7 LANDSCAPE

7.1 Introduction

7.1.1 General

This Chapter describes the assessment of the predicted impact of the Scheme on the landscape character and visual amenity of the study area. It sets out the policy context, the methodology of the assessment and establishes the study area through definition of a zone of visual influence (ZVI). This is followed by an assessment of the existing baseline conditions, for landscape/ townscape character and for visual amenity. The impact assessment then considers the nature and scale of predicted impacts arising from the Scheme, potential mitigation measures and the significance of residual impacts. A summary of the impacts is provided in Table 7.6.1 at the end of this chapter.

The Landscape chapter should be read in conjunction with other ES topic chapters, in particular Chapters 2: The Project, 6: Cultural Heritage and 8: Nature Conservation.

7.1.2 Policy context

The following polices and plans are concerned with, or make reference to, the landscape and its protection.

Environment Strategy for Wales, 20067.1

The Environment Strategy for Wales was published in 2006 and outlines the Welsh Government's long-term strategy for the environment of Wales, for the 20 years up to 2026. It provides a framework within which to achieve an environment, which is clean, healthy, biologically diverse and valued by the people of Wales.

Welsh Office Circulars and National Assembly for Wales Circulars

Welsh Office Circulars and National Assembly for Wales Circulars provide procedural guidance that interprets and explains a particular piece of legislation. The Welsh Office Circulars and National Assembly for Wales Circulars that may be pertinent to the Scheme are as follows:

- WOC 60/96 Planning and the Historic Environment: Archaeology^{7.2}
- WOC 61/96 Planning and the Historic Environment: Historic Buildings and Conservation Areas^{7,3}
- WOC 1/98 Planning and the Historic Environment: Directions by the Secretary of State for Wales^{7,4}
- WOC 11/99 Environmental Impact Assessment (EIA)^{7.5}

Planning Policy Wales (PPW) Edition 8, 2016^{7.6}

Planning Policy Wales is the Welsh Government's principal statement of national land use policy and was first adopted in March 2002. Planning Policy Wales version 8 was published in January 2016. The first four chapters of the statement introduce the planning system, the principles of planning for sustainability, the plan led system and mechanisms for controlling development. The later chapters (5 to 13) set out policy on all key land use topics, some of which have relevance to the Caernarfon and

Bontnewydd Bypass, particularly Chapter 5, Conserving and Improving Natural Heritage and the Coast, and Chapter 8, Transport.

Planning Policy Wales is supplemented by 21 Technical Advice Notes (TANs).

Technical Advice Note 12: Design^{7.7}

Technical Advice Note 12 focuses on design issues within a planning context and outlines important considerations which should be taken into account in terms of landscape conservation and enhancement. It states that "the distinctive settlement patterns which characterise much of Wales have evolved in part in response to the country's diverse landscape and topography. The way in which development relates to its urban or rural landscape context is critical to its success and because of this an understanding of landscape quality is fundamental to the design process." (para 5.5.1)

Wales Transport Strategy (2008^{7.8})

A series of route objectives have been established within the Wales Transport Strategy. These are listed under the headings Social, Economy and Environment. Under the last of these are the following objectives, with implications for landscape issues:

Outcome 11: The sustainability of the transport infrastructure. Increase the use of more sustainable materials in our country's transport assets and infrastructure

Outcome 15: The local environment. Reduction in the individual and cumulative impact of transport on communities and the built and natural environment

Outcome 16: Our heritage. The choice and design of transport measures to have a neutral impact, or where appropriate, enhance Wales' natural and built heritage

Outcome 17: Biodiversity. Improve the impact of transport on biodiversity

European Landscape Convention (Florence: Council of Europe, 2000, ETS 176)

The European Landscape Convention is the first international convention to focus specifically on landscape. It is dedicated exclusively to the protection, management and planning of all landscapes in Europe. The Convention was signed by the UK government on 24th February 2006, ratified on the 21st November 2006, and became binding in this country on 1st March 2007.

The ELC provides a people-centred and forward-looking way to reconcile environmental management with the socio-economic challenges of the 21st century and to help people and communities to re-connect with place.

The Convention must be implemented at the most appropriate level of government for landscape action, and entrusted to those with the necessary competence, as close to the communities concerned as is possible.

Contracting Parties undertake to: recognise landscapes in law; establish and implement landscape protection, management and planning policies; establish procedures for public participation.

Gwynedd Unitary Development Plan (UDP) 2001-2016 (Adopted)7.9

The relevant policies in terms of landscape issues and the Scheme are as follows:

Taking a precautionary approach - strategic policy 1

Development proposals that would have an adverse or uncertain impact on the environment, the economy or cultural character (including the Welsh language) of the Plan area will be refused unless it can be conclusively shown by an appropriate impact assessment that this can be negated or mitigated in a manner acceptable to the Planning Authority.

The natural environment - strategic policy 2

The area's natural environment and its landscape character, and views in and out of the Snowdonia National Park and the Anglesey and Llŷn Areas of Outstanding Natural Beauty, will be safeguarded, maintained or improved by refusing development proposals that will significantly harm them.

Built and historic environment - strategic policy 3

The area's built and historic environment will be protected from development that would significantly harm it and new developments in historic areas will be expected to conform to particularly high design standards which will maintain or improve their special character.

Design standards - strategic policy 4

Development will be expected to be of a good design in order to ensure that it makes a positive contribution, wherever possible, to the landscape, built environment and sustainable development.

Policy b8 - the Llŷn and Anglesey areas of outstanding natural beauty (AONB)

The aim will be to safeguard, maintain and enhance the character of Areas of Outstanding Natural Beauty. It will be necessary to show that detailed consideration has been given to the character of the area in every development proposal and that a suitable design, site and materials are selected in order to minimise the impact of the development.

Policy b10 - protecting and enhancing landscape conservation areas

These areas have been designated from a recognition of their landscape quality and of being characteristic of Gwynedd. The policy aims to protect their character and quality.

Policy b11 - open spaces between or in villages or towns

This policy aims to prevent unacceptable impacts on open land between or within towns and villages or on land important to their rural/urban character.

Joint Local Development Plan Anglesey & Gwynedd (2011-2026)^{7.10}: Independent examination stage 2016

The relevant policies in terms of landscape issues and the Scheme are as follows:

Strategic Policies:

PS16: Conserving and Enhancing the Natural Environment

The Councils will manage development so as to conserve and enhance the Plan area's distinctive natural environment, countryside and coastline, and proposals that have an adverse effect on them will be refused. When considering permitting an application the Planning Authorities will ensure that they are:

Safeguarding the Plan area's habitats and species, geology, history and landscape;

Protecting and enhancing sites of international, national, regional and local importance and their settings in line with National Policy;

Having regard to the relative significance of the designations in considering the weight to be attached to acknowledged interests in line with National Policy;

Protecting and enhancing biodiversity within the Plan area and enhancing and/or restoring networks of natural habitats in accordance with the Local Biodiversity Action Plan and Policy AMG4;

Protecting and enhancing biodiversity through networks of green/ blue infrastructure;

Safeguarding internationally, nationally and locally protected species;

Protecting, retaining or enhancing the local character and distinctiveness of the individual Landscape Character Areas (in line with Policy AMG2) and Seascape Character Areas (in line with Policy AMG3);

Protecting, retaining or enhancing trees, hedgerows or woodland of visual, ecological, historic cultural or amenity value.

Detailed Policies:

AMG1 – Special Landscape Areas

When considering proposals within Special Landscape Areas (SLA) as identified by the proposals map and listed below, there will be a need to appropriately consider the scale and nature of the development thus ensuring that there is no detrimental impact on the landscape. The development should aim to add to the historic, visual, geographical, ecological and cultural features of the SLA.

Proposals should address and coincide with the prepared 'Statement of Significance'.

Where there are reasonable grounds to suggest that proposals may result in a significant adverse impact on the SLA (either located within or directly outside) the Council will require a Landscape and Visual Impact Assessment in order to further consider the impact of the development on the designated area.

In exceptional circumstances, where development is necessary and could result in significant impact on the landscape, appropriate mitigation and compensation measures should be provided.

AMG2 – Protecting and enhancing features and qualities that are unique to the local landscape character

Proposals that would have an adverse impact upon landscape character as defined by the Landscape Character Areas included within the current Landscape Strategy for the relevant authority, must demonstrate through a landscape assessment how landscape character has influenced the design, scale, nature and site selection of the development. A proposal will be granted provided that it doesn't have an adverse impact upon features and qualities which are unique to the local landscape in terms of visual, historic, geological, ecological or cultural aspects. Measures should be taken to ensure that the development doesn't:

- 1. Cause significant adverse impact to the character of the built or natural landscape;
- 2. Fail to harmonise with, or enhance the landform and landscape;
- 3. Lose or fails to incorporate traditional features, patterns, structures and layout of settlements and landscape of both the built and natural environment.

Particular emphasis will be given to the landscapes identified through the Landscape Character Areas as being of high and outstanding quality because of a certain landscape quality or a combination of qualities. Additional consideration will also be given to developments which directly affect the landscape character and setting of the AONBs or the National Park.

AMG5: Protecting sites of regional or local significance

Proposals that are likely to cause direct or indirect significant harm to Local Nature Reserves (LNR), Wildlife Sites (WS) or regionally important geological / geomorphologic sites (RIGS) will be refused, unless it can be proven that there is an overriding social, environmental and/or economic need for the development, and that there is no other suitable site that would avoid having a detrimental impact on sites of nature conservation value and local geological importance. When development is granted, assurance will be required that there are appropriate mitigation measures in place. It will be possible to use planning conditions and/or obligations in order to safeguard the site's biodiversity and geological importance.

PS17 - Preserving and enhancing heritage assets

In seeking to support the wider economic and social needs of the Plan area, the Local Planning Authorities will preserve and, where appropriate, enhance its unique heritage assets. Proposals that will preserve and enhance the following heritage assets, their setting and significant views into and out of the building/area will be granted:

- i Scheduled Ancient Monuments and other areas of archaeological importance (in line with PolicyAT4).
- ii Listed Buildings and their curtilages.
- iii Conservation Areas (in line with Policy AT1).

- iv Beaumaris Castle and Caernarfon Castle and Town Walls World Heritage Sites (in line with PolicyAT1).
- v Candidate World Heritage Sites.
- vi Registered Historic Landscapes, Parks and Gardens (in line with Policy AT1).
- vii Buildings of architectural/ historic/ cultural merit which are not designated or protected (in line with Policy AT3).

AT1 – Conservation areas, world heritage sites and registered historic landscapes, parks and gardens

Proposals within or affecting the setting and/ or significant views into and out of Conservation Areas, World Heritage Sites and Registered Historic Landscapes, Parks and Gardens shown on the Constraints Map must, where appropriate, have regard to:

- i. Adopted Conservation Area Character Appraisals, Conservation Area Plans and Delivery Strategies.
- ii. World Heritage Site Management Plans.
- iii. The Register of Landscape, Parks and Gardens of Special Historic Interest in Wales.
- iv. Other detailed assessments adopted by the Local Planning Authority.

Development proposals should be supported by a Heritage Impact Assessment, where appropriate.

7.2 Methodology

7.2.1 Study Approach

A Stage 3 (or Detailed level) Landscape assessment was carried out in accordance with, or with reference to, the following guidance and current best practice:

- The Design Manual for Roads and Bridges (DMRB), Volume 10 Environmental Design^{7.11}
- IAN 135/10(W)^{7.12} Landscape and Visual Effects Assessment which replaces DMRB Volume 11 Section 3 Part 5
- The Guidelines for Landscape and Visual Impact Assessment (GLVIA)^{7.13}, Third Edition, 2013 as published by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA)

Together these documents provide a methodology and process to assess the potential landscape effects arising from the Scheme.

The assessment includes consideration of the following:

- Landscape Character Effects Impacts on the quality and character of the landscape within the study area. This includes urban areas within the townscape of Caernarfon. These are not considered separately as only one small area on the eastern fringe of Caernarfon is within the study area, approximately 0.5km
- Visual Effects Impacts on the visual amenity of identified key views, public rights of way and residential receptors

The assessment was carried out through a combination of field survey and desktop study. Reference was made to the following sources of information:

- A487 Caernarfon to Bontnewydd Bypass Key Stage 2 Study^{7,14}
- All Wales LANDMAP Study^{7.15}
- Gwynedd Supplementary Planning Guidance Landscape Character^{7,16}
- 1:25000 Ordnance survey mapping
- Aerial photography
- Field surveys were undertaken in Summer (June/ July) and Winter (December) 2015.

The flowchart overleaf shows the steps employed in the baseline and impact assessment process, for Landscape/Townscape and Visual effects. A detailed explanation of the methodology follows.

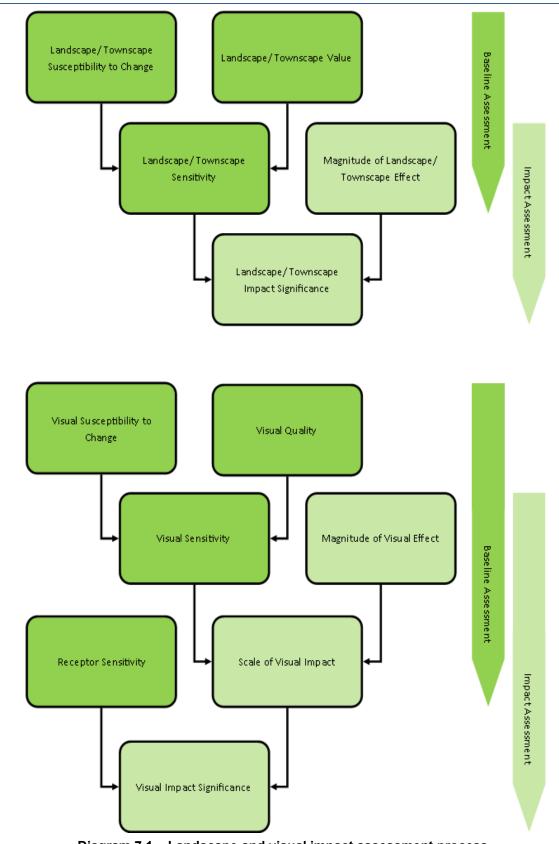


Diagram 7.1 – Landscape and visual impact assessment process

7.2.2 Zone of Visual Influence

The study area boundary for landscape effects was established through the definition of a Zone of Visual Influence (ZVI). This followed the production of a Zone of Theoretical Visibility (ZTV), based on a digital terrain model. (Refer to Volume 2, Figure 7.4a). However, this takes no account of vegetation or buildings, and identifies the theoretical visibility of any part of the scheme, no matter how small or distant. This indicated a significantly different area of visibility from that evident on the ground. Therefore this ZTV was reviewed and refined to create a ZVI.

The ZVI was developed through first walking the Scheme centreline and noting the extent of visible area. This boundary was then adjusted to take account of proposed earthworks and structures, as well as a 4m traffic height. The observer height was taken as 1.5m above ground level, in accordance with IAN135/10(W). Where the potential viewing distance would be extensive the ZVI boundary reflects a distance limit of potential significance, taking account of prevailing topography and viewing positions relative to the Scheme.

Once established the ZVI was used as the study boundary for the assessment of landscape, townscape and visual impacts. Refer to Volume 2, Figure 7.4b.

7.2.3 Landscape/Townscape Baseline

The European Landscape Convention (ELC) defines 'landscape' as being 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. This definition recognises landscape not just in terms of appearance and visual amenity but as providing a spatial framework for understanding the interaction between the natural, cultural and perceptual elements, embedding landscape or 'place' into policy whilst managing and protecting the landscape as a resource in its own right and promoting sustainable development.

The landscape baseline was based initially on data from the LANDMAP Information System published by Countryside Council for Wales (now Natural Resources Wales (NRW)). The LANDMAP process uses Geographical Information Systems (GIS) to store and manage data collected on five evaluated aspect topic layers; Geological Landscapes, Landscape Habitats, Historic Landscapes, Cultural Landscapes and Visual & Sensory. For each of these topic layers the landscape is evaluated and divided into geographical units known as aspect areas. A data set is developed for each area that describes, classifies and evaluates its quality based upon an all-Wales set of criteria.

The Visual & Sensory aspect describes the topography, land cover and form of the landscape, along with an assessment of its visual quality and sensory characteristics. These elements are those that contribute most directly to an area's landscape and visual character and therefore it is those which most informed the definition of landscape character areas within the study area boundary.

As with the Key Stage 2 study the LANDMAP Visual & Sensory aspect areas were taken as the starting point and modified in reference to the other LANDMAP aspects. The character areas were then subdivided to a suitable scale to allow appropriate assessment of landscape effects arising from the Scheme. The resulting landscape character areas are distinguished through their physical and perceptual qualities, including topography, aspect, land cover, exposure and visual context. Refer to Volume 2, Figure 7.5 and 7.6.

No separate townscape character area study was carried out as only a small urban area on the eastern fringe of Caernarfon falls, approximately 0.5km wide, within the study area, and therefore this was treated as a landscape character area, but described in both landscape and townscape terms.

Each landscape character area is described and then assigned two key measures. The first is its Susceptibility to Change, in particular its capacity to accommodate change arising from the type of scheme development proposed without undue consequences for the maintenance of the baseline situation. This is described using a three-point scale, as Table 7.2.1 below:

Table 7.2.1 - Landscape/ Townscape Susceptibility to Change

Low	Effects from the type of scheme proposed can be accommodated with only a minor, or no, change to the baseline landscape/ townscape character
Medium	Effects from the type of scheme proposed are likely to lead to a moderate change in the baseline landscape/ townscape character
High	Effects from the type of scheme proposed are likely to cause a major change to the baseline landscape/ townscape character

The second measure to be assigned is Value. As there are no formally designated landscapes within the study area this was determined through the particular elements contributing to landscape character, and with reference to the LANDMAP data. As recommended by DMRB a five-point scale was employed, with separate criteria for Landscape and Townscape, as follows:

Table 7.2.2 - Landscape/ Townscape Value

	Landscape	Townscape
Exceptional	Strong landscape structure; A harmonious combination of complementing components; Distinct landscape characteristics, identity or patterns; Landmark features worthy of retention; Strong positive sense of place; No detractive elements	Architecturally unique/landmark features worthy of retention; Locally distinctive/use of local materials; High build quality; High historic value; Distinct local character, identity or patterns; Positive impact on wider context; Excellent condition; No detractive elements
Very Good	Strong landscape structure; Composed of generally harmonious components; Distinct landscape characteristics, identity or patterns; Identifiable features worthy of retention; Occasional or minor detractive elements	Identifiable features worthy of retention; Locally distinctive/use of local materials; Good build quality; Some historic value; Distinct local character, identity or patterns; No negative impact on wider context; Very good condition; Occasional detractive elements

	Landscape	Townscape
Good	Distinguishable landscape structure; Comprised of generally complementing components; Identifiable landscape characteristics, identity or patterns; Some detractive elements	Appropriate architectural style/ materials; Average build quality; No historic value; Identifiable character, identity or patterns; Good condition; Some detractive elements
Ordinary	Weak landscape structure, including some complementing components; Remnant or weak indication of landscape characteristics, identity or patterns; No identifiable features worthy of retention; Frequent detracting elements	Inappropriate architectural style/ materials; Low build quality; Weak character, identity or patterns; Reasonable condition; Frequent detractive elements
Poor	Degraded or damaged landscape structure; No complementing components; No identifiable landscape characteristics, identity or patterns; Extensive detracting elements	Detractive architectural style/ materials; Poor build quality; Degraded/damaged character, identity or patterns; Poor condition; Extensive detractive elements; Negative impact on wider context

The Susceptibility to Change and Value measures were then combined using the matrix below to provide a measure of Sensitivity for each Landscape/Townscape Character Area.

Table 7.2.3 - Landscape/ Townscape Sensitivity

	<u>,</u> ₹		Value				
	tibilit		Exceptional	Very good	Good	Ordinary	Poor
	epti har	High	High	High	Medium	Medium	Low
Susceptibility to Change	Medium	High	Medium	Medium	Low	Low	
	ಬ್ಲ್ಕ್	Low	Medium	Medium	Low	Low	None

7.2.4 Visual Baseline

The establishment of a visual baseline followed a similar process, but based on a series of selected views, under the following categories:

- Representative views: illustrating typical views from public locations
- Valued views: views which are noted as valued by the public, such as known viewpoints, visitor attractions and popular leisure destinations
- Linear views: representing views seen from routes including roads, railways, public footpaths and bridleways.

A number of views were selected to provide an appropriate coverage and a range of view types and distances from the Scheme. The locations of these views are illustrated on Volume 2, Figure 7.8.

Each view is described, in both its winter and summer forms, and identifying key elements, patterns, character, night-time appearance and degrees of movement. Each is then assigned two measures. As with the landscape baseline the first is Susceptibility to Change, meaning the degree to which a view is able to accept the change likely to arise from the type of scheme proposed without its particular qualities and characteristics being altered. As before a three-point scale is applied, as follows:

Table 7.2.4 - Visual Susceptibility to Change

Low	Effects from the type of scheme proposed can be accommodated with only a minor, or no, change to the baseline view
Medium	Effects from the type of scheme proposed are likely to lead to a moderate change in the baseline view
High	Effects from the type of scheme proposed are likely to cause a major change to the baseline view

The second measure to be established for each view is Quality. A five-point scale is applied, describing the visual quality of each view, as follows:

Table 7.2.5 - Visual Quality

Very Attractive	The view is comprised of harmonious elements, in a balanced			
	composition, with a degree of visual interest or contrast and no			
	significant detracting elements.			
Attractive	The view is comprised of harmonious elements, in a balanced			
Attractive	composition, with very few detracting elements.			
Moderate	The view is mainly comprised of harmonious elements, with some			
Woderate	detracting components.			
Poor	The view is comprised of unrelated elements with little composition,			
1 001	and a number of detracting factors.			
Very Poor	The view is dominated by discordant and detracting elements.			

The measures of Susceptibility to Change and Quality are then combined in accordance with the following matrix to provide an assessment of Sensitivity for each view.

Table 7.2.6 - Visual Sensitivity

t		Quality				
usceptibility t		Very Attractive	Attractive	Moderate	Poor	Very Poor
ᆲ	High	High	High	Medium	Medium	Low
Se Ch	Medium	High	Medium	Medium	Low	Low
Sus	Low	Medium	Medium	Low	Low	None

In addition the range of likely visual receptors for each view is identified, with reference to their activity and therefore their own sensitivity to change. This is included in the impact assessment to reflect the significance of changes to different people.

7.2.5 Affected Properties

The assessment of effects on residential properties is carried out separately. For the baseline condition a list of Affected Properties has been developed, with properties grouped together where appropriate. Each property or group is described in terms of its location, distance from the Scheme, and the nature and quality of the current visual amenity.

This information is presented in tabular form as the Visual Impact Schedule (VIS) and illustrated on Visual Impact Drawings (VID), Volume 2, Figures 7.10a-b.

7.2.6 Landscape and Townscape Impact Assessment

For landscape, townscape and visual effects the impact assessment is derived from identifying a Magnitude of Effect affecting each character area or view. This Magnitude measure for landscape effects takes account of scale, extent and reversibility, and uses a four-point scale defined as follows, being either adverse or beneficial:

Table 7.2.7 - Magnitude of Landscape/ Townscape Effect

Substantial	Total loss or major alteration of/ enhancement to key elements, features or characteristics of the landscape/ townscape.
Moderate	Partial loss of or alteration or partial enhancement to one or more key elements / features / characteristics of the landscape/townscape.
Slight	Minor loss of or alteration or enhancement, or short-term major change, to one or more key elements / features / characteristics of the landscape/townscape.
Negligible/ No Change	No loss or alteration, to one or more key elements / features / characteristics of the landscape/townscape and / or no introduction of new elements / features / characteristics.

The Sensitivity measure is then cross-referenced with the Magnitude of Effect for each Landscape/ Townscape Character Area to give an Impact Significance, based on a five-point scale as below and either adverse or beneficial. The 'negligible/ no change' level of the magnitude scale is not included for significance evaluation as it would not constitute an impact, and would therefore not have any significance.

Table 7.2.8 - Landscape/ Townscape Impact Significance

e		Landscape/ Town	scape sensitivity	
Inituc		High	Medium	Low
of Magnitude	Substantial	Substantial	Major	Moderate
Scale o	Moderate	Major	Moderate	Minor
Sc	Slight	Moderate	Minor	Not Significant

This process is carried out for each of the following stages, with the assessed Magnitude of Effect adjusted as appropriate:

- Construction Phase taking account of likely construction operations and effects
- Year 1 following completion completed Scheme but with no effective landscape mitigation from planting
- Year 15 (Winter) with established mitigation but without leaf cover
- Year 15 (Summer) with established mitigation in leaf

7.2.7 Visual Impact Assessment

For visual impact the process is very similar, combining the Visual Sensitivity measure with the Magnitude of Effect for each view, and doing so for each of the four Scheme stages described above. The Magnitude of Effect criteria are as follows and either adverse or beneficial:

Table 7.2.9 - Magnitude of Visual Effect

Substantial	Proposals form a significant and immediately apparent part of the view that significantly adversely / beneficially affects its overall character.
Moderate	Proposals form a visible and recognisable new adverse or beneficial element within the overall scene and may be readily noticed by the observer or receptor, having an effect on the character of the view.
Slight	Proposals constitute only a minor component of the view, which could be missed by the casual observer or receptor, beneficial or adverse, having little effect on the nature of the view.
Negligible/ No Change	No part of the development, or traffic associated with it, is discernible or is at such a distance that it is scarcely apparent.

The Magnitude of Visual Effect is then combined with Sensitivity, to provide a Scale of Visual Impact, as Table 7.2.10. This is then subject to a further step to identify Significance. Here the different sensitivities of visual receptors are taken into account, thereby recognising that people are more or less sensitive to change depending on their activity. For example, residents or people appreciating the visual context of the landscape for recreation are of a high level of sensitivity, road users would be of medium sensitivity and people working in the landscape would be of low sensitivity. The Receptor Sensitivity and Scale of Visual Impact values are combined as Table 7.2.11 to give the Visual Impact Significance. It should be noted that the 'Not Significant' category is not carried forward to this stage.

Table 7.2.10 - Scale of Visual Impact

u		Visual Sensitivity			
Scale of //agnitude		High	Medium	Low	
gni	Substantial	Substantial	Major	Moderate	
Sca	Moderate	Major	Moderate	Minor	
_	Slight	Moderate	Minor	Not Significant	

Table 7.2.11 - Visual Impact Significance

		Scale of Visual Ir	cale of Visual Impact			
ج <u>۲</u>		Substantial	Major	Moderate	Minor	
epto	High	Substantial	Substantial	Major	Moderate	
Receptor Sensitivity	Medium	Substantial	Major	Moderate	Minor	
S S	Low	Major	Moderate	Minor	Not Significant	

As for the landscape assessment the visual impact assessment process is carried out for the Scheme's visual impact at relevant stages: during construction; Year 1 after completion, Year 15 (Winter) and Year 15 (Summer).

7.2.8 Visual Impact on Affected Properties

The Visual Impact Schedules (VIS) established in the baseline stage is completed with an evaluation of how the visual amenity of each property would be affected by the Scheme at Year 1 after completion, Year 15 (Winter) and Year 15 (Summer). This is also illustrated on the Visual Impact Drawings (VID) showing the degree of visual impact at Year 15 (Winter) Refer to Volume 2, Figures 7.10 a-b.

The visual change for properties is categorised as follows, being either adverse or beneficial in each case:

Table 7.2.12 – Degree of Visual Impact on Affected Properties

Substantial	Where the Scheme would cause a significant deterioration (or improvement) in the existing view.			
Moderate	Where the Scheme would cause a noticeable deterioration (or improvement) in the existing view.			
Slight	Where the Scheme would cause a barely perceptible deterioration (or improvement) in the existing view.			
Negligible/ No Change	No discernible deterioration (or improvement) in the existing view.			

7.2.9 Limitations and assumptions

The assessment of the Zone of Visual Influence of the Scheme is influenced on occasions by weather conditions and the resulting changes in visibility. However this is overcome by repeated assessments in differing conditions and seasons.

Similarly illustrative photographs of character and key views are subject to variance of light, shadows, visibility and vegetation. However this in itself illustrates the dynamic nature of the landscape and visual character. The provision of both winter and summer photographs for the key views further illustrate the changing nature. The baseline assessment of character and key views was carried out in the field and is not dependant on photographs.

For the establishment of the ZVI and for impact assessment the maximum traffic height was assumed as 4m above road level, in accordance with IAN 135/10(W)^{7.12}.

7.3 Baseline Conditions

7.3.1 Landscape Structure

The existing landscape consists of a broad variety of landscape types and elements, with a coastal landscape to the north rising to hills in the east/south east. Refer to Volume 2, Figures 7.1 to 7.3.

The landscape character is generally a rural one and has a number of rivers, streams and minor watercourses flowing through from east to west. The more significant rivers include the Afon Seiont, Afon Rhythallt and Afon Gwyrfai.

Significant landscape features within the study area boundary include the Menai Straits in the north and hills of Cefn-du (441m A.O.D.), Mynydd y Cilgwyn (347m A.O.D.) and Moel Tryfan (427m A.O.D.) in the east. Frequent views towards these features together with views of Snowdonia National Park (which lies just outside of the study area boundary) have considerable influence on the overall character of the place.

Few, small blocks of scattered, broadleaved woodland exist in the area, some of this being ancient, semi-natural woodland which is associated with the Afon Gwyrfai.

Much of the land is agricultural and used for grazing. Stone wall boundaries, cloddiau and hedgerows dominate with some mature deciduous tree cover throughout and the occasional mix of deciduous and coniferous woodland. This vegetation contrasts with upland areas of heathland and rock outcrops.

Properties reflect the mixed urban and rural character with both dense town development and individual properties in the open landscape.

Transport corridors within the study area boundary include the A487(T) which runs in a north-east direction from Caernarfon, the A4086 which leaves Caernarfon in an easterly direction, the A4085 which runs in a south east direction from Caernarfon and the A487(T) which leads south from Caernarfon and joins A499 near Llanwnda. In Anglesey, part of the A4080 road runs through the study area boundary. A more complex network of minor roads stretches throughout the area. The Welsh Highland Railway Line also passes through the study area.

The study area is generally attractive, with the historic town of Caernarfon on its western edge, Snowdonia National Park acting as a backdrop to the east and the Menai Straits and its associated views to the north and west.

Land Use Types:

Farming Grazing (upland and lowland)

Settlement Dense development in Caernarfon and Bontnewydd, with smaller

towns and villages in more rural areas which have more basic facilities and services. Dispersed settlement of individual farms.

Industry Industrial estates.

Woodlands and Plantations:

- Small scattered blocks of mixed woodland can be found throughout the study area.
- Ancient semi-natural woodland corresponds to the Afon Gwyrfai SSSI
- Woodland associated with Glynllifon SSSI to the south
- Woodland associated with Moel Tryfan SSSI to the south-east

Field Systems, Hedges and Trees:

- Mixed field sizes with larger in lower areas and smaller ones in higher parts.
- Hedge boundaries predominate, some on cloddiau, but with stone walls in upland areas.
- Trees frequently associated with hedgerows.

(A Detailed Arboricultural Survey is included in Appendix D.4.)

Rivers, Watercourses and Water Bodies:

A number of rivers flow in a generally east to west orientation through the study area, including:

- Afon Seiont
- Afon Rhythallt
- Afon Gwyrfai

In addition the Menai Straits have a major influence on the character of the study area, in combination with the more open coastline.

Roads, Footpaths, Rights of Way:

- The A487(T) runs in a north-east direction from Caernarfon
- The A4086 which goes in an eastern direction from Caernarfon
- The A4085 which runs in a south east direction from Caernarfon
- The A487 (T) which leads south from Caernarfon and joins A499 near Llanwnda.
- The A4080 road in Anglesey runs through the study area boundary.
- A more complex network of minor roads are found throughout the area. The Welsh Highland Railway Line also passes through the site.
- The Lon Eifion (National Cycle Route 8) passes through the study area alongside the Welsh Highland Railway Line, becoming Lon Las Menai along the north coast from Caernarfon to Plas Menai.

Settlements, Buildings, Farms:

 The nearest substantial settlement is Caernarfon, the outskirts of which lies within the study area boundary. Bontnewydd is a large village set within a rural location with its retail centre and historic core being surrounded by mixed, recent residential development which lacks distinctiveness.

- Other small scattered villages within more rural areas can be found within the study area boundary. These villages have more basic facilities and services.
- Numerous dispersed large farm settlements and large houses.
- Many caravan parks are located within the study area, some of which can be found on the eastern edge of Caernarfon; one near Foryd Bay SSSI to the east, and along the Afon Seiont.
- Dominant traditional materials are local stone and slate, but recent development is eroding the rural character and individuality. The Cibyn Industrial Estate on the eastern edge of Caernarfon creates a strong contrast to the farmed fields adjacent.
- Many listed buildings are found within the study area boundary, eight of which lie within Bontnewydd.

Landscape Characteristics

- Coastal plain contrasting with upland landscape to the south
- Long views to distant landscapes of Anglesey, Snowdonia and Llŷn
- Tranquil rural character predominates around urban core of Caernarfon

7.3.2 Zone of Visual Influence

A Zone of Visual Influence (ZVI), representing the limit of significant visibility, was established for the Scheme through a combination of an initial ZTV, site assessment and desk-study. Refer to Volume 2, Figure 7.4.

The ZVI is limited by both topography and distance, as there would be very long potential views to the Scheme from Snowdonia and Anglesey, but these would be at such a distance as to be inconsequential.

In contrast there would be some areas within the ZVI which would have theoretical views to the Scheme but which would be highly restricted by intervening buildings, hedgerows and vegetation. This is particularly the case for the rising ground to the south of the area.

For the remainder of the landscape effects baseline and impact assessment the ZVI boundary provides the study area.

At the southern end of the study area the ZVI would extend up to 5km from the Scheme to the east, as a result if the rising topography, and up to 2km to the south and west, due to the relatively flat coastal plateau. Where the Scheme passes to the southeast and east of Caernarfon the ZVI would narrow considerably, varying between approximately 300m and 1km. This is as a result of local topography variations and the vertical alignment of the Scheme. Further north the ZVI would widen until it reaches the open Menai Strait where it would extend over a 3km long stretch of the southern slopes of Anglesey.

7.3.3 Landscape Designations/ Studies

The following landscape designations are within, or close to, the study area boundary. Refer to Volume 2, Figure 7.1.

- The Coastal zone of Anglesey, some of which lies within the study area boundary was formally designated as Ynys Môn Area of Outstanding Natural Beauty (AONB) in 1966 and covers most of Anglesey's 125 mile (201 kilometre) coastline.
- Landscape Conservation Areas are also defined, in the Gwynedd UDP, recognising their landscape quality and as being characteristic of Gwynedd.
- Special Landscape Areas, identified in the Joint LDP, in particular the following:

Gwynedd - 07: North-western Fringes of Snowdonia

Gwynedd - 08: Foryd Bay

Anglesey – 16: Southern Anglesey Estatelands

Snowdonia National Park

In November 2009 Gwynedd Council published Supplementary Planning Guidance with respect to Landscape Character. This document built upon the LANDMAP data collated for the County Area (excluding Snowdonia) and identified 16 separate Landscape Character Areas (LCA) through a distillation of the five aspect area boundaries. In 2012 a review was carried out by Land Use Consultants which maintained these areas. The Gwynedd part of the Scheme study area falls almost entirely within Landscape Character Area 4: Caernarfon – Coast and Plateau.

It was necessary for a meaningful landscape impact assessment to define more local scale character areas. To this end the Gwynedd Landscape Character Areas which apply to the study area were first identified. The majority of the study area falls within Gwynedd LCA4: Caernarfon – Coast and Plateau. The remaining small parts of the study area coincide with LCA2 (Penisarwaun Plateau), LCA3 (Llanberis-Bethesda) and LCA16 (Menai Coast). These LCA boundaries were adopted to initially subdivide the Impact Assessment Study Area.

A second level sub-division was then achieved through the application of the twenty-two Anglesey and Gwynedd LANDMAP Visual & Sensory aspect areas within the study boundary, listed below. These describe the topography, land cover and form of the landscape, along with an assessment of its visual quality and sensory characteristics. These elements are those that contribute most directly to an area's landscape and visual character.

A final rationalisation of these areas was then carried out to achieve the twenty-one landscape character areas to be used for the landscape impact assessment. This process of landscape area sub-division is illustrated on Figure 7.5. The breakdown of LANDMAP aspect areas which coincide with each of the Character Areas along with further detailed data is provided in Volume 3, Appendix D.1.

The Anglesey Visual and Sensory Aspect Areas within the site boundary are as follows, with the descriptions below taken directly from the LANDMAP data:

VS016 Llangoed Vale

North of Beaumaris, to Penmon, this is an area of gently rolling farmland, enclosed by scarps to north and west, and looking out across the Straits to the east. Medium sized fields with well-tree'd hedges, twisting lanes and numerous scattered houses form a generally attractive landscape with a well settled sheltered character. Groups of bungalows along the roads and the derelict factory at Friars Bay detract from the overall quality.

Scenic Quality: High

Overall Evaluation: Moderate - Generally pleasant farmed landscape overlooked by adjacent scarps. Good views across Straits. Some less attractive ribbon development and disused factory at Friars Bay.

VS018 South-west ridges

From the A55 corridor at Llanfair Pwllgwyngyll south-west towards Newborough there is a clear pattern of gentle ridges and valleys on a north-east/south-west alignment. Roads run along the ridges, and at right angles across the valleys, linking the ridge top villages. The fields are generally regular and medium to large in size, with well-tree'd hedges. From within the valleys the views to Snowdonia are hidden. There are several important prehistoric monuments within this area.

Scenic Quality: Moderate

Overall Evaluation: Moderate - Generally quiet pleasant rural landscape. Gentle ridges and valleys without distinct landmarks.

VS021 Abermenai lowlands

South of Brynsiencyn and Dwyran the land slopes gently down from the minor ridge to the southern end of the Menai Straits and the estuary of the River Braint. This is a quiet, out-of-the-way part of Anglesey, with a few lanes leading down to the water's edge and wide views across the tidal sands. There are medium sized fields of pasture, with fences and some hedges giving an open feel to the landscape.

Scenic Quality: Moderate

Overall Evaluation: Moderate - Generally quiet pleasant rural landscape with feeling of remoteness. Good wild views.

VS026 Menai Straits slopes

From Menai Bridge southwards, this area is bounded by the A5 and Brynseincyn Road along the upper part of the slopes that overlook the Menai Straits. These slopes are less steep and less wooded than further north. For centuries the magnificent views of the straits and Snowdonia have been appreciated and there is a series of grand mansions along the mid slopes, surrounded by estates and parkland. These include the National Trust's Plas Newydd with Repton gardens which look across to the Vaynol estate near Bangor. There are lanes leading down from the top road to former ferry points where slates were imported, accounting for the old slate fences in

the area. This is a peaceful rural area, contrasting with the busier mainland side of the straits.

Scenic Quality: High

Overall Evaluation: High - Very attractive parkland on slopes, forming distinctive backdrop for Menai Straits, with exceptionally fine views.

VS044 Menai Straits south

From Britannia Bridge southward to where the straits widen out at Traeth Gwyllt, this area of coast is rural in character. It is backed by low sandy banks and the shoreline and intertidal area is mainly rocky shingle and mud. A few lanes come down to the shore and there are a few jetties, piers and other remains of former activities, including the ferry at Moel-y-Don. From all along this coast there are views across to the busier mainland coast, and vice versa.

Scenic Quality: High

Overall Evaluation: High - Attractive quiet rural part of distinctive straits.

VS045 Traeth Abermenai

This area is the coast at the southern end of the Menai Straits where they open out and expose wide sandbanks at low tide. This includes the estuary of the small River Briant, protected by the dunes and sand spit of Abermenai Point. The foreshore is shingle. There are wide views out across the straits to Caernarfon and southward across the sands, giving a very open and exposed character to the area.

Scenic Quality: High

Overall Evaluation: High - Attractive quiet rural part of distinctive straits.

VS079 Brynseincyn

This is a medium sized village set on a ridge overlooking the southern part of the Menai Straits. Pebbledash dominates both the older buildings and the recent estates. The Victorian church, north of the main village, is conspicuous. Apart from its views, it is not a particularly attractive settlement. Outlying parts of the village are linked with open spaces, fields and individual houses, all included in the aspect area. Small areas of agricultural and/or wild land are included where they form an important part of the settling of the settlement.

Scenic Quality: Low

Overall Evaluation: Low - Rather bland village centre, with extensive additional housing.

The Gwynedd Visual and Sensory Aspect Areas within the site boundary, and their descriptions taken directly from LANDMAP, are as follows:

VS006 Bethel (between Clynnog and Bangor)

From Clynnog in south to Bangor in north, between the coastal lowlands and rising land to foothills of Snowdonia, five areas of rolling pasture, generally with northerly

aspect, on land lying between approximately 20m to 100m AOD, separated by shallow west-flowing valleys. Gradual transition to upland in east, so boundary of area is not clear-cut. Field boundaries consist of mix of stone walls (tend to be more with elevation to east) and hedges in varied state of repair, with scattered clumps of woodland and plantation. Settlement mainly scattered farms, with few small villages. Visual detractors include electricity pylons, major north/south roads (A499, A487, A5). Views to Snowdonia and across Menai Straits to Anglesey. Slight upland feel, particularly in eastern parts where stone walls dominate and views out are more extensive.

Scenic Quality: Moderate

Overall Evaluation: Moderate

VS011 Waen-Pentir

Four separate areas of extensive tracts of rising land which forma transition from lowland to upland along edges of Snowdonia. Characterised by network of small/medium sized pasture fields on sloping/undulating ground with a northwesterly aspect, with dry stone walls and scattered tree/scrub. Overhead powerlines/pylons visual detractor. Some attractive views to Menai Strait/Anglesey/coast and Llŷn from selected viewpoints. Stone walls, sense of exposure/elevation and the accessibility of views all contribute to an upland sense of place.

Scenic Quality: Moderate

Overall Evaluation: Moderate - some attractive views from a few viewpoints, in themselves of high value, compromised by the presence of visual detractors in the majority of views. Upland farmland characterised by small/medium scale drystone wall bounded fields of local importance.

VS012 Cefn-du

Three separate areas of rough grass/upland grazing with scattered rocky outcrops on eastern edge of north part of county adjoining National Park. Attractive views of Snowdonia inland, and Llŷn /coast to the west. Adjacent slate quarries may be considered visual detractors. Strong visual linkage with nearby mountains adjacent, slightly at odds with the proximity to the villages and farm land below.

Scenic Quality: High

Overall Evaluation: High - Relatively unspoilt with attractive views to mountains and coast. Seen from most parts of coastal lowlands.

VS014 Afon Rhythallt

Flat bottom of valley of Afon Rhythallt, from Llanrug to Llyn Padarn, between approximately 105m and 110m AOD. Riparian trees and open pasture, marshy in places. Post and wire fence and hedge. Fine views to Snowdonia mountains to the

south and up valley. Sinuous form of river dominant element with hillsides rising on either side in contrast to flat floor. Main road brings noise and disturbance to valley.

Scenic Quality: Moderate

Overall Evaluation: Moderate - Generally attractive and relatively unspoilt, but not

special

VS015 Afon Seiont

Shallow valley of Afon Seiont upstream from Caernarfon to Llanrug. Pleasant pasture with stone walls and riparian woodland. Enclosed, relatively narrow valley, with meandering river and many small islands, with some areas of steep sides, eg near Pont Rug. Seen from nearby roads but not very accessible. Some views to Snowdonia hills from upper valley sides. Relatively intact farmland, although some lengths of stone wall require repair to maintain overall feeling of integrity.

Scenic Quality: Moderate

Overall Evaluation: Moderate

VS017 Plas Menai

Incongruous patchwork mix of large-scale retail/industry, farms and pasture with some hedgerows, on flat 'coastal strip' between Caernarfon and Felinheli, ranging from approximately 5m and 15m AOD. Classified as urban, but much remains undeveloped. Recreational use along coast and with cycle route along old railway adds to general 'busy-ness' of area. A487 is a strong linear element that forms the boundary to the landward side. Attractive views across Menai Strait, plus some interest relating to sailing and Outdoor Pursuits Centre. Area much in need of careful planning and visual improvements to prevent urban sprawl along this stretch of Menai Straits.

Scenic Quality: Moderate

Overall Evaluation: Low - Mix of developments, mainly unsightly and incongruous, spoils the area, but moderate scenic value due to the attractive views across Menai Strait.

VS018 Llanrug

Village of Llanrug and outlying linear development forming a mix of traditional late Victorian and modern buildings, plus intervening small fields. Built on flat land adjacent to foothills of Snowdonia, with view of Snowdonia adding to otherwise rather bland sense of place. Visual and sensory detractor includes traffic movement and noise from A4086.

Scenic Quality: Low

Overall Evaluation: Low - Only distinguishing feature is view to Snowdonia

VS020 Afon Gwyrfai

Middle section of floor of Afon Gwyrfai valley, from Bontnewydd in west to Waunfawr in east. Enclosed valley with rural character and much riparian woodland. Dominant

mosaic pattern along valley, although this borders on mainly wooded character for much of this reach of the valley with the river itself mainly hidden. Very few views out, but where afforded often attractive to uplands of Snowdonia to southeast. This part of the valley is away from roads and settlements and very quiet and pretty, seen from tourist railway.

Scenic Quality: Moderate

Overall Evaluation: Moderate

VS021 Bontnewydd

Compact village of Bontnewydd, with traditional core and modern housing estates on fringes. Situated in the shallow valley adjacent to Afon Gwyrfai, on the lowlands to south of Caernarfon. Visual and sensory qualities dominated by traffic noise and movement on A487 which runs through centre. Generally undistinguished.

Scenic Quality: Low

Overall Evaluation: Low

VS022 Groeslon

Village of Groeslon on sloping land generally west facing, at base of foothills to Snowdonia. Mix of traditional/modern buildings in nuclear settlement, plus some outlying small housing estate. Generally undistinguished. Some glimpsed attractive views up to Snowdon uplands and across Caernarfon Bay. Some traffic noise from adjacent A487.

Scenic Quality: Low

Overall Evaluation: Low - No special qualities

VS024 Derelict quarries

Series of six separate derelict slate quarries, with variety of quarry buildings, rock exposure and tips, along western upland fringes of Snowdonia. Very dramatic landforms and remnants of industry giving distinctive sense of place and raison d'etre for many settlements relating to the quarries. Colour of slate, sense of danger, exposure, etc. Also re-colonisation by nature all add to positive qualities which should not be 'prettified'. Unsightly edges that lower the quality of adjacent settlements should be addressed.

Scenic Quality: High

Overall Evaluation: High - Special qualities of slate and scale of workings and general drama of remains.

VS025 Felinheli

Small linear town with traditional core built on narrow coastal belt, relating to shipping of slate and modern outskirts and higher part. Good approach along narrow wooded

valleys. Views across Menai Straits. Modern marina brings interest. Traffic noise and movement from A487.

Scenic Quality: Moderate

Overall Evaluation: Moderate - Redeeming features of good setting and areas of historic interest.

VS031 Pont Faen

Westernmost, lower Gwyrfai valley, opening out into Foryd Bay. Rural landscape in gentle low lying valley. Strong coastal sense of place at western end from views/proximity with Foryd Bay and end of Menai Straits. Meandering course of the river is dominant element. Only a few scattered farms and minor roads makes the area quiet. Moderately attractive, with sewage works which are minor visual detractor. Agricultural landuses should be continued.

Scenic Quality: Moderate

Overall Evaluation: Moderate - Pleasant rural views, no major detractors

VS034 Morfa Dinlle

Two areas of coastal strip, divided by Foryd Bay at southern entrance to Menai Straits. Flat and low lying predominantly agricultural land between 5m to 40m AO. Parts nearest coast tend to be marshy, or drained marshland, plus caravan parks. Inland there is more intricate pattern of irregular fields and small farms. Coastal views dominate, across Caernarfon Bay to Llŷn peninsula in southern area, and across Menai Straits in northern area. Strong visual and smell/exposure association with coast provides sense of place. Some local detractors relating to airfield noise/movement, and rather tacky tourist developments. Attractive features include unusual prominent coastal hillfort, and inland small-scale farmland. Caravans and tourist related developments should not be allowed to spoil these areas.

Scenic Quality: High

Overall Evaluation: Moderate - Attractive coastal views and derived sense of place, and areas of marshy land contrast with adjacent higher land. This area suffers as being rather bland,' sandwiched between rolling farmland and coast, with few points of interest.

VS086 Mud/shingle

Two areas of mud/shingle flats with views across Menai Straits. Southern one is south of Caernarfon, with minor road alongside and therefore accessible. Northern one is alongside Vaynol Park (National Trust) and inaccessible, forms part of view from Pont Britannia. Not special in themselves but integral part of coast of Menai Straits.

Scenic Quality: Moderate

Overall Evaluation: Moderate - Not special in themselves, but integral part of Menai Strait coast.

7.3.4 Landscape Character Assessment

Twenty-two landscape character areas have been defined representing areas of like type and characteristics within the study area. These originated with the LANDMAP aspect area boundaries, but also underwent a further refinement and sub-division based on site survey and character analysis within the scale of the study area. This assessment has considered elements such as landcover, pattern and boundaries, scale, remoteness, human activity, cultural/ heritage aspects, and sensory elements such as degrees of exposure, movement and sounds. This process is illustrated in Volume 2, Figure 7.5.

These character areas are illustrated in Volume 2, Figure 7.6. There is no separate Townscape assessment as the study area only includes a small area on the eastern fringe of Caernarfon, approximately 0.5km wide, and therefore this has been included as a landscape character area.

Each character area is described below and assigned measures of Susceptibility to Change and Landscape Value in accordance with Tables 7.2.1 and 7.2.2. In turn this provides a measure of Landscape Sensitivity, as set out in Table 7.2.3. Photographs supporting the assessment can be found in Volume 2 Figures 7.7a-m.

1. Slopes below Waunfawr

These north facing slopes consist of small to medium size grazed fields with scrubby wind-sculpted hedges and trees, and stone walls. There are generally open and dramatic views to the Menai Straits and Anglesey to the north and to mountains to the south and west. Infrequent farm properties and isolated houses are scattered across the area, with a sense of separation from the coastal plain. The landscape is crossed by both the Afon Gwyrfai and the A4085, both of which are contained within relatively narrow corridors. Electricity pylons run across the slopes degrading the character.

Susceptibility to Change: Medium

Landscape Value: Good

Landscape Sensitivity: Medium

2. Mynydd Cilgwyn to Moel Smytho

This upland area has panoramic and extensive views to the wider landscape. These open heathland hill tops and slate tips form a dividing feature to the Snowdonia mountains to the south and often act as a backdrop to views from other places within the study area boundary. The few properties are clustered around road corridors and there is a sense of remoteness arising from the area's elevation and the wilder landscape beyond.

Susceptibility to Change: High

Landscape Value: Very Good

Landscape Sensitivity: High

3. Carmel to Rhosgadfan

Ribbon settlements of varying density between Rhosgadfan in the north of this area and Carmel in the south. This exposed upland area is characterised by expansive views to Anglesey and the coastal plain to the north, but also by the hilltops immediately to the south. Adjacent lines of pylons degrade the character. The density of settlement counteracts what would otherwise be a character of remoteness

Susceptibility to Change: Medium

Landscape Value: Good

Landscape Sensitivity: Medium

4. Southern Slopes

Characterised by small fields with little tree cover and bounded by stone walls and fences. The steep topography of these rough pastures allows good views to Anglesey, uplands and the Llŷn Peninsula, but less so to the coastal plain. Farms and houses are fairly evenly located throughout this area, with a network of minor roads. Pylons and power lines cross through this landscape, dominating its character in parts.

Susceptibility to Change: Medium

Landscape Value: Good

Landscape Sensitivity: Medium

5. Groeslon to Rhos Isaf

This is an enclosed small scale area on undulating, north facing slopes, consisting of small fields with stone walls, hedges and varying tree cover. There is a range of building types and densities of properties, becoming denser in the north at Rhostryfan and again in the south at Groeslon. The spread of properties is supplied by a complex network of enclosed minor roads. Outward views are limited by vegetation, boundaries and buildings, with less influence from the wider landscape than those character areas to the south south and a greater sense of tranquillity within the pattern of lanes and boundaries.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

6. Open fields around Llanwnda/ Afon Carrog

Medium sized, grazed fields with hedgerow, cloddiau and stone wall boundaries associated with numerous mature trees. This area has concentrated settlements with two major road corridors (the A499 and A487(T)). The relatively level topography allows only occasional views to the north, whilst to the south the upland slopes and Snowdonia peaks can be seen. Away from the road corridors and settlements a quiet, countryside character prevails.

Susceptibility to Change: Medium

Landscape Value: Good

Landscape Sensitivity: Medium

7. Coastal Plain

Flat and exposed medium sized fields, with hedgerow, cloddiau and stone wall boundaries. Gorse and wind sculpted trees can frequently be seen throughout this area, although with less significant woodland blocks than elsewhere. The area has numerous scattered properties as well as a caravan park. Due to the flat topography there are limited views to the coast, but clear views to Llŷn peaks in the west and Snowdonia to the south.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

8. Llanwnda

This is a small largely residential settlement but including some retail, light industry and the Dinas Station for the Welsh Highland Railway. The character is dominated by built development, the busy A487 corridor and its associated traffic.

Susceptibility to Change: Medium

Landscape Value: Ordinary

Landscape Sensitivity: Low

9. Lower Afon Gwyrfai

A narrow landscape corridor around the meandering Afon Gwyrfai which is enclosed by tree lined banks. It forms the boundary to small and medium sized fields as well as a sewage treatment works. Attractive features include the stone bridge, Pont Faen, along with scattered farms and residential properties. A sense of tranquillity and quiet countryside characterises this area.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

10. Tan-y-graig/ Llanfaglan

A distinctive ridgeline with surrounding flat fields, maintained hedgerows and some mature trees. Gorse growing on higher ground suggests a wilder character. Numerous properties throughout the area but with a concentration in the village of Llanfaglan.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

11. A487 – south of Caernarfon

This area of rolling topography and estate character is made up of medium/large fields with mature trees on the boundaries. The A487 trunk road runs through this area between Caernarfon and Bontnewydd, crossing a minor stream valley, and with its associated noise and movement. The large fields result in relatively few properties through this area.

Susceptibility to Change: Medium

Landscape Value: Good

Landscape Sensitivity: Medium

12. Pen-y-Bryn

This is an intimate enclosed valley with a pattern of small fields, lanes and mature hedgerow boundaries. Individual properties lie on the southern valley slopes while the northern side is defined by the wooded upper edge of the deep Seiont river valley and the Brickworks quarry. There are limited views in or out of this area creating a sense of tranquillity and a separation from the wider landscape.

Susceptibility to Change: High

Landscape Value: Very Good

Landscape Sensitivity: High

13. Fields southwest of Caeathro

This open sloping area lies between Caeathro and Caernarfon and therefore whilst comprising of agricultural fields is influenced by the wider urban context. The fields are large with mature trees and woodland edges and large individual properties, creating a maintained estate character.

Susceptibility to Change: High

Landscape Value: Medium

Landscape Sensitivity: Medium

14. Caernarfon urban edge

The elevated urban edge of Caernarfon, above the Afon Seiont valley. To the west the built development is comprised of a high density 1980s/90s housing estate, flats, the recently built Ysgol yr Hendre, St Peblig Church and Llanbeblig Cemetery. The cemeteries either side of the A4085 provide open space and allows wide views to the rural landscape in the east. At the base of the hill, either side of the Afon Seiont, the Peblig Industrial Estate is comprised of buildings of varying ages, providing a visually poor frontage to the A4085. In the eastern part of this urban fringe is the Cibyn Industrial Estate, an extensive, relatively modern industrial estate of small to medium units arranged on a rectilinear grid of access roads. The adjacent river valley creates a distinct boundary to the urban area with largely undeveloped land beyond.

Susceptibility to Change: Low

Landscape Value: Ordinary

Landscape Sensitivity: Low

15. Afon Seiont Valley

A small highly enclosed area around the attractive Afon Seiont and surrounded by the steep valley slopes to the north and west, with the Cibyn Industrial Estate on the horizon, and by the adjacent Glan Gwna Holiday Park to the east. The area is largely vegetated with scrubby woodland, some of which is associated with a former railway line. Open areas have been has used as a vegetation dump area for the holiday park. The river corridor itself is tranquil but with a sense of being overlooked by the development around.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

16. Holiday Park

The Glan Gwna Holiday Park is situated within the enclosed valley floor of the meandering Afon Seiont, with steep wooded slopes to the north and west of the river. The well maintained Park is comprised of both caravans and holiday chalets, with central facilities and recreation buildings. The Park area also includes Glan Gwna Hall and its associated buildings and fish pond. To the north of the area, beyond the holiday park, the valley narrows, with woodland along the riverbanks and open grazed fields beyond.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

17. Afon Cadnant plateau

Very open plateau landscape with long views to Anglesey to the north and Snowdonia uplands to the south. This area is characterised by large fields with hedgerow boundaries and relatively few trees. A recent solar farm is located within several fields to the north of the area, above the adjacent scarp slope and next to Caerlan Tibot, an historic defended enclosure and Scheduled Ancient Monument (SAM). See Chater 6, Cultural Heritage. However, the solar farm has limited impact beyond the affected fields, and the SAM is not readily perceived beyond its immediate boundary. The busy Bethel Road (B4366) and the 'unofficial bypass' bisect the area. Properties are relatively low density across the landscape, as a result of the field pattern. Streetlights around an existing roundabout provides an urban element in both the day and night-time landscape.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

18. Bethel approaches

This is a low lying, undulating landscape of marshy small/medium fields with a mixture of stone walls, fragmented hedges and post and wire fences. Areas of rock outcrop and gorse scrub lend a less managed character. The area is also bisected by the Bethel Road, with its roundabout and streetlighting.

Susceptibility to Change: Medium

Landscape Value: Ordinary

Landscape Sensitivity: Low

19. Plas Menai

Consisting of a steep scarp slope south of the busy A487 and more level fields adjacent to the Menai Strait coastline. Woodland on the scarp slope, along with topography, largely encloses the existing highway corridor, with traffic movement and noise dominating its character. The Water Sports Centre, St Mary's Church and its cemetery characterise the coastline along with large individual properties.

Susceptibility to Change: High

Landscape Value: Good

Landscape Sensitivity: Medium

20. Menai Strait

A dramatic marine landscape within the attractive Anglesey and Gwynedd coasts of shingle, mudflats and rock. This is an area with a distinctive landscape characteristic and identity which gives it a strong sense of place. Both coastlines are fringed with woodland with open fields above and scattered properties. The open expanse of water provides a sense of tranquillity, but with a significant influence from weather conditions.

Susceptibility to Change: High

Landscape Value: Exceptional

Landscape Sensitivity: High

21. Anglesey Scarp

A distinctive scarp slope running down to Menai Strait made up of medium sized, grazed fields and woodland blocks, with a managed estate character in many parts. There are a number of scattered properties and farms, some substantial, with a relatively small number of minor roads creating a sense of remoteness, but with the northern edge of the scarp being defined by the A4080. The topography allows for dramatic views along and across the Strait and across to Snowdonia, creating a strong sense of place.

Susceptibility to Change: High

Landscape Value: Very Good

Landscape Sensitivity: High

Table 7.3.1 below summarises the resulting Landscape Sensitivity assessments, which will be taken forward to the Landscape Impact Assessment.

	Landscape Sensitivity			
Landscape Character Area	High	Medium	Low	None
1 Slopes below Waunfawr		•		
2 Mynydd Cilgwyn to Moel Smytho	•			
3 Carmel to Rhosgadfan		•		
4 Southern slopes		•		
5 Groeslon to Rhos Isaf		•		
6 Open fields around Llanwnda/ Afon Carrog		•		
7 Coastal Plain		•		
8 Llanwnda			•	
9 Lower Afon Gwyrfai		•		
10 Tan-y-graig/Llanfaglan		•		
11 A487 – south of Caernarfon		•		
12 Pen-y-Bryn	•			
13 Fields southwest of Caeathro		•		
14 Caernarfon urban edge			•	
15 Afon Seiont valley		•		
16 Holiday Park		•		
17 Afon Cadnant Plateau		•		
18 Bethel approaches			•	
19 Plas Menai		•		
20 Menai Strait	•			
21 Anglesey scarp	•			

From this it can be seen that the landscape of the study area is generally moderately sensitive to the type of changes proposed by the Scheme, with the exceptions being the uplands, the coastline and the urban edge. This is a result of the generally pleasant but unexceptional countryside that characterises much of the landscape.

7.3.5 Visual Baseline Assessment

The study area is visually characterised by views out, and the backdrop of major landscape features, including the mountains of Snowdonia and the Llŷn peninsula, the Menai Strait, Anglesey and the sea around. Within the area views are typically across rural fieldscapes, with a variety of boundary types and varying degrees of woodland and tree cover. The nature of views varies between those from elevated locations to the south and east, those within the coastal plain and views alongside the coast of the Menai Strait.

A number of key views have been selected as representative of typical or important views within the study area, as a baseline against which to assess the potential visual impact of the Scheme.

The locations of key views are indicated on Volume 2, Figure 7.8 and illustrated in photographs shown in Volume 2, Figures 7.9a to gg.

The key views are described below, along with a measure of their Susceptibility to Change and Visual Quality, in accordance with Tables 7.2.4 and 7.2.5. From this the Visual Sensitivity is derived and also indicated, as Table 7.2.6, along with the relevant visual receptors for each view. This information will then be taken forward to the Visual Impact Assessment.

1. View from road below Fron-dirion (Volume 2, Figure 7.9a)

An extremely dramatic panoramic view across the coastal plain, to Menai Strait and Anglesey beyond. The foreground is strongly rural, characterised by stone wall field boundaries and scrub vegetation but with the adverse element of the electricity pylons and lines. More urban development is only seen in the far distance. Night time lighting is primarily from the developed core of Caernarfon and surrounding villages.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users

2. View from Mynydd y Cilgwyn (Volume 2, Figure 7.9b)

An elevated view from a footpath crossing heathland above Carmel, looking to the north-west towards Caernarfon. A panoramic view taking in the village ahead, the countryside of the coastal plain, Caernarfon in the distance, Anglesey beyond and the sea around. The nature of this view is subject to change from weather conditions, whilst the electricity pylons and lines are a detractive element. At night the lighting associated with the village has greatest effect, but with scattered lights across the view beyond.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers

3. View from open heathland viewpoint near Moel Smytho (Volume 2, Figure 7.9c)

From one of the most elevated locations in the study area, and a recognised viewpoint, this is an extremely dramatic panorama across the breadth of the coastal plain, including both the exposed uplands, with stone wall boundaries, and the more vegetated lowland countryside. The backdrop is comprised of the sea and Anglesey, with Caernarfon and Menai Strait in the mid-ground. The electricity pylons have less influence here. At night lighting is concentrated around Caernarfon, but with scattered points across the view.

Susceptibility to Change: High

Visual Quality: Very Attractive

Visual Sensitivity: High

Receptors: Walkers, tourists, road users

4. View from road near Tyddyn Whisgin Bach (Volume 2, Figure 7.9d)

Another elevated view but from a lower point than the previous ones, with the foreground characterised by pleasant agricultural fields, boundary walls and hedges and woodland. In the mid-ground the developed coastal edge can be seen quite clearly, with Anglesey and the sea beyond.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers, road users

5. View from Lon Eifion footpath south of Goat Roundabout (Volume 2, Figure 7.9e)

From this popular cycleway and footpath this view is strongly influenced by highway infrastructure around the roundabout and roads, although moderated by the planted verges and stone wall. Moving vehicles within the view, along with signage and light columns are detractive elements, and at night the roundabout lighting and headlights dominate.

Susceptibility to Change: Low

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Visual Quality: Poor

Visual Sensitivity: Low

Receptors: Walkers, cyclists, tourists

6. View from PROW Llanwnda 19, north of Goat Roundabout (Volume 2, Figure 7.9f)

An attractive countryside view, with hedgerows, cloddiau, pastureland, livestock and trees. Farm buildings are seen to the left with the distant mountains of the Llŷn beyond. The broadleaf trees and hedges result in significant seasonal change, whilst the visible night time lighting is minimal, with only the roundabout lighting at the extreme left.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers

7. View from minor road, Glanrhyd, east of Gwylfa Farm (Volume 2, Figure 7.9g)

Looking across grazed fields, with the woodland associated with Lon Eifion beyond, houses in Llanwnda and the open upland hills as a backdrop. To the right light columns mark the position of the Goat Roundabout and trunk road. An attractive countryside view, but with the influence of urban elements, including night time lighting.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users

8. View eastwards from minor road west of Morogoro (Volume 2, Figure 7.9h)

Looking uphill along this minor road this view includes the grazed field to the north, substantial field hedges, roadside trees and the property Morogoro. In winter the loss of leaves widens the view, exposing more of the field and brow of the hill.

Susceptibility to Change: High

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Road users

9. View westwards from minor road adjacent to Morogoro (Volume 2, Figure 7.9i)

As well as the road itself this view looks beyond to the countryside dropping away to the coast and sea. The roadside hedges, walls and trees, and the dramatic backdrop, create an attractive view, with the detractive elements being road signs and telegraph poles.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users, walkers

10. View from road east of Llanfaglan (Volume 2, Figure 7.9i)

A short distance view along this minor road, enclosed by attractive stone walls, hedges and trees. In winter the loss of leaves opens the view a little, but it remains relatively enclosed by rising ground.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users, walkers

11. View from PROW Bontnewydd 8, south of Cefn-y-Coed (Volume 2, Figure 7.9j)

A very attractive view across lowland countryside, with mature hedges, walls and trees, to the hills of fields and villages behind and the high mountains of Snowdonia and the Llŷn peninsula as a dramatic backdrop. No detractive elements within this view, which changes with both season and weather.

Susceptibility to Change: High

Visual Quality: Very Attractive

Visual Sensitivity: High

Receptors: Residents, walkers

12. View from Lon Eifion footpath next to Welsh Highland Railway (Volume 2, Figure 7.9k)

An enclosed view along this linear corridor of the tourist railway, footpath and cycleway, with mature hedges limiting wider views in summer, becoming more open in winter. The view is consistent along the footpath, with the adjacent railway lines providing interest and glimpses to open countryside where vegetation allows.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers, cyclists, tourists

13. View from minor road north-west of Bontnewydd (Volume 2, Figure 7.9k)

A view along this attractive lane, with hedgerow boundaries and mature trees. Grazed fields can be seen beyond the lane with hills and mountains in the far distance.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users, walkers

14. View from PROW Caernarfon 18, next to Ty'rallt Farm (Volume 2, Figure 7.9l)

A strongly rural scene with dense hedgerows and numerous mature trees surrounding small fields in the fore and mid-ground. Beyond the land rises, with glimpsed farm properties, and distant mountains providing a dramatic backdrop.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Residents, walkers

15. View from PROW Caernarfon 19, south of Rhosdican Farm (Volume 2, Figure 7.9m)

A view across a lowland rural landscape, with marshy fields and scrubby hedgerows in the foreground, to residential properties along the western edge of Bontnewydd. The hills and mountains beyond create a dramatic backdrop.

Susceptibility to Change: High

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Walkers

16. View northwards from existing A487 next to Tyddyn-du (Volume 2, Figure 7.9m)

Looking along the existing trunk road this view is dominated by highway elements, including lighting columns, signs and road markings. The boundaries are attractive, defined by cloddiau, hedges and trees. Properties can be seen along the road and in the distance.

Susceptibility to Change: Medium

Visual Quality: Poor

Visual Sensitivity: Low

Receptors: Road users

17. View southwards from existing A487 next to Parc Guest House (Volume 2, Figure 7.9n)

Looking along the existing trunk road this view is dominated by highway elements, including lighting columns, signs and road markings. The boundaries are defined by cloddiau, walls, hedges and trees. Properties can be seen along the road and in the distance.

Susceptibility to Change: Medium

Visual Quality: Poor

Visual Sensitivity: Low

18. View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge (Volume 2, Figure 7.9o)

A mixed view, with the central area being across attractive countryside of fields and mature hedgerows. To the right the existing A487 trunk road provides movement and an urban influence, with lighting columns marking its route. To the left the view is longer to the hills and Snowdonia mountains beyond. At night light from the highway dominates.

Susceptibility to Change: Medium

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Walkers

19. View along Pen-y-Bryn Lane (Volume 2, Figure 7.9p)

An attractive view along this narrow lane, enclosed by hedgebanks and with mature individual trees. Views beyond to the upland landscape to the south.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users, walkers

20. View from PROW Bontnewydd 25, south-west of Bryn Mafon (Volume 2, Figure 7.9q)

An elevated position on this low ridge in the landscape provides long views to the west. Including fields, farms, houses, the A487 and the distant horizon.

Susceptibility to Change: Medium

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Walkers

21. View from PROW Bontnewydd 25, west of Bryn Mafon (Volume 2, Figure 7.9r)

With a less elevated position than the previous view this is a closer focused scene, looking over adjacent fields and hedgerows. The trunk road is less apparent, although electricity poles and lines are detractive elements. A number of properties can be seen in the landscape around. At night street-lighting increases the highway influence.

Susceptibility to Change: High

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Walkers

22. View from PROW Bontnewydd 24, next to Rhyddallt Ganol (Volume 2, Figure 7.9s)

An attractive view largely limited to a small number of adjacent fields by mature hedgerows and woodland blocks. In winter the view opens up to include more distant elements, including the edge of Caernarfon.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Residents, walkers

23. View from PROW Bontnewydd 32, east of Seiont Brickworks (Volume 2, Figure 7.9t)

A view across large, rolling fields with stone wall boundaries and mature trees creating a managed estate character. The elevated edge of Caeathro is visible to the right.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers

24. View from Llanbeblig Road, Caernarfon (Volume 2, Figure 7.9u)

An urban scene, but looking out to the attractive countryside surroundings. St Peblig Church and Llanbeblig Cemetery provide visual interest whilst the street lighting, signage and markings associated with the A4085 detract from the view. The uplands in the far distance provide a dramatic backdrop, although this effect is subject to weather conditions.

Susceptibility to Change: Medium

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Residents, road users

25. View from field gate near Cefn-y-gof, Caeathro (Volume 2, Figure 7.9v)

An attractive and complex scene including foreground countryside, much of Caernarfon, including the Coed Helen Folly and Caernarfon Castle, Cibyn Industrial Estate and in the background the Menai Strait and Anglesey.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers, road users, residents

26. View westwards along A4085, Waunfawr Road (Volume 2, Figure 7.9w)

A narrow and enclosed view along this tree-lined road, with stone wall boundaries. The walls and mature trees emphasise the sense of a managed estate landscape, albeit within a highway context.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

27. View westwards from Glan Gwna Holiday Park (Volume 2, Figure 7.9x)

An enclosed view dominated by the caravans, their boundaries and the service road. However the woodland context is seen in the backdrop to this view, providing an attractive setting. The valley context is more apparent in winter, although as a holiday park this is less relevant to receptors.

Susceptibility to Change: High

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Tourists/ holiday-makers

28. View from parkland west of Glan Gwna Hall (Volume 2, Figure 7.9y)

From an elevated position this view looks over the holiday park, with ranks of caravans and associated buildings in the valley floor, within a woodland setting. Across the valley the large scale buildings of the Cibyn Industrial Estate are seen to the right, emerging out of the wooded slopes. To the left built development on the edge of Caernarfon is visible. In winter more buildings can be seen through the trees, including caravans, industrial and residential development. However this is less significant to holiday-makers, the primary receptors.

Susceptibility to Change: High

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Tourists/ holiday-makers

29. View eastwards along A4086, Llanberis Road (Volume 2, Figure 7.9z)

Next to Cibyn Industrial Estate this view along the road is highly limited by mature hedgerows and trees, with the focus being the far countryside and mountains seen along the line of the corridor. In winter this effect is somewhat reduced. At night there is a certain amount of light spill from the industrial estate, but this point is on the edge of the lit town and the view is largely dark.

Susceptibility to Change: Low

Visual Quality: Moderate

Visual Sensitivity: Low

30. View from road west of Lon Glai Farm (Volume 2, Figure 7.9aa)

This is an extensive view across a rural plateau landscape, albeit from a road corridor. The relatively elevated position and fragmented field boundaries allows long views, including to Anglesey in the far backdrop. At night there is very little artificial lighting.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Road users

31. View from B4366 west of Bethel (Volume 2, Figure 7.9bb)

Whilst only a minor valley the open nature of the fields and their boundaries allow this view to be quite extensive. The natural focus is the existing road running across the view and its associated roundabout. The open character of the view reflects the plateau landscape, with interest from farm buildings and woodland blocks. Anglesey provide the far backdrop, although this is not particularly apparent in the scene. At night the street lighting around the roundabout is most noticeable.

Susceptibility to Change: Medium

Visual Quality: Attractive

Visual Sensitivity: Medium

Receptors: Road users

32. View from minor road near Caerlan Tibot (Volume 2, Figure 7.9cc)

Although next to a highway the natural focus of this view is the long sweeping series of mountains in the distance, with relatively little interest in the fore or mid-ground. However this effect is highly subject to weather conditions. At night street lighting in Bethel is apparent.

Susceptibility to Change: Medium

Visual Quality: Attractive

Visual Sensitivity: Medium

33. View from Lon Las Menai, towards Plas Menai Roundabout (Volume 2, Figure 7.9dd)

Alongside the busy A487 this view looks from the cycleway/ footpath along and across the highway corridor to the scarp slope. With a combination of woodland and open fields this provides an attractive backdrop to the road corridor. At night the highway lighting dominates.

Susceptibility to Change: Medium

Visual Quality: Moderate

Visual Sensitivity: Medium

Receptors: Cyclists, walkers, road users

34. View from Anglesey coastline, near to Anglesey Sea Zoo (Volume 2, Figure 7.9ee)

A spectacular and dramatic view taking in the full panorama of the Menai Strait, Gwynedd coast and Snowdonia mountains. The effect of tides and weather conditions makes this a constantly changing view, full of interest and character.

Susceptibility to Change: High

Visual Quality: Very Attractive

Visual Sensitivity: High

Receptors: Walkers, tourists, residents, road users

35. View from car park in Brynsiencyn, Anglesey (Volume 2, Figure 7.9ff)

The focus of this view is the Snowdonia mountain range in the far distance. The Anglesey and Gwynedd foreground countryside run into one, with the Menai Strait only being visible to the right of the scene. Being subject to weather conditions this view is therefore quite changeable.

Susceptibility to Change: High

Visual Quality: Attractive

Visual Sensitivity: High

Receptors: Walkers, road users

36. View from A4080, Anglesey (Volume 2, Figure 7.9ff)

This attractive view takes in the Anglesey countryside in the foreground, the landscape of Gwynedd in the mid-ground with the Snowdonia mountains as the dramatic backdrop. The Menai Strait is only partly visible. The weather plays an important part in visibility conditions, and therefore in this view.

Susceptibility to Change: High

Visual Quality: Very Attractive

Visual Sensitivity: High

Receptors: Road users

37. View from Anglesey coastline, near Llanidan (Volume 2, Figure 7.9gg)

A spectacular and panoramic view across the Menai Strait with the Snowdonia mountains providing a dramatic background, although their visibility being highly affected by weather conditions. The tidal changes, activity and conditions make this a very dynamic and interesting view.

Susceptibility to Change: High

Visual Quality: Very Attractive

Visual Sensitivity: High

Receptors: Walkers

Table 7.3.2 below summarises the resulting Key View Sensitivity assessments, which will be taken forward to the Visual Impact Assessment.

Table 7.3.2 - Key View Visual Sensitivity

	Visual Sensitivity			
Key View	High	Medium	Low	None
1 View from road below Fron-dirion	•			
2 View from Mynydd y Cilgwyn	•			
3 View from open heathland viewpoint near Moel Smytho	•			
4 View from road near Tyddyn Whisgin Bach	•			
5 View from Lon Eifion footpath south of Goat Roundabout			•	
6 View from PROW Llanwnda 19, north of Goat Roundabout	•			
7 View from minor road, Glanrhyd, east of Gwylfa Farm	•			
8 View eastwards from minor road west of Morogoro		•		
9 View westwards from minor road adjacent to Morogoro	•			
10 View from road east of Llanfaglan	•			
11 View from PROW Bontnewydd 8, south of Cefn-y-Coed	•			
12 View from Lon Eifion footpath next to Welsh Highland Railway	•			
13 View from minor road north-west of Bontnewydd	•			
14 View from PROW Caernarfon 18, next to Ty'rallt Farm	•			
15 View from PROW Caernarfon 19, south of Rhosdican Farm	•			
16 View northwards from existing A487 next to Tyddyn-du			•	
17 View southwards from existing A487 next to Parc Guest House			•	
18 View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge		•		
19 View along Pen-y-Bryn Lane	•			
20 View from PROW Bontnewydd 25, southwest of Bryn Mafon		•		
21 View from PROW Bontnewydd 25, west of Bryn Mafon		•		
22 View from PROW Bontnewydd 24, next to Rhyddallt Ganol	•			
23 View from PROW Bontnewydd 32, east of Seiont Brickworks	•			
24 View from Llanbeblig Road, Caernarfon		•		

25 View from field gate near Cefn-y-gof, Caeathro	•			
26 View westwards along A4085, Waunfawr Road	•			
27 View westwards from Glan Gwna Holiday Park		•		
28 View from parkland west of Glan Gwna Hall		•		
29 View eastwards along A4086, Llanberis			•	
30 View from road west of Lon Glai Farm	•			
31 View from B4366 west of Bethel		•		
32 View from minor road near Caerlan Tibot		•		
33 View from Lon Las Menai, towards Plas Menai roundabout		•		
34 View from Anglesey coastline, near to Anglesey Sea Zoo	•			
35 View from car park in Brynsiencyn, Anglesey	•			
36 View from A4080, Anglesey	•			
37 View from Anglesey coastline, near Llanidan	•			

The pattern of Visual Sensitivity assessments indicates that the generally attractive views available within the study area are sensitive to the type of changes proposed by the Scheme.

7.4 Predicted Environmental Effects

As described in Sections 7.2.6 and 7.2.7 above the baseline conditions for landscape, townscape and visual amenity have been employed in the assessment of impact significance arising from the Scheme. This considers each stage of the Scheme as follows:

- Construction Phase taking account of likely construction operations and effects
- Year 1 following completion completed Scheme but with no effective landscape mitigation
- Year 15 (winter) with established mitigation but without leaf cover
- Year 15 (summer) with established mitigation in leaf

This process is carried out for landscape, using the defined character areas, and then for visual amenity, by considering the selected key views. This is followed by an assessment of visual impact on affected properties.

7.4.1 Landscape Impact Significance

From the assessment of baseline conditions a measure of Landscape Sensitivity is established for each landscape character area. In considering the Scheme proposals an assessment of the Magnitude of Landscape Effect on each character area is carried out, applying the criteria in Table 7.2.7.

This considers both direct and indirect effects on the landscape. Indirect landscape effects are those which result from a change to the visual context of a character area. This is only relevant where the visual context is a key element of an area's landscape character. Effects can also be adverse or beneficial, detracting from or enhancing the existing character.

Where the Scheme would impact directly on a character area the components which would cause an effect would include the highway earthworks (cuttings or embankments), the road surface itself, fences and safety barriers, signage, light columns, structures (bridges and culverts) amd of course vehicle traffic movement.

Night-time effects are also considered, with the introduction of both Scheme lighting and traffic headlights, which could be significant depending on the existing pattern of artificial lighting and darkness.

The matrix set out in Table 7.2.8 is then applied, cross referencing the Landscape Sensitivity and Magnitude of Effect measures to define a measure of Landscape Impact Significance for each character area.

1. Slopes below Waunfawr

No part of the Scheme would pass through this character area, and therefore there would be no direct effect. Being within the ZVI of the Scheme there would be potential for indirect effects through changes in the area's visual context, including the coastal plain. However in such a complex landscape, and at a minimum separation distance of approximately 2km from the Scheme, the changes in the visual context would be imperceptible and therefore the effect on the landscape character would be negligible.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Negligible/ No Change	None
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

2. Mynydd Cilgwyn to Moel Smytho

There would be no direct effect on this area, and with a distance of over 3.5km the indirect effect on character through a change in the panoramic and complex visual context would be negligible.

Landscape Sensitivity: High

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Negligible/ No Change	None
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

3. Carmel to Rhosgadfan

The Scheme would have no direct effect on this landscape character area, being at a minimum distance of 2.8km from its boundary. The panoramic visual context to the northwest is an important component of the landscape character of this area, but the change arising from the Scheme would be so minor as to be negligible in its effect.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Negligible/ No Change	None
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

4. Southern Slopes

At a minimum distance of 1.9km from the Scheme there would only be potential for indirect effects on the character of this area, through changes in its visual context. However in this area the lower elevation means that the coastal plain, through which the Scheme would pass, plays a lesser part in the area's setting than Anglesey, the Menai Strait and the mountains to the south and east. Consequently the Scheme would result in a negligible change in visual context and therefore a negligible landscape effect.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Negligible/ No Change	None
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

5. Groeslon to Rhos Isaf

This character area is less influenced by the wider visual context than those further east, being more heavily vegetated and at a lower elevation, and therefore with no direct effects from the Scheme the change in character would be negligible, even in winter.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Negligible/ No Change	None
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

6. Open fields around Llanwnda/ Afon Carrog

The Scheme would pass through the central and western portion of this area and therefore would have a direct effect on its landscape character. The Scheme would be either on a relatively high embankment or deep cutting through this section, creating landforms contrary to the prevailing topography. The movement arising from traffic would also be in contrast to the existing tranquil rural environment that characterises much of this area. This would also be the case through the construction phase. Together these changes would result in a loss of key landscape characteristics. However the character area already includes the A487 and A499 trunk roads, and therefore localised highway effects are not completely at odds with this landscape. Consequently the loss and alteration of landscape characteristics would be partial.

Mitigation planting would in time soften the impact of engineered earthworks and provide a degree of screening for vehicles, but this would be less effective both in winter and at night.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Moderate Adverse	Moderate Adverse
Year 15 (Summer):	Moderate Adverse	Moderate Adverse

7. Coastal Plain

The Scheme would not pass through this character area and therefore there would be no direct effects on landscape character. For the majority of the character area only small parts of the Scheme would fall within its visual context and only from localised positions. In the north-east of this area the Scheme is much closer and on an elevated west-facing slope, although within a cutting. Consequently there would be a slight change in the visual context of the area during construction, with construction machinery and movement, but the completed Scheme would be barely perceptible within the visual context of this character area.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Slight Adverse	Minor Adverse
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

8. Llanwnda

The proposed Scheme would not pass through this character area and therefore would have no direct impact on its landscape character. It would also have very little effect on the area's visual context, due to intervening topography, buildings and vegetation. During construction there would likely be some perceived effect from machinery moving in the field-scape to the west of Llanwnda, but only from very localised parts of the area, such as the Lon Eifion footpath/cycleway.

Following completion of the Scheme the character of the area would benefit from a reduction in traffic levels, although this is considered in separate topics of this Environmental Statement and therefore not reflected here.

Landscape Sensitivity: Low

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Slight Adverse	Not Significant
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None

9. Lower Afon Gwyrfai

The Scheme would cross through this area on a combination of embankment and viaduct, with the structure being approximately 250m in length. The nature of this section would mean that landscape mitigation planting would only be effective on the embankment section, leaving the viaduct exposed within this landscape. This area is characterised by the wooded riverbanks and adjacent floodplain fields. The Scheme would therefore introduce an engineered structure into a rural landscape, along with the associated vehicle movements and night-time headlights, and would not be reduced over time by mitigation.

However this effect would be localised to the eastern part of this character area and would not be perceived further west due to the meandering river valley topography and enclosing vegetation.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Moderate Adverse	Moderate Adverse
Year 15 (Summer):	Moderate Adverse	Moderate Adverse

10. Tan-y-graig/ Llanfaglan

A short section of the Scheme (approximately 230m) would pass through this character area on a substantial embankment, and therefore would have a direct impact, albeit on a limited portion of the area. Elsewhere within this character area the Scheme would be perceived within the wider visual context, although at some distance.

Woodland planting on the embankment in this section would provide a degree of landscape integration and screening, which would increase with establishment and maturity. In winter and at night this would be less effective.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse

11. A487 – south of Caernarfon

This character area includes both the existing road corridor and the rural field pattern around. The Scheme would cut through this countryside landscape as well as crossing the road, and would therefore have a significant direct impact. The Scheme would be on embankments of varying heights with side roads crossing on overbridges and with a new roundabout on the existing trunk road.

At present the highway character of the A487 is largely limited to its immediate corridor, and therefore the Scheme would cause a loss of the rural character across much of the area. Mitigation planting would in time assist in landscape integration and in screening vehicles and their headlights, particularly in summer months.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Substantial Adverse	Major Adverse	
Year 1:	Substantial Adverse	Major Adverse	
Year 15 (Winter):	Moderate Adverse	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	Moderate Adverse	

12. Pen-y-Bryn

The Scheme would pass through this enclosed character area primarily on a low embankment, with a short section in cutting. As a tranquil landscape of small fields, hedgerows and lanes, the introduction of a highway of the proposed scale and its vehicle movement would cause a substantial change in character. Woodland and hedgerow planting would aid in reducing its impact, once established, but this would be subject to seasonal variations.

Landscape Sensitivity: High

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Substantial Adverse	Substantial Adverse	
Year 1:	Substantial Adverse	Substantial Adverse	
Year 15 (Winter):	Moderate Adverse	Major Adverse	
Year 15 (Summer):	Moderate Adverse	Major Adverse	

13. Fields southwest of Caeathro

This landscape area is characterised by its open fields, surrounding woodland and its contrast to the adjacent urban edge. The Scheme would cross through this landscape in a combination of cutting and substantial embankment, up to 8m high. Whilst the cutting section would provide screening of vehicles the embankment form would be contrary to the prevailing topography and would increase the visibility of traffic. Consequently woodland mitigation planting would cover the Scheme slopes, to reduce visibility and maximise integration with the adjacent boundary woodland and tree groups.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Substantial Adverse	Major Adverse	
Year 1:	Substantial Adverse	Major Adverse	
Year 15 (Winter):	Moderate Adverse	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	Moderate Adverse	

14. Caernarfon urban edge

The Scheme would have no direct effect on this urban edge of Caernarfon. However part of this area's character is derived from its rural outlook and visual context to the east, particularly so for the southern part along the A4085. The Scheme would impact on this aspect by crossing the adjacent fields (Character Area 13). There would therefore be an indirect effect on landscape character, which would be moderated over time through mitigation planting.

Landscape Sensitivity: Low

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Slight Adverse	Not Significant	
Year 1:	Slight Adverse	Not Significant	
Year 15 (Winter):	Negligible/ No Change	None	
Year 15 (Summer):	Negligible/ No Change	None	

15. Afon Seiont Valley

This small and tightly enclosed landscape character would be directly affected by the Scheme, with the introduction of a major embankment, approximately 20m high, approaching a viaduct structure. The area would also be indirectly affected as the viaduct structure would be within the adjacent character area, but would cause a significant change in visual context. The embankment form would intrude into the valley floor and make it considerably narrower. It would also replace the existing scrub and grassland with woodland, in order to provide both landscape and nature conservation mitigation. The extensive proposed woodland planting would in time soften the effect of the high embankment slopes, and screen highway traffic, but the change in the valley form would remain.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Substantial Adverse	Major Adverse	
Year 1:	Substantial Adverse	Major Adverse	
Year 15 (Winter):	Moderate Adverse	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	Moderate Adverse	

16. Holiday Park

This Holiday Park sits within a woodland valley setting, with little sense of the landscapes and urban edge beyond. The Scheme would introduce a viaduct structure, approximately 20m above the valley floor, complete with piers and with moving traffic vehicles visible from below. This would change the character of this enclosed landscape considerably, particularly those more low-lying areas. The ends of the viaduct would be partially screened through embankment woodland planting, but the majority of the structure would be unmitigated, and therefore the landscape impact would not reduce over time.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Substantial Adverse	Major Adverse	
Year 1:	Substantial Adverse	Major Adverse	
Year 15 (Winter):	Substantial Adverse	Major Adverse	
Year 15 (Summer):	Substantial Adverse	Major Adverse	

17. Afon Cadnant plateau

This large, open landscape area is characterised by its topography, field pattern and wider visual context. The Scheme would introduce a new highway corridor, in part close to an existing road, but also cutting across open fields. At its southern end the Scheme would include a new roundabout next to Cibyn Industrial Estate, which would be lit at night, introducing artificial light into an otherwise predominantly dark area. In the southern and central part of this character area the Scheme would be largely at grade, but would be in a deep cutting at its northern end, up to 19m deep. This is clearly contrary to the prevailing plateau topography and would result in a significant change of character. However in this portion the highway traffic would be screened from view. The existing plateau landscape includes traffic movement and therefore the Scheme would result in a relocation of this element rather than an introduction.

The mitigation planting through this area would largely consist of boundary hedgerows, which in time would establish and provide a degree of landscape integration. The Scheme would also include small areas of woodland planting around the Cibyn Roundabout and adjacent to existing woodland. The deep cutting slopes would be left open with only boundary hedgerows along their upper edge.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance		
Construction:	Substantial Adverse	Major Adverse		
Year 1:	Substantial Adverse	Major Adverse		
Year 15 (Winter):	Moderate Adverse	Moderate Adverse		
Year 15 (Summer):	Moderate Adverse	Moderate Adverse		

18. Bethel approaches

The Scheme in this area would affect a relatively wide corridor, consisting of the mainline highway, a parallel side road, overbridge and roundabout. This would result in a considerable area of engineering development in a currently agricultural landscape, although one with existing roads. The new roundabout would be lit at night, but this would replace an existing lit roundabout, just over 100m away.

The mitigation planting would comprise woodland planting around the roundabouts and junction, in order to screen lighting, structures and to separate closely parallel road corridors. The Scheme boundary would be defined by hedgerows to integrate with the existing field pattern. As the Scheme is on the western boundary of this character area, and close to existing roads, its impact on landscape character would reduce over time with the establishment of mitigation planting.

Landscape Sensitivity: Low

Phase	Magnitude of Landscape Effect	Landscape Impact Significance		
Construction:	Substantial Adverse	Moderate Adverse		
Year 1:	Substantial Adverse	Moderate Adverse		
Year 15 (Winter):	Moderate Adverse	Minor Adverse		
Year 15 (Summer):	Slight Adverse	Not Significant		

19. Plas Menai

The Scheme in this area would primarily consist of a deep cutting into the existing steep scarp slope, which would be contradictory to the prevailing landscape form and pattern.

Woodland planting within and around the mouth of this cutting would soften the impact on the slope, with its effectiveness increasing with maturity and also providing nature conservation mitigation.

West of the existing Plas Menai Roundabout the road to the Water Sports Centre would be realigned with hedgerow planting re-establishing the field pattern.

Landscape Sensitivity: Medium

Phase	Magnitude of Landscape Effect	Landscape Impact Significance	
Construction:	Substantial Adverse	Major Adverse	
Year 1:	Substantial Adverse	Major Adverse	
Year 15 (Winter):	Moderate Adverse	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	Moderate Adverse	

20. Menai Strait

The Scheme would have no direct impact on this character area, but would fall within its visual context, creating a potential indirect effect. From limited locations within the character area, on the northern shoreline, the cutting through the scarp slope south of Plas Menai Roundabout would be perceptible, as part of the wider landscape context to the south, but would form only a minor part. The landscape character here is driven by the drama and contrast of the open water, the coast and the far mountains, and therefore a change in the adjacent and relatively low landscape would have only a slight effect.

The mitigation planting around the cutting opening would in time integrate with the adjacent existing woodland and screen the cutting form, resulting in a negligible change.

Landscape Sensitivity: High

Phase	Magnitude of Landscape Effect	Landscape Impact Significance		
Construction:	Slight Adverse	Moderate Adverse		
Year 1:	Slight Adverse	Moderate Adverse		
Year 15 (Winter):	Negligible/ No Change	None		
Year 15 (Summer):	Negligible/ No Change	None		

21. Anglesey Scarp

This landscape area derives its character from its topography, relationship to the Menai Strait and 'borrowed landscapes' of Snowdonia and the Llŷn. Whilst the Scheme would result in changes within the area's visual context they would be so minor as to be barely perceptible, although more so from the locations adjacent to the coast. However within the wider context of the landscape area visual setting the Scheme effect would be negligible.

Landscape Sensitivity: High

Phase	Magnitude of Landscape Effect	Landscape Impact Significance		
Construction:	Negligible/ No Change	None		
Year 1:	Negligible/ No Change	None		
Year 15 (Winter):	Negligible/ No Change	None		
Year 15 (Summer):	Negligible/ No Change	None		

In summary the Scheme would introduce significant adverse effects where it would directly impact on the landscape with only minor effects where only visual context would be altered. Whilst the mitigation measures would soften and reduce aspects of the Scheme intrusion into the rural setting the residual impacts would still represent a negative change. The most persistent effects would occur where the major structures would not be subject to landscape mitigation.

The pattern of impact significance is summarised in Table 7.4.1 overleaf.

Table 7.4.1 – Summary of Landscape Impact Significance

	Landscape Impact Significance (Adverse)			
Landscape Character Area	Construction	Year 1	Winter Yr	Summer
1 Slopes below Waunfawr	None	None	None	None
Mynydd Cilgwyn to Moel Smytho	None	None	None	None
3 Carmel to Rhosgadfan	None	None	None	None
4 Southern slopes	None	None	None	None
5 Groeslon to Rhos Isaf	None	None	None	None
6 Open fields around Llanwnda/ Afon Carrog	Moderate	Moderate	Moderate	Moderate
7 Coastal Plain	None	None	None	None
8 Llanwnda	Not Significant	None	None	None
9 Lower Afon Gwyrfai	Moderate	Moderate	Moderate	Moderate
10 Tan-y-graig/Llanfaglan	Moderate	Moderate	Minor	Minor
11 A487 – south of Caernarfon	Major	Major	Moderate	Moderate
12 Pen-y-Bryn	Substantial	Substantial	Major	Major
13 Fields southwest of Caeathro	Major	Major	Moderate	Moderate
14 Caernarfon urban edge	Not Significant	Not Significant	None	None
15 Afon Seiont valley	Major	Major	Moderate	Moderate
16 Holiday Park	Major	Major	Major	Major
17 Afon Cadnant Plateau	Major	Major	Moderate	Moderate
18 Bethel approaches	Moderate	Moderate	Minor	Not Significant
19 Plas Menai	Major	Major	Moderate	Moderate
20 Menai Strait	Moderate	Moderate	None	None
21 Anglesey scarp	None	None	None	None

7.4.2 Visual Impact Assessment

The approach to visual impact assessment is much as for landscape/ townscape, through consideration of the selected key views. For each view the Visual Sensitivity is cross-referenced with Magnitude of Visual Effect, as Table 7.2.9, to provide a measure of Scale of Visual Impact in accordance with Table 7.2.10. This is then considered with Receptor Sensitivity to provide an assessment of Visual Impact Significance, as Table 7.2.11.

View from road below Fron-dirion 1.

Distance from

3972m Scheme centreline:

Orientation: North-west

Field of view: 80°

OS Reference: SH 485 539

Whilst much of the Scheme would be theoretically visible within this view it would be at such a distance, and within such a visually complex scene, that it would be barely apparent. With the establishment of mitigation planting it would become even less visible.

Visual Sensitivity: High

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Negligible/ No change	None
Year 1:	Negligible/ No change	None
Year 15 (Winter):	Negligible/ No change	None
Year 15 (Summer):	Negligible/ No change	None
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	None	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

2. View from Mynydd y Cilgwyn

Distance from 3714m

Scheme centreline:

North-west

Field of view:

80°

OS Reference:

Orientation:

SH 496 548

As with the example above, the distance from the Scheme and the panoramic and complex nature of this view would mean that it would be scarcely perceptible, and would become less so as planting matures.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Negligible/ No change	None
Year 1:	Negligible/ No change	None
Year 15 (Winter):	Negligible/ No change	None
Year 15 (Summer):	Negligible/ No change	None
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	None	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

3. View from open heathland viewpoint near Moel Smytho

Distance from 3746m

Scheme centreline:

Orientation: North-west

Field of view: 110°

OS Reference: SH 514 582

Another example of a distant and elevated view, with many elements and dramatic features such as the sea, Anglesey and the Menai Strait. The Scheme would therefore be barely apparent, through all its phases.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers, tourists), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Negligible/ No change	None
Year 1:	Negligible/ No change	None
Year 15 (Winter):	Negligible/ No change	None
Year 15 (Summer):	Negligible/ No change	None
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	None	
Year 1:	None	
Year 15 (Winter):	None	

Year 15 (Summer):	None
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	None
Year 1:	None
Year 15 (Winter):	None
Year 15 (Summer):	None

4. View from road near Tyddyn Whisgin Bach

Distance from Scheme centreline: 2125m

Orientation: North-west

Field of view: 125°

OS Reference: SH 515 611

The Scheme would be visible in parts within this view, but only for very short sections and seen within a panoramic and complex context. In time the mitigation planting would reduce the visibility of these parts to such a point as to be negligible. At night traffic headlights would continue to be seen, but again this would be within the setting of a complex urban light pattern.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Slight	Moderate Adverse
Year 1:	Slight	Moderate Adverse
Year 15 (Winter):	Negligible/ No change	None
Year 15 (Summer):	Negligible/ No change	None
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	Major Adverse	
Year 15 (Winter):	None	
Year 15 (Summer):	None	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Moderate Adverse	
Year 1:	Moderate Adverse	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

5. View from Lon Eifion footpath south of Goat Roundabout

Distance from 80m

Scheme centreline:

Orientation: North Field of view: 60°

OS Reference: SH 472 576

The view to the existing roundabout would be altered with the introduction of the highway arm to the opposite side, removing the stone wall, and opening up views along the highway corridor beyond. The view is already characterised by highway infrastructure and this would continue to be the case. During construction there would be disruption to the highway boundary and temporary finishes, but with the establishment of roadside planting the view would become somewhat softened, with greater seasonal variety and interest than at present.

Visual Sensitivity: Low

Receptor Sensitivity: High (Walkers, cyclists, tourists)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderately Adverse	Minor Adverse
Year 1:	Slight Adverse	Not Significant
Year 15 (Winter):	Slight Beneficial	Not Significant
Year 15 (Summer):	Slight Beneficial	Not Significant
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Moderate Adverse	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

6. View from PROW Llanwnda 19, north of Goat Roundabout

Distance from 130m

Scheme centreline:

Orientation: West Field of view: 125°

OS Reference: SH 472 578

This strongly pastoral scene would be significantly disrupted by the Scheme, as it would pass through the view on an embankment, blocking views beyond. Planting on the embankment slopes would provide a degree of softening of the intrusion, along with retained hedgerows in the foreground, but the blocking of the view would remain and the highway embankment form would be apparent.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

7. View from minor road, Glanrhyd, east of Gwylfa Farm

Distance from

Scheme centreline: 164m

Orientation: East Field of view: 100°

OS Reference: SH 470 580

The Scheme would pass through the far half of the field seen in this view, on an embankment form and resulting in the loss of existing hedgerows, trees and woodland. In time woodland planting on the embankment slopes and new hedge planting would re-establish the field pattern and to some degree the character.

Visual Sensitivity: High

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Major Adverse	
Year 15 (Summer):	Major Adverse	

8. View eastwards from minor road west of Morogoro

Distance from Scheme centreline: 120m

Orientation: North-east

Field of view: 110°

OS Reference: SH 470 585

This view looks along a minor road which the Scheme would cross almost perpendicularly, but in a deep cutting. The minor road would be carried across the cutting on an overbridge, and the upper edge of the cutting slopes would be enclosed by new hedgerow planting. Once established, and in combination with the retention of the hedgerows this would result in a visually enclosed road corridor, with relatively little disruption to the current view. However during construction the excavation of the earthworks would involve significant vehicle movements and visual disruption.

Visual Sensitivity: Medium

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Slight Adverse	Minor Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Negligible/ No change	None
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Moderate Adverse	
Year 1:	Minor Adverse	
Year 15 (Winter):	Minor Adverse	
Year 15 (Summer):	None	

9. View westwards from minor road adjacent to Morogoro

Distance from 98m

Scheme centreline:

Orientation: West Field of view: 105°

OS Reference: SH 473 586

This view looks out across the coastal plain to the sea beyond, and includes the minor road in the foreground. The Scheme would cut across the minor road almost perpendicularly and in a deep cutting, with the minor road crossing on an overbridge. This bridge would be very apparent in this view and would introduce an urban character, but the cutting itself is sufficiently deep that traffic would be screened. The

existing trees associated with an existing field boundary, seen on the left of the road, would be retained. This would allow the framing of the view to remain along with a sense of maturity.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers, residents), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Major Adverse	
Year 15 (Summer):	Major Adverse	

10. View from road east of Llanfaglan

Distance from 107m

Scheme centreline:

0----

Orientation: South-east

Field of view: 80°

OS Reference: SH 473 599

The Scheme would cross the minor road in the mid-ground of this view, at close to a perpendicular angle, passing over the road on a bridge and with embankments either side. The Scheme would require the loss of a number of the mature trees, whilst the engineered bridge structure would introduce an urban character into this rural scene. Mitigation planting would provide woodland on the embankment slopes, softening the impact of the earthworks, although this would be less effective in winter months.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse

Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Major Adverse	
Year 15 (Summer):	Major Adverse	

11. View from PROW Bontnewydd 8, south of Cefn-y-Coed

Distance from Scheme centreline: 1026m

Orientation: South Field of view: 120°

OS Reference: SH 466 605

The Scheme would be in the middle distance of this view but would pass across a significant proportion. During construction the machinery and exposed soil would be apparent in the view, albeit within a wide context. With the establishment of planting it would become more integrated within the scene and less noticeable.

Visual Sensitivity: High

Receptor Sensitivity: High (Residents, walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Slight Adverse	Moderate Adverse
Year 1:	Slight Adverse	Moderate Adverse
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	Major Adverse	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

12. View from Lon Eifion footpath next to Welsh Highland Railway

Distance from 85m

Scheme centreline:

Orientation: South-east

Field of view: 80°

OS Reference: SH 476 603

The Scheme would cross the Welsh Highland Railway in the mid-ground of this view, at a perpendicular angle, passing over the railway and cycleway on a bridge and with embankments either side. The Scheme earthworks would block the wider countryside setting of this view, whilst the bridge structure would frame the railway and Lon Eifion. Mitigation planting would provide woodland on the embankment slopes, softening the impact of the earthworks, although this would be less effective in winter months. Although the railway has an engineered character its setting in the open countryside is a key element of this view, which would be compromised by the Scheme earthworks and traffic movement.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers, cyclists, tourists)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

13. View from minor road north-west of Bontnewydd

Distance from 260m

Scheme centreline:

Orientation: South-east

Field of view: 80°

OS Reference: SH 477 605

This view includes the lane itself, its hedge boundaries and the wider landscape beyond. In this view the Scheme would divert the lane to the right, up onto an embankment, and over the mainline on an overbridge. The mainline would run across the view but would be largely hidden by the side road embankment. The

existing mature trees along the lane boundary would be retained and the lane would provide a maintenance access. The higher parts of the side road embankment would be planted which would help in integrating the earthworks with the existing hedgerows and tree groups, but the introduction of incongruous engineered earthworks would be intrusive in the open rural scene.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Major Adverse	
Year 15 (Summer):	Major Adverse	

14. View from PROW Caernarfon 18, next to Ty'rallt Farm

Distance from

Scheme centreline: 795m

Orientation: South Field of view: 120°

OS Reference: SH 475 610

The Scheme would cross this view in the middle distance just in front of Caegwynedd farm, whose buildings can be clearly seen just left of centre. The Scheme would be on a 10m high embankment at this point meaning that it would be clearly visible in this scene, in front of the farm buildings. During construction and in the early years it would likely be the focus of this view, but in time the proposed woodland planting would soften the embankments and screen traffic.

Visual Sensitivity: High

Receptor Sensitivity: High (Residents, walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Major Adverse
Year 1:	Moderate Adverse	Major Adverse
Year 15 (Winter):	Slight Adverse	Moderate Adverse
Year 15 (Summer):	Slight Adverse	Moderate Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Major Adverse	
Year 15 (Summer):	Major Adverse	

15. View from PROW Caernarfon 19, south of Rhosdican Farm

Distance from

Scheme centreline:

265m

Orientation:

South-east

Field of view:

100°

OS Reference:

SH 479 608

The Scheme would cross right across this view, but would be partially screened by the retained hedgerow vegetation forming the field boundary opposite, and would be on a low embankment within a small valley. Consequently its impact in the scene would be less than might be anticipated. Additional planting between the carriageway and the retained hedgerow would further screen the Scheme and its traffic.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	Major Adverse	
Year 15 (Winter):	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	

16. View northwards from existing A487 next to Tyddyn-du

Distance from

Scheme centreline: 146m

Orientation: North Field of view: 100°

OS Reference: SH 483 606

This view looks toward the point on the existing trunk road where the Scheme would intersect with a new roundabout junction, in the fields just off to the right. A number of the mature trees on the existing highway boundary would be retained with the approach to the roundabout diverted behind them. The existing carriageway would be narrowed to a maintenance access, with mitigation woodland planting to the left and additional standard trees between the existing and proposed roads. There would be additional lighting columns and signage associated with the roundabout and its approaches, but this is not entirely contradictory to the existing highway character.

Visual Sensitivity: Low

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Minor Adverse
Year 15 (Winter):	Moderate Adverse	Minor Adverse
Year 15 (Summer):	Moderate Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Moderate Adverse	
Year 1:	Minor Adverse	
Year 15 (Winter):	Minor Adverse	
Year 15 (Summer):	Minor Adverse	

17. View southwards from existing A487 next to Parc Guest House

Distance from

Scheme centreline: 202m

Orientation: South Field of view: 100°

OS Reference: SH 483 610

As the example above this view looks towards the low point on the existing A487 where the new Scheme roundabout would be located. From this approach the existing road would be diverted off to the left to the new junction, requiring the loss of some of the mature trees. As before, whilst a significant change in the view, the

highway infrastructure would not be entirely out of character. The mitigation is this view would be primarily the reestablishment of field boundaries.

Visual Sensitivity: Low

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Minor Adverse
Year 15 (Winter):	Moderate Adverse	Minor Adverse
Year 15 (Summer):	Moderate Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	Moderate Adverse	
Year 1:	Minor Adverse	
Year 15 (Winter):	Minor Adverse	
Year 15 (Summer):	Minor Adverse	

18. View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge

Distance from 193m

Scheme centreline:

Orientation: South Field of view: 155°

OS Reference: SH 483 610

This view is primarily a rural one, but with the vehicle movements and light columns associated with the existing A487 to the right. The Scheme would cross the view in the valley below, although on an embankment, but would be beyond a field hedgerow, and would therefore be partially hidden. During construction the moving machinery would be visible, but on completion the intervening vegetation would provide some screening. As the mitigation planting matures, comprising of woodland and hedgerows, the Scheme would become further integrated and screened. At night the new roundabout lighting would extend the urban character further to the left in this view, although the existing A487 lighting already includes that character.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Major Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse

Phase	Visual Impact Significance (Receptor Sensitivity – High)
Construction:	Substantial Adverse
Year 1:	Substantial Adverse
Year 15 (Winter):	Moderate Adverse
Year 15 (Summer):	Moderate Adverse

19. View along Pen-y-Bryn Lane

Distance from 84m

Scheme centreline:

Orientation: South Field of view: 145°

OS Reference: SH 487 611

The Scheme would cut across this view in the bottom of the hill, where the lane would drop down to a culvert under a low road embankment. This earthwork would extend off to the left and right, with woodland mitigation planting to the right and hedgerow boundaries to both sides. However the culvert and the visible traffic on the road would introduce an engineered and urban character that is completely at odds with the tranquil countryside scene, which would not be significantly reduced by mitigation planting.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Substantial Adverse	Substantial Adverse
Year 15 (Summer):	Substantial Adverse	Substantial Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

20. View from PROW Bontnewydd 25, south-west of Bryn Mafon

Distance from 291m

Scheme centreline:

Orientation: West Field of view: 95°

OS Reference: SH 488 607

From this elevated view the Scheme would be at the base of the slope to the right, and would therefore be partially screened by topography and the near hedge. However it would necessitate the loss of some woodland blocks seen in the view and the street lighting columns associated with the roundabout and its approaches would bring the urban character closer. The northern approach arm to the roundabout would be the most visible part of the Scheme, although this would become less intrusive as mitigation hedgerows mature.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	Major Adverse	
Year 15 (Winter):	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	

21. View from PROW Bontnewydd 25, west of Bryn Mafon

Distance from 214m

Scheme centreline:

North-west

Orientation: North-w

Field of view: 115°

OS Reference: SH 488 608

In this view the Scheme would be run on the approximate line of the existing stream and hedgerow to the right, but with the nearest section to the far side and the further part on the near side. The Scheme would be on embankment and would be clearly visible during construction and on completion. Mitigation planting would integrate with the retained hedgerow vegetation and would provide a degree of screening. However, the scale of the earthwork in this low-lying landscape would remain apparent.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Walkers)

Phase Magnitude of Visua	I Effect Scale of Visual Impact
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Construction:	Substantial Adverse	Major Adverse
Year 1:	Substantial Adverse	Major Adverse
Year 15 (Winter):	Moderate Adverse	Moderate Adverse
Year 15 (Summer):	Moderate Adverse	Moderate Adverse
Phase	Visual Impact Significance	
	(Receptor Sensitivity – High)	
Construction:	(Receptor Sensitivity – High) Substantial Adverse	
Construction: Year 1:		
	Substantial Adverse	

22. View from PROW Bontnewydd 24, next to Rhyddallt Ganol

Distance from

Scheme centreline: 212m

Orientation: North Field of view: 125°

OS Reference: SH 491 610

This view looks down towards the line of the Scheme, although separated by a mature hedge and treeline. The telegraph poles in the distance mark the line of an existing lane, and the Scheme would be on the near side of this lane, on a low embankment. The facing slopes would be planted with a narrow strip of woodland. The viewing angle means that road and its traffic would be visible for some time, although as planting matures there would be a degree of screening. However as a narrow band this would be less effective in winter months.

Visual Sensitivity: High

Receptor Sensitivity: High (Residents, walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Substantial Adverse	Substantial Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

23. View from PROW Bontnewydd 32, east of Seiont Brickworks

Distance from 101m

Scheme centreline:

Orientation: East Field of view: 125°

OS Reference: SH 493 616

Across this view the Scheme would transfer from a cutting to an embankment form, from right to left. During construction the entire corridor would be entirely disrupted with soil exposure and earth-moving vehicles. On completion the section in cutting would be less apparent, which would increase as hedgerow planting matures. However the embankment, which would be across the left of the view would remain visible, albeit softened by woodland planting. This would compromise the rolling countryside character of this view in the long term.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

24. View from Llanbeblig Road, Caernarfon

Distance from 933m

Scheme centreline:

Orientation: South-east

Field of view: 80°

OS Reference: SH 486 622

In this view the contrast between the urban foreground and rural background is a key characteristic. The Scheme would cross the fields in the backdrop in front of the woodland, extending the urban character beyond the current boundary. It would be partly in cutting, partly on embankment, with the cutting section being less apparent. In time the mitigation planting would screen much of the embankment and it would therefore be visually integrated in the rural backdrop.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Residents), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	Major Adverse	
Year 15 (Winter):	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	Moderate Adverse	
Year 1:	Moderate Adverse	
Year 15 (Winter):	Minor Adverse	
Year 15 (Summer):	Minor Adverse	

25. View from field gate near Cefn-y-gof, Caeathro

Distance from

Scheme centreline: 434m

Orientation: North-west

Field of view: 120°

OS Reference: SH 499 615

The Scheme would appear in this view in the distant sloping field to the left side, where it would be in a relatively deep cutting. Further to the right it would be hidden behind intervening topography. During construction the machinery and exposed soil would be clearly apparent, but following completion the cutting form and boundary hedgerows would screen much of the corridor and the traffic. However it would introduce closely parallel boundaries into the existing field pattern.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers, residents), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Major Adverse
Year 1:	Moderate Adverse	Major Adverse
Year 15 (Winter):	Slight Adverse	Moderate Adverse
Year 15 (Summer):	Slight Adverse	Moderate Adverse

Phase	Visual Impact Significance (Receptor Sensitivity – High)
Construction:	Substantial Adverse
Year 1:	Substantial Adverse
Year 15 (Winter):	Major Adverse
Year 15 (Summer):	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
	(Receptor Sensitivity - Medium)
Construction:	Major Adverse
Construction: Year 1:	, , ,
	Major Adverse

26. View westwards along A4085, Waunfawr Road

Distance from

Scheme centreline: 101m

Orientation: West Field of view: 80°

OS Reference: SH 495 619

The Scheme would cut across this road with an overbridge and high embankments either side. The view is characterised by the enclosed corridor and mature trees, which would be significantly disrupted by the proposal. Whilst the embankment slopes would be visually softened by woodland planting the change in character of this view would be substantial and permanent.

Visual Sensitivity: High

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Substantial Adverse	Substantial Adverse
Year 15 (Summer):	Substantial Adverse	Substantial Adverse
Phase	Visual Impact Significance	
	(Receptor Sensitivity – Medium)
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

27. View westwards from Glan Gwna Holiday Park

Distance from 129m

Scheme centreline:

Orientation: North-west

Field of view: 125°

OS Reference: SH 498 621

The Scheme would introduce a dramatic change to this view with the viaduct deck, piers and moving traffic seen in the background above the horizon. This would be a dominant feature in the view and would detract from the sense of separation currently inherent in the woodland valley scene. There would be no effective mitigation for this change and therefore it would not be reduced over time.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Tourists/ holiday-makers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Major Adverse
Year 1:	Substantial Adverse	Major Adverse
Year 15 (Winter):	Substantial Adverse	Major Adverse
Year 15 (Summer):	Substantial Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

28. View from parkland west of Glan Gwna Hall

Distance from 395m

Scheme centreline: 39511

Orientation: North-west

Field of view: 90°

OS Reference: SH 502 619

This view includes both the holiday park in its woodland setting and the wider urban fringe context. The Scheme would appear in this view as the viaduct structure, cutting across the valley and above the treetops, with a major embankment structure to the left. Whilst it would be seen below the horizon the structure would be a major intrusion into the scene. The approach road to the right would in time be softened by mitigation planting in combination with the retained woodland in front, whilst the large earthwork to the left would eventually achieve a degree of integration with the mature

trees and woodland around. However, the viaduct itself would remain permanently visible in the scene, along with its moving traffic vehicles.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Tourists/ holiday-makers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Major Adverse
Year 1:	Substantial Adverse	Major Adverse
Year 15 (Winter):	Substantial Adverse	Major Adverse
Year 15 (Summer):	Substantial Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Substantial Adverse	
Year 15 (Summer):	Substantial Adverse	

29. View eastwards along A4086, Llanberis Road

Distance from 225m

Scheme centreline:

Orientation: East Field of view: 90°

OS Reference: SH 498 629

This view looks along the existing road towards where a new Scheme roundabout would be located, where the road would be diverted off to the left on the approach. This would require the loss of the mature hedgerow to the left. Mitigation planting would replace these hedgerows but clearly this would take time to achieve similar enclosure and maturity. However this view is already along a highway corridor so the proposed change would not be an entire change of character.

Visual Sensitivity: Low

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Minor Adverse
Year 1:	Moderate Adverse	Minor Adverse
Year 15 (Winter):	Slight Adverse	Not Significant
Year 15 (Summer):	Slight Adverse	Not Significant
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Minor Adverse	
Year 1:	Minor Adverse	

Year 15 (Winter):	None
Year 15 (Summer):	None

30. View from road west of Lon Glai Farm

Distance from

Scheme centreline: 147m

Orientation: North-west

Field of view: 80°

OS Reference: SH 511 637

The view from here looks across an open landscape of fields and hedges. The Scheme would cross this scene through the field the other side of the near fence boundary, and would be largely at-grade. It would then cross and realign the existing road corridor. The landscape mitigation here would consist of new hedgerow boundaries, which in time would screen the road itself and in part the traffic. The impact of the Scheme in this scene would be to disrupt the open field pattern and long countryside views.

Visual Sensitivity: High

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Substantial Adverse
Year 1:	Substantial Adverse	Substantial Adverse
Year 15 (Winter):	Moderate Adverse	Major Adverse
Year 15 (Summer):	Moderate Adverse	Major Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Substantial Adverse	
Year 1:	Substantial Adverse	
Year 15 (Winter):	Major Adverse	
Year 15 (Summer):	Major Adverse	

31. View from B4366 west of Bethel

Distance from 325m Scheme centreline:

Orientation: West Field of view: 120°

OS Reference: SH 512 646

The proposed Scheme would run across the entire width of this view, on the rising ground opposite, and on the line of the existing minor road. The mainline would be largely in cutting, as would a parallel side road. However a new roundabout would be elevated on embankment to the left of the scene, close to the existing road. Consequently much of the Scheme would be relatively well hidden in the view, within a cutting form, and with new hedgerow boundaries providing increasing screening and integration over time. The roundabout would be more apparent, with the earthworks being contrary to the prevailing topography. Over time, mitigation woodland planting would soften this effect, but in itself would be contradictory to the general pattern.

Visual Sensitivity: Medium

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Moderate Adverse	
Year 1:	Moderate Adverse	
Year 15 (Winter):	Minor Adverse	
Year 15 (Summer):	Minor Adverse	

32. View from minor road near Caerlan Tibot

Distance from 93m

Scheme centreline:

Orientation: East Field of view: 155°

OS Reference: SH 507 647

Although in close proximity to the proposed Scheme it would not be immediately apparent in this view, being within a relatively deep cutting. The proposed hedgerow boundaries would be the most obvious new element in the scene, which would shorten the mid-ground views. However the long views to the Snowdonia mountains would remain, and the general character would be largely unaffected, following completion of construction.

Visual Sensitivity: Medium

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Substantial Adverse	Major Adverse

Year 1:	Slight Adverse	Minor Adverse
Year 15 (Winter):		Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Major Adverse	
Year 1:	Minor Adverse	
Year 15 (Winter):	Minor Adverse	
Year 15 (Summer):	Minor Adverse	

33. View from Lon Las Menai, towards Plas Menai Roundabout

Distance from 163m

Scheme centreline:

Orientation: East Field of view: 55°

OS Reference: SH 503 656

This view looks across a busy road corridor towards a wooded and grazed scarp slope. The Scheme would emerge from a narrow cutting through this slope, although at the angle of this view this would not be apparent. The impact on this view would be the loss of woodland, the exposed west facing cutting slope, with the near edge of the corridor marked by a boundary fence and hedge. Much of the cutting faces would be planted with woodland, which in time would visually integrate with the retained adjacent woodland and screen the exposed slopes.

Visual Sensitivity: Medium

Receptor Sensitivity: High (Cyclists, walkers), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Moderate Adverse	Moderate Adverse
Year 1:	Moderate Adverse	Moderate Adverse
Year 15 (Winter):	Slight Adverse	Minor Adverse
Year 15 (Summer):	Slight Adverse	Minor Adverse
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	Major Adverse	
Year 15 (Winter):	Moderate Adverse	
Year 15 (Summer):	Moderate Adverse	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	Moderate Adverse	
Year 1:	Moderate Adverse	
Year 15 (Winter):	Minor Adverse	

Year 15 (Summer):	Minor Adverse
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34. View from Anglesey coastline, near to Anglesey Sea Zoo

Distance from

2479m

Scheme centreline:

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Orientation:

South-east

Field of view:

65°

OS Reference:

SH 480 655

Whilst the Scheme would be visible in this view, where the cutting through the scarp slope opens to Plas Menai roundabout, it would be such a minor part within this panoramic and complex scene that it would not be perceived.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers, tourists, residents),

Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact	
Construction:	Negligible/ No Change	None	
Year 1:	Negligible/ No Change	None	
Year 15 (Winter):	Negligible/ No Change	None	
Year 15 (Summer):	Negligible/ No Change	None	
Phase	Visual Impact Significance (Re	•	
Construction:	None		
Year 1:	None		
Year 15 (Winter):	None		
Year 15 (Summer):	None		
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)		
Construction:	None		
Year 1:	None		
Year 15 (Winter):	None		
Year 15 (Summer):	None		

35. View from car park in Brynsiencyn, Anglesey

Distance from

2477m

Scheme centreline:

South-east

Orientation: Field of view:

105°

OS Reference:

SH 484 670

This view includes the scarp slope through which the Scheme would form a cutting, but at such a distance and scale, as to be imperceptible.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers), Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Negligible/ No Change	None
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	None	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)
Construction:	None	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

36. View from A4080, Anglesey

Distance from

Scheme centreline: 2798m

Orientation: South Field of view: 50°

OS Reference: SH 500 684

From the upper edge of the Anglesey scarp slope this view looks across to Gwynedd and the Snowdonia mountains. The Scheme would be theoretically visible within this view but again this would be at a long distance, and would comprise such a small part of the scene, that it would practically imperceptible.

Visual Sensitivity: High

Receptor Sensitivity: Medium (Road users)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Negligible/ No Change	None

Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None
Phase	Visual Impact Significance (Receptor Sensitivity – Medium)	
Construction:	None	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

37. View from Anglesey coastline, near Llanidan

Distance from

Scheme centreline: 1395m

Orientation: South Field of view: 100°

OS Reference: SH 501 670

From this viewpoint the Scheme would be theoretically visible as a cutting in the slope behind the Water Sports Centre. However due to its distance and scale this would likely be only perceptible during construction, with the associated earth moving machinery and exposed faces. After completion the Scheme would be barely perceived within this broad view.

Visual Sensitivity: High

Receptor Sensitivity: High (Walkers)

Phase	Magnitude of Visual Effect	Scale of Visual Impact
Construction:	Slight Adverse	Moderate Adverse
Year 1:	Negligible/ No Change	None
Year 15 (Winter):	Negligible/ No Change	None
Year 15 (Summer):	Negligible/ No Change	None
Phase	Visual Impact Significance (Receptor Sensitivity – High)	
Construction:	Major Adverse	
Year 1:	None	
Year 15 (Winter):	None	
Year 15 (Summer):	None	

In summary the relatively high quality views and sensitive receptors generally results in significantly adverse effects where the Scheme would be apparent. In the longer distance, panoramic views, seen from the upland areas and from Anglesey, the Scheme would be less significant, due to the existing visual scale and complexity.

Mitigation planting would in most cases soften and reduce the effect of the Scheme, but where there are substantial structures this would not be possible, in particular the Gwyrfai and Seiont viaducts. The seasonal difference in planting effectiveness would generally not be enough to result in a different impact measure, except where only narrow bands of screen planting would be possible.

The pattern of impact significance is summarised in Table 7.4.2 below including different receptor impacts where relevant.

Table 7.4.2 Summary of Visual Impact Significance

	Visual Impact Significance			
Key View	Constructi on	Year 1	Year 15 Winter	Year 15 Summer
1 View from road below Fron- dirion	None	None	None	None
2 View from Mynydd y Cilgwyn	None	None	None	None
3 View from open heathland	None	None	None	None
viewpoint near Moel Smytho	None	None	None	None
4 View from road near Tyddyn	Major	Major	None	None
Whisgin Bach	Moderate	Moderate	None	None
5 View from Lon Eifion footpath south of Goat Roundabout	Moderate	None	None	None
6 View from PROW Llanwnda 19, north of Goat Roundabout	Substantial	Substantial	Substantial	Substantial
7 View from minor road, Glanrhyd, east of Gwylfa Farm	Substantial	Substantial	Major	Major
8 View eastwards from minor road west of Morogoro	Moderate	Minor	Minor	None
9 View westwards from minor	Substantial	Substantial	Substantial	Substantial
road adjacent to Morogoro	Substantial	Substantial	Major	Major
10 View from road east of	Substantial	Substantial	Substantial	Substantial
Llanfaglan	Substantial	Substantial	Major	Major
11 View from PROW Bontnewydd 8, south of Cefn- y-Coed	Major	Major	None	None
12 View from Lon Eifion footpath next to Welsh Highland Railway	Substantial	Substantial	Substantial	Substantial
13 View from minor road	Substantial	Substantial	Substantial	Substantial
north-west of Bontnewydd	Substantial	Substantial	Major	Major
14 View from PROW Caernarfon 18, next to Ty'rallt Farm	Substantial	Substantial	Major	Major

15 View from PROW Caernarfon 19, south of Rhosdican Farm	Major	Major	Moderate	Moderate
16 View northwards from existing A487 next to Tyddyndu	Moderate	Minor	Minor	Minor
17 View southwards from existing A487 next to Parc Guest House	Moderate	Minor	Minor	Minor
18 View from PROW Caernarfon 15, next to Pen-y- Bryn Lodge	Substantial	Substantial	Moderate	Moderate
19 View along Pen-y-Bryn Lane	Substantial	Substantial	Substantial	Substantial
20 View from PROW Bontnewydd 25, south-west of Bryn Mafon	Major	Major	Moderate	Moderate
21 View from PROW Bontnewydd 25, west of Bryn Mafon	Substantial	Substantial	Major	Major
22 View from PROW Bontnewydd 24, next to Rhyddallt Ganol	Substantial	Substantial	Substantial	Substantial
23 View from PROW Bontnewydd 32, east of Seiont Brickworks	Substantial	Substantial	Substantial	Substantial
24 View from Llanbeblig Road,	Major	Major	Moderate	Moderate
Caernarfon	Moderate	Moderate	Minor	Minor
25 View from field gate near	Substantial	Substantial	Major	Major
Cefn-y-gof, Caeathro	Major	Major	Moderate	Moderate
26 View westwards along A4085, Waunfawr Road	Substantial	Substantial	Substantial	Substantial
27 View westwards from Glan Gwna Holiday Park	Substantial	Substantial	Substantial	Substantial
28 View from parkland west of Glan Gwna Hall	Substantial	Substantial	Substantial	Substantial
29 View eastwards along A4086, Llanberis Road	Minor	Minor	None	None
30 View from road west of Lon Glai Farm	Substantial	Substantial	Major	Major
31 View from B4366 west of Bethel	Moderate	Moderate	Minor	Minor
32 View from minor road near Caerlan Tibot	Major	Minor	Minor	Minor
33 View from Lon Las Menai,	Major	Major	Moderate	Moderate
towards Plas Menai roundabout	Moderate	Moderate	Minor	Minor

34 View from Anglesey	None	None	None	None
coastline, near to Anglesey Sea Zoo	None	None	None	None
35 View from car park in	None	None	None	None
Brynsiencyn, Anglesey	None	None	None	None
36 View from A4080, Anglesey	None	None	None	None
37 View from Anglesey coastline, near Llanidan	Major	None	None	None

7.4.3 Visual Impact on Affected Properties

The approach to visual impact assessment is similar to the assessment of landscape and townscape, through consideration of the identified properties or group of properties likely to be affected by the Scheme as a consequence of being within the Zone of Visual Influence.

The baseline quality and character of the existing visual amenity available at each property is described in Volume 3, Appendix D.2, along with an assessment of the resulting impact from the Scheme at completion in Year 1, and in winter and summer in Year 15.

The affected properties, or groups of properties, are illustrated in Volume 2, Figures 7.10a -b, along with a colour-coded indication of the resulting visual impact in winter in Year 15.

The assessment identified 247 individual and groups of properties, totalling over 2,600 properties and indicates that the significant impacts are related to proximity to the Scheme. The properties are predominantly residential, including holiday cottages, buest houses and caravans, but with no schools, hospitals, or residential care homes in close proximity to the Scheme.

By Year 15 (winter) 34No permanent residential properties would be subject to a Substantial impact and 52 a Moderate impact, reducing to 4No Substantial and 50No Moderate in Year 15 (summer), with the mitigating effects of screen planting in full leaf.

7.5 Proposed Mitigation

7.5.1 Construction mitigation

During construction operations landscape and visual impacts would arise from both changes to the landscape and the impact of particular activities. These could include exposed earthworks, temporary construction compounds, scaffolding structures, site lighting, temporary fencing, spoil heaps, cranes and construction traffic movement. Whilst it would not be possible to fully mitigate the effect of moving and operating site vehicles there are a number of other measures which could reduce adverse effects.

- Careful positioning of site offices, compounds and car parks, with grass seeded bunds around sensitive perimeters to provide appropriate screening and integration.
- Consideration of material and colours for temporary fencing etc., whilst taking account of safety requirements.
- Sensitive design and placing of site signage, in order to provide the required information whilst limiting wider landscape and visual impacts.
- Control of site lighting, minimising light-spill beyond the required area.
- Retained existing vegetation, in particular mature vegetation, wherever possible.
 Effective and robust tree protection measures to be put in place wherever necessary.
- Programme planning to ensure exposed earthworks are re-vegetated as soon as possible to accelerate landscape integration.
- Temporary seeding of topsoil and subsoil storage heaps.
- Offsite planting on individual land owners land by agreement where localised visual benefits would be achieved.

7.5.2 Operational mitigation

Mitigation measures would be incorporated during construction in order to remove or reduce adverse landscape and visual effects arising during the operational phase, from the highway itself, associated earthworks and structures, traffic movement and lighting. These landscape mitigation objectives are set out in greater detail in the Landscape Strategy. (Refer to Volume 3, Appendix D.3).

This strategy also sets out the potential range of landscape mitigation elements including the planting of broadleaf woodland and woodland edge mixes, native mixed-species hedgerows, individual trees, species-rich and amenity grassland, earthworks such as false cuttings, and finishes treatments to structures. Where earthworks within the Plas Menai cutting are likely to result in exposed rock a number of approaches could be taken depending on the nature and degree of fracturing, including soil placement, reusing an existing seed bank, hydroseeding with herb or shrub species, and allowing natural weathering and regeneration. This could also result in habitat value as identified in the Trunk Road Estate Biodiversity Action Plan (TREBAP), Rock and Scree.

The retention of existing trees, woodland and hedgerows would be a key component of mitigating adverse impacts, with additional significant benefits for nature conservation and habitat connectivity. Opportunities for the early translocation of

vegetation would also be sought, particularly with those species appropriate for coppicing, such as hazel, hawthorn, blackthorn and willow, and where suitable receptor sites can be identified.

The primary function of the landscape mitigation approach would be to screen as far as possible the highway infrastructure and traffic from the wider landscape and visual context, whilst integrating the Scheme into the existing landscape pattern. In places where the character is derived from open fields and hedgerows this restricts the degree of screening vegetation, as to introduce significant linear woodland would be contradictory. Elsewhere planting would reinforce and strengthen existing vegetation belts providing appropriate screening and landscape integration.

The careful design of structures and use of appropriate materials would also assist in integrating the Scheme within its particular landscape context, which is primarily rural. The landscape design objective for bridge structures over the main line is therefore to keep them as open as possible in main line cut situations, to allow views through the structures, and to facilitate a continuity of landscape treatment along the scheme corridor. Splayed and sloping wing walls will be incorporated in order to maximise the available area for mitigation planting. As well as providing visual screening and landscape integration this approach also maintains habitat connectivity with the associated biodiversity benefits.

The highway boundary fence would be detailed wherever possible to minimise visual impact and reflect local character, adopting a post and wire form which is common in the locality. The alternative would be timber post and rail. This aspect would be subject to agreement with adjacent landowners. In most cases this boundary would be associated with hedgerow planting.

The proposed landscape mitigation measures, for the Scheme from west to east are described below and are illustrated in Volume 2, Figures 7.11a-i.

Goat Roundabout (Chainage 0) - Chainage 600 (Figure 7.11a)

The Scheme would leave the existing elevated Goat Roundabout on an embankment, up to 7m high, crossing through open countryside. Broadleaf woodland planting would cover much of the western faces, screening the earthworks and traffic in views from the west. Planting on the east-facing embankment slopes would be focused around the culvert at Ch180 and underbridge at Ch420, screening the structures and openings, and benefitting nature conservation functions. A lower scrub edge would be provided along the top of the slopes to discourage bats from crossing the corridor. New hedgerows would be provided along the Scheme boundary, and the existing hedgerow and trees at Ch360-410 LHS (left hand side) retained for nature conservation and landscape purposes. The attenuation ponds, adjacent to the Goat Roundabout and at Ch450 RHS (right hand side), would be bounded by native hedgerows, tying in with the existing field patterns and adjacent lane.

Chainage 600 - Chainage 1100 (Figure 7.11a)

The Scheme would pass through this area in a cutting, up to 10m deep, which would screen the road and traffic within. New hedgerows would be provided along the Scheme boundaries, re-establishing the field pattern, but the cutting slopes would be simply species-rich grassland with scattered groups of individual trees, particularly around the overbridge. At Ch740-820 LHS a section of mature hedgerow and trees would be retained and reinforced with a block of new broadleaf woodland. On the

Scheme boundary with the property Morogoro a stone wall would be provided to integrate with the existing garden walls.

Chainage 1100 - Chainage 1800 (Figure 7.11a-b)

Through this section the Scheme would be on embankment of varying height between 1 and 6m, and open to long views from the west. Consequently broadleaf woodland would cover the western faces with a mixture of woodland and open slopes on the eastern faces, providing screening and integration with the existing vegetation pattern. Hedgerows would be provided along the Scheme boundaries and tying into existing mature hedgerows. The attenuation pond at Ch1350 LHS would be enclosed through a combination of existing hedgerows, new hedgerows and the planted Scheme embankment. The pond at Ch1600 LHS would be similarly bounded by existing riverside vegetation and the Scheme hedgerow, but only separated from the adjacent PMA by a fence boundary. A section of hedgerow at Ch1450-1550 LHS would be retained alongside the PMA and reinforced with a woodland block to provide nature conservation benefits but also landscape integration. The abutments to the Gwyrfai viaduct at Ch1800 would be planted in woodland, with an existing mature tree retained and incorporated within the Scheme boundary to the east.

Chainage 1800 - Chainage 2050 (Gwyrfai Viaduct) (Figure 7.11b)

The Gwyrfai Viaduct would cross the Afon Gwyrfai and its floodplain, with no opportunity for landscape mitigation planting beyond its approach embankments. The structure itself would be a simple concrete form, in keeping with the bridge structures along the local trunk road network.

Chainage 2050 - Chainage 2890 (Figure 7.11b)

Through this section the Scheme would be on embankment, up to 10m high, and crossing a minor road at Ch2290 and the Welsh Highland Railway and Lon Eifion cycleway at Ch2700. The existing topography is relatively level and low lying, with groups of properties to both the west and east, and consequently woodland planting would enclose both sides of the road corridor providing visual screening, with hedgerows along the Scheme boundary. An attenuation pond at Ch2100 RHS would be separated from the adjacent fields by a new native hedgerow, re-establishing the field pattern.

Side Roads (Chainage 2890 - Chainage 2990) (Figure 7.11c)

Where an overbridge would divert the existing lane over the mainline the larger sections of its embankments would be planting in woodland, with lower scrub species along the top of the slopes, and with new hedgerow boundaries. Along the existing lane to the north the existing hedges and mature trees would be retained and reinforced with additional planting, providing landscape integration and nature conservation benefits.

Chainage 2990 - Meifod Roundabout (Chainage 3550) (Figure 7.11c)

The Scheme would run alongside a vegetated stream in this section and vary in form between a low embankment and small cutting. On the northern side the existing streamside scrub and trees would be retained and reinforced with woodland planting in the corridor between the watercourse and road, as landscape integration. To the south the planting provision would be limited to a native hedgerow on the Scheme boundary, which would also enclose a narrow attenuation pond at Ch 3170-3300.

At the Meifod Roundabout small blocks of woodland planting would reinforce existing field and roadside hedgerows, providing a degree of screening of the roundabout lighting. Trees alongside the existing A487 would be retained within the verge on the southern approach to the roundabout. To the southeast the planting would be limited to new hedgerow boundaries, re-establishing the field pattern. Part of the existing highway would be retained for maintenance access to the Scheme and attenuation ponds, with the redundant width broken out, soiled and seeded.

Chainage 3550 - Chainage 4000 (Figure 7.11c-d)

Here the Scheme would be on embankment, up to 6m high. As a response to properties to the north and to create habitat connectivity the embankment slopes would be planted in woodland, with scrub species along the highway edge, and with boundary hedgerows. To the south an area of woodland and streamside vegetation would be retained and reinforced with additional woodland. An attenuation pond at Ch3600 to 3700 RHS would be simply enclosed by new hedgerows. At Ch3930 an existing lane would be diverted to pass under the mainline in a culvert, and the required cutting slopes would be partially planted in woodland, for nature conservation purposes, and with outer hedgerow boundaries.

Chainage 4000 - Chainage 4800 (Figure 7.11d)

As the Scheme skirts the eastern side of the Caernarfon Quarry it would be on a small embankment of around 1.5m high, with a mixture of woodland blocks, grassed slopes, hedgerow boundaries and retained vegetation. The new planting would be mainly on the eastern slopes, for visual screening, with the western faces being largely grass combined with hedgerow boundaries. Where the Scheme would require a new slope into the top edge of the quarry it would be planted in woodland to provide screening of traffic and landscape integration. At Ch4350 RHS an attenuation pond would be enclosed by a retained hedgerow and separated by the road corridor by new hedgerow and woodland planting.

Chainage 4800 - Chainage 5000 (Figure 7.11d)

Through this section the Scheme would pass into a 5m deep cutting with the slopes in open grassland. The edges of the cutting would be bounded by new hedgerows, tied into the surrounding field pattern.

Chainage 5000 - Chainage 5330 (Figure 7.11d)

From the cutting the Scheme would transition to an embankment which would be up to 8m high and passing through woodland blocks and estate tree groups associated with Plas Treflan and the A4085, which it crosses on an underbridge. The Scheme slopes would be planted in broadleaf woodland to soften the earthworks and screen traffic, with lower shrub planting at the top of the slopes, and with hedgerow boundaries.

Chainage 5330 - Chainage 5450 (Figure 7.11e)

The Scheme embankment would increase here to 20m high, with the slopes in woodland to screen its intrusion into the valley landscape, along with the elevated traffic. Additional woodland planting either side of the Scheme would provide habitat connectivity for bats as well as further landscape integration. A native hedgerow would create a linear feature along the woodland edge and link to the Seiont Viaduct

abutment. An attenuation pond would be located within mitigation woodland, but with open grassland in its immediate surroundings.

Chainage 5450 - Chainage 5600 (Seiont Viaduct) (Figure 7.11e)

The Scheme would emerge from the wooded embankment onto an open viaduct structure some 20m above the valley floor. At this height and in this landscape no landscape mitigation planting would be feasible.

Chainage 5600 – Cibyn Roundabout (Chainage 6500) (Figure 7.11e-f)

Having crossed the Seiont valley the Scheme would skirt around the eastern edge of the Cibyn Industrial Estate, largely in cutting, up to 3m deep, with predominantly grassed slopes and bounded by new hedgerows. Ponds at Ch5650 LHS and Ch5950 RHS would be separated from both the surrounding landscape and highway corridor by a combination of hedgerow planting and topography. Woodland planting would reinforce the existing vegetation along the industrial estate boundary, and provide additional traffic screening for the property Bodrual to the east. To the north of the new roundabout woodland blocks would screen the highway infrastructure such as signs and columns and limit the effect of night-time lighting in the wider landscape. To both the east and west of the junction attenuation ponds would be enclosed by woodland and hedgerows, and the redundant existing carriageway would be broken up, soiled and seeded.

Chainage 6500 – Chainage 8100 (Figure 7.11f-g)

Through this long section the Scheme would be either at-grade or on a small embankment. The small slopes and highway verges would be mainly grassed and bounded by new hedgerows. Woodland planting would only be provided for integration with the existing vegetation, such as at Tyddyn Bistle. Elsewhere the landscape treatment would reflect the open fieldscape, avoiding inappropriate linear woodland. At Ch7200 RHS a small pond would be located in the adjacent field but bounded by only a fence, to avoid the creation of an incongruous field pattern.

Chainage 8100 - Chainage 8900 (main line) (Figure 7.11g-h)

This section of the Scheme includes both the main line and realigned side roads. The main line Scheme would vary between 3m high embankments and 5m deep cuttings, with a mix of open grass slopes, small woodland blocks and hedgerows. The planting areas would be associated with the embankment section, providing visual screening, whilst the cuttings would be largely unplanted with only the boundary hedgerows. At Ch8100 LHS an attenuation pond would be enclosed between the existing roadside hedges and the Scheme boundary hedgerow, with further reinforcing woodland.

Realigned Crug Lane unclassified road and Bethel Road Roundabout (Figure 7.11g-h)

This realigned side road would be in cuttings at its northern and southern ends, up to 3m deep, with the central section and the roundabout being on embankment, up to 8m high above the adjacent existing landscape. The highest embankment areas and the roundabout would be enclosed by woodland planting on the slopes, screening the highway infrastructure, signage etc, and limiting the effect of night-time lighting. However beyond the roundabout approaches the eastern embankment faces would be open grassland with the hedgerow at its base. Hedgerows and woodland would provide separation between the mainline and side roads, and reduce the apparent

width of the highway corridor. In the area between the mainline and side road, bounded by hedges and woodland planting, an attenuation pond would be located in open grassland.

Chainage 8900 - Chainage 9600 (Figure 7.11h-i)

The Scheme would enter a deep cutting in this section, some 19m deep at its maximum. The cutting slopes would largely be in open species-rich grassland, with scattered groups of trees and localised rock outcrops. At its northern end broadleaf woodland planting on the slopes would effectively narrow the cutting form intruding into the scarp landscape. This would also link with the existing woodland of Bryn Covet, providing both habitat connectivity and landscape integration. A line of standard trees along the top edge of the cutting slope would accelerate the creation of a linear feature for bat connectivity.

Chainage 9600 – Plas Menai Roundabout (Chainage 9750) (Figure 7.11i)

Around the existing roundabout, realigned side roads, and an attenuation pond, hedgerow planting would re-establish field and create enclosure of the road corridor. The existing vegetation on the roundabout island would be retained and protected.

Monitoring of Scheme Landscape Mitigation Proposals

A five-year aftercare period would be put in place for the landscape planting. The aftercare would be directed to ensuring the successful establishment and growth of the new tree and shrub planting, seeding and other landscape elements to ensure these achieve the landscape mitigation objectives.

Annual and seasonal monitoring of the Scheme during the construction phase and occupation would be undertaken by landscape, ecological and other specialists to ensure the Scheme develops as intended and that the inherent mitigation aims are achieved. This would include assessment of plant growth, recording of plant failures (and provision for annual replacement of same), establishment of grassland types, records of target wildlife species, ecological habitat establishment and success of mitigation. Alongside monitoring would be a formal reporting structure supported by remedial measures, including replacement planting as necessary to ensure the anticipated establishment of the landscape is maintained.

At the end of the aftercare period the Scheme would be subject to a formal handover process to the North and Mid Wales Trunk Road Agency (NMWTRA), who would be the maintaining authority for the Scheme thereafter. For the landscape, this would include formal reporting on the progress of the Scheme against stated design and performance aims, against ecological and other environmental aims and on landscape interventions where progress or species establishment has not been as anticipated.

7.6 Residual Environmental Effects (following mitigation)

Table 7.6.1 Summary of Impacts in Relation to Landscape

Year 1 provides magnitude of impact prior to mitigation,

Year 15 provides magnitude and significance following mitigation

Receptor	Description of effect	Magnitude of impact
Construction Impacts		
1 Slopes below Waunfawr	Change in visual context only	Negligible/ No Change
2 Mynydd Cilgwyn to Moel Smytho	Change in visual context only	Negligible/ No Change
3 Carmel to Rhosgadfan	Change in visual context only	Negligible/ No Change
4 Southern slopes	Change in visual context only	Negligible/ No Change
5 Groeslon to Rhos Isaf	Change in visual context only	Negligible/ No Change
6 Open fields around Llanwnda/ Afon Carrog	Direct impact	Moderate Adverse
7 Coastal Plain	Change in visual context only	Slight Adverse
8 Llanwnda	Change in visual context only	Slight Adverse
9 Lower Afon Gwyrfai	Direct impact, from Gywrfai viaduct	Moderate Adverse
10 Tan-y-graig/Llanfaglan	Direct impact, to eastern edge only	Moderate Adverse
11 A487 – south of Caernarfon	Direct impact	Substantial Adverse
12 Pen-y-Bryn	Direct impact	Substantial Adverse
13 Fields southwest of Caeathro	Direct impact	Substantial Adverse
14 Caernarfon urban edge	Change in visual context only	Slight Adverse

Receptor	Description of effect	Magnitude of impact
15 Afon Seiont valley	Direct impact	Substantial Adverse
16 Holiday Park	Direct impact, from Seiont viaduct	Substantial Adverse
17 Afon Cadnant Plateau	Direct impact	Substantial Adverse
18 Bethel approaches	Direct impact	Substantial Adverse
19 Plas Menai	Direct impact	Substantial Adverse
20 Menai Strait	Change in visual context only	Slight Adverse
21 Anglesey scarp	Change in visual context only	Negligible/ No Change

View	Magnitude of impact
Construction Impacts	
1 View from road below Fron-dirion	Negligible/ No Change
2 View from Mynydd y Cilgwyn	Negligible/ No Change
3 View from open heathland viewpoint near Moel Smytho	Negligible/ No Change
4 View from road near Tyddyn Whisgin Bach	Slight Adverse
5 View from Lon Eifion footpath south of Goat Roundabout	Moderate Adverse
6 View from PROW Llanwnda 19, north of Goat Roundabout	Substantial Adverse
7 View from minor road, Glanrhyd, east of Gwylfa Farm	Substantial Adverse
8 View eastwards from minor road west of Morogoro	Moderate Adverse
9 View westwards from minor road adjacent to Morogoro	Substantial Adverse
10 View from road east of Llanfaglan	Substantial Adverse
11 View from PROW Bontnewydd 8, south of Cefn-y-Coed	Slight Adverse

View	Magnitude of impact
12 View from Lon Eifion footpath next to Welsh Highland Railway	Substantial Adverse
13 View from minor road north-west of Bontnewydd	Substantial Adverse
14 View from PROW Caernarfon 18, next to Ty'rallt Farm	Moderate Adverse
15 View from PROW Caernarfon 19, south of Rhosdican Farm	Moderate Adverse
16 View northwards from existing A487 next to Tyddyn-du	Substantial Adverse
17 View southwards from existing A487 next to Parc Guest House	Substantial Adverse
18 View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge	Substantial Adverse
19 View along Pen-y-Bryn Lane	Substantial Adverse
20 View from PROW Bontnewydd 25, south-west of Bryn Mafon	Moderate Adverse
21 View from PROW Bontnewydd 25, west of Bryn Mafon	Substantial Adverse
22 View from PROW Bontnewydd 24, next to Rhyddallt Ganol	Substantial Adverse
23 View from PROW Bontnewydd 32, east of Seiont Brickworks	Substantial Adverse
24 View from Llanbeblig Road, Caernarfon	Moderate Adverse
25 View from field gate near Cefn-y-gof, Caeathro	Moderate Adverse
26 View westwards along A4085, Waunfawr Road	Substantial Adverse
27 View westwards from Glan Gwna Holiday Park	Substantial Adverse
28 View from parkland west of Glan Gwna Hall	Substantial Adverse
29 View eastwards along A4086, Llanberis Road	Moderate Adverse
30 View from road west of Lon Glai Farm	Substantial Adverse
31 View from B4366 west of Bethel	Moderate Adverse
32 View from minor road near Caerlan Tibot	Substantial Adverse
33 View from Lon Las Menai, towards Plas Menai roundabout	Moderate Adverse

View	Magnitude of impact
34 View from Anglesey coastline, near to Anglesey Sea Zoo	Negligible/ No Change
35 View from car park in Brynsiencyn, Anglesey	Negligible/ No Change
36 View from A4080, Anglesey	Negligible/ No Change
37 View from Anglesey coastline, near Llanidan	Slight Adverse

Receptor	Description of effect	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
Operational Impacts				
1 Slopes below Waunfawr	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
Mynydd Cilgwyn to Moel Smytho	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
3 Carmel to Rhosgadfan	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
4 Southern slopes	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
5 Groeslon to Rhos Isaf	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
6 Open fields around Llanwnda/ Afon Carrog	Direct impact	Moderate Adverse	Moderate Adverse	Moderate Adverse
7 Coastal Plain	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
8 Llanwnda	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None
9 Lower Afon Gwyrfai	Direct impact, from Gywrfai viaduct	Moderate Adverse	Moderate Adverse	Moderate Adverse
10 Tan-y-graig/Llanfaglan	Direct impact, to eastern edge only	Moderate Adverse	Slight Adverse	Minor Adverse
11 A487 – south of Caernarfon	Direct impact	Substantial Adverse	Moderate Adverse	Moderate Adverse

Receptor	Description of effect	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
12 Pen-y-Bryn	Direct impact	Substantial Adverse	Moderate Adverse	Major Adverse
13 Fields southwest of Caeathro	Direct impact	Substantial Adverse	Moderate Adverse	Moderate Adverse
14 Caernarfon urban edge	Change in visual context only	Slight Adverse	Negligible/ No Change	None
15 Afon Seiont valley	Direct impact	Substantial Adverse	Moderate Adverse	Moderate Adverse
16 Holiday Park	Direct impact, from Seiont viaduct	Substantial Adverse	Substantial Adverse	Major
17 Afon Cadnant Plateau	Direct impact	Substantial Adverse	Moderate Adverse	Moderate Adverse
18 Bethel approaches	Direct impact	Substantial Adverse	Slight Adverse	Not Significant
19 Plas Menai	Direct impact	Substantial Adverse	Moderate Adverse	Moderate Adverse
20 Menai Strait	Change in visual context only	Slight Adverse	Negligible/ No Change	None
21 Anglesey scarp	Change in visual context only	Negligible/ No Change	Negligible/ No Change	None

View	Receptors	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
Operational Impacts				
1 View from road below Fron- dirion	Road Users	Negligible/ No Change	Negligible/ No Change	None
2 View from Mynydd y Cilgwyn	Walkers	Negligible/ No Change	Negligible/ No Change	None
3 View from open heathland viewpoint near Moel Smytho	Walkers, tourists	Negligible/ No Change	Negligible/ No Change	None
	Road Users	Negligible/ No Change	Negligible/ No Change	None

View	Receptors	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
4 View from road near Tyddyn	Walkers	Slight Adverse	Negligible/ No Change	None
Whisgin Bach	Road Users	Slight Adverse	Negligible/ No Change	None
5 View from Lon Eifion footpath south of Goat Roundabout	Walkers, cyclists, tourists	Slight Beneficial	Slight Beneficial	None
6 View from PROW Llanwnda 19, north of Goat Roundabout	Walkers	Substantial Adverse	Moderate Adverse	Substantial Adverse
7 View from minor road, Glanrhyd, east of Gwylfa Farm	Road Users	Substantial Adverse	Moderate Adverse	Major Adverse
8 View eastwards from minor road west of Morogoro	Road Users	Slight Adverse	Negligible/ No Change	None
9 View westwards from minor road adjacent to Morogoro	Walkers, residents	Substantial Adverse	Moderate Adverse	Substantial Adverse
	Road Users	Substantial Adverse	Moderate Adverse	Major Adverse
10 View from road east of Llanfaglan	Walkers	Substantial Adverse	Moderate Adverse	Substantial Adverse
	Road Users	Substantial Adverse	Moderate Adverse	Major Adverse
11 View from PROW Bontnewydd 8, south of Cefn-y- Coed	Walkers, residents	Slight Adverse	Negligible/ No Change	None
12 View from Lon Eifion footpath next to Welsh Highland Railway	Walkers, cyclists, tourists	Substantial Adverse	Moderate Adverse	Substantial Adverse
13 View from minor road northwest of Bontnewydd	Walkers	Substantial Adverse	Moderate Adverse	Substantial Adverse
	Road Users	Substantial Adverse	Moderate Adverse	Major Adverse

View	Receptors	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
14 View from PROW Caernarfon 18, next to Ty'rallt Farm	Walkers, residents	Moderate Adverse	Slight Adverse	Major Adverse
15 View from PROW Caernarfon 19, south of Rhosdican Farm	Walkers	Moderate Adverse	Slight Adverse	Moderate Adverse
16 View northwards from existing A487 next to Tyddyn-du	Road Users	Moderate Adverse	Moderate Adverse	Minor Adverse
17 View southwards from existing A487 next to Parc Guest House	Road Users	Moderate Adverse	Moderate Adverse	Minor Adverse
18 View from PROW Caernarfon 15, next to Pen-y- Bryn Lodge	Walkers	Moderate Adverse	Slight Adverse	Moderate Adverse
19 View along Pen-y-Bryn Lane	Walkers	Substantial Adverse	Substantial Adverse	Substantial Adverse
20 View from PROW Bontnewydd 25, south-west of Bryn Mafon	Walkers	Moderate Adverse	Slight Adverse	Moderate Adverse
21 View from PROW Bontnewydd 25, west of Bryn Mafon	Walkers	Substantial Adverse	Moderate Adverse	Major Adverse
22 View from PROW Bontnewydd 24, next to Rhyddallt Ganol	Walkers, residents	Substantial Adverse	Moderate Adverse	Substantial Adverse
23 View from PROW Bontnewydd 32, east of Seiont Brickworks	Walkers	Substantial Adverse	Moderate Adverse	Substantial Adverse

View	Receptors	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
24 View from Llanbeblig Road, Caernarfon	Residents	Moderate Adverse	Slight Adverse	Moderate Adverse
	Road Users	Moderate Adverse	Slight Adverse	Minor Adverse
25 View from field gate near Cefn-y-gof, Caeathro	Walkers, residents	Moderate Adverse	Slight Adverse	Major Adverse
	Road Users	Moderate Adverse	Slight Adverse	Moderate Adverse
26 View westwards along A4085, Waunfawr Road	Road Users	Substantial Adverse	Substantial Adverse	Substantial Adverse
27 View westwards from Glan Gwna Holiday Park	Tourists, holiday-makers	Substantial Adverse	Substantial Adverse	Substantial Adverse
28 View from parkland west of Glan Gwna Hall	Tourists, holiday-makers	Substantial Adverse	Substantial Adverse	Substantial Adverse
29 View eastwards along A4086, Llanberis Road	Road Users	Moderate Adverse	Slight Adverse	None
30 View from road west of Lon Glai Farm	Road Users	Substantial Adverse	Moderate Adverse	Major Adverse
31 View from B4366 west of Bethel	Road Users	Moderate Adverse	Slight Adverse	Minor Adverse
32 View from minor road near Caerlan Tibot	Road Users	Slight Adverse	Slight Adverse	Minor Adverse
33 View from Lon Las Menai, towards Plas Menai roundabout	Walkers, cyclists	Moderate Adverse	Slight Adverse	Moderate Adverse
	Road Users	Moderate Adverse	Slight Adverse	Minor Adverse
	Walkers, tourists, residents	Negligible/ No Change	Negligible/ No Change	None

View	Receptors	Magnitude of impact prior to mitigation	Magnitude of impact following mitigation	Significance of impact following mitigation
34 View from Anglesey coastline, near to Anglesey Sea Zoo	Road Users	Negligible/ No Change	Negligible/ No Change	None
35 View from car park in	Walkers	Negligible/ No Change	Negligible/ No Change	None
Brynsiencyn, Anglesey	Road Users	Negligible/ No Change	Negligible/ No Change	None
36 View from A4080, Anglesey	Road Users	Negligible/ No Change	Negligible/ No Change	None
37 View from Anglesey coastline, near Llanidan	Walkers	Negligible/ No Change	Negligible/ No Change	None

7.7 Summary and Conclusions

The majority of the landscape around Caernarfon and within the study area is of Medium Sensitivity, being pleasant but undramatic, with the exceptions being the uplands and coastline. However this area is heavily influenced by the wider landscape context of Snowdonia, the Llŷn, the Menai Strait and the sea.

This 'borrowed landscape' effect is carried through to the key views, the majority of which are attractive and consequently of High Sensitivity, which is in part due to the dramatic visual backdrop of mountains and the coast.

In considering the effective visibility of the Scheme in the landscape both distance and land cover play an important part. There would be some theoretical long views to the scheme, for example from the summit of Snowdonia, over eight miles away. However in defining the ZVI the significance of such visibility has been considered and the boundary adjusted accordingly.

As well as the macro-topography of coastal plain and uplands there are relatively subtle variations within the landscape form, creating areas of screening and limited visibility. This is further influenced by land cover elements such as buildings, vegetation and boundaries. Consequently there are areas within the ZVI which would have very localised but widespread views of the Scheme.

Not surprisingly it is those landscape character areas that would be directly affected by the Scheme which are subject to significant impacts. In particular the introduction of embankment forms in the coastal plain landscape would create significant and long-term adverse effects (in excess of 15 years post-construction). This would also be the case for the major viaduct structures at the Afon Gwyrfai and Seiont crossings, but here there would be little opportunity for mitigation.

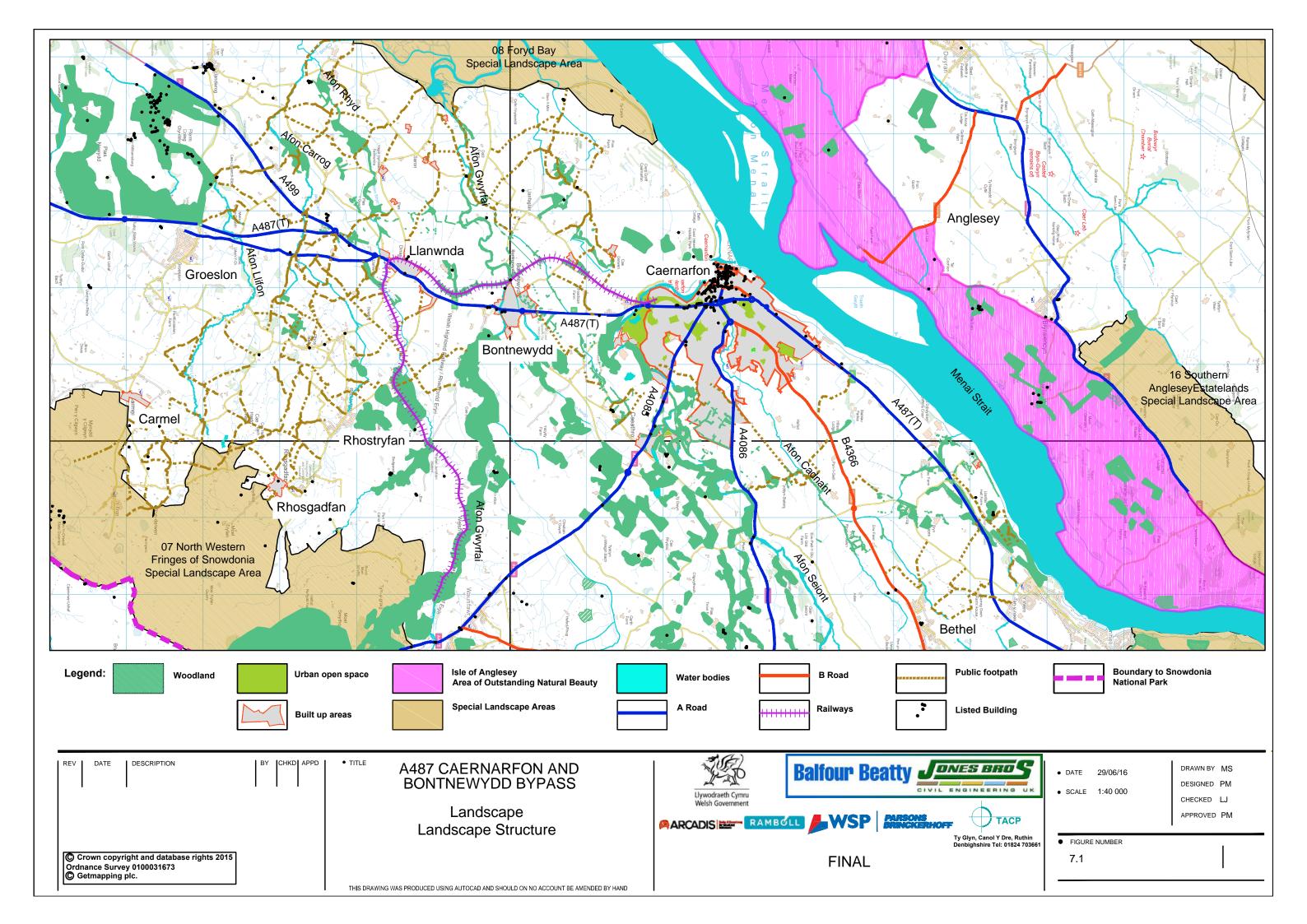
This intrusion of incongruous and engineered landforms into a countryside landscape, along with the high sensitivity of the existing views, would result in a high number of Substantial and Major adverse visual impacts.

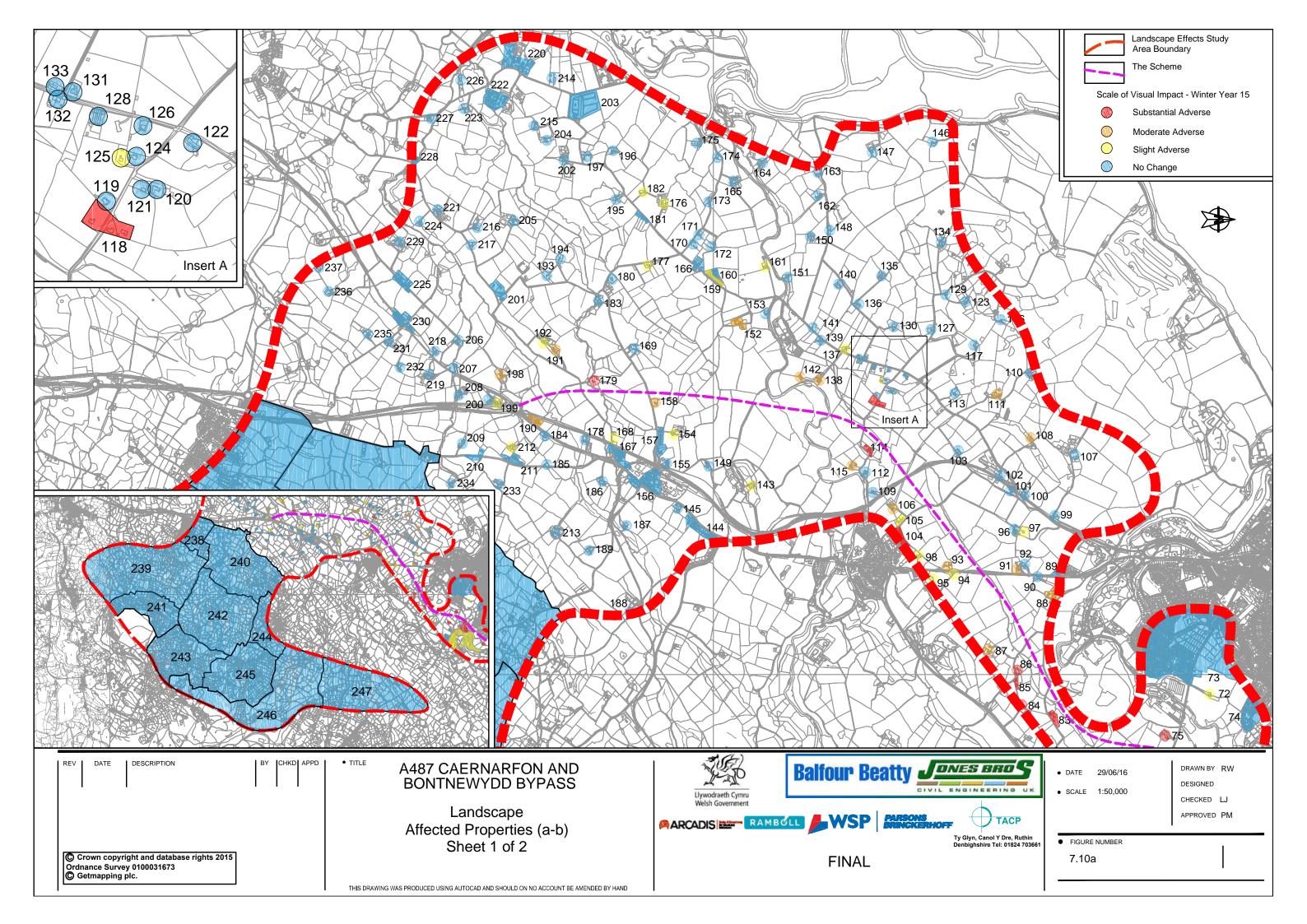
The affected properties assessment illustrates that a relatively small number of properties within the study area would be subject to long-term significant impacts, once mitigation planting is established, and those are primarily as a result of proximity.

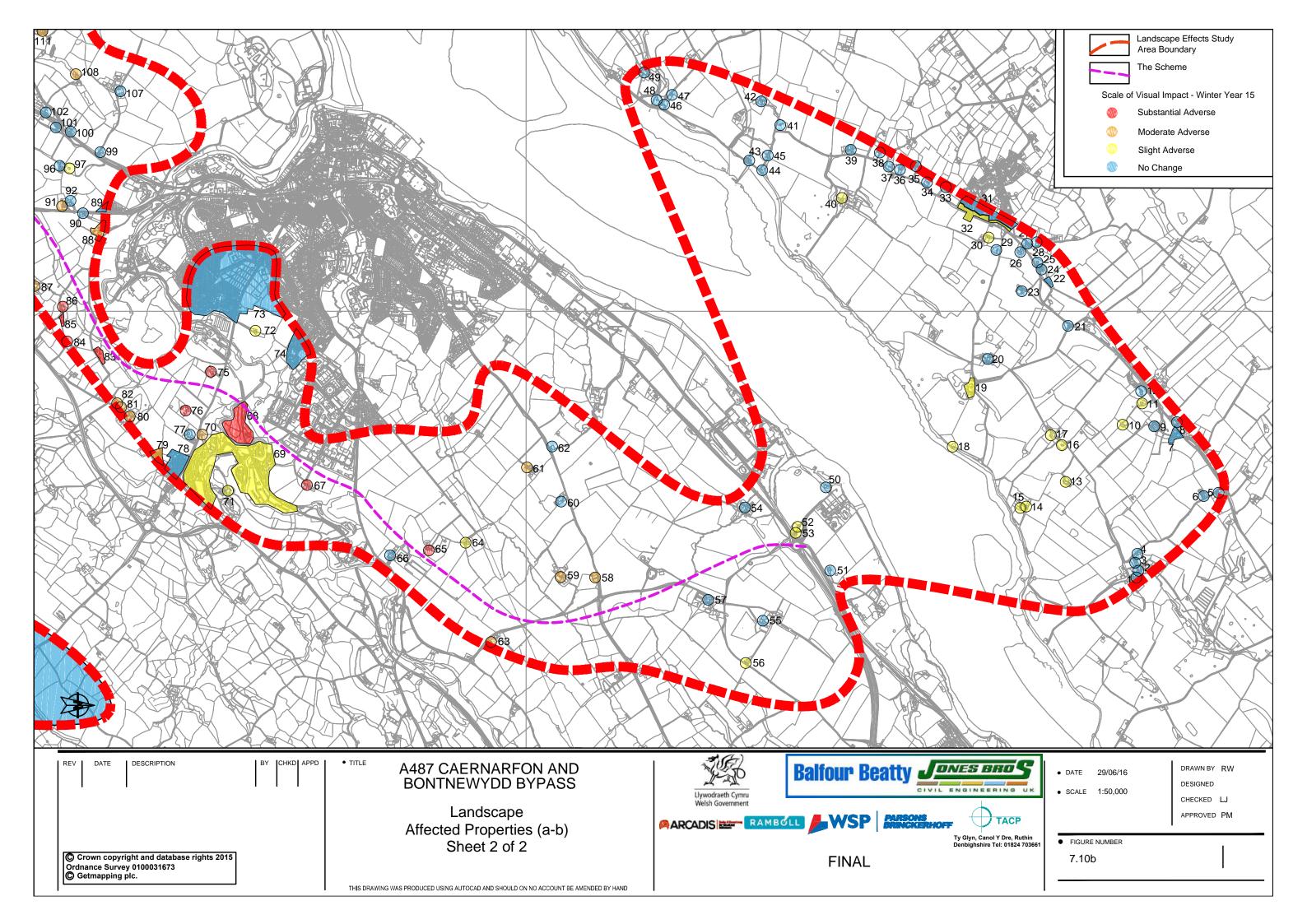
The proposed mitigation measures would enhance the integration of the Scheme into the landscape through the provision of extensive woodland and hedgerow planting. However, significant changes in the landscape and its appearance would be unavoidable and therefore, in most cases, the mitigation would achieve a reduction in adverse effects rather than their removal.

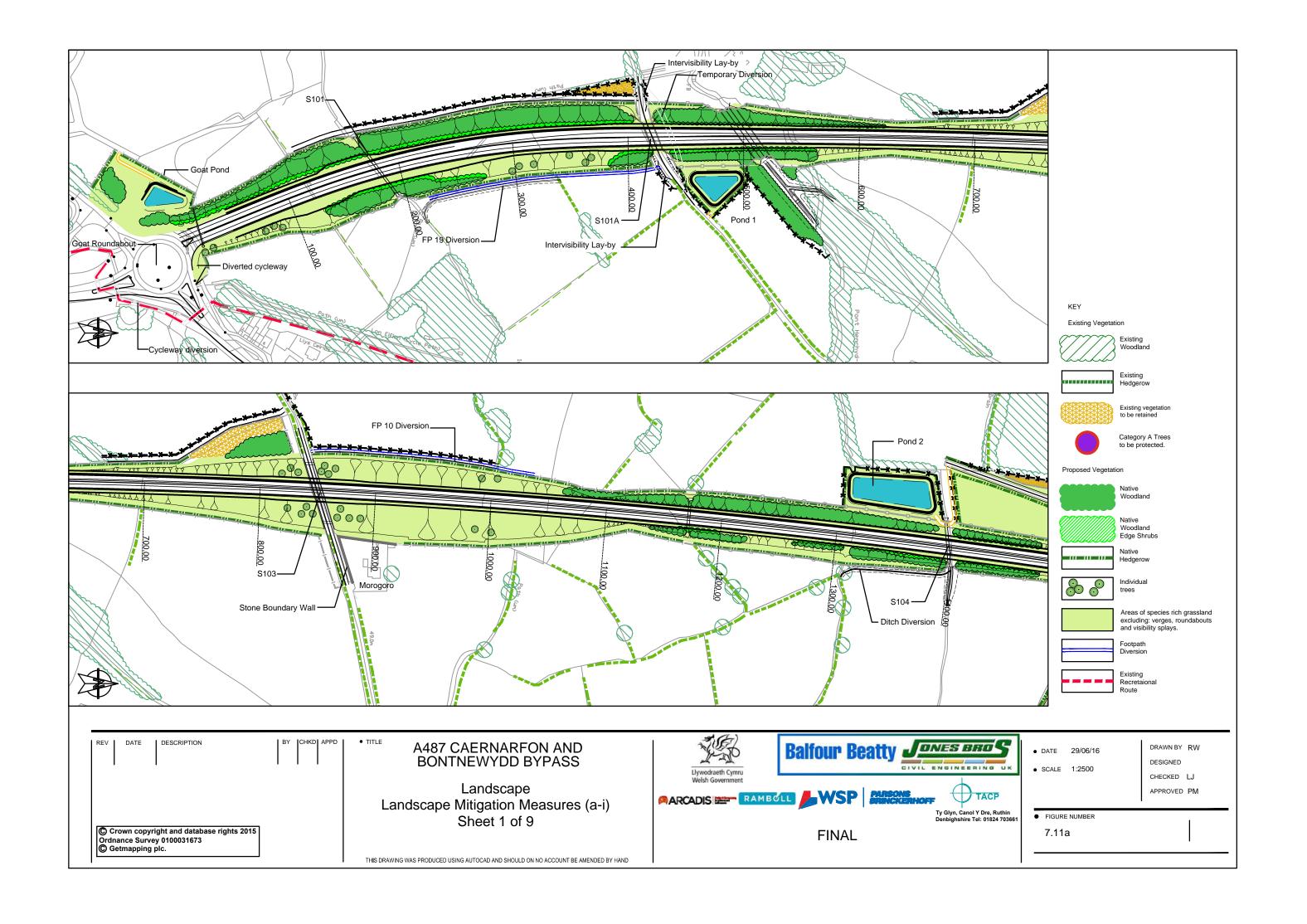
The Scheme would result in adverse effects on both the landscape and visual amenity, although the scale and significance of these changes would be reduced through the proposed mitigation measures.

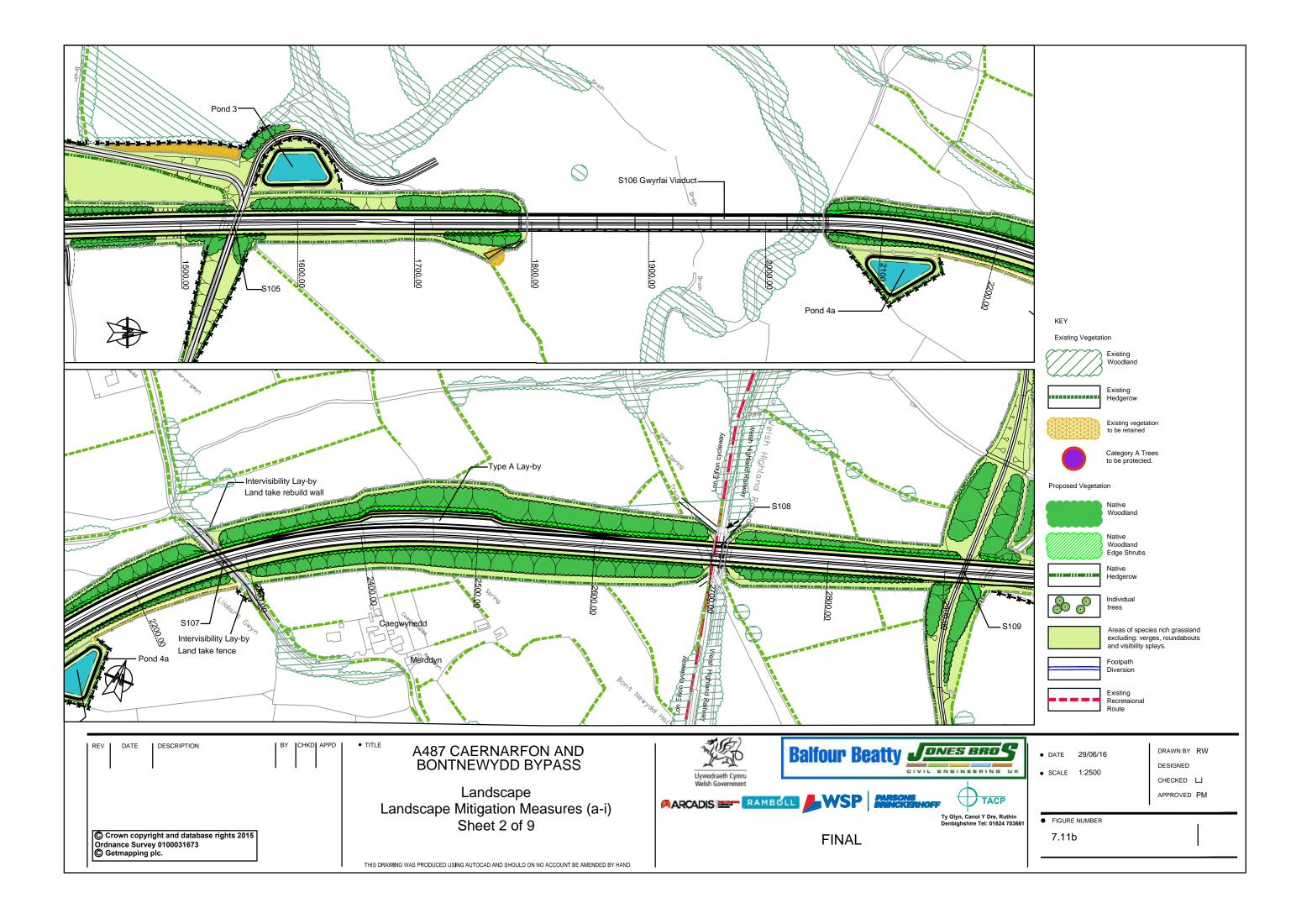
There is no impact of the Scheme on the policies and plans identified in Section 7.1.

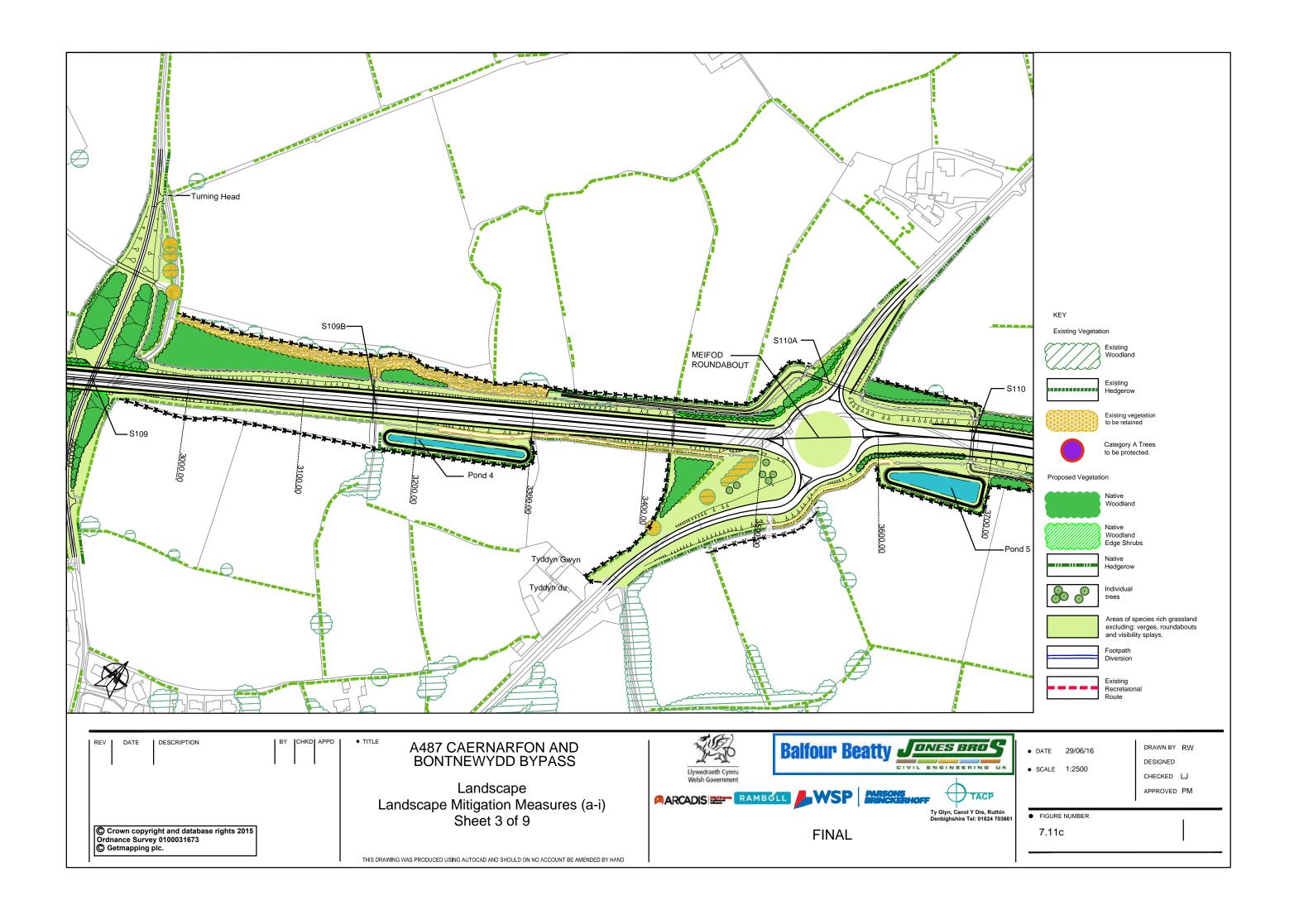


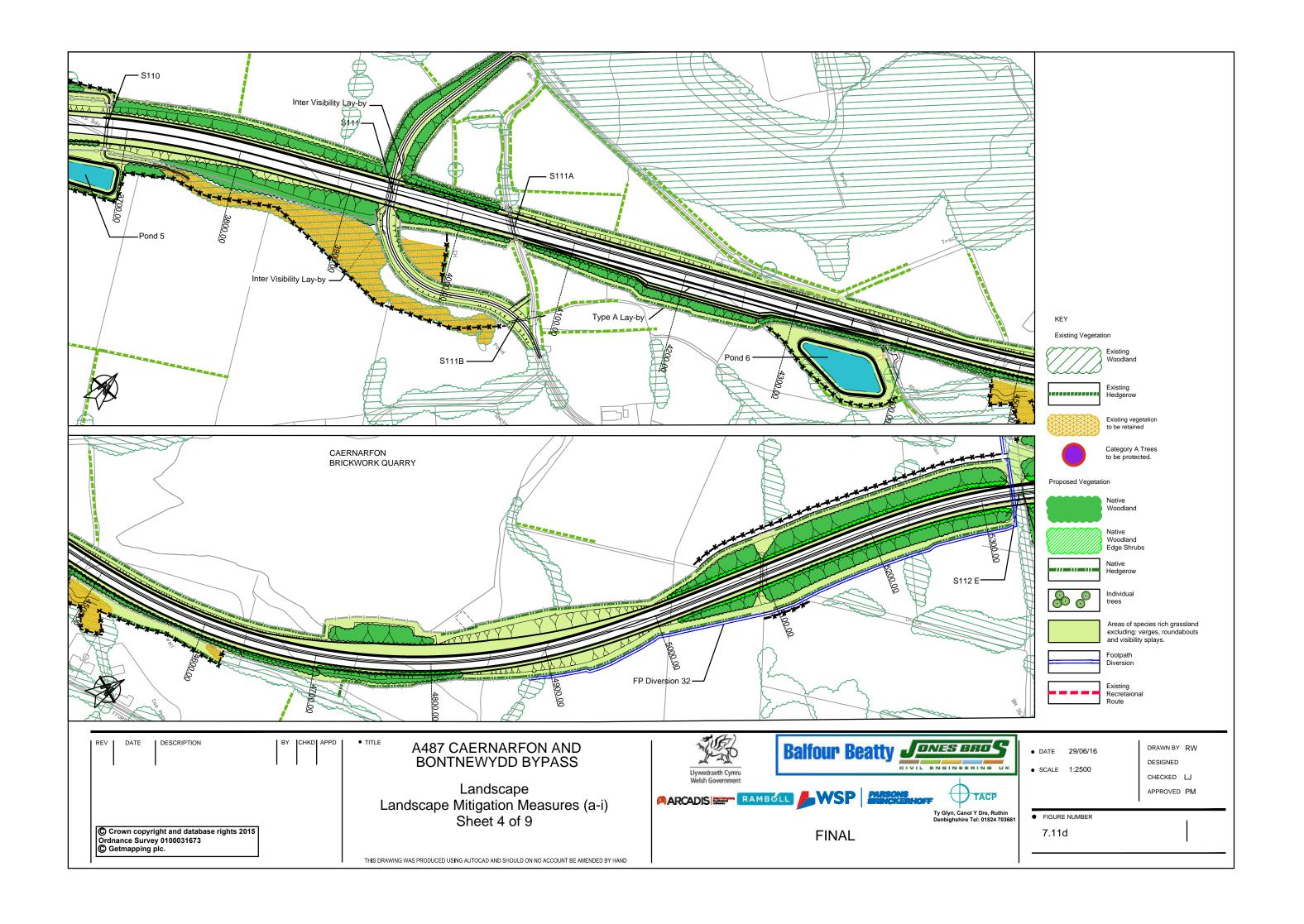


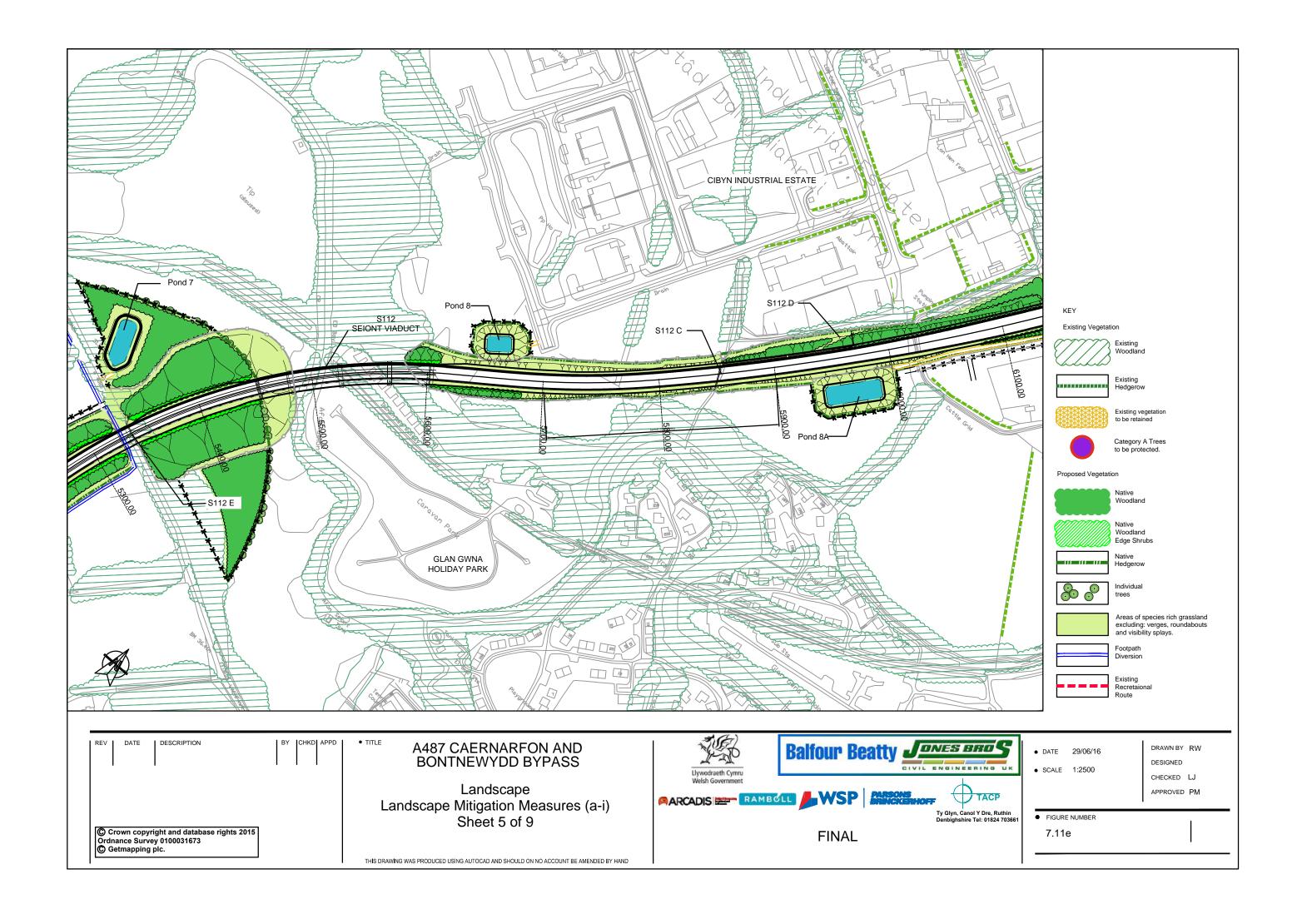


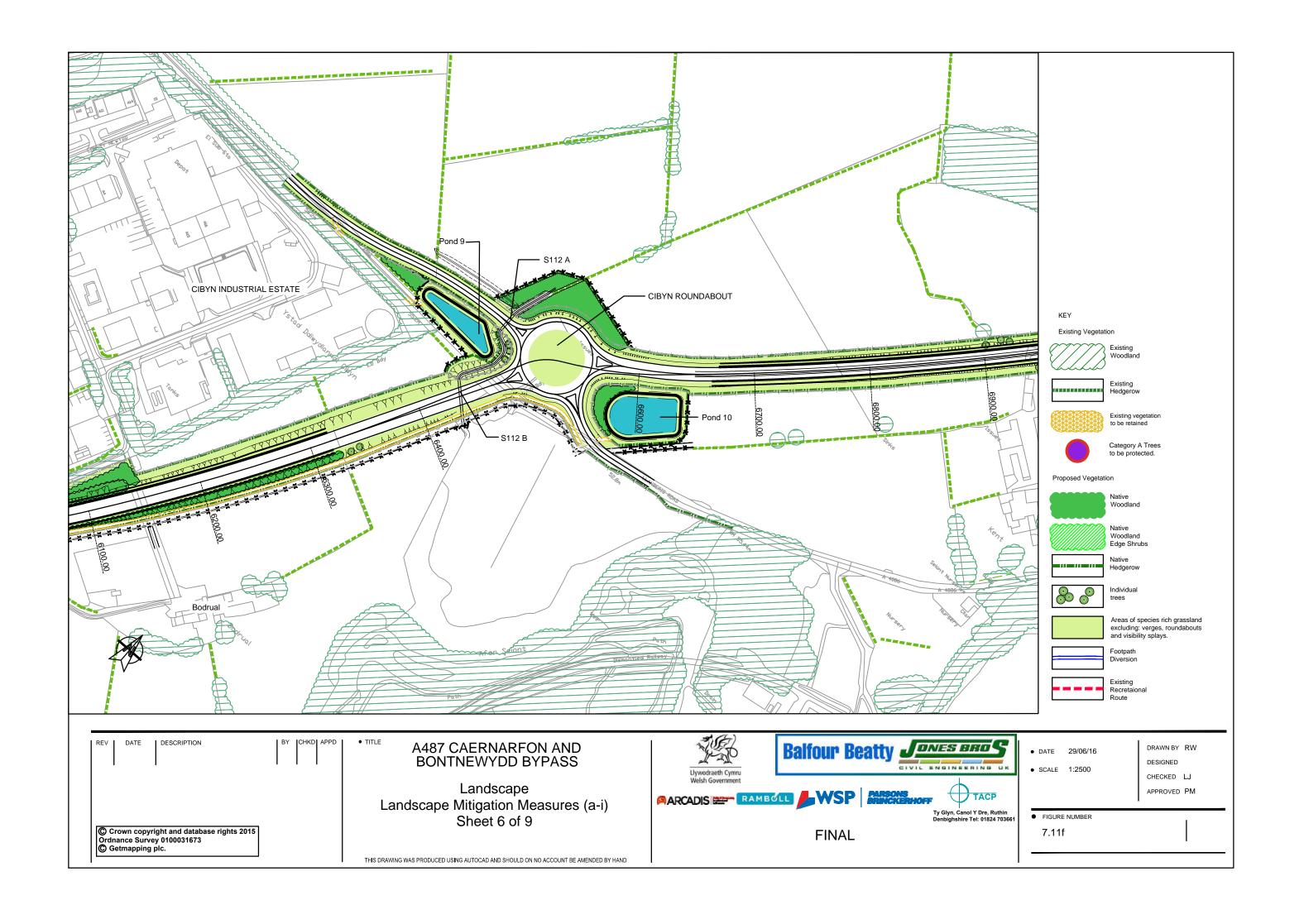


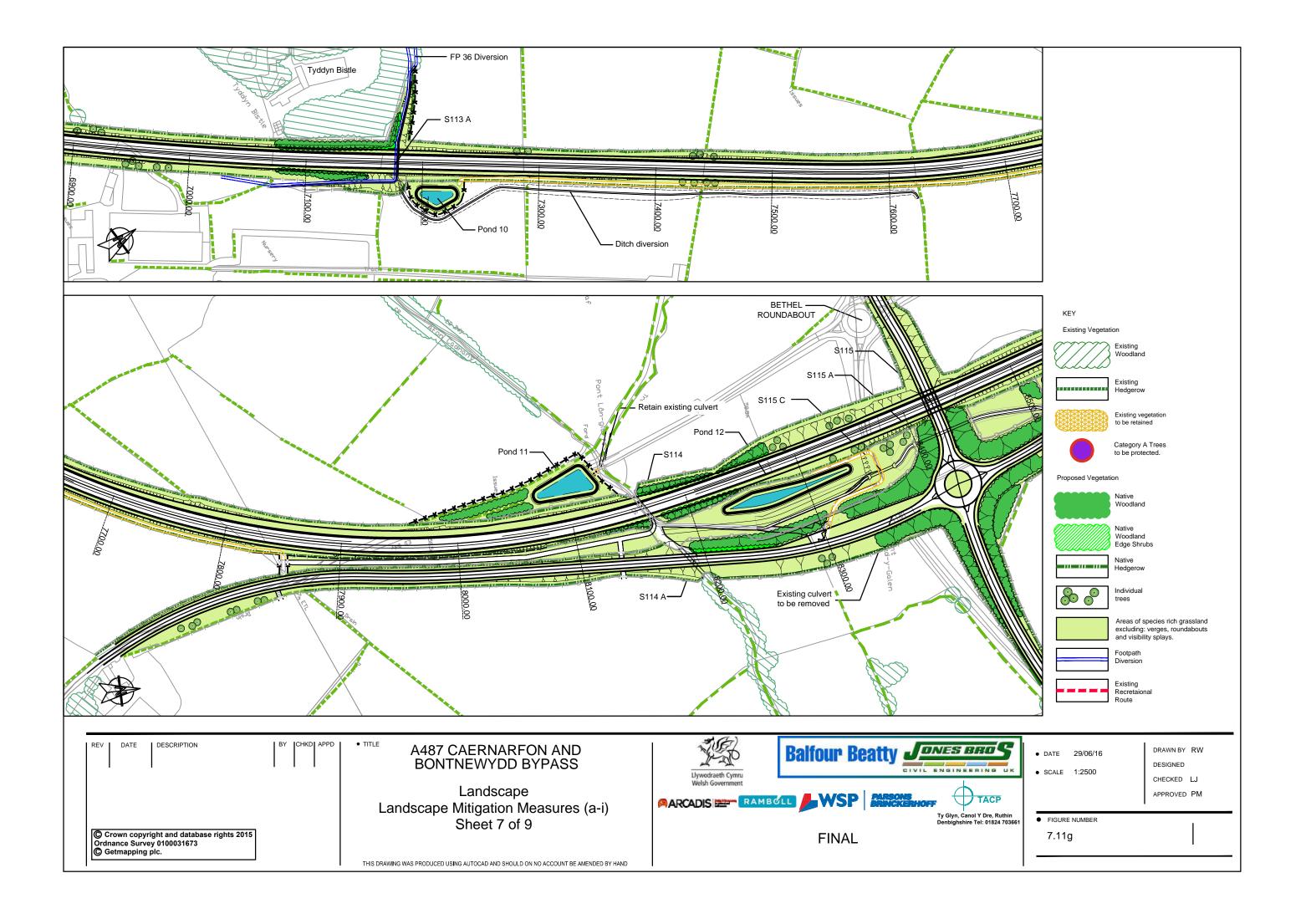


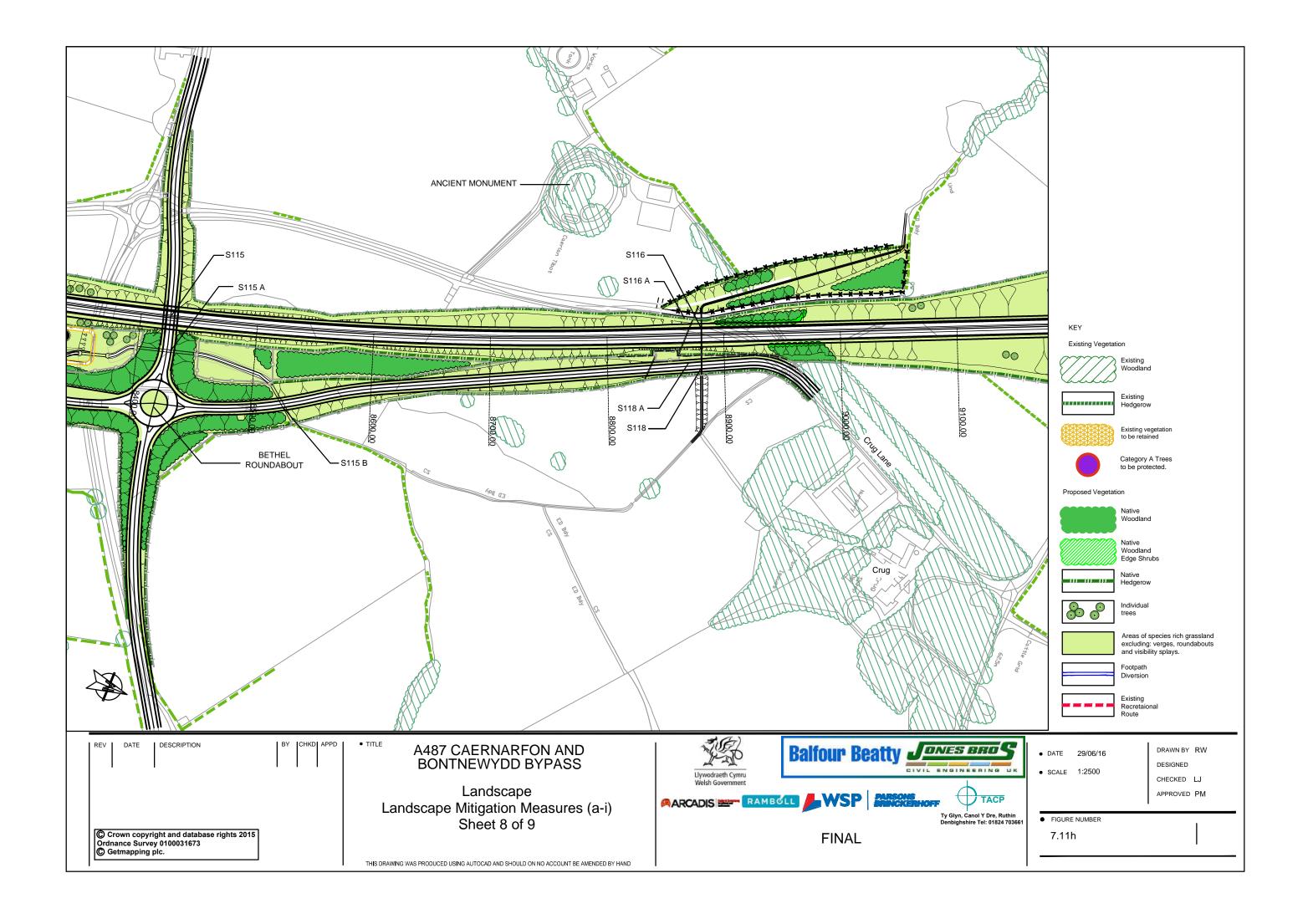


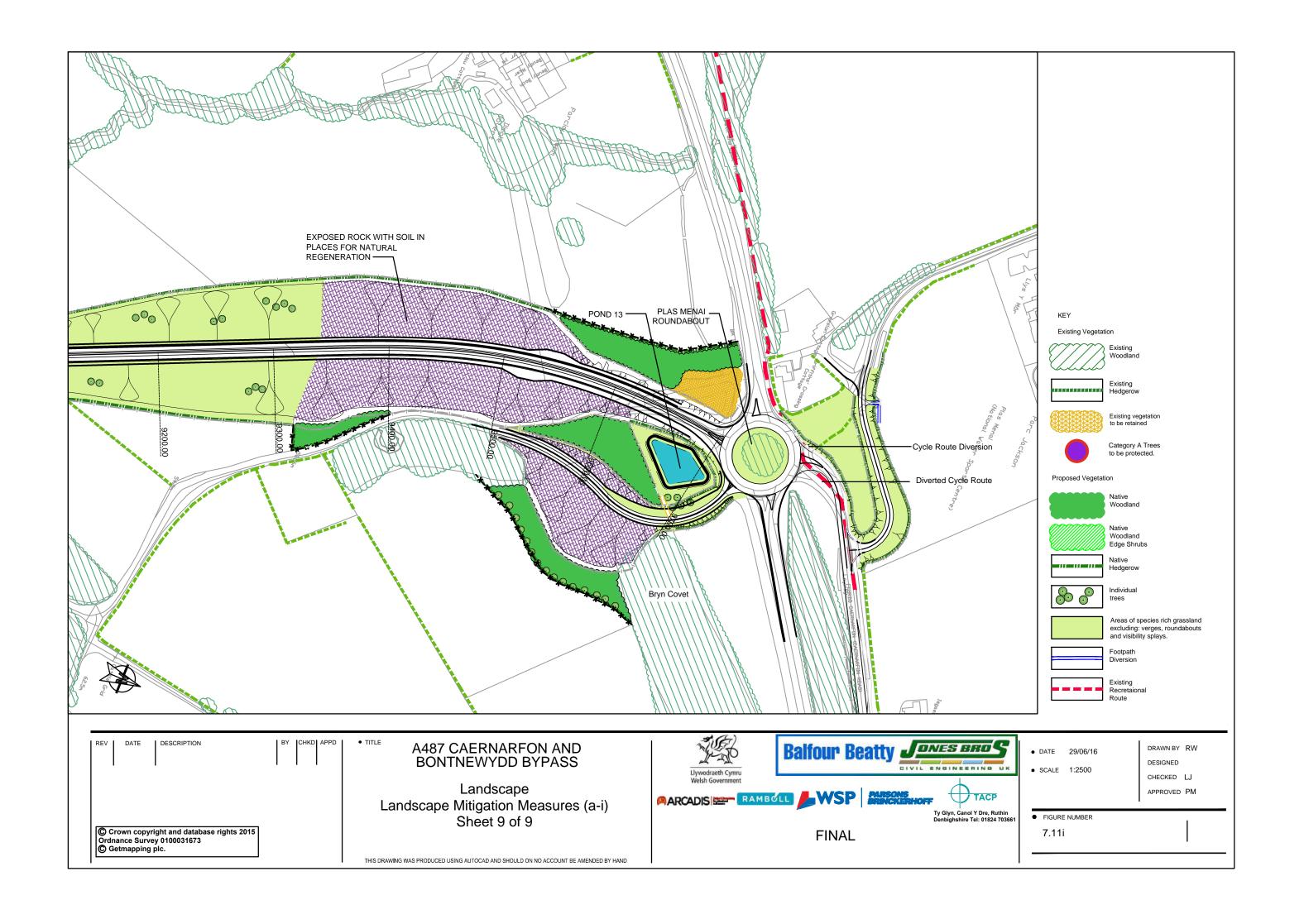


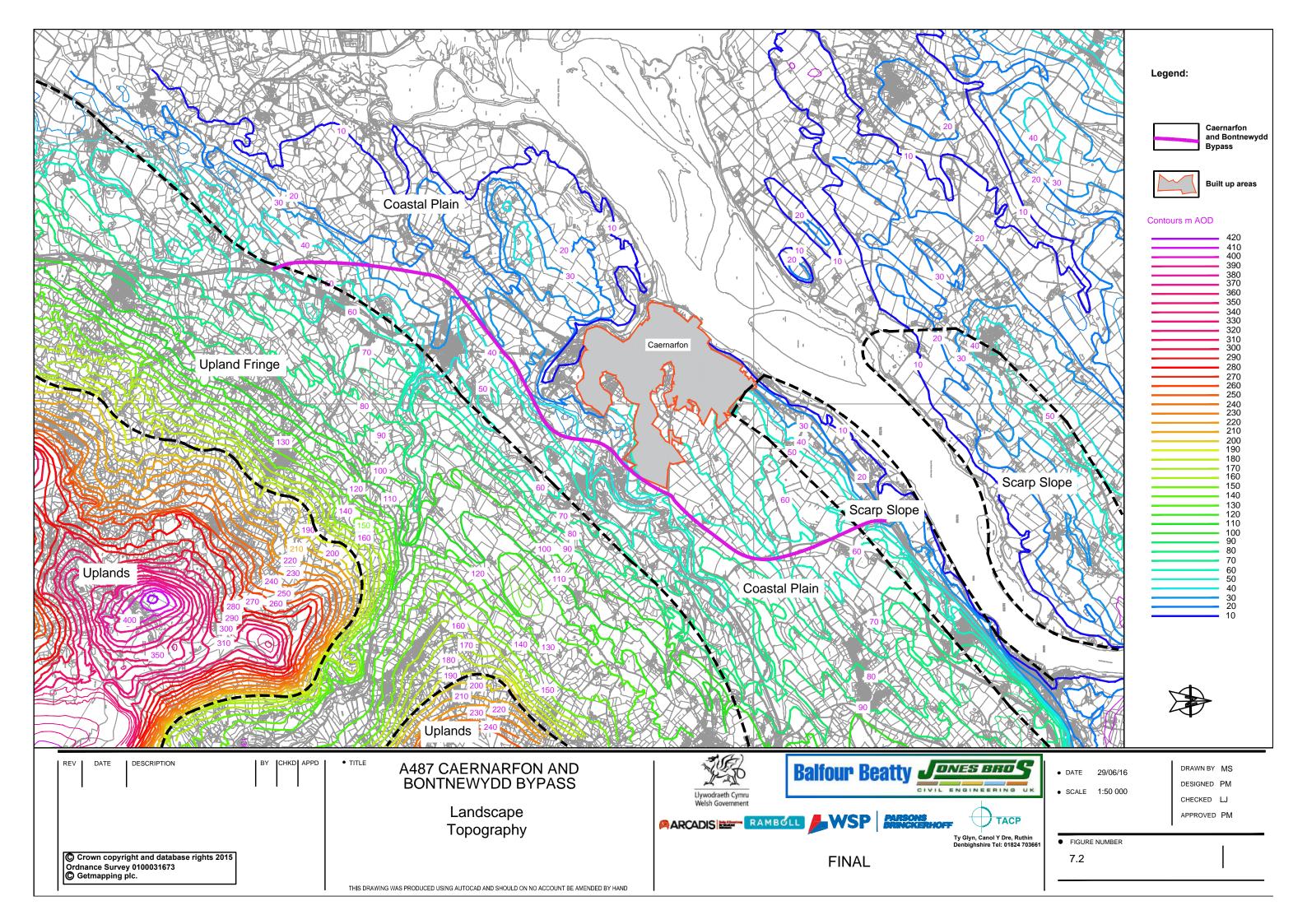


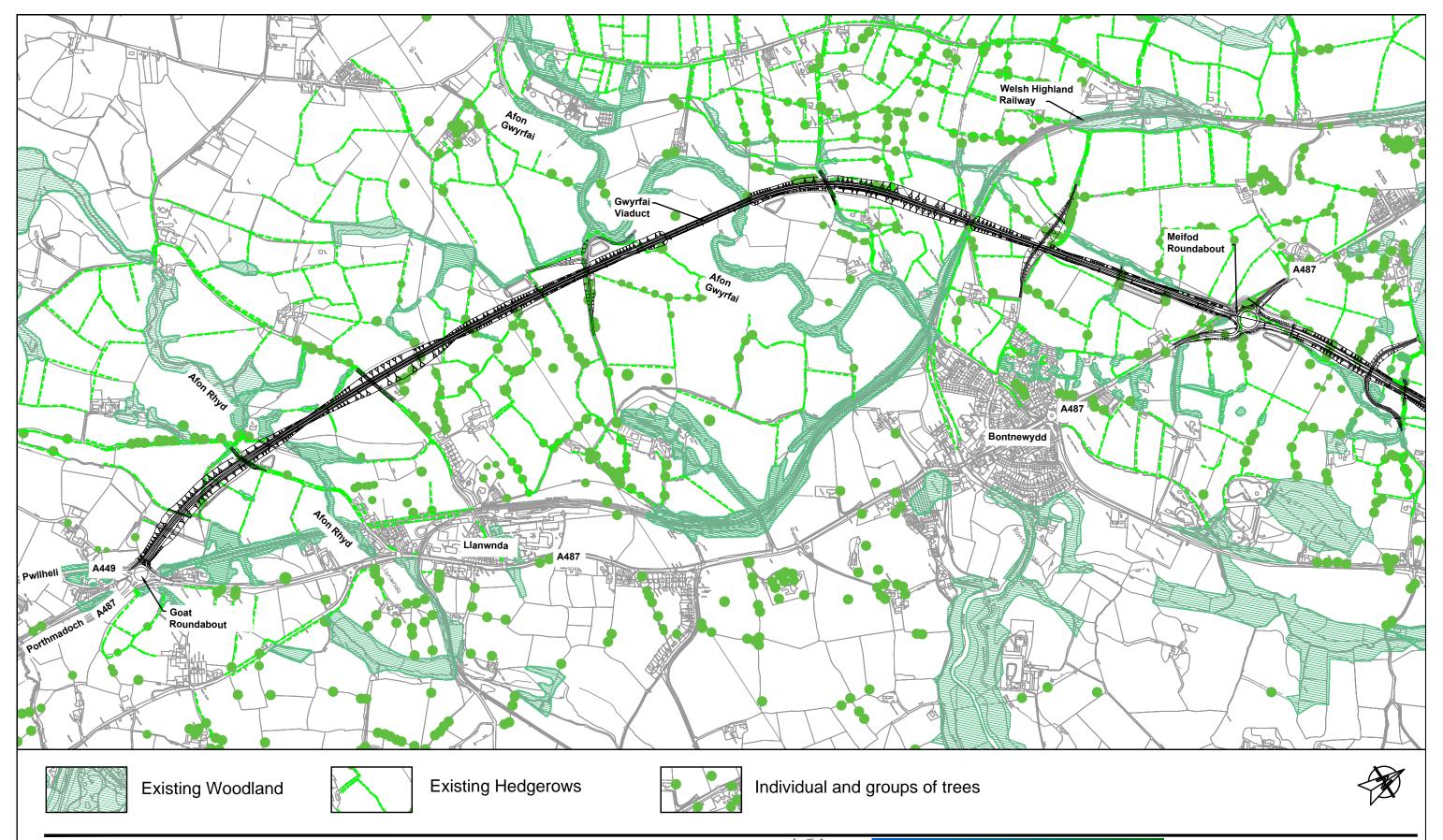


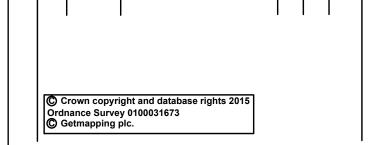












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Landscape Existing Vegetation (a-c)
Sheet 1 of 3

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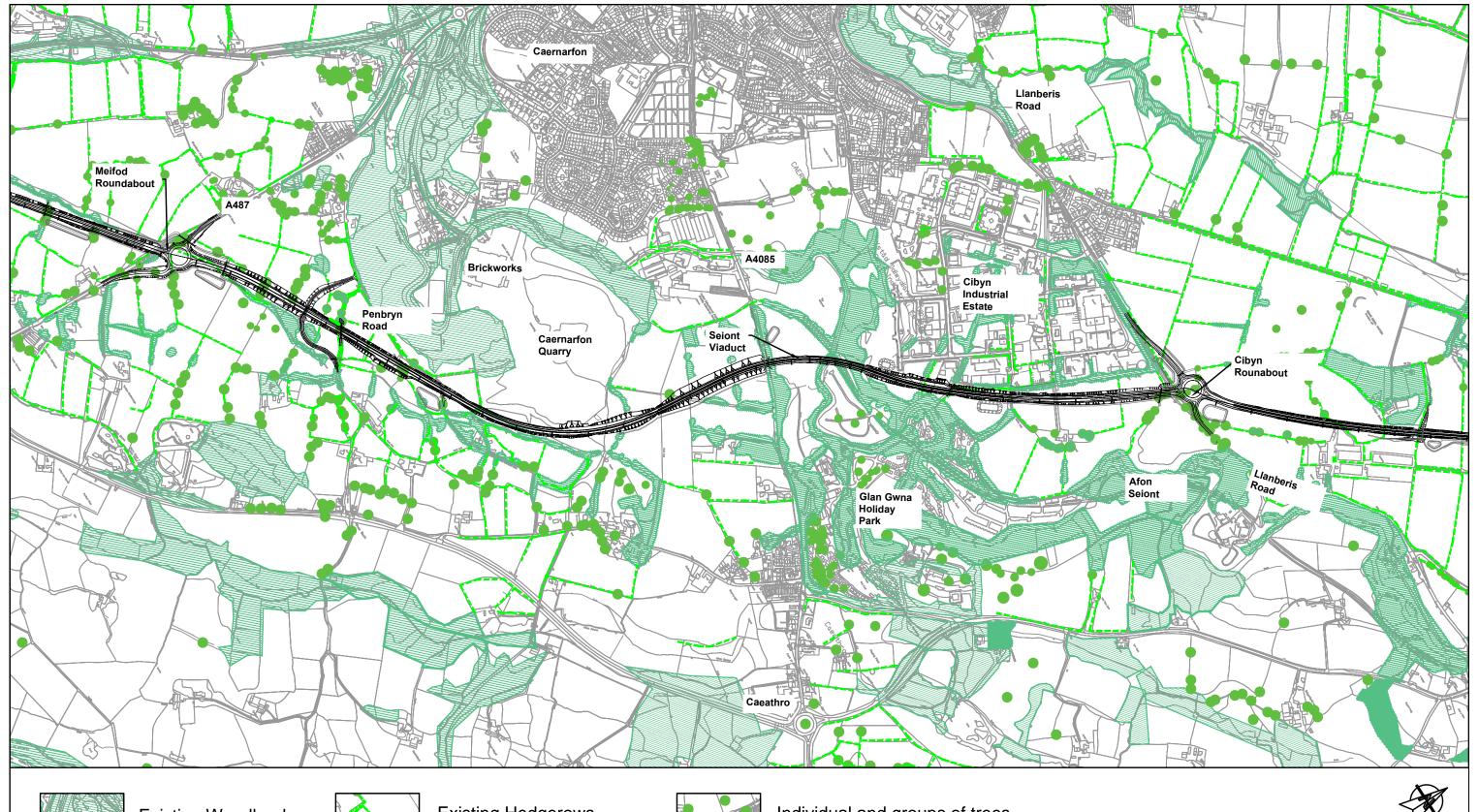
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Existing Woodland



Existing Hedgerows



Individual and groups of trees



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Landscape Existing Vegetation (a-c)
Sheet 2 of 3







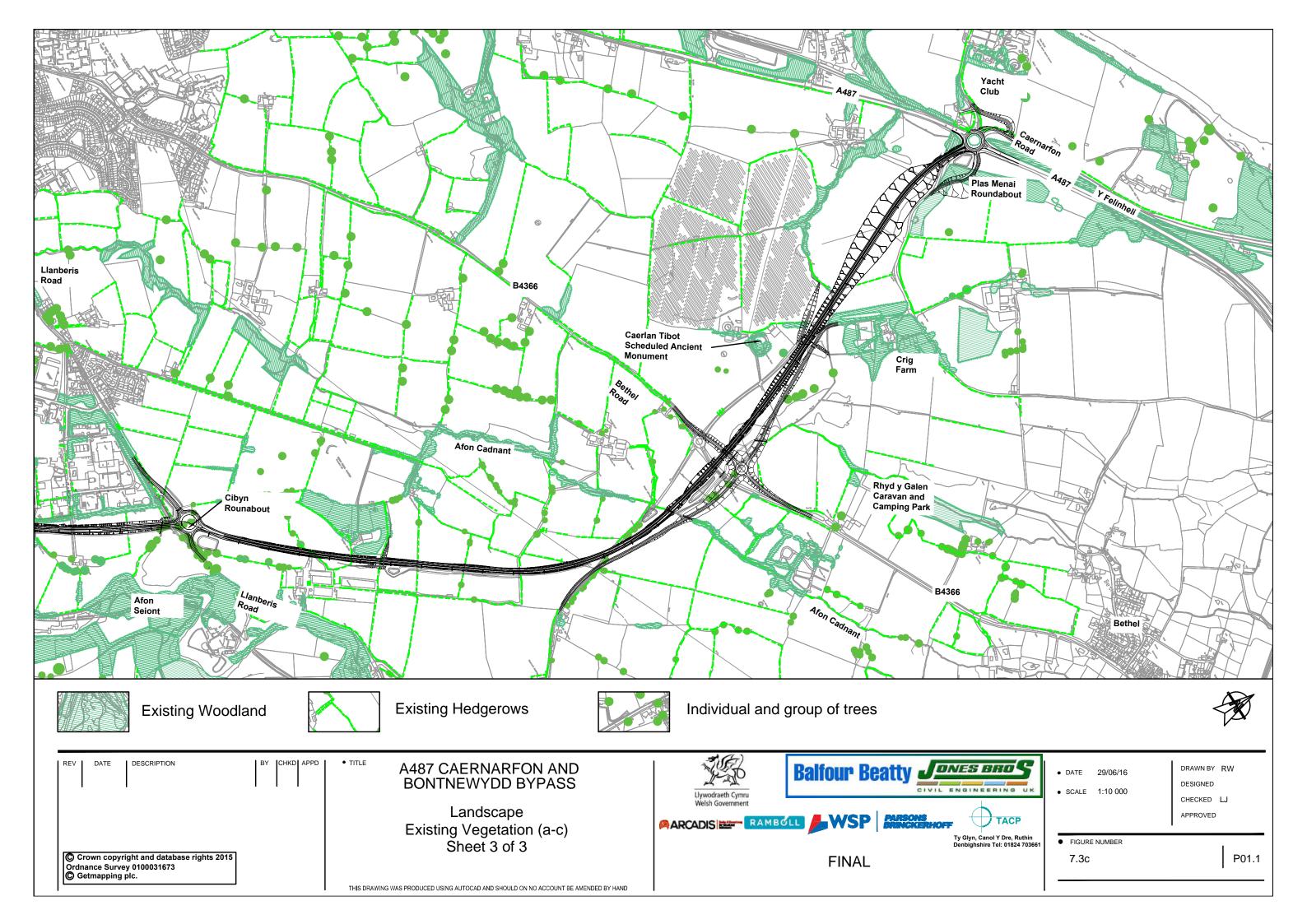
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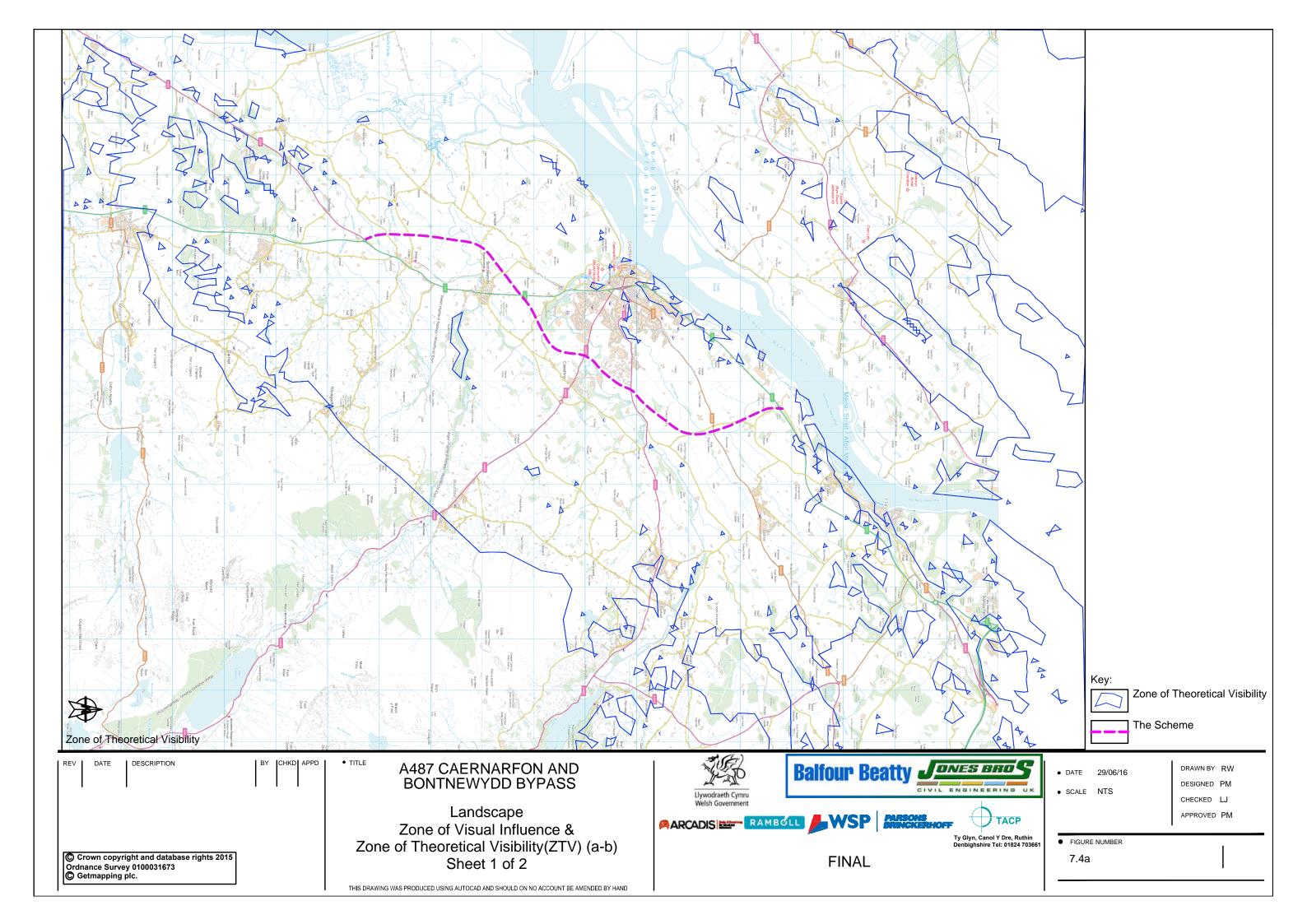
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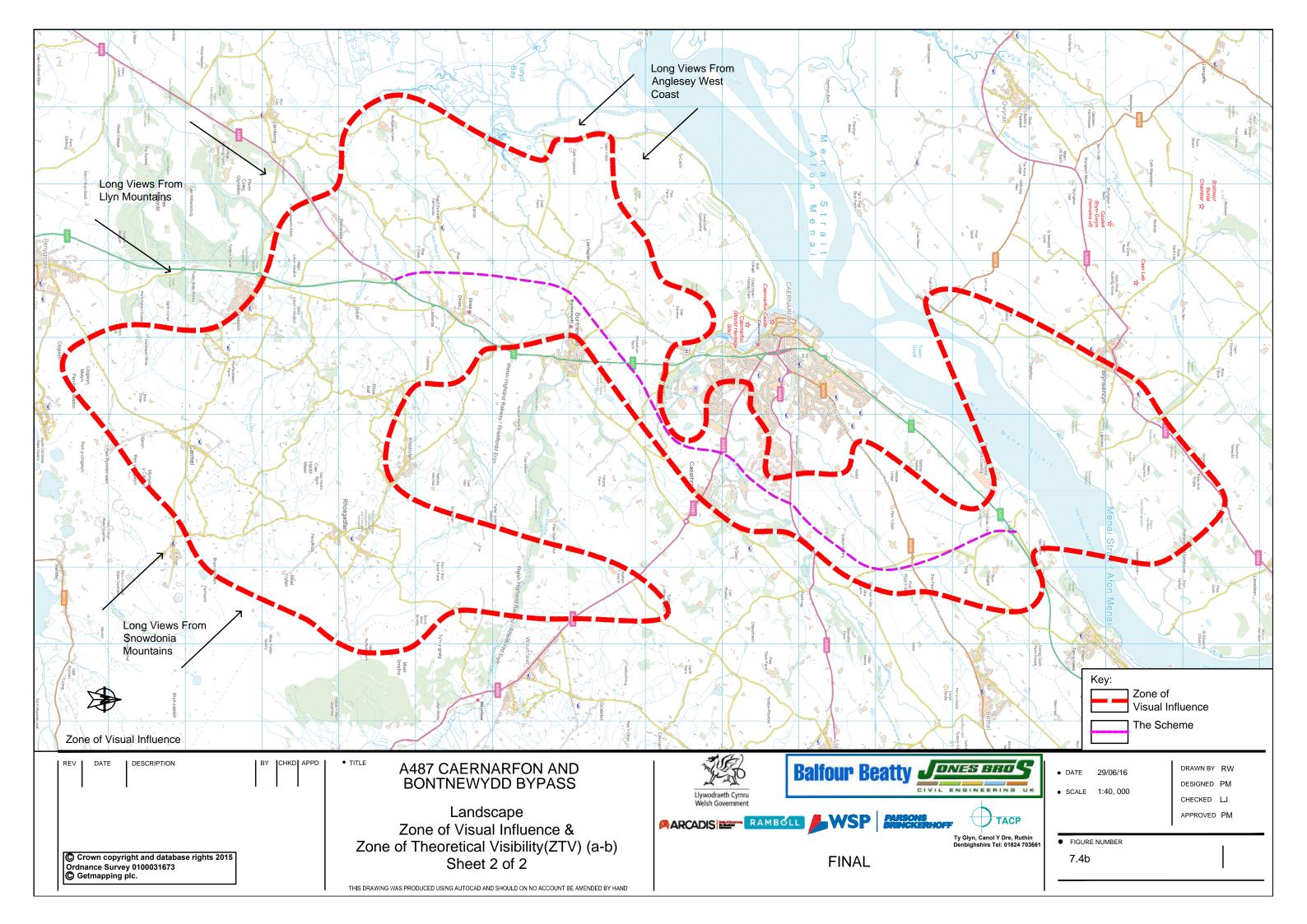
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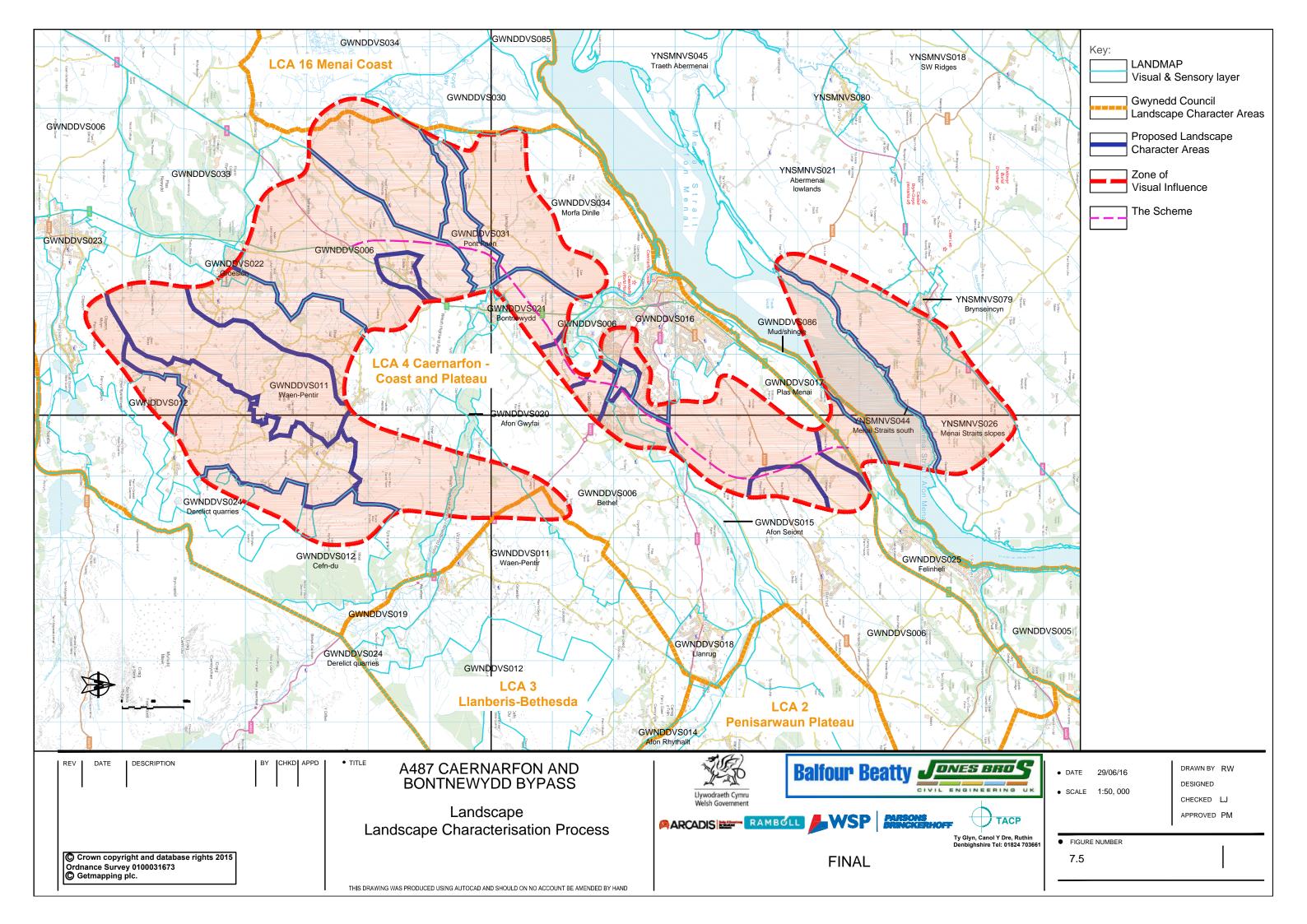
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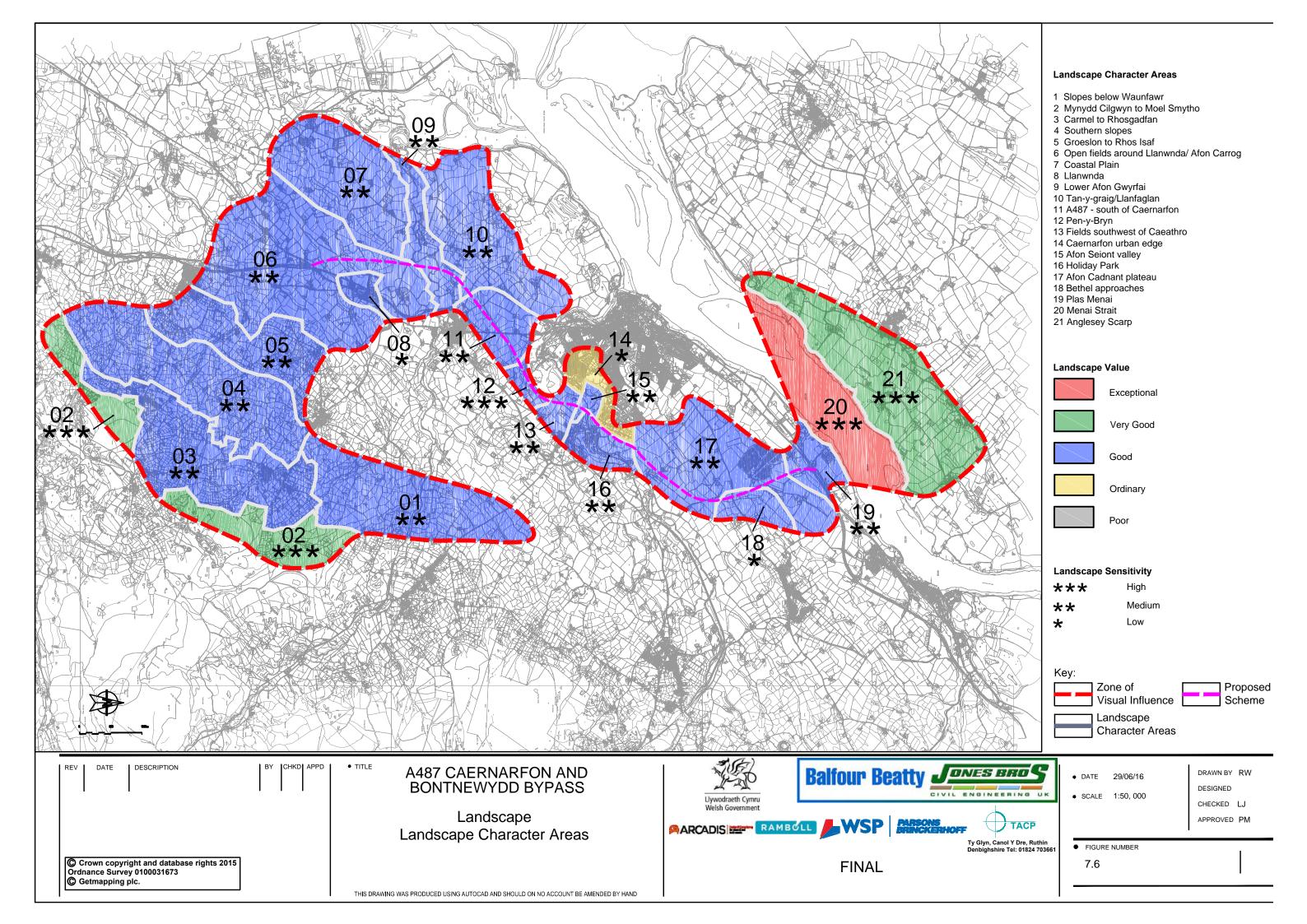
P01.1













Area 1: Slopes below Waunfawr



Area 1: Slopes below Waunfawr



Area 2: Mynydd Cilgwyn to Moel Smytho



Area 2: Mynydd Cilgwyn to Moel Smytho



Area 2: Mynydd Cilgwyn to Moel Smytho

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Landscape Landscape Character Areas - Photographs (a-m) Sheet 1 of 13









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Area 3: Carmel to Rhosgadfan







Area 4: Southern slopes

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Landscape
Landscape Character Areas - Photographs (a-m)
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Area 5: Groeslon to Rhos Isaf



Area 5: Groeslon to Rhos Isaf

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Landscape Landscape Character Areas - Photographs (a-m)
Sheet 3 of 13

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DESCRIPTION



Area 6: Open fields around Llanwnda/ Afon Carrog



Area 7: Coastal Plain

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Landscape Landscape Character Areas - Photographs (a-m) Sheet 4 of 13

PARCADIS RAMBOLL WSP PARSONS SRINGKERHOF





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Area 8: Llanwnda

Area 8: Llanwnda



Area 9: Lower Afon Gwyrfai

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Landscape Landscape Character Areas - Photographs (a-m) Sheet 5 of 13

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Area 10: Tan-y-graig/Llanfaglan

Area 11:A487-south of Caernarfon



Area 11:A487-south of Caernarfon

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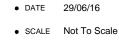
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Landscape Landscape Character Areas - Photographs (a-m)
Sheet 6 of 13







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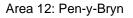
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Area 12: Pen-y-Bryn



Area 13: Fields southwest of Caeathro

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Landscape Landscape Character Areas - Photographs (a-m)
Sheet 7 of 13

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Area 14: Caernarfon urban edge

Area 14: Caernarfon urban edge



Area 14: Caernarfon urban edge

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Landscape Character Areas - Photographs (a-m) Sheet 8 of 13

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Area 15: Afon Seiont valley

Area 15: Afon Seiont valley



Area 15: Afon Seiont valley

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Area 16: Holiday Park



Area 16: Holiday Park



Area 16: Holiday Park

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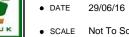
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Area 17: Afon Cadnant plateau



Area 17: Afon Cadnant plateau



Area 18: Bethel approaches

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Area 19: Plas Menai Area 19: Plas Menai



Area 19: Plas Menai

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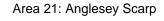
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Area 20: Menai Straits

Area 20: Menai Straits







Area 21: Anglesey Scarp



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Landscape
Landscape Character Areas - Photographs (a-m)
Sheet 13 of 13

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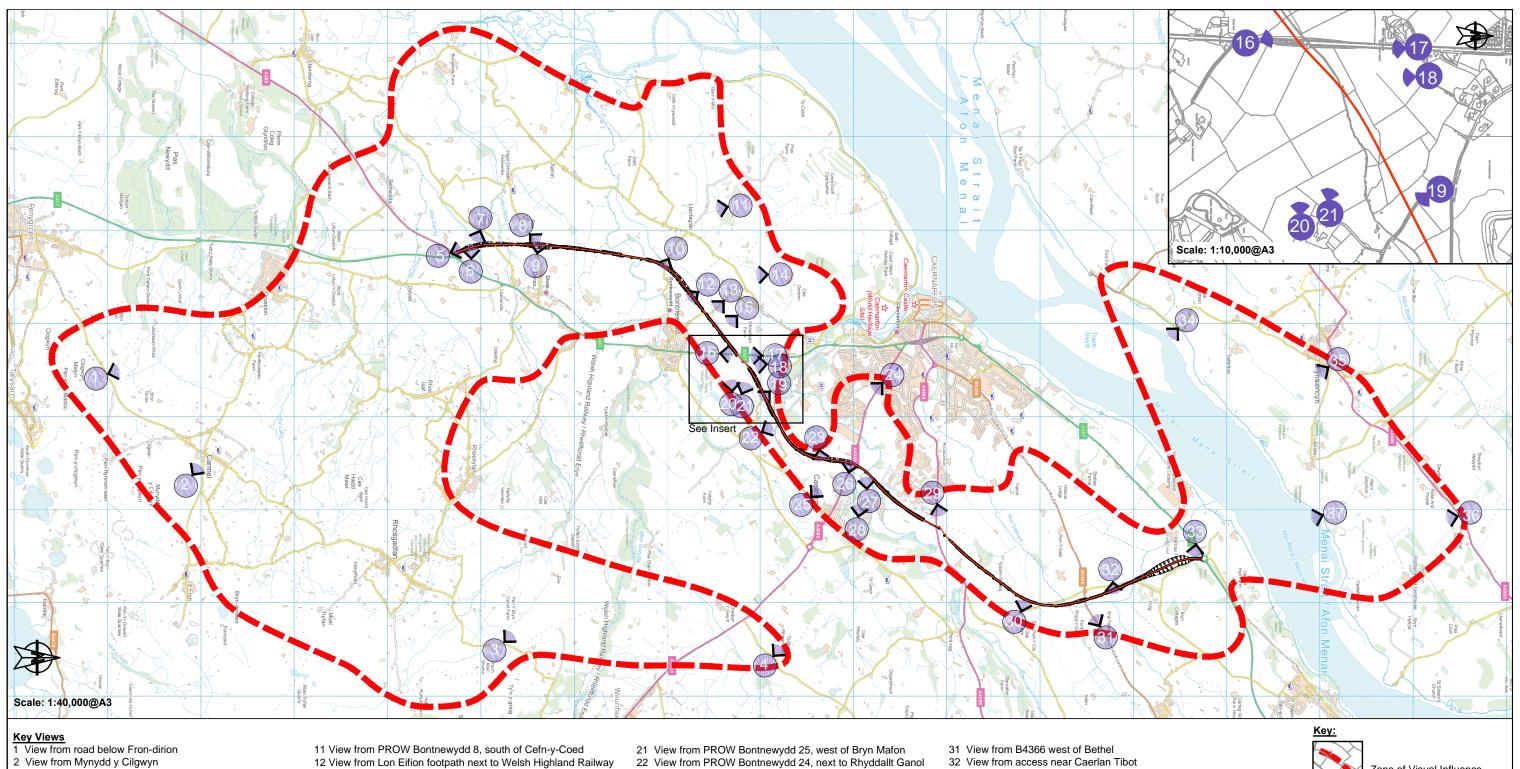
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DESCRIPTION



- 3 View from open heathland viewpoint near Moel Smytho 4 View from road near Tyddyn Whisgin Bach
- 5 View from Lon Eifion footpath south of Goat Roundabout
- 6 View from PROW Llanwnda 19, north of Goat Roundabout
- 7 View from minor road, Glanrhyd, east of Gwylfa Farm
- 8 View eastwards from minor road west of Morogoro
- 9 View westwards from minor road adjacent to Morogoro
- 10 View from road east of Llanfaglan

- 13 View from minor road north-west of Bontnewydd
- 14 View from PROW Caernarfon 18, next to Tyrallt Farm
- 15 View from PROW Caernarfon 19, south of Rhosdican Farm
- 16 View northwards from existing A487 next to Tyddyn-du
- 17 View southwards from existing A487 next to Parc Guest House
- 18 View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge
- 19 View along Pen-y-Bryn Lane
- 20 View from PROW Bontnewydd 25, south-west of Bryn Mafon
- 23 View from PROW Bontnewydd 32, east of Seiont Brickworks
- 24 View from Llanbeblig Road
- 25 View from field gate near Cefn-y-gof, Caeathro
- 26 View westwards along A4085, Waunfawr Road
- 27 View westwards from Glan Gwna Holiday Park
- 28 View from parkland west of Glan Gwna Hall
- 29 View eastwards along A4086, Llanberis Road 30 View from road west of Lon Glai Farm
- 33 View from Caernarfon Road, A487, towards Plas Menai Roundabout
- 34 View from Anglesey coastline, near to Anglesey Sea Zoo
- 35 View from Brynsiencyn, Anglesey
- 36 View from A4080, Anglesey
- 37 View from Anglesey coastline, near Llanidan



Zone of Visual Influence





Key Views

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Key View 1 - View from road below Fron-dirion - Summer



Key View 1 - View from road below Fron-dirion - Winter

Key view 1 Distance from

scheme centreline: 3972m Orientation: Field of view: 80°

North-west 485 539 OS Reference:

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Key View 2 - View from Mynydd y Cilgwyn - Summer



Key View 2 - View from Mynydd y Cilgwyn - Winter

Key view 2 Distance from 3714m scheme centreline: Orientation: North-west 80° Field of view: OS Reference: 496 548

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Key View 3 - View from open heathland viewpoint near Moel Smytho - Summer



Key View 3 - View from open heathland viewpoint near Moel Smytho - Winter

Key view 3 Distance from

scheme centreline: 3746m Orientation: North-west Field of view: 110° OS Reference: 514 582

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Key View 4 - View from road near Tyddyn Whisgin Bach - Summer



Key View 4 - View from road near Tyddyn Whisgin Bach - Winter

Key view 4 Distance from

2125m scheme centreline: Orientation: North-west 125° Field of view: OS Reference: 515 611

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Key View 5 - View from Lon Eifion footpath south of Goat Roundabout - Summer



Key View 5 - View from Lon Eifion footpath south of Goat Roundabout - Winter

Key view 5 Distance from

scheme centreline: 80m Orientation: North Field of view: 60° OS Reference: 472 576

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Key View 6 - View from PROW Llanwnda 19, north of Goat Roundabout-Summer



scheme centreline: 130m West 125° 472 578

Key view 6 Distance from

Orientation: Field of view: OS Reference:

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Key View 7 - View from minor road, Glanrhyd, east of Gwylfa Farm - Summer



Key View 7 - View from minor road, Glanrhyd, east of Gwylfa Farm - Winter

Key view 7 Distance from

scheme centreline: 164m Orientation: East Field of view: 100° OS Reference: 470 580

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> > Landscape Key Views (a-gg) Sheet 7 of 33

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Key view 8 Distance from

scheme centreline: 120m Orientation: North-east Field of view: 110° OS Reference: 470 585



Key View 8 - View eastwards from minor road west of Morogoro - Summer



Key View 8 - View eastwards from minor road west of Morogoro - Winter

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Key view 9 Distance from

scheme centreline: 98m Orientation: West 105° Field of view: OS Reference: 473 586



Key View 9 - View westwards from minor road adjacent to Morogoro - Summer

Key view 10 Distance from scheme centreline: Orientation:

107m South-east Field of view: 80° OS Reference: 473 599



Key View 10 - View from road east of Llanfaglan - Summer



Key View 9 - View westwards from minor road adjacent to Morogoro - Winter



Key View 10 - View from road east of Llanfaglan - Winter

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Key View 11 - View from PROW Bontnewydd 8, south of Cefn-y-Coed - Summer



Key view 11

Distance from

scheme centreline: 1026m
Orientation: South
Field of view: 120°
OS Reference: 466 605

Key View 11 - View from PROW Bontnewydd 8, south of Cefn-y-Coed - Winter

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Key view 12 Distance from

scheme centreline: 85m Orientation: South-east 80° Field of view: OS Reference: 476 603



Key View 12 - View from Lon Eifion footpath next to Welsh Highland Railway - Summer

Key view 13 Distance from

scheme centreline: 260m Orientation: South-east 80° Field of view: OS Reference: 477 605



Key View 13 - View from minor road north-west of Bontnewydd - Summer



Key View 12 - View from Lon Eifion footpath next to Welsh Highland Railway - Winter



Key View 13 - View from minor road north-west of Bontnewydd - Winter

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Landscape Landscape Key Views (a-gg) Sheet 11 of 33

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Key View 14 - View from PROW Caernarfon 18, next to Ty'rallt Farm - Summer



Key View 14 - View from PROW Caernarfon 18, next to Ty'rallt Farm - Winter

Key view 14 Distance from

scheme centreline: 795m Orientation: South 120° Field of view: OS Reference: 475 610

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Landscape Key Views (a-gg) Sheet 12 of 33

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Key view 15 Distance from

scheme centreline: 265m South-east Orientation: Field of view: 100° OS Reference: 479 608



Key View 15 - View from PROW Caernarfon 19, south of Rhosdican Farm - Summer



Key View 15 - View from PROW Caernarfon 19, south of Rhosdican Farm - Winter

Key view 16 Distance from

scheme centreline: 146m Orientation: North Field of view: 100° OS Reference: 483 606



Key View 16 - View northwards from existing A487 next to Tyddyn-du - Summer



Key View 16 - View northwards from existing A487 next to Tyddyn-du - Winter

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Landscape Key Views (a-gg) Sheet 13 of 33

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Key View 17 - View southwards from existing A487 next to Parc Guest House - Summer



Key View 17 - View southwards from existing A487 next to Parc Guest House - Winter

Key view 17 Distance from

scheme centerline: 202m Orientation: South 100° Field of view: OS Reference: 483 610

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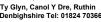
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Key View 18 - View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge - Summer



Key View 18 - View from PROW Caernarfon 15, next to Pen-y-Bryn Lodge - Winter

Key view 18 Distance from

scheme centreline: 193m Orientation: South 155° Field of view: OS Reference: 483 610

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Key View 19 - View along Pen-y-Bryn Lane - Summer



Key view 19 Distance from

scheme centreline: 84m Orientation: South Field of view: 145° OS Reference: 487 611

Key View 19 - View along Pen-y-Bryn Lane - Winter

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A487 CAERNARFON AND BONTNEWYDD BYPASS

Landscape Landscape Key Views (a-gg) Sheet 16 of 33





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Key View 20 - View from PROW Bontnewydd 25, south-west of Bryn Mafon - Summer



Key View 20 - View from PROW Bontnewydd 25, south-west of Bryn Mafon - Winter

Key view 20 Distance from

OS Reference:

scheme centreline: Orientation: Field of view:

291m West 95°

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Key View 21 - View from PROW Bontnewydd 25, west of Bryn Mafon - Summer



Key View 21 - View from PROW Bontnewydd 25, west of Bryn Mafon - Winter

Key view 21 Distance from

scheme centreline: 214m Orientation: North-west 115° Field of view: OS Reference: 488 608

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Key View 22 - View from PROW Bontnewydd 24, next to Rhyddallt Ganol - Summer



Key View 22 - View from PROW Bontnewydd 24, next to Rhyddallt Ganol - Winter

Key view 22 Distance from

scheme centreline: 212m Orientation: North 125° Field of view: OS Reference: 491 610

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Key view 23 Distance from

scheme centreline: 101m
Orientation: East
Field of view: 125°
OS Reference: 493 616



Key View 23 - View from PROW Bontnewydd 32, east of Seiont Brickworks - Summer



Key View 23 - View from PROW Bontnewydd 32, east of Seiont Brickworks - Winter

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Key View 24 - View from Llanbeblig Road - Summer



Key View 24 - View from Llanbeblig Road - Winter

Key view 24 Distance from scheme centreline: 933m South-east Orientation: 80° Field of view: OS Reference: 486 622

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Key View 25 - View from field gate near Cefn-y-gof, Caeathro - Summer



Key View 25 - View from field gate near Cefn-y-gof, Caeathro - Winter

Key view 25 Distance from

scheme centreline: 434m Orientation: North-west 120° Field of view: 499 615 OS Reference:

DESCRIPTION

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Key View 26 - View westwards along A4085, Waunfawr Road - Summer

Key View 26 - View westwards along A4085, Waunfawr Road - Winter

Key view 26 Distance from scheme centreline: 101m Orientation: West Field of view: 80° OS Reference: 495 619

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Key View 27 - View westwards from Glan Gwna Holiday Park - Summer



Key View 27 - View westwards from Glan Gwna Holiday Park - Winter

Key view 27 Distance from scheme centreline:

129m North-west

Orientation: 125° Field of view: 498 621 OS Reference:

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Key view 28
Distance from

scheme centreline: 395m
Orientation: North-west
Field of view: 90°
OS Reference: 502 619

Key View 28 - View from parkland west of Glan Gwna Hall - Summer



Key View 28 - View from parkland west of Glan Gwna Hall - Winter

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PARSONS RAMBULL WSP PARSONS SRINCKERHOF





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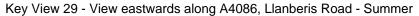
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Key View 29 - View eastwards along A4086, Llanberis Road - Winter

Key view 29 Distance from

scheme centreline: 225m East Orientation: 90° Field of view: OS Reference: 498 629

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Key view 30
Distance from
scheme centreline:

scheme centreline: 147m
Orientation: North-west
Field of view: 80°
OS Reference: 511 637

Key View 30 - View from road west of Lon Glai Farm - Summer



Key View 30 - View from road west of Lon Glai Farm - Winter

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Key View 31 - View from B4366 west of Bethel - Summer



Key View 31 - View from B4366 west of Bethel - Winter

Key view 31 Distance from

scheme centreline: 325m Orientation: West Field of view: 120° OS Reference: 512 646

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Key view 32 Distance from

scheme centreline: 93m Orientation: East 155° Field of view: OS Reference: 507 647



Key View 32 - View from access near Caerlan Tibot - Summer



Key View 32 - View from access near Caerlan Tibot - Winter

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Key View 33 - View from Lon Las Menai - Winter

Key view 33 Distance from

scheme centreline: Orientation: Field of view: OS Reference:

163m East 55° 503 656

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Key View 34 - View from Anglesey coastline, near to Anglesey Sea Zoo - Summer



Key View 34 - View from Anglesey coastline, near to Anglesey Sea Zoo - Winter

Key view 34

Distance from scheme centreline: 2479m Orientation: South-east

Field of view: 65° OS Reference: 480 655

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Key View 35 - View from Brynsiencyn, Anglesey - Summer



Key View 35 - View from Brynsiencyn, Anglesey - Winter

Key view 35 Distance from

scheme centreline: 2477m
Orientation: South-east
Field of view: 105°
OS Reference: 484 670

Key view 36 Distance from

scheme centreline: 2798m
Orientation: South
Field of view: 50°
OS Reference: 500 684



Key View 36 - View from A4080, Anglesey - Summer



Key View 36 - View from A4080, Anglesey - Winter

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Key View 37 - View from Anglesey coastline, near Llanidan - Summer



Key view 37 Distance from scheme centreline:

1395m Orientation: South Field of view: 100° OS Reference: 501 670 Key View 37 - View from Anglesey coastline, near Llanidan - Winter

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