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Duchy Homes

Proposed Residential Development
Darton Lane, Staincross
Travel Plan

April 2024

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Client Commission			
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LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown, and CVs are available upon request to demonstrate our experience and credentials.

Team Member	LTP Designation	Qualifications
Steven Windass	*Technical Director*	*BSc(Hons) MSc(Eng) CEng FIHE MCIHT*
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PROPOSED RESIDENTIAL DEVELOPMENT DARTON LANE, STAINCROSS TRAVEL PLAN

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1. INTRODUCTION

1.1 Background

1.1.1 Local Transport Projects Ltd (LTP) has been commissioned to produce a Travel Plan (TP) in support of a residential development at land to the south of Darton Lane, located in Staincross, near Barnsley. This TP provides a strategy for encouraging users of the site to travel by sustainable modes of transport, including walking, cycling, public transport and car sharing. A plan of the proposed site layout is attached as Appendix 1.

1.1.2 The local planning and highway authority for the site is Barnsley Metropolitan Borough Council (BMBC).

1.1.3 A Transport Note (TN) (LTP, 2023) that provides an appraisal of key transport aspects associated with the proposed development was previously produced to support the planning application.

1.2 Scope

1.2.1 This Travel Plan is written in accordance with the Government's *'National Planning Policy Framework'* (DLUHC, 2023) and *'Planning Practice Guidance'* (DLUHC, 2014), with the scope summarised below:

- ***Background:***
  - Introduction to the Travel Plan, the proposals, and the relevant planning history;
  - Outline of the Travel Plan scope;
  - Determine the benefits that a successful Travel Plan can achieve, relative to residents, visitors, the local community, and the developer;
  - Outline the relevant travel planning policy context, including the latest local and national travel planning guidance.
- Definition of the overall ***aim and objectives*** of the Travel Plan.
- Establish the expected ***baseline travel situation***.
- Set appropriate ***targets*** to minimise car journeys to/from the site, based on the expected baseline situation.
- Assess ***accessibility*** of the site by sustainable modes, including:
  - Walking;
  - Cycling;
  - Public Transport;
  - Car Sharing.
- Establish ***roles and responsibilities*** for implementing the Travel Plan, including the role of the Travel Plan Coordinator and the overall responsibility for funding.
- Outline the Travel Plan Strategy and ***Action Plan***, which would include a range of measures for achieving the objectives, under the following headings:
  - Walking;
  - Cycling;
  - Public transport;

- Car sharing initiatives;
- Welcome Travel Pack.

- The Action Plan would also contain details on the ***funding and timescales*** for each of the proposed schemes.
- Outline the ***monitoring and evaluation strategy*** of the Travel Plan, to include annual surveying and other indicators.
- Establish ***intervention measures*** to be implemented if the review process identifies that the Travel Plan targets are not being achieved.

1.3 Site Location & Existing Use

1.3.1 The proposed development site is located to the south of Darton Lane, in the village of Staincross, near Barnsley. The site currently forms open grassland and is bound by Darton Lane (B6131) to the north, residential properties served by the eastern section of Darton Lane to the east, woodland, and agricultural land to the south, with residential properties and Darton Primary School forming the site's western boundary. The approximate boundary of the development site is highlighted in Figure 1.

Figure 1: Site Location

Source Imagery: Copyright Google Earth Pro (License Key-JCPMR5M58LXF2GE)

1.4 Development Proposals & Access Arrangements

1.4.1 This report is based on the proposals shown on the site layout plan attached as Appendix 1. The proposals are seeking to provide 46 dwellings, comprising a mix of dwelling size and type.

1.4.2 It is acknowledged that the proposals are consistent with the scale of development (46 dwellings) that was previously approved as part of the outline consent.

1.4.3 Vehicular access to the site will be primarily provided via a new simple priority T-junction with Darton Lane on the northern boundary of the site. This new access and primary spine road are to serve the majority of the proposed site (27 dwellings). Four additional access points to the development are proposed to the east of the main site access junction, all of which will provide a private driveway to serve 4-5 dwellings each. These private driveways will be shared by multiple dwellings, and in keeping with other private driveways, they will represent a shared surface that is utilised by all road users (i.e. vehicles, pedestrians, and cyclists).

1.4.4 Pedestrian access to the site is to be provided via a 2m wide footway on either side of the proposed site access road which will connect with the existing footway provision on the southern side of Darton Lane. A 2m footway is expected to be provided on at least one side of the carriageway on all roads within the site, with shared surfaces to be provided on some connecting cul-de-sac. The footways adjacent to the spine road are to connect with a proposed new 3.0m wide footway that runs through the western part of the site, providing a direct connection to the off-site informal footpath adjacent to Darton Primary School.

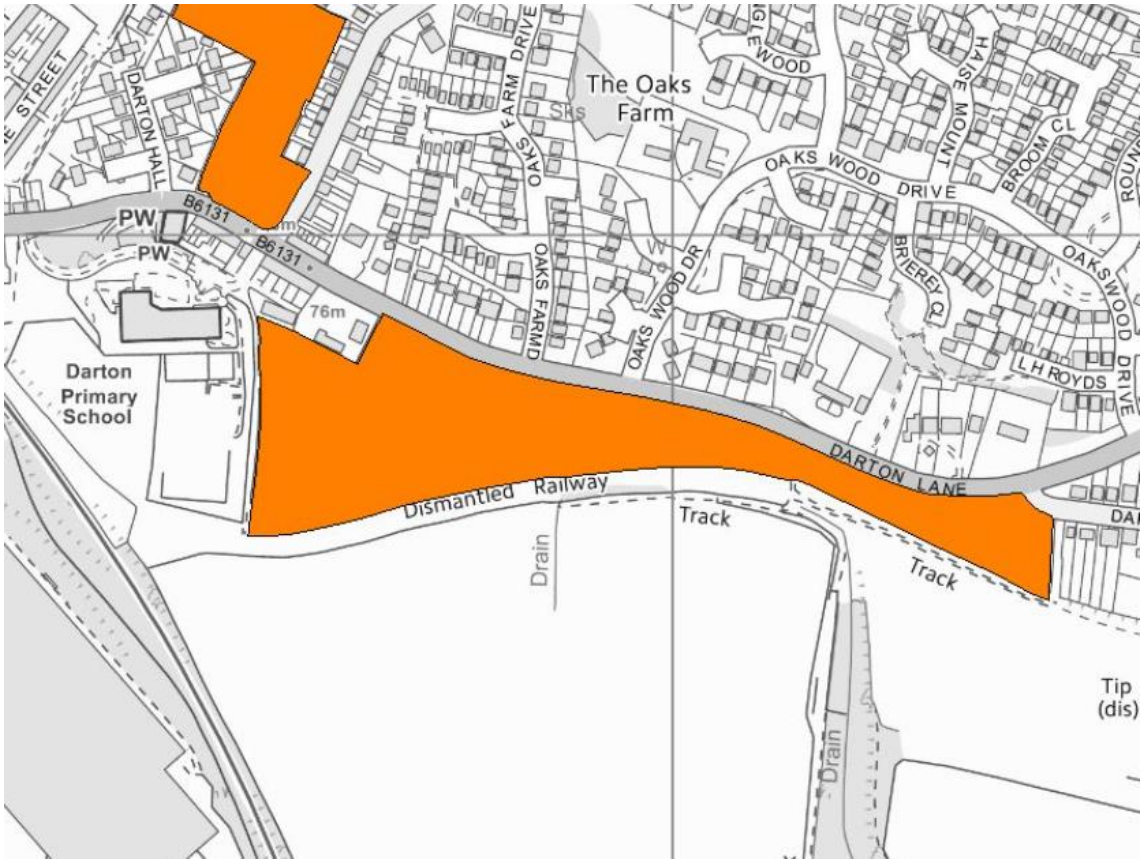
1.4.5 There is an existing track located centrally along the site (between proposed plots 19 and 20) that provides an access to land to the south, which is to be retained as part of the development scheme but will also connect with a new footway adjacent to plot 20 in order to enhance pedestrian access to the off-site footways, particularly for plots 20-33.

1.4.6 Cyclists accessing the proposed development would be expected to be on-road which is in accordance with *'Manual for Streets'* (DfT, 2007) guidance which states that *"cyclists should generally be accommodated on the carriageway"*.

1.5 Allocation Status & Planning History

1.5.1 The application site is allocated for residential development within the Barnsley Local Plan (BMBC, 2019a) (ref: HS2), with an indicative capacity of 86 dwellings. There are no highways-related stipulations noted in the Local Plan for development of the site. The boundary of the allocation site is shown below in Figure 2.

Figure 2: HS2 Site Allocation



Source: BMBC, 2019a

1.5.2 It is acknowledged that the proposed scheme for 46 dwellings is notably lower than the allocated scale of development on the site, which was agreed with BMDC as part of the outline consent, with no proposed houses on the western part of the site.

1.5.3 The proposed site benefits from extant outline planning permission for 46 dwellings (Ref: 2019/1244), which considered the principle of residential development on the site and the associated traffic impacts and was approved in October 2019. Therefore, this TP has been produced in support of the subsequent reserved matters application (2023/0579) that is currently pending consideration.

2. TRAVEL PLANNING BACKGROUND

2.1 What is a Travel Plan?

2.1.1 Planning Practice Guidance (PPG) entitled '*Travel Plans, Transport Assessments and Statements in Decision-taking'* defines Travel Plans as *"long-term management strategies for integrating proposals for sustainable travel into the planning process. They are based on evidence of the anticipated transport impacts of development and set measures to promote and encourage sustainable travel (such as promoting walking and cycling)"* (DLUHC, 2014).

2.1.2 A key guidance document in terms of Residential Travel Plans is '*Making Residential Travel Plans Work'* (DfT, 2007a). This document introduces the concept of the Residential Travel Plan Pyramid, which is discussed further within Section 2.3. The document describes a Residential Travel Plan as *"a package of measures designed to reduce car use originating from new housing by supporting alternative forms of transport and reducing the need to travel in the first place. They are an important tool to help deliver accessible, sustainable communities and offer clear benefits to all the parties involved – public, private and the community. They involve meeting the access needs of residents in a new way and require partnerships between developers, local authorities, local communities, and new residents"* (DfT, 2007a).

2.1.3 Best practice has been identified within the appropriate national guidance and has informed the development of this Travel Plan. Within the '*National Planning Policy Framework*' (NPPF) (DLUHC, 2023) Travel Plans are identified as a key tool to promote sustainable modes of travel, stating that "*all developments that will generate significant amounts of movement should be required to provide a Travel Plan.*" The NPPF identifies that Travel Plans should exist as a long-term strategy and should be regularly reviewed.

2.1.4 As well as the guidance highlighted above, this Travel Plan is situated within the context of the following policy documents:

- National Planning Policy Framework (DLUHC, 2023);
- Barnsley Local Plan (BMBC 2019a);
- Barnsley Local Plan – Policies Map (BMBC, 2019b);
- Sustainable Travel Supplementary Planning Document (BMBC, 2019c);
- Active Travel in Barnsley 2019-2033 (BMBC, 2019e).
- Barnsley Transport Strategy 2014-2033 (BMBC, 2016);
- Planning Practice Guidance (DLUHC, 2014);
- Manual for Streets 2: Wider Application of the Principles (CIHT, 2010);
- Guidance on Transport Assessment (DfT, 2007a); and
- Manual for Streets (DfT, 2007b).

2.2 Why Prepare a Travel Plan? – The Benefits

2.2.1 A successful Travel Plan can be expected to realise a number of environmental, economic, health and social benefits. These benefits can be experienced by individuals, the developer, the Local Authority, and the wider community. Figure 3 highlights a number of benefits that a successful Travel Plan can bring.

Figure 3: Potential Benefits of a Successful Travel Plan

Benefits to the individual

- Improved travel choices which can provide travel options that are ***cheaper***, ***quicker*** and ***more convenient***.
- There are various health benefits associated with walking and cycling, including improved physical fitness and reduced stress.
- A more attractive and cleaner environment at the site as a result of reduced congestion and lower demand for parking.

Benefits to the local community

- Improved travel links in the area for local people.
- Reducing the number of car journeys on the local roads can help make the streets less congested.
- A reduction in pollutants will improve air quality and help contribute towards wider local, national and global environmental targets.

Benefits to the Developer

- Enhances site accessibility.
- Provides evidence of sustainable credentials against criteria such as BREEAM.
- Producing a Travel Plan could offer positive image enhancement benefits to the development.
- Creates good relations with the local community.
- Improve marketability with an added value product.
- Potentially reduce the need for expenditure on new highway infrastructure.
- Residents and visitors are provided with a better experience from the reduced congestion and demand for parking.

2.2.2 This Travel Plan sets out the proposals for promoting sustainable travel choices by residents and visitors of the proposed development.

2.3 The Residential Travel Plan Pyramid

2.3.1 The Residential Travel Plan Pyramid (see Figure 4) is a diagrammatic tool which illustrates that successful Residential Travel Plans are built on the firm foundations of good location and site design. These elements must be supplemented by various measures, including the appointment of a Travel Plan Coordinator (TPC), a Travel Plan Strategy and Action Plan and also a promotional strategy which combines all elements of the pyramid into a coherent and marketable Travel Plan.

Figure 4: The Residential Travel Plan Pyramid

Source: DfT, 2007a

2.3.2 By linking to the relevant levels of the pyramid the remainder of this Travel Plan outlines the strategy for achieving a high-quality housing development which maximises travel choices available to its residents:

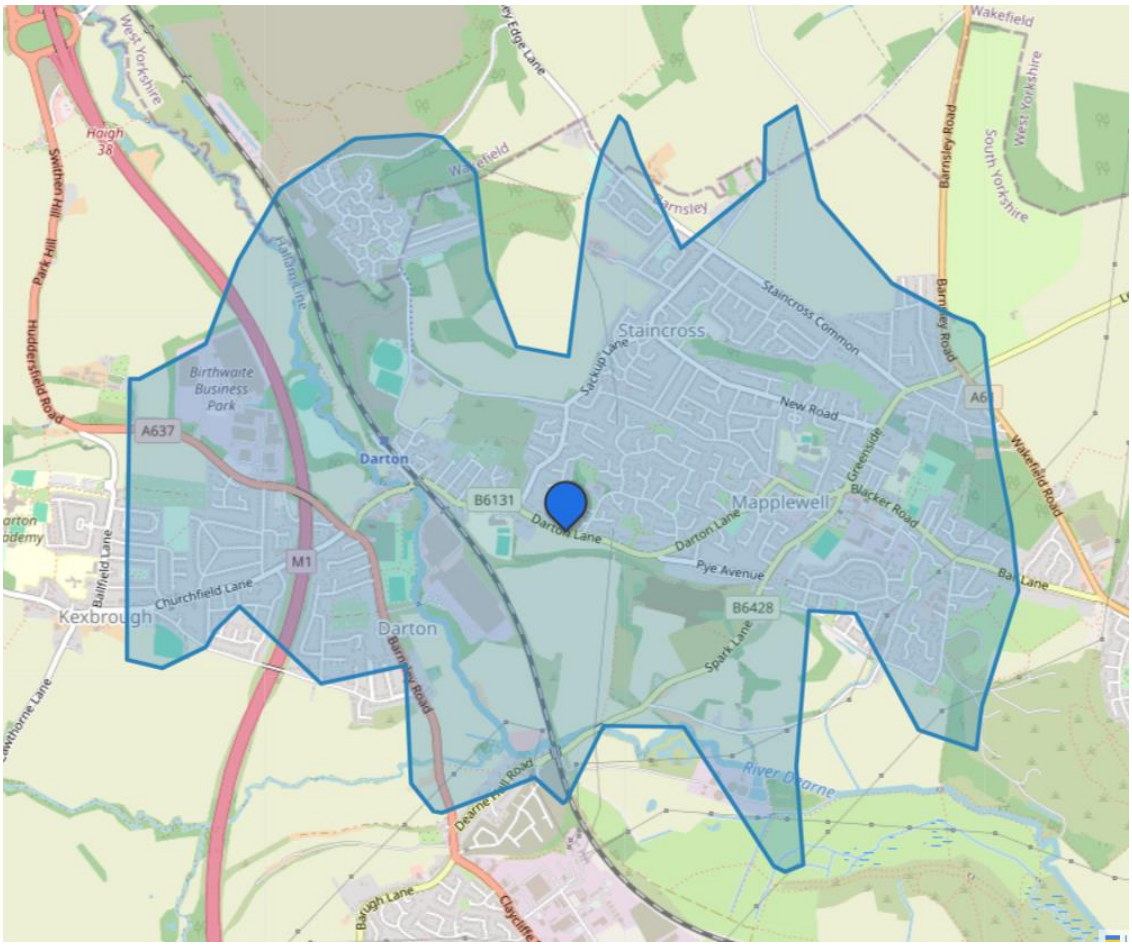
- **Section 3** – Considers the foundations of the pyramid and assesses the location and surrounding built environment of the proposed development in relation to each sustainable mode of travel;
- **Sections 4 & 5** – Identify the Travel Plan aim, objectives and targets;
- **Section 6** – Outlines the central and varying roles that the Travel Plan Coordinator (TPC) will occupy in developing and advancing the Travel Plan;
- **Section 7** – Outlines the Travel Plan measures that are to be implemented at the site; and
- **Section 8** – Details the Travel Plan monitoring and evaluation strategy.

3. OPTIONS FOR SUSTAINABLE TRAVEL

3.1 Pedestrian Provision

3.1.1 Guidance from Chartered Institution of Highways & Transportation (CIHT) suggests a preferred maximum walking distance of 2km for a number of trips, including commuting and school trips (IHT, 2000). The proposed development site is located within a 2km walking distance of the entire built-up areas of Staincross, and Darton, along with Mapplewell and parts of Kexbrough. The isochrone map within Figure 5 shows the areas that are within an approximately 2km walk of the site.

Figure 5: 2km Walking Isochrone

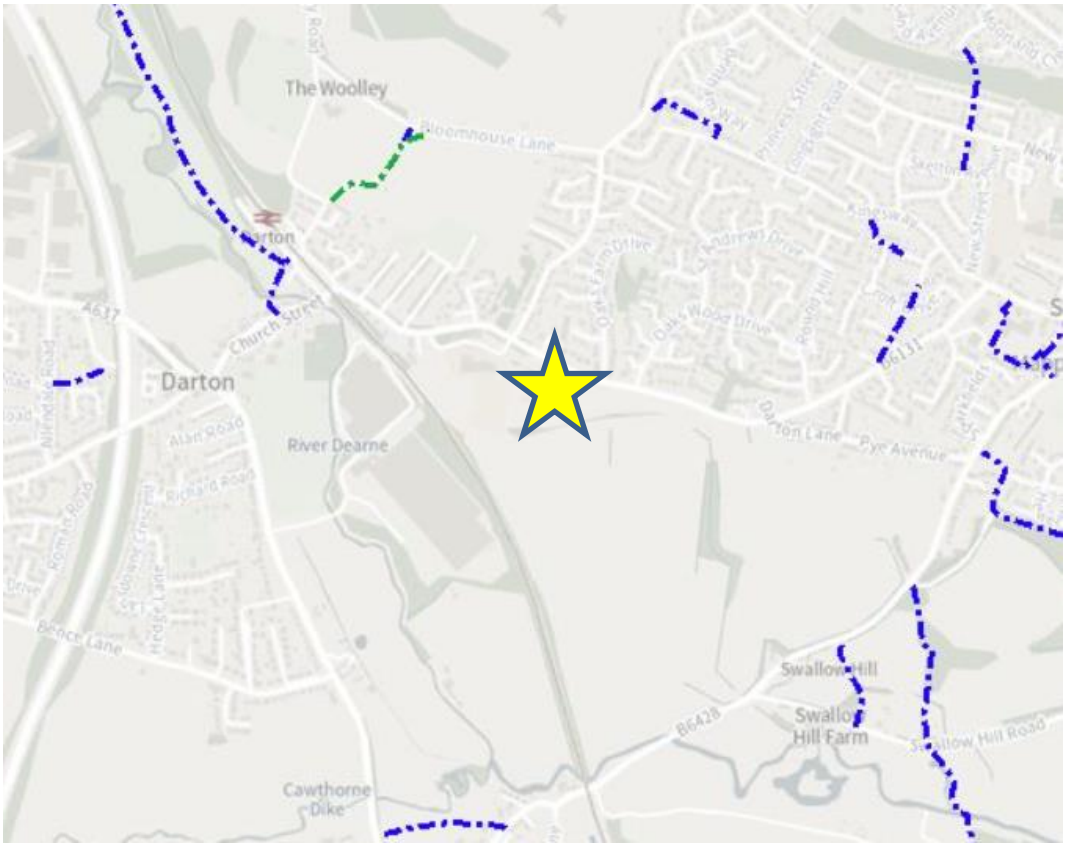


Source: ORS, 2023

3.1.2 Darton Primary School is located an approximately 180m walk to the west of the site via Darton Lane. Darton village centre is also within an approximately 800m walk of the site to the east and includes various amenities such as a Darton community centre, village hall, health centre and various retail shops.

3.1.3 There are a number of PRoW within the vicinity of the site, as shown on the plan within Figure 6. The location of the site is indicated in yellow, with footpaths shown in blue.

Figure 6: Public Rights of Way



Source: BMBC, 2024

3.1.4 The existing and proposed pedestrian infrastructure within the vicinity of the site appears to generally be sufficient to facilitate the movements of mobility and visually impaired people, with the provision of dropped kerbs and tactile paving at local junctions and roundabouts within the local area. The footways are generally of sufficient width and surface quality to accommodate the passage of wheelchairs (DfT, 2021).

3.1.5 It is expected that the proposed internal pedestrian routes will be of adequate width, with step-free access between the site and the local footway network to allow the site to be suitably accessed on foot by all users, including those accompanied by young children and the mobility impaired.

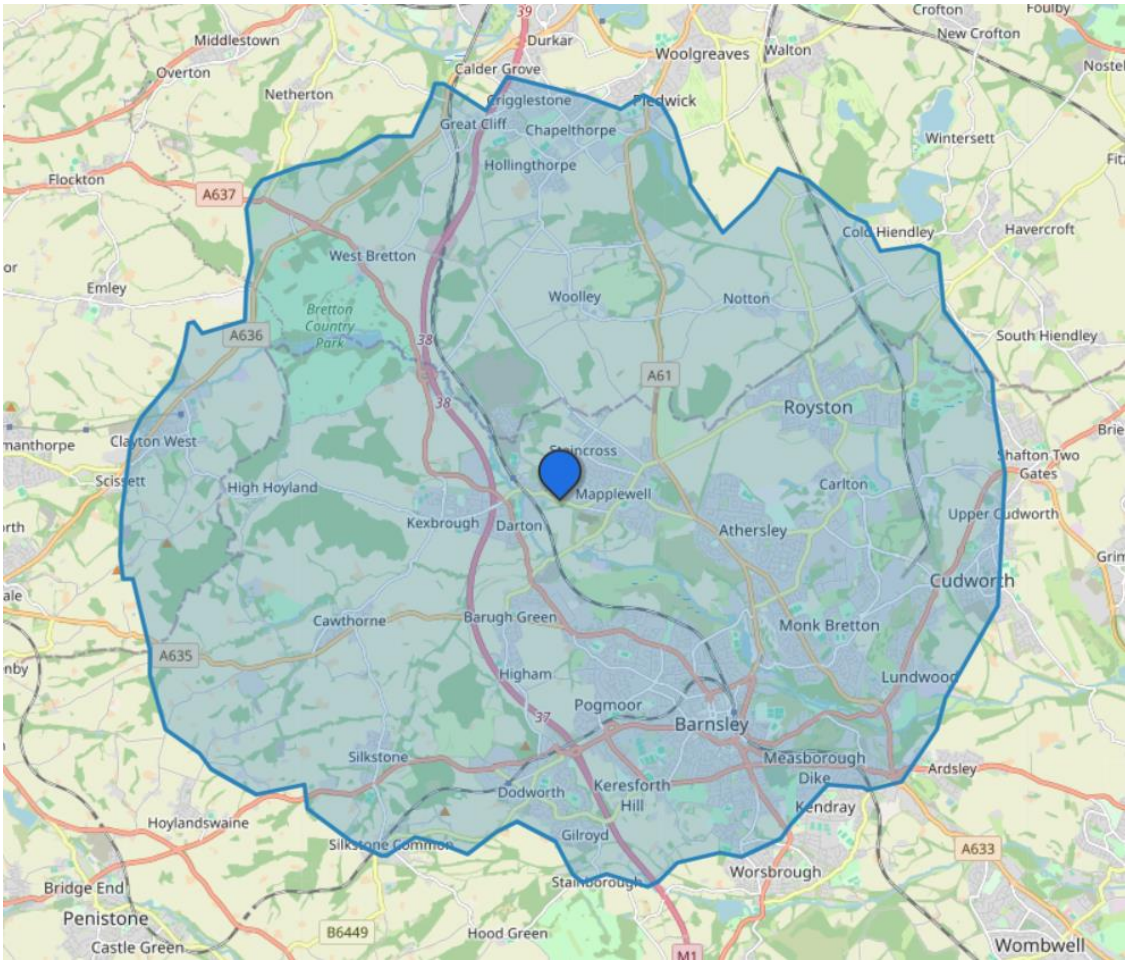
3.1.6 Measures to promote and encourage walking trips both to and within the site are outlined within Section 7.3 and will be implemented at varying stages by the Travel Plan Coordinator.

3.2 Cycling Provision

3.2.1 Cycling is a low cost and healthy alternative to car use, which can substitute for short car trips, or can form part of a longer journey by public transport. The Department for Transport (DfT) state that journeys up to five miles (circa 8km) are *"an achievable distance to cycle for most people"* (DfT, 2020).

3.2.2 The proposed development site is located within a reasonable cycle ride, up to 8km (approximately 25 minutes at the average cycling speed of 12mph), of the majority of the built-up area of Barnsley, along with outlying settlements, including Darton, Staincross, Silkstone and Hoyland, as illustrated within Figure 7.

Figure 7: 8km Cycle Isochrone



Source: ORS, 2023

3.2.3 There are a number of traffic-free routes within the vicinity of the site, including a footway along the southern edge of the site which joins a cycle path connecting to Spark Lane. While there is no dedicated cycle track in the immediate vicinity of the site, there are a number of traffic-free routes which can be utilised by cycle users.

3.2.4 Given that most roads within the vicinity of the site are subject to a 20mph/30mph speed limit, it is considered that the local environment within the vicinity of the site is generally conducive to encouraging cycling trips.

3.2.5 Measures to promote and encourage cycling trips to the site are outlined within Section 7.4 and will be implemented at varying stages by the Travel Plan Coordinator.

3.3 Public Transport Provision

3.3.1 Advice within *'Guidelines for Public Transport in Development'* (IHT, 1999) states that the generally acceptable maximum distance that a bus stop should be located from a development site is 400m, although it is acknowledged that actual walking distances can be notably longer.

3.3.2 The nearest existing bus stops to the proposed development are located right outside the northern boundary of the site approximately 100m west and 150m east of the proposed site access. There are also stops in both directions on Sackup Lane approximately 275m to the west, which provide access to an additional service.

3.3.3 Details of the bus services that operate from these stops are outlined within Table 1 below:

Table 1: Local Bus Services

Service	Route	Weekday Frequency*
Services from Darton Lane (<180m)		
1	Barnsley Interchange - Staincross Circular	Every 30 minutes
97	Woolley Grange - Wakefield	3 services each direction
420	Mapplewell - Penistone Grammar	1 school service in each direction
488	Darton Academy - Monk Bretton	1 school service in each direction
Services from Sackup Lane (circa 275m)		
486	Darton College - Mapplewell	1 service in each direction

*Refers to the general daytime service between 08:00 and 17:00.

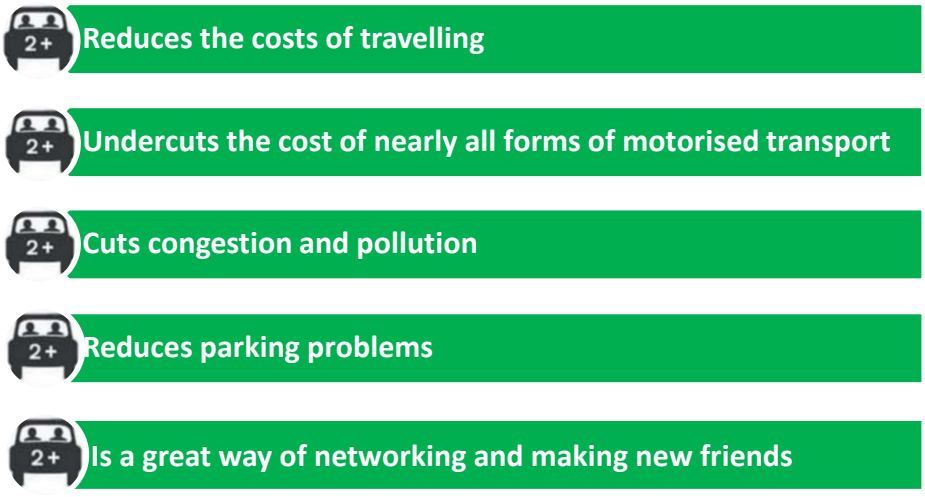
3.3.4 The nearest rail station to the site is Darton Rail Station, located an approximately 900m walk to the west. Darton Rail Station has an hourly service to Leeds via Wakefield Kirkgate and Castleford northbound, and to Sheffield via Barnsley southbound. The service is two-hourly in each direction on Sundays. The station is unstaffed and no longer has any permanent buildings aside from standard waiting shelters on each side and there is step-free access to both platforms.

3.3.5 Measures to promote and encourage trips by public transport to the site are outlined within Section 7.5 and will be implemented at varying stages by the Travel Plan Coordinator.

3.4 Car Sharing

3.4.1 Car sharing is a sustainable mode of travel that can reduce the number of single occupant vehicle trips generated by a site. www.liftshare.com enables organised car sharing by connecting people travelling in the same direction so they can arrange to travel together. Liftshare suggests that there are several benefits to car sharing, as outlined within Figure 8.

Figure 8: Benefits of Car Sharing



3.4.1 Another car sharing website which may be useful to residents and visitors of the proposed development site is www.liftshare.com.

3.4.2 Measures to promote and encourage car sharing trips to the site are outlined within Section 7.6 and will be implemented at varying stages by the Travel Plan Coordinator.

4. AIM & OBJECTIVES

4.1 Overall Aim

4.1.1 In order to minimise the impact of traffic generated by the proposed development, the overall aim of producing and implementing this Travel Plan is:

> ***To minimise the number of vehicle trips generated by the site, particularly single occupant trips, in favour of more sustainable travel.***

4.2 Objectives

4.2.1 To help achieve the overall Travel Plan aim, a number of Travel Plan objectives have been set, as outlined below in Figure 9:

Figure 9: Travel Plan Objectives

1. To encourage residents and visitors of the proposed development to evaluate their travel patterns and consider options for more sustainable travel
2. To increase awareness and actively promote travel by sustainable modes of transport, including the health and environmental benefits
3. To promote car sharing as a more sustainable alternative to travelling as a single car occupant
4. To set and agree appropriate targets that are regularly reviewed and amended if necessary to reflect changing circumstances
5. To monitor the travel patterns and performance against the Travel Plan targets
6. To provide a long term commitment to meeting the overall aim of this Travel Plan

4.2.2 This Travel Plan sets out the strategy for meeting these objectives through a variety of mechanisms and measures. This is a 'live' document that is to be reviewed and updated at key milestones in the development's planning, construction, and occupation phases, as discussed in Section 8.

5. BASELINE TRAVEL SCENARIO & TARGETS

5.1 Baseline Travel Scenario

5.1.1 The TRICS database is an industry-standard collection of traffic counts and trip generation statistics for calculating trip rates at development sites. The TRICS database has been interrogated to find suitable data to assist in projecting the trip generation of the proposed residential development.

5.1.2 In order to derive reflective trip rates, vehicle trip generation statistics within the 'Residential – Houses Privately Owned' category (03-A) of the TRICS database have been interrogated. To ensure that only trip generation statistics for comparable sites were used in calculations, the TRICS sites were filtered to the following criteria:

- Database version: v7.10.4;
- Survey type: Multi-modal sites;
- Size: 30-60 dwellings;
- TRICS location type: 'Edge of Town';
- Regions: England, Scotland & Wales only, excluding Greater London and Ireland sites;
- Weekday survey data only (exclusion of Saturday and Sunday surveys);
- Recent survey data only (exclusion of surveys undertaken prior to 01/01/2015); and
- Exclusion of surveys undertaken in the COVID-19 pandemic.

5.1.3 For a Travel Plan being developed for an existing, operational site, the baseline transport position would ideally be developed through detailed surveys of existing travel patterns. However, this Travel Plan has been produced for a proposed future development. As such, no assessment of baseline travel patterns at the development could be established through surveys at this stage. Nonetheless, a transport base position is necessary to inform the development of this plan, and particularly the initial target. Details of the site selection and trip rates taken from the TRICS database are attached in full within Appendix 2, with the projected baseline modal split for the proposed development in Table 2.

Table 2: Projected Modal Trip Generation

Mode of Travel	Modal Split
Vehicle Drivers	62.8%
Vehicle Passengers	20.6%
Vehicle Occupants	**83.4%**
Pedestrians	12.2%
Cyclists	1.9%
Public Transport Users	2.5%
TOTAL	**100%**

* Total may not represent the sum of its parts due to rounding

5.1.4 These modal split predictions indicate that almost half (37.2%) of person trips generated by the development would be expected to be made by sustainable modes (pedestrian, cycle, public transport, and car passenger).

5.1.5 For the purposes of this Travel Plan, it is assumed that the above modal split projections reflect the baseline travel scenario of the proposed development site. Therefore, the baseline travel situation for the site relative to the overall aim of this Travel Plan (see Section 4.1) is predicted to be:

62.8% of trips are made by vehicle drivers.

5.2 Targets

5.2.1 The key emphasis of Travel Plans is to minimise the number of vehicle trips generated by a development, particularly those made by single occupants. This is most commonly done by setting appropriate targets. In setting Travel Plan targets it is important to highlight that targets need to be responsive as situations change. It is recognised that the targets of this Travel Plan should be SMART:

Figure 10: SMART Travel Plan Components

5.2.2 Travel Plan targets for reducing travel by vehicle trip generating modes have been set for a five-year period and are a means of monitoring progress and aim to be challenging, but achievable. The targets are based on the assumed baseline situation for the site (see Section 5.1) and are to be achieved within the timeframes set out below:

Year 0 (baseline) – No more than 62.8% trips to be made by vehicle drivers.

Year 1 - No more than 62% of trips to be made by vehicle drivers.

Year 2 - No more than 61% of trips to be made by vehicle drivers.

Year 3 - No more than 60% of trips to be made by vehicle drivers.

Year 4 - No more than 59% of trips to be made by vehicle drivers.

Year 5 - No more than 58% of trips to be made by vehicle drivers.

5.2.3 The performance of the proposed development against the Travel Plan targets is to be monitored via annual travel surveys as detailed within Section 8. The first travel survey should be undertaken within 12 months of occupation of the development, and should the results reveal a vastly different modal split from that assumed within Section 5.1, then the above targets should be revised as appropriate. The proposed development will not be fully built and occupied 12 months after first occupation, however the targets can still be applied on a pro-rata basis to a partially occupied site.

6. ROLES & RESPONSIBILITIES

6.1 Ownership & Funding

6.1.1 It is recognised that the ownership and management of the site may change across the various planning, construction, and operational stages of the development. The responsibility for implementing this Travel Plan lies with the owner of the overall development, therefore the responsibility for this Travel Plan may change hands with the ownership of the site.

6.1.2 At the planning stage, the Applicant acts as the owner of the development and is therefore responsible for the implementation of this Travel Plan, until such time as the ownership of the development is passed on.

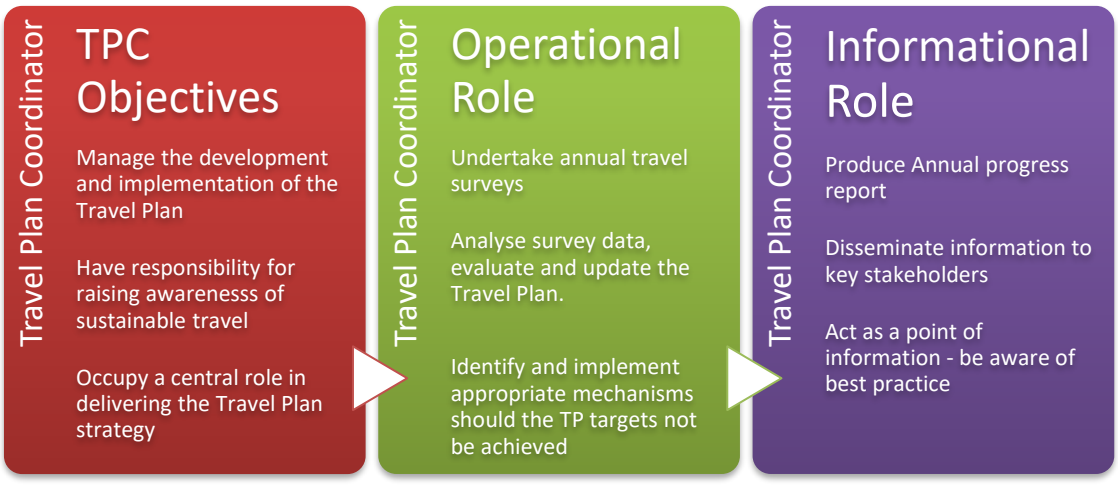
6.1.3 The site owner will be responsible for ensuring the provision of adequate resources to develop and implement the Travel Plan, including the appointment of an appropriately experienced and qualified Travel Plan Coordinator (TPC). It will be the role of the TPC to utilise the funding provided by the site owner to deliver the Travel Plan measures, as detailed in Section 7. The funding stream associated with each of the Travel Plan measures is outlined within Section 7.2.

6.2 Travel Plan Coordinator (TPC)

6.2.1 A key part of a successful Travel Plan is the appointment of a Travel Plan Coordinator (TPC) and the clear delineation of their roles and responsibilities.

6.2.2 The Applicant will appoint a suitably qualified person/organisation to act as a TPC at the site at least 3 months prior to first occupation of the development. The role of the TPC is wide ranging, incorporating key actions which will provide a focus for Travel Plan development over the duration of the appointment. The TPC will also be responsible for the monitoring and evaluation of the Travel Plan. The suggested objectives and roles of the TPC are illustrated within Figure 11:

Figure 11: TPC Objectives & Roles



6.3 Key Stakeholders

6.3.1 For the Travel Plan to be successful it is essential that partnership working between key stakeholders takes place. As well as residents, the developer and the TPC, other key stakeholders include the local planning and highway authority (BMBC) and local public transport providers.

6.3.2 It is essential that all stakeholders work together to help make sure that the greatest Travel Plan benefits possible are achieved. An example of this is providing TPC support for the production of the *'Welcome Travel Pack'* (WTP) which is to be issued to all residents upon occupation of their dwelling (see Section 7.7 for further details on the WTP).

6.3.3 Whilst it is acknowledged that BMBC are a key stakeholder, the costs of producing material to be contained within the WTP are to be borne by the developer.

6.3.4 To ensure that key stakeholders buy-in and provide continued support to the Travel Plan, it is recommended that stakeholders provide details of the relevant contacts in relation to the Travel Plan. Once all contact details are provided, the Travel Plan (and subsequent Welcome Pack information) can be updated accordingly with all points of contact clearly outlined. The provision of contact details will also ensure that all monitoring and evaluation data is sent to the correct Officers in a timely manner.

7. ACTION PLAN

7.1 Introduction

7.1.1 This section outlines the Travel Plan measures that are to be implemented with respect to each mode of transport. An audit of existing transport infrastructure in the vicinity of the site was carried out to help inform the development of sustainable travel initiatives. The Travel Plan contains measures to increase travel choices and reduce reliance on single occupancy car travel.

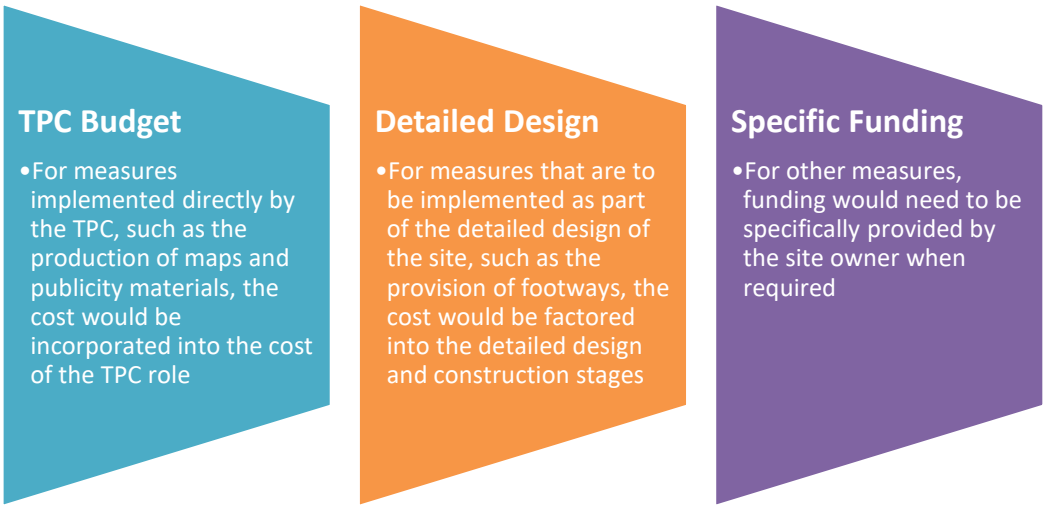
7.1.2 The monitoring of the Travel Plan will allow travel patterns to be determined and the actual modal split to be identified. This will enable measures to be determined and specifically targeted to residents and visitors to facilitate the production of a more efficient and relevant Travel Plan.

7.1.3 The early stages of the Travel Plan development and implementation covers the detailed design process, construction period, initial occupation of the site, and the first monitoring and review periods of the plan. This period is crucial in terms of ensuring that the outlined measures are actively implemented. As a result, the majority of measures detailed herein are to be implemented prior to, or within the first year of plan implementation.

7.2 Funding Streams

7.2.1 As outlined in Section 6, the measures outlined in this Travel Plan are to be funded by the Applicant, with the TPC responsible for implementing the measures. However, not all of the Travel Plan measures would require separate funding; the fees associated with implementing a number of the measures would be absorbed into other funded activities. The potential ways in which the Travel Plan measures can be funded are outlined below:

Figure 12: Funding Streams for Measures



7.3 Measures to Promote Walking

7.3.1 Practically all journeys, regardless of the main mode used, start and end by walking, which is the most sustainable mode of all. There is potential for travel to be made both within and to and from the proposed development site on foot, at least as part of journeys using other modes. Table 3 outlines the measures to be employed to actively promote travel to and from the site on foot.

Table 3: Measures to Encourage Walking

Measures	Timescale	Funding
Ensure the proposed pedestrian routes within the development are safe, convenient, accessible, and well lit, providing access to all parts of the site and external pedestrian routes.	During detailed site design	**Detailed Design**
Produce and distribute a map showing key pedestrian features within the site and local network, such as local amenities and public transport, and giving directions to the site by foot. This will form part of a WTP.	Upon site occupation	**TPC Budget**
Publicity materials regarding the health and financial benefits of walking to be made available to residents as part of the WTP.	Upon site occupation	**TPC Budget**
Consider establishing a 'walking bus' to facilitate supervised trips to the local primary school on foot, subject to demand. The demand will be established by undertaking a resident survey, with the basis/trigger for establishing a walking bus to be agreed with BMBC prior to the survey being undertaken.	12-24 months following first occupation	**TPC Budget**

7.4 Measures to Promote Cycling

7.4.1 Cycling is a sustainable mode of travel and is an excellent way of introducing physical activity into the everyday lives of people. Table 4 outlines the measures that will be implemented to help promote cycling to/from the site.

Table 4: Measures to Encourage Cycling

Measures	Timescale	Funding
Provide adequate and secure cycle parking facilities at each dwelling.	During detailed site design	**Detailed Design**
Publicity materials regarding the health and financial benefits of cycling to be made available to residents as part of the WTP.	Upon site occupation	**TPC Budget**
Distribute copies of relevant cycle maps to all residents. Related information with regard to local cycle should also be distributed. This will form part of the WTP.	Upon site occupation	**TPC Budget**
Inform residents of local BMBC and national initiatives aimed at increasing cycling levels.	Upon site occupation	**TPC Budget**
Investigate the possibility of establishing a Bicycle User Group (BUG) or working group equivalent and implement if there is sufficient interest. This could tie into existing local cycle groups. The demand will be established by undertaking a resident survey, with the basis/trigger for establishing a BUG to be agreed with BMBC prior to the survey being undertaken.	12-24 months following first occupation	**TPC Budget**

7.5 Measures to Encourage Public Transport Use

7.5.1 Measures that will be implemented to encourage public transport use at the site are summarised within Table 5.

Table 5: Measures to Encourage Public Transport Use

Measures	Timescale	Funding
Disseminate public transport information to all residents. To encourage public transport use it is essential that information is readily available. Bus maps, timetable information, ticket information, taxi firm numbers and wider publicity will all be provided to residents. Information on resources such as journey planner sites which can help plan trips using both buses and trains should also be disseminated. This information should be reviewed and updated when required.	Upon site occupation and ongoing	**TPC Budget**

7.6 Measures to Promote Car Sharing

7.6.1 The TPC should encourage site users to consider car sharing as an alternative to travelling as a single car occupant. Information on local and national car sharing schemes should be distributed. The national 'Liftshare' website (www.liftshare.com) estimates that a typical car sharer will save themselves around £1,000 and 1 tonne of CO_2 per year by sharing their daily journey. There is the facility to calculate tailored potential CO_2 and cost savings. Measures that will be implemented to encourage car sharing amongst residents are summarised within Table 6.

Table 6: Measures to Encourage Car Sharing

Measures	Timescale	Funding
Promote the use of on-line car share databases such as www.liftshare.com and www.gocarshare.com aimed at assisting people in finding car share partners for commuting journeys.	Upon site occupation and ongoing	**TPC Budget**
Make residents aware of the environmental (and financial) benefits of car sharing.	Upon site occupation and ongoing	**TPC Budget**
Investigate the possibility of setting up a car sharing database for residents at the site, subject to demand. The demand will be established by undertaking a resident survey, with the basis/trigger for establishing a car sharing database to be agreed with BMBC prior to the survey being undertaken.	12-24 months following first occupation	**TPC Budget**

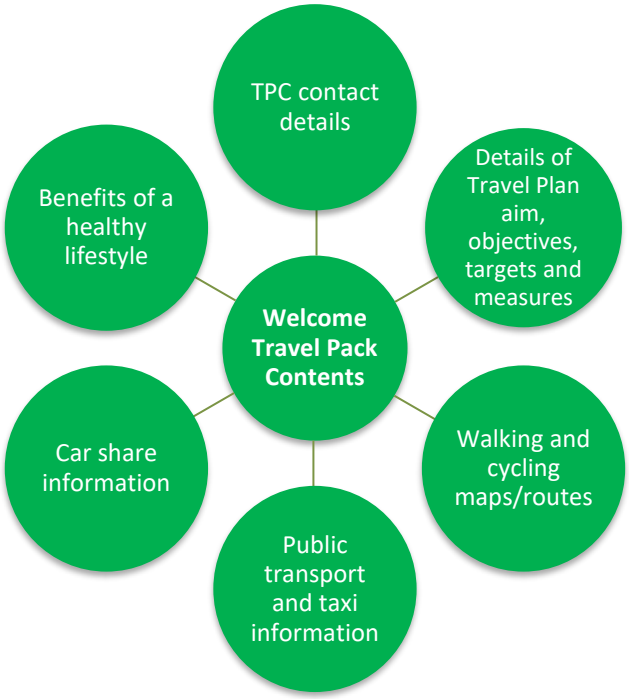
7.7 Welcome Travel Pack

7.7.1 Raising awareness of the existing sustainable transport options available to residents at the proposed site would allow them to make informed travel choices. The provision of information on a variety of transport options for travelling to and from the site will ensure all residents are fully aware of the choices available to them.

7.7.2 An effective time to change an individual's travel behaviour is at a transition point in their lives, such as when moving to a new house, job or workplace. Therefore, it is proposed that all residents would receive a WTP upon first occupation of the site, or if possible, prior to their relocation (i.e. at exchange of contracts). The WTP should also be placed on display within the site's sales office.

7.7.3 The pack is to be prepared and disseminated by the TPC with assistance from BMBC and public transport operators (in terms of producing walking, cycling maps and public transport information). The proposed WTP contents are outlined within Figure 13:

Figure 13: Proposed Welcome Travel Pack Contents

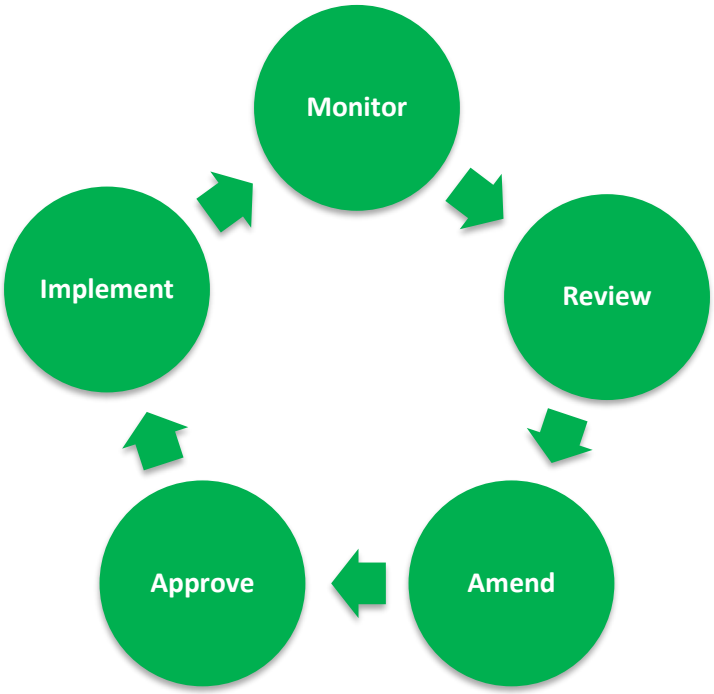


8. MONITORING & EVALUATION STRATEGY

8.1 Introduction

8.1.1 In order to measure the effectiveness of any Travel Plan it is important that an appropriate monitoring and evaluation strategy is employed. This Travel Plan is intended to provide a flexible working strategy that will be regularly reviewed and updated based upon experience of residents at the site. It is anticipated that as part of an annual evaluation certain aspects, such as the Travel Plan targets, will be reviewed, and modified if required. The Travel Plan monitoring and evaluation process is shown graphically in Figure 14.

Figure 14: Monitoring & Evaluation Process

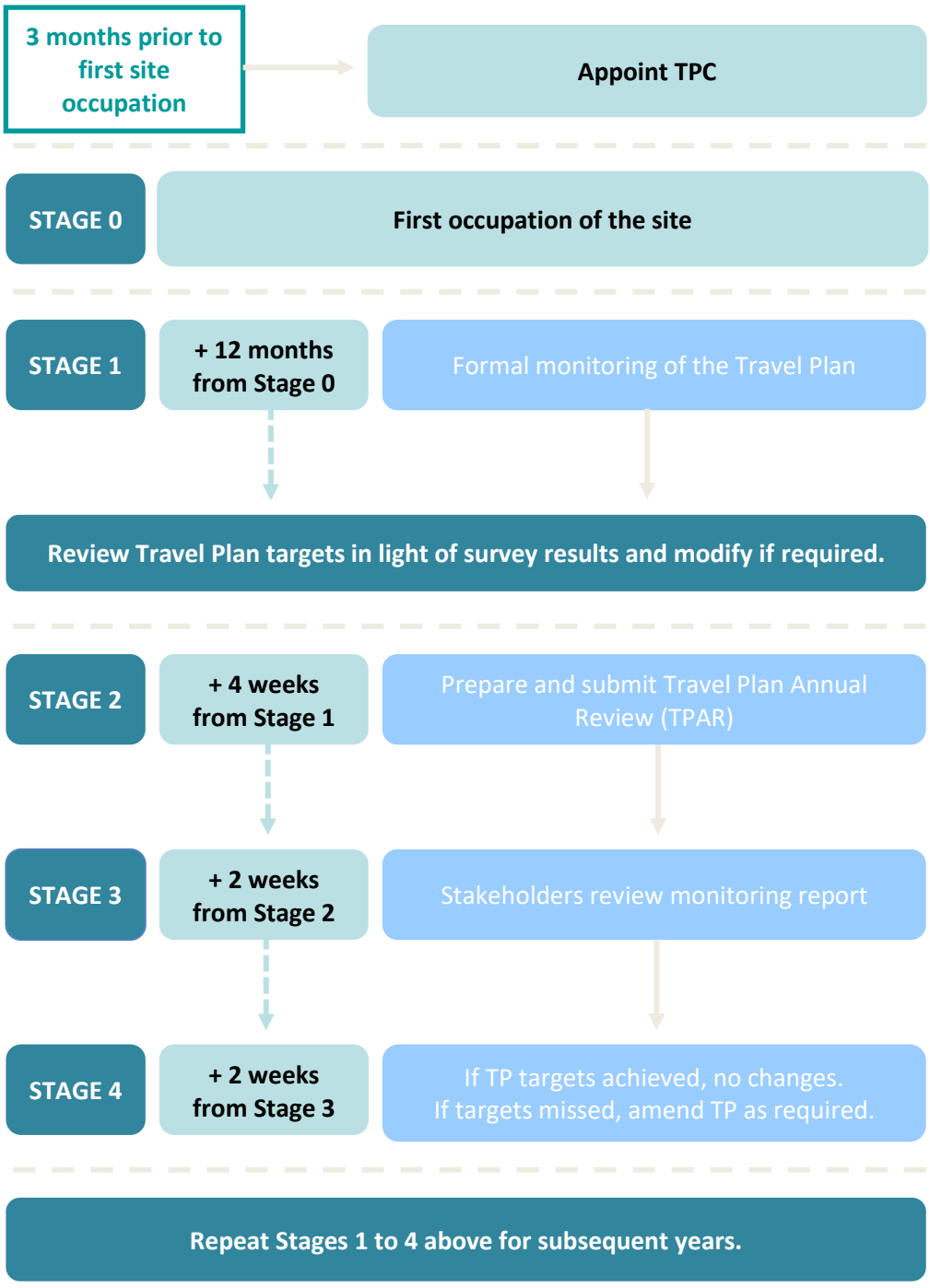


8.1.2 The review process provides the opportunity for key stakeholders to consider the performance of the Travel Plan and determine whether the targets have been achieved. All stakeholders should come together to consider the outcomes of the review process and decide, if any amendments are required to the Travel Plan. Any intervention measures (see Section 8.7) should be approved by all key stakeholders and implemented as appropriate.

8.2 Monitoring & Evaluation Strategy

8.2.1 The proposed monitoring and evaluation strategy is illustrated in Figure 15 followed by the relevant explanatory text.

Figure 15: Monitoring & Evaluation Strategy



8.3 Stage 0 – First Site Occupation

8.3.1 A number of the measures and actions of the Travel Plan are to be implemented prior to occupation of the site. However, Stage 0 provides a starting point for the formal monitoring and evaluating process.

8.4 Stage 1 – Formal Monitoring

8.4.1 Implementation of the Travel Plan must be monitored and reviewed if the intended benefits are to be secured. Formal monitoring of the Travel Plan and its targets is to start 12 months after first occupation of the development. This will involve undertaking questionnaire-based surveys.

8.4.2 This would ascertain details of site-specific circumstances, behaviours, existing and preferred travel patterns. The survey can also enhance the support of residents for the Travel Plan and increases their awareness of sustainable travel issues. The TPC will organise the survey and prior to undertaking the surveys it may be beneficial to seek agreement with BMBC on the travel survey questionnaire for the site.

8.4.3 As a minimum, a travel survey questionnaire should look to establish the mode of transport usually used by residents. As the survey could be used to justify alterations to the Travel Plan targets, it is essential that the reasoning behind mode choice (particularly car drivers) is established. This can be done by a series of 'why' questions which assess why residents are using their chosen mode and may outline likely barriers in achieving modal shift. There are a number of things that a travel questionnaire could look to establish, such as:

- Usual mode of transport used and reasons for current mode choice;
- Other modes of transport used;
- Number of times per week (on average) residents travel to/from the site and distance travelled;
- Perceived barriers and incentives to a modal switch towards sustainable travel;
- Receptiveness to a modal switch towards sustainable travel and receptiveness to potential Travel Plan measures;
- Awareness of Travel Plan, initiatives, measures, and travel options;
- General opinions and views on site travel issues; and
- Any special travel circumstances (e.g. mobility issues).

8.4.4 If necessary, 12 hour (07:00-19:00) daily person trip generation surveys could also be undertaken at the development site access point(s) to supplement the questionnaire data.

8.5 Stage 2 – Travel Plan Annual Review (TPAR)

8.5.1 The results of the formal monitoring surveys will culminate in the production of a Travel Plan Annual Review (TPAR) report that can be used to assess the performance of the Travel Plan. The report could also identify possible future Travel Plan actions at the site. The report will be prepared by the TPC on behalf of the Applicant and would be provided to BMBC. The TPAR is to be provided to key stakeholders within 4 weeks of completion of the annual monitoring surveys.

8.6 Stage 3 – Stakeholder Review

8.6.1 As part of the stakeholder review stage, BMBC are to provide the TPC with any comments on the submitted monitoring report. Revisions to the Travel Plan may follow once the development is constructed and occupied, the travel patterns are understood from data collected through the formal monitoring stage and the Travel Plan Annual Review is undertaken. Any amendments (if required) to the Travel Plan and the targets within it will be discussed at this stage.

8.7 Stage 4 – Intervention Strategy

8.7.1 If the annual review process identifies that the Travel Plan targets are being missed by a significant margin, then potential additional measures/initiatives may be required at the site. Discussion should take place between the TPC, the Applicant, BMBC and any other relevant parties to determine which, if any, additional Travel Plan measures need to be implemented. For example, if the targets require a 5% reduction in single-occupant car travel, then a reduction of only 1% or less could be considered to have missed the targets by a significant margin, although this definition would need to be discussed and agreed with BMBC in light of the site-specific circumstances and feedback from the annual monitoring exercise. Potential additional measures include:

- Area-wide (potentially local authority-wide) initiatives, working with neighbouring developments and the local authority;
- More active marketing of the Travel Plan, incorporating a shift of focus; and
- Offer of personalised journey planning services to residents.

8.7.2 Any intervention measures would need to be funded either through the TPC role or implemented with specific funding from the site owner. The impact of the intervention measures will be monitored as part of future annual reviews.

8.7.3 Should the identified intervention measures still not result in the Travel Plan targets being met, the TPC should work with the Applicant/BMBC and any other relevant parties to identify and implement appropriate additional intervention measures to meet the identified targets.

8.8 Subsequent Years

8.8.1 Stages 1 to 4 of the above monitoring and evaluation strategy would be repeated for subsequent years. It is suggested that a monitoring and evaluation period of five years from first occupation of the site should be suitable.

8.8.2 It is considered that the monitoring and evaluation strategy outlined above will allow the Travel Plan to be appropriately reviewed and modified to ensure the achievement and maintenance of the TP targets.

9. REFERENCES

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Appendix 1 – Site Layout Plan

TIMELESS COLLECTION

DARTON LANE, DARTON

NOTES:

PLANNING LAYOUT KEY:

Boundary treatments

- Masonary wall
- Dry Stone wall
- Boundary fence
- Double side timber fence
- Railings
- Knee height railing

General

- Application red line. (To be confirmed by client)
- BCP – Bin collection point (bin collection day only)
- Indicative electric charging point.
- Affordable Dwelling
- Timber cycle store (If seperate store not shown, cycle storage to be provided within detached or integral garage of associated plot.
- Trees/Vegetation - Retained
- Trees/Vegetation - Removed
- Root protection area

Accommodation schedule - Darton Lane, Darton

Reference	Code	NDSS	M4(2)	M4(3)	Beds	Floor Area (Sqft)	Floor Area (Sqm)	Storeys	Total	Total Sqft	Total Sqm	% of Mix	M4(2)%	M4(3)%
Private														
Wentworth	WEN	✓			3	929	86.3	2	4	3716	345.2	8.7		
SPECIAL	SPE	✓			3	929	86.3	2	2	1858	172.6	4.3		
Thornbury Semi	THO	✓			3	982	91.2	2	1	982	91.2	2.2		
Thornbury Semi M4(2)	THO M4(2)	✓	✓		3	982	91.2	2	5	4910	456	10.9	10.9	
Thornbury Det	THO	✓			3	982	91.2	2	2	1964	182.4	4.3		
Thornbury Det M4(3)	THO M4(2)	✓	✓		3	982	91.2	2	3	2946	273.6	6.5		6.5
Dunsmore	DUN	✓			4	1325	123	2	6	7950	738	13.0		
Willington	WIL	✓			4	1265	117.5	2	4	5060	470	8.7		
Harewood	HAR	✓			4	1266	117.6	2	6	7596	705.6	13.0		
Calverley	CAL	✓			4	1267	117.7	2	4	5068	470.8	8.7		
Affordable														
Dunstall	BOD	✓	✓		1	626	58.15	2	4	2504	233	8.7	8.7	
Stratford	STR-AFF	✓			2	873	81.1	2	2	1746	162	4.3		
Stratford M4(2)	STR-AFF-M4(2)	✓		✓	2	873	81.1	2	3	2619	243	6.5	6.5	
Grand Total									**46**	**48919**	**4544**	**100.0**	**26.1**	**6.5**

Parking schedule	
Curtiledge parking	87
Integral garage	10
Detached garage	10
Total	**107**

Rev	Date	Amendment	By
AJ	28.02.24	Adoptable highway introduced adajcent plots 41-46. M4(2)/(3) contributions updated to suit latest Duchy drawing review. Dunsmore replaces Edworth hosue type, adjacent plots repositioned to suit. Additional cross section locations shown. Parking arrangement around plots 20-22 amended. General coments inline with BMBC comments received 26.02.24	TS
AH	23.02.24	2.5m landscape strip shown to the rear of plots 41-46.	TS
AG	23.02.24	Double sided timber fence shown to northern boundary of plots 21-33. NDSS house types shown within schedule.	TS
AF	08.02.24	Minor presentation amends inline with updates to boundary and materials layout revision E	TS
AE	07.02.24	Details of engineering updated to suit latest layout. 1.8m timber fence shown to the rear of pltos 21-30	TS
AD	25.01.24	Substation relocated.	TS
AC	23.01.24	Substation relocated. Updated engineering and retaining wall positions indicated. Tracking overlaid onto layout and incidental parking areas indicated.	TS
AB	08.01.24	Gates to plots 22/23, 26/27, 32/33 repositioned, plots 35 & 36 amended to suit engineering design. Orientation of plots 27/28 and adjacent boundaries amended.	TS
AA	07.12.23	Plots 38/39 updated to suit clients comments.	TS
Z	05.12.23	Note regarding gated access to plots 1-19 added. Amends to plots 38-41. Gardens to plots 20-21 shown with walls. Plot 25-30 replanned to remove terraced units, plots 31-35 repositioned to suit. Parking number schedule updated.	TS
W	23.05.23	EV Charging point show to plots 9 & 10.	TS
V	17.03.23	Retained/removed trees indicated	TS
U	07.03.23	Substation indicated. Grasscrete indicated to hydro break access.	TS
T	01.03.23	Attenuation basin shown. Minor boundary changes to plot 42	TS
S	22.02.23	Plots 1-8 & 16-17 repositioned to aid construction of retaining wall along southern boundary	TS
R	09.02.23	Updated engineering design shown. Cross section lines indicated.	TS
Q	08.02.23	Parking to plot 34 moved closer to dwelling. Additional parking space shown to plot 30. Bin storage to plot 29 moved to front due to levels	TS
P	07.02.23	Plots 5-7, 20-22 & 33 repositioned to allow for retaining structure to be constructed. Radii to junction increased to 10m. Rear access to plots 28-30 amended.	TS
N	31.01.23	Easements adjacent plots 41, 43-44 & 31-34 widened to 7m overall. Adjacent plots repositioned to suit.	TS
M	20.01.23	Footway adjacent plots 1-12 moved south into site	TS
L	19.01.23	Roof colours to plots 25-30 updated to materials layout.	TS
K	19.01.23	Ramp replaces build out adjacent plot 31. Extent of adoptable highway reduced adjacent plot 20-23	TS
J	18.01.23	Plots 20-25 orientated to face South East. Dry stone walling, railing and retention of existing walling along Darton Lane identified. Plot 25 switched to Thornbury Detached. 2m wide footway widened into existing grass verge.	TS
H	17.01.23	Plot 30 marked as affordable	TS
G	21.12.22	Minor amends to clients comments of 15.09.22	TS
F	19.12.22	Line of existing drainage updated to latest survey position. plots 40-46 re-planned to suit. Site entrance widened to 6m and visitor parking bay removed. Block paving along adoptable southern road removed.	TS
E	13.12.22	Layout generally updated in line with pre-app feedback, details amends include: Existing footway widened along Darton lane widened to 2m. Dunstall replaces Bodnant. Shared surface carriageway widened to 6m. narrowing introduced on southern section of road. footpath link to school indicated. Plots 20-30 & Plots 38/39 replanned. Footpath added adjacent plots 20-2.	TS
D	17.11.22	Visibilitys indicated. Wall to plot 36 amended and area of block paving shown to frontage.	TS
C	06.10.22	Cycle shed added to plots 20-24. Areas of existing wall marked for removal.	TS
B	20.09.22	Parking to plot 39 and associated VP amended to clients comments. Minor amends to clients comments of 20.09.22	TS
A	20.09.22	Minor amends to clients comments of 15.09.22	TS

Duchy Homes

Duchy Homes Ltd.
3125 Century Way, Thorpe Park, Leeds, LS15 8ZB.

DEVELOPMENT: Darton Lane Darton

TITLE: Planning Layout

DATE: 26.08.22

SCALE: 1:500 @ A0

DRAWN: STEN

DRAWING NO: 2239.01

REV: AJ

Appendix 2 – Projected Vehicle Trip Generation

Projected Vehicle Trip Generation 46 dwellings

Vehicle Trip Rates (per dwelling)

Time	IN	OUT	TOTAL
07:00-08:00	0.090	0.287	0.377
08:00-09:00	0.194	0.371	0.565
09:00-10:00	0.162	0.218	0.380
10:00-11:00	0.149	0.177	0.326
11:00-12:00	0.162	0.177	0.339
12:00-13:00	0.188	0.203	0.391
13:00-14:00	0.183	0.162	0.345
14:00-15:00	0.177	0.222	0.399
15:00-16:00	0.317	0.209	0.526
16:00-17:00	0.311	0.206	0.517
17:00-18:00	0.347	0.207	0.554
18:00-19:00	0.276	0.162	0.438
TOTAL	**2.556**	**2.601**	**5.157**

Vehicle Trips

IN	OUT	TOTAL
4	13	17
9	17	26
7	10	17
7	8	15
7	8	15
9	9	18
8	7	15
8	10	18
15	10	25
14	9	23
16	10	26
13	7	20
117	**118**	**235**

Projected Person Trip Generation

Person Trip Rates (per dwelling)

Time	IN	OUT	TOTAL
07:00-08:00	0.128	0.476	0.604
08:00-09:00	0.272	0.757	1.029
09:00-10:00	0.246	0.321	0.567
10:00-11:00	0.216	0.282	0.498
11:00-12:00	0.236	0.252	0.488
12:00-13:00	0.278	0.299	0.577
13:00-14:00	0.264	0.231	0.495
14:00-15:00	0.251	0.332	0.583
15:00-16:00	0.592	0.332	0.924
16:00-17:00	0.541	0.318	0.859
17:00-18:00	0.527	0.338	0.865
18:00-19:00	0.453	0.272	0.725
TOTAL	**4.004**	**4.210**	**8.214**

Person Trips

Time	IN	OUT	TOTAL
07:00-08:00	6	22	28
08:00-09:00	13	35	48
09:00-10:00	11	15	26
10:00-11:00	10	13	23
11:00-12:00	11	12	23
12:00-13:00	13	14	27
13:00-14:00	12	11	23
14:00-15:00	12	15	27
15:00-16:00	27	15	42
16:00-17:00	25	15	40
17:00-18:00	24	16	40
18:00-19:00	21	13	34
TOTAL	**185**	**196**	**381**

Projected Modal Split

Proportion of Vehicle Trips

Time	IN	OUT	TOTAL
07:00-08:00	70.3%	60.3%	62.4%
08:00-09:00	71.3%	49.0%	54.9%
09:00-10:00	65.9%	67.9%	67.0%
10:00-11:00	69.0%	62.8%	65.5%
11:00-12:00	68.6%	70.2%	69.5%
12:00-13:00	67.6%	67.9%	67.8%
13:00-14:00	69.3%	70.1%	69.7%
14:00-15:00	70.5%	66.9%	68.4%
15:00-16:00	53.5%	63.0%	56.9%
16:00-17:00	57.5%	64.8%	60.2%
17:00-18:00	65.8%	61.2%	64.0%
18:00-19:00	60.9%	59.6%	60.4%
TOTAL	**63.8%**	**61.8%**	**62.8%**

TRICS v7.10.4 - MM, Mean 03-A, range- 30-60, England/Scotland/Wales excl. GL and Ireland, 'Edge of town' only, exc. Sat/Sun, 2015+, exc. COVID-19 (15 sites)

Projected Modal Trip Generation

		12-Hour (07:00-19:00)		
Mode	**Split**	**IN**	**OUT**	**TOTAL**
Vehicle Drivers	62.8%	117	118	235
Vehicle Passengers	20.6%	38	40	78
Vehicle Occupants Sub-Total	**83.4%**	**155**	**158**	**313**
Pedestrian	12.2%	23	24	47
Pedal-cycle	1.9%	4	4	8
Public Transport	2.5%	5	5	10
	16.6%	31	33	64
Total Person Trips	**100%**	**185**	**196**	**381**