

Torfaen Adopted Local Development Plan (to 2021) Supplementary Planning Guidance



Green Infrastructure

Consultation Draft - June 2023

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An Executive Summary of this document is available in Welsh and English versions
Mae Crynodeb Gweithredol o'r ddogfen hon ar gael yn Gymraeg ac yn Saesneg

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1. Introduction

1.1 Green Infrastructure in new developments

1.1.1 This Supplementary Planning Guidance (SPG) sets out the Council's approach to the consideration of green infrastructure (GI) in relation to new developments. It provides guidance to the interpretation and implementation of adopted Local Development Plan (LDP) Strategic Policies S3 (Climate Change) and S7 (Conservation of the Natural and Historic Environment). The SPG consists of an overarching Green Infrastructure section supplemented by topic based Technical Annexes on the following specific issues:

1. Trees and Woodlands within Development
2. Open Space and Recreation
3. Public Rights of Way within Development
4. Landscape Design and Assessment

Biodiversity and Ecosystem Resilience is covered in a separate SPG published alongside this one and which should be read in conjunction with this GI SPG.

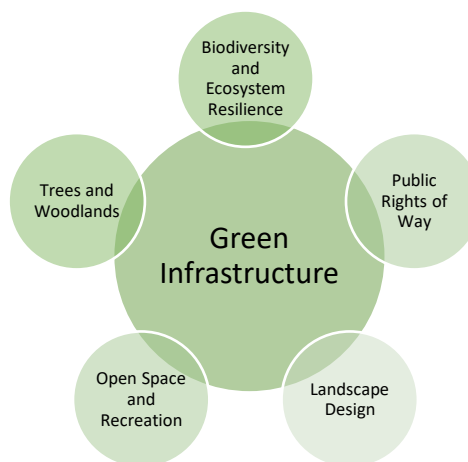


Figure 1: SPG Structure

1.1.2 This guidance is a material consideration in relation to planning applications and planning appeals. It helps guide the Council and applicants through initial pre-application discussions, the application process and the consideration of reserved matters and planning conditions relating to green infrastructure.

1.1.3 In relation to planning and development, all new developments will need to satisfy the requirements for green infrastructure as set out in the Torfaen Local Development Plan.

1.2 Status of the Supplementary Planning Guidance

1.2.1 The Welsh Government advises that adopted SPG may be a material consideration provided it is consistent with the development plan. The weight afforded to the SPG when making a decision is increased if it has been prepared in consultation with the general public and interested parties, and if it has been the subject of a Council resolution.

1.2.2 This consultation draft has therefore been prepared in order to undertake a 6 week public consultation exercise. It has been prepared in accordance with the policies contained within:

- Future Wales (February 2021)
- the adopted Torfaen Local Development Plan (December 2013)

and guidance set out in:

- Building Better Places (July 2020)
- Planning Policy Wales 11th Edition (February 2021)
- Technical Advice Note 5: Nature Conservation and Planning (2009)

1.2.3 Comments on the draft SPG should either be emailed to ldp@torfaen.gov.uk or made in writing to 'Planning Policy, Torfaen CBC, Civic Centre, Pontypool, Torfaen, NP4 6YB' **by 5pm 27th July 2023**. Following the public consultation, comments received will be reviewed within a Report of Consultation and a final version of the SPG produced. Both the Report of Consultation and final SPG will be considered by Torfaen Council for its formal adoption in due course.

1.3 What is Green Infrastructure and Why is it important?

1.3.1 Green infrastructure is defined in Planning Policy Wales Edition 11 (PPW11) as “*the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places*”. Green Infrastructure, which includes blue infrastructure, can function at a range of different scales; from entire ecosystems such as wetlands and rivers to parks, fields and gardens. Street trees, hedgerows, roadside verges, and green roofs and walls can all contribute to green infrastructure networks. These features are termed Green Infrastructure Assets and have a role to play in supporting biodiversity and delivering health, social, economic and cultural benefits.

1.3.2 These green assets form a network which if planned, designed and well managed provide a wide range of holistic benefits to people and nature. These benefits are also referred to as ecosystem services. These services include the provision of clean air and water, food and fuel and shade and shelter to combat a changing climate. Our woodlands and trees store and sequester carbon and intercept rainfall, delaying the time taken for water to reach streams and rivers which helps to reduce flood risk. Our recreational spaces provide opportunities to improve physical and mental well-being and our natural spaces afford habitat connectivity for wildlife. Good quality greenspace creates desirable environments to help attract inward investment and provide opportunities for community cohesion.

1.3.3 Individual assets often produce multiple benefits. A route that enhances accessibility for walkers, cyclists and horse riders as well as improving health benefits can also support economic development through tourism and decrease carbon emissions by reducing car use. This multi-functionality is further amplified if these assets are linked together to form a network.

1.3.4 To function properly, these ecosystems need to be healthy. Increasing and competing land use pressures are, however, leading to their degradation. The appropriate design and management of **green infrastructure** is the mechanism for the delivery of these ecosystem services in a healthy condition.

1.3.5 The Green Infrastructure approach to design of development schemes ensures that these benefits are maximised and helps increase our resilience to the impacts of climate change.

1.3.6 Green infrastructure also has a vitally important role to play in placemaking, helping to create distinctive, biodiverse and resilient site design which will also contribute to our health and wellbeing outcomes.

1.4 Torfaen's Green Infrastructure Strategy

1.3.1 Torfaen's strategy for considering green infrastructure is set out in the Torfaen PSB Green Infrastructure Strategy document. Our vision for green infrastructure is as follows:

Torfaen has a well-connected and multifunctional green infrastructure network of distinctive, biodiverse and resilient natural spaces providing environmental, economic and social wellbeing benefits for people. Our natural resources and ecosystems are managed in sustainable ways to maintain, protect and enhance the network's integrity and connectivity. The interdependency of Torfaen's rich biodiversity, landscape and heritage is widely recognized.

1.3.2 Our key objectives for developing a functional, connected network of natural areas that will support the current and future well-being needs of local populations in Torfaen are listed below.

1. Build climate change resilience.
2. Support biodiversity and ecological resilience.
3. Tackle landscape crime and irresponsible use of greenspaces.
4. Develop active travel networks and promote outdoor physical activity.

5. Promote training, volunteering and apprenticeships opportunities.

1.3.3 Any development which is likely to significantly affect green infrastructure should seek to maximise the contribution to these objectives.

2. Green Infrastructure and Policy Context

2.1 The Well Being for Future Generations (Wales) Act 2015

2.1.1 The Well-being of Future Generations (Wales) Act 2015 requires public bodies in Wales to carry out sustainable development. This means seeking to ensure *'that the needs of the present are met without compromising the ability of future generations to meet their own needs'*. The Act sets seven well-being goals to help the public sector deliver sustainable development. The Green Infrastructure approach can help specifically deliver a number of these goals.

**A resilient
Wales**

A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change).

A Green Infrastructure approach helps to ensure the delivery of healthy, interconnected ecosystems that provide the hidden benefits upon which human society relies.

**A healthier
Wales**

A society in which people's physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.

Well designed and maintained Green Infrastructure assets provide space for physical exercise and improved wellbeing by creating attractive environments in which to live and work. They can help people (especially children) to reconnect with nature which has proved to be a valuable aid to physical and mental wellbeing.

**A Wales of
cohesive
communities**

Attractive, viable, safe and well-connected communities.

The more attractive environments created by the inclusion of green infrastructure within our urban areas can help attract inward investment, reduce crime, provide safe transport routes and give opportunities for community and social cohesion through community growing schemes and providing places to meet and socialise.

2.2 Environment (Wales) Act 2016

2.2.1 The Green Infrastructure approach uses the concept of ecosystem services as a way of looking at our natural resource management which is aligned to the approach outlined in the Environment (Wales) Act 2016. Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. This is covered in detail within the separate Biodiversity and Ecosystem Resilience in Development SPG which should be referred to alongside this one.

2.3 Future Wales: the National Plan (2040)

2.3.1 Future Wales is the highest tier of development plan and is focused on solutions to issues and challenges that the Welsh Government consider to be of national priority. Policy 9 (Resilient Ecological Networks and Green Infrastructure) seeks to ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure which must be demonstrated

as part of development proposals through innovative, nature based approaches to site planning and the design of the built environment.

2.4 Planning Policy Wales Ed. 11 (2021)

2.4.1 National planning policy document Planning Policy Wales Edition 11, published in Feb 2021, emphasises the importance of integrating green infrastructure into new development.

Green infrastructure plays a fundamental role in shaping places and our sense of well-being, and are intrinsic to the quality of the spaces we live, work and play in. The planning system should protect and enhance green infrastructure assets and networks because of these multi-functional roles. The protection and enhancement of biodiversity must be carefully considered as part of green infrastructure provision alongside the need to meet society's wider social and economic objectives and the needs of local communities.

The quality of the built environment should be enhanced by integrating green infrastructure into development through appropriate site selection and use of creative design. With careful planning and design, green infrastructure can embed the benefits of biodiversity and ecosystem services into new development and places, helping to overcome the potential for conflicting objectives, and contributing towards health and well-being outcomes. There are multiple ways of incorporating green infrastructure, dependent on the needs and opportunities a site presents. Landscaping, green roofs, grass verges, sustainable urban drainage and gardens are examples of individual measures that can have wider cumulative benefits, particularly in relation to biodiversity and the resilience of ecosystems as well as in securing the other desired environmental qualities of places.

2.4.2 PPW11 (2021) also provides a set of National Sustainable Placemaking Outcomes two of which refer specifically to the role green infrastructure can make within successful placemaking:

Table 1

Maximising environmental protection and limiting environmental impact	Facilitating accessible and healthy environments
<ul style="list-style-type: none"> • resilient biodiversity and ecosystems • distinctive and special landscapes • integrated green infrastructure • appropriate soundscapes • reduces environmental risks • manages water resources naturally • clean air • reduces overall pollution • resilient to climate change • distinctive and special historic environments 	<ul style="list-style-type: none"> • accessible and high quality green space • accessible by means of active travel and public transport • not car dependent • minimises the need to travel • provides equality of access • feels safe and inclusive • supports a diverse population • good connections • convenient access to goods and services • promotes physical and mental health and well-being

2.5 Placemaking Wales Charter (2020)

2.5.1 The Placemaking Wales Charter was developed by Welsh Government and the Design Commission for Wales in collaboration with the Placemaking Wales Partnership. It recognises the range of factors that feed into good placemaking and focuses on six placemaking principles including:

Identity: The positive, distinctive qualities of existing places are valued and respected. The unique features and opportunities of a location including heritage, culture, language, built and natural physical attributes are identified and responded to.

Movement: Walking, cycling and public transport are prioritised to provide a choice of transport modes and avoid dependence on private vehicles. Well designed and safe active travel routes connect to the wider active travel network and public transport stations and stops are positively integrated.

Public Realm: Streets and public spaces are well defined, welcoming, safe and inclusive, with a distinct identity. They are designed to be robust and adaptable, with landscape, green infrastructure and sustainable drainage well integrated. They are well connected to existing places and promote opportunities for social interaction and a range of activities for all people.

Alongside the Charter itself, the Design Commission for Wales published an accompanying Placemaking Guide 2020 which goes into greater detail about how to consider and implement the placemaking principles and provides several case studies. The Placemaking Guide 2020 is available via the Design Commission for Wales website:

<https://dcfw.org/wp-content/themes/dcfwchild/assets/PlacemakingGuideDigitalENG.pdf>

2.6 Adopted Torfaen Local Development Plan (2013)

2.6.1 The Local Development Plan contains numerous relevant policies relating to the location and nature of development. The main policies that relate directly to green infrastructure are as follows:

S3 Climate Change

Development proposals shall seek to mitigate the causes of further climate change and adapt to the current and future effects of climate change; and will be supported where they demonstrate consideration of the following hierarchy of criteria (where appropriate):

b) Achieving Sustainable Design to ensure residual energy requirements are minimised through: -

i) Supporting climate responsive development through location, orientation, density, layout, built form, materials and landscaping;

ii) Reducing surface water run-off and flood risk through the use of Sustainable Urban Drainage Schemes (SUDS) unless it is shown that these measures are uneconomic or impractical;

iii) Promoting water efficiency by reducing the demand for water; and

iv) Exploring opportunities to maintain habitat connectivity through the provision of green infrastructure in design.

S7 Conservation of the Natural and Historic Environment

Development proposals should seek to ensure the conservation and enhancement of the Natural, Built & Historic Environment of Torfaen, in particular: a) Biodiversity resources; b) Geodiversity resources; c) Water environment; d) Landscape setting; e) Character of the built environment; and f) Historic assets.

Other relevant policies are listed as follows and can be viewed in full via

<https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/Adopted-Torfaen-LDP-Written-Statement.pdf>

- Policy S2 Sustainable Development
- Policy S4 Placemaking/ Good Design
- Policy BW1 General Policy - Development Proposals
- Policy SAA2 Canalside Strategic Action Area, Cwmbran

- Policy SAA5 The British Strategic Action Area, Talywain, Pontypool
- SAA7 Llanfrechfa Grange Strategic Action Area, Cwmbran
- H5 Provision for Recreation, Open Space, Leisure Facilities and Allotments
- EET4 Regional Employment Allocations
- EET6 Leisure / Tourism Proposals
- RLT2 Town Centre Development in Cwmbran Town Centre
- T3 Walking and Cycling Routes
- CF2 Community Facilities
- CF4 Protection of Important Urban Open Space (IUOS)
- CF5 Protection of Allotments and Recreation & Amenity Open Space
- CF6 New Playing Field
- HE2 Blaenavon Industrial Landscape World Heritage Site (BILWHS)

3. Green Infrastructure Requirements for New Developments

3.1 Assessment and Analysis

3.1.1 This section of the SPG provides guidance on embedding high quality, sustainable and multifunctional GI into development and should be read in conjunction with the adopted Site Design, Masterplanning and Development Brief SPG (Feb, 2023).

3.1.2 All developments where existing GI assets are likely to be significantly affected, or there is a significant opportunity to enhance, link or create GI assets, will be required to adhere to these requirements.

3.1.3 The design of development should aim to reflect and reinforce the area's locally distinctive character by conserving and integrating existing landscape features into a scheme (e.g. features of biodiversity, historical or cultural interest, such as ancient woodland and hedgerows, or the remains of historical settlements and routes). In this way, GI can be used as a positive 'place-making' tool and, where appropriate, can also help positively transform local character. For further information see the adopted Site Design, Masterplanning and Development Brief SPG (Feb, 2023).

3.1.4 Wherever possible, full consideration should be given to retaining and integrating the site's GI assets (as identified on a GI Context Plan) into the structural landscape framework for the development. Early consideration will help to maximise the multifunctional benefits/ecosystem services that the scheme can provide, ensuring compliance with relevant legislation and policy.

3.1.5 At the outset the developer needs to consider what type and how much GI is required to meet local needs; how it complements and relates to existing GI; and how specific green elements can be linked to integrate with each other and the surrounding GI network.

3.1.6 Torfaen County Borough Council has produced a County wide Green Infrastructure Assessment (GIA) which identifies the key green infrastructure assets within Torfaen and the functions they provide to people and nature. The GIA is published alongside this SPG.

3.1.7 Box 3.1 shows the type of assets which need to be considered when assessing the existing GI resource on site and within the surrounding neighbourhood. The functions provided by each GI typology are outlined within the Torfaen GIA.

3.1.8 Applicants need to show that they have considered the existing green infrastructure in preparing their plan for the site and identified any opportunities for connectivity and enhancement

of the existing resource through the design proposals. To achieve this, developers should follow the key steps below:

- 1: identify and map existing GI assets in and around the site through production of a GI Context Plan.
- 2: identify local GI needs / site requirements and consider how the development can contribute to these needs. Explore opportunities to fulfil these needs through the production of a GI Opportunities Plan.
- 3: incorporate proposals into the design that maintain, conserve and enhance GI, ensuring connectivity with the surrounding GI network through the production of a GI Concept Plan.

Table 2

Examples of GI Assets

- **Parks and gardens** including urban parks; formal private gardens
- **Amenity greenspaces** informal recreation spaces; incidental space on housing estates
- **Provision for children and young people** play areas, youth provision including MUGA's, skateparks, youth shelters
- **Sports Provision** outdoor sports pitches, playing fields, tennis courts, bowling greens, hockey pitches
- **Civic spaces** civic squares, market squares, war memorials, public precincts
- **Allotments and community growing spaces**, community farms and gardens, city traditional and community orchards, roof gardens, and urban edge farmland
- **Institutional grounds** cemeteries, churchyards, schools, hospital and residential homes
- **Natural and semi-natural rural, peri-urban and urban greenspaces** including woodland and scrub; grassland, heath and moor; wetlands; bogs, rivers and lakes; brownfield sites; bare rock habitats (e.g. cliffs and quarries); includes important and protected species and habitats such as existing local nature reserves and locally designated sites for nature conservation
- **Water courses and water bodies** including lakes, ponds, reservoirs, rivers, streams and canals
- **Green corridors** including rivers and canals and their banks; road and rail corridors; cycling routes; public rights of way, hedgerows, street trees and highway verges
- **Functional green space** including sustainable urban drainage schemes, flood storage areas, green roofs and walls
- **Heritage sites** including CADW listed sites and gardens, national parks, World Heritage sites, historic sites and monuments

3.2 Step 1: GI Mapping - GI Context Plan

3.2.1 Existing GI assets in and around the development site should be identified and mapped (See Table 2 above for details of assets). Torfaen County Borough Council has produced a number of public facing GIS layers which can be used as the basis for the mapping of GI across the borough. Key elements of green infrastructure along with other site design constraints and opportunities are provided on the interactive Masterplanning Map available at <https://torfaen.opus4.co.uk/planning/localplan/maps/torfaen-masterplanning-map#/center/51.694,-3.0414/zoom/13/baselayer/b:31/layers/>

3.2.2 More specifically, the following link to the TCBC Green Spaces Map presents data on the location of natural green space, amenity green space, parks and formal gardens, allotments, orchards, play areas, sports pitches and institutional grounds such as hospitals, schools and churchyards. Each layer can be turned on and off using the check box to the right hand side of the screen.

http://gis.torfaen.gov.uk:8010/connect/analyst/mobile/#/main?mapcfg=Public%20View&lang=en_GB&overlays=Gritting%20Routes%20%E2%80%93%20Llwybrau%20Graeanu

In both cases, the information provided is indicative only and should be checked on the ground prior to being included in any submission.

3.2.3 The Urban Green Grid layer on the Green Spaces Map details potential and existing green corridors which exist through the urban fabric, linking larger open spaces and creating ecological and leisure corridors. These corridors are the method by which the main green infrastructure assets, for example woodlands or parks, link together to create the GI network.

3.2.4 The functions (or ecosystem services) provided by existing GI assets should be appraised through site visits, and by reference to relevant data and information including assessment of the connectivity of existing GI assets for people and wildlife within the site and around the surrounding neighbourhood. The condition of each asset should be included in this assessment wherever possible. The appraisal should be proportional to the scale of the development proposal. Reference to Appendix 1 (Definition of Functions) and the Torfaen Green Infrastructure Assessment published alongside this SPG will assist the identification of GI functions. The Technical Annexes to this SPG give guidance on how certain GI assets, namely, trees, woodlands and open space provision should be assessed.

3.2.5 The key findings of the survey and appraisal should be recorded on a GI Context Plan. This can be used to inform site layout design options to maximise benefits from existing GI assets in and around the development site and as an aid for initial pre-application discussions with Council planning officers and statutory consultees. Further information on need can be found by consulting the GIA and Torfaen Open Space Assessment published alongside this SPG.

3.3 Step 2: Assess local needs and opportunities including the need to adapt to climate change: GI Opportunities Plan

3.3.1 In considering how the development proposal and the site can contribute to meeting GI needs and opportunities in Torfaen, reference should be made to the following:

- Torfaen Open Space Assessment 2021
- Torfaen Green Infrastructure Assessment 2022 (GIA)
- Torfaen Play Sufficiency Assessment 2022
- Torfaen Rights of Way Improvement Plan
- Biodiversity and Ecosystem Resilience Plan 2019

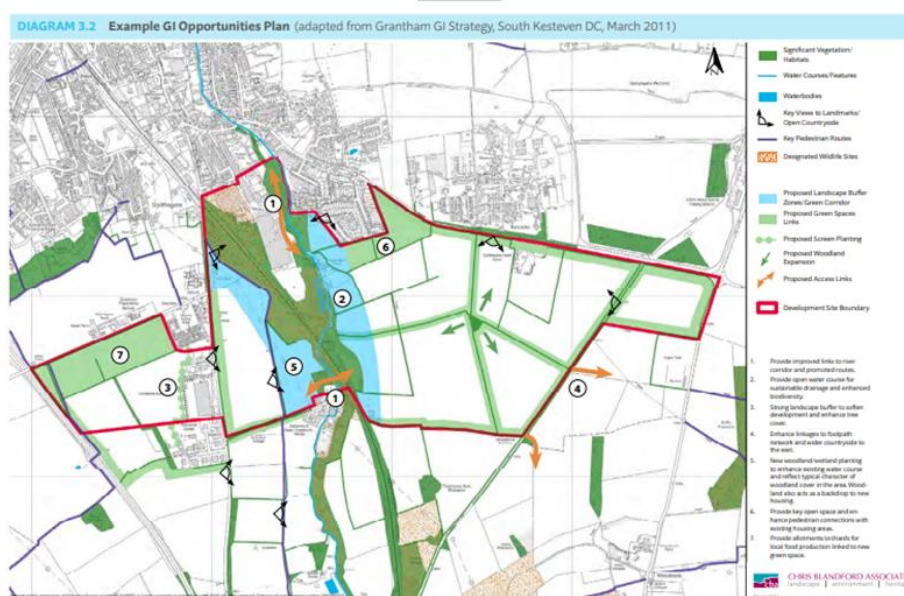
- Torfaen Local Flood Risk Management Strategy July 2013
- Torfaen Local Flood Risk Management Plan July 2015
- NRW Habitat Connectivity Mapping
- Local community and stakeholder consultations

3.3.2 Opportunities for addressing local GI needs should also be informed by the survey and analysis of existing GI assets in and around the development site. The GI Design Checklist in Section 4.0 provides a useful list of considerations to help developers to identify opportunities that may be appropriate to the site and its context. The provision, character and distribution of GI opportunities depends on the nature of the location, the type of development and the contribution it can make to connectivity and the provision of ecosystem services.

3.3.3 Opportunities for GI provision in and around the development site should be recorded on a GI Opportunities Plan which can inform and shape site layout design options and be a useful aid for initial pre-application discussions with Council planning officers and statutory consultees.

3.3.4 An example of a GI Opportunities Plan is provided in Figure 1 below.

Figure 1: Example of Opportunity Mapping



3.4 Step 3: Incorporate proposals into the design of the development that maintain, protect and enhance GI, ensuring connectivity with the surrounding GI network.

3.4.1 Prepare a **GI Concept Plan** which should consider how proposals for maintaining, protecting and enhancing GI, and ensuring connectivity with the surrounding GI network, can be incorporated into the site layout design for the development by:

- Retaining and integrating existing GI assets into the development
- Providing mitigation and compensatory measures where harm to/loss of existing GI assets is unavoidable
- Incorporating new and enhanced GI provision of an appropriate type, standard and size. The proposals should be informed by the GI Context Plan (step 1) and respond to the GI Opportunities Plan (step 2).

3.4.2 Again, the GI Design Checklist in Section 4.0 provides a useful list of considerations to help developers incorporate proposals which are appropriate to a site and its context.

3.5 Providing mitigation and compensatory measures where harm to/loss of existing GI assets is unavoidable

3.5.1 Development proposals which harm the GI network will need to provide comprehensive mitigation and compensatory measures to ensure that the overall functionality and connectivity of the GI network is maintained. Such measures could be delivered off-site where on-site provision is not possible to remedy local deficiencies though this would be seen as a last resort. Reference should also be made to the separate Biodiversity, Ecosystem Resilience and Development SPG.

3.5.2 Where there is a risk of harm to existing GI assets as a result of development, mitigation will be sought to reduce such harm as far as practicable through use of appropriate measures in accordance with current best practice, legislation and policy.

3.5.3 Where unavoidable in order to meet development objectives, any residual loss of existing GI assets will need to be compensated for by provision of new or enhanced GI. Where on-site mitigation measures cannot be provided, or only provided in part, then off-site compensation will be sought to help reinforce GI connectivity and/or improve the GI network for the benefit of the local community and the County's environment. The nature, scale and location of off-site GI compensatory measures will normally be determined on a case-by case basis to reflect the functions/ecosystem services provided by the GI assets lost as part of the development proposals. Reference should be made to the separate adopted Revised Planning Obligations SPG: Annexe 6 (Feb 2023) for more detail.

3.5.4 Where appropriate, compensatory measures may be achieved through a financial contribution to maintaining a local GI site (such as a local nature reserve or public park), and/or through a contribution to improving connectivity for people and wildlife between the proposed development site and the wider GI network (such as a greenway).

3.6 Incorporating new and enhanced GI provision of an appropriate type, standard and size

3.6.1 Where required to meet local needs identified in the relevant evidence studies (see Torfaen GIA methodology) and/or through site-specific surveys, proposals for new and enhanced GI provision of an appropriate type, standard and size should be incorporated into the development (informed by the GI Opportunities Plan).

3.6.2 As highlighted in Table 2 above, GI comprises a range of natural and managed green spaces within urban and rural areas which provide benefits for the economy, local people and biodiversity. The quantity of GI assets that should be provided, along with their character and location, ultimately depends on the specific nature of the site's context and particular circumstances, the type of development, and the contribution they can make to improving connectivity with the overall GI network in Torfaen.

3.6.3 The cost and scale of GI provision incorporated into a scheme should reflect the scale and type of development proposed. For example, a major housing development scheme could include the provision of extensive sustainable drainage systems, food growing areas and a large proportion of accessible green space. Smaller developments on the scale of a single dwelling could contribute by providing a green roof, native hedging and/ or tree planting.

3.6.4 The extent of GI which the Council would expect to see within a proposed development is also determined by its location. In urban areas where there is a deficiency of accessible greenspace, residential developments will be expected to provide a greater quantity of greenspace

than residential developments in rural areas where there may be a surplus of accessible greenspace.

3.6.5 Proposals for new and enhanced GI should aim to reflect and enhance the locally distinctive character of a place, taking account of the type of GI assets in and around the site and the functions/ecosystem services that these provide.

3.6.6 Identification of appropriate types of GI should be informed by the process and principles for embedding GI into development outlined in this section of the SPG. In line with accepted practice, the SPG does not include quantitative standards for all types of GI (e.g. green corridors, cemeteries and functional green space). Proposals for new and enhanced GI must meet the adopted minimum standards for provision set out in adopted LDP Policy CF5 (Protection of Allotments and Recreation and Amenity Open Space), Policy H5 (Provision for Recreation, Open Space, Leisure Facilities and Allotments), Policy S8 (Planning Obligations) and the Revised Planning Obligations SPG (Feb 2023).



3.6.7 Charges for financial contributions expected from housing developers in lieu of on-site provision of recreation and public open space are set by the Council in Annexe 6 of the Revised Planning Obligations SPG (Feb 2023).

3.7 The Green Infrastructure Statement

3.7.1 A Green Infrastructure Statement is required on all developments where existing Green Infrastructure (GI) assets are likely to be significantly affected or there is a significant opportunity to enhance, link or create GI assets. This will apply to most major built development proposals, some major changes of use and some minor built development proposals. GI Plans and Statements can form part of the Design and Access Statement.

3.7.2 The Green Infrastructure Statement is the culmination of the above analysis and should show how all the elements of the proposed GI (both new and retained) have a clear role and purpose within the development.

3.7.3 Conclusions drawn should be expressed in the development plans / drawings and should explain how this is achieving good design. The Statement should include illustrations, drawings and plans to show how reports and technical data have been interpreted and conclusions drawn

which have informed the designed layout. The Statement should explain how the proposed GI assets in the development scheme link to the wider GI network.

3.7.4 The Environment (Wales) Act 2016 puts a duty upon public bodies such as Torfaen County Borough Council to promote ecological resilience. The Guidelines for Ecological Impact Assessment 2016 2nd edition produced by CIEEM requires that impacts upon ecosystems are considered as well as those upon habitats and species. Therefore, all major planning applications should set out within the GI Statement how impacts on ecosystems have been assessed and mitigated for, where necessary. Further information is available in the separate Biodiversity, Ecosystem Resilience and Development SPG.



4.0 Green Infrastructure Design Checklist

Monmouthshire County Borough Council adopted GI SPG provides a 'best practice' checklist against which a development proposal should be considered. Developers should use the checklist below to help address these questions as the design process proceeds.

Placemaking

- Does the provision of GI within the masterplan create a distinct identity and sense of place and respect the distinctiveness of existing neighbouring settlements?
- Has an overarching landscape framework been developed and does it respond in design terms to local landscape character assessments in terms of the site itself and the adjacent landscape character? Has the surrounding landscape setting been protected and preserved?
- Have existing views into and out of the site been safeguarded and are there opportunities to create new views and vistas within the proposed development?
- What landscape edge treatments have been considered for the site boundary and do they provide sensitive and appropriate levels of integration to the surrounding area?

Flood attenuation and water resource management

- Has an assessment of the ground water and water resource of the site taken place and what measures have been identified to improve the quality and quantity of water?
- Have studies of groundwater, contaminated land etc been undertaken to determine the suitability of the site for sustainable drainage systems?

- Have sustainable drainage systems been considered/incorporated into the scheme? Have they been linked together to provide water resource management, increased biodiversity and an accessible recreational resource? These elements could include permeable paving, vegetated swales, wetlands, reed beds, flood meadows, lakes and ponds.
- Have relevant flood strategies been identified and do they inform the design and approach to on-site water management and the wider masterplan?
- What provision has been made for water balancing measures such as storm water ponds or lagoons to replace groundwater levels?
- Have rainwater harvesting systems been incorporated to provide water for irrigation of gardens, public open spaces and use within ponds and other water features and grey water for non potable uses?
- Have green roofs been provided to slow the rate of runoff?
- Have the Water Framework Directive and relevant River Basin Management Plan(s) been taken into account with appropriate measures incorporated into the development?
- The adoption of sustainable drainage schemes will need to be considered at pre-application stage and it is recommended that early conversations with the Council, Caerphilly SAB and Dwr Cymru/Welsh Water are undertaken to ensure that the development is acceptable to the relevant body and adoption agreements are set out in principle.

Biodiversity and Landscape

- Has an audit of existing GI assets on and off-site been undertaken and do proposals complement, enhance and support these assets? (See Table 2 above for full list of assets to be considered.)
- Has an Ecological Appraisal been carried out and used to inform the masterplan and does it take into account the habitats beyond the site boundary?
- Have native species of local provenance been specified within the landscape proposals where appropriate?
- How have natural play, education or interpretation opportunities been incorporated into the scheme to connect people to nature?
- What consideration has been made between balancing the need for access and protecting areas of ecological and biodiversity value and how will this be managed?
- How does the scheme connect with the wider GI in ecological and habitat terms?
- How will the scheme connect with the wider GI network in visual terms?
- Have new accessible areas of habitat been created and do these contribute to local targets?

Good advice on designing for biodiversity can be found elsewhere. See for example the Biodiversity, Ecosystem Resilience and Development SPG and also: Town and Country Planning Association (2004) Biodiversity by Design: a guide to sustainable communities, or Town and Country Planning Association and the Wildlife Trust (2012) Planning for a healthy environment - good practice for green infrastructure and biodiversity, or Wildlife Trust Wales (2016) Green Infrastructure: a catalyst for the well-being of future generations in Wales.

Health and well being

- Have opportunities for providing a range of functions, facilities and activities been considered in relation to local needs for open/green space? For example, recreation grounds and sports pitches can incorporate ecological areas and can be used by both school and public users as part of the wider GI network.
- Has the scheme fulfilled any identified need for accessible natural or managed greenspace within the local area.

Green travel routes

- Are green travel routes provided within the scheme? How do they connect into the wider access/green network beyond the red line boundary? Do these links also connect into other off-site community facilities and green spaces and to other local communities?
- What consideration is there for 'access for all' and is it possible for all residents to access a range of GI from their home easily within a deemed acceptable walking distance of 800m along existing footpaths.

Sustainable energy use

- Do proposals for the site make best use of off-site places nearby where energy or fuel is produced? i.e. short rotation coppice, bio fuels and wind generation?
- Have green/brown roofs and green walls been incorporated into buildings within the scheme to increase energy efficiency, conservation and provide shade? Green roofs and PV panels can be mutually beneficial - green roofs create a microclimate that enhances the operating efficiency of PV panels, while the panels can help to create greater habitat diversity on the roof.
- Have planting areas been designed to enhance/create beneficial microclimates across the development site? Does structural planting create shelter from prevailing winds in winter and shade in summer, improving the usability of public open spaces whilst promoting walking and cycling locally?
- Have street trees of an appropriate species and size been incorporated into the masterplan to create shade and cooling in external areas, reduce rainwater runoff and act as carbon sinks?
- How has existing or proposed woodland been incorporated? Woodland can provide many benefits including carbon sequestration, habitat creation and wood chip production for renewable energy.
- What opportunity is there to combine local food production, composting and waste recycling with the potential for energy from waste?
- Has built form been orientated to maximise solar gain whilst creating sheltered and sunny green spaces?
- Does the scheme incorporate solar water heating and solar electricity on roof space?
- What local provenance species have been chosen and are they the correct species to achieve objectives of cooling in summer, solar gain in winter and increased biodiversity?
- Have water bodies such as ponds and lakes been created to provide microclimatic cooling during the summer months?

5.0 Sources of Additional information and Contact Details

5.1 Further information regarding green infrastructure resources can be found in the following documents and links:

- Placemaking Guide 2020 (Design Commission for Wales) - <https://dcfw.org/wp-content/themes/dcfwchild/assets/PlacemakingGuideDigitalENG.pdf>
- Torfaen Local Development Plan (to 2021) (2013) Written Statement - <https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/Adopted-Torfaen-LDP-Written-Statement.pdf>
- Planning Policy Wales 11 (2021) - https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf

- Planning Policy Wales: Building Better Places (July 2020) - <https://gov.wales/sites/default/files/publications/2020-07/building-better-places-the-planning-system-delivering-resilient-and-brighter-futures.pdf>
- Torfaen CBC: Revised Planning Obligations SPG (2023) - <https://www.torfaen.gov.uk/en/PlanningAndDevelopment/Planningpolicy/Supplementaryplanningguidance/Supplementary-Planning-Guidance.aspx>
- Torfaen CBC: Site Design, Masterplanning and Development Brief SPG (2023) <https://www.torfaen.gov.uk/en/Related-Documents/Forward-Planning/Supplementary-Planning-Guidance/Site-Design-Masterplanning-and-Development-Brief-SPG.pdf>
- Biodiversity, Ecosystem Resilience and Development SPG – link to follow
- Flood and Water Management Act 2010 (Schedule 3) <https://www.legislation.gov.uk/ukpga/2010/29/schedule/3>
- Susdrain (Independent platform that provides a range of resources for those involved in delivering sustainable drainage systems) - <https://www.susdrain.org/>
- NRW Terrestrial and Freshwater Resilient Ecological Networks Guidance - <https://naturalresources.wales/guidance-and-advice/environmental-topics/land-management/practitioners-guide-to-resilient-ecological-networks/?lang=en>
- Building with Nature Standards Framework - <https://www.buildingwithnature.org.uk/>
- Policy Wales Technical Advice Note 5: Nature Conservation and Planning (2009) <https://www.gov.wales/sites/default/files/publications/2018-09/tan5-nature-conservation.pdf>
- Torfaen Play Sufficiency Assessment Executive Summary <https://www.torfaen.gov.uk/en/Related-Documents/PlayService-PlayClubs-PlaySchemes/Torfaen-Play-Sufficiency-Assessment-Summary-of-Findings.pdf>
- Torfaen Rights of Way Improvement Plan <https://www.torfaen.gov.uk/en/Related-Documents/Countryside/Rights-of-Way-Improvement-Plan.pdf>
- Torfaen Open Space Assessment 2021
Link to be added
- Torfaen Green Infrastructure Assessment 2022 (GIA)
Link to be added
- Biodiversity and Ecosystem Resilience Plan 2019
Link to be added
- NRW Habitat Connectivity Mapping
Link to be added
- Torfaen Local Flood Risk Management Strategy July 2013 <https://www.torfaen.gov.uk/en/Related-Documents/Roads-Highways-and-Pavements/Drainage/TorfaenLocalFloodRiskManagementStrategy.pdf>

- Torfaen Local Flood Risk Management Plan July 2015
<https://www.torfaen.gov.uk/en/Related-Documents/Roads-Highways-and-Pavements/Drainage/Torfaen-Flood-Risk-Management-Plan.pdf>
- Green Infrastructure Asset Mapping
<https://torfaen.opus4.co.uk/planning/localplan/maps/torfaen-masterplanning-map#/center/51.694,-3.0414/zoom/13/baselayer/b:31/layers/>
- TCBC: Green Spaces Map
http://gis.torfaen.gov.uk:8010/connect/analyst/mobile/#/main?mapcfg=Public%20View&lang=en_GB&overlays=Gritting%20Routes%20%E2%80%93%20Llwybrau%20Graeanu
- LANDMAP
https://datamap.gov.wales/search/?title_icontains=LANDMAP&abstract_icontains=LANDMAP&keywords_name_icontains=LANDMAP&purpose_icontains=LANDMAP&method=or&limit=20&offset=0
- Well Being Plan for Torfaen
<http://www.torfaenpublicservicesboard.co.uk/en/Documents/Well-being-Plan-for-Torfaen-2018-2023.pdf>
- Town and Country Planning Association (2004) Biodiversity by Design: a guide to sustainable communities [TCPA Biodiversity guide\(c\).indd \(urbed.coop\)](#)
- Town and Country Planning Association and the Wildlife Trust (2012) Planning for a healthy environment - good practice for green infrastructure and biodiversity
- Wildlife Trust Wales (2016) Green Infrastructure: a catalyst for the well-being of future generations in Wales.

Contact Details

5.2 If you have any queries regarding this SPG, please see free to contact us.

For development management advice, please contact us at planning@torfaen.gov.uk

For planning policy advice, please contact us at ldp@torfaen.gov.uk

For ecological and green infrastructure advice, please contact us at steve.williams@torfaen.gov.uk

Technical Annexe 1: Trees and Woodlands within Development

1.0 Introduction

1.1 This Technical Annexe supplements policies in the Adopted Torfaen Local Development Plan relating to trees and woodlands and forms part of the GI SPG. This is one of four Technical Annexes which provide detailed information about retention and provision of GI elements in new developments.

1.2 Torfaen has the highest percentage of urban tree canopy in Wales with a large number of designated ancient semi natural woodlands blocks. Trees and woodlands are one of the most multifunctional green infrastructure assets providing shade, shelter, carbon storage and sequestration, ecological corridors, flood attenuation and aesthetic pleasure as well as contributing to a distinct sense of place. Garrod (2002) found that proximity to, or the view of, broadleaved woodland enhanced property values and estimated that proximity to at least 20% woodland cover could raise the value of an average house by 7.1%.

1.3 Trees and woodlands are under constant threat from development, road widening schemes, disease and natural decline. It is important therefore, that existing trees and woodland blocks are protected and new planting provided wherever possible.

1.4 This Technical Annexe provides guidance on the protection and planting of trees with regard to development in the interest of maintaining and enhancing a diverse urban canopy.

2.0 Tree and Woodland Protection in Planning Policy

2.1 Section 197 of Town and Country Planning Act (1990)

2.1.1 This legislation states that:

It will be the duty of the local planning authority to ensure, whenever it is appropriate, that in granting planning permission adequate permission is made, by the imposition of conditions, for the preservation or planting of trees

More information is available via this link: <http://www.legislation.gov.uk/ukpga/1990/8/contents>

2.2 Planning Policy Wales (Ed 11)

2.2.1 This national policy guidance states:

Planning authorities should protect trees, hedgerows, groups of trees and areas of woodland where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial and identified green infrastructure function. Permanent removal of woodland should only be permitted where it would achieve significant and clearly defined public benefits. Where woodland or trees are removed as part of a proposed scheme, developers will be expected to provide compensatory planting.

Ancient woodland and semi-natural woodlands and individual ancient, veteran and heritage trees are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value.

Such trees and woodlands should be afforded protection from development which would result in their loss or deterioration unless there are significant and clearly defined public benefits; this protection should prevent potentially damaging operations and their unnecessary loss. In the case of a site recorded on the Ancient Woodland Inventory, authorities should consider the advice of Natural Resources Wales. Planning authorities should also have regard to the Ancient Tree Inventory. The protection and planting of trees and hedgerows should be delivered, where appropriate, through imposing conditions when granting planning permission, and/or by making Tree Preservation Orders (TPOs)¹²⁵.

The Ancient Woodland Inventory 2022 can be viewed at https://datamap.gov.wales/layers/inspire-nrw:NRW_ANCIENT_WOODLAND_INVENTORY_2021

2.3 TAN 5 Nature Conservation

2.3.1 This Welsh Government Technical Advice Note provides advice regarding how the land use planning system should contribute to protecting and enhancing biodiversity, and sets out in detail how trees, hedgerows and woodlands must be valued through the land use planning system. More information is available via this link: <https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning>

2.4 Torfaen Local Development Plan to 2021

2.4.1 Adopted LDP Policy S7 (Conservation of Natural and Built Environment) states:

Development proposals should seek to ensure the conservation and enhancement of the Natural, Built and Historic Environment of Torfaen in particular

- a) Biodiversity Resources
- d) Landscape Setting

2.4.2 Adopted LDP Policy BW1 (General Policy - Development Proposals) states:

All development proposals will be considered favourably providing they comply with the following criteria where they are applicable: -

B Natural Environment

(v) The proposal does not result in unacceptable loss or harm to features of landscape importance including trees and woodland that have natural heritage or amenity value.

2.5 Torfaen Tree Strategy

Torfaen County Borough Council has published the Torfaen Tree Strategy to provide a council wide framework for tree management and protection. It seeks to quantify and value the tree and woodland resource in Torfaen and in combination with Torfaen's Green Infrastructure (GI) Strategy, act as a platform for council and community tree and woodland planting projects. The aim is to ensure Torfaen's street trees, woodlands and hedgerows are protected, valued, managed, enhanced and appreciated for the benefit of current and future generations.

3.0 Protection of Trees and Woodlands in Development

3.1 Tree Assessment

3.1.1 Trees within and/or adjoining a development site should be assessed in accordance with BS 5837 (Rev 7) or updated standard. This requires the production of the following by a qualified Arboriculturist:

- a) Tree Survey (TS)
- b) Tree Constraints Plan (TCP)
- c) Arboricultural Impact Assessment (AIA)
- d) Arboricultural Method Statement (AMS)
- e) Tree Protection Plan (TPP)

3.1.2 All existing trees, hedges and woodland blocks must be shown on a scaled topographic survey of any proposed development site including accurate current branch spread, likely ultimate canopy spread, the root protection zone and shading for each specimen. Polygonal depictions of the root zone are required to reflect the more likely root growth particularly if the tree is adjacent to an existing hard surfaced area.

3.1.3 The tree survey and constraints plan should be used to inform the design and the Impact Assessment, Method Statement and Tree Protection Plan should be applied once the design has been finalised to assess the impact and protection measures required. The AMS and TPP should be superimposed on to the scaled site layout plan which includes the topographic survey.

3.1.4 Existing high quality trees (A and B quality) should be retained and design adapted to protect them from harm with no development permitted within their root protection zone. Where overriding design considerations necessitate the removal of Category A and B trees this should be undertaken as a last resort and only if acceptable mitigation can be agreed.

3.1.5 Those to be removed should be distinguished from those to be retained and clearly marked on the drawing to establish the level of mitigation required.

3.1.6 Robust protection for existing trees must be provided and implemented until development is complete. Failure to protect the trees may undermine their health and stability. Direct, unacceptable harm will occur where trees suffer damage to or pruning of roots or branches such that they are physiologically, structurally or aesthetically damaged to an irrecoverable level. Direct, unacceptable harm will occur where trees suffer damage where the soil within the RPA suffers compaction, contamination or cultivation. Changes in the growing environment of trees can make them more vulnerable to damage. Felling trees at the edge of a woodland can subject remaining trees to windthrow. Building close to woodland may lead to funnelling of wind which could increase risk of branch failure.

3.1.7 The AMS should describe any special construction measures such as no dig or hand dig excavations, mini piling or cellular confinement systems proposed to protect existing trees during construction.

3.2 Arboricultural Site Monitoring

3.2.1 A system of site monitoring should be described within the AMS which allows for the following:

- a) Pre-start meeting with developer/ contractor to explain tree protection measures
- b) Physical sign off of barriers, boxes and ground protection

- c) Sign off on any pre-development tree work
- d) Supervision and sign off of all work with RPA including special construction work
- e) Regular monitoring to ensure enforcement of tree protection measures
- f) Sign off of physical removal of tree protection measures at completion of site work

3.2.2 Where implementation of development does not adhere to AMS or TPP it may be subject to enforcement action including prosecution where protected trees are damaged or destroyed.

4.0 Development adjacent to woodland

4.1 Where a development adjoins woodland, an ecotone should be allowed to development or be planted to provide a transition zone between the mature woodland trees such as oak, ash or beech, the woodland edge species such as birch, alder and willow, the woodland shrub layer of holly, blackthorn, hazel, elder, dogwood and ruderal herbaceous layer of longer grass and wildflowers.

4.2 An ecotone:

- a) Minimises shading and falling leaves in gardens and gutters
- b) Minimises danger from fallen branches or debris
- c) Avoids need for inappropriate pruning of overhanging branches which can destabilise trees and render them unsightly
- d) Minimises risk of wind tunnel effect created if buildings too close to woodland
- e) Reduces risk of garden waste being tipped into woodland edges with potential risk to human health and biodiversity and the possible spread of invasive weeds.
- f) Increases habitat diversity.

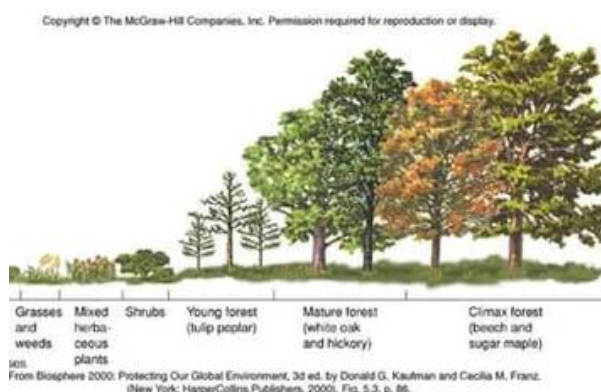


Figure 2: Cross section of an ecotone

4.3 Where areas of woodland are to be incorporated into a development, proposals should be submitted for their appropriate management within the Landscape Management Plan for the site.

5.0 Development adjacent to designated ancient semi natural woodland

5.1 PPW 11 affords specific protection to ancient semi natural woodland, mature and veteran trees as detailed above.

5.2 Ancient semi natural woodland in particular must be sufficiently protected by a buffer zone that may go beyond the 15 metres stated in BS5837:2012. UK Government guidance 'Ancient Woodland, Ancient Trees and Veteran Trees: Protecting them from Development 2018' expands on the purpose of buffer zones. 15 metres from the nearest tree trunk must be regarded as the minimum distance, however this could increase where it can be demonstrated that a larger buffer is required once sight of the preliminary ecological appraisal has been received.

5.3 More information is available via these links: <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protectionsurveys-licences>

5.4 Areas of ancient woodland can be found on Natural Resources Wales Lle website. <http://lle.gov.wales>

5.5 Where areas of woodland are to be incorporated into a development, proposals should be submitted for their appropriate management within the Landscape Management Plan for the site.

6.0 Hedgerows

6.1 Hedgerows within and bounding a development should be assessed in accordance with the Hedgerows Regulations 1997. The submission may form part of an Archaeological or Ecological Impact Assessment. It is preferable for all existing hedgerows within any given development site to be retained and enhanced where possible, particularly if they have been assessed as important within the terms of the Hedgerow Regulations 1997. If overriding design considerations require the removal or translocation of important hedgerows the GI Statement should detail the translocation methodology or how the loss will be mitigated for within the development. A default five metre buffer zone should be assumed from the canopy edge of the hedgerow to any garden boundary or building line. An ecotone of tall herbaceous species to shorter grasses should be established in the space to provide growing room for the hedge species and allow for periodic maintenance as necessary. Allowing mature hedgerows to be retained as garden boundaries frequently leads to the degradation of the hedge, inappropriate maintenance or boxing in behind fencing and the inevitable loss of the hedge and the valuable biodiversity resource it provides.

6.2 Where existing hedgerows are to be incorporated into a development, proposals should be submitted for their appropriate management within the Landscape Management Plan for the site.

7.0 Tree Preservation Orders

7.1 The developer should check with the Local Planning Authority (LPA) at the outset of the design process as to whether an existing tree, tree group or woodland block within a proposed site is subject to a Tree Preservation Order (TPO). The trees should then be incorporated into the overall design unless the LPA agrees to overturn the TPO by virtue of the planning permission.

7.2 If an existing tree, tree group or woodland block within the site is not covered by a TPO but it is deemed by the local authority to be worthy of preservation on the grounds of visual amenity and is likely to be under significant threat due to the development, a TPO may be served to ensure the tree's protection.

8.0 Conservation Areas

8.1 Mature trees within a designated Conservation Area are protected from lopping, topping or felling without the express consent of the local authority. Applications to undertake tree works within a Conservation Area should be made to the local planning authority.

9.0 Designing with trees

9.1 Trees and woodland should be considered at the outset of the planning and design process for any development site. The default position should be to retain all trees and woodland on site unless there are sound reasons to the contrary. Mature trees, hedgerows and woodland blocks can bring an immediate sense of maturity to a development site and studies have shown that a treed environment will increase property values. Having a view of nature, even if only a single tree, has been shown to have a significant impact on well-being.

9.2 Buildings should be placed outside the root protection zone (RPZ) of existing trees, current and likely branch spread to give living space for trees to grow into. The root protection zone of a tree is the distance which is twelve times the girth of the tree measured at 1.5m trunk height. The canopy of a tree is rarely circular and the tree survey should accurately plot the polygonal shape of the canopy. The RPZ will need to be adjusted to take account of the asymmetrical nature of the canopy.

9.3 Overshadowing and severe shading of properties can impact the well being of individuals so this should be avoided by not placing buildings to the north of mature trees or woodland blocks unless sufficient distance is allowed between the trees and the buildings. This includes gardens. Shadow Diagrams should be provided which show where shadows will fall at specific times of the day allowing the Council to assess the potential overshadowing impact of a proposal.

9.4 A mixed age and diversity of species should be provided within the overall design to provide successional planting and increase resistance to disease.

9.5 Large leaved species would be preferred as they increase interception capacity of the tree reducing flood risk.

9.6 Development providing for a small number of well-spaced, long lived, large species of tree in wide continuous soft landscape is preferred to that providing a larger number of smaller, short lived trees in narrow planters, hard landscape or left over space.

9.7 Where trees are proposed within hard landscaping the opening for a tree grill should be a minimum of 1.5m x 1.5m.

9.8 Tree lined avenues should be staggered rather than linear layouts, benefitting the streetscape and microclimate. Planting using build out, roundabouts and central reservations can allow for larger trees to be planted if verges are too narrow.

9.9 Trees planted close to highways should have sufficient space to prevent conflict with the kinetic envelope of the largest vehicle likely to use the highway. Species choice is critical as larger trees can grow up and above the height of larger vehicles or columnar or fastigate species could be specified to reduce the width of the canopy.

9.10 Trees in the Townscape: A Guide for Decision Makers (Trees and Design Action Group) provides a good guide to the issue 'right tree in the right place'. Available at https://www.tdag.org.uk/uploads/4/2/8/0/4280686/tdag_treestownscape2021.pdf

Factors to consider when addressing this issue relate to the type of tree, its location and the people who will maintain it. These might include:

- Function - the desired benefits from the tree;
- Character - the historic and landscape character of the area;
- Diversity - the characteristic and profile of the wider tree population.
- Design - the scale, balance, impact, texture, and colour expected from the tree.
- Site constraints - soil types and conditions, amount of sun, surrounding building heights and available space both above and underground. Potential nuisance, including pollens, obstruction of light to habitable rooms, sightlines for CCTV, highway and street lighting, clearances for overhead cables and vehicles. Risk of damage to structures the tree may cause (this requires an awareness of soil type, the tree species and its characteristics as well as of the design of foundations).
- Support capacity - alignment with community aspirations as well as with long term management and maintenance capacity.

Technical Annexe 2: Open Space and Recreational Provision within Development

1.0 Introduction

1.1 This Technical Annexe supplements policies in the adopted Torfaen Local Development Plan relating to the provision and protection of open space and should be read in conjunction with the GI SPG and the Revised Planning Obligations SPG (Feb 2023). This is one of four Technical Annexe's which provide detailed information about the retention and provision of GI elements in new developments.

1.2 The Guidance explains the Council's approach to safeguarding existing areas of open space which contribute to the open space, recreation and nature conservation resource of the borough. It sets out the basis on which open space provision for new housing developments is assessed as well as the amount and type of provision to be sought.

1.3 This Annexe incorporates the findings of the Torfaen 2020 Open Space Assessment which is available as a separate background paper. This guidance applies to all open space within or immediately adjacent to the urban area.

2.0 Definitions of open space

Table 3

Public Open Space	Publicly owned and fully accessible to public
Amenity Greenspace	Incidental Verges Informal Recreation Areas Landscaped Verges
Play Areas	Local Areas of Play (LAP) Locally Equipped Areas of Play (LEAP) Neighbourhood Equipped Areas of Play (NEAP)
Youth Provision	Multi Use Games Areas (MUGA) Youth Shelters Skateparks Parkour
Allotments	Statutory Temporary
Community Growing	Community Gardens Traditional Orchards Community Orchards
Sports and Recreation	Football Rugby Tennis Hockey Bowls Golf Athletica

3.0 Planning Policy

3.1 Planning Policy Wales Ed. 11 (2021)

3.1.1 *When considering development proposals planning authorities should consider the needs of the communities and ensure that community facilities continue to address the requirements of residents in the area.*

Formal and informal open green spaces should be protected from development, particularly in urban areas where they fulfil multiple purposes. All playing fields whether owned by public, private or voluntary organisations, should be protected from development except where:

- facilities can best be retained and enhanced through the redevelopment of a small part of the site;*
- alternative provision of equivalent community benefit is made available locally, avoiding any temporary loss of provision; or*
- there is an excess of such provision in the area.*

Planning authorities should protect playing fields and open spaces which have significant amenity or recreational value to local communities from development.

Local authorities should retain and protect existing allotment sites, particularly where they have an important green infrastructure or community value.

3.2 Technical Advice Note 16: Sport and Open Space (January 2009)

3.2.1 TAN 16 provides detailed guidance on planning for sports and recreational uses and appropriate levels of provision. It recommends a minimum standard of 2.0 hectares per thousand population. This is in accordance with the guidelines set by Field's in Trust (FIT).

3.3 Adopted Torfaen Local Development Plan (2013)

3.3.1 Policy **S2**: *The County Borough's natural and built environment is an important resource and new development should be located so that it does not compromise and where possible seeks to enhance the area's countryside, open spaces, landscape character and biodiversity resources.*

e) Maximise the efficient use of existing community infrastructure including open spaces, sports and recreational facilities, allotments, green infrastructure and open spaces.

3.3.2 Policy **S3**: *iv) Exploring opportunities to maintain habitat connectivity through the provision of green infrastructure in design;*

3.3.3 Policy **S4**: *Delivering a mix of uses to complement existing facilities and aim to address local deficiencies;*

3.3.4 Policy **S7**: *It is important that the accessibility of settlements to green space, open spaces, areas of biodiversity and the countryside is promoted, which will be important in contributing to people's health and well-being and providing opportunities for outdoor recreation and leisure. The LDP identifies Important Urban Open Spaces to be protected in the County Borough in Policy CF4.*

3.3.5 Policy **S8**: *Planning obligations will be required on development proposals through S106 legal agreements where they are necessary to address the impacts of development and to make the proposal acceptable in land use planning terms. Based on evidence of local need and / or generation of need by the proposal, taking into account site specific circumstances, viability and*

LDP Objectives, planning obligations will be specifically targeted to achieve the key priorities of: - a) Affordable housing; b) Open space, children's play spaces and formal outdoor recreation facilities;

3.3.6 Policy **BW1: viii)** *The proposal promotes inclusive design, both for built development and access within and around the development.*

3.3.7 Policy **H5: Provision for Recreation, Open Space, Leisure Facilities and Allotments**

Provision for children's play areas, outdoor recreation, open space and leisure facilities will be sought in conjunction with new residential developments of 3 dwellings or more, based on a minimum of: - a) 2.4 hectares of recreational open space per 1,000 population; b) 0.4 hectares of on-site open space per 1,000 population; c) 2.0 hectares of accessible natural green space per 1,000 population; and d) 20 allotments (250m² each) per 1,000 households.

The Council will seek to secure a range of improvements for accessible, high quality open space, outdoor recreation provision and leisure facilities, as appropriate to the particular site and development proposal.

3.3.8 Policy **CF4: Protection of Important Urban Open Space (IUOS)**

Development proposals, which result in the loss of Important Urban Open Spaces, as identified on the Proposals Map, will not be permitted, unless the proposal complements or relates to the function of the Open Space and would enhance its value, or there is an overriding community or regeneration need for the proposal or where its integrity would be maintained.

3.4 Torfaen Open Space Assessment 2020

3.4.1 This document reviews the quantity, quality and accessibility of open spaces within the county borough and will give assistance in preparing a needs assessment in relation to the provision of open space. It is available as alongside this SPG.

4.0 Protection of Existing Open Space

4.1.1 Any development proposals impacting any designated IUOS will need to satisfy policy CF4. These spaces include areas of natural spaces including woodland as well as formal and informal recreation areas within the urban boundary.

4.1.2 Outside of the designated IUOS the Local Planning Authority will assess development proposals which involve the loss of open space on the basis of the following factors.

- Existing local space provision
- Function or amenity value including flood storage capacity
- Quality of open space
- Historic or nature conservation importance
- Any compensatory provision

4.2 Assessment of existing local provision

4.2.1 An assessment to determine what local provision serves the site should be undertaken by the developer. This process uses a set of straight line distances for different categories of open space to achieve local catchment areas. For a developer to identify whether the site is served by a particular type of open space, a circle should be drawn from the centre of the site of a diameter corresponding to the accessible distances outlined in Table 4 below for each separate type of open space. If no provision is found to be within this circle the development can be said to be deficient in

this typology and onsite provision may be required. Barriers to access such as main roads, railway lines or watercourses need to be accounted for as these will reduce the accessibility of certain spaces by certain user groups.

4.2.2 The quality of each open space should also be assessed by the developer to determine what improvements are required to bring the space up to the required standard to serve the residents of the new community.

Table 4

Typology	Accessible distance	Quality Assessment Criteria
Provision for children LAP LEAP	100 metres 400 metres	Play Wales Play Value Assessment
Youth provision	1000 metres	
Informal amenity green spaces	480 metres	
Sports and Recreational Provision	1200 metres	Governing Body Standards
Allotments	1200 metres	National Allotment Association Guidelines
Natural Green space Woodlands Grasslands	720 metres	NRW Accessible Green Space Standard Woodland Trust Accessible Woodland Standard

4.3 The functional or amenity value of existing open space

4.3.1 The basis of assessing the amenity value of open spaces will be based on:

- **Visual amenity:** The site has visual amenity if the site contributes to the visual character and environmental quality of the area. Proposals that adversely affect the appearance of open spaces which significantly contribute to the visual appearance of the area would raise objection.
- **Leisure Amenity:** Sites which provide informal recreational opportunities such as dog walking, informal play and kick about areas (especially if this type of space is at a premium within the local area) or are of borough wide significance will be protected. Proposals which adversely affect such spaces will be objected to.
- **Historic or nature conservation importance:** Any developments which have an impact on heritage relating to open spaces such as listed buildings, scheduled ancient monuments or historic parks and gardens will require sufficient information to be supplied so that a full assessment can be made. A Heritage Impact Assessment may be required. The separate Biodiversity, Ecosystem Resilience and Development SPG gives details on how development proposals which have an impact on the nature conservation value of an open space will be assessed. Using the stepwise approach as outlined in the above, any impact should be minimised through the design process. Where impact is unavoidable, assessment of the acceptability of any proposed compensatory proposals will be made.
- **Compensatory facilities:** Where a development proposal involving the loss of open space would cause or exacerbate a local or borough wide deficiency in recreational space, compensatory or alternative provision would be required. Details of this are provided in the Revised Planning Obligations SPG: Annexe 6 Open Space and Recreation (Feb 2023).

5.0 Provision of Open Space in New Developments

5.1 Requirements for the amount of open space to be sought in relation to a specific type of development can be found in the Revised Planning Obligations SPG: Annexe 6 Recreation and Open Space (Feb 2023).

6.0 Design and Layout of Open Space

Integrated Design

6.1.1 The open space element of the GI provision for the site should be fully integrated into the design process prior to determining the building layout. Integrating the existing natural features on the site, such as trees, hedges and meadow areas can add character and maturity to a new space. The outcome of the GI Context and Opportunities Plans and the landscape appraisal should be used to inform the design. The design should contribute positively to biodiversity enhancement of the site.

Accessible Location

6.1.2 Unless limited by topographical factors, the primary open space should be located centrally within the development or within easy access of all parts of the development to encourage use by the whole community. It should form part of a linked set of open spaces running through the development which can also serve ecological functions as well as form movement corridors and recreational spaces. Good quality boundary treatments should be used to clearly distinguish public and private space.

Appropriate Size

6.1.3 The space should be large enough to provide recreational uses within a landscaped environment with sufficient buffers to minimise disturbance to neighbouring properties. Location of play areas, youth provision and pitches should all be located with at least the minimum buffer provided by the FIT Beyond the Six Acre Standard available at <https://www.fieldsintrust.org/Upload/file/guidance/Guidance-for-Outdoor-Sport-and-Play-Wales.pdf>

Good surveillance

6.1.4 Open spaces should be designed with overlooking properties to provide natural surveillance which will help reduce instances of vandalism and antisocial behaviour. Existing desire lines should be utilised to provide access paths where people want to go ensuring access to maintenance vehicles is provided.

Multifunctional Use

6.1.5 Where possible the space should be designed to be multifunctional. Its primary purpose will be informal or formal recreation within a landscape setting but ecological and sustainable drainage considerations could be incorporated into the design.

6.1.6 On larger developments developers may be required to provide formal recreational facilities including sports pitches. Developers are encouraged to engage with the Council at the earliest opportunity regarding the requirements for such provision.

Sustainability

6.1.7 Designers should be aware of the sustainability of the design both in terms of materials used and maintenance implications of their design. Longevity and durability will be an important factor in assessment of the design if the intention of the developer is to seek adoption of the open space or recreational facility by the Council.

Inclusive design

6.1.8 The space should provide access for all and cater for all members of the community. Studies have shown that a space that includes provision for all age groups is better appreciated and looked after by the community.

7.0 Design and Layout of Play Areas

Static play areas

7.1.1 Play space should be of high quality and good design to attract children, young people and families.

7.1.2 Areas for children's play should be:

- Sited where subject to natural surveillance from overlooking properties
- Separated from major vehicle movements and accessible from hard surfaced paths
- Respect FIT standard buffer zones to ensure minimal disturbance to neighbouring residences
- Be of good play value as defined by Play Wales Guidelines
- Be of robust and durable construction
- Be accessible to all and as inclusive as possible.
- Provide for children with physical disabilities and learning and sensory difficulties

7.1.3 Equipped playgrounds are provided at various different sizes to satisfy the needs of the local community that reside within 400m of the facility. These include the LAP, LEAP and NEAP categories of play as defined by Fields in Trust Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard. The amount and type of provision is set out in the Revised Planning Obligations SPG: Annexe 6 Recreation and Public Open Space (Feb 2023).

7.1.4 Provision will be assessed on the range of activities offered within the playground, the age appropriateness of the facility, the location, the opportunities provided for children to play alone and in mixed ability groups and opportunities to engage with the natural environment.

7.1.5 Destination playgrounds serve the wider community with enhanced features which attract users from outside the local area. These would be required on large scale developments and should be located within large centrally located accessible parks or open spaces together with other community facilities.

7.1.6 Play facilities should be designed to cater for all ages and abilities to play together. They should ideally include natural features for play alongside more traditional static play equipment.

7.1.7 Where a series of play areas are required within a development, they should offer complimentary provision across the site.

7.1.8 All equipment provided should comply with BS EN 1176 or updated standard and be fitted with anti-tamper fixings.

7.1.9 If adoption by the Council is under consideration the play area must comply with the following design considerations:

- All equipment to be steel or steel shoes in ground if timber considered.
- All surfacing to be rubber crumb wet pour (black)
- Hard surfacing must link all pieces of equipment to enable access for all.
- If fencing is required this should be galvanised steel bow top fencing to BS EN 1176
- Gates should be Prosafe self-closing gates, polyester powder coated in contrasting yellow colour. Two gates are required, one pedestrian and one combination, to allow for maintenance vehicles if areas of grass cutting with play area are present or two pedestrian gates located to allow escape in case of bullying.
- Two recycled plastic Go Plastic Bon Benches or similar approved
- Two Broxap Derby Litterbin (steel)
- Steel cycle racks (2 No.)
- No dogs sign
- Site Information sign – name and address of site, site management contact details, name, address and telephone number of nearest A&E.

Exceptions to this should be discussed with the Council's Streetscene Team.

7.1.8 A post installation inspection report should be submitted to the Council Planning Department prior to discharge of the condition to provide play facilities on the site to ensure appropriate installation. This should be carried out by a registered, qualified play grounds inspector.

7.1.9 Approval of this post installation report by the Streetscene Manager is required if the developer is seeking adoption of the facility by the Council.

7.2 Provision for teenagers and older children

7.2.1 Provision for teenagers and older children is often overlooked within development schemes. Providing safe and planned environments / spaces for this group guides them away from using more inappropriate locations and reduces opportunities for antisocial behaviour. Appropriate locations for such facilities should be discussed with local police, community safety and youth workers.

7.2.2 Teen provision tends to be focussed on the following types of facilities

- Youth Shelters
- Skateparks
- MUGAS
- BMX tracks
- Fitness Trails
- Parkour

7.2.3 Providing social covered spaces to gather around these facilities can help extend the type of user group occupying the space.

8.0 Design and Layout of Pitches

8.1.1 Full size pitches should be provided in line with the requirements of the Governing Body for which ever sport is to be provided for. Details of full drainage scheme including herringbone and sand slit drainage and maintenance and ongoing management regime are required to ensure sustainability of the scheme. On larger schemes changing rooms and other ancillary facilities may be required.

9.0 Provision of Allotments and Community Growing Space

9.1.1 Annexe 6 of the Revised Planning Obligations SPG (Feb 2023) outlines the requirement for the provision of allotments or community growing space with a development. The Council has an aspiration to increase the number of orchards within the borough so inclusion of such a provision within any scheme would be looked on favourably. The Torfaen Open Space Assessment 2020 gives more detail on the need for allotments within a given vicinity and how these sites are currently managed.

9.1.2 This guidance outlines the design and management considerations that need to be taken into account when developing a new allotment site.

Table 5

Design considerations for new allotment provision	
Location	
Area of site and plots	40 plot size around 1 hectare in size. Variety of plot sizes should be provided <ul style="list-style-type: none">• 15% 250sqm plots full size• 75% 125sqm plots (half size)• 10% laid as raised beds approx. 2m max width separated by 1.5m wide hard surfaced paths
Accessibility	Site should be level and accessible with good access by public transport. Accessible parking available on and off site but not adjacent to plots Provision made for cycle parking Hard surfaced footpaths 3m in width should enable access around site with suitable drainage provision
Quality	Plots topsoiled to 450mm depth of Grade 1 topsoil to BS 3382: 2015 or most recent update Plots should be free from non- invasive weeds Plots should not be shaded by overhanging trees, hedges or buildings
Security	Sites should be securely fenced with lockable double vehicle gates
Facilities	A community building, water supply from standpipe and compostable toilet should be provided
Management	Appropriate measures to manage the site should be put in place. Contact the Council for information regarding existing allotment management groups within the borough.

10.0 Planning Submission Requirements for Open Space

10.1.1 Outline: Scale plan showing open space within development including location of play area, sports pitches, SUDS elements as required. Please see Technical Annexe 4 : Landscape Design of this SPG for design guidance.

11.0 Aftercare Options for Open Space

11.1 Management Arrangements

11.1.1 Submit management plan showing

- 5 year establishment period of softworks.
- Ongoing maintenance of soft and hard works.
- Arrangements for inspections of play equipment and maintenance budget for repair and replacement of equipment over time.
- Arrangements for maintenance of pitch surfaces and drainage systems and ancillary facilities
- Arrangements for establishment of an continuing governance of Management Company

11.2 Adoption of public open space and recreational facilities

11.2.1 Where it is the intention of the developer that the open space, play area or sports pitches may be required to be adopted by the Council, officers within the Economy and Environment Team should be consulted prior to submission. This can be undertaken at the pre-application stage.

11.2.2 The adoption process is as follows:

1. Pre-application stage discussions formal request for adoption of open space and landscape works within development area by the local authority should be made in writing. Case officer to pass request to Manager Environmental Strategy and Streetscene Operations and Streetscene Manager for consideration.
2. At Outline and Full Application stage formal request made for adoption in writing either via Planning Case Officer or direct to Manager Environmental Strategy and Streetscene Operations and Streetscene Manager. Form to be drafted. For outline permission refusal or provisional approval given subject to receipt of reserved matters application. Full planning application refusal or approval in principle granted. S106 agreement drafted to state conditions under which open space will be formally adopted.
3. At reserved matters stage Streetscene Manager to have sight of plans for open space and landscape works for comment and approval if open space to be adopted.
4. Developer to maintain site for period of 3 years in acceptable condition to ensure successful establishment of all works. Any plants which are perceived to be dead, diseased or dying to be replaced prior to formal adoption.

5. Formal handover meeting including signing of formal handover sheet to be held with Streetscene Manager or elected deputy. Formal transfer of land ownership to be conducted in association with Asset Management.
6. Agreed Commuted Sum detailed in the S106 agreement to be paid with 2 weeks of formal handover taking place

11.2.3 The area of open space must be managed by the developer for a period of 3 years prior to the formal adoption to ensure the full establishment of planting and grass sward. There is NO obligation for the Council to accept the open space if the condition is deemed to be unsatisfactory. Remedial works to bring the condition up to required standard will need to be carried out by the developer before any formal adoption can take place. If the adoption of the open space and associated landscape works is approved, in terms of areas to be transferred to the local authority, the developer will be expected to commute a sum equal to 20 years maintenance costs in order to help finance this long term commitment.

Technical Annexe 3: Public Rights of Way within Development

1.0 Introduction

1.1 This Technical Annexe supplements policies in the adopted Torfaen Local Development Plan relating to public rights of way within development and forms part of the GI SPG. This is one of four Technical Annexes which provide detailed information about retention and provision of GI elements in new developments.

1.2 Public rights of way are an important element within the green infrastructure network providing green corridors through which people and often wildlife can move through the borough. These routes historically ran across open countryside but are gradually being absorbed into the expanding urban areas. It is important that the significance of such routes are recognised as they often offer a direct way of accessing the local countryside and neighbouring communities. They also provide an alternative to road transportation, which is of increasing importance as communities try to rely less on the car, and move towards more sustainable methods of transport.

1.3 New development often affects Public Rights of Way (PROW) but if they are given careful consideration at the design stage, benefits can be gained by all parties.

2.0 Public Rights of Way in Planning Policy

2.1 Government guidance given in Welsh Government Circular 5/93 emphasises two matters of particular concern:-

- The need for adequate consideration of the PROW's before the decision on the planning application is taken.
- Once planning permission has been granted, PROW's must be kept open and unobstructed until the statutory procedures authorising closure or diversion have been completed should this be necessary under the permission.

2.2 It is important for designers and developers to realise that the granting of planning permission does not entitle developers to obstruct a PROW, nor should it be assumed that a Public Path Order will invariably be made or confirmed.

2.3 The first step for designers and developers is to find out whether or not any PROW's will be affected by the proposed development. If so, it is important that the exact line of the route is identified or an alternative is satisfactorily incorporated.

2.4 The legal document concerned is the Definitive Map of Public Rights of Way. This is held by the Access Team based at Ty Blaen, New Inn where it can be inspected by appointment during office hours. It is accompanied by a Statement, which is a written description of each path indicated on the map. The Definitive Map shows the following types of path:-

- Public Footpaths or FP
- Bridleways or BR
- Restricted Byways or RB (shown as CRB's or CRF's on the Definitive map)
- Byways Open to all Traffic or BOAT

2.5 Under the provisions of Section 257 of the Town & Country Planning Act 1990, the Highway Authority has the power to divert or stop up footpaths, bridleways and restricted byways to enable development to take place, but as a BOAT may carry motorised vehicular rights an application has to be made to the Magistrates' Court.

2.6 Application forms for an order under Section 257 are available from the Council's Access Team, who will be pleased to offer advice and answer any queries. It should be noted that although the Definitive Map shows all registered Public Rights of Way known to the Authority, it is possible that others may have come into existence through 20 years' use which are known only to local residents. These may not come to light until proposals for development are put forward. If the legal criteria for registration of these routes have been satisfied, the Authority has a statutory duty to add such routes to the Definitive Map.

2.7 Circular 5/93 advises that 'consideration should be given at the detailed planning stage to whether a new line for the route can be provided which would be generally acceptable to the public. The use of estate roads for this purpose should be avoided wherever possible and preference given to the use of made up estate paths through landscaped or open space areas away from vehicular traffic'.

2.8 However, designers and developers are encouraged to contact the Council's Access Team when preliminary discussions are taking place regarding alterations to the PROW network, rather than having to amend detailed plans at a later stage. This will also ensure that potential disadvantages to the public can be minimised and the statutory procedures associated with the order can be put in hand without delay once Planning has been approved.

2.9 The legal process for diversion or stopping up orders includes the following stages:

- i. Consultation
- ii. Making of Order and publication of notices
- iii. 28 day objection period
- iv. Confirmation of order
- v. Publication and coming into force of the order. This is a statutory duty which takes considerable time but must be adhered to.

2.10 It is to your advantage to contact the Access Team as early as possible where any public rights of way are affected by a proposed development. This Authority carries out wide consultations in an attempt to minimise the chance of receiving objections once an order is made. Highway Authorities are not empowered to confirm orders which have been objected to. Such cases have to be referred to the Planning and Environment Decisions Wales (PEDW) and could result in the setting up of a Public Inquiry.

2.11 In some instances it may be necessary, in the interest of public safety, to temporarily close/divert a PROW whilst work on a development site is taking place. In these circumstances developers should make an application to the Council's Access Team at least 6 weeks prior to the temporary order being required. This should be in writing giving the following information:-

- The reason why the closure is required
- The date on which the work will commence
- The length of time that the path will need to remain closed
- A plan showing the path to be temporarily closed
- Details of an alternative route, if one is available
- A signed agreement to cover all costs for processing and publishing the order.

3.0 Design Considerations for New Paths or Diverted PRoW

3.1 If it is necessary to incorporate an existing ProW within a development, realign an existing PRoW or create a new path the following considerations should be observed:

3.2 Where should they be located? New or diverted public rights of way should preferably run through landscaped open spaces created within the development to create well used, aesthetically pleasing routes which utilise natural or historic features such as watercourses, woodland belts or tramways. Where new paths within the urban area link destinations such as shops, schools and play areas, circuitous routes should be avoided with paths being short, direct, open to view, well- lit where appropriate with no hiding places.

3.3 Design to avoid crime and nuisance For maximum surveillance paths should run alongside other routes such as cycleways or highways. Entrances should be overlooked by active frontages and kept away from sides and rears of houses and not provide access to cul-de-sacs. Restricted routes which pass between high boundary fences or which have blind corners for example, should be avoided as they are intimidating for users and could attract anti-social behaviour.

3.4 Surface and drainage The type of surface required will be commensurate with its predicted new level of usage. In urban areas they should be hard surfaced and drained as per highway footways. Loose aggregate may be appropriate in certain locations. Byways, cycleways and bridleways should be surfaced to conform to British Horse Society and Sustrans guidelines as appropriate.

3.5 Lighting Consideration should be given to lighting schemes which cast lighting down onto the paths to reduce the impact of urban light pollution. The impact of lighting on bat corridors may need to be taken into consideration even within the urban area.

3.6 Width Consideration must also be given to the needs of persons using pushchairs, wheelchairs and mobility scooters. In cases where PROW's have to be diverted, a minimum width of 1.8 metres will normally be required for a footpath and 3m for bridleways and restricted byways. The paths should be set within a green buffer of at least 2m either side of the footpath.

3.7 Landscaping Low shrubs, wildflower planting or grass is appropriate where urban paths pass between buildings and an appropriate management regime should be instituted to ensure these are maintained and plants replaced over time so they retain their aesthetic function.

Technical Annexe 4: Landscape Design and Assessment

1.0 Introduction

1.1 This Technical Annexe supplements policies in the Adopted Torfaen Local Development Plan with regard to the provision of landscape design details and planting plans relating to new developments. Specifically these relate to:-

1.2 BW1 General Policy - Development Proposals

All development proposals will be considered favourably providing they comply with the following criteria where they are applicable: -

A Amenity and Design

iv) The proposal includes a landscaping and planting scheme, which enhances the site and the wider context including green infrastructure and biodiversity networks and allows it to adapt to climate change;

1.3 The use of a Chartered Landscape Architect at the initial design development stage of a masterplan for a major development is an important consideration as they will be able to maximise the integration of green infrastructure into the layout and better satisfy the placemaking agenda that runs through current legislation.

1.4 The Landscape Institute is the professional body for Chartered Landscape Architects and can provide a list of members who specialise in particular areas of design. A directory of member practices is available at <https://my.landscapelinstitute.org/directory>

2.0 Landscape and Visual Impact Assessment (LVIA)

2.1 Where a site is likely to have a visual and/ or landscape impact on the surrounding environment a Landscape and Visual Impact Assessment may be required. This assessment should be carried out by a suitably qualified consultant using the Landscape Institute 'Guidelines for Landscape and Visual Impact Assessment (GLVIA3) April 2013 or most recent revision. This offers detailed guidance on the process of assessing the landscape and visual effects of developments and their significance including their cumulative impact.

3.0 Strategic Landscape Assessment

3.1 As part of the Green Infrastructure Assessment for larger scale development proposals a strategic landscape assessment may be required. This is an assessment of the character of the site and its setting and should be used to identify opportunities for integrating development into the surrounding landscape/townscape. This ensures the scheme is at an appropriate scale and in keeping with the locality, reinforcing or enhancing the local sense of place. Existing national and local landscape character assessments including LANDMAP can be used to make this assessment. A user guide for the LANDMAP data base is available at [Supplementary Planning Guidance | Torfaen County Borough Council](#)

3.2 Having established the broad pattern of the landscape and the key characteristics of the wider environment, a more detailed study of the character of the application site itself should be carried out to establish the essence of place. This will inform the structural landscape framework for the site and the detailed landscape design to come.

4.0 Achieving Design Solutions

4.1 A well designed development will relate to the site and local topography and be in harmony with its surroundings in form, colour, materials and planting. A more contemporary, innovative approach to the design is generally more appropriate within modern developments in towns or in industrial estates where characteristic features are limited or absent.

4.2 In rural areas local materials and traditional building methods should generally be used to help integrate the new development into the existing landscape and perpetuate local distinctiveness. Materials for walls, fences and surfacing should be kept simple within a controlled colour range and in keeping with the existing or proposed buildings. The planting of native trees and shrubs typical of the locality is encouraged.

4.3 Landscape Appraisal

4.3.1 Landscape design solutions for each site will depend upon the scale and type of development in relation to its landscape context. The design of the development, therefore, must be considered in terms of the landscape. This is achieved through the assessment and appraisal of the existing landscape features, identification of constraints and solutions and the potential use of mitigation measures to ensure that the development is compatible with the local landscape character. Applicants should not only consider how the site will function within itself but also how it relates to the surrounding landscape or townscape.

4.3.2 A landscape appraisal of the site should be undertaken which takes account of the topography, on site ecological features, ground conditions, soils, existing vegetation, vehicular, pedestrian and cycling access, existing footpaths and public rights of way, existing site infrastructure including walls, paving, structures as well as any archaeological and heritage features present. The following surveys may need to be commissioned to assess the condition and potential value of these elements

- Topographic survey
- Soil Survey
- Tree Survey
- Preliminary Ecological Appraisal including Phase 1 Habitat Survey
- Archaeological Survey
- Analysis of views into and outwards from the site including quality of views. Specific landscape features e.g. historic monuments or scenic views could present a focus for any new scheme.

4.3.3 Analysis of this information can then be used to inform appropriate site design. The appraisal must be carried out by a suitably qualified professional who specialises in landscape and ecological issues.

4.4 Residential

4.4.1 Interlinked, usable open spaces in residential areas with existing or newly planted trees and shrubs can provide areas for walking, cycling and recreation.

4.4.2 Space for tree planting in gardens should be provided to help soften the appearance of new properties and enhance the surroundings. Trees can help screen neighbouring properties and unattractive views from within the gardens and also screen views of a development from the surrounding area.

4.5 Commercial and Industrial

4.5.1 The landscape design issues affecting these types of development are distinct from those of residential developments and will require different design solutions to integrate the development with its surroundings. Buildings on these developments tend to be large with associated extensive areas of car parking. The external layout together with boundary treatment plays a significant part in the successful design of these sites.

4.5.2 Trees retained or strategically planted in car parks and in open areas on the perimeter of industrial areas help break up the outline of large buildings viewed from outside the site. A typical approach is to screen the development from view but this is often impractical since certain commercial sites will want maximum exposure to attract passing trade. There is therefore potential conflict with landscape design solutions and under these circumstances high quality building can make a positive contribution in the absence of boundary landscaping. In such instances, landscape design should enhance the setting of the built form rather than screening the development from view.

4.5.3 Structure planting on industrial estates and business parks should be achieved wherever possible to reduce the scale of the built form and to help merge the development with its surroundings. Appropriate native species should be used where possible.

4.6 Town Centre

4.6.1 If the quality of the landscape design is to make a positive contribution to the street scene in town centres, applicants should endeavour to strike a balance between hard and soft elements, creating an environment which is both attractive and functional. Particular attention should be paid to the design of public spaces adjacent to new buildings. Minimising the visual impact of a car park can be achieved by designing it within the overall landscape proposals for the development to ensure that it is well integrated with its surroundings.

4.7 Retention of Existing Trees

4.7.1 Trees which are in good condition and a feature of the site, the street scene or the surrounding landscape should be retained. Specimens of poor shape but in good condition may also be valuable for retention in an urban infill and redevelopment sites with few trees.

4.7.2 Where trees are to be retained their setting should also be respected. The characteristics of retained trees should always be taken into account by leaving sufficient space for future growth and allowance made for inevitable leaf fall and shading. The shading effect of trees should be considered in relation to energy efficiency in the orientation of dwellings and conservatories. Detail on how retained trees should be protected throughout the construction process can be found in Technical Annex 1: Trees and Woodlands within Development.

4.7.3 New buildings, services and drains must be situated at suitable distances from existing landscape features to be retained. A distance of 15 metres should be maintained between the trunk of existing mature trees and new buildings or existing buildings and new tree planting. Trees to be retained must be protected throughout all building operations by fencing extending to outside the spread of the branches. The removal of any trees should be justified, usually with a report by an Arboriculturist, so that the long term implications can be assessed. The LPA should be consulted to see whether any trees on the site are protected by a Tree Preservation Order or by other controls such as a Conservation Area designation.

4.8 Retention of hedges and walls

4.8.1 The site boundaries are an important aspect of any development. Existing hedges and walls which are typical of an area should be retained wherever possible in order to maintain the local landscape character and help the interaction between the development and the landscape.

4.8.2 Hedgerows provide useful corridors for the movement of wildlife, especially continuous lengths of hedgerow, older mixed species hedgerows, and hedges along water courses or joining areas of woodland. Established hedges can be incorporated effectively into a site layout, along footpaths and within public open spaces and can also provide valuable privacy along property boundaries or screening for car parks. Security fences along boundaries should be located within sites, behind existing hedges rather than replacing them.

4.8.3 Missing sections of walls and hedges should be replaced with similar building materials or species and, where removed to provide new access points, footways or visibility splays, these should be replaced or replanted behind the line of sight. Wild flower species of interest in the hedge to be removed should be transplanted onto the new hedge line in order to preserve the local flora. Removal of most hedgerows in the countryside without permission is against the law under the Hedgerow Regulations 1997, however garden hedges are excluded.

4.9 Biodiversity features

4.9.1 Site features such as ponds, ditches and other valuable wildlife areas should be incorporated into the development layout, especially on larger sites, where they can be beneficially maintained and managed in the long term. Where water features are concerned the quality of the water must be of sufficiently high standard that its incorporation does not represent a hazard to public health. Safety aspects must be considered in terms of the location of other features in relation to water e.g. children's play areas.

4.9.2 Areas of unimproved grassland or newly seeded wildflower meadows may form attractive features within developments requiring a low level of maintenance. Where any proposal has an effect on a wildlife habitat of national or local importance the Council will resist any development either within or in the vicinity of a site where the proposal will have a significant adverse effect on the nature conservation interest of the site.

4.10 Hard landscape design

4.10.1 The materials chosen for surfacing should be in keeping with the character of the area and with existing or proposed buildings, utilising traditional local materials where appropriate.

4.10.2 Consideration should always be given to the future repair and maintenance of surfaces to ensure the use of materials which can be replaced if damaged or if access to underground services is required.

4.10.3 Materials and construction of any new walls, fences, structures, lighting and street furniture, should be in character with the prevailing vernacular whether urban or rural. In rural situations such as farm building conversions, simple surfacing materials such as crushed aggregate or tarmac with an exposed aggregate is generally preferable to more modern elaborate concrete paving.

4.10.4 Hard landscaping should:

- Where possible incorporate the use of local materials;
- Take into consideration the visual and physical impact of the proposals on the existing landscape;
- Reflect the function and character of the site; and
- Produce a safe, practical, usable landscape.

4.11 Soft Landscape design

4.11.1 Tree and shrub planting can enhance a development by providing shelter, screening and enclosure and help to define spaces as well as adding to the visual quality and biodiversity interest. Plant species should be selected which are appropriate for the soil and drainage conditions and sufficiently hardy for the location. All year interest can be created by planting a mixture of evergreen and deciduous shrubs providing seasonal interest of flowers, fruit and winter colour. The ultimate size and form of trees and shrubs should be appropriate for the space and damage to property or nuisance to neighbours by the shading of large trees should be avoided.

4.11.2 The planting of new orchards or the restoration of old is a priority for the Council and developments should look for opportunities to incorporate orchard planting within their scheme where appropriate. A feasible management plan for such sites would be required to ensure the proposal is sustainable.

4.11.3 Soft landscaping should:

- Represent the character of the local landscape, and where possible link with existing vegetation;
- Take into consideration the visual and physical impact of the proposals on the existing landscape.
 - Reflect the function and character of the site;
- Relate to the buildings, either to soften or screen them, or to act as a good background;
- Produce a safe, practical, usable landscape;
- Be appropriate for the growing conditions;
- Take into account the resources available for the long-term management and maintenance of the site.

5.0 Requirements of a Landscape Scheme

5.1 Outline Planning Permission

5.1.1 At outline planning permission a structural landscape plan should be submitted showing the principal areas of open space, SUDS provision, indicative tree planting including species, play area and sports pitch size and location. A fully detailed planting plan giving exact species, numbers, sizes and densities will be required to be approved at the **Reserved Matters** application stage.

5.2 Full Planning Permission

5.2.1 At full application stage the landscape scheme and planting plan as below should be submitted with the application including details of any play area and sports pitch design.

5.2.2 Where required, a detailed play area layout including exact equipment, free space areas, critical fall heights, gates and fencing and surfacing details must be submitted for approval. If seeking adoption by the local authority the design must be sufficiently robust and of good play value. Further details including procedure for adoption are available within the Technical Annex 2: Open Space and Recreational Facilities of this SPG and the Revised Planning Obligations SPG Annex 6: Recreation and Open Space (Feb 2023).

5.3 Landscape Proposal Plan

5.3.1 The landscape proposal plan which should be submitted with a planning application for a development must give details of existing and finished levels, walls, fences, steps, ramps, hard surfacing materials, tree and shrub planting, street furniture and ancillary structures such as play equipment or sports provision as well as proposed services both above and below ground. Retained historic features with proposals for restoration, where relevant, should also be included.

The following provides a list of other matters which need consideration as part of and landscape proposal plan.

5.4 Ground Preparation

5.4.1 It is essential that sufficient depth of good quality topsoil is provided in planting areas. On building sites all rubble and compacted materials should be removed to a minimum depth of 600mm and the drainage improved by cultivation at depth. Top soil for shrub planting should be provided to a minimum depth of 450mm and the soil should be clean, well cultivated and weed free before planting. The incorporation of a small quantity of organic matter such as peat free compost (not peat, because the use of it is leading to the loss of important habitats and damage to landscapes where the peat is extracted) will help water retention and is particularly valuable when planting on dry or infertile soils.

5.5 Implementation

5.5.1 The landscape scheme must be carried out following British Standard BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces), BS 3936:1992 Nursery stock part 1: Specification for trees and shrubs and other relevant British Standards for planting large trees. Recognised guidelines should also be followed for the protection of existing features, such as fencing around trees, and the handling of soil. Planting and seeding should only be carried out at the correct seasons and in appropriate weather conditions.

5.6 Planting Time

5.6.1 Planting should be carried out in winter when the plants are dormant, generally between November and March. This is essential for the planting of bare rooted stock but container grown stock can be planted at any time of year providing watering is carried out until the plants have established.

5.6.2 On a phased development the landscaping associated with each phase must be completed in the first planting season following occupation of the first dwelling.

5.7 Planting Plan

5.7.1 The planting plan should detail the exact species, size, number and density of each proposed planting. Plans should be provided at 1:100 or 1:50 scale as appropriate.

5.7.2 Trees should be principally native of British provenance. Within the public realm extra heavy standard to semi-mature trees are preferred to reduce potential for damage due to vandalism. Fruit trees and smaller specimens will tend to be supplied in smaller sizes. Trees should be bare root, rootballed or containerised. All trees should be double staked and tied or guyed underground as appropriate.

5.7.3 Native hedges should be planted as a double staggered row at 300mm centres. Sizes of nursery stock can vary from 40-60cm to 90-120cm depending on species.

5.7.4 Trees and shrubs planted to create dense screening or woodland should utilise 'transplants' of 40 - 80 cm spaced 1 - 2 metres apart.

5.7.5 Shrubs should be specified in 3 litre pots and herbaceous material should also be supplied containerised. Planting densities preferred are 2 per square metre for larger shrubs, 3 per square metre for smaller shrubs with 5/6 per square metre for herbaceous material.

5.7.6 Beds should be mulched after planting where appropriate with composted bark mulch to reduce weed growth, retain moisture and aid establishment. A 75mm layer of mulch should be maintained for the remainder of the 3 year establishment period.

5.7.7 Grass seed mix, whether amenity or wildflower, should be specified

5.7.8 The planting of SUDS swales, detention and retention basins and rain gardens will need to provide ecological and amenity value.

5.8 Plant Protection

5.8.1 Proposals for the adequate protection of landscape features to be retained must be submitted to ensure they are not damaged during the construction period. Planting may require protection from trampling or damage by vehicles during the establishment period. Long term protection from grazing animals can be provided by wooden post and wire fencing. Tree shelters or rabbit guards may also be required in rural areas.

5.9 Landscape Maintenance Plan

5.9.1 A detailed landscape maintenance plan should be submitted with the full or reserved matters application detailing 5 years maintenance works to ensure establishment of the scheme. Any dead, diseased or dying plants must be replaced during this 5 year period.

5.9.2 A maintenance schedule for the play areas and sport pitch provision should also be included to ensure these are adequately and safely managed. Evidence of a sinking fund for the upkeep of these facilities or other financial arrangement must be provided. If adoption by the local authority is proposed the procedure in the next section should be followed.

Appendix 1: Definition of Functions (from Liverpool City Council Green Infrastructure Strategy 2010)

Shading from the sun

As climate change progresses the UK is likely to see rising temperatures. This is likely to have a more significant impact on the more built up areas of Torfaen. Hard surfaces such as roads and pavements radiate heat from the sun warming up the adjacent air and increasing temperatures. The shade provided by trees and taller vegetation can help reduce this 'heat island effect' and provide more comfortable temperatures within urban areas.

Evaporative cooling

As plants transpire water is evaporated from their leaves cooling the air around them. All types of GI can provide this function especially open water and large leaved plants. This is a significant factor for agricultural land.

Shelter from wind

The more unpredictable weather associated with climate change is predicted to lead to more storms with higher winds. GI can reduce wind speeds at a local level by slowing and diverting currents. This can have a cost saving in terms of environmental damage to properties.

Habitat for Wildlife

Different types of GI can provide varying habitats for wildlife and plants which form an important part of our planet's ecosystem.

Biodiversity corridor

In order for any ecosystem to remain healthy the wildlife and plants within it need to be able to move and disperse so it is important that they have a network of green and blue spaces to travel through in order to find food and shelter. Climate change will also mean species will need to move northwards to find climatic conditions which suit them or face possible extinction. Different types of GI can provide corridors for a wide range of species.

Soil stabilization

The roots of all types of vegetation help hold the soil together and preventing it from eroding. This is especially important when intense rainfall events are likely to be more frequent due to our changing climate. Surface runoff from bare soil will increase particulate matter running into our streams and rivers reducing water quality and requiring more capital expenditure on water treatment.

Water storage

Water can be stored in ponds, reservoirs, lakes and wetlands and manmade flood storage areas.

Water interception

Leaves and plants can intercept rain and slow down the time it takes to reach the ground. This helps to reduce flood risk as flooding occurs when rivers receive a rapid amount of surface water in a short amount of time. All types of GI will achieve some interception but larger leaved plants are the most effective.

Water infiltration

Vegetation and roots help water drain into the ground rather than running over the surface. The permeability of GI types as opposed to impermeable hard surfaces such as concrete and macadam helps them to reduce flood risk.

Carbon sequestration

Carbon dioxide gas can be removed from the atmosphere by trees through photosynthesis. This process involves plant cells converting the carbon from carbon dioxide to a solid form in sugars (the carbohydrates glucose and starch) that can be stored in leaves, stems, trunks, branches and roots, and contribute to tree growth. Oxygen is released back into the atmosphere as a by-product of photosynthesis which animals depend upon for survival.

Carbon storage

GI in the form of existing trees, peat bogs and soils lock up the carbon preventing it from being released back into the atmosphere.

Pollination resource

75% of the 1,300 types of plants grown around the world for food, beverages, medicines, condiments, spices and even fabric are pollinated by animals. These animals, including wasps, bees, flies, butterflies need habitat to thrive in and food to eat. GI can provide for these habitats.

Noise absorption

Vegetation which is tall enough to intercept and absorb sound waves especially near to major transport routes can help to reduce noise pollution and create a better environment for residents.

Trapping pollutants

GI can be used to reduce air pollutants especially around transport routes and industrial premises. Particulate matter can be removed from the air through uptake via leaf stomata and deposition on leaf surfaces.

Green travel route

Policy drivers to encourage walking and cycling both for increased health benefits and to reduce carbon emissions can be delivered through GI by developing green routes which link communities, educational establishments and places of work.

Aesthetic

Creating an attractive well cared for environment helps attract investment opportunities, increases a sense of local pride, reduces crime rates and improves mental wellbeing. Street trees and well planned and maintained open spaces, woodlands.

Learning

GI can provide opportunities for outdoor learning, environmental education and even natural play. It can also provide settings for learning new skills to help adults back to work e.g. Social Services Countryside unit.

Recreation

Recreation is a major function provided by GI. These include formal recreation areas such as sports fields, playing fields, golf courses and play areas but also woodlands and green spaces

people use for dog walking and other informal recreation. The uplands also provide opportunities for extreme or adventure sports as well as hiking.

Food production

GI used to produce food including sheep and cattle grazing, arable crops and associated products such as honey and cheese.

Fuel production

GI which can be used to produce fuel such as logs and biofuels, the potential to produce energy such as micro hydro schemes, solar and wind energy.

Timber production

GI which can produce timber for large scale construction use or small-scale wood products.

Heritage asset

Historic features in the landscape are part of a sense of place and create local distinctiveness.

Cultural asset

Spaces which are used for cultural purposes such as for holding events or festivals or have cultural significance.

Green jobs

Space has the potential to support jobs within the green economy such as grounds maintenance, countryside management, tree surgery, canal and river maintenance, biodiversity, energy generation

Setting for development

Well landscaped business parks attract/ help retain tenants.

Supporting image

The quality of the upland landscape of north Torfaen and the BILWHS is a significant draw to tourists and more local visitors. Well landscaped business parks attract/ help retain tenants.