

P e l l F r i s c h m a n n

Land West of School Road, Elmswell, Suffolk

Transport Assessment

November 2023

This report is to be regarded as confidential to our Client and is intended for their use only and may not be assigned except in accordance with the contract. Consequently, and in accordance with current practice, any liability to any third party in respect of the whole or any part of its contents is hereby expressly excluded, except to the extent that the report has been assigned in accordance with the contract. Before the report or any part of it is reproduced or referred to in any document, circular or statement and before its contents or the contents of any part of it are disclosed orally to any third party, our written approval as to the form and context of such a publication or disclosure must be obtained.

Report Ref.	107174-PEF-XX-XX-RP-TR-000002					
File Path	P:\1071--\107174 - Elmswell Phase 2\01 - WIP\Documents\Transport Assessment					
Rev	Suit	Description	Date	Originator	Checker	Approver
-		Draft for Comment	03/11/23	EB	RD	VB
Ref. reference. Rev revision. Suit suitability.						

Prepared for

**Christchurch Land and Estates
(Elmswell South) Limited**

Prepared by

Pell Frischmann
5th Floor, 85 Strand
London
WC2R 0DW

Pell Frischman

Contents

1.	Introduction	1
1.1.	General	1
1.2.	Site and Location	1
2.	Policy Review.....	2
2.1.	Introduction	2
2.2.	National Planning Policy	2
2.3.	Regional Policy	3
2.4.	Local Policy.....	5
3.	Baseline Conditions	7
3.1.	Introduction	7
3.2.	Site Location and Description	7
3.3.	Walking and Cycling Accessibility.....	8
3.4.	Public Transport Accessibility	9
3.5.	Accessibility to Local Services and Facilities.....	10
3.6.	Local Highway Network	11
3.7.	Road Safety Review	12
3.8.	Summary.....	13
4.	Development Proposals.....	14
4.1.	Introduction	14
4.2.	Development Description.....	14
4.3.	Access	14
4.4.	Parking.....	16
5.	Trip Generation Assessment	17
5.1.	Introduction	17
5.2.	Methodology	17
5.3.	Sensitivity Test.....	18
6.	Summary and Conclusions.....	19

Figures

Figure 1.1: Site Location Plan	1
Figure 3.1: Public Transport Access.....	7
Figure 3.2: Existing School Road Footway (Looking North).....	8
Figure 3.3: Existing School Road Footway (Looking South)	8
Figure 3.4: Planned Footway/Cycleway Improvements on School Road	9
Figure 3.5: Step Free Access to Eastbound Platform at Elmswell Station.....	10
Figure 3.6: Local Highway Network.....	12
Figure 3.7: Collision data	13
Figure 4.1: Access Points Into the Site.....	15
Figure 4.2: Proposed Indicative Site Access Arrangements	16

Tables

Table 2.1: Parking Standards	4
Table 2.2: Long term Elmswell LCWIP Schemes.....	6
Table 3.1: Elmswell National Rail Services	10
Table 3.2: Local Services and Amenities	11
Table 5.1: Trip Generation for Assisted Dwellings	17
Table 5.2: Trip Generation for Care Home	17
Table 5.3: Total Vehicle Trips	18
Table 5.4: Trip Generation for Retirement Flats	18
Table 5.5: Trip Generation for Retirement and Care Community.....	18

1. Introduction

1.1. General

- 1.1.1. Pell Frischmann (PF) is instructed by Christchurch Property Company Limited (the 'Client') to provide transport and highways consultancy services in connection with the development proposals at land to the west of School Road, Elmswell, Suffolk (the 'site'). The local highways authority is Suffolk County Council (SCC), and the local planning authority is Mid Suffolk District Council (MSDC).
- 1.1.2. It is proposed to provide a care community comprising a 66-bed Care Home and 40 'Assisted Living' dwellings at the site, alongside a management building, communal space and appropriate access and infrastructure.
- 1.1.3. The local planning authority is the Mid Suffolk District Council (MSDC), and the local highways authority is Suffolk County Council (SCC).

1.2. Site and Location

- 1.2.1. The site comprises the parcel of land west of School Road and south of Parnell Lane, to the southwest of the centre of Elmswell. The parcel east of Parnell Lane is subject to a consented residential development (reference: DC/18/02146), which also includes highway improvement measures in the form of carriageway widening on School Road and provision of a foot / cycle way along the eastern boundary of the site. A site location plan is provided in **Figure 1.1**.

Figure 1.1: Site Location Plan



- 1.2.2. The site is bound to the north by railway tracks and Parnell Lane to the north east. To the south and west of the site there is arable land and School Road binds it to the east. The site itself currently comprises primarily of arable or unused land.

2. Policy Review

2.1. Introduction

- 2.1.1. This chapter of the TA examines the context of the site and how this relates to relevant planning policies and guidelines. It provides an overall spatial and planning context for the development proposal.
- 2.1.2. The current agenda regarding transport and development is moving away from one of providing significant new highway capacity, through 'predict and provide' schemes. Instead, policies have been adopted in planning guidance that seeks to encourage more sustainable modes of travel and a planning system which places more emphasis on the link between transport and land use planning policies.

National Policy

- National Planning Policy Framework (2021)
- National Planning Practice Guidance (2014)

Regional Policy

- Suffolk Local Transport Plan 2011-2031
- Suffolk Guidance for Parking (2019)

Local Policy

- Babergh and Mid Suffolk Infrastructure Delivery Plan (2020)
- Babergh and Mid Suffolk District Council Local Cycling and Walking Infrastructure Plan (2021)

2.2. National Planning Policy

National Planning Policy Framework (2021)

- 2.2.1. The National Planning Policy Framework (NPPF), which was last updated on 20th July 2021, set out the Government's planning policies for England and how these should be applied to new development. The principal requirements of the NPPF in relation to Transport Assessments are outlined below.
- 2.2.2. Paragraph 113 of the NFFP 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 or transport assessment so that the likely impacts of the proposal can be assessed".
- 2.2.3. Chapter 9 of the NFFP, 'Promoting Sustainable Transport', states that sustainable transport, including active travel modes and public transport usage, should be considered at the earliest possible stage in the development process. More specifically, paragraph 104 of the NFFP states that:
- "Transport issues should be considered from the earliest stages of plan-making and development proposals." This ensures that "Opportunities to promote walking, cycling and public transport use are identified and pursued."
- 2.2.4. A robust Transport Assessment and Travel Plan will help maximise the opportunities for sustainable travel following the development in Elmswell by considering the accessibility and sustainability of the Proposed Development.
- 2.2.5. The objective of this TA is to ensure that the demand for travel is effectively managed and planned for, sustainable accessibility is maximised, and appropriate mitigation measures are identified to address any residual impact.

- 2.2.6. Paragraph 106 of the NPPF states that planning policies should provide for attractive and well-designed walking and cycling networks with supporting facilities such as secure cycle parking (drawing on Local Cycling and Walking Infrastructure Plans).

National Planning Practice Guidance (2014) – Travel Plans, Transport Assessments and Statements

- 2.2.7. Under the heading ‘What are Travel Plans, Transport Assessments and Statements?’, the National Planning Practice Guidance (NPPG) states that:

“Travel Plans, Transport Assessments and Statements are all ways of accessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movement.”

- 2.2.8. Under the heading ‘Why are Travel Plans, Transport Assessments and Transport Statements important?’ the guidance sets out the following:

“Travel Plans, Transport Assessments and Statements 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.”

- 2.2.9. The NPPG supports national planning policy, which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are, or can be, made sustainable.
- 2.2.10. This TA demonstrates how the location of the Proposed Development at School Road, Elmswell is conducive to undertaking trips to sustainable modes of transport and, alongside the accompanying Travel Plan, could positively contribute to the transport environment and behaviours of wider area.

2.3. Regional Policy

Suffolk Local Transport Plan 2011 – 2031

- 2.3.1. The Suffolk Local Transport Plan (SLTP) is SCC’s main policy guidance on transport and sets out how the County Council intends to address key challenges by improving, maintaining and managing the transport network in the period up to 2031.
- 2.3.2. The plan shows how transport within Suffolk will support and facilitate future economic growth by:
- Maintaining transport networks
 - Tackling congestion
 - Improving access to jobs and markets
 - Encouraging a shift to more sustainable travel patterns
- 2.3.3. The SLTP provides key transport issues for each district within Suffolk. The transport strategy for Mid Suffolk is as follows:
- Town based bus service in Stowmarket

- Stowmarket transport interchange
- Tackling congestion in Stowmarket
- Cycle network
- Rural bus provision
- Rural footpaths
- Local access to key services
- Lorry management

2.3.4. The strategy recognises that housing growth is likely to intensify the pressure on the road network and so also focuses on:

- Improving levels of accessibility to key service centres;
- Working with the current public right of way network;
- Improving the quality, reliability and connectivity of the rural road network; and
- Working with planning officers to reduce the immediate need for travel by better connecting homes and employment.

Suffolk Guidance for Parking – Technical Guidance (Third Edition, 2019)

2.3.5. The Suffolk Guidance for Parking Technical Guidance document replaced the Suffolk Advisory Parking Standards (2002), following public consultation, in November 2014. In 2015, and again in 2019, the document was updated to reflect new Government guidance.

2.3.6. The Technical Guidance is intended to:

- Assist the local planning authorities in determining appropriate guidance for their areas;
- Advise members of the public in a readily comprehensive manner;
- Assist developers in preparing plans for the development of land; and
- Assist the determination of planning applications by ensuring that applications submitted include an appropriate level and location of car parking and cycle parking provision, and pedestrian footpaths and cycle routes also contribute visually and functionally to the public realm.

2.3.7. Section 7 of the document sets out the parking standard for residential care homes which are as follows:

Table 2.1: Parking Standards

Use	Vehicle Requirement	Cycle Minimum	PTW Minimum	Disabled Minimum
Residential care home	1 space per full time equivalent staff + 1 visitor space per 3 beds	2 spaces per 5 staff	1 space + 1 per 20 car spaces (for 1 st 100 car spaces), then 1 space per 30 car spaces (over 100 car spaces).	Dependent on actual development, on individual merit, although expected to be significantly higher than business or recreational development requirement
Retirement developments (e.g. warden assisted independent living accommodation)	1 space per dwelling (minimum)	2 spaces per 8 units (visitors)	2 PTW spaces and 1 space per 2 dwellings for mobility scooters	N/A is parking is in curtilage of dwelling, otherwise as Visitor / unallocated.

2.3.8. It is important to note that care homes should be assessed on a case-by-case basis, as residents may own vehicles or mobility aids which require more parking spaces and storage areas. Consideration should also be given to safe storage and charging point locations for mobility vehicles when designing retirement developments.

2.4. Local Policy

Babergh and Mid Suffolk Infrastructure Delivery Plan (2020)

- 2.4.1. The Babergh and Mid Suffolk Joint Local Plan provides a framework for shaping our communities and guiding future development over the period to 2037. The Local Plan is currently subject to examination in Summer 2022. Policy LP32 of the Local Plan relates to ‘Safe, Sustainable and Active Transport’, and is summarised below:
1. Development proposals that are expected to, or likely to cause a significant increase in transport movements:
 - a. Will be required to provide a travel plan in accordance with the County / National Guidance⁴⁷ to mitigate the highway impact of development and help maximise sustainable transport;
 - b. Should also be supported by a transport statement or transport assessment. As indicative thresholds a transport statement will be required for residential developments between 50 and 80 dwellings and a transport assessment should accompany residential developments of over 80 dwellings, however other circumstances will also be considered.
 2. All developments are to maximise the uptake in sustainable and active transport in accordance with the transport hierarchy. This will prioritise the following modes of transport in order – walking, cycling, public transport and car sharing. Where possible, active travel to be tied in with the green infrastructure network thereby providing additional positive effects for access to green spaces and wildlife habitats.
 3. Proposals for all development shall, where relevant, incorporate:
 - a. Pedestrian routes suitable for disabled persons and those with impaired mobility;
 - b. Cyclists facilities, including routes, secure and covered cycle parking, showers and changing facilities;
 - c. Public transport, such as new or revised services, and physical measures such as bus stops, improvements to bus and railway stations, and access to bus and railway stations to reduce dependency on private vehicles;
 - d. Incentives to use sustainable modes of transport;
 - e. Linkages to existing pedestrian and cycle networks;
 - f. Enhancement to the Public Rights of Way network and protection of the existing network;
 - g. Facilities to allow for multi-modal interchanges;
 - h. Access to car park facilities in accordance with the relevant parking guidance⁴⁸;
 - i. Electric vehicle charging in line with current parking guidance;
 - j. Servicing and emergency vehicles; and
 - k. Sustainable modes of transport for freight.
 4. Development will be expected to contribute to the delivery of sustainable transport strategies for managing the cumulative impacts of growth.
 5. Where necessary development will be expected to provide home to school transport contributions.
- 2.4.2. It is suggested that future developments within Elmswell will require:
- New footway links
 - Traffic calming measures (where necessary)
 - Bus stop improvements (where necessary)
 - Carriageway improvements (where necessary)
 - Contribution towards cycle / pedestrian link between Elmswell and Woolpit
 - Land to the north of Church Road (LA064) and Land to the north west of School Road (LA065) – Traffic signal at School Road and Church Road junction (further investigation would be required in relation to heritage issues with traffic signal next to church and Elmshouse).

Babergh and Mid Suffolk District Council Local Cycling and Walking Infrastructure Plan (2021)

- 2.4.3. The plan focuses on walking and cycling improvements required within districts in Babergh and the Mid Suffolk area. It aims to facilitate more sustainable and active travel by “focusing on what is required in terms of fit for purpose infrastructure throughout the districts, as well as informing and enhancing the county level LCWIP, by providing consultation-based evidence to advise and support investment decisions”.
- 2.4.4. The specific walking and cycling improvements that are planned to be carried out within Elmswell and the nearby area are presented in Table 2.2.

Table 2.2: Long term Elmswell LCWIP Schemes

Reference	Section / Location	Description
Elmswell to Great Ashfield	Ashfield Road / Grove Lane	Safer waking provisions required from Elmswell to Grove Lane playing fields. Potentially designate as a quiet lane.
Norton to Tostock & Elmswell	Along the route of / or alternative to the A1088	Safe walking / cycling provisions between the villages to promote active travel
Woolpit to Whetherden	Warren Lane	Cycling between the two parts of Warren Lane would be improved by having a middle bit for those turning onto Warren Lane towards Borley Green
Woolpit to Shelland	Heath Road	Introduce a cycling path from Woolpit through to Shelland

3. Baseline Conditions

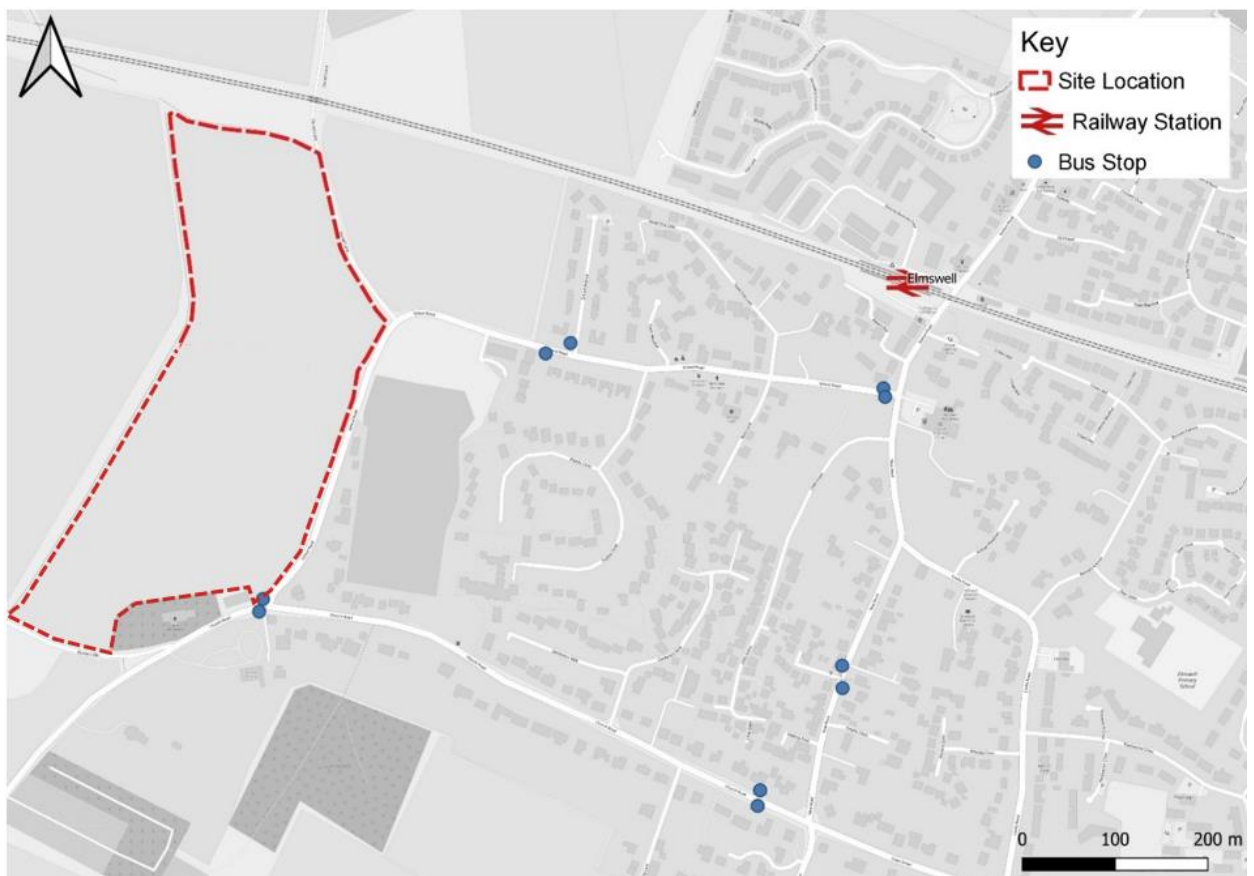
3.1. Introduction

- 3.1.1. This chapter of the TA details the existing, or baseline, transport conditions considered, including public transport, walking, cycling, highways, and traffic conditions. A review of road safety along links and key junctions near the site has been undertaken and is included further within this chapter.
- 3.1.2. It is important that baseline conditions are accurately established so that the context of any potential future development at the site, and its potential impact on the surrounding transport and highway networks, can be fully understood.

3.2. Site Location and Description

- 3.2.1. The site is located at land to the west of School Road, Elmswell, Suffolk, and to the southwest of the centre of Elmswell and Elmswell Station. The site is bound by School Road to the east, arable / unused land to the south and west, and Parnell Lane to the north and northeast. The site to the east of Parnell Lane is subject to a consented residential development (reference: DC/18/02146) comprising 86 residential units and a series of highways improvements.
- 3.2.2. A site location plan, showing the location of the site in relation to public and sustainable transport facilities is provided in **Figure 3.1**.

Figure 3.1: Public Transport Access



- 3.2.3. The site is well connected to existing public and sustainable transport networks, with opportunities for non-car based travel to and from the site. Several key local services and amenities are also accessible from the site via sustainable transport modes.

3.3. Walking and Cycling Accessibility

Existing Conditions

- 3.3.1. There is currently a footway on the western side of School Road which runs along the eastern boundary of the site. This footway is illustrated in **Figure 3.2** and **Figure 3.3**. The existing footway varies in width, and is typically between 1m and 1.5m wide. However, in sections the effective width of the footway is reduced by overgrown vegetation along the verge of the footway.
- 3.3.2. It is noted that this footway will be significantly upgraded as part of the highway works associated with the residential development to the north.

Figure 3.2: Existing School Road Footway (Looking North)



Figure 3.3: Existing School Road Footway (Looking South)



- 3.3.3. The footway continues along School Road into the centre of Elmswell, with a dropped kerb at the junction with Parnell Lane. After the junction with Old Schools Court, a footway also runs along the southern side of School Road until Pightle Close where it continues south.

- 3.3.4. There is a zebra crossing on New Road, immediately to the south of the junction with School Road, which connects with the East of England Co-op Foodstore and other amenities on the eastern side of New Road and Station Road.

Upgraded Foot/Cycleway on School Road

- 3.3.5. The residential development to the north of Parnell Lane is implementing significant enhancements to the footway, which will see it widened to create a shared space for both pedestrians and cyclists. The extent of the footway works is illustrated below.
- 3.3.6. The proposals also include some widening of School Road itself to improve road safety.
- 3.3.7. The design of these improvements has been agreed with Suffolk County Highways.

Figure 3.4: Planned Footway/Cycleway Improvements on School Road



3.4. Public Transport Accessibility

National Rail

- 3.4.1. The site is located approximately 850m (approximately 10 minutes walking / three minutes cycling distance) from Elmswell Station. The station and all trains serving it are operated by Greater Anglia. Facilities at Elmswell Station include 6 sheltered cycle storage spaces, and both platforms at the Station also benefit from step free access, as illustrated in **Figure 3.5**.

Figure 3.5: Step Free Access to Eastbound Platform at Elmswell Station



3.4.2. The station is typically served by hourly services in each direction between Ipswich and Cambridge. A summary of services and journey times is provided in **Table 3.1**.

Table 3.1: Elmswell National Rail Services

Operator	Destination	Frequency		Average Journey Time
		Monday - Saturday	Sunday	
Greater Anglia	Ipswich (via Stowmarket)	Hourly	Every 2 Hours	22 minutes
	Cambridge (via Newmarket and Bury St Edmunds)	Hourly	Every 2 Hours	51 minutes

3.4.3. Ipswich Station provides onward services to London Liverpool Street and Norwich, and Cambridge Station provides connections to services for Birmingham New Street and Stansted Airport, amongst other key national destinations.

Local Bus Services

3.4.4. The nearest bus stops to the site are located on Church Road, immediately to the west of the junction with School Road. Both westbound and east/northbound bus stops are located within approximately 200m (approximately two minutes walking distance) of the site.

3.4.5. These bus stops are served by the 162, 164, 384, 385 and 988 bus routes. The 162, 164 and 988 routes both provide single daily weekday return services to and from Thurston Community College in the morning and afternoon respectively. The 384 and 385 bus routes provide services between Stowmarket and Bury St Edmunds, with four daily services operating in each direction on Monday to Saturday.

3.5. Accessibility to Local Services and Facilities

3.5.1. There are a number of services and amenities within walking and / or cycling distance of the development site. A summary of these services relevant to the potential future residents of a care home / care accommodation at the site is provided in **Table 3.2**.

Table 3.2: Local Services and Amenities

Service / Amenity	Approximate Distance from Site	Approximate Walking Time	Approximate Cycling Time
Elmswell Station	850m	10 minutes	3 minutes
Local Bus Stops (Church Road)	200m	3 minutes	1 minute
Grocery (East of England Co-op Foodstore)	750m	9 minutes	3 minutes
Post Office (Rear of Co-op)	750m	9 minutes	3 minutes
Pharmacy (Vyne, Station Road)	850m	10 minutes	3 minutes
Public House (Elmswell Tavern)	500m	6 minutes	2 minute
Coffee Shop / Restaurant (Wesley Coffee Shop)	500m	6 minutes	2 minute
Community Centre (Blackbourne)	1.5km	18 minutes	5 minutes
Police and Fire Station (School Road)	450m	6 minutes	1 minute
Place of Worship (St John's, Church Road)	300m	3 minutes	2 minute
Sport and Recreation (Elmswell Cricket Club)	1.4km	17 minutes	5 minutes

- 3.5.2. As shown in **Table 3.2**, there are a number of key services and amenities relevant to the development and the potential future care home / care accommodation land use within walking distance of the site.
- 3.5.3. Those services not included in the summary above are generally located within the larger centres of Stowmarket, Bury St Edmunds and Ipswich, all of which are accessible from the site either by local bus or rail services.

3.6. Local Highway Network

- 3.6.1. School Road is a two-way single carriageway which is subject to a 30mph speed limit. It connects with New Road / Station Road and the centre of Elmswell to the east, and Church Road to the south. Church Road in turn connects with the A1088 and the A14, which forms part of the Strategic Road Network, to the south of Elmswell. The site is therefore considered to be very well connected to the local and strategic highway network. **Figure 3.6** shows the local highway network to the site.

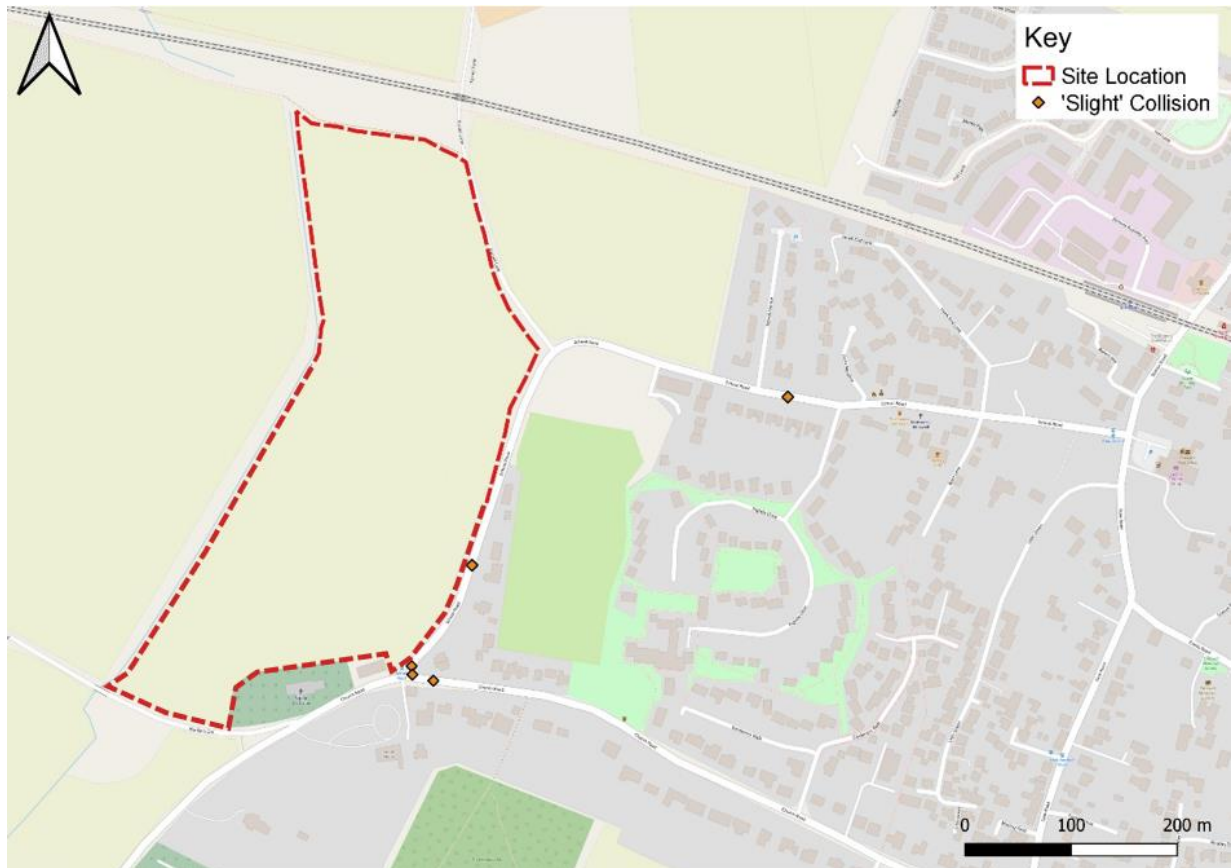
Figure 3.6: Local Highway Network



3.7. Road Safety Review

- 3.7.1. Pell Frischmann has undertaken an initial review of road traffic collision statistical data resulting in personal injury. The Crashmap database has been reviewed to determine the number, severity and location of collisions surrounding the site over the latest available five years of data, from 2017 to 2021.
- 3.7.2. **Figure 3.7** shows that along School Road there has only been three collisions within the last 5 years, all rated 'slight'. There has also been another two collisions along Church Road, just east of the junction with School Road. These were also both rated 'slight'. No other collisions have been recorded within the vicinity of the site, and none of the existing collisions were 'serious' or 'fatal'.
- 3.7.3. It is noted that the residential development to the north of Parnell Road will implement some road widening along School Road, including at the junction with Church Road to enable it to better accommodate large vehicles that travel northbound. This is considered to be a safety improvement.

Figure 3.7: Collision data



3.8. Summary

- 3.8.1. The site is considered to be well connected to existing public and sustainable transport networks, with opportunities for non-car based travel to and from the site. Elmswell Station provides services to Ipswich and Cambridge, while bus services provide hourly connections to Stowmarket and Bury St Edmunds Monday to Saturday. Walking facilities within the vicinity of the site are considered to be of reasonable quality and connects directly with Elmswell centre and railway station.
- 3.8.2. There are several local services and facilities, including a pharmacy and coffee shop, which are located within walking and cycling distance of the site, or can be accessed by local public transport services. These provide opportunities for non-car based travel to and from the site and would potentially reduce the number of peak hour vehicle trips generated by the proposed development.
- 3.8.3. The site is also connected to the local and regional highway network. School Road connects with Church Road to the south, which in turn connects with the A14 leading to several key destinations including Bury St Edmunds, Stowmarket, Ipswich and Cambridge. PF has undertaken a review of Personal Injury Accident (PIA) information obtained from Crashmap, which indicated that there are no road safety concerns with the existing highway.
- 3.8.4. Highway improvements are to be implemented as part of the consented residential scheme to the north of Parnell Lane which will improve walking and cycling accessibility as well as improve road safety on School Road.

4. Development Proposals

4.1. Introduction

- 4.1.1. This section of the TA introduces and outlines the development proposals for the site. It includes a summary of the description of the proposed lane and schedule of accommodation, and proposed access arrangements by all transport modes.

4.2. Development Description

- 4.2.1. It is proposed to provide a care community comprising a 66-bed Care Home and 40 'Assisted Living' dwellings, alongside a management building, communal space and appropriate access and infrastructure at the site.
- 4.2.2. The Illustrative Landscape Masterplan for the site has been included in **Appendix A**.

4.3. Access

Pedestrians and Cycle Access

- 4.3.1. Pedestrians and cyclist connectivity has been carefully considered to the site. A pedestrian and cycle only access is proposed to the northeast corner of the site to provide a connection to the centre of Elmswell as illustrated in the figure below. They will also be able to use Parnell Lane which is adopted highway along the eastern boundary of the proposed development. Pedestrians and cyclists arriving from the south will also be able to use the proposed vehicular site access, which will have a separate footway provision.
- 4.3.2. As part of the residential scheme to the northeast, the provision of a foot / cycle path to the immediate north of St John's Church was discussed and the landowner has agreed to dedicate this land. As shown in the figure below this foot/cycle path would provide a connection to the proposed cycle route through Elmswell and connect into the improvements planned for School Road.
- 4.3.3. This foot / cycle path is envisaged as a 3m wide shared route.

Vehicular Access

- 4.3.4. A single vehicular access to the site is proposed from School Road to the south of the development, which has been designed to avoid an existing tree. This tree will be retained, and the access has been located sufficiently far south to avoid the tree falling within the junction's visibility splay.
- 4.3.5. The proposed vehicle access will tie into the consented highway improvements on School Road as part of the development to the east, which is illustrated for reference on the masterplan. The proposed indicative site access arrangements are presented in the figures below and in **Appendix B**, alongside swept path analysis of the junction/

Figure 4.1: Access Points Into the Site

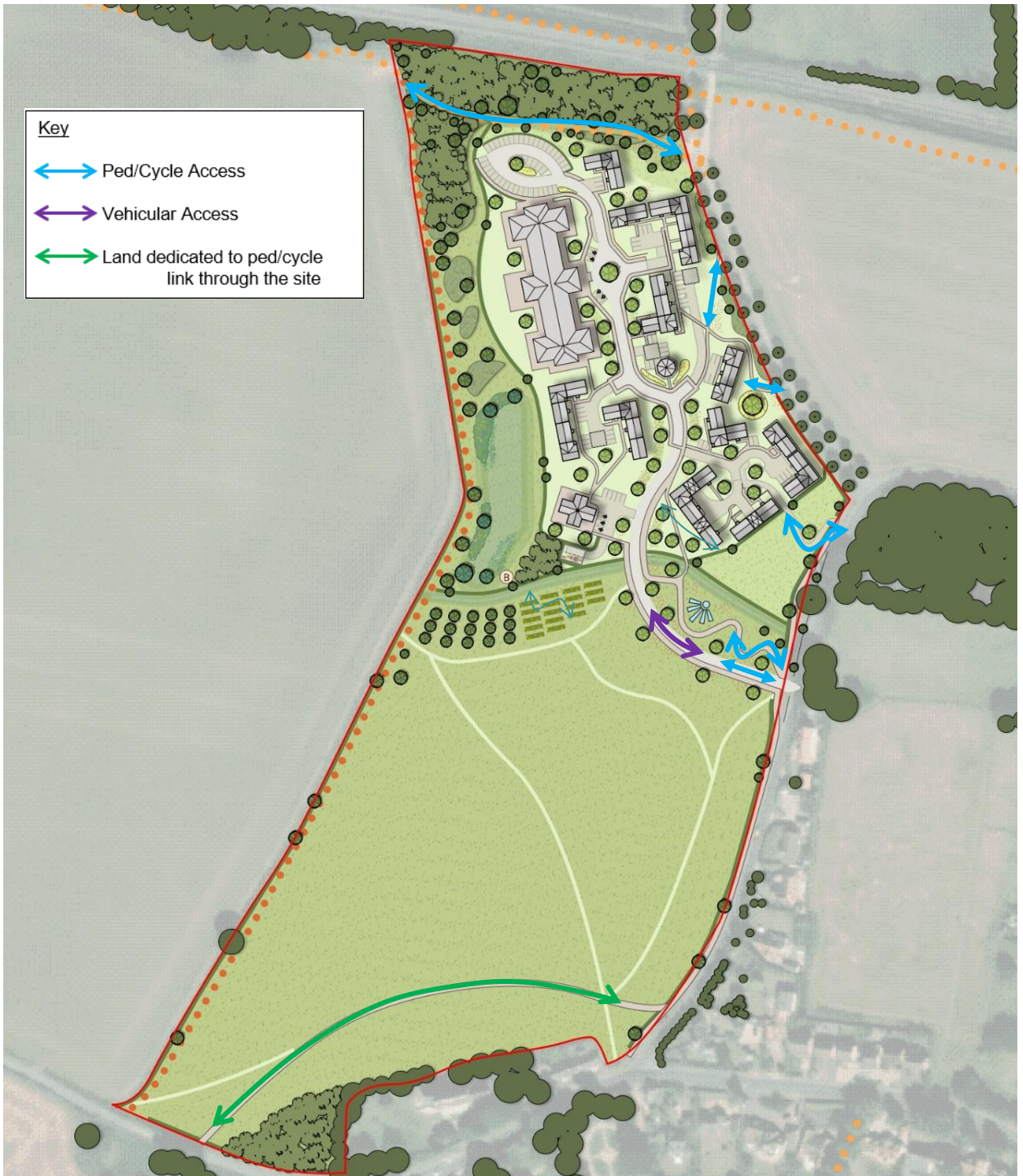


Figure 4.2: Proposed Indicative Site Access Arrangements



4.4. Parking

- 4.4.1. Car and cycle parking will be provided in accordance with the current SCC 'Guidance for Parking – Technical Guidance' (2019).

5. Trip Generation Assessment

5.1. Introduction

5.1.1. This chapter of the report provides a summary of the trip generation assessment undertaken to identify the potential trips generated by the proposed development.

5.2. Methodology

5.2.1. An initial trip generation assessment has been undertaken to assess the potential number of trips that could be expected to be generated by the proposed development. Trip rates have been identified using the TRICS (v7.9.3) database, with survey sites which share similar characteristics to the proposed developments in terms of land use, scale and accessibility.

5.2.2. The following site selection criteria has been used with TRICS to identify vehicle trip rates for both assisted living and care home proposals:

Assisted Living Units

- Sheltered Accommodation;
- England and Wales (excluding Greater London);
- Weekday surveys only;
- Suburban Area and Edge of Town sites only; and
- 14-124 units.

Care Home

- Care Home;
- England and Wales (excluding Greater London);
- Weekday surveys only;
- Suburban Area and Edge of Town sites only; and
- 17-180 units

5.2.3. A total of two survey sites for assisted dwellings and eight survey sites for care homes were identified using the above criteria. The resulting total vehicle trip rates for the typical network peak hours (08:00-09:00 and 17:00-18:00) are summarised in **Table 5.1** and **Table 5.2** respectively. The TRICS output report is included in **Appendix C**.

Table 5.1: Trip Generation for Assisted Dwellings

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arrivals	Departure	Total	Arrivals	Departure	Total	Arrivals	Departure	Total
Vehicle Trip Rates	0.096	0.135	0.231	0.077	0.077	0.154	1.769	1.768	3.537
Total Vehicle Trip Gen (40 Dwellings)	4	5	9	3	3	6	69	69	138

Note: Numbers may not sum due to rounding errors

Table 5.2: Trip Generation for Care Home

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arrivals	Departure	Total	Arrivals	Departure	Total	Arrivals	Departure	Total
Vehicle Trip Rates	0.083	0.066	0.149	0.03	0.05	0.08	0.974	0.996	1.97
Total Vehicle Trip Gen (66 Beds)	5	4	10	2	3	5	64	66	130

Note: Numbers may not sum due to rounding errors

5.2.4. The total peak hour and daily vehicle trips generated by the proposed development are summarised in **Table 5.3**.

Table 5.3: Total Vehicle Trips

	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)			Daily		
	Arrivals	Departure	Total	Arrivals	Departure	Total	Arrivals	Departure	Total
Site Wide Vehicle Trip Generation	9	10	19	5	6	11	133	135	268

Note: Numbers may not sum due to rounding errors

- 5.2.5. The quantum of peak hour trips generated by the proposed development (as summarised in Table 5.3) would not be expected to present a material impact on the local highway network, and as such no off-site junction modelling would be expected to be required.

5.3. Sensitivity Test

- 5.3.1. The trip generation assessment summarised above is considered to represent an accurate and robust assessment of the potential peak hour trip generation of the development proposals. However, a further sensitivity test has been undertaken to provide an additional ‘worst-case’ assessment of the potential trip generation. A similar exercise was undertaken for a similar care home/assisted living development at Yarmouth Road, Melton, Suffolk (reference: DC/20/1521/FUL) at the request of Suffolk County Highways.
- 5.3.2. In order to provide a robust assessment of the potential trip generation of the proposals, trip rates for alternative potential land uses have been assessed within TRICS. Trip rates for ‘Retirement Flats’ and ‘Retirement and Care Community’ land uses were calculated within TRICS using the same site selection criteria outlined in the methodology above. The TRICS output reports are included at **Appendix C**.
- 5.3.3. The resulting network peak hour trip rates and traffic generation for these land uses is summarised in **Table 5.4** and **Table 5.5**.

Table 5.4: Trip Generation for Retirement Flats

8	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departure	Total	Arrivals	Departure	Total
Vehicle Trip Rates	0.049	0.068	0.117	0.057	0.042	0.099
Total Vehicle Trip Gen (106 Dwellings)	5	7	12	6	4	10

Note: Numbers may not sum due to rounding errors

Table 5.5: Trip Generation for Retirement and Care Community

8	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departure	Total	Arrivals	Departure	Total
Vehicle Trip Rates	0.124	0.057	0.181	13	6	19
Total Vehicle Trip Gen (106 Dwellings)	0.061	0.119	0.18	6	13	19

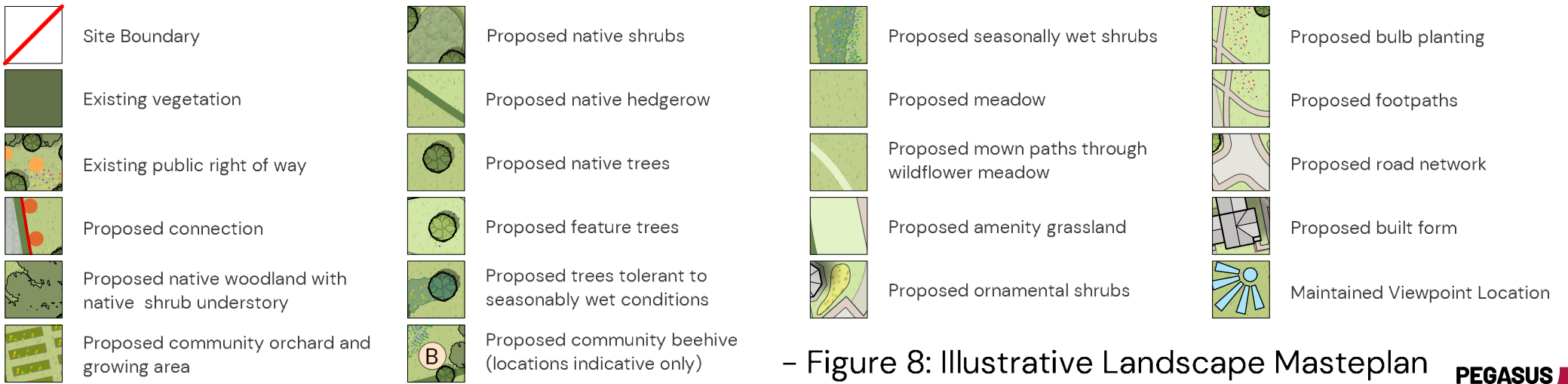
Note: Numbers may not sum due to rounding errors

- 5.3.4. As previously noted, the total network peak hour vehicle trips for the development (as summarised in Table 5.3) are considered to represent a robust assessment of the proposed land use. However, it has also been demonstrated that, if alternative land uses were assessed, they would continue to have a negligible impact on the local highway network in terms of the number of vehicles generated.

6. Summary and Conclusions

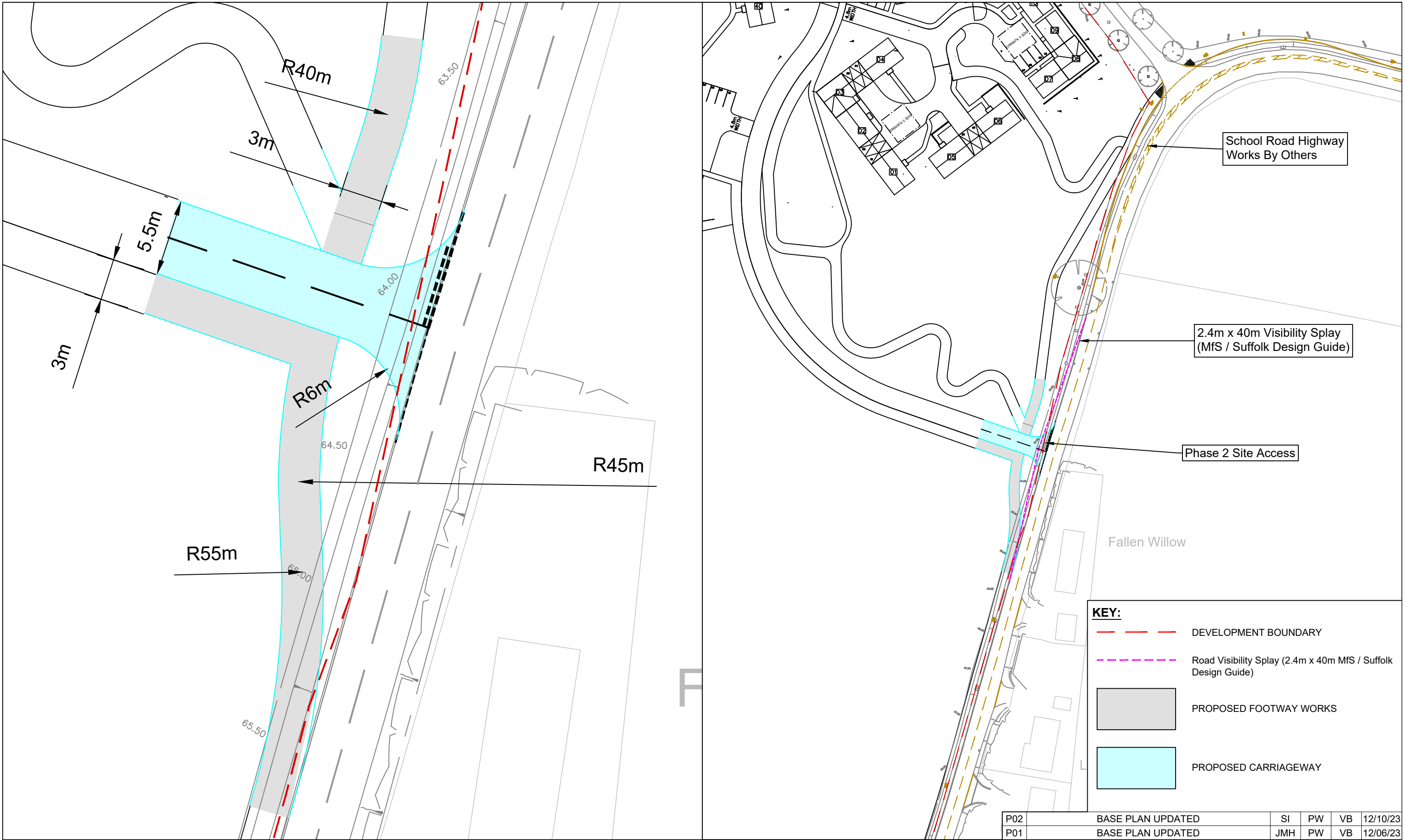
Summary and Conclusions	
	Pell Frischmann (PF) is instructed by Christchurch Property Company Limited (the 'Client') to provide transport and highways consultancy services in connection with the development proposals at land to the west of School Road, Elmswell, Suffolk (the 'site').
Authorities	The local highways authority is Suffolk County Council (SCC), and the local planning authority is Mid Suffolk District Council (MSDC).
Site Location	The site comprises the parcel of land west of School Road and south of Parnell Lane, to the southwest of the centre of Elmswell in Suffolk.
Proposed Development	<p>It is proposed to provide a care community comprising a 66-bed Care Home and 40 'Assisted Living' dwellings, alongside a management building, communal space and appropriate access and infrastructure at the site.</p> <p>Pedestrian/cycle access will be provided to the north of the site directly onto School Road and from Parnell Lane. Vehicular and pedestrian access is provided towards the south of the site from School Road in the form of a priority junction. The junction has been positioned to ensure an existing tree, which is to be retained, sits outside of the visibility splay.</p> <p>A shared 3m wide foot/cycle path is also offered to the south of the site to connect into the new pedestrian/cycleway proposed on School Road.</p>
Transport Accessibility	<p>The site is located 850m from Elmswell Station providing access to hourly services to Ipswich and Cambridge. There are also a number of bus services located within walking distance of the site.</p> <p>There are numerous local services and amenities within walking and cycling distance of the site including a foodstore, post office, pharmacy and other key facilities.</p>
Trip Generation	<p>A trip generation exercise has been undertaken that shows the proposed development will generate in the region of 19 two way trips in the AM peak and 11 in the PM peak. A sensitivity test has also been undertaken that produces similar results.</p> <p>Given the low level of trip generation for the development it is considered that the development will not create delays on the public highway.</p>
Conclusion	The development will be integrated into the existing pedestrian and cycle connections surrounding the site and this is illustrated in the masterplan. In terms of vehicular traffic generation, it has been demonstrated that site will not have an unacceptable impact on the public highway.

Appendix A
Illustrative Landscape Masterplan



– Figure 8: Illustrative Landscape Masterplan

Appendix B
Site Access Arrangements including Swept Path Analysis



KEY:

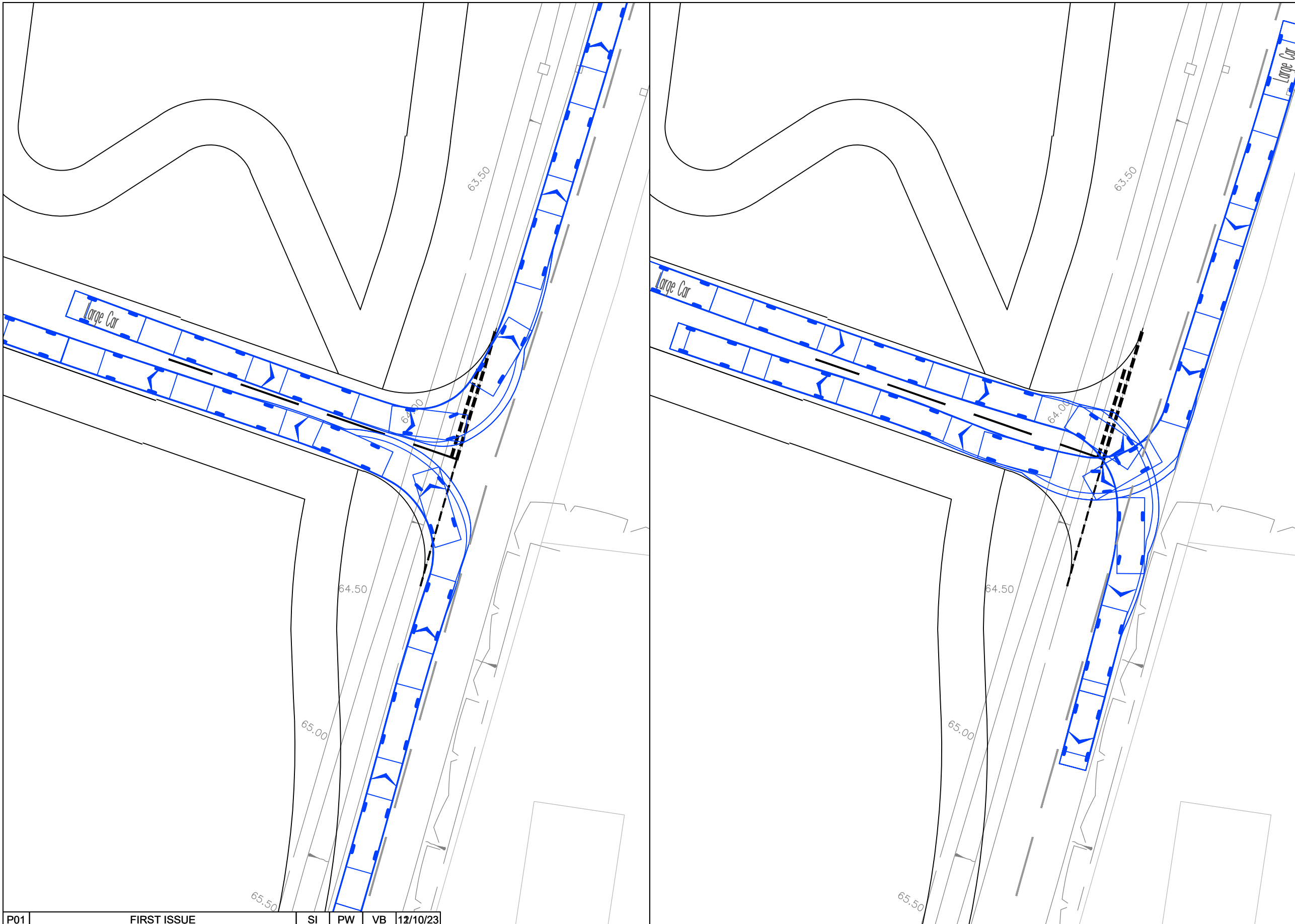
- DEVELOPMENT BOUNDARY
- Road Visibility Splay (2.4m x 40m MfS / Suffolk Design Guide)
- PROPOSED FOOTWAY WORKS
- PROPOSED CARRIAGEWAY

P02	BASE PLAN UPDATED	SI	PW	VB	12/10/23
P01	BASE PLAN UPDATED	JMH	PW	VB	12/06/23
	Name	Date	Scale 1:250/1000 @ A3		
Drawn	RD	DEC 2022	File No. 107174-T-000001.dwg		
Designed	RD	DEC 2022	Drawing Status FOR INFORMATION		
Checked	VB	DEC 2022	Revision		
Approved	VB	DEC 2022	P02		
Drawing No.		107174-T-000001			

Pell Frischmann
 5TH FLOOR, 85 STRAND LONDON WC2R 0DW
 Telephone +44 (0)20 7486 3661
 Email: pflondon@pellfrischmann.com
 www.pellfrischmann.com

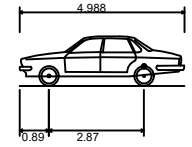
Project
SCHOOL ROAD PHASE 2, ELMSWELL, SUFFOLK

Drawing Title
PROPOSED SITE ACCESS ARRANGEMENTS

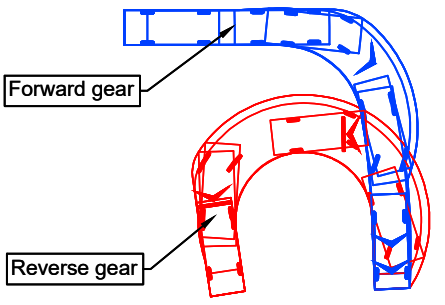


NOTES

1. Where the Contractor undertakes or engages a third party to undertake temporary works design, or varies the Pell Frischmann design in any way, then the Contractor will take full responsibility and liability for all design aspects, including a Design Risk Assessment. The Contractor shall inform Pell Frischmann of any proposed variances to the design.
2. This drawing shall be read in conjunction with all other Electrical, Mechanical, Public health & Architectural Drawings & The Specification.
3. Do not scale from this drawing, work to figured dimensions only.
4. Dimensions are in metres unless stated otherwise.
5. Swept path analysis is based on the following vehicle traveling at 5kmp/h.



Large Car	
Overall Length	4.988m
Overall Width	1.793m
Overall Body Height	1.502m
Min Body Ground Clearance	0.287m
Track Width	1.700m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.200m



P01 | FIRST ISSUE | SI | PW | VB | 12/10/23

Project
SCHOOL ROAD PHASE 2, ELMSWELL, SUFFOLK

	Name	Date
Drawn	SI	OCT 2023
Designed	SI	OCT 2023
Checked	PW	OCT 2023
Approved	VB	OCT 2023

Scale	1:250 @ A3
File No.	107174-T-000004.dwg
Drawing Status	FOR INFORMATION

Drawing Title
PROPOSED SITE ACCESS SWEEP PATH ANALYSIS - LARGE CAR

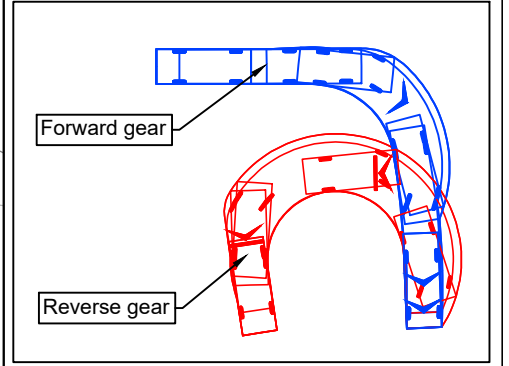
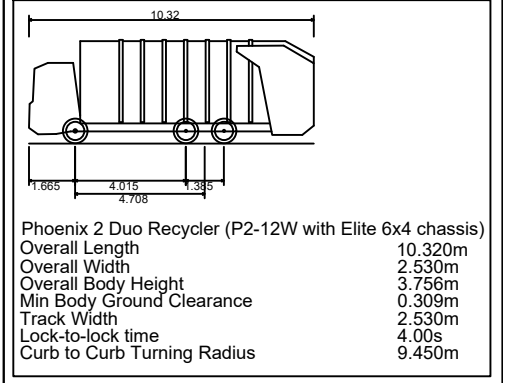
Drawing No.	107174-T-000004	Revision	P01
-------------	------------------------	----------	------------

Pell Frischmann
 5TH FLOOR, 85 STRAND LONDON WC2R 0DW
 Telephone +44 (0)20 7486 3661
 Email: pflondon@pellfrischmann.com
 www.pellfrischmann.com



NOTES

1. Where the Contractor undertakes or engages a third party to undertake temporary works design, or varies the Pell Frischmann design in any way, then the Contractor will take full responsibility and liability for all design aspects, including a Design Risk Assessment. The Contractor shall inform Pell Frischmann of any proposed variances to the design.
2. This drawing shall be read in conjunction with all other Electrical, Mechanical, Public health & Architectural Drawings & The Specification.
3. Do not scale from this drawing, work to figured dimensions only.
4. Dimensions are in metres unless stated otherwise.
5. Swept path analysis is based on the following vehicle traveling at 5kmp/h.



P01 | FIRST ISSUE | SI | PW | VB | 12/10/23

Project
SCHOOL ROAD PHASE 2, ELMSWELL, SUFFOLK

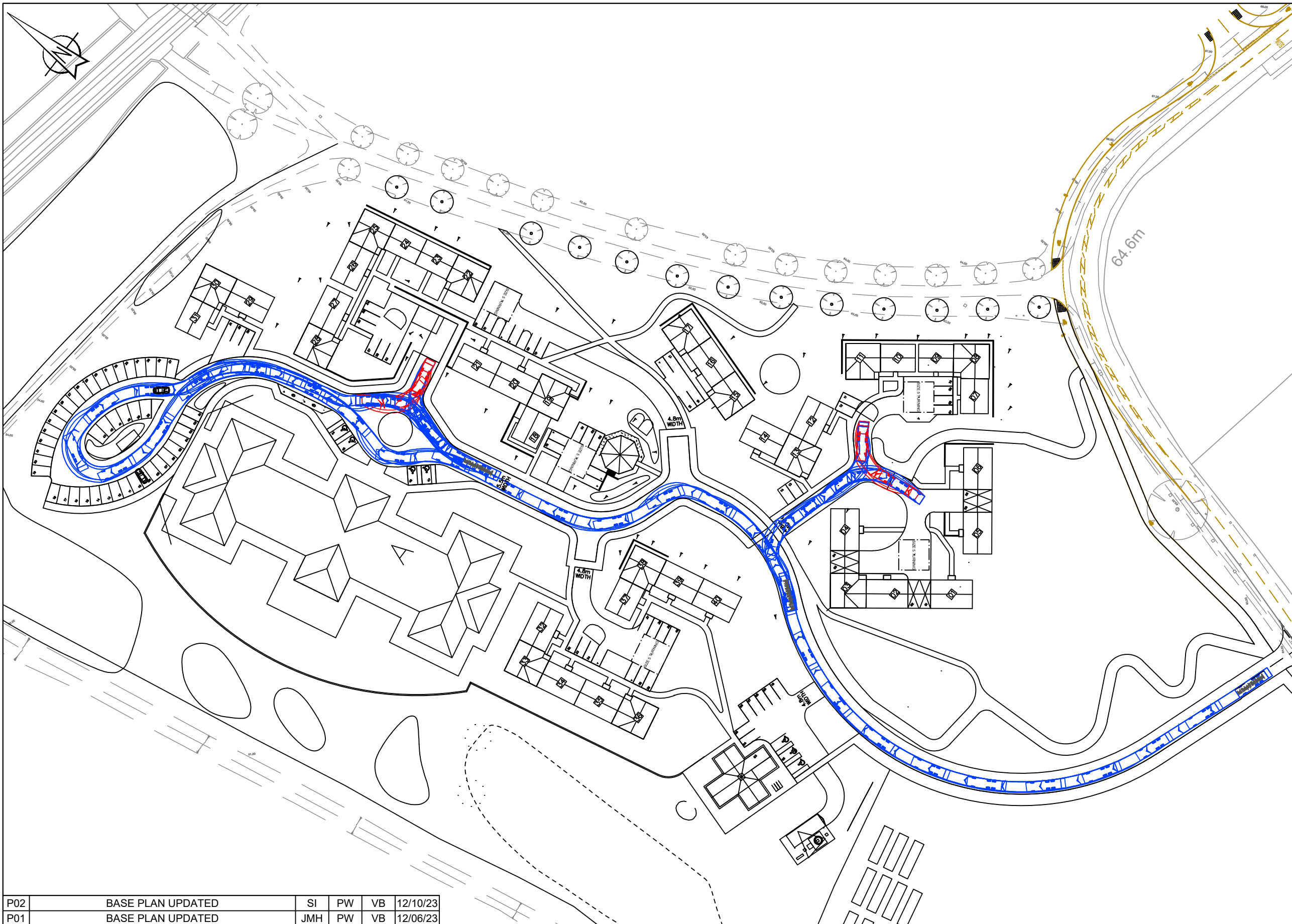
	Name	Date
Drawn	SI	OCT 2023
Designed	SI	OCT 2023
Checked	PW	OCT 2023
Approved	VB	OCT 2023

Scale 1:250 @ A3
 File No. 107174-T-000003.dwg
 Drawing Status FOR INFORMATION

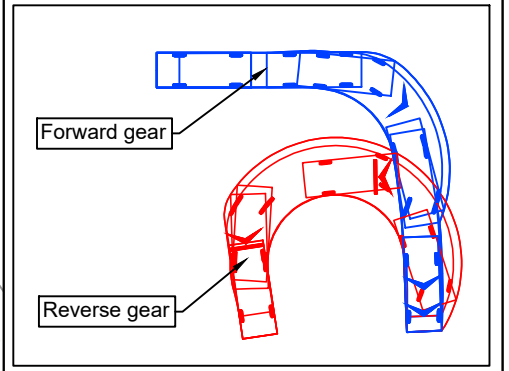
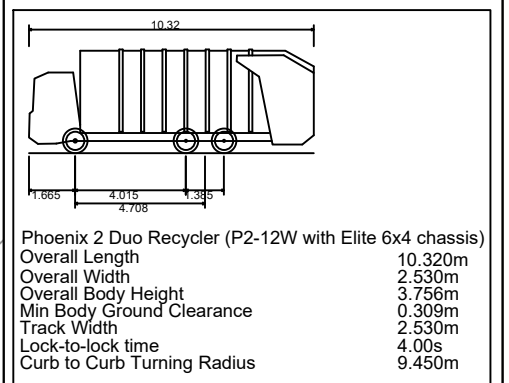
Pell Frischmann
 5TH FLOOR, 85 STRAND LONDON WC2R 0DW
 Telephone +44 (0)20 7486 3661
 Email: pflondon@pellfrischmann.com
 www.pellfrischmann.com

Drawing Title
PROPOSED SITE ACCESS SWEEP PATH ANALYSIS - REFUSE

Drawing No. **107174-T-000003**
 Revision **P01**



- NOTES**
1. Where the Contractor undertakes or engages a third party to undertake temporary works design, or varies the Pell Frischmann design in any way, then the Contractor will take full responsibility and liability for all design aspects, including a Design Risk Assessment. The Contractor shall inform Pell Frischmann of any proposed variances to the design.
 2. This drawing shall be read in conjunction with all other Electrical, Mechanical, Public health & Architectural Drawings & The Specification.
 3. Do not scale from this drawing, work to figured dimensions only.
 4. Dimensions are in metres unless stated otherwise.
 5. Swept path analysis is based on the following vehicle traveling at 5kmp/h.



P02	BASE PLAN UPDATED	SI	PW	VB	12/10/23
P01	BASE PLAN UPDATED	JMH	PW	VB	12/06/23

Pell Frischmann

5TH FLOOR, 85 STRAND LONDON WC2R 0DW

Telephone +44 (0)20 7486 3661
 Email: pflondon@pellfrischmann.com
 www.pellfrischmann.com

Project	SCHOOL ROAD PHASE 2, ELMSWELL, SUFFOLK		
Drawing Title	INTERNAL REFUSE SWEEP PATH ANALYSIS		

Drawn	RD	JAN 2023	Scale	1:1000 @ A3
Designed	RD	JAN 2023	File No.	107174-T-000002.dwg
Checked	VB	JAN 2023	Drawing Status	FOR INFORMATION
Approved	VB	JAN 2023	Drawing No.	107174-T-000002
				Revision
				P02

Calculation Reference: AUDIT-610805-230207-0224

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : F - SHELTERED ACCOMMODATION
 TOTAL VEHICLES

Selected regions and areas:

08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	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:	No of Dwellings
Actual Range:	20 to 32 (units:)
Range Selected by User:	14 to 124 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 21/04/22

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:

Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
------------------------------------	---

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:

Residential Zone	2
------------------	---

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.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	2 days - Selected

Secondary Filtering selection:

Use Class:

C3 2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS@.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 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:

75,001 to 100,000 1 days

500,001 or More 1 days

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

Car ownership within 5 miles:

0.6 to 1.0 1 days

1.1 to 1.5 1 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 2 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 2 days

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

LIST OF SITES relevant to selection parameters

1	GM-03-F-07	SHELTERED HOUSING	GREATER MANCHESTER
	LANCASTER ROAD		
	SALFORD		
	SWINTON PARK		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	32	
	Survey date: FRIDAY	21/06/19	Survey Type: MANUAL
2	LC-03-F-02	SHELTERED HOUSING	LANCASHIRE
	RICHMOND AVENUE		
	BURSCOUGH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	20	
	Survey date: THURSDAY	21/04/22	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 03 - RESIDENTIAL/F - SHELTERED ACCOMMODATION

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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									
06:00 - 07:00									
07:00 - 08:00	2	26	0.115	2	26	0.135	2	26	0.250
08:00 - 09:00	2	26	0.096	2	26	0.135	2	26	0.231
09:00 - 10:00	2	26	0.154	2	26	0.173	2	26	0.327
10:00 - 11:00	2	26	0.308	2	26	0.192	2	26	0.500
11:00 - 12:00	2	26	0.192	2	26	0.250	2	26	0.442
12:00 - 13:00	2	26	0.115	2	26	0.115	2	26	0.230
13:00 - 14:00	2	26	0.212	2	26	0.288	2	26	0.500
14:00 - 15:00	2	26	0.115	2	26	0.154	2	26	0.269
15:00 - 16:00	2	26	0.135	2	26	0.096	2	26	0.231
16:00 - 17:00	2	26	0.192	2	26	0.115	2	26	0.307
17:00 - 18:00	2	26	0.077	2	26	0.077	2	26	0.154
18:00 - 19:00	2	26	0.058	2	26	0.038	2	26	0.096
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.769			1.768			3.537

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: 20 - 32 (units:)
Survey date range: 01/01/14 - 21/04/22
Number of weekdays (Monday-Friday): 2
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-610805-230207-0207

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
 Category : F - CARE HOME (ELDERLY RESIDENTIAL)
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	SP SOUTHAMPTON	1 days
	WS WEST SUSSEX	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
	NN NORTH NORTHAMPTONSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	BP BLACKPOOL	1 days
09	NORTH	
	TW TYNE & WEAR	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: Number of residents
 Actual Range: 17 to 70 (units:)
 Range Selected by User: 17 to 180 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 13/06/22

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	2 days
Tuesday	4 days
Thursday	1 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	5

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:

Residential Zone	6
No Sub Category	2

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:

C2 8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS@.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	6 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.

LIST OF SITES relevant to selection parameters

1	BP-05-F-01 LYTHAM ROAD BLACKPOOL SQUIRES GATE Edge of Town Residential Zone Total Number of residents: <i>Survey date: TUESDAY</i>	NURSING HOME 31 <i>27/09/16</i>	BLACKPOOL <i>Survey Type: MANUAL</i>
2	DY-05-F-01 29 VILLAGE STREET DERBY Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of residents: <i>Survey date: TUESDAY</i>	NURSING HOME 70 <i>21/10/14</i>	DERBY <i>Survey Type: MANUAL</i>
3	NN-05-F-01 MALHAM DRIVE KETTERING Edge of Town No Sub Category Total Number of residents: <i>Survey date: MONDAY</i>	NURSING HOME 60 <i>13/06/22</i>	NORTH NORTHAMPTONSHIRE <i>Survey Type: MANUAL</i>
4	NY-05-F-05 SEAGRIM CRESCENT RICHMOND Edge of Town Residential Zone Total Number of residents: <i>Survey date: MONDAY</i>	NURSING HOME 37 <i>04/03/19</i>	NORTH YORKSHIRE <i>Survey Type: MANUAL</i>
5	SF-05-F-01 COLCHESTER ROAD IPSWICH Edge of Town Residential Zone Total Number of residents: <i>Survey date: FRIDAY</i>	CARE HOME 17 <i>18/09/15</i>	SUFFOLK <i>Survey Type: MANUAL</i>
6	SP-05-F-01 BOTLEY ROAD SOUTHAMPTON Edge of Town No Sub Category Total Number of residents: <i>Survey date: TUESDAY</i>	CARE HOME 42 <i>24/11/15</i>	SOUTHAMPTON <i>Survey Type: MANUAL</i>
7	TW-05-F-03 MOORE STREET GATESHEAD FELLING SHORE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of residents: <i>Survey date: THURSDAY</i>	NURSING HOME 52 <i>02/05/19</i>	TYNE & WEAR <i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

8 WS-05-F-02 NURSING HOME WEST SUSSEX
WYKEHAM ROAD
WORTHING

Suburban Area (PPS6 Out of Centre)
Residential Zone

Total Number of residents: 54

Survey date: TUESDAY

17/05/22

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 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

TOTAL VEHICLES

Calculation factor: 1 RESIDE

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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									
06:00 - 07:00									
07:00 - 08:00	8	45	0.105	8	45	0.063	8	45	0.168
08:00 - 09:00	8	45	0.083	8	45	0.066	8	45	0.149
09:00 - 10:00	8	45	0.069	8	45	0.039	8	45	0.108
10:00 - 11:00	8	45	0.069	8	45	0.047	8	45	0.116
11:00 - 12:00	8	45	0.061	8	45	0.072	8	45	0.133
12:00 - 13:00	8	45	0.066	8	45	0.080	8	45	0.146
13:00 - 14:00	8	45	0.099	8	45	0.055	8	45	0.154
14:00 - 15:00	8	45	0.083	8	45	0.116	8	45	0.199
15:00 - 16:00	8	45	0.110	8	45	0.185	8	45	0.295
16:00 - 17:00	8	45	0.050	8	45	0.088	8	45	0.138
17:00 - 18:00	8	45	0.030	8	45	0.050	8	45	0.080
18:00 - 19:00	8	45	0.033	8	45	0.033	8	45	0.066
19:00 - 20:00	8	45	0.066	8	45	0.039	8	45	0.105
20:00 - 21:00	8	45	0.050	8	45	0.063	8	45	0.113
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.974			0.996			1.970

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: 17 - 70 (units:)
 Survey date range: 01/01/14 - 13/06/22
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

