PROPOSED PLANT BASED PROTEIN EXTRACTION FACILITY

LAND SOUTH OF RANGELL GATE, SPALDING

TRANSPORT STATEMENT

September 2021
jgv/21018/TS/v1

Northern Transport Planning Ltd

Tel: 01924 367460
Email: mail@ntpconsultants.co.uk Internet: www.ntpconsultants.co.uk

LAND SOUTH OF RANGELL GATE, SPALDING

Document Status – Final

Produced by:	- - - - -	John Vernon	Date:	10 September 2021
Checked by:	- - - - -	Andy Kirby	Date:	10 September 2021
Approved by:	- - - - -	John Vernon	Date:	10 September 2021

COPYRIGHT
The contents of this document must not be copied or reproduced in whole or in part without the written consent of **Northern Transport Planning Ltd**

CONTENTS

1 INTRODUCTION 1
1.1 Introduction 1
1.2 Development Site and Location 1
1.3 Development Proposals 2
1.4 Scope of the Report 2
2 ACCESS BY SUSTAINABLE MODES OF TRANSPORT 3
2.1 Introduction 3
2.2 Person Trips Associated with the Proposed Development 3
2.3 Accessibility on Foot and by Cycle 4
2.4 Accessibility by Public Transport 6
2.5 Travel Plan 7
2.6 Conclusion 7
3 TRAFFIC ISSUES 8
3.1 Introduction 8
3.2 Site Access Arrangements and Servicing 8
3.3 Motorcycle, Car and HGV Parking 8
3.4 The Local Highway Network 9
3.5 Highway Safety 10
3.6 Existing Traffic Flows 10
3.7 Highway Capacity 11
3.8 Committed Highways Schemes and Traffic Management Schemes 12
3.9 Committed Development 12
3.10 Traffic Associated with the Existing Development 12
3.11 Traffic Generation 13
3.12 Traffic Distribution 14
3.13 Traffic Impact 15
3.14 Conclusion 15
4 SUMMARY AND CONCLUSIONS 16
4.1 Introduction 16
4.2 Accessibility 16
4.3 Traffic Issues 17
4.4 National Planning Policy Framework 18
4.5 Overall Conclusion 19

TABLES

Table 2.01: Weekday Person Trips Generated by Proposed Development 3
Table 2.02: NOMIS Weekday Modal Split 4
Table 3.01: Peak Observed Traffic Flows on Low Road/Rangell Gate 11
Table 3.02: Weekday Vehicle Trips Generated by the Proposed Development 13

PLANS

Plan 01 – Site Location
Plan 02 – Site Location
Plan 03 – Site Location
Plan 04 – 2.0km Walking Distance
Plan 05 – 5.0km Cycling Distance

APPENDICES

Appendix A	**–**	**Site Layout Plans**
Appendix B	**–**	**TRICS Data**
Appendix C	**–**	**Modal Split**
Appendix D	**–**	**Drawings**
Appendix E	**–**	**PIA Data**
Appendix F	**–**	**Traffic Survey Data**

1 INTRODUCTION

1.1 Introduction

1.1.1 Northern Transport Planning has been appointed to provide advice on the transport implications of proposed development on land south of Rangell Gate in Spalding, Lincolnshire. This report provides a Transport Statement to support a planning application for the proposed development.

1.2 Development Site and Location

1.2.1 The development site is located in Spalding, approximately 2.0km east of the Town Centre. The geographical location of the site is identified on **Plan 01**, **Plan 02** and **Plan 03**.

1.2.2 The site, which is shown on the first plan within **Appendix A**, is roughly rectangular and is bounded to the north by Low Road/Rangell Gate and a farm access road, to the east by Rangell Gate, to the south by an agricultural field and to the west by the A16. A farmhouse (Cottage Farm) and associated buildings are located immediately northwest of the site.

1.2.3 The proposed development site is predominantly fields which are currently used for agriculture. There are two agricultural buildings on the site which will be removed as part of the proposed development.

1.2.4 Access to the site is available for pedestrians, cyclists and vehicles via the existing simple priority junction with Low Road/Rangell Gate.

1.3 Development Proposals

1.3.1 The layout of the proposed development is shown on the second plan within **Appendix A** and is described as follows:

Demolition of existing buildings and construction of a new plant based protein extraction facility and ancillary office space together with landscaping, SuDs features, car park and associated infrastructure.

1.3.2 The plant based protein extraction facility will produce plant based functional ingredients which can be used in multiple business sectors and products.

1.3.3 The proposed development will have a total Gross Floor Area (GFA) of 2,766sq.m. (2,222sq.m. of facility space with 544sq.m. of ancillary office space).

1.3.4 Access will be provided for pedestrians, cyclists, cars and commercial vehicles as existing, i.e. via the simple priority junction with Low Road/Rangell Gate, but the junction will be modified to facilitate easier manoeuvres by Heavy Goods Vehicles (HGVs), and with new road markings provided at the connection of the site access road and the Cottage Farm access road to indicate priority.

1.4 Scope of the Report

1.4.1 This report considers the transport planning and traffic related issues relevant to the proposals for development on the Rangell Gate site. Subsequent sections of the report deal with the following matters:

- **Section Two** considers the site's accessibility by sustainable modes of transport.
- **Section Three** deals with traffic issues.
- **Section Four** provides a summary and conclusion to the report.

2 ACCESS BY SUSTAINABLE MODES OF TRANSPORT

2.1 Introduction

2.1.1 This section of the report considers the proposed development site's accessibility by sustainable modes of transport. First, an assessment of the person trip generating potential of the proposed development site is made.

2.2 Person Trips Associated with the Proposed Development

2.2.1 The proposed development comprises the provision of 2,766sq.m. of floorspace. The level of weekday person trips associated with this level of development has been calculated using average multi-modal trip rates contained in the TRICS (Version 7.8.2) trip rate database Industrial Unit category.

2.2.2 All TRICS data is provided within **Appendix C** and the trip generation calculations are summarised in the following table:

	Trip Rate per 100sq.m. GFA	Daily Two-Way Trips
Industrial Unit (2,766sq.m.)	11.000	304

Table 2.01: Weekday Person Trips Generated by Proposed Development

2.2.3 The TRICS data indicates the proposed development would generate around 304 two-way (i.e. arrivals plus departures) person trips per day (by all modes of transport).

2.2.4 We have been advised that the facility will employ 43 full time equivalent members of staff, operating 24 hours a day on a three-shift system. Even allowing for trips associated with servicing and other visitors to the site, the figure of 304 two-way person trips calculated using TRICS appears to be 'on the high side'.

2.2.5 Notwithstanding the above, by using the journey to work 2011 census data from NOMIS for people who work in the area surrounding the proposed development site (the workplace zone is E02005471: South Holland 007 – data provided within **Appendix C**) the following weekday trips by mode type for the development are calculated:

Mode Type	Modal Split	Daily Two-Way Trips
Walking	9.9%	30
Cycling	6.1%	19
Public Transport	2.3%	7
Vehicle Occupant	81.7%	248
Total	**100.0%**	**304**

Table 2.02: NOMIS Weekday Modal Split

2.3 Accessibility on Foot and by Cycle

2.3.1 It is generally accepted that walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2.0km.

2.3.2 Within the site a network of designated footways, footpaths and areas of shared surface will be available linking the buildings to the car parks and to the external pedestrian network, as shown on the site layout plan.

2.3.3 A total of 14 covered and secure cycle parking spaces will be provided close to the entrances to the facility and office building as part of the proposed development. This is in accordance with South East Lincolnshire cycle parking standards for General Industrial (B2) which are 1 space per 200sq.m. GFA, indicating a requirement of 14 spaces, i.e. the provision of 7 Sheffield Stands.

2.3.4 Shower and changing facilities will be available within the new buildings.

2.3.5 Low Road/Rangell Gate does not benefit from street lighting, although this is provided at the nearby roundabout junction with A16.

2.3.6 In the vicinity of the proposed development site access there is a continuous 2.0m width footway on the north side of Low Road/Rangell Gate which provides a connection on foot to the areas east of the site via Fulney Lane South, although the footway provision stops a short distance along Fulney Lane South.

2.3.7 On the south side of Low Road/Rangell Gate there is a 2.0m footway to the west of the site access, which is signed as a combined footway/cycleway, and which provides a link on foot and by cycle into the centre of Spalding.

2.3.8 A range of signed cycle routes are available within Spalding. Other cycle routes are proposed as part of the South East Lincolnshire Local Plan, including a route on the eastern bank of the Coronation Channel, which will be accessible direct from Low Road.

2.3.9 No specific facilities are apparent in the vicinity of the site to assist pedestrians or cyclists to cross any of the major roads, although there are dropped kerbs on the footways and splitter islands to assist crossing at the nearby roundabout junction with A16.

2.3.10 On-site observations on Monday 23rd August 2021 revealed a number of pedestrians walking along Low Road/Rangell Gate. The traffic survey, described in **Section 3** of this report, revealed a more significant number of cyclists using the road.

2.3.11 A 2.0km walking radius, representing approximately a 25 minute walking distance (walking at 5kph/3mph), is identified on **Plan 04**. Having regard to the availability of pedestrian infrastructure and the alignment of links for walking and barriers to movement, a reasonable residential built-up area where future staff members might live lies within a 2.0km walk from the site.

2.3.12 It is generally accepted that cycling has the potential to substitute for short car trips, particularly those under 5.0km, and to form part of a longer journey by public transport.

2.3.13 A 5.0km cycling radius, representing approximately a 15 minute cycle distance (cycling at 20kph/12mph), is identified on **Plan 05**. Having regard to the alignment of the links for cyclists and barriers to movement, a substantial built-up area where future staff members might live lies within a 5.0km cycle ride from the site, including the whole of Spalding.

2.4 Accessibility by Public Transport

2.4.1 It is recognised that for public transport to be an attractive alternative mode of transport to the private car it needs to be easily accessible on foot. Ideally, bus users should not have to walk more than 400m to their nearest bus stop and train users should not have to walk more than 800m to their nearest train station. This criterion is sometimes difficult to satisfy comprehensively, particularly outside of the larger conurbations, and therefore it is normally accepted that direct, frequent and easily understood services are more important than a few extra metres of walking distance.

2.4.2 The nearest bus stops to the site are located on Halmer Gate, approximately an 800m walk west of the site. From here the bus services IT1 and IT2 are available. The IT1 operates between 07:45 and 15:25 hours, but only on school days – it provides an hourly circular service throughout Spalding and stops at Spalding Bus Station. The IT2 operates between 09:30 and 15:25 hours on Monday to Saturday – it provides an hourly circular service throughout Spalding and stops at Spalding Bus Station.

2.4.3 As well as providing a public transport link throughout Spalding, the bus services available from Halmer Gate provide a public transport link to the bus station where further opportunities for public transport are available.

2.4.4 Spalding Railway Station lies approximately a 2.4km (30 minute) walk from the site. Although perhaps too far for many to walk, it is readily accessible from the site by cycle or, with a short walk from the bus station, by bus. From Spalding Railway Station there is a Monday-Saturday hourly service to Peterborough (to the south) and Sleaford (to the north).

2.5 Travel Plan

2.5.1 Although it is not intended to formally operate a Travel Plan as part of the proposed development, the site operator will implement measures to assist staff to travel to and from the site without having to rely on the use of a single occupancy private car. Measures which will be considered include:

- Encourage cycling as a mode of transport;
- Encourage car sharing, with priority parking for car sharers being provided;
- Encourage the use of Electric Vehicles (EVs); and
- The use of a minibus to collect/drop-off staff at locations within nearby conurbations such as Spalding, Holbeach, Moulton and Weston – the precise locations would be dependent on demand.

2.6 Conclusion

2.6.1 It is concluded that the proposed development site is accessible by sustainable modes of transport.

3 TRAFFIC ISSUES

3.1 Introduction

3.1.1 This section of the report deals specifically with traffic issues.

3.2 Site Access Arrangements and Servicing

3.2.1 Access will be provided for pedestrians, cyclists, cars and commercial vehicles as existing, i.e. via the simple priority junction with Low Road/Rangell Gate, but the western radius of the junction will be modified to facilitate easier manoeuvres by HGVs. New road markings will also be provided at the connection of the site access road and the Cottage Farm access road to indicate priority. The junction improvements are shown on **Drawing No. NTP21018-001**. All drawings are provided within **Appendix D**.

3.2.2 The access road initially has a carriageway width at the junction with Low Road/Rangell Gate of around 12.0m, which will be widened to around 13.0m as part of the proposed development. The access road will narrow down to 7.3m as it enters the site. A 2.0m footway will be provided on the western side of the site access road.

3.2.3 A visibility splay of 2.4m x 120m will be available to the right along the major road, this being appropriate for the prevailing 40mph speed limit on Low Road/Rangell Gate. Suitable visibility will be available from a 2.4m minor road distance to the left, with the splay extending as far as the roundabout junction with A16.

3.2.4 Suitable arrangements for HGV manoeuvres within the site will be available as shown on the site layout plan. The satisfactory manoeuvres of a maximum legal articulated HGV at the site access junction are shown on **Drawing No. NTP21018-002**.

3.3 Motorcycle, Car and HGV Parking

3.3.1 The proposed development will have a total GFA of 2,766sq.m. (2,222sq.m. of facility space with 544sq.m. of ancillary office space).

3.3.2 The South East Lincolnshire parking standard for cars is 1 space per 30sq.m. for Office (B1) and 1 space per 65sq.m. of General Industrial (B2). Using these standards equates to 18 car parking spaces for the B1 element of the proposed development and 34 spaces for the B2 element, i.e. a total of 52 car parking spaces.

3.3.3 A total of 49 car parking spaces will be provided as part of the proposed development. A total of 8 of the car parking spaces will have EV charging installed, with an additional 6 spaces made ready for EV charging to be installed in the future. Two of the car parking spaces will be designed for use by disabled drivers.

3.3.4 In addition, 4 spaces for parking motorcycles are proposed – as far as we are aware, a South East Lincolnshire parking standard is not available for motorcycles.

3.3.5 A suitable area for the parking of HGVs, LGVs and tractors will be provided as shown on the site layout plan.

3.3.6 It is considered that the proposed parking provision is sufficient whilst not being excessive.

3.4 The Local Highway Network

3.4.1 The local highway network considered by this report comprises Low Road/Rangell Gate and the site access to the proposed development site. The local highway network can be seen on **Plan 03**.

3.4.2 The B1165 Low Road/Rangell Gate is a local distributor road providing a connection between the A16 (and onwards to the centre of Spalding) to the west of the site, and the commercial premises, houses, farms and fields to the east and southeast of the site.

3.4.3 Low Road/Rangell Gate has a single carriageway approximately 7.3m in width and is subject to a 40mph speed limit. In the vicinity of the site access there are footways on both sides of the road, but further to the east/south the road is flanked by verges. The road does not benefits from street lighting.

3.4.4 Rangell Gate provides direct access to a number of industrial units, private dwellings, farms, fields and a School of Dance.

3.4.5 In the vicinity of the proposed development site access, on-street parking is permitted on both sides of Low Road/Rangell Gate, but on-site observations reveal this does not occur.

3.5 Highway Safety

3.5.1 Personal Injury Accident (PIA) data provided on the 'Crashmap' website for the five year period 01/01/16 to 31/12/20 in the vicinity of the proposed development site (see **Appendix E**) reveals:

- No PIAs recorded at the site access/Low Road/Rangell Gate junction.
- One PIA recorded on Rangell Gate approximately 50m east of the site access – this occurred in January 2019 during the hours of darkness. The road surface was dry. The PIA involved a car colliding with a cyclist from behind, was recorded as 'slight' and resulted in 1 casualty.
- One PIA recorded approximately 100m east of the site access at the Rangell Gate/Fulney Lane South junction – this occurred in September 2018 during the hours of daylight. The road surface was dry. The PIA involved a car proceeding straight ahead colliding with a car turning right, was recorded as 'slight' and resulted in 1 casualty.

3.5.2 There is nothing revealed by the PIA data to suggest that the local highway network has any particular safety issues relating to highway design, junction design or traffic volumes.

3.6 Existing Traffic Flows

3.6.1 The level of existing weekday peak period traffic using Low Road/Rangell Gate has been gauged from a manual classified traffic survey undertaken along the site frontage on Monday 23rd August 2021 from 07:30 to 09:00 hours. The traffic flow data is provided as **Appendix F**.

3.6.2 The traffic surveys were undertaken during the COVID-19 pandemic, and although most people had gone back to work, some people were still 'furloughed' or 'working from home'. It was post-'Freedom Day' (19th July 2021) and all shops, restaurants, public houses and nightclubs, etc., had reopened.

3.6.3 It is accepted that the traffic survey was undertaken during the school summer holidays, and an allowance of, say, an additional 20% traffic flow on top of that observed could be justified.

3.6.4 The peak observed traffic flows on Low Road/Rangell Gate are summarised in the table below:

Highway Link	Traffic Flow 07:45 - 08:45 hours									
	Eastbound					Westbound				
	Cycle	M/B	Car/ LGV	Tractor /HGV	Total	Cycle	M/B	Car/ LGV	Tractor /HGV	Total
Low Road/ Rangell Gate	6	2	328	15	351	2	4	286	15	307

Table 3.01: Peak Observed Traffic Flows on Low Road/Rangell Gate

3.6.5 It can be seen that a two-way traffic flow of 658 vehicles per hour (vph) was observed on Low Road/Rangell Gate, with around 5% of these being classified as HGVs, buses or tractors.

3.6.6 No vehicles were observed entering or exiting the adjacent farmhouse buildings during the 90 minute survey period.

3.7 Highway Capacity

3.7.1 The existing capacity of Low Road/Rangell Gate has been assessed by making reference to advice provided by TA 79/99 Amendment No.1 – Traffic Capacity of Urban Roads.

3.7.2 By reference to Table 2 of TA 79/99, for a 7.3m carriageway UAP4 (the lowest standard of highway) the two-way capacity is 1,900vph (i.e. 1,140vph = 60%, 760vph = 40%). This capacity assumes an HGV percentage of up to 15%.

3.7.3 The estimated capacity of Low Road/Rangell Gate of 1,900vph can be compared with the existing observed peak flow of 658vph, i.e. the highway link is currently operating well within capacity even allowing for the effects of COVID-19 and school summer holidays.

3.8 Committed Highways Schemes and Traffic Management Schemes

3.8.1 We are not aware of any committed highways schemes or traffic management schemes which will significantly affect traffic conditions in the vicinity of the site and need to be considered as part of this Transport Statement.

3.9 Committed Development

3.9.1 We are not aware of any committed development which will significantly affect traffic conditions in the vicinity of the site and need to be considered as part of this Transport Statement.

3.10 Traffic Associated with the Existing Development

3.10.1 The agricultural buildings which are to be removed, and the part of the field which will be occupied by the proposed development, currently generate an insignificant level of traffic.

3.10.2 A field access is proposed at the southern end of the proposed development site to enable agricultural vehicles to access the remaining part of the field after development. The remaining part of the field generates an insignificant level of traffic, and it is anticipated that the material harvested from the field will be used by the new plant based protein extraction facility resulting in a reduction in traffic using the local highway network.

3.11 Traffic Generation

3.11.1 The proposed development comprises the provision of 2,766sq.m. of floorspace. The level of weekday traffic associated with this level of development has been calculated using average vehicular trip rates contained in the TRICS (Version 7.8.2) trip rate database Industrial Unit category.

3.11.2 The traffic generation calculations are summarised in the table below.

Land Use	AM Peak		PM Peak		Daily	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
Industrial Unit – Trip Rate per 100sq.m.	0.513	0.101	0.041	0.479	3.111	3.002
Trips associated with a 2,766sq.m. Industrial Unit	**14**	**3**	**1**	**13**	**86**	**83**

Table 3.02: Weekday Vehicle Trips Generated by the Proposed Development

3.11.3 Using the TRICS data it is forecast that the proposed development would generate up to 17vph and around 169 vehicle movements per day.

3.11.4 An alternative method for calculating the traffic generation of the proposed development is to consider the manufacturing process of the proposed facility from 'first principles'. Using information provided by the developer:

- We have been advised that the facility will employ 43 full time equivalent members of staff, operating 24 hours a day on a three-shift system. Using the modal split data from **Appendix C** for method of travel to work: driving a car or van (70.5%) it is therefore estimated there would be 30 cars arrivals and 30 car departures per day, i.e. 60 two-way vehicle movements per day associated with staff commuting.
- The facility will consume 100T of vegetable matter per day which will be delivered by HGVs or tractors with trailers. Assuming an HGV load of 20T this equates to 5 HGV arrivals and departures per day. Assuming a tractor with trailer load of 14T this equates to 7 tractor/trailer arrivals and departures per day, i.e. up to 14 two-way vehicle movements per day associated with deliveries.

- The vegetable matter has an 88% water content which is removed during processing, with approximately 12T of material remaining per day after processing. The processed material will be removed from the site by HGVs – assume up to 2 HGV arrivals and departures per day, i.e. 4 vehicle movements per day associated with the removal of processed material per day.
- There will be various arrivals and departures associated with servicing and other visitors to the site – assuming one vehicle arrival and one vehicle departure per hour over a twelve hour day this equates to 24 vehicle movements associated with servicing/visitors per day.

3.11.5 It can be seen, therefore, that calculating the traffic generation from first principles results in a total of 102 vehicle movements per day associated with the proposed development site. A 'rule of thumb' for traffic generation is that the peak hour comprises 10% of the daily total, i.e. it is estimated that the peak traffic generation would be 10vph, which is somewhat lower than the level of traffic calculated using the TRICS data.

3.12 Traffic Distribution

3.12.1 It is anticipated that the majority of traffic associated with staff, servicing and visitors will have an origin/destination via Low Road/Rangell Gate west, passing through the roundabout junction with A16. A limited number of such trips will have an origin/destination via Rangell Gate east/south.

3.12.2 We have been advised that during the 3 months of July, August and September, all vegetable matter will be delivered to the site direct from fields within a 10mile (16km) radius of the site. Having regard to the location of the site, it is estimated that 75% of trips associated with deliveries during these months will have an origin/destination via Low Road/Rangell Gate west, with 25% having an origin/destination via Rangell Gate east/south.

3.12.3 We have been advised that during the remaining 9 months of the year, the vegetable matter will be delivered from a cold store at Moulton Seas End, which is some 9km northeast of the site. The delivery vehicles will travel to the site from Moulton Seas End via local roads then via the A151, A16 and Low Road/Rangell Gate west.

3.12.4 It is anticipated that all the processed material will be removed from the site via Low Road/Rangell Gate west.

3.12.5 It can be seen, therefore, that the vast majority of traffic associated with the site will travel via Low Road/Rangell Gate west and the nearby roundabout junction with A16.

3.13 Traffic Impact

3.13.1 It is generally accepted that an increase of over 30 vehicles per hour, or one vehicle every two minutes, is a useful 'rule of thumb' for considering materiality and triggering a requirement for a formal assessment.

3.13.2 It has been demonstrated that the proposed development has the potential to generate up to 17vph, i.e. around one vehicle movement every four minutes. Given the modest level of traffic currently using Low Road/Rangell Gate and the satisfactory design of the site access, there is no reason to consider that the site access junction will not operate safely and within capacity after development.

3.13.3 Beyond the site access there would be a maximum increase of 17vph at the roundabout junction with A16. This is not a material increase in traffic which justifies further analysis – the impact on the local highway network as a result of the increase in traffic will be small, not severe.

3.14 Conclusion

3.14.1 It is concluded that the proposed development site is accessible by vehicles.

4 SUMMARY AND CONCLUSIONS

4.1 Introduction

4.1.1 Northern Transport Planning has been appointed to provide advice on the transport implications of proposed development on land south of Rangell Gate in Spalding, Lincolnshire. The development site is located in Spalding, approximately 2.0km east of the Town Centre.

4.1.2 The proposed development site is predominantly fields which are currently used for agriculture. There are two agricultural buildings on the site which will be removed as part of the proposed development.

4.1.3 The proposed development comprises a plant based protein extraction facility. The facility will produce plant based functional ingredients which can be used in multiple business sectors and products. The proposed facility will have a Gross Floor Area of 2,766sq.m.

4.1.4 Access will be provided for pedestrians, cyclists, cars and commercial vehicles as existing, i.e. via the simple priority junction with Low Road/Rangell Gate, but the junction will be modified to facilitate easier manoeuvres by Heavy Goods Vehicles, and with new road markings provided at the connection of the site access road and the Cottage Farm access road to indicate priority.

4.2 Accessibility

4.2.1 It has been demonstrated that the proposed development site is well located for employment development, being accessible on foot, by cycle and by using public transport.

4.2.2 Although it is not intended to formally operate a Travel Plan as part of the proposed development, the site operator will implement measures to assist staff to travel to and from the site without having to rely on the use of a single occupancy private car. The use of Electric Vehicles will be encouraged by the provision of 8 car parking spaces with EV charging installed, with an additional 6 spaces made ready for EV charging to be installed in the future.

4.3 Traffic Issues

4.3.1 Low Road/Rangell Gate is moderately trafficked, with a peak of around 700 vehicles per hour being observed between 07:45 and 08:45 hours during the weekday. Around 5% of the observed traffic was classified as HGVs, buses or tractors. No vehicles were observed entering or exiting the adjacent farmhouse buildings during the 90 minute survey period.

4.3.2 On-site observations and assessment of the operation of the local highway network have revealed no existing issues relating to highway capacity or safety – the local highway network operates satisfactorily.

4.3.3 The agricultural buildings which are to be removed, and the part of the field which will be occupied by the proposed development, currently generate an insignificant level of traffic.

4.3.4 It has been demonstrated that the proposed development has the potential to generate up to 17 vehicle movements per hour, i.e. around one vehicle movement every four minutes. The vast majority of traffic associated with the site will travel via Low Road/Rangell Gate west and the nearby roundabout junction with A16.

4.3.5 Given the modest level of traffic currently using Low Road/Rangell Gate and the satisfactory design of the site access, there is no reason to consider that the site access junction will not operate safely and within capacity after development.

4.3.6 Beyond the site access there would be a maximum increase of 17vph at the roundabout junction with A16. This is not a material increase in traffic which justifies further analysis – the impact on the local highway network as a result of the increase in traffic will be small, not severe.

4.4 National Planning Policy Framework

4.4.1 Paragraph 104 of the NPPF states:

"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

a) the potential impacts of development on transport networks can be addressed;

b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

c) opportunities to promote walking, cycling and public transport use are identified and pursued;

d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.

4.4.2 Paragraph 105 of the NPPF states:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

4.4.3 Paragraph 110 of the NPPF states:

"In assessing sites 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;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and

d) 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."

4.4.4 Paragraph 111 of the NPPF states:

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

4.4.5 The following comments are relevant in relation to the above:

- Opportunities for sustainable transport – as has been demonstrated within this Transport Statement, having regard to its rural location the site is accessible by pedestrians, cyclists and public transport users. The use of sustainable modes of transport will be encouraged by the site operator. The use of Electric Vehicles will be encouraged by the site operator.
- Safe and suitable access – suitable access to the site will be available for all modes of transport.
- Impact of development – the analysis provided within this Transport Statement demonstrates that the traffic generated by the proposed development would not have a severe impact on the operation of the local highway network. Off-site mitigation measures are not necessary as the impact of trips generated by the proposed development is small.

4.5 Overall Conclusion

4.5.1 Having regard to the above it is concluded that the proposed development is satisfactory from a transport policy, traffic and highways viewpoint.

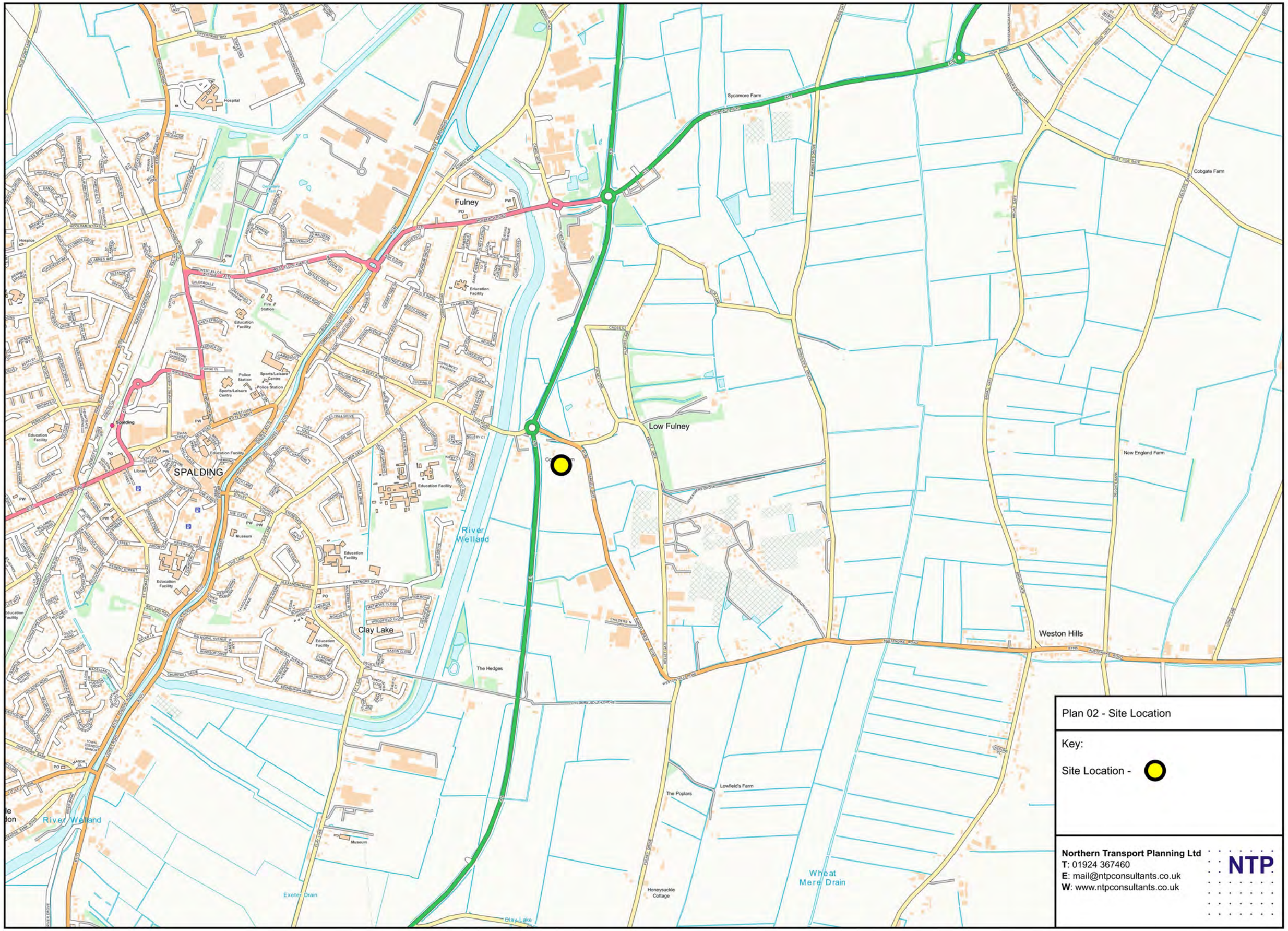
PLANS

Plan 01 - Site Location

Key:

Site Location -

Northern Transport Planning Ltd
T: 01924 367460
E: mail@ntpconsultants.co.uk
W: www.ntpconsultants.co.uk

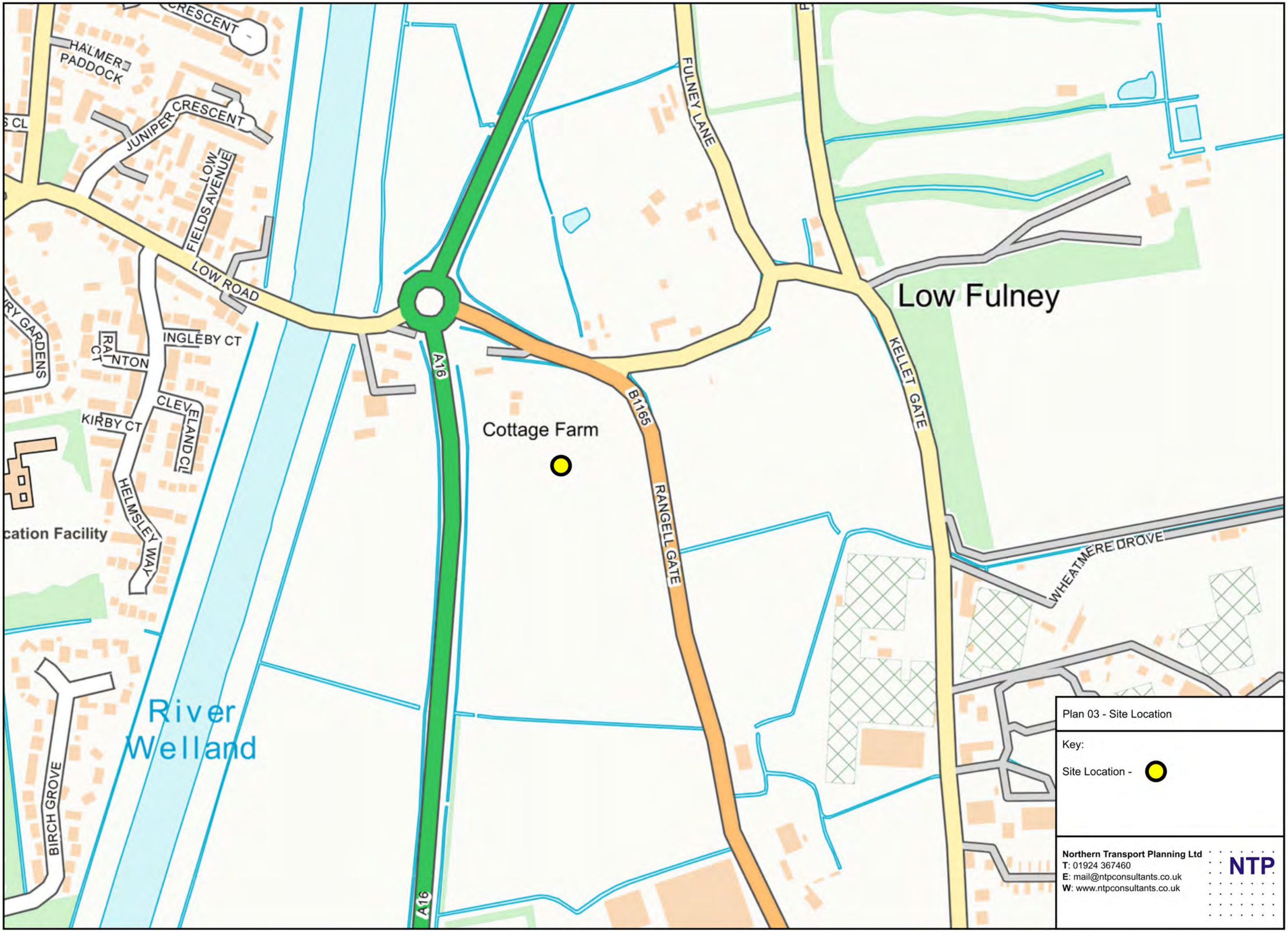


Plan 02 - Site Location

Key:

Site Location -

Northern Transport Planning Ltd
T: 01924 367460
E: mail@ntpconsultants.co.uk
W: www.ntpconsultants.co.uk



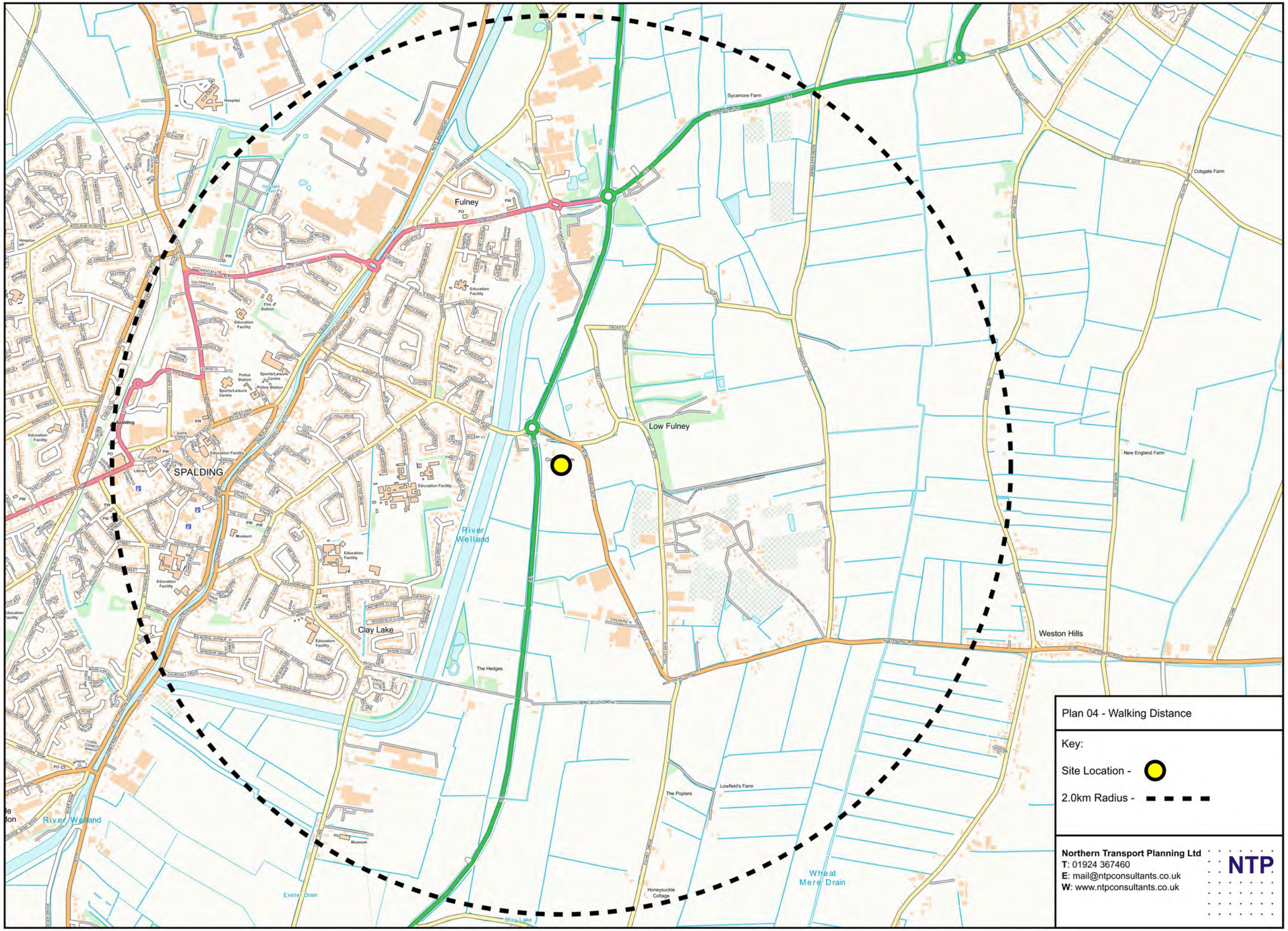
Plan 03 - Site Location

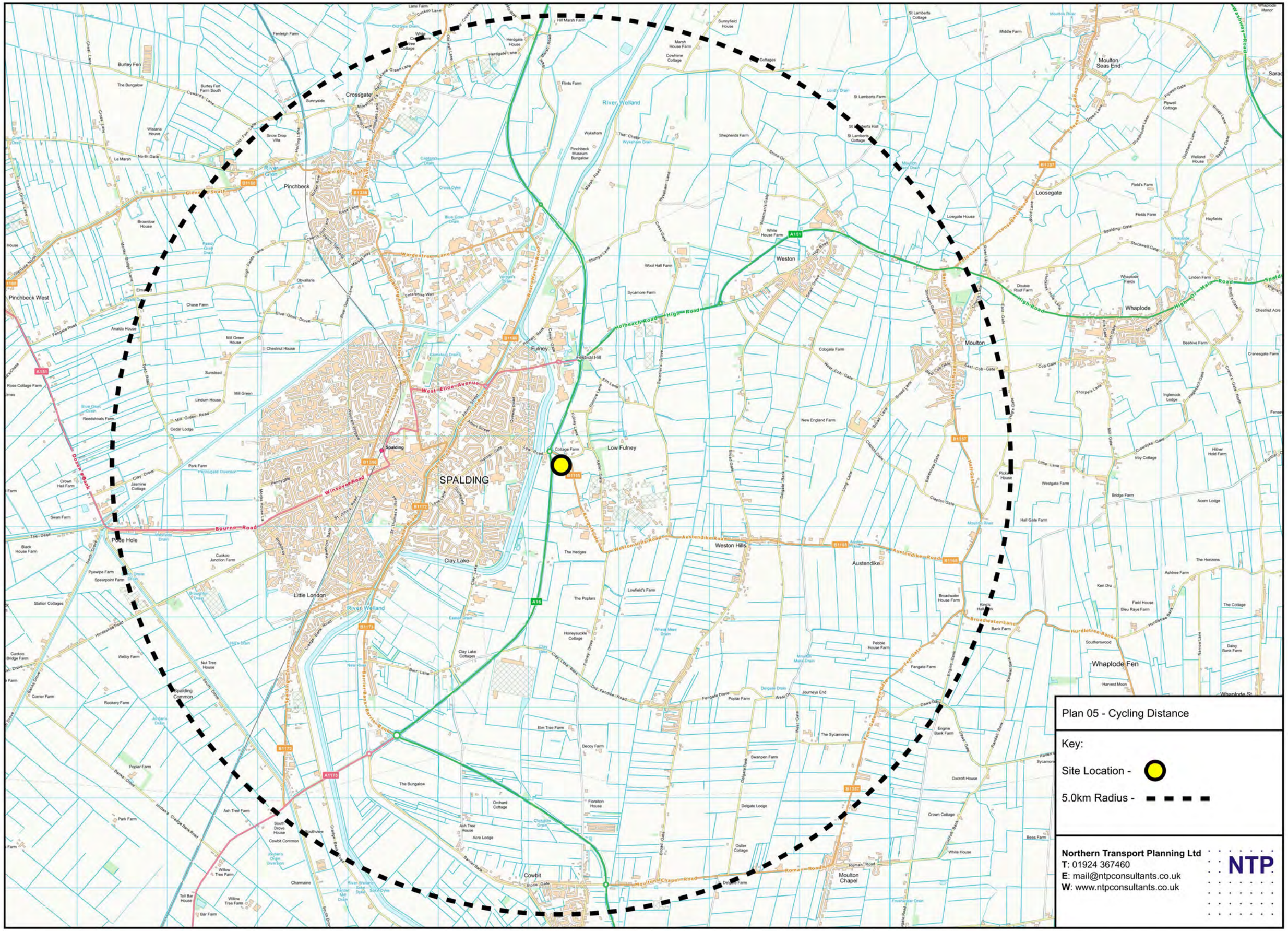
Key:

Site Location -

Northern Transport Planning Ltd
T: 01924 367460
E: mail@ntpconsultants.co.uk
W: www.ntpconsultants.co.uk

NTP


Fulney
Low Fulney
SPALDING
Clay Lake
Sycamore Farm
Cobgate Farm
New England Farm
Weston Hills
The Hedges
The Poplars
Lowfield's Farm
Honeysuckle Cottage
Wheat Mere Drain
River Welland
Exeter Drain
Hospital
Hospice
Education Facility
Police Station
Sports/Leisure Centre
Fire Station
Museum
Library
A16
A151
A1175
B1165
Plan 04 - Walking Distance
Key:
Site Location -
2.0km Radius -
Northern Transport Planning Ltd
T: 01924 367460
E: mail@ntpconsultants.co.uk
W: www.ntpconsultants.co.uk
NTP

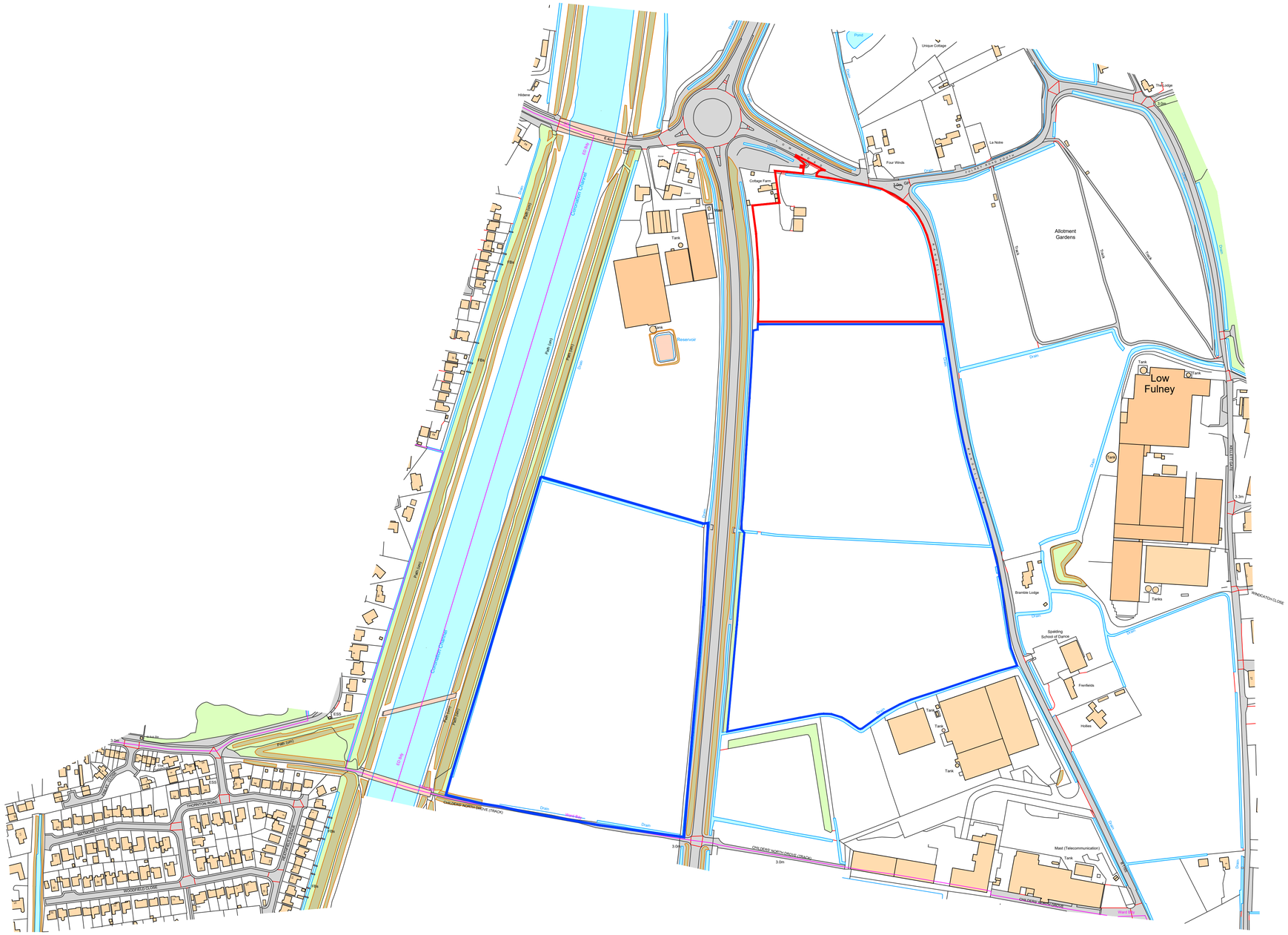

SPALDING
Pinchbeck
Pinchbeck West
Crossgate
Burtey Fen
Fulney
Low Fulney
Cowbit
Clay Lake
Little London
Spalding Common
Pode Hole
Weston
Weston Hills
Austendike
Moulton
Moulton Seas End
Moulton Chapel
Loosegate
Whaplode
Whaplode Fen
River Welland
River Glen
Festival Hill
Holbeach Road
High Road
Bourne Road
Winsover Road
West Elloe Avenue
Wardentree Lane
Knight Street
Austendike Road
Broadwater Lane
Hurdletree Bank
Roman Road
Moulton Chapel Road
Weston Hills Road
Barrier Bank
Sloot Dyke
Plan 05 - Cycling Distance
Key:
Site Location -
5.0km Radius -
Northern Transport Planning Ltd
T: 01924 367460
E: mail@ntpconsultants.co.uk
W: www.ntpconsultants.co.uk
NTP

APPENDIX A

NOTES

This drawing has been issued in support of a planning application and must NOT be used for construction purposes.

This drawing is copyright and may not be altered, traced, copied, photographed or used for any purpose other than that for which it is issued without written permission from the copyright holder.



Ordnance Survey, (c) Crown Copyright 2021. All rights reserved. Licence number 100022432

Red Line (Development Area)
28628sqm
7.05 Acres
2.86 hectares

0 50 100 200
SCALE 1:2500

N

NAYLORS EST. 1909

Project	PLANT BASED PROTEIN EXTRACTION FACILITY
Address	NAYLOR FARMS RANGELL GATE, SPALDING LINCOLNSHIRE
Client	NAYLOR FARMS
Drawing	EXISTING LOCATION PLAN
Date	SEPT 2021
Scale	1: 2500 @ A1 - 1: 5000 @ A3
Project No.	3899
Drawing No.	S01
Revision	

P&R ARCHITECTS
Portess and Richardson Limited
193 Lincoln Road, Peterborough PE1 2PL
T. 01733 568116. E. p-r@portessarchitect.com
www.portessarchitect.com

NOTES

This drawing has been issued in support of a planning application and must NOT be used for construction purposes.
This drawing is copyright and may not be altered, traced, copied, photographed or used for any purpose other than that for which it is issued without written permission from the copyright holder.

L O W R O A D

F U L N E Y R O A D S O U T H

R A N G E L L G A T E

A 1 6

Modena

Graewin

Mast

Cottage Farm

Four Winds

La Notre

Allotment Gardens

2.4m*70m Visibility Splay

Proposed Highway Layout

Path

Tarmac

Disabled

EV

Paving

Gate

Security Hut

Waiting Parking

Bikes

Potential EV

Storage Yard Gravel

Motor Bikes

Staff Welfare

Plant Room

Storage

Steam Generators

Ditch

Swale

Wild flower meadow

Attenuation Pond

Farming Access

Arable Field

Red Line (Development Area)
28628sqm
7.05 Acres
2.85 hectares

N

0 25 50

SCALE 1:500

NAYLOR FARMS EST. 1909

Project
PLANT BASED PROTEIN EXTRACTION FACILITY

Address
NAYLOR FARMS
RANGELL GATE, SPALDING
LINCOLNSHIRE

Client
NAYLOR FARMS

Drawing
PROPOSED
SITE PLAN

Date	Scale	
SEPT 2021	1:500 @ A1 - 1:1000 @ A3	
Project No. 3899	Drawing No. P01	Revision

P&R ARCHITECTS
Portess and Richardson Limited
193 Lincoln Road, Peterborough PE1 2PL
T. 01733 568116 E. p-r@portessarchitect.com
www.portessarchitect.com

APPENDIX B

Calculation Reference: AUDIT-640801-210818-0843

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	2 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
11	SCOTLAND		
	HI	HIGHLAND	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1626 to 3035 (units: sqm)
Range Selected by User: 690 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 14/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	4 days
Wednesday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	4
Free Standing (PPS6 Out of Town)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	2 days
50,001 to 75,000	2 days
100,001 to 125,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	1 days
1.1 to 1.5	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Not Known	2 days
No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CB-02-C-01	DOMINO'S PIZZA		CUMBRIA
	COWPER ROAD			
	PENRITH			
	GILWILLY IND. ESTATE			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		2950 sqm	
	Survey date: TUESDAY		*10/06/14*	*Survey Type: MANUAL*
2	DC-02-C-02	NEWSPAPER HQ		DORSET
	HAMPSHIRE ROAD			
	WEYMOUTH			
	CHICKERELL			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		3035 sqm	
	Survey date: TUESDAY		*04/07/00*	*Survey Type: MANUAL*
3	DC-02-C-03	INDUSTRIAL UNIT		DORSET
	NIMROD WAY			
	NEAR WIMBORNE MINSTER			
	STAPEHILL			
	Free Standing (PPS6 Out of Town)			
	Industrial Zone			
	Total Gross floor area:		1626 sqm	
	Survey date: TUESDAY		*15/05/01*	*Survey Type: MANUAL*
4	HE-02-C-02	THERMAL PROCESSING		HEREFORDSHIRE
	COLLEGE ROAD			
	HEREFORD			
	BURCOTT			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:		1880 sqm	
	Survey date: TUESDAY		*22/10/13*	*Survey Type: MANUAL*
5	HI-02-C-01	DAIRY		HIGHLAND
	TOM SEMPLE ROAD			
	NAIRN			
	BALMAKEITH BUSINESS PK			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:		3000 sqm	
	Survey date: WEDNESDAY		*24/05/06*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 07:00	1	2950	0.136	1	2950	0.034	1	2950	0.170
07:00 - 08:00	5	2498	0.320	5	2498	0.088	5	2498	0.408
08:00 - 09:00	5	2498	0.721	5	2498	0.208	5	2498	0.929
09:00 - 10:00	5	2498	0.288	5	2498	0.208	5	2498	0.496
10:00 - 11:00	5	2498	0.376	5	2498	0.400	5	2498	0.776
11:00 - 12:00	5	2498	0.312	5	2498	0.280	5	2498	0.592
12:00 - 13:00	5	2498	0.320	5	2498	0.432	5	2498	0.752
13:00 - 14:00	5	2498	0.520	5	2498	0.328	5	2498	0.848
14:00 - 15:00	5	2498	0.256	5	2498	0.200	5	2498	0.456
15:00 - 16:00	5	2498	0.328	5	2498	0.328	5	2498	0.656
16:00 - 17:00	5	2498	0.160	5	2498	0.544	5	2498	0.704
17:00 - 18:00	5	2498	0.072	5	2498	0.544	5	2498	0.616
18:00 - 19:00	5	2498	0.120	5	2498	0.264	5	2498	0.384
19:00 - 20:00	1	2950	0.203	1	2950	0.203	1	2950	0.406
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.336			4.197			8.533

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	1626 - 3035 (units: sqm)
Survey date date range:	01/01/00 - 14/11/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.000	1	2950	0.000	1	2950	0.000
06:00 - 07:00	1	2950	0.068	1	2950	0.000	1	2950	0.068
07:00 - 08:00	5	2498	0.024	5	2498	0.024	5	2498	0.048
08:00 - 09:00	5	2498	0.064	5	2498	0.016	5	2498	0.080
09:00 - 10:00	5	2498	0.080	5	2498	0.064	5	2498	0.144
10:00 - 11:00	5	2498	0.080	5	2498	0.072	5	2498	0.152
11:00 - 12:00	5	2498	0.072	5	2498	0.056	5	2498	0.128
12:00 - 13:00	5	2498	0.024	5	2498	0.032	5	2498	0.056
13:00 - 14:00	5	2498	0.040	5	2498	0.024	5	2498	0.064
14:00 - 15:00	5	2498	0.024	5	2498	0.040	5	2498	0.064
15:00 - 16:00	5	2498	0.040	5	2498	0.048	5	2498	0.088
16:00 - 17:00	5	2498	0.024	5	2498	0.032	5	2498	0.056
17:00 - 18:00	5	2498	0.008	5	2498	0.040	5	2498	0.048
18:00 - 19:00	5	2498	0.024	5	2498	0.032	5	2498	0.056
19:00 - 20:00	1	2950	0.000	1	2950	0.203	1	2950	0.203
20:00 - 21:00	1	2950	0.000	1	2950	0.102	1	2950	0.102
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.572			0.785			1.357

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	2950	0.203	1	2950	0.000	1	2950	0.203
06:00 - 07:00	1	2950	0.305	1	2950	0.034	1	2950	0.339
07:00 - 08:00	5	2498	0.408	5	2498	0.088	5	2498	0.496
08:00 - 09:00	5	2498	0.897	5	2498	0.240	5	2498	1.137
09:00 - 10:00	5	2498	0.368	5	2498	0.224	5	2498	0.592
10:00 - 11:00	5	2498	0.448	5	2498	0.448	5	2498	0.896
11:00 - 12:00	5	2498	0.384	5	2498	0.336	5	2498	0.720
12:00 - 13:00	5	2498	0.408	5	2498	0.576	5	2498	0.984
13:00 - 14:00	5	2498	0.729	5	2498	0.448	5	2498	1.177
14:00 - 15:00	5	2498	0.360	5	2498	0.280	5	2498	0.640
15:00 - 16:00	5	2498	0.400	5	2498	0.464	5	2498	0.864
16:00 - 17:00	5	2498	0.208	5	2498	0.809	5	2498	1.017
17:00 - 18:00	5	2498	0.088	5	2498	0.697	5	2498	0.785
18:00 - 19:00	5	2498	0.152	5	2498	0.320	5	2498	0.472
19:00 - 20:00	1	2950	0.237	1	2950	0.203	1	2950	0.440
20:00 - 21:00	1	2950	0.102	1	2950	0.136	1	2950	0.238
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.697			5.303			11.000

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-640801-210820-0839

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	BD	BEDFORDSHIRE	1 days
	HC	HAMPSHIRE	1 days
03	SOUTH WEST		
	BR	BRISTOL CITY	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	HE	HEREFORDSHIRE	1 days
08	NORTH WEST		
	LC	LANCASHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days
11	SCOTLAND		
	SR	STIRLING	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1010 to 3000 (units: sqm)
Range Selected by User: 500 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 22/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Thursday	3 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	8

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	7
Commercial Zone	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	3 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	8 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 BD-02-C-01 PUMPS, MOTORS & FANS BEDFORDSHIRE
POSTLEY ROAD
BEDFORD
KEMPSTON
Edge of Town
Industrial Zone
Total Gross floor area: 1045 sqm
Survey date: THURSDAY 15/10/20 Survey Type: MANUAL

2 BR-02-C-02 STAINLESS FITTINGS BRISTOL CITY
SOUTH LIBERTY LANE
BRISTOL

Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
Survey date: TUESDAY 22/09/15 Survey Type: MANUAL

3 CB-02-C-01 DOMINO'S PIZZA CUMBRIA
COWPER ROAD
PENRITH
GILWILLY IND. ESTATE
Edge of Town
Industrial Zone
Total Gross floor area: 2950 sqm
Survey date: TUESDAY 10/06/14 Survey Type: MANUAL

4 HC-02-C-01 ENGINEERING COMPANY HAMPSHIRE
JAYS CLOSE
BASINGSTOKE

Edge of Town
Industrial Zone
Total Gross floor area: 3000 sqm
Survey date: THURSDAY 16/06/16 Survey Type: MANUAL

5 HE-02-C-02 THERMAL PROCESSING HEREFORDSHIRE
COLLEGE ROAD
HEREFORD
BURCOTT
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: TUESDAY 22/10/13 Survey Type: MANUAL

6 LC-02-C-04 POWDER COATINGS LANCASHIRE
CHORLEY ROAD
BLACKPOOL
LITTLE CARLETON
Edge of Town
Industrial Zone
Total Gross floor area: 1010 sqm
Survey date: THURSDAY 20/06/19 Survey Type: MANUAL

7 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
IPSWICH
MARTLESHAM HEATH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: FRIDAY 12/07/13 Survey Type: MANUAL

8 SR-02-C-01 SPECIALIST MODEL MAKING STIRLING
BORROWMEADOW ROAD
STIRLING

Edge of Town
Industrial Zone
Total Gross floor area: 2350 sqm
Survey date: MONDAY 16/06/14 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	1998	0.075	2	1998	0.000	2	1998	0.075
06:00 - 07:00	3	2115	0.173	3	2115	0.063	3	2115	0.236
07:00 - 08:00	8	1851	0.473	8	1851	0.074	8	1851	0.547
08:00 - 09:00	**8**	**1851**	**0.513**	**8**	**1851**	**0.101**	**8**	**1851**	**0.614**
09:00 - 10:00	8	1851	0.317	8	1851	0.162	8	1851	0.479
10:00 - 11:00	8	1851	0.263	8	1851	0.223	8	1851	0.486
11:00 - 12:00	8	1851	0.128	8	1851	0.169	8	1851	0.297
12:00 - 13:00	8	1851	0.189	8	1851	0.182	8	1851	0.371
13:00 - 14:00	8	1851	0.284	8	1851	0.297	8	1851	0.581
14:00 - 15:00	8	1851	0.128	8	1851	0.196	8	1851	0.324
15:00 - 16:00	8	1851	0.128	8	1851	0.236	8	1851	0.364
16:00 - 17:00	8	1851	0.061	8	1851	0.311	8	1851	0.372
17:00 - 18:00	**8**	**1851**	**0.041**	**8**	**1851**	**0.479**	**8**	**1851**	**0.520**
18:00 - 19:00	8	1851	0.088	8	1851	0.209	8	1851	0.297
19:00 - 20:00	2	1998	0.175	2	1998	0.200	2	1998	0.375
20:00 - 21:00	2	1998	0.075	2	1998	0.100	2	1998	0.175
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.111			3.002			6.113

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	1010 - 3000 (units: sqm)
Survey date date range:	01/01/13 - 22/10/20
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	1998	0.000	2	1998	0.000	2	1998	0.000
06:00 - 07:00	3	2115	0.032	3	2115	0.000	3	2115	0.032
07:00 - 08:00	8	1851	0.014	8	1851	0.014	8	1851	0.028
08:00 - 09:00	8	1851	0.054	8	1851	0.007	8	1851	0.061
09:00 - 10:00	8	1851	0.041	8	1851	0.047	8	1851	0.088
10:00 - 11:00	8	1851	0.047	8	1851	0.047	8	1851	0.094
11:00 - 12:00	8	1851	0.027	8	1851	0.027	8	1851	0.054
12:00 - 13:00	8	1851	0.014	8	1851	0.020	8	1851	0.034
13:00 - 14:00	8	1851	0.020	8	1851	0.014	8	1851	0.034
14:00 - 15:00	8	1851	0.000	8	1851	0.007	8	1851	0.007
15:00 - 16:00	8	1851	0.014	8	1851	0.014	8	1851	0.028
16:00 - 17:00	8	1851	0.020	8	1851	0.014	8	1851	0.034
17:00 - 18:00	8	1851	0.014	8	1851	0.014	8	1851	0.028
18:00 - 19:00	8	1851	0.007	8	1851	0.007	8	1851	0.014
19:00 - 20:00	2	1998	0.000	2	1998	0.150	2	1998	0.150
20:00 - 21:00	2	1998	0.000	2	1998	0.075	2	1998	0.075
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.304			0.457			0.761

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

APPENDIX C

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

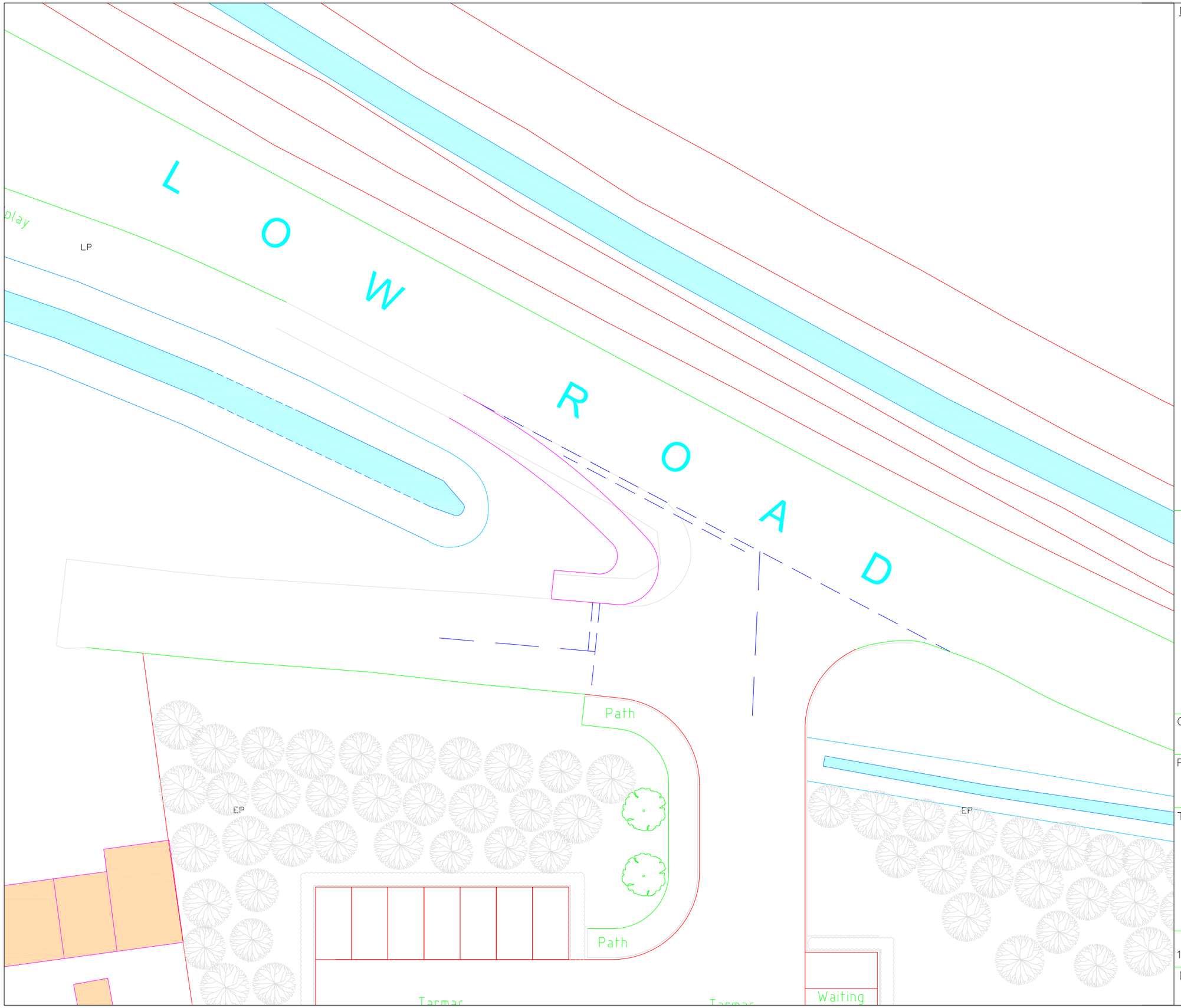
ONS Crown Copyright Reserved [from Nomis on 26 August 2021]

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	E02005471 : South Holland 007

Method of travel to work	**2011**	
All categories: Method of travel to work (2001 specification)	4,328	4,328
Work mainly at or from home	362	362
Underground, metro, light rail or tram	2	2
Train	11	11
Bus, minibus or coach	79	79
Taxi	5	5
Motorcycle, scooter or moped	27	27
Driving a car or van	2,789	2,789
Passenger in a car or van	408	408
Bicycle	242	242
On foot	391	391
Other method of travel to work	12	12

			304		
			304	MODAL SPLIT	TWO-WAY TRIPS
Walking	391	9.89%	30.1	9.9%	30
Cycling	242	6.12%	18.6	6.1%	19
Public Transport	92	2.33%	7.1	2.3%	7
Private Vehicle Occupant	3,229	81.66%	248.3	81.7%	248
	3,954	100.00%	304	100.0%	304

APPENDIX D



Notes

NTP

Northern Transport Planning Ltd
T 01924 367460
E mail@ntpconsultants.co.uk
W www.ntpconsultants.co.uk

Client
-

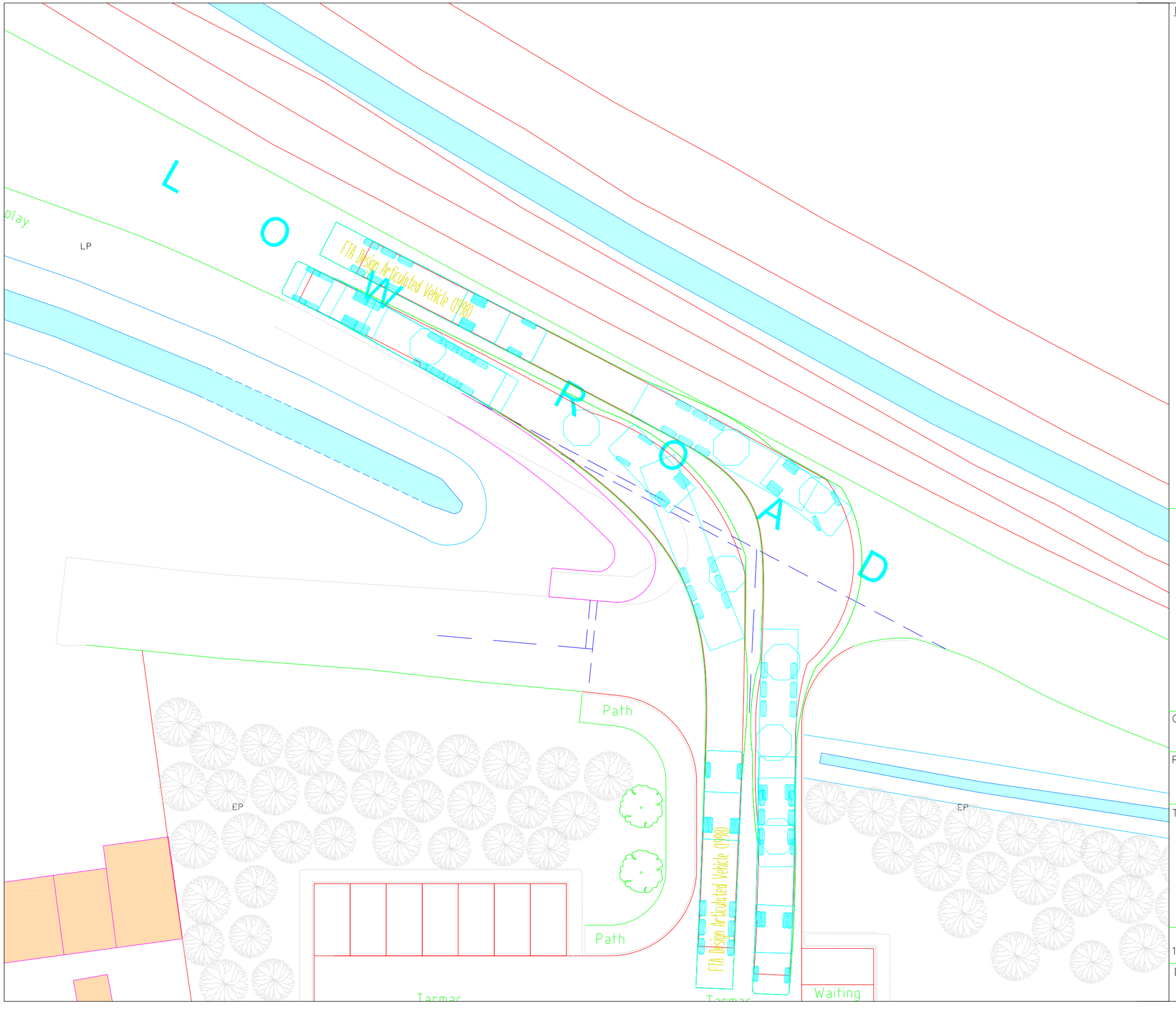
Project
RANGELL GATE, SPALDING

Title
PROPOSED SITE ACCESS
JUNCTION IMPROVEMENTS

Scale	Sheet	Drawn	Chkd
1:250	A3	JV	AK

Drawing No. NTP-21018-01

Rev —



Notes

NTP
Northern Transport Planning Ltd
T 01924 367460
E mail@ntpconsultants.co.uk
W www.ntpconsultants.co.uk

Client
-

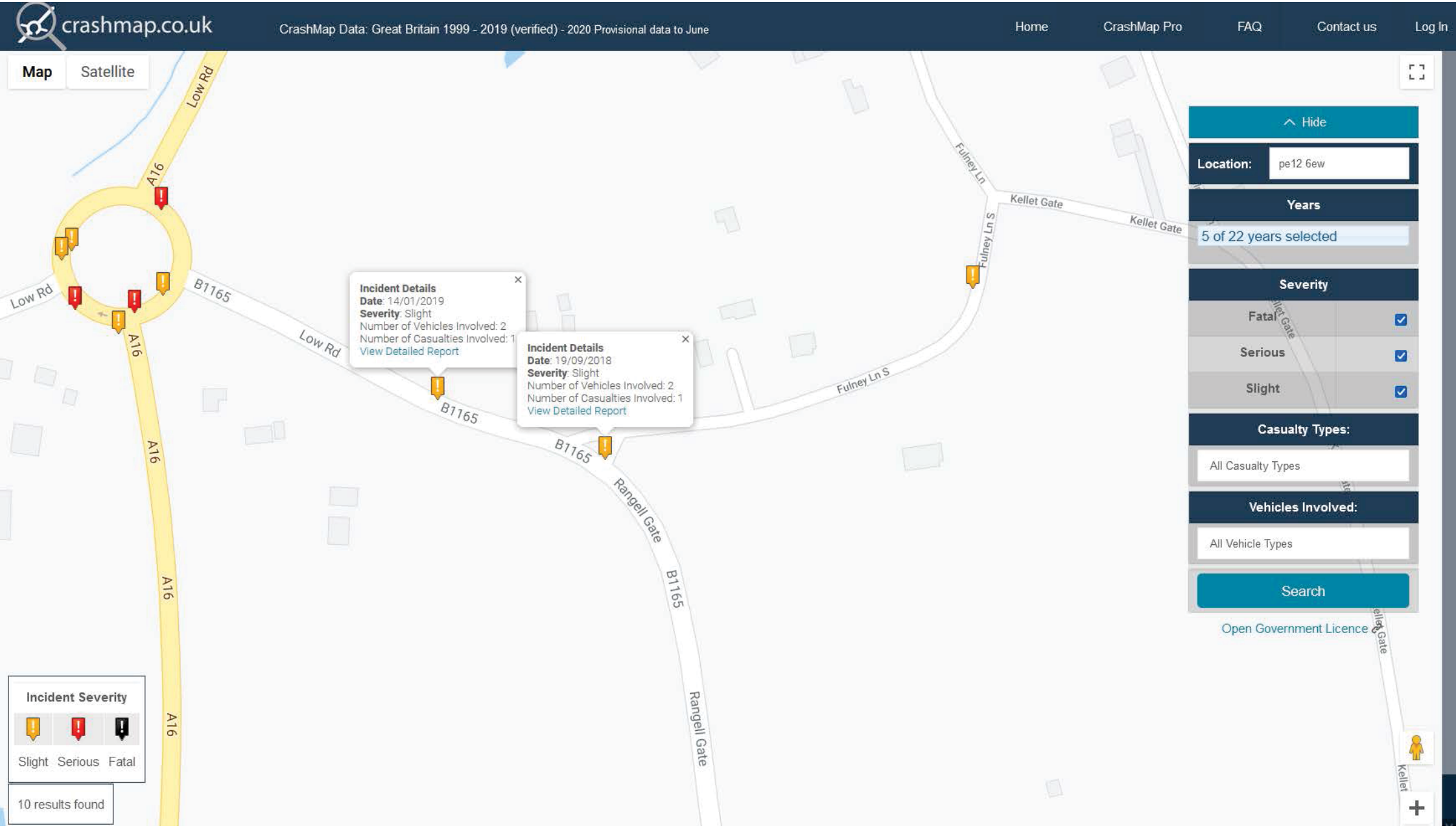
Project
RANGELL GATE, SPALDING

Title
AUTOTRACK MANOEUVRES OF MAX LEGAL ARTICULATED HGV

Scale	Sheet	Drawn	Chkd
1:250	A3	JV	AK

Drawing No. NTP-21018-02
Rev —

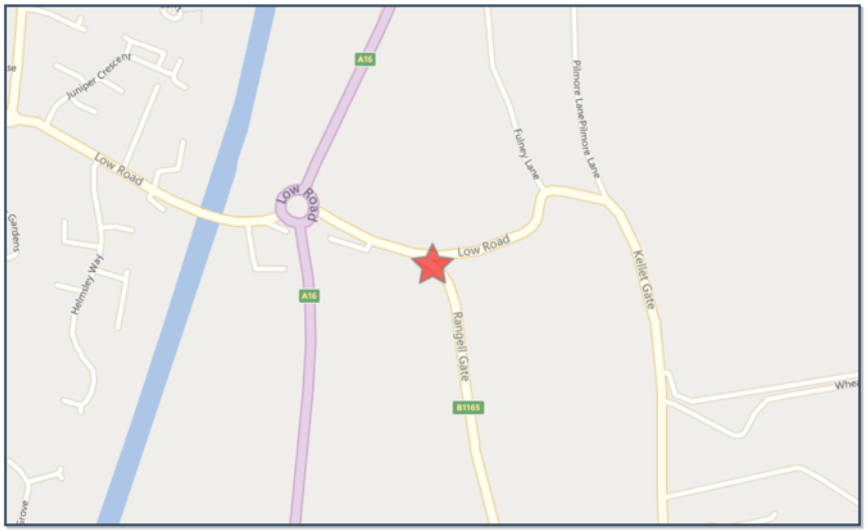
APPENDIX E


crashmap.co.uk
CrashMap Data: Great Britain 1999 - 2019 (verified) - 2020 Provisional data to June
Home
CrashMap Pro
FAQ
Contact us
Log In
Map
Satellite
Low Rd
A19
A16
B1165
Fulney Ln
Fulney Ln S
Kellet Gate
Rangell Gate
Incident Details
Date: 14/01/2019
Severity: Slight
Number of Vehicles Involved: 2
Number of Casualties Involved: 1
View Detailed Report
Incident Details
Date: 19/09/2018
Severity: Slight
Number of Vehicles Involved: 2
Number of Casualties Involved: 1
View Detailed Report
Hide
Location:
pe12 6ew
Years
5 of 22 years selected
Severity
Fatal
Serious
Slight
Casualty Types:
All Casualty Types
Vehicles Involved:
All Vehicle Types
Search
Open Government Licence
Incident Severity
Slight
Serious
Fatal
10 results found

crashmap.co.uk

Validated Data

Crash Date:	Wednesday, September 19, 2018	**Time of Crash:**	4:00:00 PM	**Crash Reference:**	**2018320456493**
Highest Injury Severity:	Slight	**Road Number:**	B1165	**Number of Casualties:**	1
Highway Authority:	Lincolnshire			**Number of Vehicles:**	2
Local Authority:	South Holland District			**OS Grid Reference:**	526441 322746
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	40				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
To subscribe to unlimited reports using CrashMap Pro visit *www.crashmap.co.uk/Home/Premium_Services*

powered by agilysis

Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	15	Male	56 - 65	Vehicle is in the act of turning right	Front	Other	None	None
2	Car (excluding private hire)	6	Female	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None

Casualties

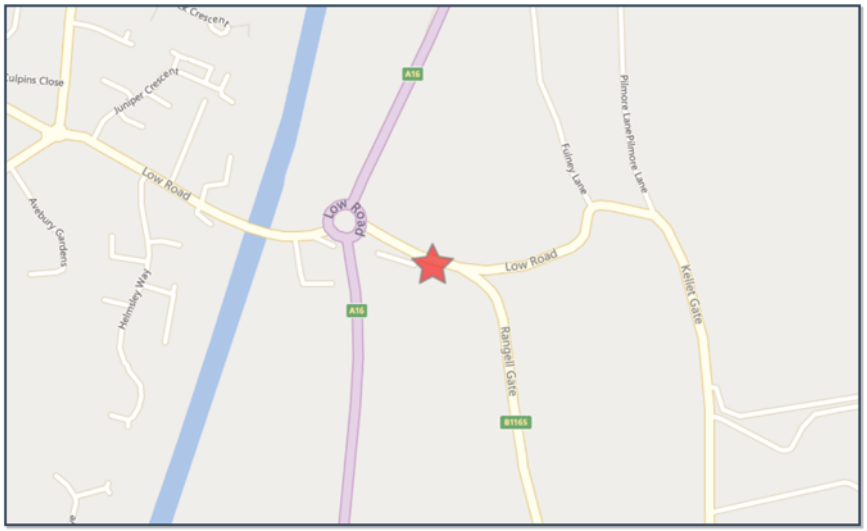
Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other

crashmap.co.uk

Validated Data

Crash Date:	Monday, January 14, 2019	**Time of Crash:**	6:10:00 AM	**Crash Reference:**	**2019320020722**

Highest Injury Severity:	Slight	**Road Number:**	B1165	**Number of Casualties:**	1
Highway Authority:	Lincolnshire			**Number of Vehicles:**	2
Local Authority:	South Holland District			**OS Grid Reference:**	526368 322770
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	40				
Light Conditions:	Darkness: no street lighting				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				



For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
To subscribe to unlimited reports using CrashMap Pro visit *www.crashmap.co.uk/Home/Premium_Services*

powered by agilysis

Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	16	Male	56 - 65	Vehicle proceeding normally along the carriageway, on a left hand bend	Front	Other	None	None
2	Pedal cycle	-1	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Back	Journey as part of work	None	Entered ditch

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other

APPENDIX F

Traffic survey at Low Road/Rangell Gate Site Frontage on Monday 23/08/21								
			Low Road	E/B	Straight Ahead to Rangell Gate			
15 mins ending	Car/ LGV	HGV / Bus	Tractor	M/C	P/C	Total	%Tractor & HGV	PCU
07:45	72	3	0	0	2	77	3.9%	78
08:00	95	4	0	0	3	102	3.9%	104
08:15	65	5	0	1	1	72	6.9%	76
08:30	82	3	0	1	1	87	3.4%	89
08:45	86	2	1	0	1	90	3.3%	92
09:00	72	6	1	0	2	81	8.6%	86
Total	**472**	**23**	**2**	**2**	**10**	**509**	**4.9%**	**525**
Peaks:								
07:45-08:45	**328**	**14**	**1**	**2**	**6**	**351**	**4.3%**	**360**

Traffic survey at Low Road/Rangell Gate Site Frontage on Monday 23/08/21								
			Rangell Gate	W/B	Straight Ahead to Low Road			
15 mins ending	Car/ LGV	HGV / Bus	Tractor	M/C	P/C	Total	%Tractor & HGV	PCU
07:45	75	3	0	0	0	78	3.8%	81
08:00	73	2	0	1	0	76	2.6%	77
08:15	68	3	0	0	1	72	4.2%	74
08:30	78	8	0	1	1	88	9.1%	95
08:45	67	2	0	2	0	71	2.8%	72
09:00	64	1	0	1	0	66	1.5%	66
Total	**425**	**19**	**0**	**5**	**2**	**451**	**4.2%**	**465**
Peaks:								
07:30-08:30	**286**	**15**	**0**	**4**	**2**	**307**	**4.9%**	**318**