County Durham 003	1				100%		0	0	0	0	1	0
E02004299 : County Durham 004	1				100%		0	0	0	0	1	0
E02004300 : County Durham 006	2				100%		0	0	0	0	2	0
E02004301 : County Durham 008	3				100%		0	0	0	0	3	0
E02004302 : County Durham 009	2				100%		0	0	0	0	2	0
E02004303 : County Durham 010	2				100%		0	0	0	0	2	0
E02004304 : County Durham 012	1				100%		0	0	0	0	1	0
E02004305 : County Durham 014	2				100%		0	0	0	0	2	0
E02004307 : County Durham 024	2				100%		0	0	0	0	2	0
E02004308 : County Durham 022	2				100%		0	0	0	0	2	0
E02004309 : County Durham 023	2				100%		0	0	0	0	2	0
E02004311 : County Durham 027	6				100%		0	0	0	0	6	0
E02004312 : County Durham 028	7				100%		0	0	0	0	7	0
E02004313 : County Durham 029	2				100%		0	0	0	0	2	0
E02004314 : County Durham 030	3				100%		0	0	0	0	3	0
E02004315 : County Durham 033	4				100%		0	0	0	0	4	0
E02004316 : County Durham 031	2				100%		0	0	0	0	2	0
E02004317 : County Durham 038	2				100%		0	0	0	0	2	0
E02004318 : County Durham 041	3				100%		0	0	0	0	3	0
E02004319 : County Durham 044	3				100%		0	0	0	0	3	0
E02004321 : County Durham 017	1				100%		0	0	0	0	1	0
E02004322 : County Durham 018	3				100%		0	0	0	0	3	0
E02004323 : County Durham 021	3				100%		0	0	0	0	3	0
E02004324 : County Durham 025	8				100%		0	0	0	0	8	0
E02004325 : County Durham 032	1				100%		0	0	0	0	1	0
E02004326 : County Durham 034	1				100%		0	0	0	0	1	0
E02004327 : County Durham 036	2				100%		0	0	0	0	2	0
E02004328 : County Durham 035	7				100%		0	0	0	0	7	0
E02004329 : County Durham 037	6				100%		0	0	0	0	6	0
E02004330 : County Durham 039	7				100%		0	0	0	0	7	0
E02004331 : County Durham 040	6				100%		0	0	0	0	6	0
E02004332 : County Durham 043	7				100%		0	0	0	0	7	0
E02004333 : County Durham 047	4				100%		0	0	0	0	4	0
E02004334 : County Durham 048	16				100%		0	0	0	0	16	0
E02004335 : County Durham 049	2				100%		0	0	0	0	2	0
E02004336 : County Durham 050	5				100%		0	0	0	0	5	0
E02004337 : County Durham 052	5				100%		0	0	0	0	5	0
E02004338 : County Durham 053	6				100%		0	0	0	0	6	0
E02004339 : County Durham 054	11				100%		0	0	0	0	11	0
E02004340 : County Durham 059	8				100%		0	0	0	0	8	0
E02004341 : County Durham 060	7				100%		0	0	0	0	7	0
E02004343 : County Durham 062	6				100%		0	0	0	0	6	0
E02004344 : County Durham 063	4				100%		0	0	0	0	4	0
E02004345 : County Durham 064	10				100%		0	0	0	0	10	0
E02004346 : County Durham 065	4				100%		0	0	0	0	4	0
E02004347 : County Durham 066	1				100%		0	0	0	0	1	0
E02004348 : County Durham 042	2				100%		0	0	0	0	2	0
E02004350 : County Durham 046	2				100%		0	0	0	0	2	0
E02004351 : County Durham 051	4				100%		0	0	0	0	4	0
E02004352 : County Durham 055	4				100%		0	0	0	0	4	0
E02004353 : County Durham 056	1				100%		0	0	0	0	1	0
E02004354 : County Durham 057	3				100%		0	0	0	0	3	0
E02004519 : Colchester 014	1			100%			0	0	0	1	0	0
E02004737 : Fareham 011	1			100%			0	0	0	1	0	0
E02004738 : Fareham 012	1			100%			0	0	0	1	0	0
E02004826 : Test Valley 013	1			100%			0	0	0	1	0	0
E02005356 : Charnwood 012	1			100%			0	0	0	1	0	0
E02005379 : Hinckley and Bosworth 003	1			100%			0	0	0	1	0	0
E02005428 : East Lindsey 005	1			100%			0	0	0	1	0	0
E02005492 : West Lindsey 001	1			100%			0	0	0	1	0	0
E02005685 : South Northamptonshire 005	1			100%			0	0	0	1	0	0
E02005704 : Northumberland 006	2				100%		0	0	0	0	2	0
E02005705 : Northumberland 007	3				100%		0	0	0	0	3	0
E02005718 : Northumberland 031	1				100%		0	0	0	0	1	0
E02005719 : Northumberland 032	2				100%		0	0	0	0	2	0
E02005720 : Northumberland 008	2				100%		0	0	0	0	2	0
E02005722 : Northumberland 015	1				100%		0	0	0	0	1	0
E02005723 : Northumberland 016	1				100%		0	0	0	0	1	0
E02005730 : Northumberland 035	2				100%		0	0	0	0	2	0
E02005732 : Northumberland 039	1				100%		0	0	0	0	1	0
E02005735 : Northumberland 010	1				100%		0	0	0	0	1	0
E02005743 : Craven 002	1			100%			0	0	0	1	0	0
E02005747 : Craven 006	1			100%			0	0	0	1	0	0
E02005750 : Hambleton 001	95			100%			0	0	0	95	0	0
E02005751 : Hambleton 002	78			100%			0	0	0	78	0	0
E02005752 : Hambleton 003	27			100%			0	0	0	27	0	0
E02005753 : Hambleton 004	8			100%			0	0	0	8	0	0
E02005754 : Hambleton 005	19			100%			0	0	0	19	0	0
E02005755 : Hambleton 006	4			100%			0	0	0	4	0	0
E02005756 : Hambleton 007	4			100%			0	0	0	4	0	0
E02005757 : Hambleton 008	20			100%			0	0	0	20	0	0
E02005758 : Hambleton 009	4			100%			0	0	0	4	0	0
E02005759 : Hambleton 010	2			100%			0	0	0	2	0	0
E02005760 : Hambleton 011	3			100%			0	0	0	3	0	0
E02005762 : Harrogate 002	1				100%		0	0	0	0	1	0
E02005763 : Harrogate 003	1				100%		0	0	0	0	1	0
E02005764 : Harrogate 004	3				100%		0	0	0	0	3	0
E02005765 : Harrogate 005	3				100%		0	0	0	0	3	0
E02005766 : Harrogate 006	1				100%		0	0	0	0	1	0
E02005767 : Harrogate 007	1				100%		0	0	0	0	1	0
E02005768 : Harrogate 008	1				100%		0	0	0	0	1	0
E02005770 : Harrogate 010	1				100%		0	0	0	0	1	0
E02005773 : Harrogate 013	1				100%		0	0	0	0	1	0
E02005777 : Harrogate 017	1				100%		0	0	0	0	1	0
E02005779 : Harrogate 019	1				100%		0	0	0	0	1	0
E02005782 : Richmondshire 001	7				100%		0	0	0	0	7	0
E02005783 : Richmondshire 002	3				100%		0	0	0	0	3	0
E02005784 : Richmondshire 003	3				100%		0	0	0	0	3	0
E02005785 : Richmondshire 004	5				100%		0	0	0	0	5	0
E02005786 : Richmondshire 005	1				100%		0	0	0	0	1	0
E02005787 : Richmondshire 006	4				100%		0	0	0	0	4	0
E02005789 : Ryedale 002	3		50%	50%			0	2	0	2	0	0
E02005790 : Ryedale 003	2		50%	50%			0	1	0	1	0	0
E02005794 : Ryedale 007	2		50%	50%			0	1	0	1	0	0

E02005795 : Scarborough 001	11		100%					0	11	0	0	0	0
E02005796 : Scarborough 002	31		100%					0	31	0	0	0	0
E02005797 : Scarborough 003	11		100%					0	11	0	0	0	0
E02005798 : Scarborough 004	8		100%					0	8	0	0	0	0
E02005799 : Scarborough 005	2		100%					0	2	0	0	0	0
E02005800 : Scarborough 006	2		100%					0	2	0	0	0	0
E02005802 : Scarborough 008	1		100%					0	1	0	0	0	0
E02005807 : Scarborough 013	1		100%					0	1	0	0	0	0
E02005808 : Scarborough 014	1		100%					0	1	0	0	0	0
E02005816 : Selby 008	1			100%				0	0	0	1	0	0
E02005830 : Ashfield 012	1			100%				0	0	0	1	0	0
E02005840 : Bassetlaw 006	1			100%				0	0	0	1	0	0
E02005899 : Newark and Sherwood 007	1			100%				0	0	0	1	0	0
E02006141 : East Staffordshire 011	1			100%				0	0	0	1	0	0
E02006226 : Tamworth 010	1			100%				0	0	0	1	0	0
E02006247 : Ipswich 003	1			100%				0	0	0	1	0	0
E02006421 : Surrey Heath 006	1			100%				0	0	0	1	0	0
E02006685 : Wiltshire 032	1			100%				0	0	0	1	0	0
E02006811 : Middlesbrough 020	171			100%				0	0	0	171	0	0
E02006812 : Redcar and Cleveland 021	147			100%				0	0	0	147	0	0
E02006842 : Gateshead 028	2				100%			0	0	0	0	2	0
E02006861 : Leeds 110	1			100%				0	0	0	1	0	0
E02006866 : North Kesteven 013	1			100%				0	0	0	1	0	0
E02006870 : Ryedale 008	1		100%					0	1	0	0	0	0
E02006909 : Hartlepool 014	44				100%			0	0	0	0	44	0
E02006910 : Redcar and Cleveland 022	301				50%	50%		0	0	0	0	151	151
W02000068 : Flintshire 011	1		100%					0	0	0	1	0	0
W02000157 : Carmarthenshire 016	1		100%					0	0	0	1	0	0
W02000195 : Swansea 028	1		100%					0	0	0	1	0	0
W02000286 : Merthyr Tydfil 004	1		100%					0	0	0	1	0	0
W02000288 : Merthyr Tydfil 006	1		100%					0	0	0	1	0	0
W02000421 : Ceredigion 011	1		100%					0	0	0	1	0	0
<b>8,663</b>								<b>467</b>	<b>2743</b>	<b>145</b>	<b>2264</b>	<b>1752</b>	<b>1295</b>
								<b>5.4%</b>	<b>31.7%</b>	<b>1.7%</b>	<b>26.1%</b>	<b>20.2%</b>	<b>14.9%</b>

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## Annex K

### Staff Traffic Flows

Office Staff Traffic Flows																								
Link 1																								
A1085 Trunk Road South of Access Roundabout																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
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18.00																								
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23.00																								
12 hr	3	0	3	0	6	0	3	0	3	0	6	0	3	0	3	0	6	0	3	0	3	0	6	0
18 hr	3	0	3	0	6	0	3	0	3	0	6	0	3	0	3	0	6	0	3	0	3	0	6	0
24 hr	3	0	3	0	6	0	3	0	3	0	6	0	3	0	3	0	6	0	3	0	3	0	6	0

**Staff Trip Generation**

- 5 Total staff on site per day
- 10 two-way staff movements

**Percentage of Staff Traffic**

- 63.0% Link 1
- 20.2% Link 2
- 27.8% Link 3
- 20.2% Link 4
- 14.9% Link 5
- 14.9% Link 6
- 26.1% Link 7
- 31.7% Link 8
- 5.4% Link 9

All 3 operations will work 24/7 with a 5 shift pattern requiring 80-100 full time employees.

Office Staff Traffic Flows																								
Link 2																								
A1053 between A66 and A1085 Trunk Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
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08.00	1				1			1			1			1			1			1			1	1
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23.00																								
12 hr	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0
18 hr	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0
24 hr	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0

**Admin Staff**

- 08:00 arrivals
- 17:00 departures
- 5 staff working office hours

Office Staff Traffic Flows																								
Link 3																								
A1053 between A174 and A1085 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's		
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18.00																								
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23.00																								
12 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0
18 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0
24 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0

Office Staff Traffic Flows																								
Link 4																								
A66 between A1053 and A171 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's		
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18.00																								
19.00																								
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23.00																								
12 hr	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0
18 hr	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0
24 hr	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0	1	0	1	0	2	0



Office Staff Traffic Flows																								
Link 7																								
A174 between the A1053 and A171																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's		
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23.00																								
12 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0
18 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0
24 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0

Office Staff Traffic Flows																								
Link 8																								
A1042 between the A1085 trunk Road and Waveney Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's		
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23.00																								
12 hr	2	0	2	0	3	0	2	0	2	0	3	0	2	0	2	0	3	0	2	0	2	0	3	0
18 hr	2	0	2	0	3	0	2	0	2	0	3	0	2	0	2	0	3	0	2	0	2	0	3	0
24 hr	2	0	2	0	3	0	2	0	2	0	3	0	2	0	2	0	3	0	2	0	2	0	3	0

Office Staff Traffic Flows																								
A1085 Trunk Road between A1042 and Thrush Road junctions																								
Link 9																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
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12 hr	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	
18 hr	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	
24 hr	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	



Operational Staff Traffic Flows																								
Link 1																								
A1085 Trunk Road South of Access Roundabout																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
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12 hr	15	0	15	0	30	0	15	0	15	0	30	0	15	0	15	0	30	0	15	0	15	0	30	0
18 hr	30	0	30	0	60	0	30	0	30	0	60	0	30	0	30	0	60	0	30	0	30	0	60	0
24 hr	30	0	30	0	60	0	30	0	30	0	60	0	30	0	30	0	60	0	30	0	30	0	60	0

**Staff Trip Generation**

48 Total staff on site per day  
 95 two-way staff movements  
 4 shifts  
 24 people per shift

**Percentage of Staff Traffic**

63.0% Link 1  
 20.2% Link 2  
 27.8% Link 3  
 20.2% Link 4  
 14.9% Link 5  
 14.9% Link 6  
 26.1% Link 7  
 31.7% Link 8  
 5.4% Link 9

3 operations  
 4 shift pattern  
 100 full time staff (worst case)

All 3 operations will work 24/7 with a 5 shift pattern requiring 80-100 full time employees.

Operational Staff Traffic Flows																								
Link 2																								
A1053 between A66 and A1085 Trunk Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00	5				5			5				5				5			5				5	
07.00			5				5			5			5				5			5			5	
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00	5				5			5				5				5			5				5	
19.00			5				5			5			5				5			5			5	
20.00																								
21.00																								
22.00																								
23.00																								
12 hr	5	0	5	0	10	0	5	0	5	0	10	0	5	0	5	0	10	0	5	0	5	0	10	0
18 hr	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0	19	0
24 hr	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0	19	0

**Admin Staff**

08:00 arrivals  
 17:00 departures  
 5 staff working office hours

Operational Staff Traffic Flows																								
Link 3																								
A1053 between A174 and A1085 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's		
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00	7				7		7				7		7				7					7		
07.00			7				7				7				7					7			7	
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00	7				7		7				7		7				7					7		
19.00			7				7				7				7					7			7	
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	7	0	7	0	13	0	7	0	7	0	13	0	7	0	13	0	7	0	13	0	13	0
18 hr	13	0	13	0	26	0	13	0	13	0	26	0	13	0	13	0	26	0	13	0	13	0
24 hr	13	0	13	0	26	0	13	0	13	0	26	0	13	0	13	0	26	0	13	0	13	0

Operational Staff Traffic Flows																								
Link 4																								
A66 between A1053 and A171 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's		
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00	5				5		5				5		5				5					5		
06.00			5				5				5				5				5				5	
07.00									5				5				5				5		5	
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00	5				5		5				5		5				5					5		
18.00			5				5				5				5				5				5	
19.00									5				5				5				5		5	
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	5	0	5	0	10	0	5	0	5	0	10	0	5	0	5	0	10	0	5	0	5	0
18 hr	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0
24 hr	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0	19	0	10	0	10	0

Operational Staff Traffic Flows																								
Link 5																								
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00	4				4		4				4		4			4		4			4		4	
07.00			4			4			4			4			4			4			4		4	
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00	4				4		4			4		4			4		4			4		4		4
19.00			4			4			4			4			4			4			4		4	
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	4	0	4	0	7	0	4	0	4	0	7	0	4	0	4	0	7	0	4	0	4	0	7	0
18 hr	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0
24 hr	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0

Operational Staff Traffic Flows																								
Link 6																								
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00	4				4		4			4		4			4		4			4		4		4
07.00			4			4			4			4			4			4			4		4	
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00	4				4		4			4		4			4		4			4		4		4
19.00			4			4			4			4			4			4			4		4	
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	4	0	4	0	7	0	4	0	4	0	7	0	4	0	4	0	7	0	4	0	4	0	7	0
18 hr	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0
24 hr	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0	7	0	7	0	14	0

Operational Staff Traffic Flows																								
Link 7																								
A174 between the A1053 and A171																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00	6				6		6				6		6			6		6				6		6
07.00			6			6			6			6			6			6			6			6
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00	6				6		6			6		6			6		6				6		6	
19.00			6			6			6			6			6			6			6			6
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	6	0	6	0	12	0	6	0	6	0	12	0	6	0	6	0	12	0	6	0	6	0	12	0
18 hr	12	0	12	0	25	0	12	0	12	0	25	0	12	0	12	0	25	0	12	0	12	0	25	0
24 hr	12	0	12	0	25	0	12	0	12	0	25	0	12	0	12	0	25	0	12	0	12	0	25	0

Operational Staff Traffic Flows																								
Link 8																								
A1042 between the A1085 trunk Road and Waveney Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00	8				8		8			8		8			8		8			8			8	
07.00			8			8			8			8			8			8			8			8
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00	8				8		8			8		8			8		8			8			8	
19.00			8			8			8			8			8			8			8			8
20.00																								
21.00																								
22.00																								
23.00																								

12 hr	8	0	8	0	15	0	8	0	8	0	15	0	8	0	8	0	15	0	8	0	8	0	15	0
18 hr	15	0	15	0	30	0	15	0	15	0	30	0	15	0	15	0	30	0	15	0	15	0	30	0
24 hr	15	0	15	0	30	0	15	0	15	0	30	0	15	0	15	0	30	0	15	0	15	0	30	0

Operational Staff Traffic Flows

Link 9

A1085 Trunk Road between A1042 and Thrush Road junctions

Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00																								
01.00																								
02.00																								
03.00																								
04.00																								
05.00																								
06.00			1		1				1		1			1		1			1		1		1	
07.00	1						1				1			1		1			1				1	
08.00																								
09.00																								
10.00																								
11.00																								
12.00																								
13.00																								
14.00																								
15.00																								
16.00																								
17.00																								
18.00			1		1				1		1			1		1			1		1		1	
19.00	1						1				1			1		1			1				1	
20.00																								
21.00																								
22.00																								
23.00																								
12 hr	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0	1	0	1	0	3	0
18 hr	3	0	3	0	5	0	3	0	3	0	5	0	3	0	3	0	5	0	3	0	3	0	5	0
24 hr	3	0	3	0	5	0	3	0	3	0	5	0	3	0	3	0	5	0	3	0	3	0	5	0

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## Annex L

### REC Traffic Flows

REC Total Development Traffic Flows																								
Link 1																								
A1085 Trunk Road South of Access Roundabout																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06.00	15	0	0	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	0	15	
07.00	0	0	15	0	15	0	0	0	15	0	15	0	0	0	15	0	15	0	0	0	15	0	15	
08.00	15	12	12	12	27	24	15	12	12	12	27	24	15	12	12	12	27	24	15	12	12	12	27	
09.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
10.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
11.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
12.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
13.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
14.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
15.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
16.00	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	24	12	12	12	12	24	
17.00	12	12	15	12	27	24	12	12	15	12	27	24	12	12	15	12	27	24	12	12	15	12	27	
18.00	15	0	0	0	15	0	15	0	0	0	15	0	15	0	0	0	15	0	15	0	0	0	15	
19.00	0	0	15	0	15	0	0	0	15	0	15	0	0	0	15	0	15	0	0	0	15	0	15	
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12 hr	138	120	138	120	276	240	138	120	138	120	276	240	138	120	138	120	276	240	138	120	138	120	276	
18 hr	153	120	153	120	306	240	153	120	153	120	306	240	153	120	153	120	306	240	153	120	153	120	306	
24 hr	153	120	153	120	306	240	153	120	153	120	306	240	153	120	153	120	306	240	153	120	153	120	306	

REC Total Development Traffic Flows																								
Link 2																								
A1053 between A66 and A1085 Trunk Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06.00	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	
07.00	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	
08.00	10	9	9	9	19	18	10	9	9	9	19	18	10	9	9	9	19	18	10	9	9	9	19	
09.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
10.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
11.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
12.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
13.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
14.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
15.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
16.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	
17.00	9	9	10	9	19	18	9	9	10	9	19	18	9	9	10	9	19	18	9	9	10	9	19	
18.00	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	
19.00	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12 hr	96	90	96	90	192	180	96	90	96	90	192	180	96	90	96	90	192	180	96	90	96	90	192	
18 hr	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	
24 hr	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	

REC Total Development Traffic Flows																								
Link 3																								
A1053 between A66 and A1085 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06.00	7	0	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0
07.00	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0
08.00	4	3	3	3	7	5	4	3	3	3	7	5	4	3	3	3	7	5	4	3	3	3	7	5
09.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
10.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
11.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
12.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
13.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
14.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
15.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
16.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
17.00	3	3	4	3	7	5	3	3	4	3	7	5	3	3	4	3	7	5	3	3	4	3	7	5
18.00	7	0	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0
19.00	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12 hr	34	26	34	26	68	52	34	26	34	26	68	52	34	26	34	26	68	52	34	26	34	26	68	52
18 hr	40	26	40	26	81	52	40	26	40	26	81	52	40	26	40	26	81	52	40	26	40	26	81	52
24 hr	40	26	40	26	81	52	40	26	40	26	81	52	40	26	40	26	81	52	40	26	40	26	81	52

REC Total Development Traffic Flows																								
Link 4																								
A66 between A1053 and A171 Junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	5	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0	5	0
06.00	0	0	5	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0
07.00	0	0	0	0	0	0	0	0	5	0	5	0	0	0	5	0	0	0	5	0	5	0	5	0
08.00	10	9	9	9	19	18	10	9	9	9	19	18	10	9	9	9	19	18	10	9	9	9	19	18
09.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
10.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
11.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
12.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
13.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
14.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
15.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
16.00	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18	9	9	9	9	18	18
17.00	14	9	10	9	24	18	9	9	10	9	19	18	9	9	10	9	19	18	9	9	10	9	19	18
18.00	0	0	5	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0	5	0	0	0	5	0
19.00	0	0	0	0	0	0	0	0	5	0	5	0	0	0	5	0	0	0	5	0	5	0	5	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12 hr	101	90	101	90	201	180	96	90	96	90	192	180	96	90	96	90	192	180	96	90	96	90	192	180
18 hr	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	180
24 hr	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	180	101	90	101	90	201	180



REC Total Development Traffic Flows																								
Link 5																								
A1085 Trunk Road, between junction with A1053 and junction with Normanby Road																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06.00	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0
07.00	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0
08.00	1	0	0	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1
09.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
10.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
11.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
12.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
13.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
14.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
15.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
16.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
17.00	0	0	1	0	1	1	0	0	1	0	1	1	0	0	1	0	1	1	0	0	1	0	1	1
18.00	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0
19.00	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12 hr	8	3	8	3	15	6	8	3	8	3	15	6	8	3	8	3	15	6	8	3	8	3	15	6
18 hr	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6
24 hr	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6

REC Total Development Traffic Flows																								
Link 6																								
A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06.00	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0
07.00	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0
08.00	1	0	0	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1	1	0	0	0	1	1
09.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
10.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
11.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
12.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
13.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
14.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
15.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
16.00	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	1
17.00	0	0	1	0	1	1	0	0	1	0	1	1	0	0	1	0	1	1	0	0	1	0	1	1
18.00	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0
19.00	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0	0	0	4	0	4	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12 hr	8	3	8	3	15	6	8	3	8	3	15	6	8	3	8	3	15	6	8	3	8	3	15	6
18 hr	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6
24 hr	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6	11	3	11	3	22	6

REC Total Development Traffic Flows																								
Link 7																								
A174 between the A1053 and A171																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06.00	6	0	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0
07.00	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0	6	0
08.00	4	3	3	3	6	5	4	3	3	3	6	5	4	3	3	3	6	5	4	3	3	3	6	5
09.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
10.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
11.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
12.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
13.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
14.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
15.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
16.00	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5	3	3	3	3	5	5
17.00	3	3	4	3	6	5	3	3	4	3	6	5	3	3	4	3	6	5	3	3	4	3	6	5
18.00	6	0	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0
19.00	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0	6	0	0	0	6	0	6	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12 hr	33	25	33	25	66	51	33	25	33	25	66	51	33	25	33	25	66	51	33	25	33	25	66	51
18 hr	39	25	39	25	78	51	39	25	39	25	78	51	39	25	39	25	78	51	39	25	39	25	78	51
24 hr	39	25	39	25	78	51	39	25	39	25	78	51	39	25	39	25	78	51	39	25	39	25	78	51

REC Total Development Traffic Flows																								
Link 8																								
A1042 between the A1085 trunk Road and Waveney Road junction																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way		Northbound		Southbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06.00	8	0	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0
07.00	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0	8	0
08.00	2	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	2	0
09.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.00	0	0	2	0	2	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0	2	0	2	0
18.00	8	0	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0
19.00	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0	8	0	0	0	8	0	8	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

12 hr	11	2	11	2	22	4	11	2	11	2	22	4	11	2	11	2	22	4	11	2	11	2	22	4
18 hr	19	2	19	2	37	4	19	2	19	2	37	4	19	2	19	2	37	4	19	2	19	2	37	4
24 hr	19	2	19	2	37	4	19	2	19	2	37	4	19	2	19	2	37	4	19	2	19	2	37	4

REC Total Development Traffic Flows																								
Link 9																								
A1085 Trunk Road between A1042 and Thrush Road junctions																								
Time Begin	Weekday Average						Yearly Average						Saturday Average						Sunday Average					
	Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way		Eastbound		Westbound		Two Way	
	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's	Total	HGV's
00.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06.00	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0
07.00	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0
08.00	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0
09.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17.00	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0
18.00	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0
19.00	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	0
20.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 hr	4	2	4	2	8	5	4	2	4	2	8	5	4	2	4	2	8	5	4	2	4	2	8	5
18 hr	5	2	5	2	10	5	5	2	5	2	10	5	5	2	5	2	10	5	5	2	5	2	10	5
24 hr	5	2	5	2	10	5	5	2	5	2	10	5	5	2	5	2	10	5	5	2	5	2	10	5

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## Annex M

### Baseline Plus REC Traffic Flows













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## Annex N

# REC Traffic Impact Assessment

	2024 Baseline	Development	% Impact	Cumulative	% Impact	Cumulative + Development	% Impact
<b>A1085 Trunk Road South of Access Roundabout</b>							
AM peak hour	1500	27	1.81%	0	0.0%	27	1.81%
PM peak hour	1535	27	1.77%	0	0.0%	27	1.77%
12 hr (7am-7pm)	15310	276	1.80%	0	0.0%	276	1.80%
24 hr	18622	306	1.64%	0	0.0%	306	1.64%
<b>A1053 between A66 and A1085 Trunk Road junction</b>							
AM peak hour	1948	19	0.98%	4	0.2%	23	1.21%
PM peak hour	1995	19	0.95%	0	0.0%	19	0.95%
12 hr (7am-7pm)	19892	192	0.96%	77	0.4%	269	1.35%
24 hr	24194	201	0.83%	82	0.3%	284	1.17%
<b>A1053 between A174 and A1085 Junctions</b>							
AM peak hour	1191	7	0.55%	4	0.4%	11	0.93%
PM peak hour	1219	7	0.54%	0	0.0%	7	0.54%
12 hr (7am-7pm)	12156	68	0.56%	22	0.2%	90	0.74%
24 hr	14785	81	0.55%	23	0.2%	104	0.70%
<b>A66 between A1053 and A171 Junctions</b>							
AM peak hour	1944	19	0.98%	18	0.9%	37	1.90%
PM peak hour	1991	19	0.96%	0	0.0%	19	0.96%
12 hr (7am-7pm)	19849	192	0.97%	309	1.6%	501	2.52%
24 hr	24143	201	0.83%	331	1.4%	532	2.20%
<b>A1085 Trunk Road, between junction with A1053 and junction with Normanby Road</b>							
AM peak hour	879	1	0.16%	0	0.0%	1	0.16%
PM peak hour	900	1	0.16%	0	0.0%	1	0.16%
12 hr (7am-7pm)	8970	15	0.17%	0	0.0%	15	0.17%
24 hr	10910	22	0.20%	0	0.0%	22	0.20%
<b>A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane</b>							
AM peak hour	1057	1	0.13%	0	0.0%	1	0.13%
PM peak hour	1083	1	0.13%	0	0.0%	1	0.13%
12 hr (7am-7pm)	10797	15	0.14%	0	0.0%	15	0.14%
24 hr	13132	22	0.17%	0	0.0%	22	0.17%
<b>A174 between the A1053 and A171</b>							
AM peak hour	2617	6	0.24%	0	0.0%	6	0.24%
PM peak hour	2680	6	0.24%	0	0.0%	6	0.24%
12 hr (7am-7pm)	26723	66	0.25%	0	0.0%	66	0.25%
24 hr	32502	78	0.24%	0	0.0%	78	0.24%
<b>A1042 between the A1085 trunk Road and Waveney Road junction</b>							
AM peak hour	813	2	0.25%	0	0.0%	2	0.25%
PM peak hour	833	2	0.24%	0	0.0%	2	0.24%
12 hr (7am-7pm)	8301	22	0.27%	0	0.0%	22	0.27%
24 hr	10097	37	0.37%	0	0.0%	37	0.37%
<b>A1085 Trunk Road between A1042 and Thrush Road junctions</b>							
AM peak hour	859	1	0.09%	0	0.0%	1	0.09%
PM peak hour	879	1	0.08%	0	0.0%	1	0.08%
12 hr (7am-7pm)	8766	8	0.09%	0	0.0%	8	0.09%
24 hr	10662	10	0.10%	0	0.0%	10	0.10%

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## Annex O

### 2024 Baseline Plus Cumulative Plus REC Traffic Flows













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## Annex P

# Cumulative Impact Assessment

Link Number	Description	2018 Observed		2024 Growthed		2024 Baseline		2024 Baseline + Cumulative		2024 Baseline + Development				2024 Baseline + Cumulative				2024 Baseline + Development + Cumulative			
		AADT	HGVs	AADT	HGVs	AADT	HGVs	AADT	HGVs	AADT	%	HGVs	%	AADT	%	HGVs	%	AADT	%	HGVs	%
1	A1085 Trunk Road South of Access Roundabout	17262	760	18170	800	18622	843	18622	843	18928	1.62%	1083	22.14%	18622	0.00%	843	0.00%	18928	1.62%	1083	22.14%
2	A1053 between A66 and A1085 Trunk Road junction	22379	1611	23556	1696	24194	1798	24276	1844	24395	0.83%	1978	9.11%	24276	0.34%	1844	2.50%	24477	1.16%	2024	11.17%
3	A1053 between A66 and A174 Junctions	13686	1179	14406	1241	14785	1338	14867	1384	14866	0.54%	1390	3.71%	14867	0.55%	1384	3.33%	14948	1.09%	1436	6.80%
4	A66 between A1053 and A171 Junctions	22354	2862	23530	3013	24143	3090	24473	3338	24344	0.83%	3270	5.51%	24473	1.35%	3338	7.45%	24674	2.16%	3518	12.18%
5	A1085 Trunk Road, between junction with A1053 and junction with Normanby Road	10328	94	10871	99	10910	102	10910	102	10933	0.20%	108	5.98%	10910	0.00%	102	0.00%	10933	0.20%	108	5.98%
6	A1085 Trunk Road / Longlands Road, between junction with Normanby Road and junction with A171 Cargo Fleet Lane	12454	144	13109	152	13132	155	13132	155	13154	0.17%	161	4.02%	13132	0.00%	155	0.00%	13154	0.17%	161	4.02%
7	A174 between the A1053 and A171	30428	1718	32028	1808	32502	1837	32502	1837	32581	0.24%	1888	2.68%	32502	0.00%	1837	0.00%	32581	0.24%	1888	2.68%
8	A1042 between the A1085 Trunk Road and Waveney Road junction	9347	165	9839	174	10097	177	10097	177	10134	0.37%	181	2.29%	10097	0.00%	177	0.00%	10134	0.37%	181	2.29%
9	A1085 Trunk Road between A1042 and Thrush Road junctions	9884	111	10404	117	10662	120	10662	120	10672	0.10%	124	3.78%	10662	0.00%	120	0.00%	10672	0.10%	124	3.78%