Travel Plan

Wrexham Road Development - Rhostyllen



WREXHAM COUNTY BOROUGH COUNCIL
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AMENDED
PLANNING DEPARTMENT

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1 Introduction

Opus International Consultants (Opus) were appointed in December 2007 to develop a draft Travel Plan for this site.

The purpose of this Travel Plan is to demonstrate that there are feasible options available to mitigate and/or accommodate the traffic impacts generated by the residential development proposed at Rhostyllen.

The site proposes a mixed use development consisting of 223 residential dwellings, community hall, shop, tea rooms, open amenity land, construction of new vehicular and pedestrian access and alteration to existing vehicular and pedestrian access.

The site is currently in agricultural use and covers land allocated for housing in the Wrexham Unitary Development plan together with land to the south adjacent to Glan yr Afon Brook which is to be safe guarded for open space purposes.

The initiatives outlined in this Travel Plan are designed to create the most effective use of the different means of travel available to the new and existing community. The success of the Travel Plan is dependant on information, communication, incentives and deterrents.

1.1 Objectives

Our goal is to provide a set of options that when fully developed and used in combination will ensure the effective movement of the Rhostyllen community without significant compromise to the level of service within the network.

It will be shown how the proposed design will address the new residents need for access to facilities for work, education, health, leisure, recreation and shopping. We hope to demonstrate how the implementation of the plan will reduce the traffic generated by the development and provide justification for the reduced number of parking spaces proposed.

It will also be demonstrated that the development promotes a healthy lifestyle and a sustainable community. This will be achieved through the use of urban design principles that open up permeability of the development for walking and cycling.

We will address the site specific problems identified in the Transport Assessment 2004 and provide solutions, namely pedestrian and cycle access across Wrexham Road.

2 Site Description

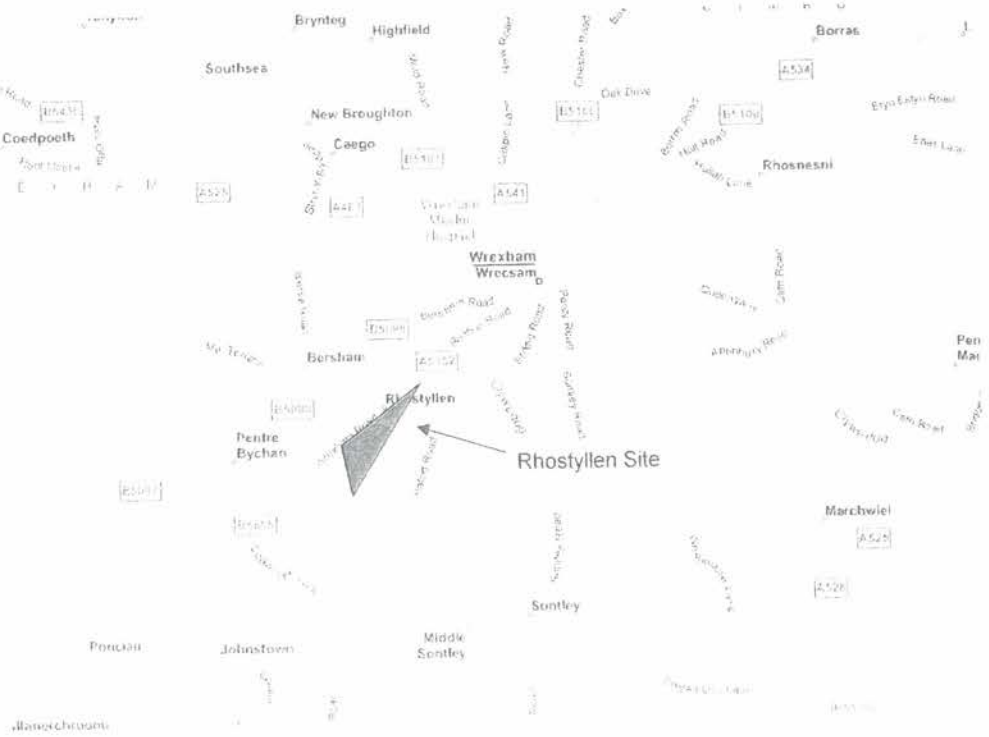


Figure 2-1 Site Location

2.1 Location and Developments

The proposed site is located to the south of the former mining village of Rhostyllen, which has a population of around 2,000 people. The land is currently owned by the National Trust, and has been allocated in the Wrexham Unitary Development Plan for housing.

To the north-west the site abuts the A5152 Wrexham Road, which is part of the strategic highway network linking the regional centre Wrexham to the east with the urban villages of Johnstown, Rhos and Ruabon to the west. To the east of the site is the Chester - Shrewsbury railway line and to the south-west is the Bersham Industrial Park. A public right of way crosses the site in the south-west.

The site is currently in agricultural use and is situated close to the village services, which include several public houses, general stores, takeaways, a school, a health centre, a village hall and a 'football' field. Several bus stops stand adjacent to and opposite the site on Wrexham Road. Frequent buses serve Rhostyllen to Wrexham, Ruabon, Rhos, Cefn Mawr, Oswestry and Llangollen.

3 Existing Conditions

3.1 Road Network

3.1.1 Wrexham Road

Wrexham Road is a 30mph, A road (A5152) identified in the Unitary Development Plan as part of the core network for the County Borough.

There are footways along the north and west side of the road. On the site side (southeast), the footway begins at 93 Wrexham Road and comes to the southwest. There are some short sections at the rear of bus pull-ins.

The site frontage is kerbed and drained but there is generally little or no verge between the kerb and the hedge line.

There is no assigned cycleway.

Wrexham Road has street lighting through the village and to the built area of Wrexham. There are no formal pedestrian crossings but there is a central refuge near the Church Street junction. There are several dropped kerbs.

There are numerous accesses to individual dwellings opposite the north east part of the site and a designated lay-by opposite the central part. There are fewer access drives further south.



Photo 3-1 Wrexham Road looking South West

3.1.2 Church Street

Church Street is a through road which serves as a main route into the village and is also a bus route. There are short, head-on ghost islands at the crossroads with Wrexham Road and the junction is made more complicated by a bus pull-in on the north-west corner.

Church Street is subject to a 30mph speed limit and is lit.

There are footways on both sides although the north-east side narrows to 600mm south of School Street and is missing entirely for the 10m nearest Wrexham Road. The footway is also absent from the south-west side opposite the end of School Street and on both sides near the junction with Henblas Road.

The provision of dropped kerbs is inconsistent and there is no tactile paving.

On-street parking is particularly prevalent close to Wrexham Road.



Photo 3-2 Wrexham Road looking at Church Street Junction

3.1.3 Eldon Grove

Eldon Grove is a dead end road that runs off Wrexham Road. It has a 30mph speed limit and is well lit. It has wide Footways throughout on both sides and some on-street parking facilities.

There is a large splitter island at the junction separating the incoming and outgoing traffic from Wrexham Road. This may also be used as a turning facility for Wrexham Road.



Photo 3-3 Eldon Grove Junction

3.1.4 Trinity Street

Trinity Street is a minor through road with on-street parking. It is subject to a 30mph speed limit and is well lit. It has wide footways on each side with dropped kerbs at several points including the junction with Wrexham Road.

The dropped kerbs are not well placed at the junction with School Street or Henblas Road.

There is on street parking and are some individual access drives.

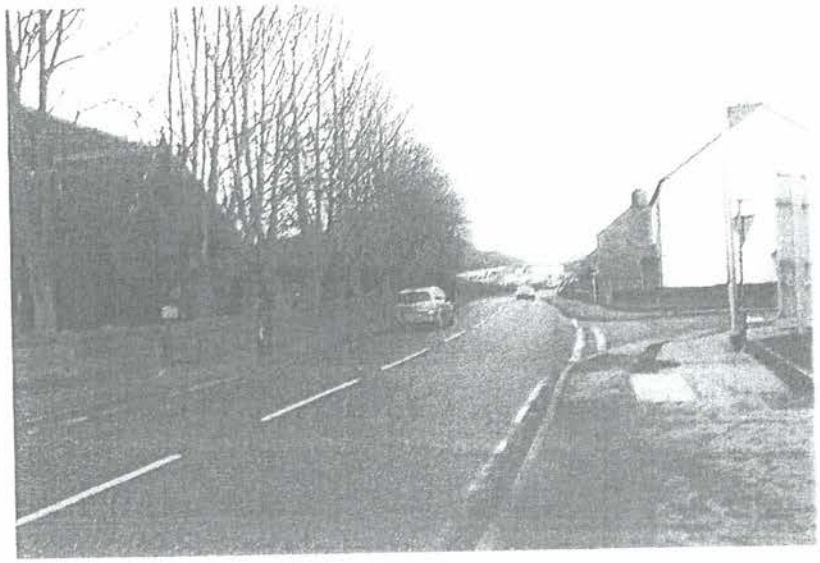


Photo 3-4 Trinity Street Wrexham Junction

3.1.5 Henblas Road

Henblas Road is a main road for the village and serves as a bus route. There is a 30mph limit and footways on both sides.

To the west of the junction with Trinity Street, the footway is absent outside numbers 77-87 and between number 78 and Poplar Road.



Photo 3-5 Looking up Henblas Road to the right, from Wrexham



Photo 3-6 View from Old Farm Lane, West along Wrexham Road

3.1.6 School Street

School Street has wide footways with dropped kerbs. The school has a long frontage to the road and there is some parking provision within the school premises. The road is lit and subject to a 30mph limit. Other than zig-zag markings for the school, there are no parking or waiting restrictions.

3.1.7 Old Farm Road

Old Farm Road is a modern estate road with street lighting and a footway on the south-west side. It is the distributor road for a modern housing estate.

3.2 Accident Data – January 2003 – May 2007

The A5152 has an injury accident record which led to it being targeted by the safety camera partnership. Between January 2003 and May 2007, eighteen injury accidents were recorded on the length of Wrexham Road between Church Street and Old Farm Road. Two involving serious injuries occurred at Old Farm Road Junction and the other near the Church Street junction. Four minor-injury accidents occurred at the Henblas Road junction, two at the Trinity Street junction, three at Eldon Grove junction, four at the Old Farm Road junction and one at the Church Street junction. The other two accidents took place between junctions.

3.3 Public Transport

3.3.1 Bus

Bus services 2/2A/2B/2C, V2/J50, 3/4, X5/555/5, 5A, 22, 65 and 70 serve Rhostyllen. All terminate at Wrexham Bus Station taking approximately 7 minutes. All but service 3, run along the entire length of Wrexham Road adjoining the site. Service 3 passes the North East part of the site, then along Henblas Road and Church Street.

Times from Rhostyllen to amenities by bus	
Wrexham General Rail	7mins
Wrexham Bus station	7 mins
Johnstown	5 mins
Ruabon	9 mins
Vauxhall Industrial Estate	7 mins
Ruabon Station	14mins
Maelor Hospital	10mins
Wrexham Supermarkets	6mins

Table 3-1

Information relating to first and last buses, frequency and destination is shown in Table 3.2. Bus service to Wrexham, Oswestry, Llangollen and surrounding villages with a peak hour frequency being 07:00 – 09:00 and 16:00 – 18:00. It is considered that there is no need for service enhancements as a result of the proposed development.

Num.	Service (From/To)	General Details	Operator	Last Update
2/2B	Wrexham to Oswestry	Mon to Sat (every 60 mins)	MR North	Nov 2007
2A	Wrexham to Oswestry	Mon to Sat (every 60 mins)	MR North	Nov 2007
2C	Wrexham to Cefn Mawr	Mon to Sat (every 60 mins)	MR North	Nov 2007
2C	Wrexham to Cefn Mawr	Mon to Sat (every 60 mins)	Arriva Wales	Nov 2007
2E	Wrexham to Chirk	Evenings only, Mon to Sat (2 trips)	Townlynx	Nov 2007
2V	Wrexham to Cefn Mawr	Mon to Sat (7 trips)	VLT	Nov 2007
5A	Wrexham to Chirk	Sun (every 60 mins)	MR North	Nov 2007
5A	Wrexham to Chirk	Sun (9 trips)	MR North	Nov 2007
65	Llanarmon Dyffryn Ceiriog to Wrexham	Mon to Fri (1 trip) Sat (2 trips)	GHA	Nov 2007
555	Wrexham to Llangollen	Mon to Sat (every 30 mins)	GHA	Nov 2007
J50	Acrefair to Wrexham	Mon to Fri (5 trips) Sat (4 trips)	Jones D	Nov 2007
X 5	Wrexham to Llangollen	Mon to Sat (every 30 mins)	Bryn Melyn	Nov 2007

Table 3-2 Bus Services via Rhostyllen

Of the four bus stops opposite, which serve travel into Wrexham, only the one near Church Street has a shelter. All the bus stops except the one outside the Black Lion have raised kerbs to facilitate passenger access.

Subject to a suitable layout, all parts of the site will be within convenient walking distance of existing bus stops. It is therefore considered that there is no need to route buses through the proposed development.

Outward and return journeys on most services use stops on opposite sides of Wrexham Road. Passengers making a round trip by bus generally need to walk across Wrexham Road once. The provision of crossing points responding to this need would benefit existing residents as well as residents of the new housing area.

3.3.2 Rail

The nearest rail stations are in Wrexham and Ruabon. These can both be reached via the local bus services as described above. Buses to and from Rhostyllen provide a frequent and direct service to Wrexham General Station. The journey is timetabled at between 5 and 9 minutes depending on the service. A summary of the rail travel timetable is listed below in table 3.3.

Service	Line	Frequency
75	Chester - Birmingham	120 mins
81	Holyhead - Cardiff	120 mins
101	Bidston - Wrexham	60mins

Table 3-3 Rail Services

3.3.3 Cycle Routes

Cycle routes into and through Wrexham have been developed under the Wrexham Cycling Strategy 1999 and are shown below in Figure 3.1

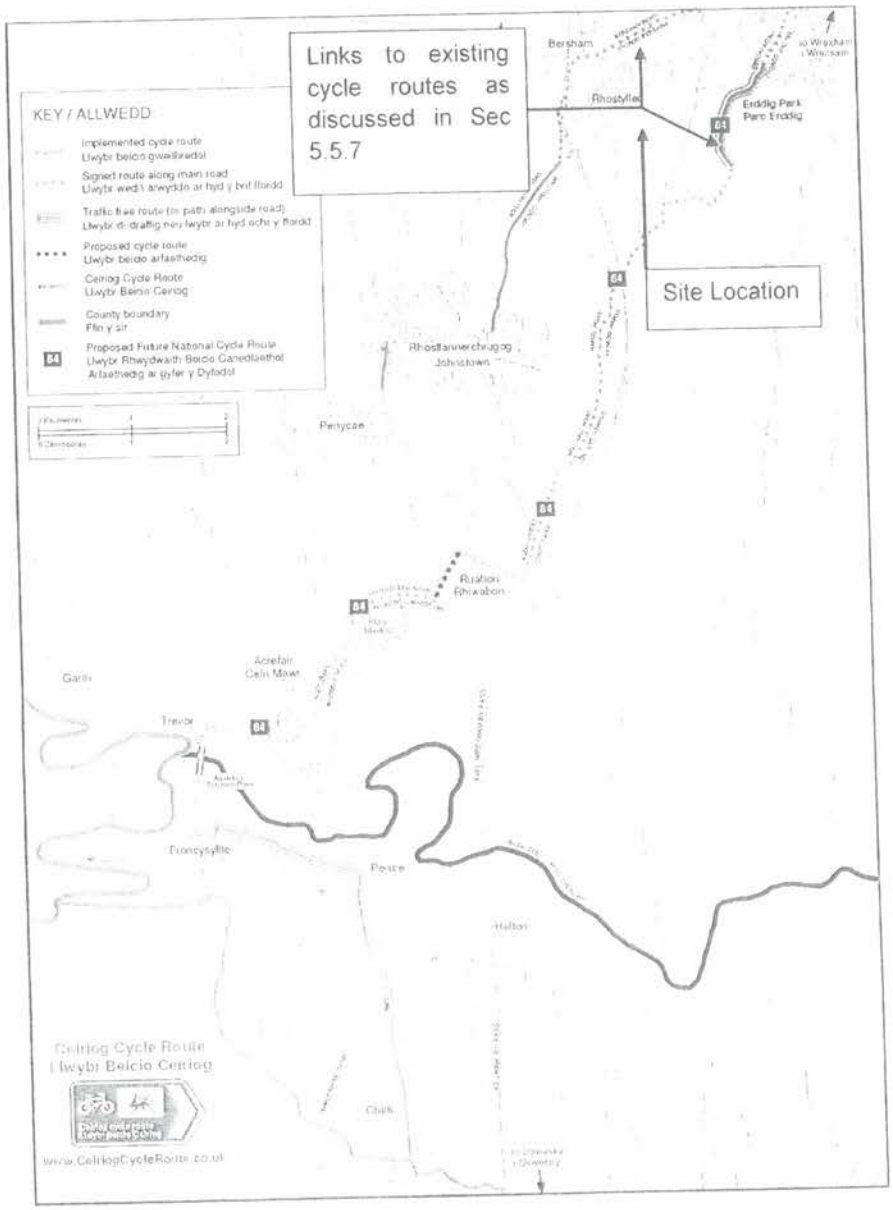


Figure 3-1 Ceiriog Cycle Route

Cycle routes described below:

- Cycle Route 3 passes along Sontley Road and through the park at Erddig to the south of Rhostyllen.
- Route 4 passes through Bersham and along Bersham Road, to the north of Rhostyllen.
- Esless Lane is identified as a phase 2 potential route in the Cycling Strategy. It runs north from Rhostyllen to connect with Route 4.

National Route 84 of the National Cycle Network will come off Route 8 at Trawsfynydd and goes to Chester via Wrexham. The route is still awaiting development



Figure 3-2 National Cycle Network Route

3.4 Accessibility of Local Services

Rhostyllen has a range of local facilities including shops, pubs, churches, a health centre and a primary school.

There are employment opportunities in the village and nearby at Bersham Enterprise Park, Croesfoel Industrial Estate and Felin Puleston.

The frequent bus services along the length of the site are a factor in the accessibility of village facilities as well as those elsewhere.

3.4.1 Rhostyllen

Convenient cycling distance is defined by the Council as within 2 miles. All parts of the site are within convenient cycling distance of all of the facilities within the village. There is currently a lack of formal cycle parking facilities within the village.

Convenient walking distance is defined in the Wrexham County Borough Council guidance as a 5 minute walk at a steady pace. This is generally taken to be a distance of about 400m.

The village hall, health centre, football pitch, bowling green and play area are over 800m from the north east part of the site and between 400m and 800m from the central and south west parts. The inconvenience of access to open air leisure facilities near the village hall will be overcome through the provision of on-site open space, kickabout area and children's play area.

Pedestrian access to facilities within the village is hampered by the need to cross the A5152 Wrexham Road, which is both busy and subject to a 30mph speed limit. Other than dropped kerbs, the only crossing facility is a central refuge near the Church Street junction.

The inadequacy of footways in the southern part of Church Street is a concern in relation to pedestrian access from the site to the Health Centre and facilities near the village hall.

The local Amenities are shown below in relation to the different access points to the development. Firstly in Table 5.1, then graphically in Figure 5.1.

Facility	South-West access	Central access	North-East access
A. Rhostyllen Primary School	Under 400m	Under 600m	Under 800m
B. Church street and Wrexham Road corner shop	Under 200m	Under 400m	Not assessed. Other closer shops
C. News agent, pharmacy, Salon and Chapel at Trinity/School Street Junction	Under 400m	Under 400m	Under 800m
D. Post office Co-op store, Wrexham Road	Between 400 - 600m	Under 400m	Under 400m
E. Health Centre, Amanda Grove	Under 600m	Under 600m	Under 600m
F. Holy Trinity Church	Under 200m	Under 400m	Under 400m
G. Chapels, Takeaways and pubs near High Street/Church Street Junction	400-600m	400-600m	Over 800m
H. Village Hall, play area, football pitch, bowling green, Vicarage Hill	600-800m	600-800m	Over 800m
I. Black Lion, Wrexham Road	400-600m	Under 400m	Under 400m
J. Open space (part of development)	Under 200m	Under 400m	Under 400m
K. Shop, Tearoom and Community Hall (part of development)	Under 400m	Under 100m	Under 400m

Table 3-7 Distance to Amenities

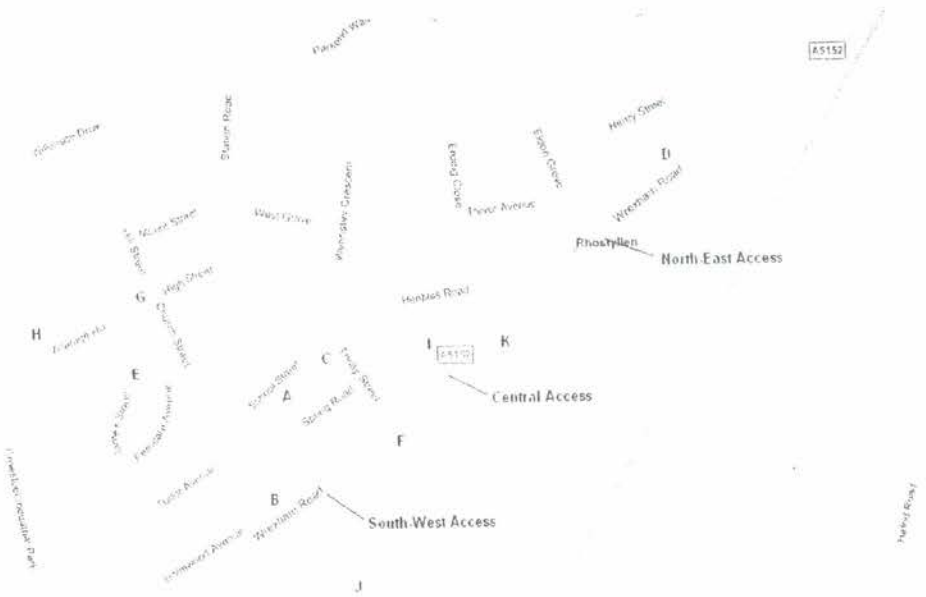


Figure 3-3 Locations of Amenities in Relation to the Above Table

3.4.2 Schools

Following Wrexham County Borough Council guidance, access is considered in relation to walking and cycling.

Rhostyllen Primary School, on School Street, is the nearest primary school to the site. School Road itself has wide pavements and the Primary School has a long frontage to the road. The school is within convenient walking distance of the south west of the site but convenience diminishes to the north east where walking distances approach 800m. The overall density of development is highest closer to the primary school and lowest further away. In addition the proportion of affordable housing increases nearer the primary school. The furthest part of the site is occupied by private apartments, which tend not to be occupied by families with children of primary school age.

The nearest secondary schools are Ysgol Clywedog High School on Ruthin Road and St Joseph's RC High School on Sontley Road. Both schools are within 3 miles of the site. There are school bus services which provide transport to these schools but accessibility has been also been assessed for walking and cycling.

The most direct cycle / walking route to Ysgol Clywedog from the site is along Old Farm Road/Esless Lane. The route already shows evidence of use by children travelling between the school and Rhostyllen on foot and by cycle and is identified as a phase 2 proposed cycle route in the Wrexham Cycling Strategy adopted 1999.

The most direct route to St Joseph's is along Wrexham Road. The footway on this route is continuous and the entire route has street lighting. No provision is made for cyclists and the combination of traffic speeds and volumes is likely to act as a deterrent.

3.4.3 Wrexham

For some facilities, residents of the village and the proposed development need to travel outside Rhostyllen. Wrexham town centre is the nearest centre for shopping and services. Major supermarkets are located close to the town centre and at Plas Coch, adjacent to the A483/A541 junction.

Wrexham town centre and Plas Coch are well beyond what most people would regard as convenient walking distance.

Taking the most direct route, along Wrexham Road, the town centre is within a convenient distance for cycling, as defined in Wrexham Council's guidance. The supermarkets, rail station and town centre are approximately 2 miles from site.

There is no defined cycleway along Wrexham Road, it is not signed as a cycle route. A traffic count in June 2003 revealed 48 cyclists over 12 hours on a section of the A5152 in the 30mph limit further to the east. They amounted to less than 0.4% of the traffic counted.

Buses to and from Rhostyllen provide a frequent and direct service to Wrexham town centre. The journey is timetabled at between 5 and 9 minutes depending on the service.

4 Development Details

4.1 Vision

The vision for the site is to undertake a development which is sustainable and prioritises minimising impact on the local road network. The developer has been tasked by Wrexham County Borough Council to put to practice this vision, which is based on the attributes and constraints of the site and the relevant planning principles

The development will add to the existing community by providing new local facilities and building upon existing ones. External improvements such as highway improvements, safety improvements, and added infrastructure will benefit the community.

Incorporated in the design will be measures to promote safe and sustainable methods of transportation that will reduce and discourage reliance on the car. Cycle lanes, added/improved footways, public transport waiting facilities, designated crossing points, traffic calming, speed reducing measures and permeability will all be integral to achieving this.

The site design aims to accommodate the car in a realistic way without letting it dominate. The focus on the promotion and ease of use of the public transport and sustainable modes of transport endeavours to reduce the need to design excessive car parking within the site. The design will simplify the use of sustainable transport and encourage less reliance on the car.

4.2 Development Details

The proposed development includes 223 residential units, a Community Hall, tearooms, shops, and a new small park.

There are four proposed vehicular access points to the development all of which are from Wrexham Road. A proposed roundabout access will be located at the existing Eldon Grove/Wrexham Road Junction to the north of the development. The second access is in the middle of the development, and a third access near the south of the development. The fourth is the access to the Community centre in the middle of the development as noted in Figure 3.3.

The design incorporates a number of design features that have been included to promote the use of alternative forms of transport and reduce the need to travel.

- Permeability for pedestrians and cyclists - The development is designed in a grid system to encourage walking, allowing quick and easy access through the development in any direction.
- There are 10 principle points of access for pedestrians onto Wrexham Road. Access to Rhostyllen will be by a variety of pedestrian crossing facilities, the details of which are to be agreed with Wrexham Highways.

- New footpath and river bridge arrangements allow access to the countryside, the small onsite park and the Erddig estate through woodlands to the countryside and onto the national cycle network beyond.
- There will be improvements to the footpath along Church Street, leading to Rhostyllen C.P School.
- WCBC are proposing improvements to the lighting along Esless Lane leading to the Secondary School.
- The National Trust has agreed to provide funding for the provision of a new classroom at Rhostyllen C.P, which should encourage use of the local school within walking distance.
- Traffic calming / Highway safety measures.
- Pedestrian and cycling friendly infrastructure.
- Areas for social exchange, recreation, seating, play, and biodiversity.
- New cycle routes link Rhostyllen to the development across Wrexham Road.
- New cycle routes within the development link to a new cycle route via new bridges across the river, through National Trust woodlands to Erddig. There is an extensive cycle way network within the Erddig Estate linking to the town centre up Erddig Road.
- Low level traffic speeds (20mph) within the home zone development will encourage cycling and walking reducing the potential for conflict.
- Cycle parking will be provided within the public realm.

Adding to the accessibility of the local services, mixed use features have been included in the design that reduce the need to travel;

- Community Centre – This is intended to provide the hub not only to the development but to the Rhostyllen community. The Community buildings will include a 3000ft^2 shop and a separate tearoom.
- A shop and tearooms to be built in the central community area near the community hall.
- Leisure – communal areas and landscaped parks.
- Mixed use accommodation – residential / office use or live work accommodation.

The prestigious Rhostyllen development hopes to be at the forefront of designing communities for the future. The design features display the consideration that has gone into providing infrastructure that will enable a sustainable residential development that will set the standard for others in the area.

4.3 Expected trip generation

TRICS 2007(a) was used to calculate trip rates, based on a site selection of "United Kingdom, excluding Greater London, Northern Ireland, Republic of Ireland & Isle of Man". All trip generation rates were based on 50%ile TRICS rates due to the established and continually improving public transport network, and the proximity of local services.

The results have been calculated as Multi-modal however there is limited or no data for Cyclists, Buses or Goods Vehicles, hence only trips rates for vehicles and pedestrians have been reported here.

The following land use categories were applied:

- Residential Housing.
- Village Store.
- Café.
- Community Centre.

The following table shows the expected traffic generation based on the trip rates and development size. Trips are one way movements i.e. 2 trips = 1car.

Vehicles			
AM Peak 0800-0900hrs			
Generated Trip Flows	Departures	Arrivals	Total Trips
Residential	84	35	119
Community Centre	0	2	2
Tearooms	0	0	0
Village Store	10	11	21
TOTAL	94	48	142
Inter Peak 1200-1300hrs			
Generated Trip Flows	Departures	Arrivals	Total Trips
Residential	42	57	99
Community Centre	7	7	14
Tearooms	17	25	42
Village Store	16	14	30
TOTAL	82	103	185
PM Peak 1700-1800hrs			
Generated Trip Flows	Departures	Arrivals	Total Trips
Residential	56	98	154
Community Centre	5	6	11
Tearooms	24	21	45
Village Store	22	23	45
TOTAL TRIPS	107	148	255

Table 4-1 Rhostyllen Vehicle Generation

Pedestrians AM Peak 0800-0900hrs			
Generated Trip Flows	Departures	Arrivals	Total Trips
Residential	49	9	58
Community Centre	0	0	0
Tearooms	0	0	0
Village Store	34	33	67
TOTAL	83	42	125
Inter Peak 1200-1300hrs			
Generated Trip Flows	Departures	Arrivals	Total Trips
Residential	12	11	23
Community Centre	1	1	2
Tearooms	1	13	14
Village Store	54	52	106
TOTAL	68	77	145
PM Peak 1700-1800hrs			
Generated Trip Flows	Departures	Arrivals	Total Trips
Residential	16	27	43
Community Centre	0	5	5
Tearooms	6	5	11
Village Store	89	104	193
TOTAL TRIPS	111	141	252

Table 4-2 Rhostyllen Pedestrian Generation

4.4 Parking

The site design aims to accommodate the car in a realistic way. The sustainable design promotes the ease of use of alternative modes of transport.

The reduced number of parking spaces forms part of an overall design decision to move away from the reliance on the car. The reduction, in conjunction with alternate mode transport initiatives and proximity to numerous amenities and transport services will reduce the need for extra spaces.

The direction for this move comes from the accepted guidance in preparing this document; 'Making Residential Travel Plans Work: Good Practice Guidelines (Department for Transport, 2005) which suggests that local Authorities should;

> *'Challenge conventional thinking about parking standards and encourage low parking allowances as far as possible '*

A study undertaken for the DFT into the 20 Travel Plan best practice cases in the UK, ('*Using the planning process to secure Travel Plans; best practice guide 2002*') indicated that, on average modal target shifts between 10-20% reducing car use over three years is being achieved.

Applied to this site; a total of 470 car parking spaces are shown on the master plan. Strict application of the Wrexham County Borough Council standards would require a total of 603 car parking spaces. This leaves a shortfall of 22% from the recommended total.

A breakdown of the parking is identified in Table 4.3 below.

This number falls very near to the nationally accepted range of what is achievable with the production and promotion of a Travel Plan.

The reduced car parking space also serves as a measure to promote and enforce the use of alternate mode transport. The design measure serves a means of assisting immediate modal shift, and will be built upon through the implementation of a Travel Plan.

All of these factors combine to provide a sustainable residential proposal that as a minimum should achieve modal shift to offset the parking requirements. It is hoped that a 22% shift will be achieved and exceeded in the future. Continued marketing and promotion will strive to achieve the targets and hence further reduce the parking stress on the community.

Communal parking areas will be shared between the local mixed use facilities as it is calculated they will be used at different times of the day/evening. The communal parks have been separated between the community hall and tearooms / shops. This design feature is considered to reduce the likelihood of antisocial behaviour associated to large parking areas. The shop parking profile is calculated to be mostly by-pass trips and hence reduces the need for high parking provision.

We believe that the designed number of car parking spaces will be sufficient for a development of this nature. The combination of all the location/physical factors coupled with the thought that has gone into design and national guidance will have an immediate effect on car use within the new and existing Rhostyllen residents.

Area	Affordable No of Units	Parking	Open Market No of Units	Parking	Other	Notes
1	7	7	13	26		
A	6	6				
2	3	3	15	33	8	Roadside
3	3	4	8	19		
4	5	5	13	28	22	Shops
A	9	9			18	Community Centre
5	8	10	21	46		
A			5	5		
6	4	4	23	49	11	Roadside
7	4	4	8	16		
A			11	11		
8	2	2	9	19		
			6	6		
9	4	4	9	19	5	
10			10	31	14	Roadside
11			5	14		
			12	12		
TOTAL	**55**	**58**	**168**	**334**	**78**	
Parking %age All		**105%**		**199%**		
TOTAL Houses			**126**	**281**		
Parking %age Houses				**223%**		
Overall Parking %age				**176%**		

Table 4-3 Parking Percentages

5 Green Travel Plan

5.1 Introduction

This section presents the Green Travel Plan (GTP) that will reinforce and exploit the sustainable features of location and design that are outlined in Section 4.

The Travel Plan is a package of measures designed to reduce 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. The plan is presented under the following headings:

- Travel Plan Awareness
- Management
- Targets
- Monitoring
- Measures

In the preparation of this GTP reference has been made to Making Residential Travel Plans Work: Good Practice Guidelines (Department for Transport, 2005) which represents Government guidance on the preparation and implementation Travel Plans specifically for residential areas.

5.2 Travel Plan awareness

Awareness of the Travel Plan and the associated objectives among residents is a key element to achieving success. The developer will provide travel information packs to purchasers and provide Travel information boards in and around the Community Centre and commercial area. They will also provide travel questionnaires to purchasers and collect them in order to provide baseline information for future assessment.

Other mediums will include:

- posted on community facilities;
- on the website;
- provided through sales / marketing staff.

Information will generally include cycling and walking maps, public transport information and timetables, personal travel advice information about access to other services and facilities.

5.3 Management of the Travel Plan

It is proposed that a Management Company will be appointed to run the development. One of the functions of the Management Company will be to employ a warden that will be based on site and their duties will incorporate the review and manage travel information.

The warden will be responsible for initialising and posting information that will encourage residents of the new development and community at large to consider alternative transport modes. They will assist with the regular review of the plan in conjunction with the latest national guidance. This will allow updates to the Travel Plan base document.

An on-site warden will be responsible for initiating and implementing the individual measures and initiatives discussed in section 5.4. They will also be tasked with the ongoing organisation and promotion of travel related information for the area. They will provide extensive and up to date information to all residents an all local transport facilities and arrangements.

Essential duties will include:

- Leading on the delivery of the Travel Plan once approved.
- Representing the 'human face' of the Travel Plan - explaining its purpose and the opportunities on offer. The warden will also play a central role in liaison with residents' steering groups or management committees.
- Providing personalised Travel Planning tailored to residents' needs (or procuring this service from others), utilising planning tools such as Modus available from PTI Cymru.
- Updating the community website and promoting car share schemes.
- Liaising with pubic transport operators.
- Ensuring the approved Travel Plan and its component parts are being actioned.
- Monitoring the Travel Plan implementation.
- Taking a key role in review of the Travel Plan.
- Travel Plan awareness.

The Management Company will work closely with the local authority, bus and rail service providers. Annual meetings between service providers the council and resident representatives will be arranged to discuss progress and ensure that all concerns or suggestions for improvement are raised.

The management company once installed will be responsible for the long term survival of the travel plan and its objectives. The responsibility will be passed from developer to management company at the achievement of the initial key targets identified in this plan. Until this time the developer will be directly responsible for the delivery and initial phases of the plan with a focus on customer liason.

5.4 Targets

Setting targets will enable the Travel Plan to be effectively monitored and graded. Targets for the following categories will be set;

- Car trips.
- Uptake of alternatives.
- Mode of travel.
- Travel Plan awareness.

There is no actual data for this site at the time of production of the Travel Plan. Any and all targets are 'best guesses' based on available data that estimates the traffic generation and mode share likely for a development of this type. The targets are provisional and will be reviewed upon completion of the first survey of actual site data.

It is suggested in DFT best practise Guidance that on average, a 10-20% reduction in car use over three years is being achieved[1]

Based on this guidance it would be expected that 10% reduction in car use may be achieved in three years for this development. The estimated baseline trip generation for the site is outlined in section 4.3. The actual generated trips would be determined in the first snapshot survey. Interpolating this estimation would result in the achievement of a 3.33% reduction after the first annual survey, 6.66% after the second. These may be updated at the time of survey and could set in line with Wrexham County Borough Councils' transportation targets

Uptake of alternative modes of transport will be a target that will be clearly monitored and achieved in conjunction with the on-site warden. This will be compared to the current mode share statistics set out in the LTP and accurate percentage targets defined. Bus use, take-up and renewal of travel passes, membership to car clubs, car sharing, cycle and pedestrian counts will all have percentage targets against them.

Mode of travel can supplement targets related to car ownership, travel to work by mode and travel to school by mode. All combined, will achieve the overall mode shift target of 10% in three years

Travel Plan awareness targets can be established as an initial target to ensure residents are aware of the Travel Plan and its purpose. It should be achievable to have 100% of residents aware of the Travel Plan in three years. If properly marketed this target could be achieved sooner.

[1] Using the planning process to secure Travel Plans best practise guide Department for Transport 2002

Car Trips	582 (TRICS table 4.1)	-10	523
Pedestrian Trips	522 (TRICS table 4.2)	+3	537
Travel Plan Awareness	Final resident number To be determined	100%	
Bus Use	To be determined		
Car Club Membership	To be determined		
Walking to School	To be determined		
Walking to Work	To be determined		
Car Sharing	To be determined		

Note: TRICS = Trip Rate Information Computer System

Table 5-1 Proposed percentage targets for development

Based on the results of the initial snapshot survey percentage targets will be established for uptake of alternatives and mode share. These will be based on how the travel patterns match regional statistics and in conjunction with the Local Authority. It is thought that regional averages will be achieved at the outset as a result of the development design and Travel Plan promotion. The scale of the improvements from then on will be able to be more acutely defined to achieve the overall 10% reduction in car trips over three years.

The following table taken from the Local Transport Plan indicates what can be taken as the average percentages for forms of transport used to travel to work, school or college. These will form the initial key targets for the development.

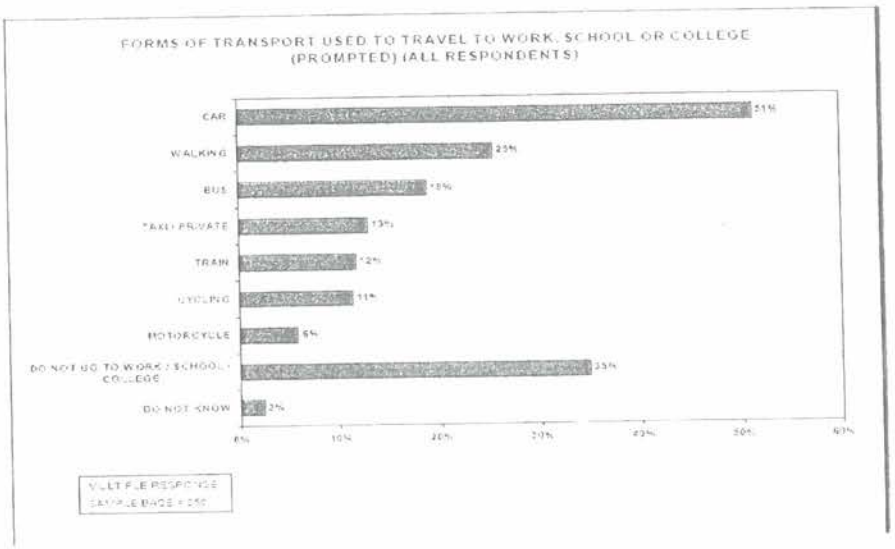


Figure 5-1 Transport to Work Targets

5.5 Plan monitoring and assessment

The Travel Plan is a "living document" and will evolve to reflect identified improvements and added efficiencies. Monitoring will ensure that the aims of this plan are delivered in practise.

The Travel Plan warden will be primarily responsible for organising the monitoring of the Travel Plan. The targets set out in section 5.3 will be monitored to ensure they are being achieved.

Monitoring of the Travel Plan will take place firstly, upon 75% occupation of the site where a snapshot travel survey will be undertaken. This will provide the information base for the initial review of the plan. After the initial survey and review, an annual review of the plan is proposed.

The results of the review and subsequent recommendations will be reported to the developer (early stage reviews), the Management Company, and the Local Authority.

A schedule of assessment and monitoring is proposed as follows:

- Questionnaires for new residents at the time of purchase. These will assist to identify likely travel patterns and therefore potentially improve the provision of services.
- A snapshot travel survey at 75% occupation, and then annually thereafter.
- Inspection and analysis of the counts against the targets outlined in Section 5.3.

The travel surveys will endeavour to accurately capture the actual changes as a result of the Travel Plan. Monitoring measures could include:

- Multimodal traffic/travel surveys to and from the site on a regular basis.
- Automated traffic counters.
- Cycle and pedestrian counts on routes into the development.
- Use of cycle stands provided.
- Uptake of car club membership.
- Use of car parking spaces and any problems with overspill parking.
- Liaison with local bus/train companies for estimates of use of key services.
- Walking to activities e.g. school.
- Travel diaries.
- Recorded comments on residents' feedback forms.

5.6 Measures

We have identified the following principle measures as being integral to the success of a Travel Plan for the Rhostyllen site. For each of these measures there may be physical and management aspects that are required to promote the successful movements of the local residents:

- **Community Appearance of Wrexham Road**
- **Signalised Junction**
- **Roundabout**
- **Communal Parking Areas**
- **Facilities for Mobility Impaired**
- **Car Club Schemes**

- **Improved Pedestrians Access to the Area**

- **Improved Cycle Facilities and Links**
- **Taxi Access**
- **Information Packs**
- **Travel Vouchers**
- **Resident Feedback**

Each of the topics are discussed in further detail in the following sections, for each measure both the physical infrastructure and management issues are highlighted.

5.6.1 Community Feel of Wrexham Road

Currently Wrexham road is a busy commuter route with a 30mph restriction. The built environment along the development frontages is designed to improve the section of Wrexham Road and impress the notion of entering a community area where pedestrians and cyclists should be expected. This is intended encourage motorists' to reduce speed and be more aware when entering Rhostyllen.

Physical infrastructure

- A roundabout is proposed for Eldon Grove/Wrexham Road Junction, and a signalised junction is proposed for Church Street/Wrexham Road Junction. These will be designed to facilitate safe movement for all modes of traffic. The design will endeavour to break up and slow traffic as it enters Rhostyllen.
- There are 10 principle points of access for pedestrians onto Wrexham Road. Access to Rhostyllen will be by a variety of pedestrian crossing facilities, the details of which are still to be agreed with Wrexham Highways.
- Design of frontages – continuous active street frontages as all buildings front the street, creating a sense of natural surveillance and visual interest.
- Feel of the area – as traffic enters the section of Wrexham road the effect of the development design along the road, coupled with the highway improvements and pedestrian facilities will give the impression the area is for people as well as cars. Motorists will expect pedestrians and cyclists.

Management Issues

- Close attention has been paid to the design to reflect the above and a philosophy, ensuring an urban rather than suburban characteristics.
- Adequate signage and information on the entry routes.
- Liaising with the Local Authority and relevant transport authorities to agree the appropriate signal design and phasing.

5.6.2 Improved Bus Facilities

Although the existing bus services are deemed sufficient to serve the area including the new development, improvements can be made.

Physical Infrastructure

- Bus shelters to be provided – The addition of these facilities to cope with the elements will ensure the bus service is more attractive for use.
- Adequate signage and information relating to local services and timetables
- Provision of improved facilities at bus stops - such as wider footpaths to cater to queuing, additional street furniture for waiting passengers, and disabled access to bus services.
- Sufficient lighting to deter antisocial behaviour.

Management Issues

- Transport information – route illustration between site and shelters. Travel Plan warden will be the hub for providing information and will be available to the public.
- Provide signage to help increase driver awareness of pedestrian movements in the area. Especially around bus stops, walking and cycling routes.

5.6.3 Communal Parking Areas

Communal parking areas will be shared between the local mixed use facilities around tearooms, shop and community centre.

Physical Infrastructure

- Formal on-street parking – set out in clearly marked bays.

Management Issues

- Clearly laid out and signposted
- User education and enforcement of resident parking.

5.6.4 Facilities for Mobility Impaired

Measures ensuring that the needs of mobility impaired residents are catered to on travel services and in the development itself must be considered.

Physical Infrastructure

- Accessible entries – provision of footpaths and entrances to facilities that accommodate the mobility impaired.
- Drop off points – provision of drop off points for the mobility impaired within the development.
- Designated special parking – parking specifically designated and positioned logically around the site.

Management Issues

- Communication and notification – ensuring good information is readily available for residents considering and living in the development of the provisions in place for the mobility impaired.

5.6.5 Car Club Schemes

Successful schemes such as Whizzgo are not currently available; therefore, the use of these schemes will need to be promoted as providing a design alternative to owning a car.

Physical Infrastructure

- Notice boards and community website.

Management Issues

- Promotion by Travel Plan Warden.
- Working closely with PTI Cymru to provide personalised travel plan tool using Modus co-ordinated by the Travel Plan Warden and potentially working with service providers such as Whizzgo.

Car sharing schemes, which are a common tool in company Travel Plans make use of websites to identify groups of people with common travel patterns. This allows people to conveniently share the same vehicle, increasing occupancy and reduce the number of vehicles on the road.

5.6.6 Improved Pedestrian Access

Improving the access routes between the site, and local amenities including bus shelters, local shops, schools, high street etc will promote these routes and encourage people to walk.

Physical infrastructure

- Street furniture and lighting along the footways on the main walking thoroughfares.
- There are 10 principle points of access for pedestrians onto Wrexham Road. Access to Rhostyllen will be by a variety of pedestrian crossing facilities, the details of which are still to be agreed with the Wrexham County Borough Council highways department.
- Provision of walkway along Wrexham Road – to provide for the increased use and to attain a perception of safety through separation from the carriageway.
- Street lighting –lighting to be provided along roads/walkways that are currently unlit.
- Improved signage – for easy navigation of the area.
- Dropped crossings – new dropped crossings will be installed in accordance with current design standards at development provided crossing locations.

Management Issues

- Promotion of benefits - marketing of the positive health spin and flexibility of walking to the event.
- Pedestrian routing – ensuring the walking routes to the site are identifiable across the entire length.
- Controlled pedestrian crossings – to be integrated at the two signalised junctions to promote a equality between motorists and pedestrians in this urban area.
- Security along walkways – Well lit walkways with good site lines and open areas.
- Walking buses will be promoted to collect children en-route to primary school.

5.6.7 Improved Cycle Facilities

There is a lack of formal cycle lanes and parking facilities within Rhostyllen village. Cycle ways along Wrexham Road, as well as crossing points, reduced traffic speeds will encourage cycling buy improving the safety and ease of use of cycling as a mode of transport. Particular care needs to be taken where segregated cycling facilities meet with other transport modes (pedestrians included) and where marked changes in provision or quality of cycle facilities occur.

Physical Infrastructure

- Lock up facilities in common areas will enable safe bike storage within the development.
- New cycle routes link Rhostyllen to the development across Wrexham Road.
- New cycle routes within the development link to a new cycle route via new bridges across the river, through National Trust woodlands to Erddig. There is an extensive cycle way network within the Erddig Estate linking to the town centre up Erddig Road.
- Low level traffic speed within the development will encourage cycling.
- Improved signage for cyclists – providing adequate information and direction to enable cyclist to easily navigate their way to the cycling facilities.
- Improved signage for motorist making them aware of cyclists in the area.

Management Issues

- Communication and notification – ensuring good information is readily available to users.

5.6.8 Taxi Access

Although not a major means of travel to and from the site, taxis will be promoted as a means of travel and reduce the need to own a car.

Management Issues

- Travel pack to include contact details of local taxi firms.

5.6.9 Travel Information Packs

Travel welcome packs will be put together with all relevant travel and local information for the area and include the objectives set out in the Travel Plan. They will be handed over as part of moving in documentation.

Management Issues

- Finding and collating the relevant information into a useable and understandable format.
- Ongoing support, co-ordination and updates to the information provided.

5.6.10 Travel Vouchers

Travel Vouchers to the local transport services, potentially with discounted fares, will be provided as a means to encourage residents to try alternative transport. The use of Travel Vouchers is an effective measure to assess the mode share as part of the transport snapshot survey, by analysing the uptake and renewal rates.

Management Issues

- Undertaken and implemented by the Travel Plan Warden.

5.6.11 Resident Feedback

A primary feature of successful implementation is resident feedback. Managed by the Travel Plan warden, it is a hands-on means of evolving the Travel Plan initiatives for the benefit of the community. It will provide valuable information that can be used to amend the travel requirement to best match the green Travel Plan principles.

Management Issues

- Undertaken and implemented by the Travel Plan warden.

6 Conclusions

The public transport facilities currently available to the residents of the Rhostyllen community are generally good. There are numerous bus services providing links to the surrounding community in an effective manner. This development improves both the level and usage of pedestrian and cycle facilities, as well as existing public transport

The Rhostyllen development proposal includes 223 residential units, a new community hall, a café and shops, and a recreational park area. There are numerous existing local amenities that are considered to be a convenient distance away from the development to not necessitate car use. Access to these will be improved by the development.

Numerous design features, driven by the accepted national guidance, will promote green transport modes throughout the village, encouraging people to walk, cycle and catch the bus. This will be achieved by the application and management of the Green Travel Plan. The measures will be implemented and overseen by the Management Company / warden, who will be responsible for ongoing management and monitoring of the plan.

The development proposes a number of features that will improve the community. Significant improvements within the site, such as mentioned above, coupled with external improvements make this proposal extremely favourable including improved access to Erddig. Community wide walking / cycling encouragement schemes, and funding for the provision of a new classroom at Rhostyllen CP are some extra features that will benefit the community.

The Rhostyllen development is prestigious and at the forefront of green, sustainable design. The finished product will serve to improve the lifestyle of existing residents and bring new residents to the area in a fashion that will add to the community well being. The benefits that form part of the proposal will serve as a major upgrade to the area and should be used as an example of successful planning initiative. As set out in this document, the nationally accepted transportation guidance for developments of this nature and recommendations hence, have been thoroughly embedded into the design and implementation. The result being a well thought out, sustainable travel infrastructure that will facilitate a successful community.