

Parc Derwen, Bridgend

Development Brief
November 2001



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in association with Alan Baxter and Associates

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1.0 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 When the former Ogwr Borough Council began preparing the statutory local plan just over ten years ago, it was calculated that, in the borough as a whole, land would need to be made available to provide for the construction of 7240 dwellings in the period 1991-2006. The bulk of these were required in what was called the Mid Ogwr Policy Area which included the expanding urban centre of Bridgend.
- 1.1.2 To meet this requirement, the council successfully promoted through the development plan process two major releases of land in Bridgend:
- Broadlands, to the south of the town; and
 - Parc Derwen to the north-east
- each of which was estimated to accommodate up to 1200 dwellings, 750 of which were expected to be built by 2006. Development at Broadlands commenced early in 1998.
- 1.1.3 The allocations at Broadlands and Parc Derwen in the *Ogwr Borough Local Plan* were predicated on the basis that development would not be allowed to commence until such time as a development brief had been agreed with the local planning authority. This was seen by the council as an essential means of controlling a large development and of ensuring that it was properly laid out and contained an appropriate level of community provision.
- 1.1.4 In 1998, the new Bridgend County Borough Council, concerned that no development brief for the Parc Derwen site had been agreed and that development of the site might be further delayed, took the initiative by commissioning Wyn Thomas plc to prepare a draft brief for the site within the parameters of the *Scoping Report* prepared by the Council's Director of Environmental & Planning Services.
- 1.1.5 Following further investigations and analysis, including discussions with the owners of the development site, amendments have been made to the brief. These have addressed issues such as the internal and external highway design aspects of the development, the environmental context within which the development is proposed, and the design aspects of the built form eg the school and its relationship to the area of playing fields within which it is to be set. A revised development framework plan for the site has been drawn up by Llewelyn-Davies, Planning Consultants, in co-operation with Alan Baxter and Associates, Consulting Engineers and the design statement set out within this brief is consistent with the development framework. The brief which follows has been agreed by Bridgend County Borough Council for public consultation purposes. Chapter 3.0 describes the overall Development Framework (figure 10) In April 2000 an outline planning application for the comprehensive development of the site, accompanied by an Environmental Statement and a Transport Impact Assessment was submitted to Bridgend County Borough Council. In line with the requirements of the adopted Ogwr Local Plan a development brief for the site is required to be agreed with the Council prior to the commencement of development.

1.2 OBJECTIVES

1.2.1 The stated purpose of the Development Brief:

"to guide and inform the comprehensive development of the whole site, outlining the distribution and phasing of uses within a Master Plan, and set within a landscape/urban design led approach. This will ensure that there is a framework for implementation, agreed by the local authority and all interested parties".

1.2.2 The objectives of this brief are:

- to establish planning, urban design, landscape and highway design guidelines;
- to provide a master plan context for the determination of planning applications; and
- to provide a context for the relevant planning and highway agreements.

2.0 THE CONTEXT

2.1 PLANNING FRAMEWORK

2.1.1 The planning framework for developing this site comprises:

- the development plan;
- national planning guidance including the white paper on integrated transport; and
- supplementary planning guidance.

The Development Plan

2.1.2 The statutory development plan for the area in which the site is located comprises:

- the Mid Glamorgan Replacement Structure Plan 1991-2006 (as affecting Bridgend County Borough), which was adopted in 1997; and
- the Ogwr Borough Local Plan, which was adopted in 1995.

2.1.3 The structure plan contains strategic policies which offer little in the way of guidance for a detailed development brief.

2.1.4 On the Proposals Map of the Ogwr Borough Local Plan, the site is allocated for housing and identified by reference to a number of policies (see Figure 2). The fact that these are statutory development plan policies gives them considerable weight and they provide a strong framework for controlling the future development of the site.

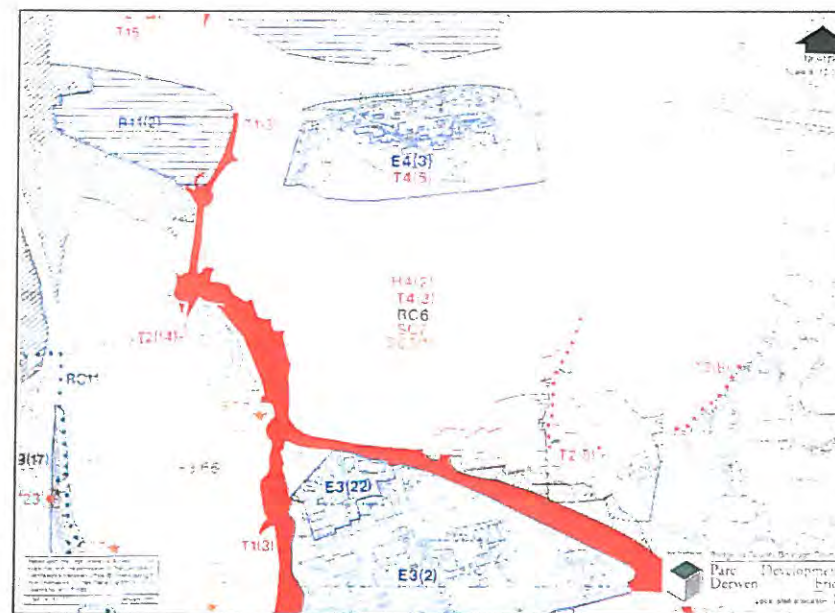


Figure 2 Ogwr Borough Local Plan Allocation

- 2.1.5 Policy H4 (2), which allocates the two major land releases at Broadlands and Parc Derwen, states:
- ".....The Borough Council does not anticipate that either site will be developed for more than 750 dwellings during the plan period. This, and further development on each site after 2006, will be in accordance with a development brief which must be agreed with the Borough Council before development commences"*
- The supporting text to policy H4(2) states:
- "... Development briefs will be prepared to control the development of viable neighbourhoods with their own social, community, recreational, and local retailing facilities which will also serve adjacent areas. The sites will also be large enough to ensure the provision of much needed new highway infrastructure, which will not only serve the new developments but also relieve existing traffic problems particularly at Park Street/Bryntirion and in Coity Village. They will also be large enough to ensure the provision of adequate buffer areas, in the form of landscaped and planted open space, between the new development and existing housing to maintain residential amenity. These provisions, tied up in legal agreements at the planning application stage, will go a long way to not only creating the best environment conditions for the future residents of the new residential communities in south west and north east Bridgend, but also in a positive way ameliorate the impact on existing residents of the adjoining areas".*
- 2.1.6 **Policy T4(3)** requires major new developments to be accessed by means of a highway infrastructure, the provision of which is to be the subject of legal agreements with the local planning and highway authorities and it is to be detailed within the development briefs prior to any development taking place.
- 2.1.7 **Policy RC6** states that land will be allocated in a number of locations for the provision of playing fields and associated facilities. These include the vicinity of Heol West Plas, where 5.0 hectares (12.4 acres) of land are allocated for this purpose.
- 2.1.8 **Policy SC5(15)** reserves land for educational facilities within the site and the supporting text refers to the possibility of community use for both school buildings and playing fields.
- 2.1.9 **Policy SC7** states that the council will provide a community centre within the site.
- 2.1.10 Other local plan policies are of more general application but nevertheless relevant to the way in which development on the site should be planned and implemented.
- 2.1.11 A Unitary Development Plan is in the course of preparation for Bridgend County Borough. The Parc Derwen site is confirmed as a committed development site under Policy H1.

National Planning Guidance

- 2.1.12 The Government's planning policies are promulgated in Wales through Planning Guidance, Technical Advice Notes and Circulars. Of particular relevance in this context is Planning Guidance (Wales) : Planning Policy, first issued in May 1996. In April 1999 a revised version of the guidance was issued.
- 2.1.13 Paragraph 9.1.4 of Planning Guidance (Wales) : Planning Policy (April 1999) is particularly apposite: It states:
- "... Where housing development is on a significant scale, or where a new settlement or urban village is proposed, it should be integrated with existing or new industrial, commercial and retail development and with community facilities ..."*
- as is paragraph 9.1.5 which states:
- "... Where substantial new housing is to be permitted plans should include policies making clear that provision for open space, which is reasonably related in scale and location to the development, will be expected"*
- also of relevance is paragraph 8.3.2 which states :
- "Proposed development sites for housing.....should be within existing urban areas or in other locations which are or can be well served by public transport, or can be reached by walking or cycling..."*
- 2.1.14 The key aim of the Government's integrated transport policy is to extend choice in transport and secure mobility in a manner, which supports sustainable development. The ways to achieve this have been identified as: reducing the level of road traffic, or reducing the rate of growth encouraging alternative means of travel and transport which have less environmental impact , eg public transport, cycling and walking, reducing reliance on the motor car, seeking to ensure the more effective use of the transport network and targeting resources to best effect.
- #### Supplementary Planning Guidance
- 2.1.15. The former Ogwr Borough Council, in 1994, approved a series of Design Guides which have the status of supplementary planning guidance. Those relevant to the proposed development are as follows:
- Design Guide 1 : Dwellings and Domestic Scale Buildings
 - Design Guide 2 : House Extensions
 - Design Guide 5 : Public Open Space
 - Design Guide 7 : Trees and Development.

2.1.16 The council is in the process of producing new guidelines for the design of residential (and industrial) estate roads. Pending the production of that document, the council relies on the guidelines produced by the former Mid Glamorgan County Council, which has been adopted by Bridgend County Borough Council. When sections of the new guidelines have been adopted by the Council those will take precedence

2.2 LAND OWNERSHIP

2.2.1 The site was in a variety of land ownerships but is now being assembled ready for development. The owners are close to entering into an agreement to secure the planning and development of the land.

2.2.2 The principal landowner is the Welsh Development Agency which inherited this asset on its merger, in 1998, with the former Land Authority for Wales. Two of the national housebuilders - Westbury Homes and Wilcon Homes own or control substantial portions of the remainder of the site whilst a small amount of land on the periphery, is in private ownership.

2.2.3 As part of the design of the scheme land ownership boundaries within the site were ignored, and the development framework plan was prepared on sound planning and design principles, rather than on any vested interests.

2.3 SITE CHARACTERISTICS

History of Urban Growth

- 2.3.1 Bridgend grew rapidly in the last century. Most of the expansion took place to the North, East and West with the railway lines attracting some of this growth (See **Figure 3**).
- 2.3.2 In 1900, the site would have been considered a part of the parish of Coity, remote from Bridgend. However, following the rapid pace of development described above, the site now relates better to Bridgend. Clearly there is a danger that a poorly conceived design on the site might lead to the loss of identity for Coity village.
- 2.3.3 Historic plans show that the land has been used for agriculture. The right of way that linked the settlement of Derwen to the North West and Coity village to the South East still exists today. The construction of the County Lunatic asylum to the north of the site in the late 19th century was followed by the construction of a small sewage works and isolation hospital on the site in the early 1900s. The isolation hospital was later converted into a private house, now known as the Granary. The sewage works appears to have been abandoned following the closure of the Parc Hospital (formerly the lunatic asylum) and the opening of the existing prison in its place.
- 2.3.4 **Figure 4** shows the main features of the site. The site slopes gently south towards Bridgend. The underlying geology is permeable, and there is little ponding on the site despite high rainfall levels in this area.
- 2.3.5 The land is mainly in pasture with extensive areas of trees and scrub especially in the north-west of the site. The field boundaries on the southern edge of the site are low stone walls so that there are open views northwards across the site to the prison, with the motorway concealed in cutting beyond that. By the same token, there are views southwards to Bridgend, contained by the ridgeline to the south.
- 2.3.6 Visually, the site is well contained by its northern, western and eastern boundaries, and is open to view only from its immediate boundaries or from the higher ground around Bridgend.

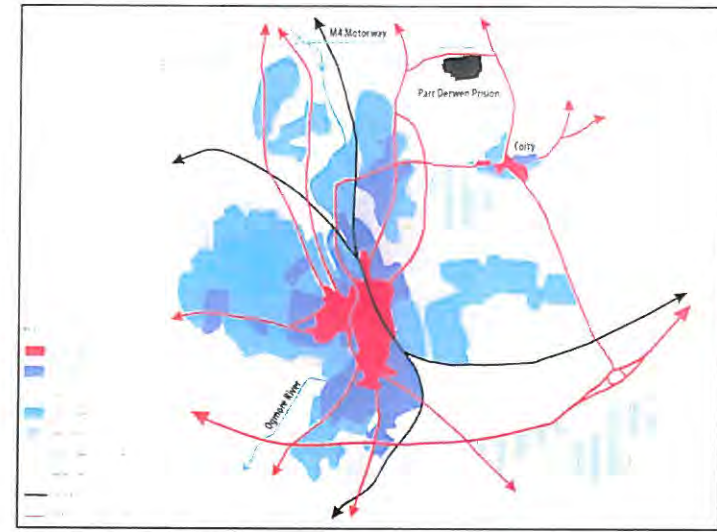


Fig.3 Urban Growth in Bridgend



Fig.4 Site Features

Relationship of the Site to its Locality

- 2.3.7** The M4 motorway is in cutting as it passes to the north of the site and is screened from the site by the prison, mature woodland and common land as it passes through Junction 36. The McArthur Glen Retail Park, and Sainsbury superstore lies immediately to the south of junction 36, and west of Derwen at Pen y Cae. The A4061 Bridgend Northern Distributor Road (BNDR) is on the western and south-western boundaries of the site; it links the motorway with the town centre and other parts of Bridgend. Heol West Plas, which runs along the southern boundary, links Coity with Litchard and provides access to the Brackla Industrial Estate and Coychurch. These two roads engender a sense of severance from Bridgend, emphasised by the acoustic fence and embankment to Litchard. Establishing links from this site into the centre of Bridgend and across the BNDR are important considerations, for the development framework plan proposals.
- 2.3.8** Settlements on or close to the boundaries of the site include the residential area of Litchard to the west and south-west and the village of Coity to the south-east. There are two other smaller settlements nearby; at Pen-yr-heol to the north-east and Derwen in the north-west. The large Brackla Industrial Estate lies immediately south of the site. There is a significant difference in these relationships. Whereas Litchard and the Brackla Industrial Estate are part of the post-war expansion of Bridgend, Coity is a village with medieval origins and a rural setting. The Master Plan needs to recognise this.

Movement

Amenities

- 2.3.9** Employment exists in industrial estates to the south of the site, and in the town centre (Figure 5). The industrial estates are major employers.
- 2.3.10** Shopping exists in the town centre and at the Pen-y-cae retail park to the north west of the site. The latter contains a Sainsbury's food store, which will be accessible from the development by foot, by cycle and public transport (as well as by car) A post office exists in Coity, within walking distance of the site.
- 2.3.11** There are two schools nearby, one in Litchard Hill and one east of Coity.

Public Rights-of-Way

- 2.3.12** The common land to the north-west of the site is criss-crossed by public footpaths. The site itself is crossed diagonally by public footpath No 17 between Derwen in north west and Coity in the south east. Footpath No 17A links with footpath No 17 with Heol Spencer, skirting the northern edge of Coity. These footpaths link with the wider public footpath network of the area, including the Nant Brynglas route, promoted by Groundwork Bridgend's Countryside Access Project, which takes in Coity and its castle.

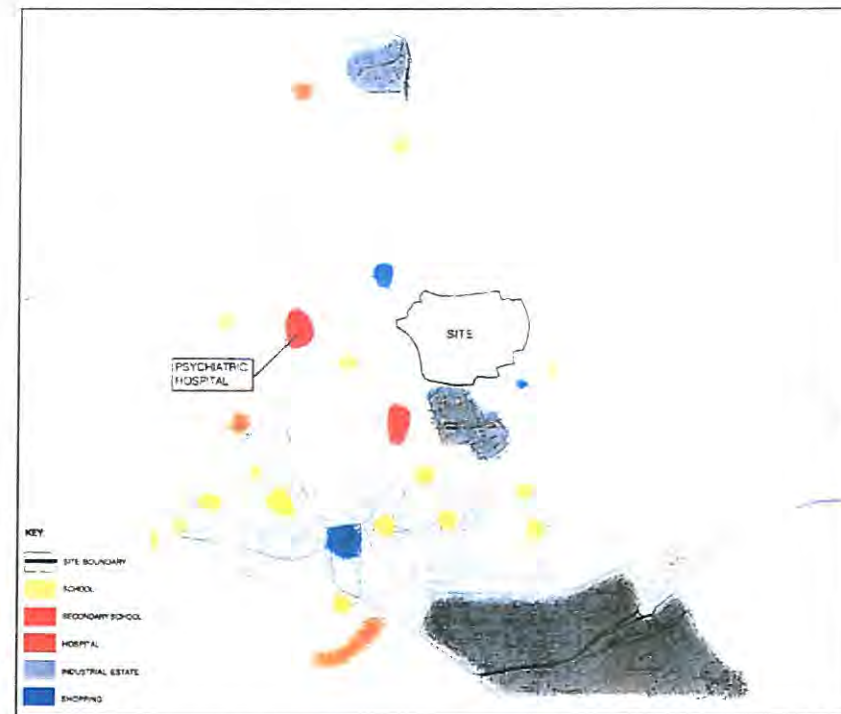


Figure 5 General amenities and employment

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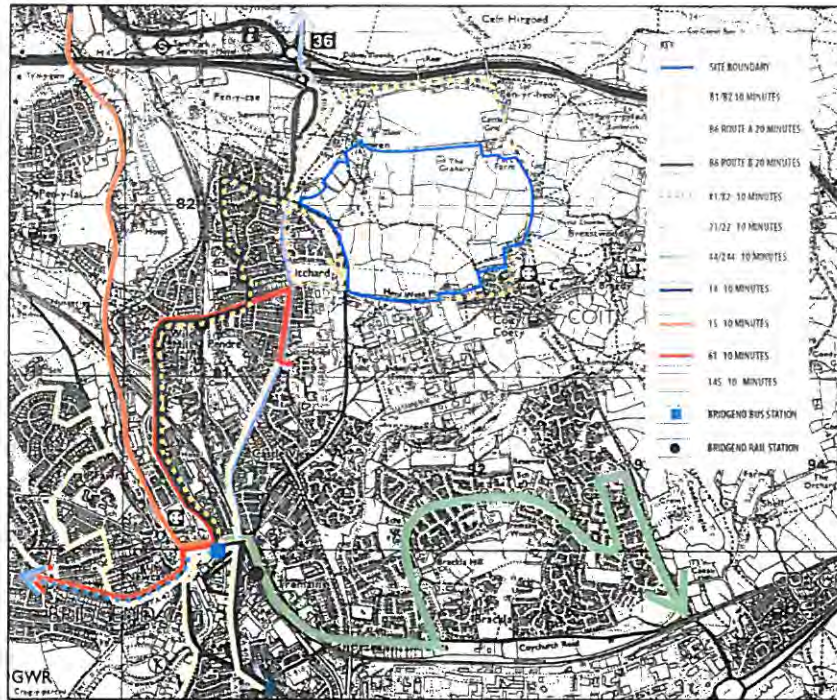


Figure 6a Existing Public Transport

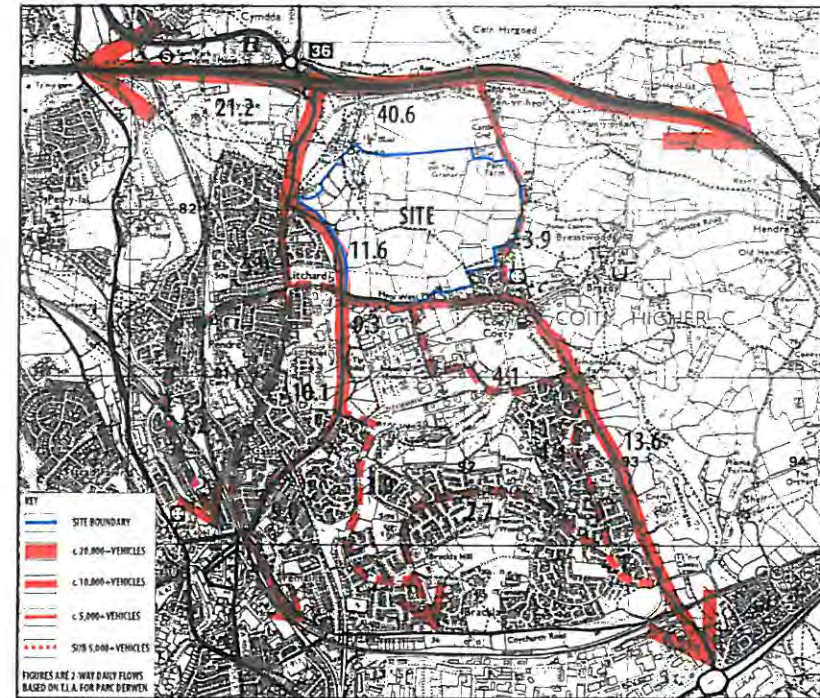


Figure 6b Existing Roads

Public transport

2.3.13 Existing local services are summarised in Figure 6a. Bridgend is linked to Cardiff with frequent rail and commuter bus services. Local public transport services are dependent on the bus. The B6 service from Bridgend town centre to Coity runs every 20 minutes.

2.3.14 There is a railway spur to Maesteg which has a stop at Wild Mill to the west of the site. Trains call here once an hour.

Roads

2.3.15 The existing road network is shown on Figure 6b. The construction of the BNDR in the last ten years, linking Bridgend to the M4, has added capacity to the network. It bypasses the old road from the north into Bridgend. Current traffic levels on the BNDR are well below its capacity.

Environmental Strategies

- 2.3.16** A *Local Biodiversity Action Plan* for the county borough is in preparation, as is a *Local Agenda 21 Strategy Framework* document. A *Countryside Strategy*² has been prepared already and was adopted by the Council in May 1998.
- 2.3.17** The nature conservation objectives of the *Countryside Strategy* include the improvement of connectivity and linkages between semi-natural habitats, and the identification of areas within parks and playing fields where biodiversity can be encouraged. The Council is also continuing its predecessor's involvement with Groundwork Bridgend in promoting a strategy for access to the countryside. In addition, the National Cycle Route between Newport and Kidwelly will pass to the north with a link west of Litchard, to Bridgend town centre and rail stations, via community routes.

Topography

- 2.3.18** The site is at an elevation of 45-85m AOD and falls generally from the motorway southwards. Overall, its landform is bowl-like, but with distinct undulations. Between Derwen and the prison there is a ridge of higher ground with Scots pinewoods on it. There are some streams in the west of the site in indistinct valleys, one ending in a pond amongst trees, probably a swallow hole. Other tree groups in the west of the site surround hollows, which may also be swallow holes, or other collapsed features.

Conservation Designations

- 2.3.19** The site has certain designated conservation features either within or adjoining its boundaries. These are:-
- The woodland to the north-west of the site is a site of importance for nature conservation
 - The western edge of the coniferous plantation in the north-west and the area of trees to its south-east are covered by a Tree Preservation Order. (A TPO also covered trees in the south of the site, opposite Brackla Industrial Estate, which have since fallen victim to Dutch Elm- Disease). The Council has identified other areas of woodland and tree groups in the site as 'potential TPO's', although these are not currently designated.
 - The historic core of Coity Village is a designated conservation area, which abuts the site at its south-eastern corner.
 - Coity Castle is a scheduled ancient monument and a Grade I listed building.

The locations of all these features are recorded on Figure 4.

Soils and Geology

- 2.3.20** Parts of the site have been the subject of ground condition reports³, commissioned by the Land Authority for Wales, but no comprehensive assessment of the whole site has yet been made. A geotechnical study over the whole site is being commissioned by the owners.
- 2.3.21** The site is largely underlain by rocks of the Mercia Mudstone Group (comprising limestones, breccias and conglomerates interbedded with occasional mudstones) with superficial deposits of boulder clay over a large part. A major fault trending east-west crosses the southern part of the site, roughly parallel with Heol West Plas. Developers of the site will need to satisfy themselves, and the Council as to the suitability of ground conditions (including any potential sources of contamination) and particular reference should be made to the following factors:
- the likelihood of swallow holes⁴ or other areas of depression being located in the site;
 - the existence of a small disused quarry near West Plas Hall; and
 - the existence of an old sewage treatment works built to serve the former Parc Hospital (where the prison now stands).

Biodiversity Interests

- 2.3.22** The current main use of the site is as improved pasture for grazing sheep and cattle. There are also areas of woodland within the site, together with the the many hedgerows which form field boundaries. The original ecology assessment of the site and its vicinity⁵ identified four areas of local nature conservation importance. Three of these are within the site, in the north-west: 'conifer woodland or belt' 'pasture woodland' and some semi-improved damp grassland adjoining these two areas. The fourth area of replanted ancient woodland lies outside the immediate boundary of the site to the north west and adjoining the conifer wood. The study concluded that *"the remainder of the site supports little in wildlife terms"*, although mention is made of the acidic marshy grassland with scattered flushes of Cefn Hirgoed Common.

² A Countryside Strategy and Integrated Action Programme for Bridgend County Borough, Bridgend County Borough Council, May 1998

³ Preliminary Geotechnical Report, Integral Geotechnique (Wales) Limited, June 1991

⁴ Desk Study and Contamination Investigation, Parkman Environment, October 1996

⁵ Swallow holes are fissures formed by the dissolution of limestone by groundwater. They may be prone to settlement, particularly when groundwater is directed down the hole, and thus are potentially unstable.

⁶ An Assessment of the Ecology relating to Development proposals at North-east Bridgend, EPCAD Consultants, May 1992

- 2.3.23 The original study by EPCAD has been supplemented and updated by work undertaken for the Environmental Statement by Chapman Warren. This further study confirmed that the majority of the site is not of high ecological quality or interest in its present state. The development of the site however will offer the opportunity to restore, enhance and create new habitats as part of the overall proposal. More over the master plan seeks to retain the majority of the existing hedgerows within the site

Archaeological Interests

- 2.3.24 There are no scheduled ancient monuments within the site, but some to the north of the site and west of the prison (Derwen Moated Homestead), as well as Coity Castle. The initial report prepared by Tempus Reparatum states that there is "a wide range of archaeological sites of various periods within a relatively short distance" of the site, and that there is "the possibility that other previously undetected archaeological sites exist within the proposed development area". The report notes that much of the site is in pasture, may not have been ploughed since at least the mediaeval period and so may contain archaeological remains. The report also draws attention to the importance of the setting of archaeological sites, in particular that of Coity Castle.
- 2.3.25 Further investigation of the archaeological resource was carried out in August 2000 by Phoenix Consulting, which confirmed the earlier study's conclusions but indicated that further non intrusive and intrusive investigation of any identified archaeological remains should be undertaken prior to the commencement of development. An aerial photographic appraisal was undertaken in January 2001 to supplement the previous report and an on-site evaluation of an area near the South-West corner of the site took place in October 2001.

Common Land

- 2.3.26 Part of Cefn Hirgoed Common lies to the north-west of the site, outside the proposed development area. The UCW Aberystwyth carried out a detailed biological survey of this part of Cefn Hirgoed in 1990¹. It was described as "predominantly bracken but with areas of marshy grassland; partly re-seeded after mining". The common rights include grazing for the range of animals, estover, piscory, turbary and pannage. In making recommendations for its future management, they state that it is an urban fringe common, subject to sporadic fires, but the areas of marshy grassland are of value and "should be maintained under existing management".

¹ Consultancy Report on the Known Archaeology and Archaeological Potential, Tempus Reparatum, May 1992

² Biological Survey of Common Land, Rural Surveys Research Unit, UCW Aberystwyth, June 1990

Landscape Character

- 2.3.27** A landscape assessment was undertaken some years ago¹, but further assessments have been carried out by Wyn Thomas plc as part of their commission, and as part of the Environmental Statement undertaken by Chapman Warren in support of the outline planning application. Figure 7 indicates the main results from those assessments.
- 2.3.28** The character of most of the site is of an open bowl, with few enclosing elements, visible from the surrounding roads and settlements bordering the site. The grain of the site generally runs east west with the contours. This is emphasised by the prison complex and two axially dominant hedgelines which also run east west. There are two areas of variation from the general character: a shallow but distinct valley in the south and an area of mature trees, which introduces a parkland quality. The north-western sector of the site is distinctly different, having a far more enclosed character because of the concentration of woodland and significant hedgerows. Views from the site are to the south towards Bridgend, but with Brackla Industrial Estate a prominent feature in the middle ground.
- 2.3.29** The densest areas of tree cover are concentrated in the west of the site and, together with other strong bands of trees and stands of mature trees, provide focal points for the landscape design of this part of the proposed development. It is an attractive site with an open, sunny aspect, with the potential for the development to have its own character and identity.
- 2.3.30** The boundaries of the site are strongly defined and form a distinct 'rim' on the northern, north-western and eastern sides. Visually, the site is connected with the surrounding settlements, and its aspect is towards Bridgend. However, as noted above, the busy roads to the south and west, combined with the character of Brackla Industrial Estate and the boundary treatment to Litchard, have the effect of breaking the physical connection with Bridgend.



Figure 7 Landscape Appraisal

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¹Landscape Assessment, Conran Roche/Landscape Town and Country, July 1992

2.4 SERVICES

- 2.4.1 The public utilities bodies have been consulted as part of the recent study by Wyn Thomas plc, the information obtained from which is summarised on Figure 8. This plan is indicative only and does not show all services in the vicinity of the site.
- 2.4.2 Foul and surface water sewers which serve the new Parc Prison cross the northern part of the site. These are private sewers, the routes of which are not disclosed for security reasons and are not shown on the Council's record plans. The existence and routes of these sewers will be known to the land owner(s) involved and will need to be taken into account when laying out the development. Consultation has taken place with Bridgend Custodial Services in relation to the service infrastructure implications of the proposed development.
- 2.4.3 A 33 kV overhead electricity supply system traverses the southern and eastern parts of the site. Agents acting for one of the land owners have advised that this supply is likely to become obsolete within the next few years and this has been verified by SWALEC. On this basis, the retention of cables has not been allowed for on the development framework plan.
- 2.4.4 Other services exist within the site. These will need to be accommodated within the layout or diverted locally to suit.

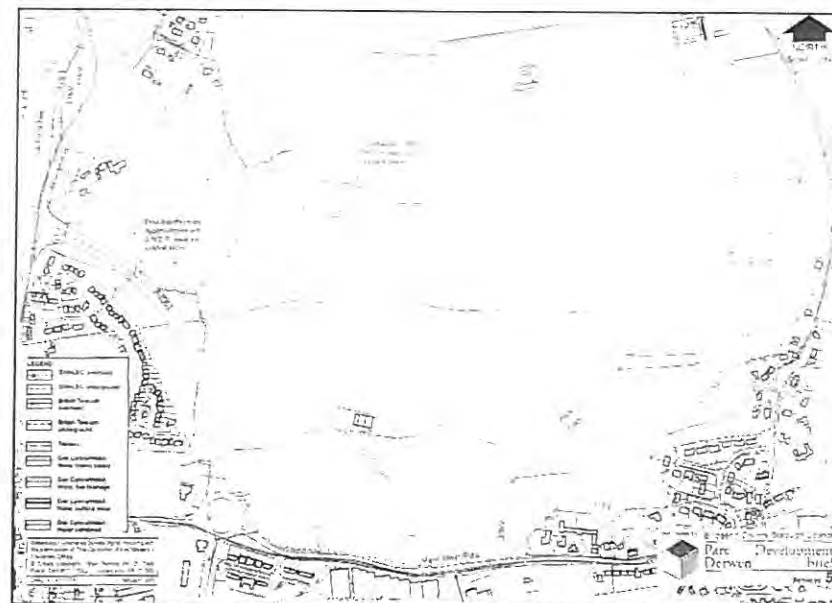


Figure 8 Services

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3.0 LAND USE AND DEVELOPMENT

3.1 DEVELOPMENT FRAMEWORK PLAN

3.1.1 The overall development framework plan for the site is illustrated on Figure 10, and is accompanied by supporting information, provided in Appendix 1. The Development Framework Plan has been prepared to exemplify latest government thinking. It embodies the principles of sustainable development, which are incorporated into the plan in the following ways.

3.2 THE PRINCIPLES OF THE PLAN

The following guiding design principles have informed the design of the plan:

- *Respect for the existing topography and buildings*
- *A landscape strategy that encourages wildlife and biodiversity*
- *Application of design principles that encourage energy conservation and efficiency.*
- *A layout designed to reduce car dependency and encourage cycling, walking and public transport.*
- *A clearly legible street network.*
- *A mixture of uses and community facilities to reinforce the existing strengths of Bridgend.*
- *A range of housing types and tenures.*
- *A clear identity of its own, but not one intended to rival Coity or the town centre.*
- *Protection of the existing identity of Coity*
- *Recognition of the effects of traffic generation on the surrounding highway network*

3.2.1 These principles are shown diagrammatically in the Figure 9 Concept Plan. The resultant development is illustrated in more detail in the Figure 10 Development Framework Plan (overleaf). The application of each of these principles is described in turn in this chapter and more detailed indicative layouts are provided in Figures 10a, 10b, 10c and 10d

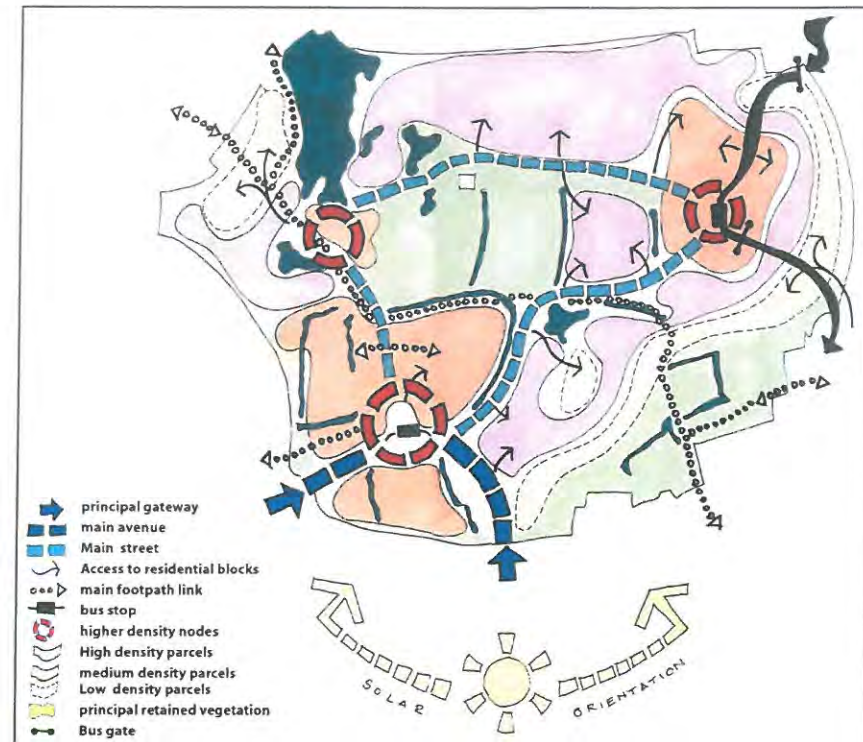


Figure 9 Concept Plan

This diagram shows the principles of the concept only
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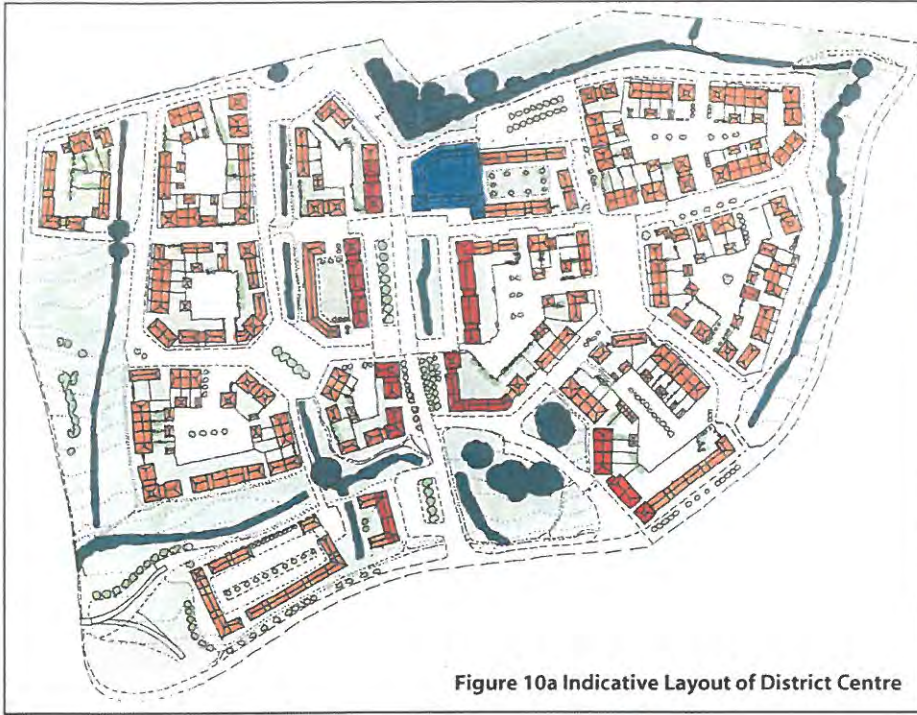


Figure 10a Indicative Layout of District Centre

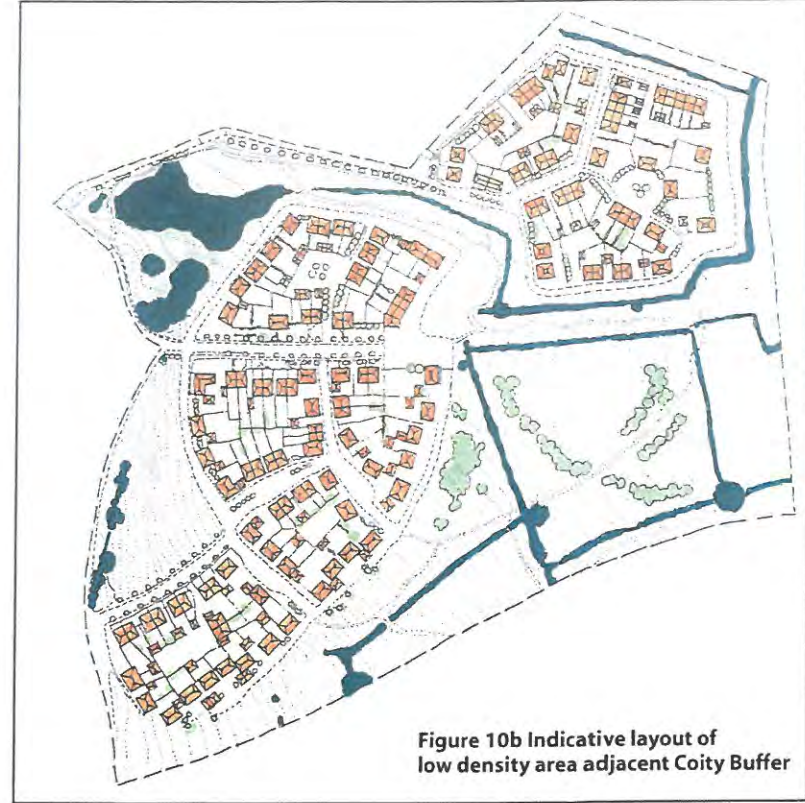


Figure 10b Indicative layout of low density area adjacent Coity Buffer

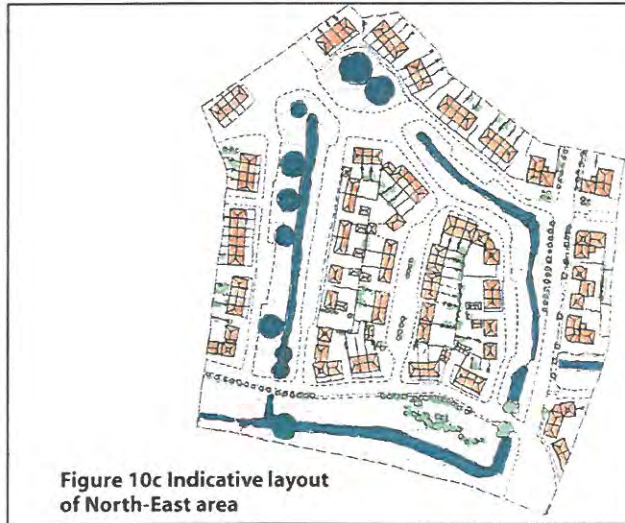


Figure 10c Indicative layout of North-East area

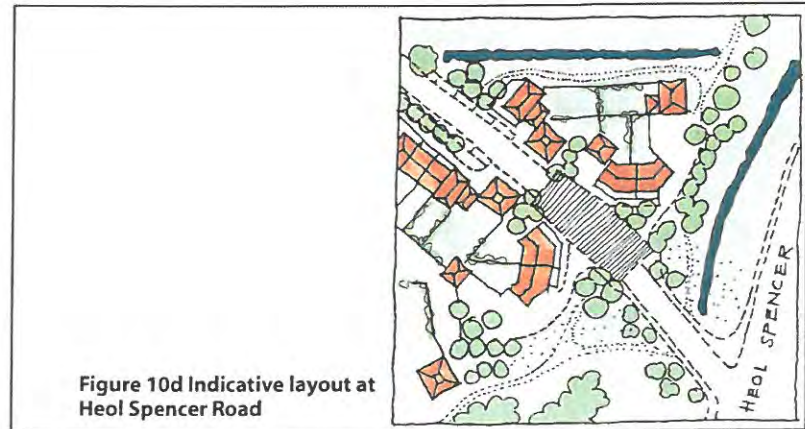


Figure 10d Indicative layout at Heol Spencer Road

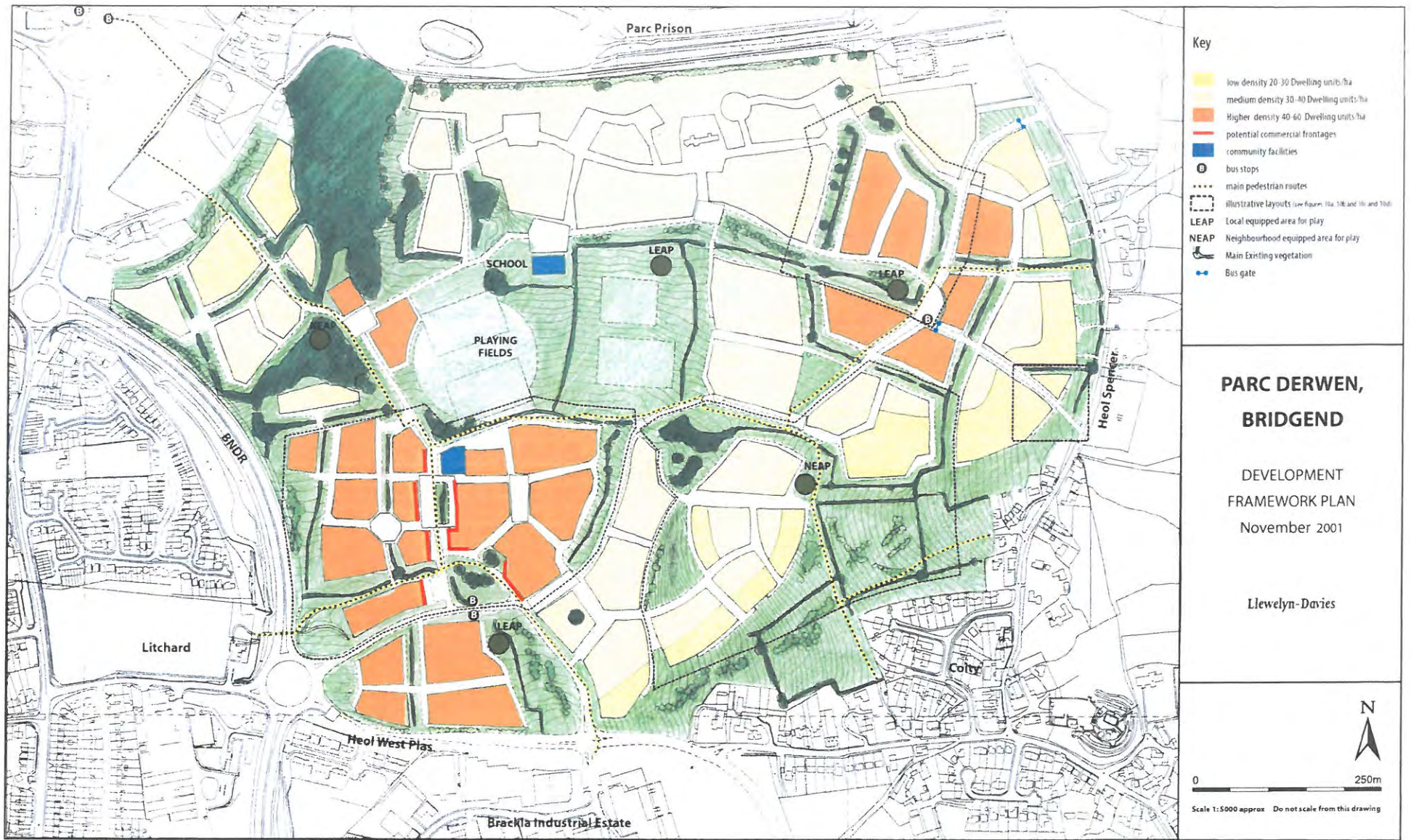


Figure 10

Respect for the Existing Topography and Buildings

- 3.2.2 The development and landscaping have been designed to work together as 'terracing' which is shown in the Typical Indicative sections in Appendix 1. Roads and the development around them are closely attentive to contours, minimising cut-and-fill and incorporating natural drainage systems.

A landscape strategy that encourages wildlife and biodiversity.

- 3.2.3 Existing mature vegetation is retained and woven into a variety of different types of parkland. Streets and blocks are designed to respect existing field patterns and hedgerows, so that the neighbourhood can extend organically over time. Typical Indicative Sections and examples from existing developments are provided in Appendix 1 and suggest possible solutions for the treatment of streets combining mature hedgerows. These are intended as indicative only.

Application of design principles that encourage energy conservation and efficiency.

- 3.2.4 Buildings are orientated to maximise southerly aspect, running with the natural grain of the site.
- 3.2.5 Orientation and layout: This principle will provide a beneficial orientation for most houses on the site especially if room layouts and fenestration is designed to enjoy this as much as possible.
- 3.2.6 Energy innovation: Further more, the southerly orientation will also increase the potential for harnessing solar power as an alternative energy source as required throughout the site. This site is ideal for innovative energy-conscious house designs and demonstration projects will be encouraged.

A layout designed to reduce car dependency and encourage cycling, walking and public transport

- 3.2.7 As far as possible the design creates a permeable network of streets and spaces as advocated in Places, Streets and Movement, and moves away from the conventional cul-de-sac approach.
- 3.2.8 The plan also incorporates cycle lanes along key routes and pedestrian greenways through the site, especially through parkland. These are linked to, but also add to the existing rights of way through the site.
- 3.2.9 There are two key nodes within the site which are focused around bus stops and are described below. The site shall be designed for maximum penetration of public transport with appropriate facilities to encourage this aspiration. Additional bus stops will be provided as services develop.

Greater detail with regard to car and pedestrian movement is provided in section 3.3.

A clearly legible street network

- 3.2.10 The Coity Access road is envisaged as a heavily landscaped boulevard immediately south of the existing village. A main street links through the Parc Derwen site, and is given a more formal treatment linking the centre with a series of other key spaces. More local streets and courts are situated off this. The Indicative Sections in Appendix 1 show a possible treatment of the streetscape for each of these street types. All these indicative plans are based on the principles of:

- increasing the pedestrian realm and favouring the pedestrian as much as possible, and
- Creating a successful well-defined enclosure, resulting in a strong identity for the street. In this respect front gardens vary between 1 and 3 m.

A mixture of uses and community facilities to reinforce the existing strengths of Bridgend.

- 3.2.11 A 'village green' forms both a focal point for the district centre, announcing its presence to passing traffic, and forms a buffer from the road.
- 3.2.12 Community facilities and commercial uses are clustered to create a recognisable centre which has sufficient critical mass and is readily accessible from all parts of the development.
- 3.2.13 Commercial uses (indicated in red on the Development Framework Plan) would primarily be located around the green.
- 3.2.14 An appropriate range of social recreation and other community facilities are proposed to serve the development and help create a new community on the site. A community centre is positioned near to this local centre and shares sports and parking facilities with the proposed school. The shared sports field provides another key focal point along the main avenue.

A range of housing types and tenures.

- 3.2.15 A balanced community is promoted via a mixture of housing types and tenures ranging from higher density flats, 'almshouses' and terraces to lower density detached forms. Density across the site is shown in Figure 10. The detailed provision of affordable housing will be the subject of definition in legal agreements between the council and the developers.
- 3.2.16 Areas which are envisaged as higher density are the district centre, the area in the North East corner of the site which are more formal areas around bus stops. The characteristic which would differentiate these areas from others in the site would be their density and the more urban streetscape created, rather than the type of housing used. Indeed, these denser areas would contain a mixture of housing types which would include detached linked and semi-detached housing as well as flats, terrace and semi-detached housing. Their setting and the careful treatment of the streetscape would create a more urban environment, in keeping with the desire to create a local centre.
- 3.2.17 The area immediately between the district centre and the BNDR would also benefit from higher density in the form of housing with central courts, as the court would afford them some protection from the BNDR. This area along with the district centre are shown in a more detailed vignette in figure 10a.
- 3.2.18 The creation of an appropriate streetscape in these areas would be achieved by careful treatment of the highway, the quality of the pedestrian environment created and the careful positioning of parking. These would aim towards a pedestrian friendly environment, which favours the pedestrian over the car and disguises traffic-calming measures within the fabric of the environment; The positioning of buildings, the use of pedestrian-style materials in appropriate places and other measures would act as discreet traffic-calming measures. These issues are elaborated in section 3.4 and are shown in illustrative sketches in Appendix 1.
- 3.2.19 The area in the extreme North West corner and the area adjacent to the Coity buffer are envisaged as parkland, adjoined by larger detached and semi-detached properties, although some denser forms might be used to create focal points within these areas or to define corners and create gateways at junctions. In particular however the frontage to the Coity buffer will be made up of semi-detached or detached high quality housing which fronts onto the buffer. This is shown in the detailed vignette in Figure 10b
- 3.2.20 Apart from these high density and low density blocks, a typical block, as shown in Figure 10c, would generally have the following important characteristics;
- A perimeter block, so that dwellings face the street and provide an active streetscape. Front doors generally would be directly accessed from the street. This layout would also help to ensure that all streets are well overlooked, increasing the sense of security and identity. See indicative sections and illustrations in Appendix 1.
 - Corners are well-defined and consciously emphasised. This might be achieved through the form of corner properties, designed to create a special feature in the streetscape, and/or positioned to create a narrower gateway feature. Indicative examples from developments in Essex are given in Appendix 1.

- Mature vegetation is retained within the street, and is in places used to structure spaces and focal points as well as being used as a backdrop to lessen the impact of parking. See indicative section GG in Appendix 1.
- In some circumstances (such as public spaces and some of the quieter minor streets) resident parking can be provided on-street, subject to detailed design approval by Bridgend County Borough Council.

3.2.21 Density ranges across the site and shown in Figure 10, are as follows:

	Dwelling units per ha
Low density:	20-30 Du/Ha
Medium density:	30-40 Du/Ha
High Density:	40-60 Du/Ha

Further consideration will be given to the issue of density in terms of bedroom spaces per hectare once the precise dwelling mix has been established.

The high density range has an upper value of 60 Du/ha to allow appropriate place-making in the district centre

A clear identity of its own, but not one intended to rival Coity or the town centre.

- 3.2.22 The character and identity of the site is one based on the site's intrinsic qualities (its southerly orientation, the gradient, the existing vegetation). The Development Framework Plan seeks to promote these and guide future design decisions.
- 3.2.23 The detailed design of buildings, streetscape, street furniture and open space will be important and must be of sufficient quality if it is to contribute positively towards this aim.
- 3.2.24 The unique character being promoted for the development, based on the intrinsic characteristic of the site, is one which will not rival the amenities of the town centre. Nor will it jeopardise the integrity of Coity. The existing form of the village will be respected with a substantial open space between the village and the new development that could take the form of meadows, commons or woodland.
- 3.2.25 At the same time certain measures have been taken to ensure a mutually beneficial environment and one which avoids the negative impact of settlements turning their backs on each other. Amongst these are pedestrian links between the settlements, new houses fronting onto the buffer zone and some large detached properties with direct access onto Heol Spencer.
- 3.2.26 In many respects the settlement can be seen as a sister or twin development which whilst separate from the existing village ensures a similarly pleasant residential environment as a neighbour for Coity, which both respect and are set within the surrounding landscape.

Protection of the existing identity of Coity

- 3.2.27 The development of a large area of open land near Coity will inevitably alter the Western context of the village. However, the development framework plan and development brief seek to ameliorate this in three ways:
- The design and disposition of the open spaces within Parc Derwen adjacent to Coity - the 'buffer zone'
 - The density and built form of the housing areas closest to Coity - the lowest densities in the Parc Derwen development
 - The introduction of new highway connections that will remove all extraneous traffic except buses from Coity (see figure 14a)
 - A recognition of the effects of traffic generation on the surrounding highway network

Recognition of the effects of traffic generation on the surrounding network

Refer to drawing 14 and 14a in relation to proposed access to the site and highway links around the site.

- 3.2.28 Traffic generation from this development will have an impact on the surrounding highway network. A number of measures will be undertaken to seek to address this including particular measures designed to divert traffic away from Coity Village.

- 3.2.29 The highway network improvements will include the provision of a by pass to Coity as part of the wider highway network, construction of an access road immediately to the south of the village between Heol West Plas and Heol Simonston, restricting access through the village, provision of pedestrian and cycle links, traffic calming measures, and pedestrian and cycle links across the BNDR and Heol West Plas.
- 3.2.30 The timing of the provision of these highway improvements will form part of the discussions on the legal agreement between the developers and the Local Planning Authority.

3.3 CIRCULATION AND ACCESS

Circulation

3.3.1 This section explains how the Development Framework Plan attempts to respond to the local context and how movement of all types is expected to occur, both inside and outside the development area.

The order of the analysis below reflects the relative importance attached to each form of movement.

Pedestrians and Cyclists

3.3.2 On the two main access routes provision for pedestrians and cyclists should be made as part of each route. Within the development itself, more imaginative approaches should be used, with the establishment of pleasant segregated route systems both joining different internal areas of the estate and also providing facilities for community connections to Coity Village and Derwen Common.

3.3.3 The likely north/south cycle route in the area, joining it to the centre of Bridgend, will be via the old road through Litchard. Also, the main Sustrans route for the area lies to the west of Litchard. To connect these cycle facilities into Parc Derwen and also to provide good pedestrian connections across the A4061, it is recommended that suitable pedestrian/cycle crossings be introduced across the A4061, to be provided by the developers.

Pedestrians

3.3.4 The aim is to create a pleasant walking environment. The street network is designed to give maximum permeability for ease of movement, and natural desire lines are incorporated into the routes.

3.3.5 'Green fingers' are used to provide pleasant, maintained routes through the site, which are frequently overlooked so that they feel safe. The opportunity will be taken to incorporate existing hedgerows as far as possible into these. See indicative sections in Appendix 1.

3.3.6 The proposed routes take account of how people have traditionally moved around the area in the last two hundred years. Rights of way have been enhanced, and incorporated into the brief.

3.3.7 Figure 11 shows key pedestrian routes around the site. There are natural walking routes (desire lines) to Coity village, the schools, the local centre, the Pen-y-cae retail centre and the Brackla estate. These will together with associated highway crossings, be further defined following public consultation.



Figure 11 Main Proposed Pedestrian /cycle Links

Do not scale from this drawing

3.3.8 The provision of local facilities in the new centre should help to reduce the number of car journeys made. People are more likely to walk or cycle if facilities are within easy reach. Fig. 11 shows that the local centre is within ten minutes walk of most residents. The level of provision will be appropriate to the number of residents, and retail floor space will be regulated so that it does not affect the vitality and viability of Bridgend town centre.

- 3.3.9 Safe routes to school are a key influence on the design. A new bridge over the BNDR will provide a safe route to one of the primary schools serving the development, as part of an integrated strategic green route.
- 3.3.10 It is sensible to provide a pedestrian link to the Pen-y-cae retail centre across the common land from the north west side of the development. This will include associated modifications to the BNDR south of the Pen-y-cae roundabout to reduce its design speed and therefore allow a new crossing to be designed for the safe passage of pedestrians there.
- 3.3.11 It is recommended that a further crossing could be considered east of the Litchard Hill roundabout, to provide another pedestrian route westwards and tie the development into the existing urban communities.
- 3.3.12 Within the development, the careful positioning of buildings and traffic calming events aims to keep vehicle speeds down. This should make it a safer place to walk around than many other conventionally laid out developments.

Cyclists

- 3.3.13 Strategic routes to destinations outside the site boundary, such as the Brackla industrial estate and Bridgend town centre will be served by segregated cycle lanes, where possible, where roads are busy. These may occur along extended 'green fingers'. Figure 12 shows that residents will be within a ten minute ride of key facilities including the industrial estates to the south, the school and the Pen-y-cae retail centre. Bridgend town centre and station are about a fifteen minute ride away.
- 3.3.14 The positioning of the strategic routes acknowledges the southerly slope on the site. The gradient will be limited to around 1 in 20, which is considered to be a manageable slope for most cyclists.
- 3.3.15 The internal street layout aims to be permeable to allow cyclists to choose direct routes that will rapidly take them onto strategic routes or to other destinations such as the local centre. Segregated cycle lanes will be provided where the speed and volume of traffic justifies their use. See indicative sections in appendix 1 .
- 3.3.16 Space for secure, overlooked cycle parking will be made available at the local centre and in residents' courtyards.

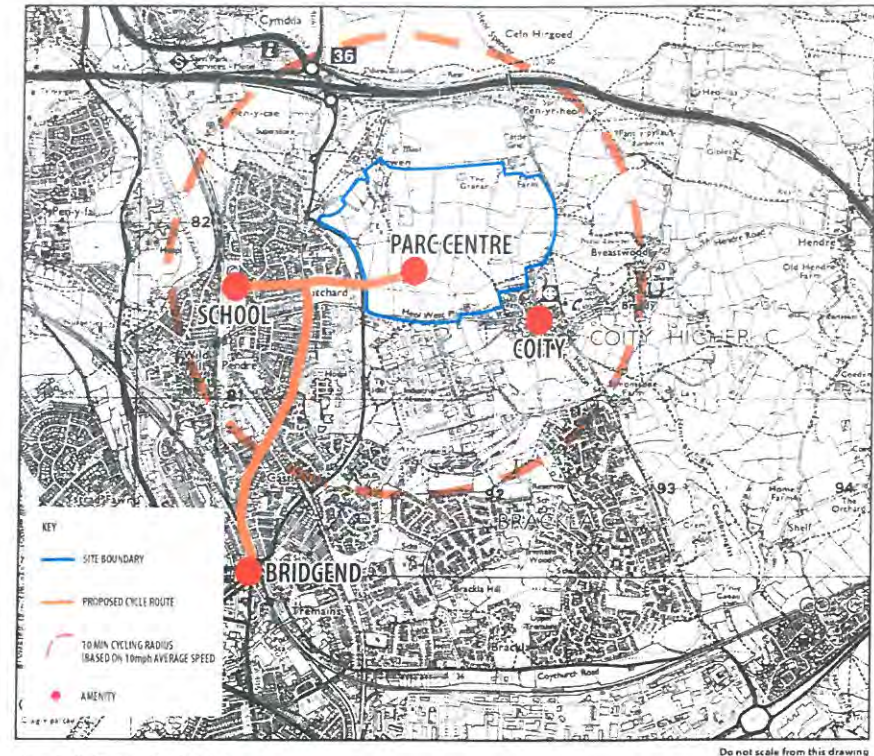


Figure 12 Proposed Cycle links

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Public transport

- 3.3.17 The design of modern developments and transport systems should aim to discourage the increasing growth of car borne movement and to encourage a shift back onto 'public transport'. The layout adopted for the development should aim not only to facilitate bus movement, but also to give buses priority and allow them to pass through areas closed to other vehicles, except emergency services.
- 3.3.18 Within Parc Derwen, the two main entrance roads, and a network within the development should be designed to provide a bus route to complement existing services on the adjoining corridors. Bus priority measures will be provided, including bus gates as part of the proposed closure of Heol Spencer north of the point where the new secondary access is connected.
- 3.3.19 As noted above, the ability for buses to provide an attractive public transport alternative for Parc Derwen is essential. To this end it is vital that when the detailed design of the estate is commenced, First Cymru, and others are involved at the outset in designing detail on:
- traffic calming measures;
 - protected bus stop provision, agreed in consultation with bus companies and the highway authority;
 - parking strategy to facilitate efficient bus movement; and
 - possible transponder operation of bus gates.
- 3.3.20 The aim is to provide a quality local bus service to connect the site to key destinations, with stops within a short walking distance of most of the residents. Ideally, everyone should be within a five minute walk (400m) of a stop.
- 3.3.21 Figure 6a shows existing bus services. The B6 from Bridgend town centre to Coity runs both clockwise and anti-clockwise around the site every 20 minutes, and a further service serves the Pen-y-cae retail centre. Bridgend County Borough Council will encourage operators to develop service improvements as the development progresses and site layout and public transport access points will be designed to facilitate this.

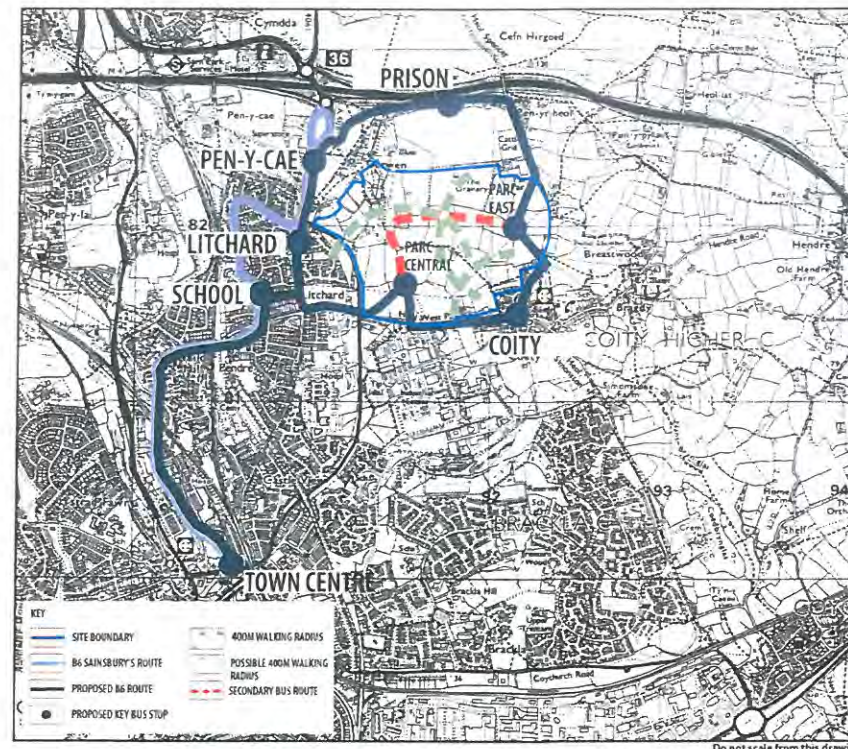


Figure 13 Proposed modifications to B6 bus service

¹¹¹Transporting Wales into the Future :Welsh Transport Policy Statement, Welsh Office, July 1998

- 3.3.22 Bus stops within the development should be designed to be part of the urban realm. Standard, purely functional shelters should not be used. Instead, high quality anti-vandal seats and shelters, possibly with real time information, can elevate the status of the bus and make catching it more of an event. The stops should be orientated to give good visibility of approaching vehicles, rather than just facing over the road.
- 3.3.23 Bus gates will be used on the east side of the development to give priority over cars. These should be designed as part of the public open space, rather than a bolted-on engineering measure.
- 3.3.24 Further improvements in catchment would be achieved if a new bus stop could be created south of the Pen-y-cae roundabout, at the position of a new pedestrian crossing as discussed above. A new crossing over the BNDR to 'Litchard', as recommended above, would be another way of improving catchment to the residents on the west side of the site.
- 3.3.25 The main street within the site will be designed to allow future bus routes to pass through the development.

Cars

- 3.3.26 The proposed development framework allows for the needs of the motor car, both stationary and in movement. However, these have not been allowed to dominate the spaces.
- 3.3.27 The TIA shows that three access points are essential, at Heol West Plas / BNDR, at Main Avenue, and onto Heol Spencer (Fig. 14).

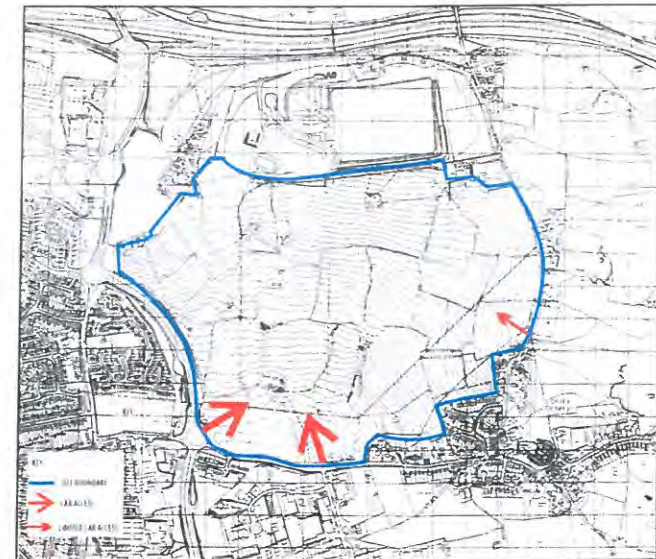


Figure 14 Proposed vehicle access

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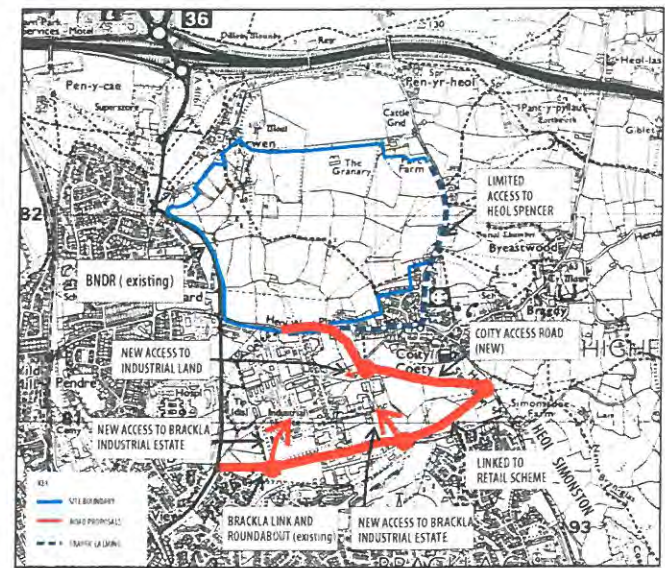


Figure 14 a Proposals for highway links around the site

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3.4 INTERNAL LAYOUT

Concept

- 3.4.1 The detailed design of the proposed development should ensure that it is easy and agreeable to reach any place within it on foot, but it must also cater for motor vehicles, albeit on a basis which ensures that environmental quality and safety considerations are paramount. The development should offer future residents and visitors positive and attractive alternatives to car use: good public transport, carefully sited community and social facilities, and easy connections on foot between all parts of the development¹⁶.
- 3.4.2 Traffic distribution within the development should be rapidly broken down and dispersed onto low speed links with groups of houses being served rather than long loops which then require traffic calming measures to control speeds. Detailed access design will be required to provide for emergency, public service and delivery vehicles.
- 3.4.3 The aim is to create a unique place on a human scale that allows for safe movement of pedestrians, cyclists and vehicles.
- 3.4.4 The approach to the highway layout is different to other recent housing schemes where roads have been formed with vehicle movements in mind. It has been designed in accordance with new DETR guidance on the layout of residential areas, 'Places, Streets and Movement companion guide to Design Bulletin 32' published in 1998. Rather than buildings being arranged around the car, a network of legible places and streets has been sought, where kerbs and roads have been fitted informally. It is intended that this will make this development a more enjoyable place to live.
- 3.4.5 The nature of the places created here should inherently constrain vehicle speeds without recourse to bolted on traffic calming measures. Street widths and junction types are proposed that accommodate all forms of movement safely, including emergency vehicles, whilst creating a community atmosphere and local character.
- 3.4.6 The safety of pedestrians and cyclists where they are in conflict with vehicles can be improved by appropriate good design that slows the vehicles to minimise that conflict.
- 3.4.7 The forthcoming Bridgend Design Guide has been consulted. Its principles on 'reducing reliance on the private car, providing greater access to public transport, encouraging walking and cycling and promoting increased safety and security' have been addressed. The following extracts were considered particularly relevant:
- '... allow developers to create developments which have a distinctive character in their built environment and landscaping.'*
- '... layouts should also promote alternative means of transport thus reducing the general public's reliance on the motor car as a primary source of movements.'*

¹⁶ Places, Streets & Movement : A Companion Guide to Design Bulletin 32, DETR, September 1998

General proposals

- 3.4.8 It is proposed to design the development as a 20mph zone. The proposed speed limit is the key to the safety strategy. Recent research by the ICE on Homes Zones (Briefing Sheet, Feb. 99) has shown that the chances of a pedestrian being killed when struck by a vehicle travelling at 20mph is 5%, compared with 50% at 30mph.
- 3.4.9 The housing groups range from around 10-40 dwellings and parking for these is provided in two ways. The majority is in secure, overlooked private spaces accessed at the rear of the houses.
- 3.4.10 Although parking can be allocated according to Bridgend Council standards, the quality of the environment is likely to be improved if reduced levels of parking can be agreed. The South-East Wales Transport Forum are working on revised parking standards. These will supersede the 1993 Mid Glamorgan guidelines, and are expected to recommend a reduction on the 1993 levels. In the meantime, the maximum parking levels for this development would be:

1 bed;	1 space/ unit;	1 visitor space/5 units.
2 bed (<75 sq.m GFA);	1.5 spaces/ unit;	1 visitor space/5 units.
2 bed (75-120 sq.m GFA);	2 spaces/ unit;	1 visitor space/5 units.
3/ 4 bed (<120 sq.m GFA);	2 spaces/ unit.	
3/ 4 bed (>120 sq. m GFA);	3 spaces/ unit.	

Some on street parking will be provided to animate the street and provide direct access to front doors where needed.

Tracking of Vehicles through spaces

- 3.4.11 The concept used is that outlined in 'Places, Streets & Movement'. This demonstrates that vehicles can move within the minimum carriageway widths quoted in DB32 but that the arrangement of buildings and kerb-lines can define spaces that favour pedestrians and influence vehicle speed. The spaces are therefore related to the form of the buildings framing them rather than car turning requirements.

Junction types

- 3.4.12 Junctions have been designed to create special places of character, as well as achieving safe and efficient vehicle movement. The two aims go hand in hand to reduce vehicle impact, speed and be sympathetic to the needs of pedestrians.
- 3.4.13 Changes in surfacing and level pavement and road areas will be used and they should relate to the form of the buildings around them. Lone speed bumps and traffic engineered chicanes should be avoided.

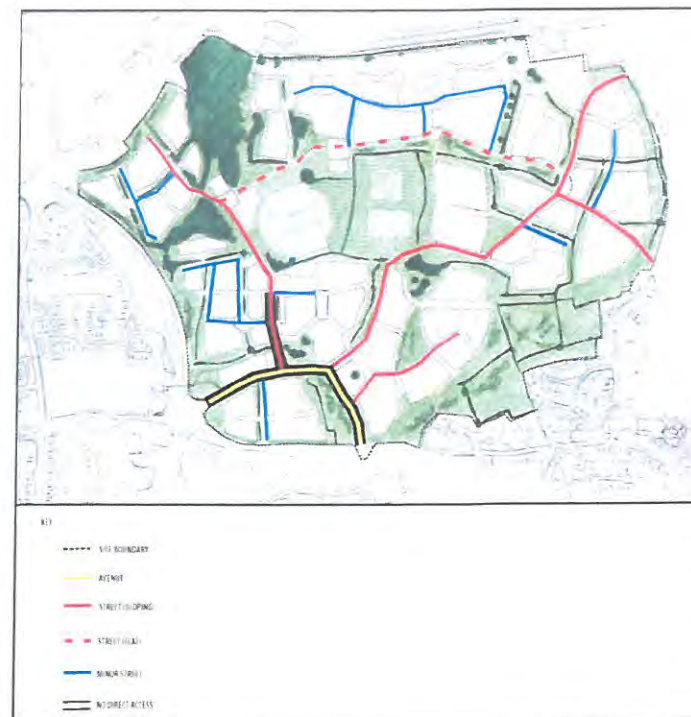


Figure 15 Proposed street types

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Street types

- 3.4.14 Streets have been designed to create a legible network, rather than a bland coverage of uniform design. This will make it easier to orientate oneself inside the development. Standard cul-de-sacs should be avoided.
- 3.4.15 In order to achieve this legibility, several types of street are proposed. There are some similarities between these, which are:
- Connection of streets to other streets, and adjoining areas;
 - a built frontage to all streets;
 - a change of design along the length of a street, not just at the junctions.

Typical indicative sections are given (in Appendix 1) through five streets, which are:

- avenue
- street (flat)
- street (sloping)
- minor street
- back lane

Figure 15 shows where these occur on the Development Framework plan.

- Besides these street types a network of pedestrian and cycle routes are shown on figure 10 and figure 11.

- 3.4.16 The avenue connecting Main Avenue to Heol West Plas / BNDR roundabout will have an active frontage development, ideally of three storeys, set back from the road to mitigate noise and disturbance from higher traffic levels. The use of new trees to line verges helps to separate vehicle traffic and non-motorised traffic, as the foliage reduces the optical width seen by the driver and reduces speed. No direct access for residents' parking should be allowed. A separate cycle lane should be provided.
- 3.4.17 Streets should be the main corridors for movement within the development. They have been designed for all modes of transport, including buses. Limited on-street parking bays should be included in the layout. Bus gates can be used to prevent rat running of cars. Direct access to individual dwellings is limited to those parts of the street that serve less than 300 dwellings, as required by Bridgend Highways. On other parts of the street, turnings into minor streets provide access.
- 3.4.18 Sloping streets have a similar section to the equivalent flat streets. However, the section should take account of the slope and, in places, existing hedgerows incorporated into the design. Frontage to the street can be two or three storeys, but it may be preferable to place the taller buildings on the higher side of the street.
- 3.4.19 Minor streets should provide the bulk of the streets within the development. These are not through routes, and designs should promote pedestrian priority. Limited on-street car parking should be provided. The width of these streets should be kept as small as possible to encourage neighbourly links across the street as well as with next door. Variety in street width, tree planting and parking arrangements should be encouraged to create interest and character. Direct access to properties should be permitted.
- 3.4.20 Private spaces should provide adequate, overlooked parking for residents to the rear of properties. The entrances to these off the street should use a change of surface and the form of the buildings and planting to clarify to the motorist that there is no way through. Some flexible parking spaces can be provided, accessed from the rear, which can be returned to garden space if the homeowners do not need to park a car there. Examples include mews streets, courtyards and back lanes.
- 3.4.21 Public spaces, such as squares and crescents, can be incorporated into the local street network. There should be a variety of designs for these. The nature of the spaces should respond to the site. For example, the northern end of the site could have a greater number of crescents and courtyards, to respond to the southerly views and the boundary with the prison. The southern end of the site might have more mews streets to improve the permeability of the network. See cross sections in Appendix 1.

3.5 LAND USES

3.5.1 The principal land uses are shown on the development framework plan (Figure 10).

	Hectares	Ares
Housing (including some children's playing spaces)	Approx 57.6	Approx 142.3
District Centre including Social and Community Facilities, Village Green, Housing and Commercial	Approx 1.8	Approx 4.4
Primary School	1.5	3.8
Playing Fields and Land Adjacent to School	6.8	16.8
Open space buffer to Coity and Brackla Industrial Estate	8.3	20.4

The balance of site area comprises roads, woodland, informal open space and landscaped area etc.

3.5.2 A total figure of 1500 units is desirable in the light of government policy and the work of the Local Planning Authority to secure an attractive development with open space and effective social provision. This is the figure that has been used elsewhere in this report for calculating open space requirements, etc. Bridgend County Borough has stipulated 1500 units as a maximum development capacity for the site. The figure of 1500 units is incorporated in the Unitary Development Plan proposals for the site.

3.6 DRAINAGE

Foul Sewerage

3.6.1 A new 375/300mm diameter foul sewer has been laid as part of the Bridgend Northern Distributor Road and connected into the Penybont Trunk Sewer. In April 1997 the former Land Authority for Wales signed an agreement under section 104 of the *Water Industries Act 1991* so as to provide a connection from the new sewer in to Parc Derwen and this is located close to the roundabout on Heol West Plas. The Council, acting as agent for Hyder, has confirmed that the new sewer is capable of accommodating foul sewerage from the proposed development of the site, assuming a development capacity of 1500 dwellings.

Surface Water Drainage

3.6.2 Existing land drainage is via watercourses to the Morfa Brook. The Council would not wish to see the flows in this watercourse increased and surface water discharge will be restricted to the greenfield run-off data. This will necessitate on-site storage of surface water which the Council would prefer to be by means of buried tanks or oversized pipes rather than surface lagoons.

3.7 SOCIAL, COMMUNITY AND RECREATION FACILITIES

3.7.1 The County Borough Council have given careful consideration to the range of facilities which a development of this size, in this location, ought to accommodate.

Education

3.7.2 Consultation with the Council's Director of Education and Leisure has revealed that existing primary schools in the vicinity of the site (Coity and Litchard) have some limited capacity to take further pupils.

3.7.3 Following discussions with the Council and the owners of the land a primary school will be built to cater for an agreed number of pupils based on the assessed need for additional places. Additional land will be made available for any potential expansion of the school in the future. The school will operate a joint-use arrangement on the playing fields which it will adjoin. The site area will be:

- 1.5 Ha (3.8 acres) which allows for expansion if required on flat or relatively flat topography;
- in a central location, close to the main access road and providing safe and secure pedestrian access with a pleasant outlook.
- The school will be provided to a phased timetable related to occupation of new dwellings on the site.

3.7.4 Welsh medium primary school education is provided at Ysgol Gymraeg Bro Ogwr and Church in Wales primary school education at the Archdeacon John Lewis Church in Wales Primary School. Both schools are located at Brackla and are at capacity at present.

3.7.5 The nearest secondary schools to the site are Brynteg Comprehensive School in Ewenny Road, Bryntirion Comprehensive School in Cefn Glas and Pencoed Comprehensive School.

Provision for Play

3.7.6 Provision for play is usually made in accordance with the recommendation of the National Playing Fields Association (NPFA), which advises a minimum of 2.4 hectares (6.0 acres) per 1000 population. For a development of 1500 dwellings, at a projected household size of 2.37 persons per household in 2011, this would produce a site population of 3555 and a minimum requirement of 8.53 hectares (21.3 acres).

3.7.7 The NPFA standard advises a subdivision into outdoor sport and children's playing space which produces the following requirements:

- Outdoor sport, based on a standard of 1.6-1.8 hectares (4.0-4.5 acres) per 1000 population, a requirement of 5.7-6.4 hectares (14.2-16.0 acres); and
- Children's playing space, based on a standard of 0.6-0.8 hectares (1.5-2.9 acres) per 1000 population, a requirement of 2.1-2.8 hectares (5.3-7.1 acres).
- Within the outdoor sport category is a specific allocation of 1.2 hectares (3.0 acres) per 1000 population for pitch sports. In this site, assuming the same development capacity, this requirement translates into an area of 4.3 hectares (10.7 acres) for pitch sports.

3.7.8 Consultation with the Council's Director of Education & Leisure has indicated the following requirements for outdoor sport:

- Pitches should be grouped, to facilitate maintenance and might need to be fenced if close to houses or roads.
- Pitches should include:
 - one cricket pitch with a square of the order of 30 m wide (10 wickets) laid out to create a distance of at least 70m from the nearest crease to adjoining property;
 - two fully-drained areas equivalent to 70 x 110 m (+5m safety zone) for winter sports;
 - one full sized all-weather surface pitch with fencing and floodlighting, for which there is an established and unsatisfied demand in this area: and

The complex should include provision for changing accommodation for at least four teams and a car park capable of accommodating at least 50 cars and coaches or buses for visiting teams.

- A kickabout practice area should be provided in association with the above facilities

Following discussion with the Council's Director of Education and Leisure the location of the playing fields in association with the Primary School at a central location would provide facilities capable of use by both the school and the local community in line with the requirements of the Local Plan.

3.7.9 The NPFA recommends three categories of provision for children's playing space:

- A local area for play (LAP) is a small area of unsupervised open space specifically designated for young children (4-6 years) for play activities close to where they live. LAP's comprise an activity zone of 100 m² with a small buffer zone around.
- A local equipped area for play (LEAP) is an unsupervised play area for children of early school age (4-8 years mainly) containing at least five types of play equipment. LEAP's comprise an activity zone of 400 m² with a surrounding buffer zone and, if adjoined by housing on all sides, would be 0.36 hectares (0.9 acre) in extent.
- A neighbourhood equipped area for play (NEAP) is a unsupervised site servicing a substantial housing area mainly for older children (8-14 years) containing at least eight types of play equipment. NEAP's comprise an activity zone of 1000 m² with a surrounding buffer zone and, if adjoined by housing on all sides, would be 0.84 hectare (2.0acres) in extent.

3.7.10 The County Borough Council proposes that these standards are applied throughout the development (except in the case of any sheltered housing or similar), subject to the council's preference for NEAP's and LEAP's, rather than LAP's. Possible locations for the main children's play spaces (NEAP's and LEAP's) are suggested below but we do not regard these as fixed other than in the following cases:

- One children's play area (LEAP) should be located near the district centre, and close to the primary school. In this location it can be used by school children during school break times and by the general public at other times. The play area should be double-gated so as to maintain security for school children whilst it is used by them.
- One children's play area (NEAP) should be located within the low density housing area adjacent to Coity buffer in a position where it is readily accessible to children from that village as well as children from Parc Derwen, whilst also being well overlooked by surrounding properties.
- Three other strategic play areas, one NEAP and two other LEAP's are proposed at locations through the development as set out on the Development Framework Plan.

3.7.11 A proposed location for the provision of changing room facilities for 4 teams in association with the playing fields is also shown on Figure 10 in the community building at the Northern end of the District Centre.

District Centre

3.7.12 With the exception of children's play areas, social and community facilities would be grouped in a district centre. This would be located at the focal point of the alternative main access routes into the site and close to the main pedestrian and cycle routes through the development.

3.7.13 A village green is proposed as a focal point of the District Centre with community facilities and commercial uses clustered together to provide a recognisable centre. Residential property will be included within the District Centre area with the potential retained to convert some of these properties to commercial use. Uses within the District Centre could appropriately include a Community Centre (to be provided by the developers) a health centre, a place of worship, a public house/restaurant together with neighbourhood shops, post office and related car parking.

3.8 LANDSCAPE CONCEPT AND STRUCTURE

The landscape concept is set out as part of Figure 10.

3.8.1 The main aims of the Landscape Strategy are:

3.8.2 Existing Vegetation :

- To retain and where possible enhance, important existing features of the existing landscape structure ie existing woodlands, trees and hedgerows in order to retain and enhance as many of the habitats they provide as is possible, as shown on figure 10.
- To retain and enhance existing features for their visual contribution and the mature landscape setting they provide for the development .

3.8.4 New Green Structure

- To provide a new green infrastructure as shown on figure 10 : a structured network of open spaces, of various sizes around the site to provide varied locations for outdoor recreation and to provide a pleasant setting for the development.
- This network incorporates existing features such as hedgerows within a broader landscape network . It also gives the opportunity to maintain, enhance biodiversity and species habitats throughout the site and provide new habitats where possible.

3.8.5 Species Selection

- Indigenous species are to be used for new planting to maximise the potential for habitat retention and creation.
- Hedgerows where enhancement is required will be planted with indigenous species, reflecting the mix already present in the hedgerows. This includes hawthorn (Crataegus monogyna), field maple (Acer campestre)and hazel (Corylus avellana) or other suitable species identified on the site (see Ecological Assessment). Breaches in hedgerows will be avoided wherever possible, but where they are necessary indigenous treespecies will be planted on both sides of the breach to provide a continuous habitat at canopy level.
- New tree planting should also include native species, or for formal planting related varieties. Specimen trees for use as single focal trees would include species such as oak (Quercus robur), ash (Fraxinus excelsior) or wild cherry (Prunus avium). Large Street trees would include related native species such as Norway maple (Acer platanoides), or ash (Fraxinus excelsior 'Westhof's Glorie') . Smaller varieties would include mountain ash (sorbus aucuparia) 'Sheerwater Seedling'). In the North-West area some coniferous trees would be appropriate and would include Scots Pine (Pinus sylvestris) or Black Pine (Pinus nigra)

- Structural planting would contain a mix of native tree species and also shrubs such as dogwood (Cornus sanguinea), blackthorn (Prunus spinosa), goat willow (Salix capria), holly (Ilex aquifolium), dogrose (Rosa canina), hawthorn (Crataegus monogyna) and hazel (Corylus avellana). This should be planted with due regard to overlooking and personal safety (see section 3.8.7)

3.8.6 The main landscape elements of the new development will be as follows:

- Existing vegetation and hedgerows: Existing vegetation will be retained as far as possible; the road network, associated cycle and pedestrian ways and housing layouts will respect the existing vegetation
- Coity open space buffer: An open space buffer between the development and Coity Village;
- Playing fields: A centrally located area for playing fields linking to all areas of the development.
- Linear Park: A band of structural planting running East West across the site from the playing fields to the higher density area in the North-Eastern corner of the site.
- District Centre: A central open space with retained and new tree groups in the district centre,
- Landscape improvements to existing boundary roads: Landscape improvement to existing roads on the site boundary, especially the A4061, the Bridgend Northern Distributor Road, Heol Spencer and Heol West Plas. This measure will mitigate the impact of the development on existing views.
- North West boundary (to common)Enhancement of the mature landscape on the north west around the common and wooded areas, and retained hedgerows which are particularly strong here;
- Northern boundary (to Parc Prison)Landscaping to the Northern boundary will ensure screening from Parc Prison.
- Housing groups located amongst retained vegetation features, and additional landscape treatment of housing areas generally;
- The layout will also allow existing trees and hedgerows to be an integrated feature of open space and street layout. The aim will be to retain them in the public realm wherever appropriate (rather than in rear gardens) with the exception of the Northern boundary (above)

- 3.8.7 Throughout the site, between these principal features and open spaces, there will be:
- A clear network of streets, pedestrian and cycleways (see below)
 - Minor focal points and incidental open spaces at a local level created around existing vegetation, or created with new planting. The layout will be designed so that housing layouts and landscaping, whether existing or new, creates a well integrated whole.
 - Throughout the site landscaping will be designed so that personal security is paramount. Open spaces, pedestrian/cycle ways and the general streets will be overlooked. The choice, positioning and density of species will have regard to security, particularly in large open spaces.

Road Network

- 3.8.8 Landscaping of the development will build on the established hedgerows and groups of trees. A large proportion of all roads will be planted to enhance the residential environment.
- 3.8.9 Large street tree species would be appropriate for formal planting in the main Avenue and main street, and would include Norway Maple (*Acer platanoides*) or the ash variety *Fraxinus excelsior* 'Westhof's Glorie'. This may be combined with structural planting in areas where streets pass through broader areas of landscaping.
- 3.8.10 In streets with narrower cross-sections smaller native street trees would be suitable such as mountain ash (*Sorbus aucuparia* 'Sheerwater Seedling')

Cycle/Pedestrian Network

- 3.8.11 Between the landscape features and principal open spaces open spaces there will be dedicated cycle/pedestrian ways, generally following the existing public rights of way (See figure 11).
- 3.8.12 There will be pedestrian and cycle links with Coity, Litchard, the retail park and the wider networks.
- 3.8.13 The provision of cycleways will generally be in association with footpaths. This applies in particular to the main north-west to south-east way, and to the roadside provision. Additional footpaths will be provided, especially within the open spaces, and will link with footpaths beyond the site. In developing these, care should be taken to minimise the diversion of existing public rights-of-way and account for the need for pedestrian and cycleway links to the school and playing fields.

- 3.8.14 The main cycle/pedestrian way will follow closely the line of the existing public Footpath connecting Coity with Derwen. It will be mostly separate from the road system and contained within a 'green corridor'. Existing tree groups along the route will be retained, and additional occasional plantings of trees and shrubs are proposed, to create some spatial variety in what should otherwise be a generally open character. Where cycle and pedestrian ways cross roads, raised tables will be introduced so that drivers are obliged to slow and encouraged to give way.
- 3.8.15 This main route will connect the central park, district centre and Coity, and will provide links from the housing areas to the retail park at junction 36, and with the routes in the wider area. The landscaped/cycle pedestrian way from Main Avenue through to the District Centre will also continue along the northern side of Heol West Plas into Coity Village.
- 3.8.16 Cycleways should be designed and constructed in accordance with the relevant national advice.^{15 16}

Area Analysis

- 3.8.17 **Figure 16** overleaf shows the main landscape features and the main landscape areas of the new development. The areas delineated on the plan are described below.

Northern Area (N)

- 3.8.18 The boundary to the north (with Parc Prison) The northern boundary with the Prison will be designed to respect the adjoining use in terms of security. A wide open planting boundary is not considered appropriate and planting along this boundary will be within rear gardens of private property. This is illustrated in the indicative section FF. Where appropriate an earth bund will be created with generous woodland screen planting along the boundary. This would include an appropriate mix of shrubs such as dogwood (*Cornus sanguinea*), blackthorn (*Prunus spinosa*) and goat willow (*Salix caprea*) with trees species such as field maple (*Acer campestre*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), wild cherry (*Prunus avium*), oak (*Quercus robur*) and hawthorn (*Crataegus monogyna*).
- 3.8.19 Tree planting combined with appropriate pedestrian friendly hard landscaping will be carried out in new squares and public spaces.
- 3.8.20 In order to prioritise personal security housing will be designed to front onto open space and existing woodland around the Northern area.
- 3.8.21 At the Eastern end of this area, existing hedgerows and trees will be the focus of the smaller incidental new public spaces as is shown indicatively in figure 10b. These will be enhanced where necessary with smaller indigenous species.
- 3.8.22 The main North-South Avenue in this location will be generously landscaped, giving generous buffers to existing hedgerows, enhanced with considerable tree-planting as in indicative section BB. Larger native species such as *Fraxinus excelsior* 'Westhof's Glorie' or Norway Maple (*Acer platanoides*) would be appropriate for more formal planting.

¹⁵ Cycle-friendly infrastructure, Cyclists' Touring et al, 1996

¹⁶ The National cycle Network: Guidelines and Practical Details, Sustrans, 1997

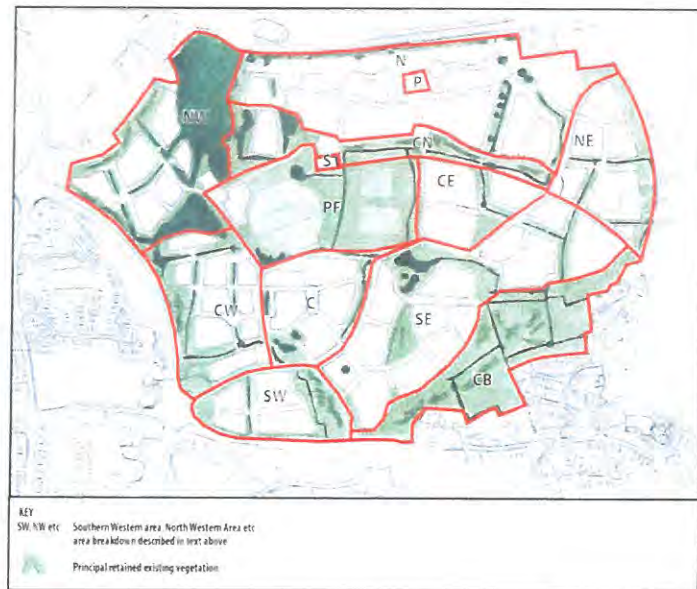


Figure 16 Landscape Areas

North- Western Area (NW)

- 3.8.23 The North-Westren area is dominated by a large area of existing coniferous and some deciduous woodland along its eastern edge and some free-standing coppices which are to be retained.
- 3.8.24 In the North West of the site, a short distance from the central park playing fields, informal recreation , such as jogging and cycle circuits, rambling, sitting out, picnicking can be accommodated within a mature landscape framework. The existing woodlands, plantation, hedgrows and common will provide nature conservation opportunities; additional planting and appropriate management will add to the biodiversity potential of the area. Given close links between the school and leisure services this should allow for active management and use of these facilities. The pavilion building could, if desired, incorportae a modest visitor/information facility for educational and interpretation purposes.

- 3.8.25 There are a number of good strong hedgerows in this area of the site. The fullest possible lengths of hedgerows will be retained (as shown in indicative section GG) With access from either side of the hedgerow (ie no individual access thurgh the hedgerow)
- 3.8.26 The natural drainage system in this part of the site, running water bodies and the ponds to the South of the woodland area are to be retained to as large an extent as possible and suitably managed to increase species diversity. Where the stream occurs adjacent to a road line the stream is to be retained with a sufficient buffer.
- 3.8.27 Housing in this area is to be low density, detached with some semi-detached in a parkland environment. Some private driveways may be shared and accessed from small back lanes (see below)
- 3.8.28 Roads here (with the exception of the main access road) are to be of a rural 'back lane' nature (see indicative section EE) providing significant new informal landscaping along lanes where no hedgerows currently exists. There is significant opportunity for habitat creation with indigenous species in these lanes.
- 3.8.29 To the West of the area is the BNDR. A landscaped buffer zone ensures protection from the road. The new dual carriageway encorporates areas of road-side planting along the south-western boundary of the site, and these will be augmented by additional planting between the road and the housing areas. The implications arising from Annex A to TAN (Wales) 11: Noise on the proximity of the new housing areas to the dual carriageway should be taken into account. In this respect, the need for additional noise protection should be examined in relation to any boundary treatment proposed in this area together with any landscape buffer required in terms of amenity and environmental considerations.
- 3.8.30 A landscape band is to be planted between the development and the common. Due to the high number of coniferous trees, a small number of coniferous planting amongst native deciduous species, would be appropriate for example Scots Pine or Black Pine to create continuity with existing vegetation.

North Eastern Area (NE)

- 3.8.31 Where there are no existing hedgerows tree planting will be carried out, of a more formal nature in higher density areas (along the main North South Avenue) and of an informal nature for back lanes in lower density areas, especially to the East of the area.
- 3.8.32 Hedgerows in this area are to be retained and enhanced with appropriate native species.
- 3.8.33 Heol Spencer has a rural character, roadside planting of trees within a setback frontage will improve the landscape of the road and provide partial screening and intermittent views into the development.
- 3.8.34 On the Eastern boundary to Heol Spencer there will be a generous landscape buffer between the road and the new housing, which will be informal in nature, using native species of specimen trees and structural planting and incorporating existing vegetation. Housing will have frontage onto Heol Spencer. Shared private driveways leading to between 2- 4 properties and using suitable surface materials to reflect the rural context, are directly accessed from Heol Spencer. Alternatively this area may be treated in a similar style to the crescent at Tycoch Avenue.
- 3.8.35 Appropriate species for inclusion in this green buffer would be native as described above and should be planted to provide some privacy and visual separation from existing properties on the opposite side of Heol Spencer, whilst not so dense as to cause a safety hazard.

Central Northern Area (CN)

- 3.8.36 This linear park will provide a generous amenity space between the playing fields and the higher density area in the North-Eastern corner. Existing vegetation, in particular a significant section of existing hedgerow will be retained. The park is to be informal in nature, and provides an opportunity for habitat retention and creation. The park is to provide a parkland with a rich grassland and wildflower sward. This would include species identified to be present on the site (see Ecological Assessment) and further species, appropriate for the site soil conditions, to enrich the ecological diversity. Some tree planting in attractive clusters or as single specimen trees will also be carried out. These should be planted so that overlooking from the adjacent properties is maintained.

Playing Fields (PF)

- 3.8.37 The major recreation and open space provision for the development is concentrated in the central part of the site. It will accommodate the outdoor sport requirement of the development, in accordance with the NPFA standard, and be accessible to all areas within the development site, with associated pavilion building and car/bus parking in the adjacent part of the district centre.

- 3.8.38 The hedgerow to the East of the playing fields is to be retained and enhanced if necessary, as are existing clumps of vegetation across this area. The playing fields have been located to minimise disruption to existing vegetation.

Central Eastern Area (CE)

- 3.8.39 This area will retain existing vegetation and hedgerows maintaining the longest possible lengths, section as indicative section GG) Hedgerows in this area are at present weak and will be enhanced with indigenous species and breaches and gaps filled where these breaches have not been exploited for access points, (see fig. 10)
- 3.8.40 The Main North -South Street will include street tree planting along its full length except at open spaces containing existing vegetation where planting will be more informal in nature. Housing will overlook the western streets along the playing field.

The South-Eastern Area (SE)

- 3.8.41 This area will be low density parkland character. Properties will overlook open space (especially the Coity buffer see below) Existing hedgerows and vegetation are maintained and used to integrate local focal points. New back lanes have an informal landscape treatment of native species.
- 3.8.42 The important cluster of deciduous trees and the stone clump to the south of the main street are to be retained as part of an informal landscaped area.

Open space buffer to Coity (CB)

- 3.8.43 This wide open space will provide a physical separation between Coity and the new development. It will be linked, both to Coity and to the development by the main cycle/pedestrian way and existing footpaths. Additional footpaths within the open space will provide walking routes and links. The open space will have a parkland character with tree groups and informal planting of trees and shrubs for spatial and visual variety. There is an opportunity for habitat enrichment on this open space. In particular, the open areas should be developed as species-rich grass swards, managed for their nature conservation interest as well as their aesthetic value. Species to create a grassland and wildflower sward should reflect those identified on the site with further species appropriate to the soil conditions, to increase the ecological richness. Rear boundary fences to existing Coity properties will be planted with small species such as blackthorn and hawthorn, whilst retaining the ability for overlooking from these properties onto the open space and the sense of participation in it.
- 3.8.44 The footpath links, the cycle way, the park and open spaces will also be an important amenity for Coity: it will be possible to take advantage of facilities within the development and to walk or cycle to the retail park to the north-west. Conversely, the links with the village will help to give identity and character to the development. There is potential to include lower density housing overlooking the open space and related directly to it in design and character, so as to create a village green effect.

District Centre

- 3.8.45 A central grassed open space is provided around an existing tree clump. Landscaping around this central 'green' and throughout the district centre will be hard landscaping with choice of surface materials which are both in keeping with the local materials and the rural character of the adjacent areas and which also create a pedestrian friendly environment (see section 3.4) . Examples of this type of treatment are given in the illustrations in the Appendix.
- 3.8.46 New planting in streets around the district centre will be mostly formal reflecting the central higher density location and will incorporate a variety of native or related street trees. Smaller tree species appropriate for the densest areas include species such as mountain ash (*Sorbus aucuparia* 'Sheerwater Seedling')

Central Western Area (CW)

- 3.8.47 Existing hedgerows in this area are very strong and of the bank variety . These are to be incorporated wherever possible with broad buffers around the hedgerows as shown indicatively in section GG. Breaches in the hedgerows are to be kept to an absolute minimum to retain an unbroken habitat and also because of the difficulty of breaching the base wall. Access to properties should therefore be via a smaller lane to the side of the hedgerow and not as individual access points across it. See section GG.
- 3.8.48 The Western boundary of the site will be planted to provide a buffer from the BNDR in association with, if necessary, noise screening. The pedestrian routes from Litchard will also be more informally planted , creating a continuous parkland.

South-Western Area (SW)

- 3.8.49 A significant buffer is created around the Avenue with tree planting. Suitable larger street species would include ash *Fraxinus excelsior* 'Westhof's Glorie' .An example of possible general treatment of this area is given in illustrations in Appendix 1.
- 3.8.50 Significant road-side planting will be carried out to Heol West Plas to screen housing from the Brackla Industrial estate and industrial traffic using this part of the road.. Extending west from the open space at Coity the planting will be of woodland or shelterbelt character, using native species with a mixture of trees and understorey plants of native species. The planting will continue westward from the entrance to the industrial estate as individual trees amongst hedgerow planting, as for Heol Spencer.
- 3.8.51 The buffer to the Heol West Plas round about forms a continuation of the buffer to Brackla and of the buffer to the BNDR. It will contain informal planting of native species.

Landscape Management

- 3.8.52 In order to fulfil the aims of the landscape strategy, a long term commitment to the management and maintenance of areas will be needed. A detailed programme of regular maintenance will be required to ensure the successful establishment of new planting. The existing areas of nature conservation interest will require careful management both during construction of development and later when they will be subject to pressures of use. In order to enhance the environment of the development and to promote sustainability, new areas of nature conservation value will be developed, which will have specific requirements for long term management. The coniferous woodland in the north west of the site should be transformed, by gradual clearance and replanting, into a deciduous woodland of native species.
- 3.8.53 A landscape plan for the site should be prepared, with detailed recommendations for earthworks, planting and grassing, for sports, amenity and species diversity. This should be supported by a management plan which sets out the means of achieving the objectives of the landscape strategy, the requirements and a programme of operations for each landscape area. The management plan will also refer to the institutional mechanisms required to oversee the implementation of the plan.

Housing Area Design

- 3.8.54 It is very difficult for local planning authorities to control aspects of detailed design on sites which are not located in designated conservation areas or other environmentally sensitive areas. It is much more effective for strong design control to be exercised through the land owner. In the case of Parc Derwen, a substantial part of the site is owned by a public sector body and the Welsh Development Agency is in a position to take a leading role in exercising control over design and quality. The opportunity should be taken to introduce sustainable building forms; for example, energy efficient structures taking advantage of the generally south-facing aspect of the site.
- 3.8.55 Notwithstanding that type of approach, the local planning authority will wish to exercise careful control over the choice of building materials and finishes. In this respect, inappropriate materials such as red roof tiles, will generally not be permitted.

4.0 IMPLEMENTATION

4.1 COMPREHENSIVE DEVELOPMENT

4.1.1 Parc Derwen is one of the largest residential sites in South Wales. A piecemeal approach to its development would be unacceptable to the local planning authority as it would be unlikely to result in a satisfactory form of development and could prejudice the proper planning of the area, as well as the orderly release of other potential development sites.

4.1.2 It is essential that the site should be developed in a comprehensive fashion. From the planning rather than the commercial standpoint, an area of land reserved for playing fields or other open space use is as important as land allocated for housing development, and this can be fully realised only when the whole development is planned and carried out comprehensively.

4.2 PHASING

4.2.1 Government advice on the phasing of developments is contained in paragraphs 36-37 of *Planning Guidance (Wales) : Planning Policy*. This indicates that although phasing should not be arbitrarily imposed, the need for it may be justified by considerations of infrastructure or the adequacy of other services and, in such cases, it should take the form of a broad indication of the timescale envisaged for the release of sites. This, therefore, is the approach that has been adopted.

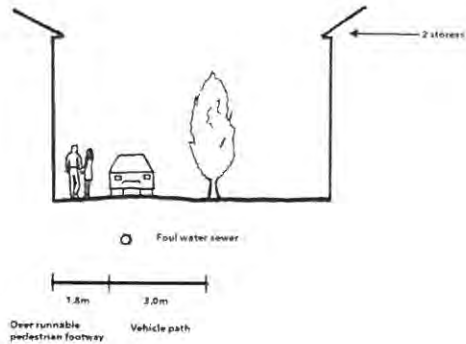
4.2.2 The main factors influencing the phasing of the development are as follows:

- **Access-** no more than 450 dwellings should be served off the BNDR roundabout and no more than 300 off the Heol West Plas access until these accesses are connected to each other. Assuming that development commences from the BNDR/Heol West Plas roundabout, this implies that the proposed access from Heol West Plas should be installed before development proceeds beyond 450 dwellings. In addition there is the potential for limited initial phases on the eastern edge of the development to be served from Heol Spencer, subject to the consideration of traffic impact within Coity.
- **Other transportation requirements.** These include the provision of a Coity access road, safe pedestrian and cycle crossings of surrounding distributor routes, public transport facilities including bus gates.
- **School and dedicated playing fields-** should be built and available at developers' cost by the time 450 dwellings have been completed.
- **Central Park-** Outdoor sports facilities including two playing fields, a cricket square, artificial turf pitch, roundabout area and a four team changing accommodation pavilion and associated car park should be provided in stages but should be completed and available for use in line with the programmed completion of the school.
- **Children's Play Areas-** should be provided at the same time as the development of those parts of the sites in which they are located.
- **Structural Planting-** should be phased in accordance with the proposed landscape strategy. Peripheral planting as defined in the landscape strategy, should be completed by the end of the second planting season after development commences; planting within the site should be at the same time as the development programme.
- **Footpaths-** should be phased in accordance with the development programme.
- **Affordable housing-** 150 units will be provided in accordance with details to be set out in the legal agreement between Bridgend County Borough Council and the developers.

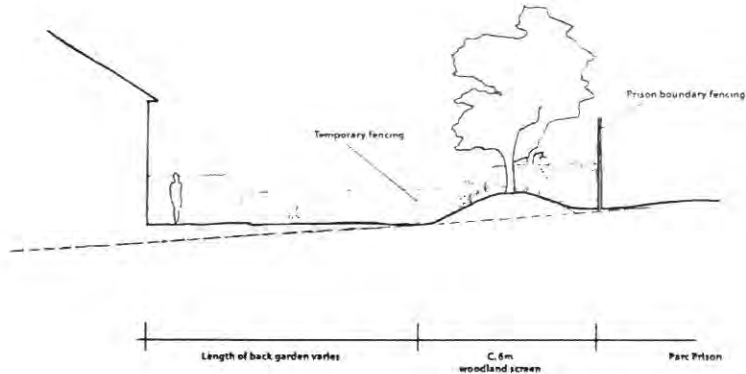
APPENDIX 1

Supplementary Illustrative Material

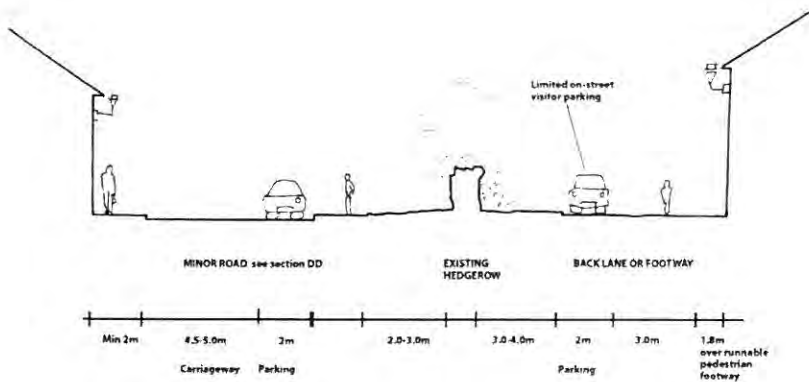
- Indicative Sections
- Illustrations



SECTION EE: BACK LANE



SECTION FF: TREATMENT AT NORTHERN BOUNDARY



SECTION GG: PREFERRED TREATMENT OF EXISTING HEDGEROWS

Creating a Pedestrian Friendly Environment/Managing the car



Streets and spaces are designed with the pedestrians in mind and give them priority over cars. Parking is incorporated into pedestrian friendly spaces.



Well-designed rear courtyards provide overlooked parking areas and reduce the impact of cars in the street



The lack of forecourt parking and the use of alternative parking solutions (such as courtyards, above) ensures frontages and the pedestrian environment are not cluttered with cars.

Creating a Successful Public Realm



Open space is well-defined by a strong building edge with dwellings fronting onto it. It is well overlooked ensuring that it becomes a public space which contributes to the sense of place.



Articulation of building form, for instance at corners, can create focal points and further enhance the sense of place.



Street furniture is carefully designed to complement the character of the development. The obtrusive clutter of street signage and furniture is minimised, as here, where lighting is positioned on the building.