

2 THE APPLICATION SITE AND PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 This chapter of the ES considers the application site and proposed parameters used in the assessment process.

2.2 Site Description

2.2.1 The site is located immediately to the south of the A48 and southern settlement boundary of Bridgend.(Figure 1 Site Location). The site is further bounded to the east by the Bridgend Science Park and Bridgend to Llantwit railway line; to the west by Merthyr Mawr Road and to the south by New Inn Road (Figure 2 Application Boundary). It is centred on National Grid Reference: SS 900 782.

2.2.2 The development area extends to a total of approximately 52 hectares comprising:

- 13.3 hectares of predominantly tree and scrub covered land owned by Bridgend County Borough Council (BCBC).to the north.
- 35.8 hectare of predominantly arable farmland in HD Ltd control to the south and east.
- 2.8 hectares of grazing land owned by Merthyr Mawr Estates. To the north east. (Figure 3 Ownership Boundaries).

2.2.3 The application site falls fully within the planning boundaries of BCBC.

2.2.4 The BCBC controlled land was formerly a Second World War Prisoner of War (PoW) Camp and more recently the Crossways Country Club, which is now demolished. Only Hut 9, a single storey building, located in the northeast part of the site survives and has been Grade II listed. The remainder of this area predominantly comprises mature tree groups, scrub and rough grassland.

2.2.5 The land within HD Ltd ownership is predominantly arable fields, farmed for animal fodder by a tenant farmer T Anthony & Sons, Haregrove Farm, Laleston, Bridgend. Medium to large fields within the site are bound by managed hedges and interspersed with occasional swallow holes or Karst features. High voltage powerlines cross the site in a broadly east x west direction.

2.2.6 The Merthyr Mawr land is a horse grazed pasture bounded by mature unmanaged hedges on its south and west boundaries. Rear gardens of houses located off Island Farm Road and Close demark its east boundary.

2.3 Site Context

(Figure 4 Site Context)

2.3.1 The northern boundary of the Application Site abuts the A48 By Pass Road beyond which lies

the southern housing conurbation of Bridgend, schools and College. The A48 currently delineates the southern boundary of Bridgend which at this juncture is predominantly housing. The exceptions to this are pockets of housing accessed from Island Farm Road, Ewenny Road and Priory Road. The town centre and mainline railway train station lie approximately 1.0km to the north.

- 2.3.2 The land is bordered to the northeast by the Bridgend Science Park, and to the east, by a nursing home. The Vale of Glamorgan railway line operates between Bridgend to Cardiff via Llantwit Major, Rhos and Barry (re-opened in 2005), and marks some of the southeast boundary to the site. Further east, landuse is dominated by industrial parks and out of town 'white goods' and food retail stores almost as far as the motorway junction (35) approximately 6.0km from the site.
- 2.3.3 The site is bordered to the south by New Inn Road, beyond which the landuse is as far as Ogmor Road. The land south of Ogmor steeply rises onto the wooded slopes of Ogmor Down.
- 2.3.4 The Ogmor River and flood plain border the west boundary, beyond which lie small to medium fields, interspersed by woodland and farms. Merthyr Mawr House (Grade II*) and the small picturesque village of Merthyr Mawr lie 600m and 1.2km southwest of the application site respectively. Further west the land gives way to the distinctive Merthyr Mawr Dunes and Warren before reaching the coast at approximately 4.5-5.0km from the site.
- 2.3.5 A fuller description of the site baseline is described in subsequent assessment chapters.

2.4 The Proposed Development

Design Concept and Overview

- 2.4.1 Whilst an illustrative masterplan (Figure 5 Illustrative Masterplan) has been developed for the outline planning application, the EIA where appropriate, assesses a series of parameter plans contained within Volume 2. Assessment of parameters enables a reasonable worst case scenario to be evaluated in each discipline rather than purely providing illustrative material which only shows one solution. At this stage the illustrative masterplan is regarded as the most likely way in which the proposed development will proceed within the parameters. Complex large-scale development such as this proposal requires a degree of flexibility which the parameter plans provide but within a defined set of circumstances and parameters. Assumptions and limitations are considered in each of the relevant assessment chapters.
- 2.4.2 The parameter plans considered as part of this submission are:

- Figure 2 Application Boundary
- Figure 6 Development Framework Plan
- Figure 7 Landscape Framework
- Figure 8 Building Heights
- Figure 9 Lighting Intensity
- Figure 10 Phasing

- 2.4.3 Certain disciplines use 'assessment years' to provide a snap shot of impacts at a certain dates in the future, these are discussed in more detail in Chapter 4 and within the relevant discipline chapters.

Construction Phasing and Programme

- 2.4.4 The indicative phasing for the proposed development that is considered within each of the chapters is shown on Figure 10.

- Phase I – Enabling Works, A48 Junction, Internal Site Access;
- Phase II - Rugby League Stadium followed by Tennis Centre, Sports Centre, Bridgend Ravens Rugby Union Stadium, Bridgend Town Football Stadium and Park and Ride;
- Phase III - Phase 2 of the Bridgend Science Park

- 2.4.5 Additionally, a rate of construction has been assumed for assessment which is considered in the construction programme contained within Volume 2, to provide the worst case scenario as below:

- Phase 1 – 4-6 months
- Phase 2 - 20 months
- Phase 3 - 60 months

Operation

- 2.4.6 The scheme, when fully operational, will be unique in South Wales providing a destination for club, national and international profile sport.
- 2.4.7 This project, by nature of its scale and regional significance, will act as a generator and catalyst for regeneration of the Town centre and will have many other significant indirect economic benefits discussed further in Chapter 5.
- 2.4.8 The recent withdrawal of The Celtic Crusaders Super League team from The Brewery Fields near the town centre to Newport Gwent Dragons stadium in Rodney Parade is a significant blow for Bridgend reducing valuable match day footfall traffic in the town centre. A key objective is that Island Farm will be the long-term home not just for the Celtic Crusaders, but also Bridgend Town football club and Bridgend Ravens Rugby Union club, which currently share inadequate and outdated facilities at The Brewery Fields. The proposed sports village will allow these well established sporting disciplines to grow and develop to their full potential and will sit alongside complementary sports such as a tennis, boxing, squash, badminton, cricket and swimming.
- 2.4.9 As well as its excellent sporting credentials Island Farm will offer a diverse range of employment opportunities that will yield over 1000 jobs and up to 1500 temporary positions on match days. Spectators are estimated to yield an additional £4.5m into the local economy and a further £350,000 per annum through business support and supplies.
- 2.4.10 The following facilities and development will be provided and accommodated within the

illustrative masterplan:

Major Sporting Facilities and Stadia

- A 15,000 seat stadium suitable for the Celtic Crusaders Rugby League.
- A 2000 seat stadium suitable for Bridgend Town Football, plus 2 additional football pitches.
- A 5000 seat stadium for Bridgend Ravens Rugby Union Club, plus 3 ancillary outdoor training pitches.
- An indoor tennis centre and 10 outdoor courts.
- An indoor 4G training pitch and sports hall offering a range of indoor sports such as badminton and squash.
- An indoor swimming pool.
- Ancillary offices and uses.

Infrastructure & Services

- Access road and signalised junction onto the A48 and secondary link onto Technology Drive.
- A 16.7ha (41 acre) SINC area safeguarded for nature conservation.
- Cycle paths and footways improvements on the A48.
- Internal site footways and cycle paths.
- Internal site access roads and parking for 2262 vehicles.
- A Green Bridge over the proposed A48 link road.
- A 135 space Park and Ride facility.
- Associated hard and soft landscaping.
- Diversion of the overhead power lines and towers between the west and east boundaries.

Science Park

- 21,000 m² extension to the Bridgend Science Park (B1a & b).
- Internal access roads, parking and associated landscaping.

2.4.11 The approximate locations of buildings, routes and open spaces are shown on Figure 5 Illustrative Masterplan and on the Parameters Plans. The upper limits of the height of each building are shown in Table 2.2 below and Figure 8 Building Heights.

Development Schedules

2.4.12 The application site proposals will consist of:

Table 2.1 Development Schedule

	Use Class	Area	Gross Internal Floor Space
Mixed Use Sporting and Leisure Centre			17,500m ²
Commercial floorspace within stadia	D2		2500m ²
Business Floorspace within Stadia	B1(a,b)		4300m ²
Restaurant and Cafe within Stadia	A3, A4, A5		4000m ²
Employment Area Science park	B1 (a, b),	6.56ha	2100m ²
Park and Ride	Sui Generis	0.47ha	
Area safeguarded for nature conservation including SINC		14.14ha	

Table 2.2 Schedule of Building Dimensions

Building	Width x length	Maximum Height To Ridge
15,000 seat stadium	143x270m	17.9m
2000 seat stadium	17.2x90m	10.1m
5000 seat stadium	26.7mx103.7m	15m
Indoor tennis centre with outdoor courts	Max diameter 250.6m	15.6m
Indoor 3G training pitch	80x144.7m	17m
Phase II Science Park Buildings	Varies	Approx 10m

Landscape and Biodiversity

2.4.13 The proposals include for protection, enhancement and enlargement of the existing Site of Interest for Nature Conservation (SINC); reinforced boundaries; 10ha of native planting; introduction of additional ponds, species rich dry and wet grassland and long-term management to enhance the overall biodiversity of the site. These proposals are described in detail in Chapters 9 and 10.

Earthworks

- 2.4.14 Level building and sports pitch plateaux will be created across the gently sloping topography to create the proposed development areas. The illustrative proposals show a balanced cut and fill being achieved without need for import or export of material. Due regard has been given to the underlying aquifer and geology of the site described in detail in Chapter 7.

Materials

- 2.4.15 It is intended that the buildings are constructed in high quality sustainably sourced materials that will compliment the setting of the site on the urban rural fringe of Bridgend. Colours and textures will be specified that integrate with the landscape rather than contrast with it. Green walls and green roofs will be used on key elevations to further aid in the accommodation of large building footprints into the landscape. The visual impacts associated with the proposal are described in further detail in Chapter 10.

Drainage

- 2.4.16 New foul and surface water connections will be made into existing foul and surface water drains located adjacent to the north boundary running parallel with the south side of the A48 road corridor. Proposals will incorporate a comprehensive SUDS drainage strategy providing lined attenuation ponds in the SINC area and science park; green roofs; water harvesting; and permeable car park surfaces with natural filtration to the subsoil. This will enable full compliance with the Environment Agency (Wales) requirements for 'greenfield' discharge rates, reduced water consumption and potential to enhance biodiversity on the site. Measures to avoid contamination of the underlying aquifer are described in detail in Chapter 14.

Lighting

- 2.4.17 All sport events require good light to facilitate enjoyment for players and spectators alike. Artificial lighting is also necessary to enable sports to be played beyond normal daylight hours and maximise the opportunity for different user groups to use and enjoy the facilities.
- 2.4.18 Lighting has been considered for its impacts on sensitive ecological and human receptors and to prevent general increased light pollution of the skies. The Institute of Lighting Engineers Guidance – Guidance Notes for the Reduction of Obtrusive Light (2005), provides a good basis for avoiding light pollution through design and defining the measures that will be adopted at the reserved matters stage. Table 2.3 identifies the proposed parameters for illuminating the various sports village facilities, science park, access roads and car parks and has been translated into the a lighting intensity parameters plan produced for assessment purposes and attached Volume 3 - Parameter Plans.
- 2.4.19 The lighting strategy will embody the following key principles.
- Avoidance – while an obvious consideration, the overarching principle of the lighting design will to be to avoid over or unnecessary lighting
 - Detailed lighting schemes will be produced to ensure that health and safety issues are balanced with those of wasted resources and the adverse effects of light pollution.
 - The lighting within the sensitive ecological habitat to the north will be less intense

than the A48 road corridor lighting.

- Lighting Curfews – most areas within the sports village do not require lighting beyond the cessation of sporting events and lights should be turned off as soon as health and safety requirements permit. Lighting to training pitches to be turned off prior to 2100hrs and stadia lighting by 23.00hrs. Car parks illumination to be turned off by 23.00hrs.
- Glare Control - pitch floodlighting to be designed to prevent light spill onto surrounding sensitive habitats and spectators. Beam angles of all lights will be below 70 degrees.
- Building Luminance – building illumination will be not normally be necessary, but some sports buildings may require feature lighting to direct spectators to key areas. Where necessary a building luminance of 5cd/m² should be targeted in accordance with recommendations of the (ILE) Environmental Zone E2 and lights turned off as soon as possible with a curfew of 2300hrs.
- Sky Glow- fittings and luminaires will be fitted with baffles or deflectors that deflect light downward rather than upward. Low level bollard lighting will be used in low key pedestrian areas.

Table 2.3 Lighting Parameters

Facility	Horizontal Illuminance	Uniformity Min/Ave	Glare Rating
Rugby and Football Training Pitches	75 Lux	0.5	<55
Bridgend Ravens Rugby Union Club	200 Lux	0.6	<50
Bridgend Town Football Club	200 Lux	0.6	<50
Outdoor Tennis (3 courts)	300 Lux	0.7	<50
Outdoor Tennis (3 courts)	200 Lux	0.5	<50
Celtic Crusaders (Non-Televised)	200-500 lux	0.7	<50
Celtic Crusaders (Televised)	Max 3000 lux	0.7	<50
Principle Car parks (Park and Ride)	5-10 lux		
Car parks (overflow) and Science Park	1-3 lux		
Access Roads	10-15 lux ave over carriageway		
Building Luminance	5cd/m ²		

2.5 Consideration of Alternatives

2.5.1 Paragraph 4 to Part II of Schedule 4 of the Regulations states that an Environmental

Statement should include:

'An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects'

2.5.2 This section is divided into three parts;

- **Approach** – identifying the method by which the sites will be assessed and the broad site requirements;
- **Sites Assessed** - outlines the sites to be assessed and provides a summary of the key findings; and
- **Conclusions** - an informed set of conclusions, identifying the most suitable site for the form of development outlined within the approach.

Approach

2.5.3 It is important, at the outset, to clarify what type of development is required by reference to its component parts. The chosen site would need to be of sufficient size and of an appropriate configuration to accommodate the above listed broad requirements. These are outlined in paragraph 2.6.1.

2.5.4 To be considered as options with the potential to facilitate the above requirement, sites, would need to be available, suitable, accessible, viable and deliverable.

2.5.5 Availability relates to site ownership (which could be multiple) and whether the site can be secured (within an acceptable timeframe).

2.5.6 Suitable in this instance being defined by:

- Ability to accommodate the type and size of stadia and associated developments required;
- Appropriate planning policy designation; and
- No other adverse factors influencing the site's potential.

2.5.7 Accessibility refers to the opportunity for multi-modal transport options.

2.5.8 Viability is the affordability and financing of the development.

2.5.9 Deliverability relates to securing planning permission, clarification of off-site transport works and if any other consents (e.g. CPO) are required.

Sites Assessed and Summary of Key Findings

2.5.10 The development of modern high quality sports facilities in the Bridgend area has been under consideration in recent years in response to the major changes in the organisation and structure of rugby union, the establishment of a Rugby Super League Franchise and potential

international rugby union training facilities. Within this time period, a number of sites have been considered within the Bridgend area. These include:

- Land at Pencoed College
- Land at Wern Ddu
- Land at Island Farm
- Land at Brackla Industrial Estate

2.5.11 Having identified the above list of sites, dialogue has taken place with BCBC and no additional sites / alternatives were suggested. Furthermore, no other sites were identified through a review of the adopted Unitary Development Plan (UDP) or emerging Local Development Plan (LDP).

2.5.12 All of the above listed sites are within the Unitary Authority of BCBC and can be identified on the location plan detailed within Volume 3, 'Appendices for Chapter 1-4' - Assessment of Alternative Locations.

2.5.13 The appendix also includes a full assessment for each site. These are summarised below:

Land at Pencoed College

2.5.14 The site is too small to accommodate the proposed development, as such it is not considered suitable. In addition, a proportion of the site is within a floodplain which is a major physical constraint to the use of the land for sport fields and built structures.

2.5.15 Further to the physical constraint identified above, the site does not carry any form of policy designation / allocation for development.

2.5.16 The location of the site (approximately 8 km east of Bridgend Town Centre) is highly disadvantageous in terms of accessibility from major settlements and the associated catchments (the site's local population of Pencoed is far lower than those sites situated closer to Bridgend Town Centre). It is considered that, despite the sites proximity to Pencoed railway station, this would be a largely car-borne development.

2.5.17 As such the site is considered to be unsuitable for the development of a sports village which is intended for both private and public use aiming to provide benefits to the wider Bridgend community.

Land at Wern Ddu

2.5.18 The site is considered to be unsuitable by virtue of its size, configuration and topography.

2.5.19 The site is bordered on three sides by a combination of road infrastructure and the River Ogmore watercourse. As a result of which, considering the site's size (approx. 9 ha) and the nature of the A4063 which restricts the net developable area, it would not be possible to deliver the proposed development (including sports village and science park) on the site.

2.5.20 The site is also heavily constrained by the flood plain of the River Ogmore and its development would directly conflict with the sites UDP Policy allocation (Green Belt).

2.5.21 The above site limitations / constraints have, in the past, resulted in a number of unsuccessful

planning applications for development on the site (a number including sports stadia) which consolidate our assessment of the site being an unsuitable option for the proposed development.

Land at Island Farm

- 2.5.22 A significant proportion of the site is allocated within the Bridgend UDP for employment uses which will be provided through the development of the science park and also through elements of the sports village. In addition, a proportion of the site is designated as a sand and gravel resource safeguarding area which, can be incorporated into the proposals (outdoor training pitches).
- 2.5.23 The current site accessibility, given its proximity to Bridgend Town Centre (approx. 1 km), would be further enhanced as part of the proposed development.
- 2.5.24 In addition, the development of the site is viable and deliverable given the commitment of HD Limited, which is demonstrated by the current outline planning application (P/08/1114/OUT) which is with BCBC for consideration.
- 2.5.25 The site is therefore suitable available, accessible, viable and deliverable.

Land at Brackla Industrial Estate

- 2.5.26 The site is unsuitable, unavailable and constrained. The site measures (approx.) 7 hectares and as such would not be capable of accommodating the proposed development especially when considering that site is constrained in terms of the western boundary which is liable to flood events.
- 2.5.27 Furthermore, the Welsh Assembly Government (site owners), have recently put a larger site (including this site) forward, as part of the Local Development Plan process, for residential, retail, commercial and mixed use with no element of sports development. There is also a LDP candidate site representation put forward on the site for a Tesco retail food store and petrol filling station. As such, the site is not available.

Conclusions

- 2.5.28 Having undertaken an assessment of the four potential sites, the following broad conclusions can be drawn with only one site fulfilling the five requirements of availability, suitability, accessibility, viability and deliverability.

Site	Conclusion
Pencoed College	Unsuitable and has accessibility issues
Wern Ddu	Unsuitable and Constrained
Island Farm	Available, Suitable, Accessible, Viable and Deliverable
Brackla Industrial Estate	Unavailable, Unsuitable, Constrained and Undeliverable

- 2.5.29 The land at Island Farm will provide the applicant with an appropriate and suitable site for the development of a sports village and science park which will have considerable social,

economic and community benefits for the County Borough of Bridgend and the region.

- 2.5.30 Accordingly, Site 3 – Island Farm is identified as the only available, suitable and viable site for the proposed development.

2.6 Alternative Design Options

- 2.6.1 A number of design iterations have been explored and discussed in the Design and Access Statement.

- 2.6.2 In terms of design parameters, significant iteration has taken place in response to environmental constraints at the site, and the following assessment chapters describe in detail the mitigation solutions that have been necessary to arrive at the best environmental fit. These include:

- Protection, retention, enhancement and expansion of the SINC and boundary features to mitigate for impacts on bats and dormice
- Making best use of to the topography on site to reduce the perceived scale and mass of large buildings.
- Reducing visual impacts from sensitive landscapes and public rights of way.
- Preserving reserve mineral area in the southern part of the application site.

Do Nothing Approach

- 2.6.3 The 'do nothing' approach is an alternative to the proposed development whereby only the UDP allocated science park is developed. Assessments have shown that the UDP allocation of 30,000m² is unsustainable given the ecological constraints in the north and northwest parts of the application site in BCBC control. An upper limit of 21,000m² is achievable in areas that are less sensitive to dormouse and bats. The access road and junction onto the A48 and Technology Drive would still need to be constructed to the same specification and location as increased traffic generation from B1 uses could not be sustained off Technology Drive. This implies that irrespective of the sports village proposals going ahead, half of the allocated employment area will be lost and would have to be found elsewhere in the borough.
- 2.6.4 Viability and the economic downturn would be a significant disincentive to the science park proceeding in the short to term.
- 2.6.5 Additional sports and leisure development would offer a more diverse range of employment opportunities, aid viability through sharing infrastructure costs and afford the opportunity to replace a large proportion of the office based employment lost in the BCBC land.
- 2.6.6 The arable land is not deemed suitable for growing vegetables or high value food crops and would probably remain as a means of growing animal feed (Volume 3, 'Appendices for Chapter 1-4' – Agricultural Assessment).
- 2.6.7 In May 2003, the First Minister took the decision not to call in the previous planning application at Island Farm after due consideration of all issues and advice from planning officials. Officials recommended calling in the application on the grounds that the proposal would mean the loss of a substantial area of high quality agricultural land. However, their

advice was that the case for call-in was 'finely balanced'.

- 2.6.8 The First Minister took the decision that the loss of agricultural land was not significant in scale for a 'call-in'. It was concluded that while the quality of agricultural land on to the south of the site is good, it is not of the highest grades – with less than a quarter of the land take being Grade 2 or above with the remainder Grade 3A.