LAND SOUTH OF GLAN USK PRIMARY SCHOOL, HERBERT ROAD NEWPORT

ENVIRONMENTAL STATEMENT

VOLUME 2
CHAPTER 12: TRAFFIC, TRANSPORT AND MOVEMENT

12. TRAFFIC, TRANSPORT AND MOVEMENT

Introduction

12.1 This chapter of the environmental statement investigates the local transport systems serving the proposed development site, including the highway network, public transport infrastructure, and pedestrian/cycle facilities. This section also identifies the impact of the proposed development on the surrounding highway network.

12.2 The site has consent for the development of 251 residential dwellings (85% open market/15% affordable), together with a total of 348 car parking spaces.

12.3 A small portion of the consented scheme, 20 flats, are currently being built out and a revised application is sort for the remainder of the development site for 206 residential units.

12.4 Current proposals are to develop the site to construct up to 206 residential dwellings, together with 371 car parking spaces.

Assessment Methodology

12.5 As stated earlier, the purpose of this chapter (of the Environmental Statement) is to; outline the development proposals, review the development proposals in relation to national and local planning policies; assess the impact of the proposed development on the surrounding transport network and identify any mitigation measures and residual impacts.

12.6 The methodology of the Traffic, Transport and Movement chapter is described below:

- **Legislative and Planning Policy** – A review of the development proposals in relation to national, regional and local planning policies has been undertaken and summarised;

- **Review of local road network** – A review of the local highway network has been undertaken, describing the highway network in the vicinity of the proposed development;

- **Traffic surveys** – Traffic surveys have been undertaken at the junctions identified during scoping with the local highway authority as detailed above;

- **Public transport review** – A desktop review of the public transport provision has been undertaken to establish the level of bus and rail provision to the development site;

- **Future traffic generation** – In order to assess the impact of the development proposals on the existing transport infrastructure, it is necessary to establish the person trips likely to be generated by the proposed development. This has been undertaken using the TRICS database, which is the national standard system of trip generation and analysis in the UK and Ireland, and is used as an integral and essential part of the

Transport Assessment process. It is a database system which allows its users to establish potential levels of trip generation for a wide range of developments.

- **Impact of development** – Analysis of the impact of the development proposals has been undertaken on the surrounding highway network, and identifies any mitigation measures required to reduce the impact of development generated traffic, should these be required at the junctions identified above.

Significance criteria

12.7 The relative significance of potential and residual drainage issues is outlined in **Table 12.1** below, which is based upon professional experience and judgement.

Significance criteria	Description of criteria
Major beneficial	Reduction in traffic that would result in significant improvement in peak hour link/junction capacity
Moderate beneficial	Reduction in traffic that would result in improvement to peak hour link/junction capacity
Minor beneficial	Reduction in traffic that may result in improvement to peak hour link/junction capacity
Negligible	No discernible impact on peak hour capacity
Minor adverse	Increase in traffic that would not give rise to any link/junction capacity issues
Moderate adverse	Increase in traffic that could give rise to minor link/junction capacity issues
Major adverse	Increase in traffic that would give rise to link/junction capacity issues

Table 12.1 significance criteria for traffic/transport effects

Legislative and Planning Policy Framework

National planning policy

Wales Spatial Plan – People, Places, Futures

12.8 The Wales Spatial Plan – People, Places Future (WSP) – was originally adopted by the National Assembly for Wales in November 2004, and updated in 2008 to bring the WSP into line with One Wales: Connecting the Nation (see below).

12.9 The Plan has amongst its goals: 'Achieving sustainable accessibility. To balance the social, economic and environmental impacts of travel while enhancing accessibility and to tackle the challenge of benefiting from larger networked regions while reducing the negative impacts of travel'.

12.10 It states 'Citizens must be able to access job opportunities and public services – health, social services, education, etc – if equality of opportunity is to be successfully promoted in Wales'.

12.11 With regards to building communities, the Plan explains that a lack of good quality housing affects people's health, well-being and influences their long term life chances. There is a need to maintain a mix of tenure and size of housing to ensure balanced communities. In the context of responding to and mitigating the effects of climate change, the WSP supports changing behaviour and is in favour of 'greener' modes of travel such as car sharing, public transport, walking and cycling.

12.12 The general principles set out for new housing include the need for sites to be linked to public transport nodes, including walking and cycling networks.

Planning Policy Wales

12.13 Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Assembly Government. It is supplemented by a series of Technical Advice Notes (TANs). Procedural advice is given in circulars and policy clarification letters.

12.14 PPW provides a firm steer that new developments should be directed to existing urban areas where there is greatest potential for reducing the need to travel due to the co-location of houses, jobs, shops, services and public transport facilities. It aims to extend choice in transport and secure accessibility in a way which supports sustainable development and helps to tackle the causes of climate change by : encouraging a more effective and efficient transport system, with greater use of the more sustainable and healthy forms of travel, and minimising the need to travel.

PPW states that:

'Land use planning can help to achieve the Assembly Government's objectives for transport through:

- Reducing the need to travel, especially by private car, and locating development where there is good access by public transport, walking and cycling;
- Locating development near other related uses to encourage multi-purpose trips and reduce the length of journeys;
- Improving accessibility by walking, cycling and public transport;
- Ensuring that transport is accessible to all, taking into account the needs of disabled and other less mobile people;
- Promoting walking and cycling;
- Supporting the provision of high quality public transport;

- Supporting traffic management measures;
- Promoting sustainable travel options in rural areas;
- Supporting necessary infrastructure improvements; and,
- Ensuring that, as far as possible, transport infrastructure does not contribute to land take, urban sprawl or neighbourhood services.

12.15 With regards to promoting walking and cycling, PPW states that:

'Walking should be promoted for shorter trips. The impact of policies and development on pedestrians should be considered. Planning authorities should promote specific measures to assist pedestrians including the provision of safe, convenient and well-signed routes.'

12.16 PPW also states that:

'Cycling should also be encouraged for short trips and as a substitute for shorter car journeys or, as part of a longer journey when combined with public transport'.

12.17 In relation to parking, PPW states that:

'Car parking provision is a major influence on the choice of means of transport and the pattern of development. Local authorities should ensure that new developments provide lower levels of parking than have generally been achieved in the past. Minimum parking standards are no longer appropriate.'

One Wales: Connecting the Nation – The Wales Transport Strategy

12.18 National transport policy for Wales is specified within the Wales Transport Strategy, One Wales: Connecting the Nation, which is supplemented by a series of Technical Advice Notes (TANs).

12.19 This policy aims to maximise the consideration of access during the planning of new services and facilities, influence and alter travel patterns, promote sustainable travel and contribute to environmental improvements. The goal of One Wales: Connecting the Nation is to:

'Promote sustainable transport networks that safeguard the environment while strengthening our country's economic and social life. The transport strategy identifies a series of high-level outcomes and sets out the steps to their delivery. The One Wales programme is working to achieve a nation with access for all, where travelling between communities and accessing services, jobs and facilities in different parts of Wales is both easy and sustainable, and which support the growth of our economy.'

12.20 The Strategy aims to maximise the positive contribution that transport makes and promote healthy lifestyles, such as walking and cycling for short journeys. It prioritises actions that influence the number of trips, distance travelled and mode of travel chosen, such as ensuring that new developments take transport implications into account. A significant number of car trips could be replaced by making walking and cycling more attractive options and it focuses on travel behaviour.

Technical Advice Note (TAN) 18

12.21 TAN 18 describes how to integrate land use and transport planning, and explains how transport impacts should be assessed and mitigated.

12.22 It states that the location of new residential development has a significant influence on travel patterns as the majority of trips start or finish at home.

12.23 Development plans should identify residential sites that are accessible to jobs, shops, services and where public transport services have capacity to absorb the development. Plans should promote housing development at locations with good access by walking and cycling to schools and public transport stops, and by all modes to employment, services, shopping and leisure.

12.24 TAN 18 identifies thresholds at which a Transport Assessment should be produced in support of a planning application. Any housing development over 100 dwellings requires a Transport Assessment. This document is intended to consider the impact of a proposed development of up to a maximum of 250 units.

Newport City Council Local Development Plan

12.25 The Development Plan for the area is the Newport City Council Local Development Plan 2011 – 2026, which was adopted in January 2015.

12.26 The principle aims of the Plan are as follows:

- Move towards environmentally sustainable development involving:
  - urban regeneration,
  - conservation of the natural and built environment and the prudent use of natural resources,
- Facilitate improvements to the economy and general living standards.
- Conserve and enhance the built and natural environment, and to counter decline in biodiversity.

12.28 In relation to transport the LDPs' specific objectives are as follows:

- Adopting land allocation policies which reduce the need to travel.

- Support proposals where they provide for traffic free walking and cycling facilities, encourage the use of public transport, improve road safety, improve the quality of life for residents and assist urban regeneration.

- Integrated Transport will be pursued in line with national and regional strategies.

Baseline Conditions

Site location

12.30 The 5.22 hectare (12.9 acre) site is situated within the St Julian's area of Newport, and is located approximately 1.6km (1 mile) from Newport city centre.

12.31 The site itself is bounded to the north by Glan Usk Primary School and to the east by the Welsh Marches Railway Line. The southern boundary of the site abuts existing warehouse/ industrial premises, and the western boundary abuts the River Usk.

12.32 The location of the site is shown in Appendix 12.1.

Highway network

12.33 The highway network in vicinity of the site is also shown in Appendix 12.1.

12.34 The proposed site access is located at the intersection between Collier Street / Courtney Street, which form two sides of a square around a green amenity/play space). The other two sides of the square are formed by Crawford Street and Turner Street.

Collier Street

12.35 Collier Street is a residential access road, with an approximate carriageway width of 7.6m, and footways on both sides of the carriageway (approximately 2m wide).

12.36 Traffic calming has been implemented along the road (in the form of speed cushions), and there are parking restrictions along the eastern side of the carriageway (double yellow lines).

12.37 The road is lit, and is subject to a 30mph speed limit.

Courtney Street

12.38 Courtney Street is a residential access road, with an approximate carriageway width of 8.5m, and a footway on the northern side of the carriageway (approximately 2m wide).

12.39 Traffic calming has been implemented along the road (in the form of speed cushions). There are no parking restrictions along the majority of the road, although there are parking restrictions on the approach to the junction with Crawford Street.

12.40 The road is lit, and is subject to a 30 mph speed limit.

Crawford Street

12.41 Crawford Street is a residential road (albeit with industrial premises fronting the southern end of the carriageway), with an approximate carriageway width of 7.2m, and footways on both sides of the carriageway.

12.42 Traffic calming has been implemented along the road (in the form of speed cushions), and there are parking restrictions along the western side of the carriageway (double yellow lines).

12.43 The road is lit and subject to a 30mph speed limit.

Turner Street

12.44 Turner Street links the development to the local transport network through a simple priority junction. The road is a uniform width of approximately 8.7m, narrowing to approximately 4.8m as it passes under the Welsh Marches Line. Through the narrowing, a priority system is in operation with priority for westbound traffic.

12.45 There is a height restriction under the railway bridge of 3.1m, and there is also a weight limit (7.5 tonne) along the road between 11pm and 7 am.

12.46 Within proximity of the junction with Caerleon Road the road is fronted by commercial premises and beyond the railway bridge, predominately by residential dwellings.

12.47 The road has pedestrian footways on both sides of the carriageway along its length, is lit and subject to a 30mph speed limit and is traffic-calmed along its length.

B4596 Caerleon Road

12.48 The B4596 Caerleon Road to the south east of the site, runs in a north east – south west direction connecting to the M4 in the north (providing access to the wider network) and the B4237 to the south west and the B4591 to the west.

12.49 The width of the road varies along its length within the study area. However, in proximity of the site the road is approximately 9m wide to the north east and 11.5 m wide to the south west,

12.50 The road has pedestrian footways on both sides of the carriageway, is lit and subject to a 30mph speed limit.

Base traffic flows

12.51 Fully classified turning counts have been undertaken at the following Junctions:

- Clarence Place/East Usk Road/Church Road/Chepstow Road/Corporation Road junction;

- Turner Street/Caerleon Road junction; and

- Turner Street/Trostrey Street junction.

12.52 The surveys were undertaken on Thursday 31 January 2013 (between 0730-0930 and 1630-1830 hours). The peak hour traffic flows are presented in full in Appendix 12.2.

12.53 It has been agreed with Newport City Council that the 2013 surveyed flows can be utilised, factored to a revised base year 2017 using NTEM adjusted TEMPRO growth factors.

Public Transport

12.54 The proposed development is reasonably well served by public transport, with a number of scheduled bus services connecting Newport with destinations such as Cardiff, Cwmbran, Pontypool and Monmouth (see Table 12.2 for full details).

12.55 The site is also accessible by rail, with the nearest rail station, Newport Railway Station, located approximately 1.3km from the south west if the site access.

Bus services

12.56 There are existing bus stops on Caerleon Road – both north east bound and south west bound - within easy walking distance (i.e. 400m) of the site access facilitating movement within Newport and to neighbouring settlements.

12.57 Table 12.2 outlines the services that call at bus stops within the vicinity of the site.

Route No.	Origin/Destination	Frequency
2A	Newport-Gaer	0600-2300/Service every 40 minutes between 0700-2000 (Monday-Saturday)
2A	Newport-Gaer	1000-2200/Service every 2 hours (Sunday)
2C	Newport-Gaer	0630-2100/Service every 40 minutes between 0720-1800 (Monday-Saturday)
2C	Newport-Gaer	1100-2100/Service every 2 hours (Sunday)
3B	Newport – Malpas woodlands – Newport	0910-1745/Service every 10, 15, 40 & 45 past the hour (Monday-Saturday)
6	Newport – Always – Ringland	0525-2300/Hourly service between 0525-1825(Monday-Saturday)
6	Newport – Always – Ringland	One service at 2215 (Sunday)
8A	Newport – Maindee - Ringland	0440-2300/Service every 40 minutes between 0540-2300 (Monday-Saturday)
8A	Newport – Maindee – Ringland	0940-2230/Service every 40 minutes between 1220-2140 (Sunday)
8C	Newport – Maindee – Ringland	0520-2240/Service every 40 minutes (Monday-Saturday)
8C	Newport – Maindee – Ringland	0900-2200/Service every 20 and 40 past the hour and on the hour (Sunday)
10A	Newport – Christchurch	0850-1650/Service every 2 hours (Monday-Saturday)
10C	Newport – Christchurch	0950-1750/Service every 2 hours (Monday-Saturday)
11A	Newport – Allt-yr-yn – Brynglas	0711-2230/Service every 33minutes past from 0833-2133 (Monday-Saturday)
11C	Newport – Brynglas	0655-2200/Service every 11minutes past the hour (Monday-Saturday)
15	Newport – Cwmbran – Pontypool – Trevethin	06:45-18:15/Service every 15minutes (Monday-Friday)
15	Newport – Cwmbran – Pontypool – Trevethin	07:15-18:15/Service every 15minutes (Saturday)
16	Newport – Bettws - Newport	04:55-2300/Service every 20minutes between 07:15-18:15 (Monday-Saturday)
16	Newport – Bettws – Newport	09:00-22:00/Hourly service (Sunday)
17	Newport – Malpas Almond Drive	07:15-18:45/Service every 07:15-18:45 (Monday-Saturday)
18	Newport – Malpas Almond Drive	06:20-18:20/Service every 20 and 40 minutes past the hour (Monday-Saturday)
19	Newport – Malpas Court	06:00-23:00/Service every 20minutes between 07:30-19:50 (Monday-Saturday)
20	Newport – Spytty Retail Park – Newport	09:20-17:20/Hourly service (Monday-Saturday)
23	Newport – Cwmbran – Pontypool – Varteg Hill	07:40-22:10/Service every half hour between 08:00-18:00 (Monday-Saturday)
26A	Newport – St Julians	0720-2230/Service every 40minutes from 0720-1720 (Monday-Saturday)
26C	Newport – St Julians	0500-2300/Service every 40minutes from 0700-1740 (Monday-Saturday)
27	Newport – Caerleon trinity View	04:55-23:40/Service every 18 and 54 minutes past the hour between 07:18-17:54 (Monday-Saturday)
28	Newport – Caerleon Eastfield Road	07:06-22:00/Hourly service (Monday-Saturday)
28B	Newport – Caerleon Eastfield Road	07:30-17:30/Hourly service (Monday-Saturday)

Table 12.2 Existing scheduled bus services

42	Newport – Spytty Park	Service every 18 and 54 minutes past the hour between 07:18-17:54 (Monday-Saturday)
43	Newport – Nash College	05:35-22:30/Service every half hour (Monday-Saturday)
44	Newport – Nash College	07:30-17:30/Hourly service (Monday-Saturday)
60	Newport – Caerleon – Usk – Raglan – Monmouth	06:30-17:35/Hourly service between 10:05-16:05 (Monday-Saturday)
62	Newport – Caerwent – Sudbrook – Caldicot	06:50-18:15/Service every 2 hours between 10:05-16:05 (Monday-Saturday)
63	Newport – Whiston – Goldcliff – Wetlands Reserve – Newport	07:00-18:00/Service every 2 hours between 10:00-18:00 (Monday-Saturday)
73	Newport – Parc Seymour – Caerwent – Chepstow	05:55-17:40/Service every 40 minutes past the hour between 07:40-17:40 (Monday-Saturday)
X30	Newport – Cardiff Express	0700-1900/Service every 20minutes (Monday-Saturday)

Table 12.2(cont'd) Existing scheduled bus services

12.58 Local bus routes/stops are shown in Appendix 12.3.

Rail services

12.59 As outlined above, the closest rail station is Newport Railway Station. The station is located approximately 1.3km (<1 mile) south of the site, which is within the preferred maximum walk distance of 2km (for commuting purposes). The location of the station is identified in Appendix 12.3.

12.60 The station is situated on the Great Western Mainline, The Valleys Lines and the Welsh Marches Line, with services to Cardiff Central (to the west), Hereford (to the north) and Bristol Parkway/Templemeads (to the East).

12.61 A rail network map is presented in Appendix 12.4.

Walking and cycling

12.62 As outlined above, the majority of roads within the vicinity of the site have footways on one or both sides of the carriageway, providing links between the site and the surrounding facilities.

12.63 The Chartered Institution of Highways and Transportation (IHT) guidelines 'Providing for journeys on foot' indicates that the desirable walking distance for commuting/school journeys is 500 metres, the acceptable walking distance is 1.0km and 2.0km is the preferred maximum.

12.64 Appendix 12.5 indicates the 500m, 1.0km and 2.0km isochrones from the centre of the proposed site. Local amenities within walking distance of the site include comparison and convenience goods retail, Primary School, places of worship and a Post Office.

Cycle routes

12.65 There are no formal cycle facilities within the immediate vicinity of the site. However, there are a number of routes to the west of the River Usk that are within easy cycling distance of the site, including:

- National Cycle Route 47 (Celtic Trail East);
- National Cycle Route 49 (Monmouthshire and Brecon Canal – Newport); and,
- National Cycle Route 88 – providing a link to Caerleon.

12.66 These routes are shown in Appendix 12.6.

Assessment of Potential Impacts

12.67 In order to assess the impact of the development proposals on the existing transport infrastructure, it is necessary to establish the person trips likely to be generated by the proposed development.

Trip generation

Current planning consent

12.68 The application site is currently largely undeveloped. However, it has planning permission for 251 residential dwellings. As such, trip generation for the consented use has been extracted from the submitted Transport Assessment.

12.69 The total trips generated by the consented 250 residential dwellings are detailed in Table 12.3 below.

Peak period	Vehicle Arrivals	Vehicle Departures	Total Vehicles
Am peak	43	90	133
Pm peak	87	58	145

Table 12.3 Total trips generated by consented development

12.70 It can be seen from the table above that the consented development was predicted to generate a total of 133 (two-way) vehicle trips in the am peak period and 145 (two-way) vehicle trips in the pm peak period.

Current proposals

Total trip generation

12.71 Trip generation for the development proposals has been extracted from the accompanying Transport Statement as detailed below.

Total trips generated by the private and sheltered housing are detailed in Table 12.4 below.

Peak period	Vehicle Arrivals	Vehicle Departures	Total Vehicles
0800-0900	35	75	111
1700-1800	73	48	120

Table 12.4 Total trips generated

12.72 It can be seen from the table above that the proposed development is likely to generate a total of 111 vehicles two-way in the am peak period and 120 vehicles (two-way) in the PM peak period.

Construction traffic

12.73 It is considered that construction traffic will have an impact on the operation of the highway network within the study area, potentially increasing queues and delays during network peak periods. However, traffic generated during the construction stage will only have a moderate, short term, negative impact.

Comparison of proposed and existing trip generation

12.74 A comparison of the trips generated by the proposed 206 dwelling residential development and the extant consented 251 dwelling residential development is detailed in Table 12.5.

Peak period	Existing (Proposed)			Difference		
	Arrive	Depart	Total	Arrive	Depart	Total
0800-0900	43 (35)	90 (75)	133 (111)	-8	-15	-22
1700-1800	87 (73)	58 (48)	145 (120)	-14	-10	-25

Table 12.5 Comparison of vehicle trip generation

12.75 In total, the proposals would be likely to generate 22 fewer vehicle trips (two-way) in the AM peak period and 25 fewer vehicle trips (two-way) in the PM peak period, compared with the extant planning consent.

12.76 As detailed above, it is estimated that the proposed reduction in dwelling numbers compared with the consented scheme would generate fewer vehicular movements to those predicted to be generate by the consented development on site during the 08:00 -09:00 AM and 17:00 – 18:00 PM peak hour.

Mitigation Measures

Construction traffic

12.77 It is anticipated that a Construction Environmental Management Plan (CEMP) will be required. This document will indicate inter alia the construction phasing, hours of operation, the level of vehicle activities, and measures undertaken to prevent the spread of waste materials onto the highway. Submission of this document offers the opportunity for the impact on construction traffic on the surrounding highway network to be minimised.

12.78 The CEMP will control the impact of construction traffic on the surrounding highway network, and it is therefore anticipated that the residual impact will be negligible.

12.79 It is anticipated that construction traffic will use Herbert Road to access the development site, and no construction traffic will access the site via Collier Street.

Traffic generation

12.80 In order to reduce the impact of traffic generated by the development It is anticipated that a site-wide Travel Plan is required, which will seek to reduce the number of Single Occupancy Vehicle use and promote the use of more sustainable modes of transport including:

- Walking;
- Cycling;
- Public Transport; and,
- Car sharing.

12.81 However, for some journeys, the private car will be the most appropriate mode of travel. Therefore, following the implementation of a suitable Travel Plan, the proposed development will generate additional traffic movements on the local highway network, and it is therefore anticipated that the residual impact of the proposed development will be moderately adverse.

Residual Impacts

12.82 Overall, it is considered that with the introduction of the proposed mitigation measures, the impacts will be reduced at both construction and operational phases. No major adverse impacts will remain and it is therefore considered that the proposed development will not represent a significant effect on the environment from a traffic, transport and movement standpoint. The residual impact of the scheme is summarised in Table 12.6 over the page.

Conclusion

12.83 In conclusion, the proposed development will have a moderate beneficial impact on the local highway network as the development proposals represent a reduction in traffic which will result in improvement to peak hour link/junction capacity in comparison with the consented proposals on the site.

12.83 A number of pedestrian links are proposed which has the potential to further reduce the vehicular impact associated with the site. In addition, a Travel Plan has been submitted as an accompanying document as part of the planning application submission which aims to increase the proportion of residents travelling by more sustainable modes and will reduce the impact of the development further in terms of vehicular impact on the local highway network.

Traffic, Transport & Movement Topic	Description of Impact		Description of Mitigation Measures	Description of Residual Impact	
	Description	Significance		Description	Significance
Construction traffic	It is considered that construction traffic will have an impact on the operation of the highway network within the study area, potentially increasing queues and delays during network peak periods.	Minor adverse	A Construction Environment Management Plan will be produced to reduce the impact of the construction phase(s) of the development proposals.		Negligible
Traffic generation	It is estimated that the proposed development could generate up to 133 vehicles (two-way) in the am peak and 145 (two-way) in the pm peak.	Major adverse	Implement a Travel Plan that will reduce the volume of single occupancy vehicles and encourage the use of more sustainable transport modes.	Traffic generated by the site will continue to increase queues and delays within the immediate highway network.	Moderate adverse

Table 12.6 Summary of Residual Effects of the Proposed Development