

10 LANDSCAPE AND VISUAL

10.1 Introduction

10.1.1 This chapter has been prepared by Davies Landscape Architects Ltd (DLA) and considers the effects of the proposed development upon the landscape and views of the site and its surroundings.

Scope

10.1.2 The scope of this landscape and visual assessment has been led by consultation with the Council and its primary objectives are to evaluate:

- The existing landscape and views of the site and surroundings.
- The adverse and beneficial effects of the proposals on landscape elements its character and views during the construction, occupation and management of the proposed development.
- The mitigation measures employed to reduce, remove or avoid significant landscape and visual effects.
- The appropriate compensatory measures being provided for effects that cannot be effectively removed or that will enhance the application site beyond its existing condition.
- The residual effects of the development proposals.

10.1.3 This chapter has been set out as follows:

- A description of relevant landscape related policies.
- An overview of the methodology used.
- A description of the existing baseline to include: the landscape elements of the site; the local context and character and views into and out of the site from key vantage points.
- A description of the likely effects of the proposals on: landscape elements/features; character of the site and wider area; views into and out of the site from the principal viewpoints.
- A description of the mitigation measures that should be employed to: avoid, reduce or remove significant adverse impacts; the residual effects that will remain and measures that are being provided in compensation.
- A summary

10.2 Planning Policy

10.2.1 This section has been structured to provide an overview of national, regional and local landscape policy considered relevant to the location and nature of the proposed development. A fuller assessment of the policy implications is included in Chapter 3.

National Policy

10.2.2 The key principle underpinning national planning policy is to provide sustainable development ensuring an integrated approach to the consideration of:

- Social inclusion, recognising the needs of everyone
- Effective protection and enhancement of the environment
- Prudent use of natural resources

10.2.3 Planning Policy Wales (2002) sets out the objectives of the Welsh Assembly Government supported by a series of Technical Advice Notes (TAN's). Of particular landscape relevance are:

Technical Advice Note (TAN) 12: Design (2002)

10.2.4 Provides advice on:

- Definition of design
- Design process
- Local planning authority design policy and advice
- Design issues by topic with particular relevance to inclusive design, transport and movement, landscape, biodiversity, public realm, the historic environment, employment and commercial areas and development within rural areas, design and public safety (there are additional options)

Technical Advice Note (TAN 15) Development and Flood

- Recognises the expected increase in flood risk due to climate change and amongst a number of recommended measures, advocates greater use of SuDS (Sustainable Drainage Systems).

Regional and Strategic Policy

Mid Glamorgan (Rhondda Cynon Taff County Borough) Replacement Structure Plan 1991 - 2006

10.2.5 This plan was superseded by the Bridgend Unitary Development Plan (UDP) following the local government re-organisation in 1996

The Clean Neighbourhoods and Environment Act 2005 (Commencement No.1 and Savings) (Wales) Order 2006

10.2.6 This statute gives Local Authorities and the Environment Agency additional powers to deal with a wide range of issues by classifying light pollution as a statutory nuisance. The CNEA 2005 amends section 79 of the Environmental Protection Act 1990 (Ref. 2) to extend the

- statutory nuisance regime to include light pollution and the impacts from artificial lighting
- 10.2.7 Guidance produced on Sections 101 to 103 of the CNEA 2005 extends the duty on local authorities to ensure their areas are checked periodically for existing and potential sources of statutory nuisances including nuisances arising from artificial lighting.
- 10.2.8 It is anticipated that the following sources will generate the most complaints to local authorities:
- Domestic security lights;
 - Commercial security lights;
 - Healthy living and sports facilities e.g. floodlit sports facilities;
 - Domestic decorative lighting;
 - Exterior lighting of buildings and decorative lighting of landscapes; and
 - Laser shows / sky beams / light art.
- 10.2.9 The Plan advises that artificial lighting schemes should use the minimum amount of lighting necessary for working or security purposes. The lighting should be designed to minimise light pollution from glare, scatter and spillage through the control of light direction and intensity. The Council will also take account of the aesthetic effect of the light produced and the daytime appearance of light fittings and cabling. Of the above item 4 & 6 are most relevant but street light and stadia glare will have implications on sensitive ecological nocturnal receptors such as bats and dormice.

Regional and Local Policy

Bridgend Unitary Development Plan – adopted May 2005

- 10.2.10 On the 12th May 2005, the Council adopted its UDP. However, a change in Government legislation means that the Council now has to begin work on the preparation of a Local Development Plan (LDP) for the area. Once adopted, the LDP will supersede the UDP. This had not occurred at the time of this assessment.

Part 1

- 10.2.11 Part 1 of the plan consists of a very brief statement of the strategic policies for the area. These policies provide a context and framework for the more detailed policies and proposals contained in Part 2. For the purposes of this assessment the detailed policies have been summarized only.

Part 2

POLICY EV1

- 10.2.12 Defines the parameters of permitted development in the countryside outside the settlement boundaries identified within the plan. The sports village located outside the UDP employment allocation meets the tests of a leisure and recreation scheme and can be considered as an exception. The justifications for this development are further considered in the planning chapter 3 and planning support statement.

POLICY EV7

- 10.2.13 Development in the countryside must be in scale and compatible with the existing landscape and protect and where possible enhance the quality of the environment and biodiversity.

POLICY EV9

- 10.2.14 Development will not be permitted if it will adversely affect or be visually intrusive on the Glamorgan Heritage Coast.

POLICY EV20

- 10.2.15 Development proposals should retain, translocate or replace appropriate existing natural features and habitats, including:

- Protection of features during construction.
- Incorporate native vegetation and planting schemes where appropriate.
- Provide proper surface water drainage by maximising the possible areas of permeable ground surface (
- Avoid or mitigate potential impacts to adjacent habitat resources as well as migratory species which can be demonstrated to have used the site.

- 10.2.16 Conservation and future management of the retained habitats, including compensatory and mitigation measures, will be attained through appropriate planning conditions.

POLICY EV23

- 10.2.17 Proposals that include the management of the countryside and encourage rural recreation initiatives will be favoured.

POLICY EV29

- 10.2.18 External lighting will only be permitted where it is an essential requirement and kept to the minimum requirement. The lighting must not compromise pedestrian/highway safety and cause no unacceptable effects upon local residents, visual character and sites or species of importance or conservation.

POLICY EV31

- 10.2.19 Favours schemes which conserve and enhance the local distinctiveness.

POLICY EV42

- 10.2.20 Development that would adversely affect an historic park or garden or historic landscape will not be permitted.

POLICY EV45

- 10.2.21 New development which achieves the following good standards of design will be permitted:

- Have a consistent style or character which is both in scale and respects the context of the development.
- Incorporates important existing local features, including topography, biodiversity and structures
- Protects the residential amenity of neighbours
- Provide a sustainable, safe, user friendly site with adequate amenities and disabled access.
- Use sustainable methods of construction, materials, energy conservation and water management where compatible

POLICY RC1

- Proposals for indoor sport, recreation and leisure facilities will be permitted if the development is sympathetically set within the landscape in terms of siting, scale, design and landscape and shall not detract from existing local amenities.

POLICY RC12

- Cycle routes will be encouraged where feasible between Bridgend and the Vale of Glamorgan.

10.2.22 Due to the proximity of the site to the Vale of Glamorgan relevant landscape policies from the Vale of Glamorgan UDP are also considered.

Vale of Glamorgan UDP 1996-2011

EN4 – Special Landscape Areas (SLA's)

10.2.23 New development within or closely related to the SLA's will not be permitted if it adversely affects the landscape character, features or visual amenities of the SLA.

POLICY EV29

10.2.24 External lighting will only be permitted where it is an essential requirement and kept to the minimum requirement. The lighting must not compromise pedestrian/highway safety and cause no unacceptable effects upon local residents, visual character and sites or species of importance or conservation.

Guidance

BS 5489 (2003) Code of Practice for the Design of Road Lighting

10.2.25 Gives recommendations on the general principles of road lighting, gives recommendations on aesthetic and technical aspects, and advises on statutory provisions, operation and maintenance.

BS EN 12193: 2007 Light and lighting – Sports lighting

10.2.26 This is the European standard that deals with sports lighting to ensure good visual conditions for players, athletes, referees, spectators and CTV transmission.

10.2.27 According to the BSI, BS EN 12193's objective is to provide recommendations and specify requirements for good quality sports lighting by:

- Optimising the perception of visual information used during sports events
- Maintaining the level of visual performance
- Providing acceptable visual comfort
- Restricting obtrusive light.

10.2.28 BS EN 12193 specifies lighting for indoor and outdoor sports events most practised in Europe. It provides lighting values for the design and control of sports lighting installations in terms of illuminances, uniformity, glare restriction and colour properties of the light sources.

10.2.29 All requirements are meant to be as minimum requirements. It also gives methods by which these values are measured. For the limitation of glare, it also points out restrictions on the location of the luminaires for specific application the 'Institute of Lighting Engineers (ILE) (2005) Guidance Notes for the Reduction of Obtrusive Light'

Institute of Lighting Engineers- Guidance Notes For The Reduction Of Obtrusive Light (2005)

10.2.30 The (ILE) has proposed lighting guidance and criteria for local authorities with a recommendation that they are incorporated at the Local Plan level. The guidance defines various forms of light pollution and describes a series of environmental zones. The ILE Guidance Notes provide suitable criteria against which the effects of artificial lighting can be assessed. The full document is to be found at Appendix 10.4. The guidance provides the following environmental zone criteria:

- E1: Intrinsically dark landscapes - National Parks, Areas of Outstanding Natural Beauty, etc
- E2: Low district brightness areas- Rural, small village, or relatively dark urban locations
- E3: Medium district brightness areas - Small town centres or urban locations
- E4: High district brightness areas - Town/city centres with high levels of night time activity

10.2.31 Island Farm has been classified as Zone E2 in the assessment.

Table 10.1 Obtrusive Light Limitations for Exterior Lighting Installations

Environmental Zone	Sky Glow ULR [Max %] (1)	Light Trespass (into Windows) Ev [Lux] (2)		Source Intensity I [kcd] (3)		Building Luminance Pre Curfew
		Pre curfew	Post Curfew	Pre curfew	Post Curfew	
						Average, L [cd/m ²]
E1	0	2	1*	2.5	0	0
E2	2.5	5	1	7.5	0.5	5
E3	5	10	2	10	1	10
E4	15	25	5	25	2.5	25

ULR = Upward Light Ratio of the Installation is the maximum permitted percentage of luminaire flux for the total installation that goes directly into the sky.

Ev = Vertical Illuminance in Lux and is measured flat on the glazing at the centre of the window

I = Light Intensity in Cd

L = Luminance in Cd/m²

Curfew = The time after which stricter requirements (for the control of obtrusive light) will apply; often a condition of use of lighting applied by the local planning authority. If not otherwise stated 23.00hrs is suggested.

* = From public road lighting installations only.

Supplementary Planning Guidance

10.2.32 The following documents have been produced by BCBC and have been used as reference for the development of the landscape strategy:

- SPG 07 - Trees and Development, adopted January 2008
- SPG 12 - Climate Neutral Development, adopted January 2008

10.3 Methodology

Introduction

10.3.1 While intrinsically linked, landscape and visual impact assessments (LVIA) are essentially separate procedures. It is often the case that an impact on one will often give rise or be related to an effect on the other. The assessment process relies upon combination of objective and subjective judgement through evaluating quantitative and qualitative data and it is fundamental to the creditability of the work therefore that a structured consistent and recognised approach is used.

10.3.2 The assessment has been undertaken by fully qualified, trained and experienced landscape

professionals using techniques and best practice guidance in accordance with relevant Institute guidelines set out within 'Guidelines for landscape and Visual Assessment' - Landscape Institute & the Institute of Environmental Management and Assessment, 1995 & 2002; Design Manual for Roads and Bridges, Volume 11. Environmental Assessment, (2000), DETR and Landscape Assessment Guidance, (1993), Countryside Commission.

- 10.3.3 The assessment evaluates the significance of landscape and visual impacts, by assessing the sensitivity of the existing baseline landscape and visual resources of the application site and wider area and the magnitude of the change that would occur to the site and surroundings during the various phases of the development. A full methodology and definition of terms is available in Appendix 10.1.
- 10.3.4 The potential impacts upon the historic landscape, the setting of Scheduled Ancient Monuments and Listed buildings, Historic Parks and Gardens are considered in detail in Chapter 8 – Archaeology and Historic Landscape with informed advice on magnitude of impacts from this chapter and an ASIDOHL 2 Assessment
- 10.3.5 A BS5837 Pre-Planning Tree Survey, Constraints Plan and Arboricultural Implications Assessment (AIA) were carried out to inform the design and this chapter. A full copy of the Tree survey and AIA can be found in Appendix 10.2 & 10.3.
- 10.3.6 For the purposes of Landscape Character Assessment reference and guidance has been taken from LANDMAP and CADW – Historic Landscape Character Assessments (HLCA's).

Assumptions

- 10.3.7 For the purposes of this assessment the parameter plans as outlined in Chapter 2 have been used to provide a 'worst case' scenario.
- 10.3.8 In addition, a separate assessment has been made, based on the illustrative masterplan, which given all the current known opportunities and constraints is considered the 'best environmental fit' set within the Development and Landscape Framework Plan and includes the high quality detailing and landscape that would be a pre-requisite of development in this location. The development schedule, floor areas and building heights for the illustrative masterplan is described in Chapter 2 - Table 2.1 and 2.2

10.4 Baseline Data and Assessment

- 10.4.1 In this section the character of the wider landscape and landuses is described followed by the site, its features and character.
- 10.4.2 A detailed baseline assessment was undertaken for existing lighting levels as the majority of the site is not lit and essentially unaffected by lighting. The exception is adjacent to the existing A48 road corridor which is illuminated by street lighting and some limited glow adjacent to existing dwellings and science park. The site is set on the edge of the urban context of Bridgend and would experience background glow.

Baseline

Landscape Character (Figure 26 Landscape Character)

- 10.4.3 Landscape character is defined as the distinct pattern or combination of elements that occurs consistently in a particular landscape and makes it different and unique from one place to another. It is how we perceive the interaction of a number of aspects recognised as the earth sciences, historical and cultural influences, biodiversity, visual and sensory qualities, which all combine to create local distinctiveness and a sense of place. Character Assessment can be undertaken at a number of scales from national level through to local or site level.
- 10.4.4 In recent years most planning authorities have adopted either a regional or district wide assessment as supplementary planning guidance and many have commissioned assessments at a district level.

LANDMAP

- 10.4.5 The LANDMAP assessment identifies the site as lying in two distinct areas of visual and sensory quality.

CYNONVS828 – Between Bridgend & Merthyr Mawr - open rolling lowland

- 10.4.6 This area encompasses the southern aspect of the site and a wide band that bounds the southwest urban area of Bridgend and includes Merthyr Mawr but not the Ogmores Downs. The assessment summarises the area as being gently undulating land containing a mosaic of field patterns, scattered rural development and farmsteads.
- 10.4.7 The area does not have a special or functional link with adjacent areas.
- 10.4.8 The landscape gently slopes down to the river Ogmores in the southeast. The area around the Ogmores River forms part of the flood plain but this lies outside of the application boundary.
- 10.4.9 Within the aspect area there are detractive views towards Bridgend in the northeast, and attractive views southwards over the River Ogmores valley and towards the dunes of Merthyr Mawr Warren to the southeast.
- 10.4.10 The landscape has a feeling of openness with regular patterns and muted colours. There is not a significant seasonal change. The sense of place and local distinctiveness is stronger around the Ogmores River areas to the south of the application site, and less so within the application site, towards the urban edge of Bridgend.
- 10.4.11 There is currently slight/low night time pollution within the aspect areas which is slightly higher towards the A48 corridor and Lalestone- 2.4km to the northwest of the application site.
- 10.4.12 The overall value of this aspect area is moderate, with moderate scenic quality, integrity, character value and rarity, There are no key qualities identified for conservation, enhancement or change.
- 10.4.13 The condition of the area is classified as fair due to the poor management particularly around the agricultural land and woodland areas. The long term management recommendations look to preserve and enhance the hedgerows and small woodlands within these areas.

CYNONVS726 – Bridgend - urban

- 10.4.14 This aspect area covers the northern half of the application site with the majority lying in the urban conurbation of Bridgend.
- 10.4.15 The area is dominated by housing, industry and major road and rail corridors. This has resulted in a mixture of boundary types treatments around medium scaled development which creates a sense of enclosure and limits views out. Views within the area are generally unattractive.
- 10.4.16 The area is evaluated as having low scenic quality, integrity, character value and rarity providing an overall evaluation as low. There are no key qualities available for consideration for conservation, enhancement or change.
- 10.4.17 The condition of the area is un-assessed.

Landscape Habitats

CYNONLH044 –

- 10.4.18 This area contains a wide band of landscape that lies between the A48 and the Ewenny River to the south. The application site is classified as Dry Terrestrial Habitats, Grassland & marsh and Improved Grassland. The value of the area is classified as Moderate however this predominately relates to the hedgerows and small woodland and the floodplain grazing marsh (BAP Habitat) that lies outside the application site. The existing grassland within the application site is of low value.
- 10.4.19 Significance is identified as low as it is a common habitat, which is currently managed by stock grazing. This grazing may potentially be reducing the ecological habitat. Recommendations for the improvement of the habitat include allowing areas of arable to become set-aside and encouraging schemes such as Tir Gofal.

Cultural Landscape

CYNONCL021 Vale of Glamorgan rural landscape

- 10.4.20 This area covers a wide band to the east and southwest, west of Bridgend. It does not include Merthyr Mawr or south of the Ewenny River. The overall classification is high as the cultural influence has evolved from a historic landscape that contains a wide diversity of human cultural activity. These activities are deemed to be vulnerable to over-development.
- 10.4.21 The site could also have some influence on adjacent aspect areas. The most sensitive in terms of scenic quality and character is Ogmere and Castle Downs Aspect Area which has an overall outstanding evaluation based on outstanding views, rugged topography and wild landscape.

Historic Landscape Classification

- 10.4.22 Archaeology and The Historic Landscape are discussed in Chapter 8. However for the purposes of this assessment reference has been made to the GGAT Historic Landscape Character Area classification, which provides a further in-depth valuation of important historic landscapes within the area. The classification has been undertaken as part of an ongoing

pan-Wales project sponsored by Cadw: Welsh Historic Monuments and the Countryside Council for Wales (CCW).

10.4.23 The site lies in HLCA 017 Ochr Draw and Island Farm and a summary of the landscape characteristics are:

- Post medieval agricultural landscape which has evolved into regular medium to large fields
- Distinctive boundaries
- Dispersed settlement pattern of isolated farms/cottages
- Route of roman road between Caerleon-Loughor (discussed in Chapter 8 Archaeology and Historic Landscape)
- Former Vale of Glamorgan Railway to the east.

10.4.24 The site borders further Historic Landscape Character Areas – HCLA 018 ,Ogwr. To the southwest and northwest which covers the River Ogmore. HLCA-012, Merthyr Mawr (designated Historic Parks and Gardens and essential setting within UDP see Figure 11 Planning Policy) lies nearby to the southwest.

Topography (Fig 27 Topography)

10.4.25 The site lies along the southwest slopes of a shallow ridge which flattens towards the Ogmore River to the west and Ewenny River to the east.

10.4.26 The River Ogmore flows south through the town centre of Bridgend towards the site, before turning southwest parallel to the northwest boundary (approximately 400m) and onto the Glamorgan coast and Bristol Channel 4.5km to the southwest. The River Ewenny runs from the east following the A48 corridor approximately 500m to the southeast/south. It then merges with the River Ogmore, 2km to the southwest.

10.4.27 Merthyr Mawr Road bordering the west boundary of the application site is located on the edge of a conspicuous steep sided slope at the edge of the valley.

10.4.28 To the north, the Ogmore valley forms a narrow level basin that runs through the centre of Bridgend, with the majority of the river valley being located to the east side of the river. The land gently rises to a series of low hillocks. The nearest, Brackla Hill, lies on the eastern boundary of Bridgend (approximately 88m AOD). The slopes to the west of the river rise steeply towards Ystrad Far (approx 73m AOD), before continuing to rise and fall in a series of north/south ridgelines. Bryntirion, the western boundary of Bridgend reaches approximately 80m AOD.

10.4.29 The ground continues to rise towards the foothills of a mountain range (Mynydd Bach, Llangeinwyr and Maesteg 450-530m AOD) approximately 9km north of Bridgend and stretches across the horizon forming a dominant landscape feature and backdrop to northerly views.

10.4.30 To the east of the site the Ewenny River valley continues in a wide basin gradually rising from 10m AOD, 500m east and southeast of the site to 17m AOD at the Waterton Industrial Estate, 2.5km east.

10.4.31 To the south of the site the topography is characterised by an northeast x southwest undulating escarpment that steeply rises from the Ewenny and Ogmore river valleys towards Ogmore, Ewenny, Old Castle, Tir-Croes and Beacons Downs (approximately 90-100m AOD), 2-3km from the application site. A tributary of the River, Ewenny, the River Alun, has created a steep south running valley between Ogmore and Old Castle Down 1km from the southern point of the site and is an active mineral extraction area.

Site Topography

10.4.32 The site is characterised by a gentle east to west ridge that flattens out towards the northwest and south boundaries. The highest part of the ridge lies adjacent to the Bridgend Science Park at approximately 31-32.5m AOD. From the highest point, the topography gently slopes north towards the A48 (17.5m in the northwest and 21.30m in the north); southeast towards New Inn Road and railway line (16.8m AOD); southwest towards New Inn Road and Merthyr Mawr Road junction (17.8m AOD). The north east boundary adjacent to housing off Island Farm Road ranges from 25.0-26.0m AOD. The topography sharply falls by 3-6m within three swallow holes or Karst features located in the middle and southwest of the application site.

Geology

10.4.33 The site is set within a series of mature, meandering valleys with extensive development of glacial sand and gravel deposits which overlays carboniferous coal measures. The area forms part of an active lowland river flood plain system

10.4.34 The geology, soil types and their effect on landuse are discussed in detail in Chapter 7 Geotechnical and Geo-environmental Issues.

Landuse, Settlements and Built Development (Figure 4 Site Context)

10.4.35 The key settlements in relation to the site are:

- Bridgend, a large town centred upon the River Ogwr. The southern urban edge, Whiterock, is located immediately north of the A48.
- Ewenny, a small ribbon settlement, is located 500m to the southeast, south of the river Ewenny and is located at the junction of the B4524 and B4265.
- Corntown, also a ribbon village continues east from Ewenny along the A4524, 1.4km east/southeast of the site.
- Lalestone is a more nucleated small settlement located about 700m towards the east of Bridgend approximately 2.3km from the site.

To the north

10.4.36 The majority of urban development in the southwest fringes of Bridgend is located to the north of the A48. The exception is of housing and commercial development off Island Farm Road and Ewenny Road.

To the east

- 10.4.37 The northeast site boundary abuts the Bridgend Science Park, a large business park set within a mature treed landscape. The site is accessed from Technology Drive which egresses onto the B4265 Ewenny Road.
- 10.4.38 A nursing home borders the east boundary with a pocket of residential dwellings and a hotel lying off the Ewenny Road. These are within the settlement boundary of Bridgend that is demarcated by the railway line.
- 10.4.39 The Railway line lies in cutting along the south-eastern boundary of the site and is bordered on either side by mature trees and scrub. A small cluster of residential buildings, Claypits Pottery and a caravan park lie in Green Wedge to the east of the railway line within a 1km radius of the site.

To the south

- 10.4.40 The landscape to the south of the site is predominately in arable landuse interspersed by occasional farmsteads, small settlements and detached dwellings in the river valley floors and lower slopes of the wooded escarpment.
- 10.4.41 Ogmore Down and Old Castle Down are characterised by a mix of active and disused quarries, golf course and grazing on the poorer more exposed elevated soils and slopes. Development is much more sparse as far as the coast and predominantly comprised of nucleated farmsteads.
- 10.4.42 St Brides Major is the only significant settlement between the site and coast located 3km from the site.

To the west

- 10.4.43 Landuse to the west is dominated by arable farming in small fields bounded by hedgerows and interspersed by woodland. Merthyr Mawr is a small hamlet located 1.2km to the southwest. The east urban fringes of Porthcawl lie 5.5km to the west.

Roads and transport

- 10.4.44 The main transport routes in the area are:
- The A48, By Pass Road, which forms the northern boundary of the site.
 - The B4265, Ewenny Road runs to the east of the site from the A48 through Ewenny continuing southward, and provides access to the Bridgend Science Park, via Technology Drive but does not adjoin the application site.
 - Junctions 34 & 35 of the M4 corridor lie 6km and 4.2km to the east and north of the site respectively

10.4.45 Other more minor transport corridors occur at:

- New Inn Road, which forms the southern boundary of the application site.
- The B4524, Ogmore Road, which runs along the River Ewenny valley from the junction with the B4265 to Ogmore-by-Sea.
- Merthyr Mawr Road, which adjoins the western boundary to the site, and provides restricted access from the A48 south to New Inn Road.

Public Rights of Way (PRoW) (Figure 28 Landscape Designations)

10.4.46 For the purposes this assessment PRoW lying within the predicted visual envelope were assessed.

10.4.47 There are no PRoW crossing the site.

To The North

10.4.48 To the northwest, Footpaths FP1LAL and FP8BGND, run from the urban conurbation following the Ogmore river banks to the north of the A48, where they terminate and continue to the south of the highway as FP11MM and FP12MM. The east bank path has been diverted through an underpass to avoid crossing this busy road. Immediately to the north of the application site and A48, footpath FP9BGND is a short route that runs between Bryn-Teg School and residential development off Merthyr Mawr Road.

10.4.49 There are a number of paths that lie around the southern margins of Laleston (3, 3A, 4, 5, 5A, LAL) and terminate at the A48.

To The West

10.4.50 Approximately 500m to the west, Footpaths FP11MM and FP12MM terminate at New Inn Road at the Ogmore river bridge crossing. FP10MM continues southwest from New Inn Road at Craig-y-Parcau towards a network of paths (FP7MM, FP9MM, FP6MM, FP5MM FP4MM, FP3MM) north of Merthyr Mawr Warren.

10.4.51 Footpath FP13MM starts at the cross roads of New Inn Road and Merthyr Mawr Road and heads southwest across grazing and arable fields towards the Ewenny River.

To The East

10.4.52 A number of footpaths lie within Green Wedge between the A48, Ewenny and Corntown but stop nearly 1km from the site.

To The South

10.4.53 Other than FP13MM, there are no other definitive public rights of way to the south within a 1km radius. A number of footpaths and bridleways criss-cross the Downs, the nearest of which are Bridleways 32, 23, 2, 22, 13 and Footpath 22A on the north eastern fringes of Southerndown Golf Club in the parish of St Brides Major (approximately 1.6km from the site).

Bridleways 6, 7 and Footpaths 8, 9A, 11 & 14B lie 2-2.5km southeast of the application site in the parish of Ewenny.

Statutory Designations (Figure 28 Landscape Designations)

- 10.4.54 The northern half of the site is currently designated for B1 office employment whilst the south is 'white land' or open countryside.
- 10.4.55 The application site adjoins a Landscape Conservation Area (EV10 (2)) on its south and west boundaries.
- 10.4.56 To the west, Merthyr Mawr, Merthyr Mawr Warren and adjoining farmland north of the River Ogmore lie within a Historic Landscape (EV42B).
- 10.4.57 A Special Area of Conservation (SAC) (EV18(A)) lies to the south of the Ewenny and Ogmore rivers.
- 10.4.58 To the east, a Green Wedge (EV11) lies between the River Ewenny and railway line.
- 10.4.59 Merthyr Mawr House Grade II Listed, is on the Cadw register of Historic Parks and Gardens (EV42(A)) and its 'Essential Setting'(EV42(A)) lies south of New Inn Road near the southwest boundary of the application site.
- 10.4.60 Playing fields (RC(6)) and a Nature Reserve (EV(19)) lie to the north of the A48 adjacent to Newbridge Farm.
- 10.4.61 A Special Landscape Area lies 500m to the south, in the neighbouring authority of the Vale of Glamorgan, and covers the slopes and plateaux of Ogmore and Old Castle Downs (ENV4).
- 10.4.62 The Ogmore valley and adjacent slopes between Ogmore Moor and Ogmore by Sea are protected by The Glamorgan Heritage Coast (ENV6)

Assessment

Site Features (Figure 29 Site Features)

- 10.4.63 This section has been informed by detailed ecological surveys and a BS5837 pre-planning tree survey, and are described with respect to their quality and condition and the contribution they make to the site character and its surrounding. Fully detailed feature descriptions are found in the ecology and tree survey appendices in Volume 3, Appendices for Chapter 9 and 10.

Hedgerows

- 10.4.64 The hedgerows within the application site have been assessed against the Hedgerow Regulations 1997, as part of the ecological assessment (Appendix 9.2).
- 10.4.65 Generally, hedgerows are well represented within the site and it is estimated that there is over 7.0km of hedgerows present. Most true hedgerows lie to south in the arable land whereas those to the north have merged with scrub or are unmanaged and form tree lines. Most hedges within and around the arable fields are regularly managed ranging in height from 2-4m and are in moderate to good condition and quality.

- 10.4.66 The most predominant small tree/shrub species within the hedges are Blackthorn (*Prunus spinosa*), Hawthorn (*Crataegus monogyna*) and Hazel (*Corylus avellana*). The less frequent species included Elder (*Sambucus nigra*), Rose (*Rosa sp.*), Holly (*Ilex aquifolium*), Dogwood (*Cornus sanguinea*), Western Gorse (*Ulex gallii*) and Crab apple (*Malus sylvestris*). Ivy, bramble and honeysuckle were also present.
- 10.4.67 The majority of hedgerow trees have been restricted in height with the exception of occasional isolated specimens. Species consists of predominately Ash (*Fraxinus excelsior*), and Elm (*Ulmus sp.*) with smaller numbers of Oak (*Quercus robur*) and Field Maple (*Acer campestre*). Veteran/mature Oak and Ash are present within hedgerows 16 & 17 (adjacent to the Merthyr Mawr/New Inn Road junction in the southwest).
- 10.4.68 Within the assessment four hedgerows were identified as 'Important' under the hedgerow regulations. These are 16, 17 and 22 along the western boundary and 27 within the centre of the site. These, along with a section of 25 and 32 (to the centre-east of the site) were also identified as species rich according to BAP definitions.
- 10.4.69 Hedgerows 1, 3 and 13 on the south boundary and 15 near the southwest boundary were considered within the assessment as 'Nearly Important' within the regulation due to the number of species present.

Trees

- 10.4.70 The majority of tree cover lies in the northern half of the application site and comprises mature and middle aged scrub and woodland at approximately 6-12m height. Species are a mix of predominantly native oak and ash with an understorey of hazel, elm, hawthorn, blackthorn, goat willow silver birch and sycamore. Occasional non-natives include Purple Beech and Monterey cypress.
- 10.4.71 To the south, most trees lie within hedges towards the southwest comprising mature oak with occasional lime ash and sycamore (12-16m height). A group of oak and ash (G45) with hawthorn, blackthorn and hazel understorey lie in the largest swallow hole near the centre of the site and are up to 15m height.
- 10.4.72 Groups of sycamore sweet chestnut, pine beech, willow and Wych elm (8-12m height) lie on the northeast boundary with the science park.

Quality

- 10.4.73 The trees within the site vary in quality and condition. The highest Category A specimens are mostly found near the northwest and southwest of the application site and hedgerow bordering the Merthyr Mawr Estate owned land. Category B trees are found mainly across the north and west boundaries towards the centre of the site with isolated specimens in swallow holes. There is a number of lower quality trees interspersed in large groups to the north.

Site Boundaries

- 10.4.74 The most northern boundary with the A48 comprises a linear belt of middle aged trees and scrubby woodland. Individual trees are of low quality but provide structure and scale along the A48 corridor and cumulatively are a characteristic feature of it.
- 10.4.75 The west boundary with Merthyr Mawr road is defined by an untrimmed hedge on a bank interspersed by mature trees.

- 10.4.76 The south boundary is a predominantly treeless trimmed hedgerow, with occasional gaps for gated field entrances.
- 10.4.77 The east boundary between the science park and New Inn Road comprises trimmed hedges as well as wire fences, gorse and scrub adjacent to the railway line.
- 10.4.78 The boundary with the science park is defined by fence lines with scrub and bramble with occasional tree groups.
- 10.4.79 The boundary with housing at Island Farm Road is defined by garden hedges and fences. A boundary wall borders the Merthyr Mawr Estate land further north before giving way to taller woodland species and a leylandii hedgerow alongside a track near the A48.

Site Character

- 10.4.80 The site shares many of the typical urban fringe landscape characteristics surrounding the southeast of Bridgend and can be further sub-divided into two character areas:
- Heavily wooded disturbed land to the north.
 - More open arable fields on gently sloping land contained within managed hedges to the south.
- 10.4.81 Land to the north is strongly influenced by the A48 transport corridor which provides a constant audible presence. Views within this area from the A48 towards the site are truncated by tall vegetation and there is no opportunity for long southerly views even in winter. Scrub is encroaching across most of the site and has a sense of abandonment and dereliction as opposed to the more managed agricultural landscape to the south and west. LANDMAP defines this area as having low overall visual sensory quality.
- 10.4.82 To the south, the hedgerows, working in combination with the sloping topography, provide some sense of enclosure within the arable fields but the land is more open than the area to the north save for groups of trees within and around Karst features. This area affords some long attractive southerly views looking towards the Downs and wooded slopes, particularly from more elevated ground towards the northeast of the application site.
- 10.4.83 Looking north from this location one observes glimpses of house rooftops at Bridgend and Laleston and closer views of houses located off Island Farm Road. The area is managed and has similar characteristics to the other the agricultural land uses in the area. However, the site feels more isolated due to the enclosure formed by the roads, railway lines, science park and housing around its boundaries.
- 10.4.84 The tall pylon towers and overhead power lines are a significant detractor in views looking from within and outside the site. LANDMAP defines this area as having moderate overall visual sensory quality but views are detracted when looking towards it from the south.

Wider setting

- 10.4.85 The wider setting and views into the site are greatly influenced by landform as well as vegetation.
- 10.4.86 To the south the land quickly rises from the River Ogmore and Ewenny valley floors towards

The Downs giving rise to steep sided north facing wooded slopes and open plateaux which afford potential for panoramic viewpoints up to 360 degrees in some cases.

- 10.4.87 The Ogmore river valley provides an attractive landscape setting enhanced by features such as Ogmore Castle and the scenic hamlet of Merthyr Mawr. The extractive industries have scarred much of the valley towards St Brides Major but the influence of the quarries is to some degree contained by the surrounding woodland and landform.
- 10.4.88 To the west the land rises less steeply but is interspersed by numerous copses and coniferous woodland around Merthyr Mawr. The sand dunes at Merthyr Mawr Warren are a conspicuous and unique feature in the area but its associated undulating dunes, woodland and scrub, some of it evergreen, afford less opportunity for longer panoramic views than the Downs.
- 10.4.89 Land to the east is generally flat and dominated by the numerous industrial parks adjacent to the A48 corridor as far as the M4 motorway. Land lying in the Ewenny river valley north of Corntown is relatively undeveloped and influenced by strong woodland around Ewenny Priory which truncates views from this area towards the site and provides strong enclosure.
- 10.4.90 Land to the north is represented by the urban conurbation of Bridgend and is predominantly detached and semi-detached dwellings and schools in close proximity to the site.

Visual

Distant views from the wider setting

- 10.4.91 Locations of receptors and the Principal Representative Viewpoints (PRVs) are shown on Figure 30 - Visual Analysis and in Volume 2 Principal Representative Viewpoints
- 10.4.92 PRV's are typical or representative of a given area within and around the application site from the various receptor groups. These have been identified through both desk study and a number of field visits carried out across the seasons from December 2008 to August 2009. Where feasible, a photograph has been taken to record the view from the location itself. Where this is not possible, for instance when views are from private dwellings, photos are taken from vantage points within the site to gauge whether a view is possible or not. The view will normally be taken at a lower level than a proposed building and professional judgement and experience is used to determine whether cross-sectional analysis is needed to back up any assumptions being made in this way.

Views from the South

- 10.4.93 Residents at Corntown and Ewenny are located at approximately the same elevations as the application site and look across the Ewenny valley towards the site. Views are influenced by intervening tree belts, other dwellings and garden vegetation in the near foreground. These elements combine to filter and block the majority of views from houses and gardens even in the winter scene. **PRV's 01-04** show that some properties and footpaths situated at higher elevations off Wick Lane and Stow Road have potential for broken and open views towards the site from ground and upper floors.
- 10.4.94 Isolated dwellings such as Beech Court Farm and Corntown Farm and footpaths 11 & 14b located on even higher ground have similar potential for views of the site but partially broken by foreground vegetation groups as **PRV 04**. **PRV 02** taken from the war memorial at Wick

Lane has been chosen as one of the locations for a computer based accurate visual representation attached in Volume 2 – Accurate Representative Viewpoints.

- 10.4.95 Views from Ewenny are framed between houses and vegetation with detractors such as power lines in the near foreground especially from receptors near the post office off Wick Road. The site is viewed rising over the railway embankment below the landscape and urban backdrop of Bridgend is clearly visible. The mountain ranges provide an attractive landscape backdrop and strong sense of scale.
- 10.4.96 The railway embankment and associated vegetation block views from nearby residences at Ochr Draw Farm and Ewenny Court.
- 10.4.97 Some north facing properties at Kingswood Close and Manor Court, located off St Brides Road, have potential for broken views from upper floor windows looking over foreground vegetation towards the more elevated northeast and southeast parts of the site. These are demonstrated in **PRV 5** looking out of the site towards Castle Down during the winter months. The same view is heavily filtered in the summer months when in full leaf cover and hedges are untrimmed.
- 10.4.98 There are only a few detached dwellings located off the Ogmores Road and it is predicted that most views would be blocked by mature garden vegetation in the foreground adjacent to Ogmores Road and Ewenny valley.
- 10.4.99 Broken views are available from the northernmost ramparts of Ogmores Castle (SAM) as **PRV 6** where the majority of the application site is blocked from view. Some elements of the south and east parts of the site can be seen filtered by foreground trees and hedges lying below the existing science park and wooded horizon. This view has been selected as one of the key locations for an accurate visual representation attached at Volume 2 – Accurate Representative Viewpoints. Castle walls block any other views from the castle.
- 10.4.100 Views from the Stepping Stones (SAM) across the River Ewenny are at a lower ground level are heavily filtered by foreground vegetation but become available for a short stretch of track leading to the River Ogmores bridge crossing as **PRV 7**. Elements of the south and east part of the site can be glimpsed lying below the nursing home and science park. The majority of the remaining parts of the site to the west and north are blocked by vegetation.
- 10.4.101 Views from roads to the south are strongly influenced by the Ogmores Road roadside vegetation with very few opportunities for views of the site. Glimpses become available from the Ogmores Road and footway for a short interval along the road as **PRV 8** and **9** where the southeast and east parts of the site can be seen framed below the science park and nursing home. Further occasional glimpses become available from Ogmores Road as it becomes more elevated towards Ogmores-by-Sea as **PRV 10** and **11**. The site is framed by foreground landform and vegetation either side of the valley and the application site forms a relatively small component in the overall view at this distance. Occasional, similar views are available from permissive footpaths on the river bank as **PRV 12** but are increasingly blocked by foreground vegetation at these lower levels
- 10.4.102 Heading north from Merthyr Mawr bridge off Footpath FP 13MM, the route follows the north bank of the River Ewenny for 400 metres before crossing arable fields and terminating at the crossroads of New Inn Road and Merthyr Mawr Road opposite the southwest corner of the application site. Views are partially blocked in the foreground by rising landform and filtered by small trees, but glimpses of the science park, and nursing home are visible as shown in

PRV 13 approximately 1.1km from the site. Views are blocked as the path nears Verville Cottage which is built on a raised earthbank and surrounded by vegetation.

- 10.4.103 Footpath 13MM becomes more elevated north of Verville Cottage affording more open views of the site as **PRV 14**. The hedgerow adjacent to new In Road provides some filtering in the foreground and the urban fringe of Bridgend is clearly visible. Similar views occur from the path at PRV 15 for a further 350m before being blocked by landform and vegetation. The final section of path as **PRV 16** alights onto New Inn Road and is strongly contained by hedges next to New Inn Road and site application boundaries, which combine to block views, but some heavily filtered glimpses towards the southwest site area may occur in full leaf fall. Both views have been used to prepare accurate visual representations attached in Volume 2 – Accurate Representative Viewpoints.
- 10.4.104 **PRV 17** taken from the access track leading to Verville Cottage demonstrates that most of the site will be blocked by landform in the near foreground.
- 10.4.105 Further south there are open panoramic views from elevated paths on the Downs. At Old Castle Down (**PRV 18**) there are a number of permissive paths and Bridleway 13 that stretch across the open plateau affording high quality 360 degree panoramas. The site is seen as a relatively small component of a vast and complex panorama lying below the urban fringes of Bridgend. A combination of undulating landform, woodland and tree belts help to break up and contain urban sprawl but are nonetheless detracted particularly by the industrial estates adjacent to the A48 corridor. The muted colours of brick and slate houses help buildings to integrate into the darkened landscape background whereas lighter buildings contrast with it. In contrast, the eastern urban areas, dominated by industrial landuses lying on the flatter valley floor are more open, and made more conspicuous by light colour cladding and less successfully integrate into the landscape. A massing model has been prepared from this viewpoint and attached in Volume 2 – Accurate Representative Viewpoints. Footpath 22A overlooks an active quarry in the near foreground and has limited opportunities for views of the application site.
- 10.4.106 Further southwest there are a number of bridleways and paths that cross the common land of Ogmor Down. However, the escarpment woodland, undulating topography and dense gorse limit the availability of views from this location. Limited views are available from the 10th tee on Southerndown Golf course (**PRV 19**) and Bridleway 3 just before it descends the escarpment as **PRV 20**. Views, like those from Old Castle Down observe the site lying below the urban fringes of Bridgend and detracted by it. A massing model has been prepared from this location and attached in Volume 2 – Accurate Representative Viewpoints
- 10.4.107 Landform prevents any views further south of Ogmor Down as **PRV 21** taken at the highest point on Beacons Down. The site even at these elevated locations would lie below the urban setting of Bridgend seen in the middle horizon and obscured by the Ogmor Down in the foreground.

Views from the West

- 10.4.108 The mature site boundary vegetation severely restricts the ability for views from the west into the application area. Meadow View a detached dwelling, located on the northwest boundary is bordered by dense woodland and scrub vegetation and has no views of the proposed development area to its rear.
- 10.4.109 The densely vegetated north and west application site boundaries come into view from the

A48 heading east as **PRV 22** and the north boundary vegetation remains in view until reaching Island Farm Road. A wire frame massing model has been prepared from this viewpoint and attached in Volume 2 – Accurate Representative Viewpoints. The majority of arable land is blocked from view and only the upper portion of the pylon tower lying towards the west boundary can be seen. A detached dwelling (Meadow View) can be seen nestled into the treed horizon. Similar views looking towards the west boundary are available from the riverside walk south of the A48 as far as New Inn Road bridge (**PRV 23** and **24**). The site vegetation effectively blocks out any views of the proposed development area within the site even in the winter scene. A wire frame massing model has been prepared from this location and attached in Volume 2 – Accurate Representative Viewpoints.

- 10.4.110 Mature, dense tree belts shown in **PRV 25** and **26** around Merthyr Mawr House prevent any possibility of views from the house, gardens or Merthyr Mawr Road even in bare leaf cover.
- 10.4.111 Mature woodland and copses similarly block views from the network of paths lying north of Merthyr Mawr House and the A48.
- 10.4.112 It is predicted that there could be some upper floor views from properties lying south of Laleston looking towards the most elevated parts of the site on the northeast boundary. Most of the site would remain blocked by the northwest boundary vegetation. Hedges and landform close to the observer block views from ground level and on footpaths south of Lalestone demonstrated in **PRV 27**.
- 10.4.113 Merthyr Mawr Warren is a steeply rising elevated landform but views towards the site are in the majority, blocked by coniferous woodland situated around Candleston Castle and Merthyr Mawr, as well as self regenerated scrub and gorse on the dunes. **PRV 28** and **29** are taken from the only very occasional places where there are long distance glimpses of the application site, seen over tree tops lying below the urban area of Bridgend and treed lined backdrop. A massing model has been prepared from this location and attached in Volume 2 – Accurate Representative Viewpoints.
- 10.4.114 There are no predicted views from footpaths, dwellings or roads north of the Warren which are blocked by mature trees in the foreground as **PRV 30**.

Views from the North

- 10.4.115 The tree groups associated with the A48, Ogmore River and site boundary combine with existing urban development to block views from houses on the southwest fringes of Bridgend shown in **PRV 31**. The elevated A48 and vegetation around Newbridge Farm effectively block views of the site from the riverside walks as demonstrated in **PRV 32** taken north of the playing fields and **PRV 33** before the path heads under the A48 through an underpass.
- 10.4.116 The vegetated northern boundary and housing blocks views from the A48 heading west as **PRV 34**.
- 10.4.117 Glimpses of the arable fields looking over the boundary hedge become available from Technology Drive roundabout within the science park as **PRV 35**, but the majority of the site is blocked from view.
- 10.4.118 **PRV 36** taken from the elevated ground within the site of the development site demonstrates that some long views would potentially be available from the urban areas of Bridgend but landform and tall boundary trees prevent extensive views of the sports village to the south of

the site. Close views mainly from upper floors are available to a number of dwellings on the southern fringes of Island Farm Close/Road looking across the northern field and boundary hedges. The rising landform when looking from these locations prevents extensive views of southern and western parts of site.

Views from the East

- 10.4.119 The railway embankment, housing and commercial development just south of the A48 generally prevents extensive views from receptors to the east.
- 10.4.120 The nursing home located on the northeast boundary has close open views across the eastern parts of the site from its west facing elevations demonstrated in **PRV 37** taken within the site near the northeast boundary. Views from residences off Ewenny are blocked by the railway embankment Road (Ton-Glas, Bryn Siriol) but there is potential for upper floor filtered views from 'Highwinds'.
- 10.4.121 The large offices on the western edge of the science park are set in woodland but have some views from upper floors over the northern aspect of the application site.
- 10.4.122 The science park and nursing home block views from 'The Patch', houses and the hotel to the east of Ewenny Road.

10.5 Predicted Effects

- 10.5.1 This section describes the likely significant effects during construction, based on the parameter plans and the illustrative masterplan. The consideration of mitigation measures and the potential impacts upon these effects and the operation of the site have been considered in section 10.6.

Construction Period

- 10.5.2 The proposed development is to be constructed over three phases spread over a period of 7 years.
- Phase 1 would comprise the construction of the extension to the SINC, vegetation clearance, overhead power line diversion, site access, A48 junction, link road and earthworks.
 - Phase 2 would comprise the commencement of the sports village starting with the rugby league stadium most likely followed by tennis centre, sports centre, indoor training arena, rugby union stadium and football club.
 - Phase 3 would be the science park, which in the current economic climate is anticipated to take up to 5 years to complete.
- 10.5.3 Construction details are not fully known at this stage, but they are likely to follow a standard building approach for a major development of this scale and complexity. It is assumed the following key construction items are expected to form part of the construction changes for all three phases of work:
- Site compound, incorporating several portacabins, temporary parking and site

storage. This would probably re-locate within the site following completion of Phase 1 & 2 and reduce to smaller sites and compounds.

- Temporary ply-boarded boundary fence, of approximately 2.0m height in phase 1 & 2 followed by Heras type fencing in phase 3.
- Delivery vehicles including low loaders, HGVs, tipper wagons, vans and cars.
- Construction plant – large earth moving machinery in phase 1, tracked and wheeled excavators and dumper trucks.
- Cranes 20-25m sufficient to lift materials to the ridgeline of the tallest building (18m) to ridge.
- Scaffolding.
- Temporary lighting during winter months.

10.5.4 The visual nature of the changes vary during the construction period, dependent upon the phase of works being undertaken, stage of construction and building type. The stages of construction vary from structural formation, completion of facades and completion of the roofs. The scale of the visual effects during the latter periods of construction phases would be similar to that of the operational period other than there would still be taller cranes, which could extend the visual disturbance over a wider area. However visual construction effects are temporary in nature.

10.5.5 Vehicular movement should not be greater than during the operational period but will comprise larger vehicles for earthworks and delivering site materials, although the latter would be planned to occur at off peak hours.

10.5.6 Construction traffic during Phase 1 is expected to use Technology Drive to initially access the site prior to completion of the A48 junction and Link Road. Additional construction traffic would make some visual difference to the local setting, particularly off Technology Drive but would not be significant to dwellings adjacent to the A48 or Ewenny Road.. Heavy construction vehicles used to create the development plateaux would arrive and stay on site until the works are completed and would not move to and from the site on a regular basis.

10.5.7 It is assumed that the phase 1 & 2 works will be completed prior to commencement of phase 3.

10.5.8 The likely significance of temporary construction effects of phases 1, 2 and 3 are identified in Table 10.1 below:

Table 10.1 – Summary Of The Predicted Construction Impact Significance From The Principal Representative Viewpoints

PRV No.	Receptor	Phase 1 4-6mths	Phase 2 20 mths	Phase 3 60 mths	Notes PH = phases
Views From The South					
1	Ewenny	Minor	Moderate to Major	Minor	PH1- Access road construction blocked by woodland. Views of site

PRV No.	Receptor	Phase 1 4-6mths	Phase 2 20 mths	Phase 3 60 mths	Notes PH = phases
					<p>compounds and earth moving machinery will be visible from higher ground. Diversion of overhead power lines and towers to underground will have a moderate beneficial effect.</p> <p>PH2.- Sports village construction will be visible rising above foreground vegetation groups. Cranes are likely to be most conspicuous. Magnitude will increase with higher elevation views such as on the Downs but the scale of the site diminishes and is seen in a expansive panorama set against the backdrop of Bridgend.</p> <p>PH3 -Sports Village will block the majority of views of the science park. Planting mitigation will have negligible effect on reducing magnitude by the end of ph2 but begin to have some minor reducing effects by the end of PH 3.</p> <p>Winter views are unlikely to increase due to the depth, maturity and height of intervening landscape features</p>
2	Ewenny	Minor	Moderate to Major	Minor	
3	Corntown	Negligible	Minor	Negligible	
4	Ewenny	Minor	Minor	Minor	
5	Kingswood Close Manor Court	Negligible	Moderate	Negligible	
6	Ogmore Castle	Minor	Moderate	Minor	
7	Ewenny Stepping Stones	Minor	Moderate	Minor	
8	Ogmore Rd	Minor	Moderate	Negligible	
9	Ogmore Rd	Minor	Moderate	Negligible	
10	Ogmore Rd	Negligible	Minor	Negligible	
11	Ogmore Rd	Negligible	Minor	Negligible	
12	River Ogmore (west)	Negligible	Minor	Negligible	
13	Footpath FP13MM	Negligible	Moderate	Negligible	
14	Footpath FP13MM	Negligible	Major	Negligible	
15	Footpath FP13MM	Negligible	Major	Negligible	
16	Footpath FP13MM	Negligible	Minor	Negligible	
17	Verville Cottage access	Negligible	Minor	Negligible	
18	Old Castle Down	Minor	Major	Minor	
19	Ogmore Down	Minor	Moderate	Minor	
20	Ogmore Down	Minor	Moderate	Minor	

PRV No.	Receptor	Phase 1 4-6mths	Phase 2 20 mths	Phase 3 60 mths	Notes PH = phases
21	Beacons Down	Negligible	Negligible	Negligible	
	Views From The West				
22	A48 West	Moderate	Negligible	Negligible	PH1 – West boundary vegetation blocks most views but the new junction works will be visible from the A48 corridor.
23	River Ogmore FP12MM	Negligible	Negligible	Negligible	
24	New Inn Road Bridge	Negligible	Negligible	Negligible	
25	Merthyr Mawr Rd bridge	Negligible	Negligible	Negligible	PH2. - Sports village construction will only be visible from Merthyr Mawr Warren (at very limited locations), rising above dense woodland and scrub vegetation. Cranes are likely to be most conspicuous.
26	Merthyr Mawr House	Negligible	Negligible	Negligible	
27	Laleston – FP3LAL	Negligible	Negligible	Negligible	PH3 – Science Park will only be seen from the same locations at Merthyr Mawr Warren.
28	Merthyr Mawr Warren	Negligible	Minor	Minor	Winter views are unlikely to increase due to the depth, maturity and height of intervening landscape features
29	Merthyr Mawr Warren	Negligible	Minor	Minor	
30	Footpath FP4MM	Negligible	Negligible	Negligible	
Views From The North					
31	Broadlands – FP2LAL	Negligible	Negligible	Negligible	PH1 – West boundary vegetation blocks views.
32	Newbridge Fields	Negligible	Negligible	Negligible	PH2. - Sports village construction will be visible rising above foreground vegetation only from Merthyr Mawr Warren at very occasional locations. Cranes are likely to be most conspicuous.
33	Ogmore River – FP8BGND	Negligible	Negligible	Negligible	
34	A48 east	Negligible	Moderate	Negligible	PH3 - Planting mitigation will have negligible effect on reducing magnitude by the end of ph2 but will begin to have some minor effect by end of PH 3.
35	Technology Drive	Moderate	Moderate	Moderate	Winter views are unlikely to increase due to the depth, maturity and height of intervening landscape features
36	Island Farm Close & Rd	Major	Major	Major	

PRV No.	Receptor	Phase 1 4-6mths	Phase 2 20 mths	Phase 3 60 mths	Notes PH = phases
Views From The East					
37	Nursing Home	Major	Major	Negligible	<p>PH1- Access road construction blocked by woodland. Close open views of earth moving machinery. Diversion of overhead power lines and towers underground will have a major beneficial effect.</p> <p>PH2.- Close open views of sports village construction. Views of tennis centre construction will have highest magnitude. Magnitude will increase with higher elevation views such as on the Downs but the scale of the site diminishes and is seen in a expansive panorama set against the backdrop of Bridgend. Tall cranes will be most visible</p> <p>PH3 -Sports village and existing science park will block the majority of views.</p> <p>Winter views are unlikely to increase due to the depth, maturity and height of intervening landscape features</p>
	Highwinds	Minor	Minor	Negligible	

- 10.5.9 During Phase 1 & 2 the effect would be most apparent from local views to the south of the site; houses backing on to the north boundary and from the nursing home bordering the northeast boundary.
- 10.5.10 During Phase 3, the effect of construction would be most apparent from the residential area off Island Farm Road and existing science park buildings. Views of phase 3 from the south will be less significant as the sport village buildings will obscure works.
- 10.5.11 The cranes may not be present for the entire period of each phase as they are associated with the construction period of the sports buildings and unlikely to be required for the science park development in phase 3.
- 10.5.12 The effect resulting from the construction period would be of a temporary nature, over a period of approximately 7 years. It is assessed that extending the science park construction period would not cause significant harm to the visual amenity of the area as any extension to the timescale of these smaller scale buildings is balanced with increased maturity of the proposed mitigation planting in the operation phase.

- 10.5.13 With regard to visual aspects, generally the construction works will result in adverse effects and significance for the Parameter Plan. This is primarily because landscape mitigation needs a reasonable timescale to take effect. Planting undertaken in the first two years will not have a significant reducing effect unless advanced nursery stock is used. Temporary hoarding can be very effective when used at close quarters to a receptor but would have less value for elevated or longer views.
- 10.5.14 For the majority of the viewpoints the construction period results in **low** or **moderate** adverse significance. The level of significance increases from elevated views to the south and receptors bordering the site to the northeast. Here, the significance is assessed **major** adverse.
- 10.5.15 For views to the north and west of the site, the effects of the construction will be limited due to the works being located behind mature vegetation and landform screening and are of **minor** and **negligible** significance.
- 10.5.16 There is **negligible** effect from Merthyr Mawr House and the surrounding registered historic parkland due to the all year round screening of the application site provided by intervening mature tree belts and topography.
- 10.5.17 An assessment of the construction period based on the Illustrative masterplan, did not find any differences in level of significance to any of the viewpoints from the assessment based on the Parameter Plan. While there is increased planting shown in the illustrative masterplan, this would not achieve sufficient growth during this period to warrant a change in the overall magnitude of views.
- 10.5.18 Lighting during construction will normally be limited to mobile fittings in operation during normal working hours with some security lighting within contractors compounds. Light pollution could spill onto adjacent dwellings and ecological receptors if incorrectly positioned and specified resulting in **moderate** to **high** temporary adverse effects without mitigation. Residents in the wider context could experience **minor** to **moderate** temporary effects without appropriate mitigation

Direct Impacts on Landscape Features within the Site

- 10.5.19 The construction period generally results in direct adverse landscape effects through site clearance operations and are permanent. -

Table 10.2 – Summary Of The Predicted Construction Impact Significance On Landscape Features

Receptor	Impact Description	Likely Significance	Reasons
Woodland (SINC)	0.4ha of woodland and scrub adjacent to the boundary of the A48 0.25ha of scrub G2 near the A48 0.1ha of tree belt G8 adjacent to the arable fields.	Major Minor Minor	While a significant area, only 10% of woodland and scrub is lost and well represented in the SINC area. The quality of the woodland being is moderate or low containing few high quality individual trees of mature age. No high quality (category A trees) are affected.

Trees	<p>Cat B Trees T30, 31, 32 & 33 to the southwest (Parameter plans)</p> <p>Cat B Trees 32,33 (Illustrative Masterplan)</p> <p>(G45) within the swallow hole in the middle of the site.</p>	<p>Moderate</p> <p>Minor</p> <p>Minor</p>	<p>While moderate quality these trees provide some scale and contribute as 'field' trees in the character of this landscape.</p>
Hedgerows	<p>18m of hedgerow (35) for access into Merthyr Mawr land in the north.</p> <p>1741 linear metres of hedgerows (4, 8, 10, 11, 12, 14, 24, 25, 26, 28, 29, 30, 31, 32,) within the arable fields to the south.</p>	<p>Minor</p> <p>Major</p>	<p>Hedgerows are a major component that defines the landscape character.</p>
Grassland	<p>0.4ha of unimproved grassland at the new link road.</p> <p>Illustrative Masterplan - 0.3ha of unimproved grassland towards the west boundary in the area of the proposed SUDS pond.</p>	<p>Minor</p> <p>Minor</p>	<p>Poor quality species low. Has no impact on the landscape character.</p>
Water Features	<p>Illustrative Masterplan - Small ponds retained in masterplan</p> <p>Small ponds lost in parameters plans</p>	<p>Minor</p> <p>Minor</p>	<p>Although retained in the masterplan, may still be affected by construction works if not protected. Ponds are a minor component of the landscape character.</p>
Arable land	<p>32.6ha of arable land</p>	<p>Moderate</p>	<p>While an important component, represents a minor loss of this landscape characteristic in the aspect area.</p>

Direct and Indirect Impacts on the Landscape Character

- 10.5.20 Direct effects occur where there are changes to the site within a given area of landscape character as a result of features being removed. Where the site lies beyond a specific landscape character, the effects are considered to be indirect.
- 10.5.21 The effect on local characters within the wider and local setting have been assessed using the LANDMAP Aspects Areas and within the ASIDOHL2 assessment (Chapter 8). The assessment assessed the effects of the proposed development on the basis of the Parameter Plans and illustrative masterplan taking into account the additional mitigation measures provided by siting, building design, palette of materials and additional landscaping.
- 10.5.22 Table 10.3 on the following page, reflects the assessment of landscape character based on both the parameter plans and the Illustrative master plan.

Table 10.3 – Summary Of The Predicted Construction Impact Significance On The Landscape Character

Aspect Area And Code	Overall Evaluation	Impact Description	Likely Significance	Reasons
Direct Impacts On The Site Character and Its Aspects				
LANDMAP VS 828 Land Between Bridgend and Merthyr Mawr (including Island Farm)	Moderate	Major change in character of existing arable fields and loss of hedgerows.	Moderate	A relatively minor loss of this landscape characteristic in the aspect area. Views looking north from within the aspect areas are lower quality affected by Urban influences.
LANDMAP VS 726 Bridgend (including north area of Island Farm).	Low	Loss of woodland in the SINC area. New A48 junction arrangements	Minor	Aspect area is strongly influenced by Urban area.
LANDMAP LH044 Dry Terrestrial Habitat, Grassland and Marsh and Improved Grassland	Moderate	Minor loss of grassland and marsh habitat	Minor	Although hedges and some grassland are lost, the loss is insignificant in terms of the overall aspect area.
LANDMAP CL021 Vale of Glamorgan Rural Landscape	High	Minor loss of a large aspect area	Moderate	While a minor loss, the cultural aspect is vulnerable to development, increasing the significance of any losses.
LANDMAP Bridgend Plain Cynon GL044	Moderate	Loss of Karst features during earthworks	Moderate	Karst features are of local and possible regional significance
LANDMAP Ogwr Valley Cynon GL040	Low	Minor loss of arable land but geology preserved under sports pitches.	Negligible	

Aspect Area And Code	Overall Evaluation	Impact Description	Likely Significance	Reasons
LANDMAP H19 Cornelly to Laleston 1	Unassessed	Minor loss of a large aspect area	Minor	Historic Landscape Characterisation has been undertaken by GGAT in Chapter 8 and the aspect area is subdivided into 5 HLCA's.
Indirect Impacts On The Site Character and Its Aspects				
LANDMAP VS 797 Ewenny Valley	Moderate	No effect	Negligible	
LANDMAP VS 943 Northern Vale Lias Slopes	Moderate	Potential for some minor views from the aspect area towards the proposals	Minor	Seen against the backdrop of Bridgend. Very Few receptors affected.
LANDMAP VS 378 Alun Valley	High	No effect	Negligible	
LANDMAP VS 805 Lias Plateaux	Moderate	No effect	Negligible	
LANDMAP VS 663 Ogmore and Old Castle Down	Outstanding	Majority of construction activities will be seen from selected open areas of the Downs.	Moderate	Site is seen in the context of a 360 degree panorama as a minor component set against the backdrop of Bridgend. Proposals would not affect the quality of these panoramas on which the outstanding evaluation is based.
LANDMAP VS 987	High	Majority of construction activities will be	Minor	Some open views seen from a very occasional

Aspect Area And Code	Overall Evaluation	Impact Description	Likely Significance	Reasons
Merthyr Mawr Warren		screened within the Warren.		elevated locations at long distance. View is set against a backdrop of Bridgend and there are a number of detractors such as Bridgend Ford.
LANDMAP VS 825 Newton Down	Moderate	No effect	Negligible	

10.5.23 Indirect effects will only be of a visual nature and accordingly, only the visual sensory aspects have therefore been assessed beyond the site.

10.5.24 Due to its location, the site is influenced by the urban setting of Bridgend, which rises from the banks of the Ogmore and Ewenny rivers occupying an area of approximately 18 sq.km. The aspect areas defined in LANDMAP covering the site are evaluated as **low** or **moderate** within and immediately adjacent to the site with an **outstanding** visual and sensory aspect area at Ogmore and Old Castle Down (VS 663).

Habitat

10.5.25 The proposals will affect approximately 10% of the aspect area due to the loss of arable land but would have insignificant effect on improved or marshy grassland. This loss is assessed as minor and would not be significant on this aspect area, its value or overall evaluation,.

Visual and Sensory

10.5.26 The application site lies within two aspect areas. The northern half of the site lies within the **low** evaluated urban area and assessed as having a **minor** effect on the aspect area. The southern part of the site lies in a **moderate** value area primarily due to the visual and sensory qualities looking towards the Ogmore and Merthyr Mawr Warren. These attractive views are tempered with detractive views looking towards the urban areas of Bridgend. The proposals will similarly have **minor** impact on the scenic quality of views towards Merthyr Mawr and overall **moderate** significance.

Indirect Effects

10.5.27 The proposal is only visible from limited number of receptor locations within surrounding aspect areas and seen in context with the urban conurbation of Bridgend which is a significant visual detractor. The most highly valued aspect area is the Ogmore and Old castle Downs where the magnitude is **minor** to **moderate** in the wide panorama and expansive landscape with overall **moderate** to **major** significance due to its sensitivity. The proposals would not however affect the overall quality of the views from these elevated views as most of the panorama remains intact.

10.5.28 Impacts on other aspect areas in the special landscape area or Glamorgan Heritage coast are considered **minor** or **negligible** due to the limited opportunities to view the site, low magnitude of impact and moderate or low value of the aspect areas. .

Geology

10.5.29 There is **moderate** impact due to the loss of the Karst features but overall **minor** significance.

Historic and Cultural Aspects

10.5.30 The scale of loss of island farm within these large aspect areas would be relatively **minor**; however the cultural aspect is under threat from development and is therefore assessed as **moderate**. The historic landscape aspect area has not been evaluated and the impacts are therefore difficult to quantify but would likely to be **minor** because of the scale of loss.

10.5.31 This aspect has however been further considered in the ASIDOHL 2 assessment within Chapter 8. and the proposals assessed as having a fairly severe effect on the Ochr Draw and Island Farm HLCA 017 primarily due to the scale of loss of the post medieval agricultural landscape.

10.5.32 Indirect impacts on the adjacent HLCA's to the west and south are **slight** or **moderate** adverse but considered to have a low or very low impact caused by the development and reduction of value of historic landscape area on the CADW register.

Operation Period

Impacts on Local Views

10.5.33 The local viewpoints of the site have been assessed on the basis of the Parameter Plans (refer to Appendix 10.5). Residual effects after the potential mitigation measures provided by the illustrative master plan have also been assessed.

10.5.34 How a view is perceived is largely subjective and is an emotive issue. For local views the majority of visual effects will be adverse, as the application site is set in the context of a relatively undeveloped landscape. Beneficial views can arise when an existing visual detractor such as a derelict building is being replaced by higher quality development that is more visually appealing or in some instances appears less conspicuous.

10.5.35 Operationally, the effects when compared to those of the construction period are primarily secondary impacts and will comprise:

- The appearance of the buildings over the proposed phases
- People and vehicle movements
- Lighting impacts.

Table 10.4 – Summary Of The Likely Operation Impact Significance From The Principal Representative Viewpoints (Without Mitigation).

PRV No.	Receptor	Buildings	Lighting	Vehicles and People	Justification
Views From The South					
1	Ewenny	Moderate	Major Temporary	Minor	<p>Buildings - will be seen in the context of an urban backdrop. Most buildings within the sports village will be visible but partially filtered by existing vegetation. Vegetation, topography and existing urban development (with detractors) restrict the potential for open views. Magnitude will increase with higher elevation views such as on the Downs but the scale of the site diminishes and is seen in a expansive panorama set against the backdrop of Bridgend .</p> <p>Lighting – Has the potential to draw the eye and obtrude if not controlled. Will be seen in the context of the urban backdrop but in otherwise an unlit existing site. Pedestrians are unlikely to walk remote footpaths in the dark.</p> <p>Vehicles and People -Sports village buildings and existing vegetation will help block the majority of views other than from the most elevated views from the Downs.</p>
2	Ewenny	Moderate	Major Temporary	Minor	
3	Corntown	Minor	Major Temporary	Minor	
4	Ewenny	Moderate	Major Temporary	Minor	
5	Kingswood Close Manor Court	Moderate	Moderate Temporary	Minor	
6	Ogmore Castle	Moderate	Major Temporary	Minor	
7	Ewenny Stepping Stones	Moderate	Major Temporary	Minor	
8	Ogmore Rd	Moderate	Major Temporary	Minor	
9	Ogmore Rd	Moderate	Major Temporary	Minor	
10	Ogmore Rd	Moderate	Major Temporary	Minor	
11	Ogmore Rd (layby)	Minor	Major Temporary	Minor	
12	River Ogmore (west)	Minor	Major Temporary	Minor	
13	Footpath	Minor	Moderate	Minor	

PRV No.	Receptor	Buildings	Lighting	Vehicles and People	Justification
	FP13MM		Temporary		
14	Footpath FP13MM	Major	Major Temporary	Minor	
15	Footpath FP13MM	Major	Major Temporary	Minor	
16	Footpath FP13MM	Negligible	Moderate Temporary	Minor	
17	Verville Cottage access	Negligible	Moderate Temporary	Minor	
18	Old Castle Down	Major	Major Temporary	Minor	
19	Ogmore Down	Major	Major Temporary	Minor	
20	Ogmore Down	Major	Major Temporary	Minor	
21	Beacons Down	Negligible	Negligible	Negligible	
Views From The West					
22	A48 West	Negligible	Minor Beneficial	Minor	Buildings- Boundary vegetation will block views of the development area. Lighting- Some sky glow may be experienced seen rising above boundary vegetation when stadia are in use. The A48 lighting improvements will be beneficial to motorists, cyclists and pedestrians. Vehicles & People – Boundary vegetation will block views of the development area but there will be views of the new junction arrangements from the A48 corridor set in the context
23	River Ogmore FP12MM	Negligible	Negligible	Negligible	
24	New Inn Road Bridge	Negligible	Minor Temporary	Negligible	
25	Merthyr Mawr Rd Bridge	Negligible	Negligible	Negligible	
26	Merthyr Mawr House	Negligible	Negligible	Negligible	

PRV No.	Receptor	Buildings	Lighting	Vehicles and People	Justification
27	Laleston – FP3LAL	Negligible	Negligible	Negligible	of an existing busy road.
28	Merthyr Mawr Warren	Negligible	Minor	Minor	
29	Merthyr Mawr Warren	Negligible	Minor	Minor	
30	Footpath FP4MM	Negligible	Negligible	Negligible	
Views From The North					
31	Broadlands –FP2LAL	Negligible	Negligible	Negligible	Buildings- Boundary vegetation will block views of the development area.
32	Newbridge Fields	Negligible	Negligible	Negligible	
33	Ogmor River – FP8BGND	Negligible	Negligible	Negligible	Lighting- Some sky glow may be experienced seen rising above boundary vegetation when stadia are in use. The A48 lighting improvements will be beneficial to motorists, cyclists and pedestrians.
34	A48 east	Negligible	Minor Beneficial	Minor	
35	Technology Drive	Moderate	Moderate Temporary	Moderate	Vehicles & People – Boundary vegetation will block views of the development area but there will be views of the new junction arrangements from the A48 corridor set in the context of an existing busy road.
36	Island Farm Close & Rd	Major	Moderate Temporary	Moderate	
Views From The East					
37	Nursing Home	Major	Major Temporary	Moderate	Buildings- Close open views.
	Highwinds	Minor	Minor	Negligible	Lighting- Potential for close impacts and light trespass into windows of the nursing home. Vehicles & People – Views of the tennis courts may be available.

10.5.36

Views From The South

- 10.5.37 The application site is predominantly seen lying below the urban areas of Bridgend and a band of darkened vegetated backdrop which LANDMAP describes as already being detracted. Without mitigation, the effect would result in predominantly **moderate** adverse views for medium and low sensitivity receptors (road users and upper floor views) or **major** adverse significance for high sensitivity receptors (gardens, ground floor residents, The Downs and well used footpaths). Lighting while temporary in nature could have a major adverse effect on receptors if not appropriately mitigated and designed.
- 10.5.38 The impact significance of the unmitigated proposals will be the same for the parameters plans and illustrative masterplan.
- 10.5.39 Chapter 2, paragraph 2.4.20, sets out the parameters for lighting within the site and will comprise a range of lighting solutions including column, bollard, building and recessed fittings. Not all proposed lighting will operate at the same time and the sports village will be the source of highest potential effects due to: the intensity of the illuminance being proposed and open nature of some facilities such as the training pitches and football stadia. Around open stadia or pitches, floodlighting will have to be mounted on columns which will be up to 15m in height where high horizontal lux levels are to be achieved. During the daylight hours, columns and fittings will have **negligible** to **minor** impact on nearby residents at maximum 8-15m height as they will be screened by intervening buildings and topography but could have **moderate** effects when seen from nearby receptors to the south such as footpath FP13MM, seen against the backdrop of the main stadia. Daytime effects from the wider context will be more **negligible** or **minor** due to the distances that these relatively narrow columns are seen when viewed against the backdrop of stadia and landscape.
- 10.5.40 Night-time effects will be different in nature potentially having a wider and more significant effect than the daytime. Obtrusive light according to the ILE is generally considered under the following categories:
- Sky Glow- the brightening of the night sky above our towns, cities and countryside,
 - Glare - the uncomfortable brightness of a light source when viewed against a dark background,
 - Light Trespass - the spilling of light beyond the boundary of the property or area being lit.
- 10.5.41 Obtrusive light could potentially have **major** significance on both human and ecological receptors if these facets of pollution are not fully considered at the planning and detailed design stages.

10.6 Mitigation and Enhancement

- 10.6.1 Measures to control construction activities are normally controlled through a Construction Environmental Management Plan which will help mitigate visual impacts to some degree. The proposals also include 'designed in' mitigation having been developed through an iterative process which has involved discussions with all the key stakeholders and members of the

design team. This is clearly demonstrated in the changes that have been made to the masterplan submitted in December 2008 which was conceived without detailed knowledge of the ES assessments. Designed in mitigation normally involves impact avoidance of sensitive landscape features or views.

- 10.6.2 The opportunities and constraints identified by the design team have led to a number of measures being incorporated as 'mitigation by design' into the Parameter Plans. In addition, the illustrative master plan and design measures considered in the Design and Access Statement shows how development could be achieved within the parameters.
- 10.6.3 The primary mitigation measures adopted within the Parameter Plans are:

Avoidance & Reduction

- All building development is to be located outside the sensitive SINC habitat to the north and west of the site.
- Retain as much of the countryside edge as possible by locating built development as far north and east of the application site as possible without intrusion into the SINC.
- The link road is to be located so as to avoid sensitive tree and scrub habitat to the north.
- The science park is to be located in areas compatible with its UDP allocation.
- All remaining trees and hedges are to be protected with fencing to BS5837.
- All existing hedgerows are to be translocated into new locations.
- No parking is to be within 10m of the SINC boundary.
- No building development is to be within 15m of the SINC boundary.
- No roads or buildings are to be located within 5m of retained hedgerows or within root protection areas of important trees whichever is the greatest.
- No science park building to be within 25m of the residential boundary.
- The varied height of the development plateaux and maximum AOD ridge heights will result in a varied roof height providing visual relief of the built form, particularly when viewed from the south.
- In combination with the existing site boundaries, the proposed mitigation planting provides a visual edge to the site and will afford a degree of screening to built development beyond. Due to the density of tree belts, the screening is effective in the winter months and will increase in the summer months when in full leaf.
- Enhancement of the countryside edge to the south with a minimum average of 15m depth of planting and never less than 5m will provide an appropriate defensible boundary; strengthen the edge feature and screening ability in sensitive views from the south.
- A combined hedgerow and tree belt of minimum 10m depth is to be located between the playing pitches stadia, 4G and sports centre.
- Provision of a Green Bridge to mitigate against the severance of the habitat to the

north. This will be located on the bat flight line from Hut 9 and will allow a continuous link for dormouse in the middle of this area.

- No development within 30m of the badger sett located in the east boundary hedgerow (5)
- Lighting levels and illumination periods will be strictly controlled to avoid obtrusive lighting effects on sensitive human or ecological receptors in accordance with the lighting parameters plans (see paragraph 10.7).

Compensation and Enhancement

Illustrative Masterplan

- 10.6.4 Landscape mitigation has been considered as an integral part of the design iteration of the masterplan to arrive at an appropriate site layout and design that is believed to be the best fit of the intended uses within the site. Additional mitigation measures and refinements to the assumptions of the parameters plans have been made and are discussed below.
- 10.6.5 Main rugby league stadium to be designed to break up the mass, height and scale of the building with attractive elevations when viewed in the local setting.
- 10.6.6 It is acknowledged that high quality design and detailing should be a prerequisite to any development on this edge of countryside location irrespective of its use.. To achieve this, Peter Lee Architects and Davies Landscape Architects have worked closely together to identify and balance all of the key opportunities and constraints into a coherent and dynamic design rationale that will leave a positive legacy in the Borough. This approach is described in detail in the Design and Access Statement (DAS).
- 10.6.7 There are many exemplars of recently built stadia both in South Wales and the UK alone which were used as reference drawing on details that would translate well into this setting. All fully enclosed stadia by nature of their scale, height and mass are 'landmark' buildings in their local setting, and most existing exemplars have little or no reference to the design context or landscape in which they are set. It was considered that a landmark building could be accommodated in this landscape but would need to integrate more closely with it.
- 10.6.8 The main stadia is 14 metres high to eaves and 18 metres to its highest roof ridge and completely encloses the pitch creating a traditional doughnut shape. The most sensitive views are identified to the south and are elevated or at the same level as the site, providing views of the south, east, and occasionally southwest elevations and roofscape.
- 10.6.9 Key details to integrate the building into the landscape to avoid obtrusive views include:
- An undulating roof to provide visual interest and to break up the mass of the building.
 - The roof is seen against a darkened landscape backdrop and should be finished in a muted recessive colour.
 - Elevations to be broken up by horizontal and vertical bands of colour, texture and shadow relief. The DAS demonstrates how this can be achieved though changes of cladding material colour and texture and could be further enhanced by 'green

walls' using climbing plants growing on a simple and lightweight steel wire framework.

- 10.6.10 The main stadium is set on a level plateau, which creates 'cut' at the northeast corner giving the appearance of the building sitting down in the landscape rather on top of it. Only an occasional close view at PRV 15 would see the building breaking the skyline where it is seen just rising above the tree line around the existing science park.
- 10.6.11 The rugby union, football stadium, tennis centre, 4G Training and Sports Centre have been designed to be designed to break up the mass, height and scale of the buildings utilising some of the principles in the main stadia of graduated colour bands and textures on visible elevations.
- 10.6.12 Given the sensitive views to the south, a key measure is to orientate the sports buildings to present the least mass/visible area, while using the buildings themselves to screen parking areas and roads.
- 10.6.13 The football stadium has a reduced roof height of 9m and the rugby union stadium has a maximum height of 15.2m giving variation in the roofline. The stands are orientated on a north x south axis allowing views through to the landscape and buildings beyond, rather than a solid wall which would be the case if they were east x west orientated. Curving roofs add interest and reduce the perceived mass and should also be in darkened recessive colours.
- 10.6.14 The 4G and sports centre building located near the east boundary with the railway line embankment has a large enclosed roof and a 'green' roof will significantly reduced the perceived scale and mass of this solid building while absorb it into its surrounding landscape. A green roof will also contribute to the SUDS strategy and potentially benefit wildlife. There is also opportunity to mount solar panels on the roof but these could reflect light towards the south if not carefully positioned and orientated.
- 10.6.15 The tennis centre is located on the most elevated plateau as it is designed with relatively low eaves heights (10m) and a domed roof which rises to a maximum of 15.6m in the centre. Further setting of the building into cutting by 1.3-1.5m significantly reduces the impact and appearance of the building from the nursing home, located adjacent to the northeast boundary. Additional planting on this boundary will quickly filter and block views of the roof. The sloping topography also affords the opportunity to set the tennis courts at an elevated level with car parking hidden below.
- 10.6.16 It was considered that vehicular movement and parked cars could cause indirect adverse effects from elevated views to the south therefore the following measures have been incorporated into the illustrative plan:
- Car park areas to be broken up into cells divided by landscape and buildings. Most car parking other than the overspill areas A & C will be blocked in views from the south by buildings even from the most elevated views on the Downs. This will be reinforced by tree belts within and adjacent to the car park areas.
 - Tennis centre parking located under the raised outdoor tennis court decks.
 - Science buildings car parks located within mature treed landscape.

10.6.17 Landscape measures to reduce visual impacts to views from the east and west in the illustrative masterplan include:

Table 10.5 – Summary Of The Illustrative Masterplan Mitigation Measures

Receptors/PRV's	Mitigation – Landscape Proposals	Reason
Views from the south		
1-21	15-20m wide tree belt north of the outdoor playing pitches	To further break up and enhance views of buildings and screen car parks.
	Min 15m wide tree belt between the sports village and science park.	Retain wildlife corridors
	Minimum 20m wide landscape buffer adjacent to the southeast/ east boundary with the railway line.	Compensate for hedges and trees lost during construction
	Minimum 20m wide landscape buffer on the south boundary of Merthyr Mawr owned land to the southeast/ east boundary with the railway line.	
	Green Roof to 4G and sports centre	
Views from the west		
22-30	Additional planting with the SINC extension	Enhance the SINC area.
	Min 15m planted buffer adjacent to the SINC boundary	Reinforce existing vegetation groups and patterns in filtering and blocking views from sensitive locations to the west.
	Min 25m distance of sports buildings from the SINC boundaries	Compensate for hedges and trees lost during construction
Views from the North		
31-36	Translocate hedges affected by sports village into new location adjacent to the A48 and new link road.	To create a defensible boundary between residential and employment landuses. Block views of vehicles using the secondary access onto Technology Drive
	Additional woodland and scrub planting in the SINC area	
	25-30m wide buffer adjacent to gardens backing onto to Merthyr Mawr Estates owned land.	Retain and enhance wildlife corridors
	15-20m wide planted buffer adjacent to gardens backing onto arable fields at Island Farm Road and Close. (Buildings set back 40-50m)	Compensate for hedges and trees lost during construction
	10-35m wide planted buffer with the science	

	park boundary.	
Views From The East		
37	Minimum 28m wide planted buffer adjacent to the nursing home boundary	To create a defensible boundary between residential and leisure landuses. Filter and block views of the tennis centre
Landscape Character	Over 10 ha of strategic native planting, hedgerows, scrub, ponds.	To reinforce existing vegetation patterns and textures in compensation for trees and hedgerows being lost.
	Translocate hedgerows affected by development	Reduce the impact on the character, while providing immediate maturity and stock of local provenance.
Biodiversity	Min 5m wide 'Green Bridge' extensively planted with trees and scrub.	Retain continuous vegetated links across the SINC
	Unimproved grassland and scrub in the SINC extension	Enhance biodiversity beyond its existing condition and compensate for the minor losses during construction.
	Additional Ponds and associated wetland habitat.	
	Marshy grassland. Landscape and Ecological Management Plan	Improve the quality of existing features and proposed mitigation in the future.

Lighting

- 10.6.18 Whilst detailed lighting plans will be an important consideration at the detailed planning stages, lighting has been carefully considered at this stage for its potential effects on human and ecological receptors. It is recognised that lighting the sports facilities are an important and integral part of the operation of this element of the proposals. The parameters for lighting have been identified in Table 2.3 which suggests a range of lux illuminance levels for different types of use and sporting activity. The highest level of illuminance in the sports village will occur in the main stadia where up to 3000 lux may be required if events are to be televised but will normally operate at around 200-300 lux as would the football and rugby union stadiums. Outdoor training pitches would be significantly lower at 75 lux but will be uncontained by stadia buildings.
- 10.6.19 The Lighting Intensity Parameters Plan (Figure 9) has been developed against the baseline assessment of sensitive human and ecological receptors previously identified and balanced against the need for lighting sports activities, health and safety grounds.
- 10.6.20 Detailed lighting plans will be prepared in accordance with the relevant legislation, planning policy and policy guidance framework.

Mitigation

10.6.21 The Institute of Lighting Engineers Guidance – Guidance Notes for the Reduction of Obtrusive Light (2005), provides a good starting point for advice on avoiding obtrusive light during the planning and design stages by recommending that planning authorities specify environmental zones for exterior lighting control. In this instance the site would need to meet the recommendations of environmental zone 2 – low district brightness areas. The illuminated sports facilities are unlikely to be able to achieve the target levels being set for source intensity.

10.6.22 Key measures will include:

- No over or unnecessary lighting.
- The lighting within the sensitive ecological habitat to the north will be less intense than the A48 lighting. Luminaires will be mounted in the internal verges immediately adjacent to the road on lower, 7m high columns at staggered spacings fitted with a maximum 70w bulb and downward reflectors. The cross section taken through the A48 link road shown in Figure 25 shows that horizontal light levels will decrease rapidly from the road corridor towards the scrub and woodland and would typically be < 2 lux at 3m away from the outer edge of combined cyclepath and footway and < 1 lux 18m from road edge. This distance can be reduced through planting dense hedges and scrub 2-3m away from the footpath.
- The green bridge to the north should be unlit and street lights should be set the maximum possible distance away from it, and fitted with additional baffles as required to achieve the same average illuminance levels as the existing SINC baseline conditions.
- Lighting curfews – Many areas of the sports village do not require lighting beyond normal cessation of sporting events and it is proposed that the following curfews will apply.
 - Rugby and football training pitches, rugby union stadia and football stadia – 2100hrs
 - Rugby League stadia – 2300hrs.
 - Link road street lighting 2300hrs
 - Car parks- 2300hrs
- Pitch floodlighting is to be designed to prevent light spill onto surrounding sensitive habitats. The rugby league and union stadia benefit from fully and partially enclosed facilities which help contain horizontal light spill and glare.
- Fittings and luminaires will be fitted with baffles and deflectors and beam angles will not exceed 70 degrees> this will ensure light is cast downward rather than upward and will reduce glare.
- Low level lighting will be used wherever possible within pedestrian areas and overspill car park areas.
- With the exception of the A48 corridor and link road, no lighting will be used

within 10m of the SINC boundary.

- 10.6.23 Given these measures, the impact of lighting can be significantly reduced to overall **minor to moderate** significance and temporary in nature.

Operation and Residual Impacts with Mitigation

- 10.6.24 Following the mitigation measures identified above, the residual visual impacts primarily relate to buildings and lighting. Landscape impacts will generally be beneficial as planting matures and site management plan is being enforced.
- 10.6.25 Planting mitigation will not normally be effective at elevated viewpoints until the second half of the assessment period i.e. 7-15 years. This period can be reduced for close receptors at lower levels, or if advanced nursery stock is used.

Table 10.6 – Summary Of The Likely Operation Impact Significance From The Principal Representative Viewpoints With and Without Mitigation.

PRV No.	Receptor	Buildings Before Mitigation	Buildings With Mitigation (15 years)	Lighting Before Mitigation	Lighting With Mitigation
Views From The South					
1	Ewenny	Moderate	Moderate	Major Temporary	Moderate Temporary
2	Ewenny	Moderate	Moderate	Major Temporary	Moderate Temporary
3	Corntown	Minor	Minor	Major Temporary	Moderate Temporary
4	Ewenny	Moderate	Moderate	Major Temporary	Moderate Temporary
5	Kingswood Close Meadow View	Moderate	Minor	Moderate Temporary	Minor Temporary
6	Ogmore Castle	Moderate	Minor	Major Temporary	Moderate Temporary
7	Ewenny Stepping Stones	Moderate	Minor	Major Temporary	Moderate Temporary
8	Ogmore Rd	Moderate	Minor	Major Temporary	Moderate Temporary

PRV No.	Receptor	Buildings Before Mitigation	Buildings With Mitigation (15 years)	Lighting Before Mitigation	Lighting With Mitigation
9	Ogmore Rd	Moderate	Minor	Major Temporary	Moderate Temporary
10	Ogmore Rd	Moderate	Minor	Major Temporary	Moderate Temporary
11	Ogmore Rd (layby)	Minor	Minor	Major Temporary	Moderate Temporary
12	River Ogmore (west)	Minor	Minor	Major Temporary	Minor Temporary
13	Footpath FP13MM	Minor	Minor	Moderate Temporary	Minor Temporary
14	Footpath FP13MM	Major	Moderate	Major Temporary	Moderate Temporary
15	Footpath FP13MM	Major	Moderate	Major Temporary	Moderate Temporary
16	Footpath FP13MM	Negligible	Negligible	Moderate Temporary	Minor Temporary
17	Verville Cottage access	Negligible	Negligible	Moderate Temporary	Minor Temporary
18	Old Castle Down	Major	Moderate	Major Temporary	Moderate Temporary
19	Ogmore Down	Major	Moderate	Major Temporary	Moderate Temporary
20	Ogmore Down	Major	Moderate	Major Temporary	Moderate Temporary
21	Beacons Down	Negligible	Negligible	Negligible	Negligible
Views From The West					
22	A48 West	Negligible	Negligible	Minor Temporary	Negligible

PRV No.	Receptor	Buildings Before Mitigation	Buildings With Mitigation (15 years)	Lighting Before Mitigation	Lighting With Mitigation
23	River Omore FP12MM	Negligible	Negligible	Negligible	Negligible
24	New Inn Road Bridge	Negligible	Negligible	Negligible	Negligible
25	Merthyr Mawr Rd Bridge	Negligible	Negligible	Negligible	Negligible
26	Merthyr Mawr House	Negligible	Negligible	Negligible	Negligible
27	Laleston – FP3LAL	Negligible	Negligible	Negligible	Negligible
28	Merthyr Mawr Warren	Negligible	Minor	Minor	Negligible
29	Merthyr Mawr Warren	Negligible	Minor	Minor	Negligible
30	Footpath FP4MM	Negligible	Negligible	Negligible	Negligible
Views From The North					
31	Broadlands – FP2LAL	Negligible	Negligible	Negligible	Negligible
32	Newbridge Fields	Negligible	Negligible	Negligible	Negligible
33	Ogmore River – FP8BGND	Negligible	Negligible	Negligible	Negligible
34	A48 east	Negligible	Negligible	Minor Temporary	Minor temporary
35	Technology Drive	Moderate	Moderate	Moderate Temporary	Minor temporary
36	Island Farm Close & Rd	Major	Moderate	Moderate Temporary	Minor temporary
Views From The East					
37	Nursing Home	Major	Minor Temporary	Moderate Temporary	Minor Temporary
	Highwinds	Minor	Minor	Negligible	

- 10.6.27 Views from the south, such as the buildings, while still visible will integrate with the landscape, absorbing into the hues and textures of the foreground and backdrop. The built form will vary in height by nature of the use, ground modelling and tree planting and will be constructed in materials that will integrate into the landscape. These measures collectively provide significant impact scale reduction in the 15 year assessment period.
- 10.6.28 The development, which is located on the south margins of Bridgend, will be seen in context of the existing urban setting including the existing prominent industrial buildings.
- 10.6.29 Views from highly sensitive elevated positions on the Downs are seen in context of a wide panorama and the proposals effect a relatively minor amount of the scene. Views towards Bridgend are already considered to be detracted. Mitigation will reduce impacts to **moderate** from these locations.
- 10.6.30 Occasional long views from the west at Merthyr Mawr Warren are less conspicuous being at longer distances and heavily filtered by existing planting and will be **minor** adverse after 15 years.
- 10.6.31 From residential areas to the south and west of Island Farm Road it is anticipated that some elements of the proposed science park development would still be visible beyond the 15 years assessment period from upper floors. These would, however, be limited to negligible views of the sports village sited at lower levels and blocked by science park development. Vehicular movements may also be visible in winter and assessed as **moderate** from upper floors and **negligible** at ground floors.
- 10.6.32 From the nursing home to the east, planting mitigation will be very effective in reducing the impact of the tennis centre and assessed as **minor**.
- 10.6.33 Overall the planting and other mitigation measures described reduce the scale and subsequent significance of any effects to **moderate**, **minor** or negligible with no **major** adverse visual effects.
- 10.6.34 Views of vehicles during operation will from most viewpoints be **minor** becoming **negligible** towards the end of the assessment period of 15 years.
- 10.6.35 Landscape character impacts will reduce to **minor** as features lost during construction are compensatory measures mature.
- 10.6.36 The mitigation measures proposed for reducing lighting impacts will significantly reduce the scale and risk for obtrusive light pollution through a combination of avoidance, limited hours of operation luminaire type and fittings and while still visible, will only be of a **minor** nature on human receptors and negligible on ecological receptors.

Cumulative Effects and Interactions

- 10.6.37 The anticipated committed developments identified in chapter 2 would not have any cumulative landscape or visual impact significance.

10.7 Summary and Conclusions

- 10.7.1 This chapter has considered the landscape and visual impacts of the sports village and phase 2 science park extension at Island Farm, Bridgend.

- 10.7.2 It has described the policy context, methodology, landscape and visual baseline, predicted impacts, mitigation and enhancement measures. The assessment has been undertaken by experienced registered landscape professionals in accordance with relevant guidelines.
- 10.7.3 There are no landscape designations within the site other than a single oak tree situated at the southwest boundary is protected by a group TPO. (County of Glamorgan TPO (No3) - 1954).
- 10.7.4 To the west, Merthyr Mawr, Merthyr Mawr Warren and adjoining farmland north of the River Ogmore lie within a Historic Landscape designation. Merthyr Mawr House a Grade II* Listed manor and its associated Historic Park and Garden, are situated 500m to the southwest.
- 10.7.5 LANDMAP has been extensively used in the assessment process and provides information on the aspects which contribute towards creating landscape character of the site and its surroundings. The site has also been subject to an historic landscape character assessment (HLCA) and lies in HLCA 017 Ochr Draw and Island Farm and is also near a number of other HLCA's which could be impacted upon by the proposals. The evaluation of impacts on these areas requires has been undertaken in chapter 8 by Gwent Glamorgan Archaeology Trust through the ASIDOHL2 process.
- 10.7.6 The landscape to the south, east and west of the site is predominately in agricultural land use, interspersed by occasional farmsteads, small settlements and detached dwellings in the river valley floors and lower slopes of the wooded escarpment. The land to the north, by contrast, is dominated by the urban areas of Bridgend and the land to the east
- 10.7.7 Overall, the visual and sensory qualities of the site and immediate area are evaluated as low and moderate, recognising the influence of the urban aspect of Bridgend in views.
- 10.7.8 Of particular note is the outstanding visual and sensory evaluation of the Ogmore and Old Castle Downs which provide outstanding long panoramic views to steeply sloping hillsides of semi-natural vegetation.
- 10.7.9 The quality of the site features are variable and most noteworthy are the woodland, scrub and hedges in the north and northwest parts of the application site (designated as a SINC). The landscape to the south predominantly comprises medium to large arable fields bounded by mature, managed but treeless hedges 2-4m high. Some tall trees occur within and around three Karst features towards the centre and southwest of the site.
- 10.7.10 There are no public footpaths that cross the site, but there are a number of public rights of way within the locality, particularly towards the west and south. The nearest is a footpath that runs from the Junction of New Inn Road and Merthyr Mawr Road and heads towards the Merthyr Mawr and River Ogmore and a short path opposite the northeast boundary that runs between the school and residences located off Merthyr Mawr Road.
- 10.7.11 Visually, the site is well contained by the mature woodland in the north and hedgerows around the site boundaries and arable fields, which combine with the undulating topography to limit opportunities to view the site from the wider landscape.
- 10.7.12 The site is seen at close quarters from dwellings lying on the southern and western margins of Island Farm Road cul-de-sac, south of the A48; a nursing home adjacent to the east boundary located off Ewenny Road and the existing science park buildings near the northeast boundary. Vegetation blocks views from other nearby dwellings north of the A48 and adjacent to Ewenny Road.

- 10.7.13 In the wider landscape setting views into the site are greatly influenced by landform as well as vegetation. The majority of existing views lie in arc from Ewenny in the south to Merthyr Mawr Warren in the southwest. Views from the west, east and north are blocked by intervening mature vegetation or existing urban development.
- 10.7.14 The most open views are found from selected location on elevated open ground at Old Castle and Ogmores Down. From these vantage points the site is seen as part of an expansive panorama lying below the urban area of Bridgend and occupies a relatively small part of the overall view.
- 10.7.15 Elevated views from the south and west predominantly see the site set against a landscape and urban backdrop, filtered in the foreground by hedges and trees.
- 10.7.16 Views from the footpath to the southwest see the existing science park and nursing home lying above the application site partially blocked by hedgerows and field tree in the foreground.
- 10.7.17 Mature, dense tree belts around Merthyr Mawr House and gardens prevent any possibility of views from the house associated gardens or Merthyr Mawr even in bare leaf cover.
- 10.7.18 Filtered framed glimpses are available from the northern ramparts of Ogmores Castle and path north of the Stepping Stones and the existing science park in the background. The pylon towers and overhead lines are a conspicuous detracting feature in all these views.
- 10.7.19 The proposals have been developed through consultation with key stakeholders and carefully considered against the key opportunities and constraints of a number of assessments described in other chapters of the ES.
- 10.7.20 The ecology, landscape and visual aspects were considered major constraints and a number of masterplan iterations were developed and tested before arriving at the preferred solution which is considered the best environmental fit for the intended land uses.
- 10.7.21 The assessment has shown that there will be a permanent loss of trees and scrub to the north as a result of the new access road into the site, although the scale of loss has been reduced from the same junction and road arrangement approved in the previous planning application by moving it 50 metres further east.
- 10.7.22 Most of the internal hedgerows and a small number of trees will be lost in the arable land to the south as a result of the sports village development, but these have less ecological sensitivity and are proposed to be transplanted into new locations.
- 10.7.23 Significant landscape enhancement is proposed in compensation for these losses, to include:
- 10 ha of native tree planting;
 - Green bridge across the new link road
 - Transplanting hedgerows into new locations
 - Improved landscape management
 - New ponds and wetland features
 - Grassland habitat

- 10.7.24 The scale of permanent landscape impacts can also be reduced through, careful design and protection of remaining features during the construction period.
- 10.7.25 The proposal contains large scale and mass buildings and there is likely to be significant visual impacts predominantly in the wider context to the south and from receptors bordering the northeast and east site boundaries. However the extension to the science park will block views of the sports village once constructed.
- 10.7.26 The assessment has shown that the majority of views are of a minor and moderate nature but there is potential for major adverse impact views from sensitive receptors such as Old castle and Ogmores Downs if not carefully mitigated.
- 10.7.27 Mitigation measures shown in the landscape parameters plan shows mitigation in the form of east west tree belts and reinforcement of the site boundaries. In itself, this will provide limited reduction in the scale of impact as planting will take time to mature. It is therefore fundamental that a high standard of building design is achieved and measures are incorporated which have an immediate 'reducing' effect. Key considerations will be:
- Creating a varied and undulating roofscape to provide visual interest and to break up the cumulative massing of groups of buildings.
 - Using muted recessive colours where the roof is seen against a darkened landscape backdrop.
 - Using horizontal and vertical bands of colour, texture and shadow relief to break up elevations. This could be further enhanced by 'green walls' using climbing plants growing on a simple and lightweight steel wire framework
 - Using a green roof on the 4G and sports centre building
 - Using cut and fill in the sloping topography to reduce the perceived scale and mass of buildings
 - Using building orientation to remove views of car parks and vehicle movements
- 10.7.28 Some of the sports facilities will need temporary floodlighting to maximise their all year round use which could lead to significant indirect adverse effects on human and ecological receptors if not carefully designed and mitigated. At the detailed design stage, obtrusive light pollution will be avoided by preventing unnecessary lighting; reduction through careful choice of luminaires and lamp fittings and night-time curfews when most lights should be turned off. It is considered that lighting of training facilities should cease at 2100hrs and stadia lighting by 2300hrs. Street light curfews adjacent to the link road should also be undertaken following discussion with the adopting highway authority.
- 10.7.29 While there will be permanent residual views of buildings, these will be predominantly negligible, minor or moderate significance following the implementation of the comprehensive mitigation measures at the end of the 15 year assessment period. Views are a subjective matter and have been assessed as being adverse because of the scale of change in the appearance of an undeveloped landscape. It is anticipated that the majority of receptors will embrace these community led proposals and be stimulated by the quality and appearance of this development.

10.7.30 The loss of landscape features will be significantly compensated by the scale of proposed planting and through improved landscape management, will give rise to beneficial landscape and ecology effects in the medium and long term future. Burying the overhead power underground lines will also provide a minor beneficial effect in views from the south and west.

10.8 References

Methodology

Landscape Institute & the Institute of Environmental Management and Assessment, 1995, "Guidelines for Landscape and Visual Assessment", 2nd Edition, London, Spon Press

Landscape Institute & the Institute of Environmental Management and Assessment, 2002, "Guidelines for Landscape and Visual Assessment", 2nd Edition, London, Spon Press

Morris, P. & Therivel, R. eds., 2001, "Methods of Environmental Impact Assessment", 2nd Edition, London, Spon Press

10.9 Glossary

<i>AIA</i>	<i>Arboricultural Impact Assessment</i>
<i>LVIA</i>	<i>Landscape and visual impact assessments</i>
<i>PRoW</i>	<i>Public Rights of Way</i>
<i>PRV</i>	<i>Principal Representative Viewpoints</i>
<i>RPA</i>	<i>Root Protection Area</i>
<i>SPG</i>	<i>Supplementary Planning Guidance</i>
<i>TPO</i>	<i>Tree Preservation Order</i>