APPENDIX 11.2

TRAVEL PLAN

ENVIRONMENTAL STATEMENT

TECHNICAL APPENDICES

VOLUME 3

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PINHOE QUARRY
~ Regeneration Scheme ~

Pinhoe Quarry LLP

Land at Pinhoe Quarry, Exeter

Draft Travel Plan

Project Ref: 21669

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1 Introduction

1.1 Background

1.1.1 Peter Brett Associates LLP (PBA) has been commissioned by Pinhoe Quarry LLP to prepare a Travel Plan (TP) in support of the planning application for a residential development at the former Pinhoe Quarry, Harrington Lane in Exeter.

1.1.2 This report is a TP which sets a series of measures by which the developers will seek to reduce the impact of the residential development on the local highway network and maximise the use of non-car modes of transport in line with current Government policy.

1.1.3 An action plan summarising the TP measures and associated responsibilities is shown in **Appendix A**.

1.2 Proposed Development

1.2.1 The proposals are for a mixed use development, consisting of approximately 380 residential dwellings, a community building; medical facility, including GP and dentist services; nursery / crèche (totalling 865sqm Gross Internal Area (GIA)); a small retail outlet (185sqm) providing everyday essentials for the new community and the existing local community; and open space provision.

1.2.2 Access to the proposed development will be gained via two priority junctions off Harrington Lane on the southern boundary of the site which will represent the main access points of the development for all modes of transport. An additional access route for pedestrians and cyclists will be provided on the south eastern boundary of the site onto Harrington Lane opposite the junction with Chancel Lane.

1.3 Concept of the Travel Plan

1.3.1 The Government's White Paper 'A New Deal for Transport: Better for Everyone' presented to parliament in July 1998 highlighted the importance of TPs. The Government wishes to 'secure widespread voluntary take-up of green transport plans through partnership with business and the wider community'. They are seen as providing a 'major contribution to easing congestion, especially during rush hour'.

1.3.2 The emergence of TPs, or Green Transport Plans as they have previously been called, has become an important development in transport policy. It signals acknowledgement from the Government that much of the environmental improvement that is sought from the transport sector can only be achieved at the local level.

1.3.3 TPs represent an important response to this new agenda by encouraging individual organisations to arrange their travel requirements in such a way that it minimises adverse environmental impacts. Invariably, this reduces to a simple issue of how best to minimise the dominant role currently played by the private car without reducing the accessibility of those who have to use cars.

1.3.4 Travel planning to date has largely focussed on the development of destination TPs which are generally designed to reduce car use to specific destinations such as workplaces, schools or visitor attractions. Originated by the employer, school or attraction itself in

partnership with the others such as the local authorities, destination TPs focus mainly on a particular journey purpose.

1.3.5 By contrast, residential TPs are concerned with journeys made from a single origin (home) to multiple and changing destinations and must take account of different needs and travel choices over time. A further crucial difference between residential origin based TPs and destination focussed TPs is the requirement for an ongoing management organisation and structure for the TP, as there is often no single company or institution to provide continuity and a common point of interest for residents.

1.3.6 In summary therefore, a TP is a management tool that brings together transport and other organisational issues in a co-ordinated strategy for an organisation and is a package of initiatives to minimise the number and length of car trips generated by a residential development, while also supporting more sustainable forms of travel and reducing the overall need to travel.

1.4 The Benefits of Travel Plans

1.4.1 The impacts of TPs are far reaching with the potential for health, environmental and even financial benefits to individuals, businesses and society as a whole.

1.4.2 The development of a TP makes good public health sense, since the underlying objective is to reduce car travel. The reduction of car travel harbours many benefits for health, including decreased air pollution, road traffic accident prevention; and possible conversion to the healthy activities of walking and cycling. There is even a link between car growth and obesity, with both trends increasing at a similar rate between 1985 and 2000.

1.4.3 A walking person can be assured that they are being exposed to one third of the pollution that a car occupant is being exposed to. Vehicle emissions contribute substantially to levels of carbon dioxide, carbon monoxide, nitrous oxides, black smoke and particulates, all of which can be detrimental to health.

1.4.4 In terms of wider benefits, the local community is likely to enjoy reduced congestion, shorter and more predictable journey times, improved access by public transport services and the prevention of overspill parking in residential areas. It is also important to remember that around 28% of households still have no regular access to a car. Public transport, cycling and walking improvements can play a significant role in improving access opportunities for these groups and, hence, in reducing social exclusion.

1.4.5 Finally, the environmental benefits of reduced car travel include better air quality and lower levels of the noise and dirt generated by a high level of vehicle traffic. Furthermore and perhaps most importantly, the implementation of a TP can reduce a development's contribution to the global problem of climate change.

2 Sustainable Policy Context

2.1 Introduction

2.1.1 The TP seeks to take account of and accord with where appropriate and financially viable national, regional and local policy, and has been prepared with regard to best practice from appropriate TP guidance. The relevant policy and guidance documents are highlighted below.

2.2 National

PPG13: Transport (2001)

2.2.1 Planning Policy Guidance Note 13 (PPG13): Transport (2001) identifies the need for new developments to be placed at locations which are highly accessible by walking, cycling and public transport, and to promote more sustainable patterns of development. Paragraph 87 emphasises the importance of Travel Plans. It states that Travel Plans should "have measurable outputs which might relate to targets and should set out the arrangements for monitoring the progress of the plan, as well as the arrangements for enforcement in the event that agreed objectives are not met".

Delivering Sustainable Development (2005)

2.2.2 Planning Policy Statement 1 (PPS1): Delivering Sustainable Development (2005) sets out the over-arching planning policies on the delivery of sustainable development through the planning system. It emphasises the importance of planning in creating sustainable communities, of reducing the need to travel, and encouraging public transport provision to secure new sustainable patterns of transport development.

2.3 Local

Devon Structure Plan 2001 to 2016 (October 2004) Saved Policies

2.3.1 The Structure Plan sets out the strategic planning framework for the development and use of land within Devon. The Structure Plan was adopted in October 2004 and remained in force until October 2007. The majority of policies were saved beyond October 2007 by means of a Direction from the Secretary of State. This includes;

2.3.2 Policy TR3 – Managing Travel Demand, states that:

"Travel demand will be managed so as to minimise unnecessary travel, make the most effective use of transport networks and promote the use of sustainable travel mode. The management of travel demand will be promoted by:

- Requiring new businesses and other establishments to implement travel plans which identify specific measures to minimise private car use and promote sustainable modes of travel, and encouraging existing businesses to introduce similar plans;
- The introduction and development of traffic management schemes where these would discourage car based travel and encourage more sustainable modes; and
- The implementation of parking strategies on a consistent basis.

2.3.3 Other saved policies are included in the Transport Assessment (TA) for transport which contribute towards meeting the high level policy aims of developing an integrated and

sustainable transport strategy, as well as seeking to integrate land use and transport planning through locating development where it reduces the need to travel and can be accessed by public transport.

Exeter Local Plan (First Review, March 2005)

2.3.4 The Exeter Local Plan was adopted in March 2005; however, it will shortly be replaced by the Local Development Framework Core Strategy, which is currently being progressed by Exeter City Council.

2.3.5 With regards to Accessibility to New Development, the Local Plan (Para's 9.10 to 9.13) states that:

"Transport Assessments should be submitted for all developments with significant transport implications. The coverage and detail of such assessments will depend on the scale of development and the extent of transport implications. Implementation of the proposals arising from the assessments, which may include the provision of new infrastructure, support for bus services, etc will be secured through planning conditions and planning agreements. For larger developments a travel plan may be required…"

Exeter Draft Core Strategy (July 2010)

2.3.6 The Core Strategy sets out the vision, objectives and strategy for the spatial development of the city up to 2026, explaining how sustainable growth may be achieved that protects the high quality environment of the city and that takes the implications of climate change and the transition to a low carbon economy fully into account.

2.3.7 With regards to transport, the Core Strategy (Para 8.6) identifies the importance of travel planning by "encouraging innovative measures, where appropriate, introduced as a result of green travel plans, to promote the advantages of sustainable transport modes such as car pools, car clubs and car sharing".

2.4 Travel Plan Guidance

Good Practice Guidelines: Delivering Travel Plans through the Planning Process (2009)

2.4.1 The Good Practice Guidelines produced by the DfT and CLG provides further information on the use of Travel Plans as a means of promoting sustainable transport. It is identified in the document that different types of Travel Plan that may be required, dependent on the size of development, the location and context, and the use or uses of the proposed development. These include:

- Full Travel Plans normally prepared and submitted as part of a planning application where the end user/ occupiers are known. These should incorporate clear outcomes, all relevant targets and measures to ensure that these can be achieved, as well as monitoring and management arrangements.

2.4.2 As the 'end users' in principle are known for this residential development, a Full Travel Plan is required.

Making Residential Travel Plans Work: Guidelines for New Development (2005)

2.4.3 Making Residential Travel Plans Work – Guidelines for New Development, prepared by Transport 2000 Trust on behalf of the DfT provides advice on all aspects associated with preparing a Residential Travel Plan and securing it through the planning system. In section 2 of the guidance it is stated that Residential Travel Plans:

- Are site specific, with the package of Travel Plan measures being unique to the site;
- Combine 'hard measures', i.e. site design, infrastructure and new services, with soft measures such as marketing, promotion and awareness raising activities;
- Provide a holistic package in which individual measures are integrated into the design, marketing and occupation of the site, rather than 'retrofitted' once the development is established;
- Include measures to support walking, cycling and public transport use; and
- Include parking restraint.

3 Existing Potential for Non-Car Modes of Transport

3.1 Introduction

3.1.1 This chapter reviews the site conditions in respect of location and provision of non-car modes of transport which could be used to access the proposed residential development. Each alternative transport mode will be considered along with its suitability as an alternative to the private car.

3.2 Site Location

3.2.1 Exeter and its sphere of influence is recognised as the largest conurbation in the county with a population which has grown by around 13% over the last 10 years to over 115,000. The City provides facilities for a catchment area of as many as 350,000 people and provides over 80,000 jobs.

3.2.2 The city is a Regional Centre and as such, serves as an important centre for shopping, a key location for industry and commerce and a focus for tourism and leisure. Exeter has a high reputation for quality of life, is a major provider of health and education facilities and is increasingly the location for regional headquarters of major employers. The city also forms a strategic transport node at the centre of a communications network not just for Devon but for the West Country as a whole. It is well connected to the major trunk road network (M5/A30/A303) and located on the Exeter – Paddington and Exeter – Waterloo main line rail networks.

3.2.3 The site is located to the north of Harrington Lane, approximately 3.5 kilometres (crow fly distance) outside of Exeter city centre. The site is bounded on its southern side by residential properties and is open to fields at the north, west and eastern sides. Church Hill lies approximately 330 metres east of the site boundary, and Cheynegate Lane is situated approximately 150 metres to the west of the site boundary.

3.2.4 The site location is shown in **Figure 3.1**.

3.3 Existing Pedestrian and Cycle Facilities

3.3.1 The site benefits from good pedestrian and cycle connections both towards Exeter city centre and towards the employment areas to the south of Exeter. Equally, good connections to local centres and to Pinhoe Railway Station make this sustainable mode of transport a more viable option. These routes are illustrated in **Figure 3.2**.

3.3.2 Footways ranging between 1.5 and 2 metres in width run along where the site fronts Harrington Lane on both sides of the road. This footway extends to the east along Harrington Lane and provides a choice of safe routes with drop kerbs to Pinhoe Village local centre, key local facilities and amenities and employment areas.

3.3.3 Approximately 40 metres to the west of the south west corner of the site, there is a gap of approximately 30 metres where there is no official footway provided between Harrington Lane and Beacon Heath. Whilst this is seen as a potential barrier, this section of road is subject to traffic calming, is short in length and has good visibility throughout. Additionally there is a section of road without any form of space for pedestrians is only a 5 metres section with no provision for pedestrians at all. On-site observations have also observed pedestrians on this section of carriageway.

3.3.4 In addition to the footways on running alongside the local highway network, there are public footpaths situated to the east and west of the site which provide access to Church Hill to the north-west. While these routes are unlikely to be popular among commuters, they will offer leisure opportunities to future residents of the proposed development site.

3.3.5 There are no dedicated cycling facilities in the immediate vicinity of the site, although Beacon Lane, Harrington Lane and Cheynegate Lane are all designated as quiet roads suitable for on road cycle travel on the Exeter Cycle Map as illustrated in **Figure 3.2**. To the south and west of the site there are a number of on and off road cycle routes which offer a safe, well-lit alternative route to on-carriageway cycling and provide access to Pinhoe Road to the south and Prince Charles Road in the direction of the city centre.

3.3.6 The proposed residential site is considered to be well positioned in terms of walk/cycle distances and journey times to the key local facilities. **Figures 3.3** to **3.7** illustrate that key public transport facilities, major employment sites, schools and local facilities are all within 20 minutes by either bus, bike or on foot.

3.3.7 The high quality of cycle routes and DCC's vision of the future of Exeter explains why the number of people cycling to work in Exeter has increased by 30% during the last 10 years and why the site being located so close to the proposed Primary cycle network makes the proposed residential site at Pinhoe Quarry attractive in terms of sustainable transport.

3.4 Public Transport

Bus

3.4.1 The closest bus stops to the proposed development are located on the southern boundary of the site on Harrington Lane and are currently served by the bus routes shown in the following table:

Table 3.1: Existing Bus Services

Service/ Operator	Route	Frequency		
		Mon – Sat (Daytime)	Mon – Sat (Evening)	Sun
B Stagecoach	Marsh Barton – Alphington Road – City Centre – Union Road – Beacon Heath – Pinhoe – Met Office – Honiton Road P&R – Digby *(Mon-Fri only)*	2 bph	0 bph*	No service
Y Stagecoach	City Centre – Beacon Heath – Pinhoe – Whipton – City Centre (*circular in this direction only*)	2 - 3 buses before 7am	No service	No service
E Stagecoach	Lancelot Road – Exeter City Centre - Exwick	6 bph	2 bph	2 bph
F1 Stagecoach	Savoy Hill – Exeter City Centre – Exwick Kinnerton Way	3 bph	3 bph	No service
F2 Stagecoach	Whipton Summerway – Exeter City Centre - Exwick	3 bph	3 bph	2 bph
K / T Stagecoach	Countess Wear – Exeter City Centre – Whipton Barton - Pinhoe	6 bph	3 bph	3 bph

Service/ Operator	Route	Frequency		
		Mon – Sat (Daytime)	Mon – Sat (Evening)	Sun
M2 Stagecoach	Exeter – Whipton Shops – Honiton Park n Ride	5 bph (Mon – Fri Peaks only)	5 bph (Mon – Fri Peak only)	No service
1, 1A, 1B Stagecoach	Exeter – Bradninch – Cullompton – Willand – Uffculme – Halberton – Tiverton	4 bph	1 bph	1 bus every 2 hours

* Last B Service to Pinhoe at 18:46pm.

3.4.2 **Table 3.1** indicates that there are two services to the site; Stagecoach city service B, which provides a 30 minute frequency service during Monday to Saturday daytimes with no evening or Sunday service, and early morning special route Y which provides two journeys to Pinhoe and the city centre.

3.4.3 Service B operates as three quarters of a Exeter circular route from Marsh Barton and Alphington Road via Exeter City Centre and Harrington Lane to Exeter Business Park and Digby. From the site, journey time to Exeter city centre is approximately 16 minutes.

3.4.4 The B route is a key link to employment sites to the south and east of Exeter, including the large Marsh Barton industrial estate, Exeter Business Park, the Met Office, Sowton Industrial Estate and Rydon Lane Retail Park (the latter two are served on Mondays to Fridays only).

3.4.5 Service B is financially supported by DCC in recognition of its secondary role providing community links within Exeter. Much of the route within the populous Beacon Heath areas is duplicated by higher frequency commercial services E, F1 and F2 and to Pinhoe village centre by services 1, 1A, 1B, K and T.

3.4.6 Early morning special service Y, also operated by Stagecoach, provides two journeys on a one-way clockwise circular route between the city centre, Beacon Heath, Pinhoe, Whipton and the city centre before 0600 on Monday to Saturday mornings. There is a connection available to an additional journey which runs between Whipton Barton, the city centre, Marsh Barton and Alphington. This service is one of three long standing early morning routes which cover significant areas of the city in the periods before normal pattern daytime services commence.

3.4.7 These bus routes and the locations of the local railway stations are shown on **Figure 3.6**

Rail

3.4.8 Service B provides a direct connection to the National Rail network at Pinhoe station (journey time 4 minutes). Bus stops are located on Pinn Lane to the south of the level crossing adjacent to the station. This is located approximately 1.6km from the site and is served by the following route:

Table 3.2: Existing Rail Services from Pinhoe Station

Service/ Operator	Route	Frequency	
		Monday - Saturday	Evening/Sunday
South West Trains	Exeter St Davids – Exeter Central – Honiton – Axminster – Yeovil Junction – Gillingham – Salisbury – Andover – Basingstoke – Woking – Clapham Junction – London Waterloo	12-13 journeys (every 120 minutes off-peak)	120 minutes

3.4.9 **Table 3-2** indicates that Pinhoe Station is served by a broadly two-hourly frequency service seven days per week, although there are AM and PM peak enhancements on services to/from Exeter and Honiton. Services commence early in the morning (first train to London Waterloo departs 0519) and finish late at night (last train from London Waterloo arrives 2349). Journey time to Exeter Central is 4-10 minutes and to London Waterloo 3¼-3½ hours.

3.4.10 This level of service is a considerable improvement on that provided in recent years (peak only Monday to Saturday, no Sunday service) and has been reflected in passenger numbers that have increased eight-fold between 2002/03 and 2008/09. In addition, through a longer journey by bus (21 minutes), direct access is also available to Digby & Sowton Station, which is served by the following route:

Table 3.3: Existing Rail Services from Digby & Sowton Station

Service/ Operator	Route	Frequency	
		Monday - Saturday	Evening/Sunday
First Great Western	Exmouth – Lympstone Village – Topsham – Digby & Sowton – Exeter Central – Exeter St David's (*services continue to either Newton Abbot – Torquay – Paignton or Crediton – Barnstaple*)	30 minutes	60 minutes

3.4.11 Digby & Sowton Station provides access to the Avocet Branch Line services provided by First Great Western on a 30 minute frequency, during the day on Monday to Saturday and every 60 minutes in the evenings and on Sundays. Trains operate between 0600 (0830 on Sundays) and 0000.

3.4.12 The Avocet Branch Line can also be reached via safe on and off carriageway cycle routes as demonstrated in **Figure 3.4** via Polsloe Bridge rail station, which is approximately a 10 minute cycle from the proposed residential development at Pinhoe Quarry.

3.5 Local Facilities

3.5.1 As illustrated in **Figure 3.7** a number of local facilities are located within easy access of the proposed development site. With regards to shops and services, the site is well served by the Pinhoe local centre which is located just under a kilometre from the site. This local centre offers a pharmacy, banking facilities and ATM, a convenience store/Post Office and a butcher as well as various takeaways and restaurants. Whipton High Street approximately 2 kilometres from the site (utilising off-road routes) provides a second local centre and includes a baker, charity shop, additional convenience store and Post Office.

3.5.2 In terms of food shopping, there are a number of supermarkets within the local vicinity of the site including an Aldi situated on the outskirts of Pinhoe Trading Estate which has good walking/cycling connections to the site. A large Sainsbury's store is located just on the other side of Pinhoe Road at the junction with Hill Barton Road, which is served by the same pedestrian/cycle links as Aldi. The Sainsbury's store is open 7 days a week and includes a petrol filling station, pharmacy, ATM, recycling facilities and café.

3.5.3 In terms of educational facilities the site is well served with Pinhoe Primary School located approximately 800 metres to the east of the site (8 minutes walk) and St James' Secondary School located at the junction of Summer Lane and Beacon Lane, approximately 890 metres west of the site (11 minute walk). In addition St Luke's Science and Sports College is located approximately 1.6 kilometres from the site via off-road pedestrian/cycle routes.

3.5.4 There are 2 doctors' surgeries located in the vicinity of the site, the closest of which is The Pinhoe Surgery which is around 1.3 kilometres walk from the site, however at present on-site proposals include a health centre and therefore a benefit to the development. A dentist is also located on Pinhoe Road.

3.5.5 The area surrounding the site has a range of employment opportunities which include Exeter Business Park, the Met Office, Sowton Industrial Estate, Pynes Hill, Pinhoe Trading Estate and Peninsula Business Park all to the south, and the city centre to the west.

3.5.6 The location of these local facilities in relation to the proposed residential site and the ease of access by sustainable modes are illustrated in **Figures 3.3 to 3.7.**

3.6 Residential Development Accessibility Criteria

3.6.1 The Exeter City Local Plan outlines accessibility criteria that all new residential developments should meet. The criteria states that residential development should be located within walking distance of a food shop and a primary school and should also be accessible by bus or rail to employment, convenience and comparison shopping, secondary and tertiary education, primary and secondary health care, social care and other essential facilities. The criteria are outlined in the table below:

Table 3.4: Accessibility Criteria for Residential Development

Facility	Target Distance (Metres)	Maximum Distance (Metres)	Pinhoe Quarry Site (Metres)
Food Shop	500	1,000	1,000 (Aldi) On site provision proposed
Primary School	500	1,000	750 (Pinhoe Primary)
Other Facilities	750	1,000	Various within 1,000 On site provision proposed
Bus Stop	400	500	60 (all within 400m)
Rail Station	-	800	1.5km (Pinhoe) / 10 minutes via Bus Service B
Facility	**Public Transport Travel Time in Minutes**	**Car Travel Time in Minutes**	
Shopping	30	20	3 (Pinhoe Centre) 16 (City Centre)
Education	30	20	2 (St James School)
Other Non-residential	40	25	Various within 40, including City Centre

3.6.2 The review of local facilities has shown that the site largely meets the public transport criteria and is in close proximity to retail, and educational facilities meaning that the distance targets are met. There are primary, secondary and further education establishments which are readily accessible from the site and the city centre is within the public transport and car travel time limits.

4 Strategy and Targets

4.1 Introduction

4.1.1 This chapter outlines the strategy, objectives and targets of the TP for the proposed residential development at Pinhoe Quarry.

4.2 Strategy Overview

4.2.1 As with all other TPs, the TP for the development at Pinhoe Quarry will be site specific with the choice of measures partly determined by the existing opportunities and constraints offered by the site, for example the location of existing public transport routes and local facilities in the immediate area.

4.2.2 The TP will combine a range of hard measures such as site design, infrastructure and new services with 'soft measures' such as marketing and awareness rising to further encourage travel by sustainable modes. The specified measures will provide a holistic package in which individual measures are integrated into the design, marketing and occupation of the site rather than being 'retrofitted' once the development is established. The measures will therefore aim to achieve more sustainable travel patterns from the outset, rather than cutting existing car use in order to take advantage of the fact that travel behaviour change is more like to come about when other lifestyle changes such as moving house are occurring.

4.2.3 However, in order maximise the impact of the hard measures in the residential area surrounding the site, it is also proposed to introduce certain measures focussed on the wider community in order to extend the benefits of the TP as widely as possible and increase the overall sustainability of the local area.

4.3 Objectives

4.3.1 The main objectives of the TP are to:

- Address residents' need for access to a full range of facilities including work, education, leisure and shopping
- Reduce the need for unnecessary travel to and from the development and assist those who need to travel to do so by sustainable modes
- Reduce the traffic generated by the development to a significantly lower level of car trips than would be predicted for the site without the implementation of the travel plan in order to minimize the traffic impact on the local highway network
- Encourage those travelling to and from the development to use public transport, cycle or walk in a safe and secure manner.
- Promote healthy lifestyles and sustainable, vibrant local communities be extending the benefits of the TP through the local area.

4.4 Targets and Indicators

4.4.1 With residential TP's, targets are normally set in relation to the number of car trips made to and from the development during a specific period of time, based on the number of occupied dwellings on site. This is because modal split data is harder to obtain from residential developments as people may make a range of journeys by a variety of different modes. However, monitoring the total number of vehicle trips in and out of development is a simple and cost effective form of monitoring and also provides the biggest indicator of the uptake of more sustainable options.

4.4.2 In order to calculate the number of vehicle trips the proposed development would generate under base (no TP) conditions, reference was made to TRICS 2010(b) in order to calculate person trip rates for each household, full details of which are contained within the TA. These person trip rates were then used to calculate vehicular trips rates for the proposed development in line with the data from TRICS 2010(b) combined with the 'travel to work' modal split obtained from the 2001 Census for the ward of Pinhoe in which the site is located.

4.4.3 The base vehicular trip rates are shown in the following table:

Table 4.1: Base Residential Vehicular Trip Rates

Period	Private Housing	
	In	Out
12 Hour (0700-1900)	2.360	2.360

4.4.4 In line with these trip rates, the predicted daily 12 hour traffic generation of the proposed residential development is shown in the following table:

Table 4.2: Vehicular Trip Generation of Residential Development

	In	Out
Private Housing	944	944

4.4.5 Based on the predicted base vehicle generation, the following target vehicle generation will be sought and is based on a 10% reduction in vehicle trips made to and from the site in the 12 hour period between 07:00 and 19:00 and represents a corresponding modal shift towards sustainable modes of transport.

Table 4.3: Proposed Vehicle Trip Generation Target

	In	Out
Private Housing	850	850

4.4.6 The target trip rates for each area of the development have been calculated from the target vehicle generation of the site (assuming full occupancy) shown in **Table 4.3** and divided against the number of units proposed on each site to produce the target vehicle generation of each dwelling. The target trip rates for each type of dwelling area are shown in the following table:

Table 4.4: Target Trip Rates

Period		Private Housing
	In	Out
12 Hour (07:00-19:00)	2.124	2.124

4.4.7 Therefore, the TP targets are ultimately to achieve a vehicle generation in line with these target trip rates for each unit on site which is occupied at the time by which the target should be achieved.

4.4.8 It is considered that this vehicular trip rate data should be sufficient to determine whether significant progress is being made towards the TP targets in that if the vehicle trip rates have reduced, an associated shift towards sustainable modes can be assumed.

4.4.9 However, should the trip rate target not be met, further data will be required to determine the actual level of modal shift that has occurred in order to provide a clear picture of where the TP is making progress and where further work is required.

4.4.10 Therefore in this instance, it is proposed to distribute a questionnaire to all residents to gauge their actual travel habits and also gain a view of what measures could be implemented to encourage them to make greater use of sustainable modes. Organisation and distribution of the questionnaire will be the responsibility of the TP Co-ordinator.

5 Proposed Measures

5.1 Introduction

5.1.1 This chapter will outline the proposed measures to be implemented as part of the TP and access strategy for the proposed residential development.

5.2 Walking and Cycling

5.2.1 In order to encourage travel by these sustainable modes to and from the site, a number of hard TP measures are proposed to allow ease of access by foot and cycle as well as creating internal permeability for residents.

5.2.2 In order to increase attractiveness at the origin of future residents' journeys, the existing footway where the southern boundary of the site fronts onto Harrington Lane will be increased to 3 metres to give footway users a greater sense of security between the two site accesses. This 3 metre footway would have the potential to be upgraded to a foot/cycle way which could link into the cycle provision associated with the exhibition way link should it come forwards in the future.

5.2.3 With raised table top junctions proposed at both site accesses, vehicle speeds are dramatically reduced along Harrington Lane increasing the attractiveness of walking and cycling, whilst also providing pedestrian crossings across the site access and Harrington Lane.

5.2.4 In addition to the primary pedestrian and cycle access onto Harrington Lane at the site access, it is proposed that the existing west of Cheynegate Lane Bridge is upgraded providing an advisory on-carriageway footway highlighting the presence of pedestrians to drivers. This would provide a safer connection between the existing footways and improve 'Safe Routes to School' for the St. James' Secondary School. Additionally pedestrian access points are provided to link into the existing public footpath network to the north of the site.

5.2.5 Finally, secure cycle parking will be provided on site for all dwellings that will not be able to store cycles within their own curtilage to ensure that all residents wishing to travel by cycle will not be discouraged by the lack of facilities to accommodate them. Cycle parking will also be provided at the Community, Health and Retail facilities on site and at formal public open spaces to encourage cycle movement within and to the site. These cycle facilities will aim to provide easy secure parking for all so that bikes are not required to be carried through houses or up stairs.

5.2.6 In terms of soft measures, a travel pack detailing site specific walking and cycling facilities, accessibility to the surrounding local facilities showing distances and approximate travel times by each mode, together with cycle safety and maintenance checklists and copies of the cycle/walking maps produced by DCC will be provided to each resident. In addition, details of the WalkBUDI and BikeBUDI matching services will be provided to each resident so they can find other people making similar journeys to them by the same mode and can then arrange to travel together.

5.2.7 Furthermore, for those expressing an interest in cycling, a bike voucher (equivalent to the value of an alternative bus season ticket) will be offered to one resident per dwelling of the

proposed development in the first year of occupation in order to encourage residents to use a bike for their regular journeys currently undertaken by private car.

5.3 Public Transport

5.3.1 As set out in the accompanying TA, proposals to increase the existing Stagecoach 'B' service to operate during evenings and Sundays will make the route more attractive to commuters and those who work outside of the standard 9 to 5 hours. With the right information provision, enhanced bus stop facilities on Harrington Lane and the additional measures set out below, this will lead to increased patronage and more sustainable bus services.

5.3.2 Pedestrian access to the bus stops will be gained via the proposed bus site accesses on Harrington Lane or the proposed pedestrian cycle access on Harrington Lane opposite the northern end of Chancel Lane. High quality bus stop infrastructure will be provided in the vicinity of the site.

5.3.3 In addition to allowing access to the existing bus services, residents will be provided with a range of information regarding their public transport options as follows:

- Route map;
- Timetable and service frequencies;
- Location of nearby bus stops;
- The national public transport website www.traveline.org.uk; and
- The Government's travel options website www.transportdirect.info.

5.3.4 Further to the provision of information on the bus services operating in vicinity of the site, Exeter-wide bus passes (or cycle voucher of equivalent value, as set out above) will be offered to one resident per dwelling of the proposed development in the first year of occupation in order to encourage residents to try out public transport facilities, with a view to making use of them on a long-term regular basis.

5.4 Car Sharing

5.4.1 In order to encourage residents of the development to share their car journeys wherever possible, www.carsharedevon.com will be promoted as part of the TP as an alternative way to travel. Car Share Devon allows members to register their frequent and one-off journeys online and the *lift*share matching service puts people travelling in the same direction or similar directions in contact with each other, allowing them to travel together and share the costs whilst also reducing congestion and pollution on the roads.

5.5 Parking

5.5.1 Parking provision will be provided in accordance with the appropriate standards, currently set out within Exeter City Council's Local Plan (First Review, March 2005). However, it is noted that parking standards may be reviewed as part of the emerging LTP3, as a result of more recent guidance in PPS3. This government policy advocates that parking provision should be designed to meet the needs of the development proposals and should be informed by existing local levels of car ownership and parking provision.

5.5.2 As set out in the accompanying TA the exact parking provision will be agreed with DCC at the time of detailed planning, incorporating the most up to date policy and guidance.

5.5.3 Parking standards are likely to be a critical factor in achieving low levels of car use to and from the residential development by providing a disincentive to owning a car at all, especially if this is a second car as no parking will be available. As people in households with two or more cars tend to travel more than 40% further each year than people in households with just one car, encouraging car ownership levels to remain at one per household or less should significantly reduce the vehicular impact of the proposed development.

5.6 Information Provision

5.6.1 In order to supply information about the sustainable travel options to the residential development in an accessible and convenient way, a personalised travel planning (PTP) scheme will be implemented across the site.

5.6.2 While generic travel information has a role to play in informing people about their transport options, it does not necessarily mean that people receiving it would use sustainable transport, as much of the information was superfluous to people's individual needs. PTP was therefore developed to provide tailor-made information to people in order that they received only the information they wanted and that was relevant to their particular travel patterns.

5.6.3 This method of information provision involves doorstep interviews to understand individuals' particular travel needs and this is then typically followed up by information (and possibly incentives) related to that persons requirements being sent through the post. For example, if a person showed particular interest in walking they might be sent some information on the health benefits of walking, some maps showing good walking routes and perhaps a pedometer. However, someone expressing an interest in public transport would be sent timetable information relating to their trips, information on how to obtain real time information for their bus or train, information on costs and how to obtain the cheapest tickets, and perhaps a limited time travel ticket to incentivise the person to try out that mode of travel.

5.6.4 PTP schemes have shown, on average, a 10% reduction in car trips. This method of providing information is therefore an extremely cost effective way of reducing congestion; especially when compared with infrastructure costs. However, even given this PTP success, it was still felt that the doorstep interview techniques were potentially missing a proportion of the community, as it is possible only to target those households in which someone was home/able to engage during the two attempts that will be made to speak to them.

5.6.5 Therefore, generic Travel Packs will be produced and supplied to each household upon occupation. This Travel Pack is likely to contain the following:

- Details of the TP measures and its objectives and targets;
- Walking and cycling maps showing safe routes to local facilities;
- Details of WalkBUDI and BikeBUDI matching services;
- Site specific public transport information with a map showing routes and bus stop locations;
- Details of how to claim the free bus pass;

- Information on the car sharing arrangements for the development including Car Share Devon leaflets;
- Information on supermarkets offering home delivery in the local area; and
- Contact details for the TP Co-ordinator.

5.6.6 The Travel Pack will then be followed up by the PTP visits which will allow more specific and relevant information to the needs of the household to be identified and subsequently delivered, thereby achieving the benefits of both approaches.

5.6.7 In addition to the Travel Packs/PTP for each household, a TP notice board will be provided in a public area of the development which will contain the walking and cycling maps for the area as well as the public transport information which will be updated by the TP Co-ordinator as required. This TP notice board will provide up to date information for the residents and will also be useful for visitors to the site.

5.6.8 Finally, a newsletter will be produced and distributed to each household detailing the progress of the TP and the results of the monitoring. This newsletter should also act as a promotional tool for the TP by publicising any new measures, national sustainable travel campaigns and improvements to sustainable travel facilities in the local area.

6 Implementation and Responsibilities

6.1 Training Sales Staff

6.1.1 In order to ensure that potential residents of the site are informed about the TP and its goals from the earliest stage, the TP should have a significant presence within the sales suite of the development which should include a display outlining the travel arrangements being implemented and the sustainable travel options for the site.

6.1.2 The sales staff should be given training to promote the TP as an asset and significant selling point of the development. Therefore, it is proposed that a sustainable travel leaflet will be produced and supplied in response to sales enquiries. The leaflet will provide an overview of the concept of a TP, the Travel Pack, the PTP scheme and the sustainable credentials of the development.

6.1.3 The sales staff will also initially act as the personalised travel planning staff throughout the build out of the development.

6.1.4 Information and promotion of the TP from the outset ensures greater buy-in from future residents who may see it as an opportunity to plan changes in their lifestyle. In addition, it is important that prospective residents are made aware of the transport characteristics of the development from the outset to ensure that misunderstandings do not arise later.

6.2 Travel Plan Co-ordinator

6.2.1 A TP Co-ordinator will be designated to take responsibility for implementing the individual measures of the TP on the site. This role could be undertaken by a person appointed by the developer for the duration of the TP which is envisaged to be 5 years, unless the targets are not met in which case this period may be extended.

6.2.2 The TP Co-ordinator will have dedicated time to administer the TP which is likely to be at least one day a month and will be in position prior to the occupation of the first residential unit to ensure that the TP measures are in place from the outset.

6.2.3 The TP Co-ordinator will make regular visits to the site in order to become a familiar face and engage with the residents through door-to-door visits and pre-arranged and publicised 'travel surgeries' where residents will be invited to attend and raise any travel related queries or concerns.

6.2.4 Contact details for the TP Co-ordinator will also be freely available so residents are able to raise issues and feel that the TP is well supported at all times.

6.2.5 The TP Co-ordinator's responsibilities include the following:

- Representing the 'human face' of the TP and explaining its purpose and the opportunities on offer;
- Undertaking door-to-door visits and 'travel surgeries';
- Managing the annual TP budget;
- Providing travel options information to those living at the development;
- Updating the TP notice board;
- Marketing and publicising of new initiatives relating to the TP; and
- Creating and updating the Travel Packs.

6.2.6 The developer will be responsible for meeting the cost of proposed measures and will allocate an annual budget for marketing and implementing the TP which will be controlled by the TP Co-ordinator.

6.3 Personalised Travel Planning

6.3.1 While the developer will take ultimate responsibility for organising and funding the PTP scheme, it is not envisaged that they will be the ones actually implementing the scheme on the ground. Due to the complexities involved in training, data inputting and arranging the appropriate level of follow-up, the developer will engage a 3rd party with experience of implementing this sort of PTP which is likely to be one of the following:

- Transport consultant;
- Highway authority; and
- Market research company.

6.3.2 The organisation responsible for implementing the PTP will need to work closely with the TP Co-ordinator in order to ensure both parties are aware of the activities of the other in case any queries should arise.

6.3.3 As mentioned previously, it is likely that initially the sales staff will be engaged to carry out the on-site PTP as they will be present throughout the build out of the development.

6.4 Travel Plan Management

6.4.1 As part of the implementation and ongoing management of the TP, 2 distinct stages are identified within the DfT's guidance on residential TPs 'Making Residential Travel Plans Work'.

6.4.2 The first stage of the TP's development and implementation covers the construction period, initial occupation of the site, and the first few monitoring and review periods of the plan. This period is crucial in terms of ensuring that the measures outlined in the plan are actively implemented to help reduce car use by residents, and that the objectives and targets identified in the plan are being met. During this period, it is likely that the developer, management organisation and TP Co-ordinator will all need to be closely involved in the management and refinement of the plan.

6.4.3 Ultimately, the local highway authority will have overarching responsibility for the area as it is embraced by policies and measures established in the LDF. The authority can help identify an effective future management arrangement and also help to ensure coordination with other TP initiatives in the area, or take the plan forward themselves in cooperation with the local community.

7 Travel Plan Monitoring

7.1 Monitoring

7.1.1 A TP requires a process of monitoring and review in order to ensure the aims of the plan are delivered in practice. Where the monitoring reveals that the targets have not yet been met, the TP can then be reviewed and refocused in order to get the plan back on track. Even when the monitoring identifies that the TP targets are being met, the plan may still need to be adapted over time in order to deliver ongoing change in travel behaviour.

7.1.2 As the TP targets are based on the vehicle generation of the proposed development, monitoring of the progress towards the targets will be undertaken by placing automated traffic counters at the vehicular entrances to site during the monitoring periods.

7.1.3 An initial survey will be undertaken within a month of the development reaching 25% occupation, in order to ensure the targets outlined in **Section 4.4** are realistic and achievable. Targets will then be agreed with the TP Officer from DCC and another monitoring period will be implemented 12 months later in order to determine whether the targets have been met. The results of this monitoring will be reported to DCC's TP Officer by the TP Co-ordinator within a month of the survey period's completion.

7.1.4 As previously outlined, if these targets have not been achieved a more detailed survey will be undertaken in the form of distributing questionnaires to the residents of the development in order to identify their existing travel habits and perceived barriers to travel by sustainable modes. The determination of appropriate additional TP measures will then be informed by the results of the survey.

7.2 Enforcement

7.2.1 Initially, the duration of the active stages of the TP is envisaged to be 5 years following completion. However, the developer will ultimately remain responsible for the TP until such a point as it has been successfully implemented and the targets achieved.

7.2.2 If the targets are not met, the developer will be responsible for agreeing further TP measures in consultation with DCC and their period of responsibility for the operation of the TP is also likely to be extended.

7.3 Maintaining

7.3.1 Continued monitoring will then occur on an annual basis to ensure progress is maintained and in order to reflect local travel issues, TP targets will continue to be set and reviewed continually in accordance with relevant guidance. Within a month of the completion of each monitoring period there will be liaison between the TP Co-ordinator and the TP Officer at DCC and a report will be submitted containing details of the survey results and the implications for the TP strategy.

8 Area Wide Travel Plan

8.1 Area of Influence

8.1.1 As previously mentioned, one of the objectives of the TP associated with the proposed development is to promote healthy lifestyles and sustainable, vibrant local communities extending the benefits of the TP through the local area. In order to achieve this it is proposed to extend several of the proposed measures to cover the existing residential development along Harrington Lane.

8.1.2 In order to take account of this potential person trip generation of residents of Harrington Lane the number of houses considered to be within the TP area of influence has been calculated from 2001 Census for the Output Areas of 18UCGD0006, 18UCGD0007 and 18UCGD0008. This analysis has determined that the implementation area of the retrofit TP measures will consist of 363 households.

8.2 Information Provision

8.2.1 As the area wide TP is being retrofitted to the area, the scope for implementing hard measures is limited as the required land is outside the control of the developer. Therefore, the strategy for the properties on Harrington Lane will consist of softer measures based on the provision of information to residents in order to encourage them to change their travel habits.

8.2.2 This information provision is likely to take the same form as that for the dwellings with the proposed development to include the provision of a travel pack to each household in order to make them more aware of their travel options. The provision of this generic travel information will be supported by the extension of the PTP scheme associated with the proposed development to provide more detailed information relating to the specific travel interests of that household. Both of these approaches are described in more detail in **Section 5.6.**

8.3 Public Transport

8.3.1 As discussed in **Section 5.3**, public transport proposals include the provision of an evenings and Sundays Stagecoach 'B' service. Whilst this increase in bus service provision is primarily aimed at the new residents of the proposed Pinhoe Quarry development, the area wide travel plan through the PTP will make the service more attractive to existing residents on Harrington Lane.

8.4 Potential Impact

8.4.1 As previously mentioned PTP schemes have shown, on average, a 10% reduction in car trips meaning that the area surrounding the site will generate fewer vehicle trips on the local highway network. Based on the person trip methodology outlined within the TA, the following base and target modal splits have been determined for person trips made to and from the residential properties on Harrington Lane:

Table 8.1: Base and Target Modal Splits – Harrington Lane

Mode	% Base Split	% Target Split
Car Driver	55.2%	49.7%
Car Passenger	25.8%	29.0%

Motorcycle	1.9%	2.1%
Train	0.1%	0.1%
Bus	3.6%	4.0%
Cycle	1.4%	1.6%
Pedestrian	12.1%	13.6%

8.4.2 Application of the modal splits to calculated person trips for the AM and PM peak as well as the 12 hour period produce the following trips for each mode under base and target conditions:

Table 8.2: Base and Target Person Trips – Harrington Lane

Mode	Base Person Trips			Target Person Trips		
	AM	PM	12Hr	AM	PM	12Hr
Car / Van Driver	215	159	1,714	193	143	1,543
Car / Van Passenger	138	76	801	155	85	900
Motorcycle	7	5	58	8	6	65
Train	1	0	4	1	0	5
Bus	19	7	111	22	8	125
Cycle	5	8	44	6	9	49
Pedestrian	64	36	375	72	41	421
Total	449	292	3,108	457	293	3,108

8.4.3 **Table 8.2** demonstrates that with the implementation of the area wide TP measures there is likely to be a reduction of 22 vehicles trips associated with the properties on Harrington Lane in the AM peak and 16 in the PM peak with an increase in other more sustainable modes of a comparable amount.

8.4.4 While this modal shift from single occupancy car travel is the intended outcome of the area wide TP, it is not considered appropriate to set formal targets for this particular aspect of the TP strategy as it in not under the direct control of the developer. However, monitoring of the area wide travel plan could be undertaken through surveys or travel diaries as part of the TP for the proposed development, with results presented to DCC together with the results of the site specific monitoring.

Appendix A: TP Action Plan

Proposed Measure	Responsibility	Investigation	Implementation
Provision of foot/cycleways and cycle parking	Developer		Construction Phase
Appointment of a TP Co-ordinator	Developer	-	3 months prior to 1st occupation
Training of sales staff	Developer	-	Prior to opening of sales suite
Production of Sustainable Travel sales leaflet	Developer	-	Prior to opening of sales suite
Provision of TP notice board	TP Co-ordinator	-	1 month prior to 1st occupation and updated every 3 months
Production/acquisition of walking, cycling, public transport and car share information	TP Co-ordinator	3 months prior to occupation	1 month prior to occupation and updated every 3 months as necessary
Compilation of Travel Packs	TP Co-ordinator	2 months prior to occupation	3 weeks prior to occupation and annually thereafter
Distribution of Travel Packs	Sales staff for first occupiers and TP Co-ordinator thereafter	-	Within 2 days of occupation (each dwelling)
Door-to door visits	TP Co-ordinator	-	From reaching 25% occupation and every 6 months thereafter
Travel 'Surgeries'	TP Co-ordinator	-	From reaching 25% occupation and every 3 months thereafter
Vehicle Generation Surveys	TP Co-ordinator	At first occupation	Within 1 month of reaching 25% occupation and annually thereafter
Detailed questionnaire survey (if required)	TP Co-ordinator	-	Within 2 months of vehicle generation survey
Report to DCC and liaison with TP Officer	TP Co-ordinator	-	Within 1 month of survey completion and annually thereafter
Production and Distribution of TP Newsletter	TP Co-ordinator	-	Within 1 month of survey completion and annually thereafter