



BRYMBO **PARK**

DESIGN AND ACCESS STATEMENT
JULY 2019



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Scope and content of the DAS

This Design and Access Statement (DAS) has been prepared by Barton Willmore on behalf of Brymbo Developments Ltd.

This DAS accompanies an application for outline planning permission for a residential led mixed use development (the proposed development) for Brymbo Developments Ltd land at and surrounding the former Brymbo Steelworks, Brymbo (the Site), which is located within the administrative area of Wrexham County Borough Council (WCBC).

The document has the following functions and purpose:

- To communicate how Brymbo's potential as a place with a rich industrial heritage and unrivalled landscape setting can deliver a unique sense of place and a thriving sustainable community;
- To provide a concise description of the key issues and evaluation that has informed the design decisions and led to the proposed form of development;
- To provide comprehensive information on the development in terms of composition, urban design, access and circulation, public realm and landscape; and
- To set out a clear framework for the development which promotes a high quality of design.

DEVELOPMENT DESCRIPTION

The outline planning application seeks permission for up to 450 dwellings (Class C3 use), provision of a primary school (2-form entry), small district centre comprising up to 1,395sqm of Class A1 Retail, up to 372sqm of Class A3 Restaurant/Public House, up to 465sqm of Class D1 use, multi-functional green infrastructure, including children's play areas and informal open space, surface water attenuation, vehicle accesses, car parking, engineering works, public footpaths and hard and soft landscaping, underground services, and all ancillary and enabling works, with all matters reserved except for vehicular access from Brymbo Road.



Figure 1. Aerial View of Site Looking South along Phoenix Drive

VISION & KEY BENEFITS

The proposals will create a place that embraces and celebrates its unrivalled landscape setting in order to deliver a thriving new sustainable community.

A new small district centre will provide a site for a new primary school, shops, medical centre and pub, clustered around a new village green.

The emerging proposals being driven forward by Brymbo Developments Ltd. will be carefully integrated into the existing settlement to deliver a new vibrant and truly multifunctional heart to Brymbo.

To encourage pedestrian and cycle movement to and within this new centre the existing road network will be refined

to calm vehicle speeds. Surrounding the new small district centre, the proposals will deliver a wide range of housing types and tenures. The proposals will deliver a place that nestles carefully within its landscape setting while providing opportunities for informal leisure activities and biodiversity enhancement.

Key Benefits



Primary School



Small District Centre Retail
& Leisure



Convenience Store



Medical Centre



New Homes



Orchards



Play



Parklands



Public House & Restaurant

Alongside ...



Fossil Forest



Brymbo Heritage Iron
& Steel Works



Views & Landscape



Introducing the scheme

1.1. The Application Site

The Site forms part of the wider land holding associated with the former Brymbo Steelworks and Colliery, some of which has already been significantly redeveloped. The Site covers an area of approximately 32.59 hectares of former industrial land which has been remediated and regraded, formed of two distinct areas separated by a steeply sloping bank.

The uppermost area is known as Ty Cerrig, forming the western part of the Site. Ty Cerrig has been returned to open fields separated by hedgerows. The bank which separates the areas has been planted with woodland and has an extensive network of informal footpaths running across. This part of the Site is accessed from Brymbo Road.

The eastern part of the Site is separated from the west by Phoenix Drive. This area has been regraded into a plateau which sits lower than the western parcel and has significantly less vegetative cover.

1.2. Planning Background

Brymbo Steelworks was operational between 1796 and 1990 after which the works closed and the site, comprising circa 95 hectares of despoiled and contaminated land, was purchased by Brymbo Developments Ltd (BDL).

The development project has been ongoing for the last 21 years and has seen BDL provide significant investment in large scale remediation (partly with Welsh Development Agency Grant Aid) and implementation of major infrastructure. Residential and commercial planning permissions have been established during this time, with the overall objective of securing a masterplan led redevelopment across the site, between the existing settlements of Brymbo to the north, and Tanyfron to the South, linked by a new central spine road. Figure 1 and Figure 4 show the Site currently, with the residential development and spine road

(Phoenix Drive) constructed. The undeveloped remediated areas where the commercial, employment and school uses have previously been approved have yet to be progressed due to a combination of the economic downturn of 2007/8 and the lack of commercial interest.

Brymbo Developments Ltd has focused on developing proposals to bring forward the remainder of the remediated land for development and a number of masterplans have been produced during this time. The commitment to bring forward a small district centre, school and an overall approach of 'placemaking' has been at the heart of the scheme from the outset with the current masterplan fully informed by establishing the needs to the community as well as the commercial market.



Figure 2. Site Location



Figure 3. Site Boundary



Figure 4. Aerial View with Site Boundary

CHANGES FOLLOWING THE ECONOMIC DOWNTURN

Since 2008, and in the absence of market interest, BDL has sought ways in which to adjust the Masterplan to strengthen deliverability; being very aware that a large number of residents now live within a partially completed on-going large-scale redevelopment project with no local day-to-day retail or services provided.

Candidate development Site proposals were submitted by BDL to Wrexham County Borough Council's emerging Local Development Plan (LDP) process in February 2013. These included the wider landholdings of BDL, but also the remaining development areas of the Masterplan; the submissions sought to:

- a) redefine the uses, to strengthen deliverability in the wake of the economic downturn; and
- b) positively respond to the Inspector's findings into the January 2012 Examination in Public (EiP) for Wrexham County Borough Council's (WCBC) LDP, that housing provision in the Plan was too low – 46% more was needed.

BDL's changes included:

- Removal of the employment component and promotion of further housing due to the Site's location and unsuitable characteristics to meet the requirements of modern employment operators, especially in the shadow of the commercial attractiveness of the nearby Wrexham Industrial Estate, one of the largest of its kind in Europe. This change was subsequently supported by the Council's Head of Housing and Economy which has given BDL confidence in committing to the direction of its ambition and placemaking for the remaining land parcels.
- Inclusion of additional housing land under BDL's ownership at the 'The Old Quarry Site' (off Brymbo Road), immediately adjoining the west of the Masterplan's boundary for additional residential development. This land, also known as Ty-Cerrig, was the site of the former Brymbo Hall and associated gardens and parkland, which was destroyed through the National Coal Board's quarry excavation of the area during in the 1970.

Despite the economic slowdown, BDL remained active and sought ways of achieving traction through the following key milestones:

2013: The appointment of the Brymbo Heritage Group (BHG) Project Officer. This identified that £3 million was needed to prevent total collapse; with funding successfully allocated by the end of the year.

2014: Through two major advancements:

- i) The Prince's Regeneration Trust (PRT) became heavily involved with the Brymbo Heritage Group (BHG) to drive forward an overall masterplan for the Heritage Area as part of the Lottery Bid process.
- ii) WCBC were actively considering the relocation of the safeguarded school site from its central location within the Site to a more northern location.

December 2014 & February 2015: Two Heritage Area Masterplanning Workshops were held to consider the Heritage Group's vision, BDL's wider aspirations for the Site and WCBC and Cadw's aims for regeneration and tourism. With assistance and input from the PRT, WCBC, the local community, professional advisors, and other stakeholders, a Masterplan for the heritage area was developed. This included two fundamental changes which paid greater sensitivity to the desires of the local community and characteristics of the area:

- i) Removal of the employment component that had failed to achieve any market interest over a very long period; and
- ii) For the Masterplan to be firmly based on best practice placemaking principles, that would seek a 'new heart' for Brymbo through the rearrangement of uses and a concentration of the community and retail facilities to the northern development area with additional residential development surrounding to provide a 'critical mass' to support the facilities.

The involvement of the Prince's Regeneration Trust acted as a lynchpin for the project at the right moment; providing a clear and logical direction, identifying a way forward. BDL subsequently integrated the ethos of the Trust's work into a modified Masterplan, also including the Ty Cerrig former quarry land for further housing development. The modified Masterplan was subsequently submitted to and shared with WCBC for consideration and comment.

June 2015: Spine Road construction fully completed and opened (through a bank loan based on value to come from enabling developments) – now adopted as Phoenix Drive by WCBC.

2016/17: Bids made for major funding for the full Heritage Area vision; successfully raising £7.5m (£5m Heritage Lottery, £1.1m Big Lottery). BDL sought the long-term stewardship and conservation of the Site's heritage assets, by facilitating the creation of the Brymbo Heritage Trust to take this forward, which has charitable status.

March 2017: Planning permission is granted by WCBC to WCBC, for a primary school on an extended (2.1ha) site in a more northerly location than the original Masterplan, thereby reflecting the aspirations of the modified Masterplan. This reflects the spirit of BDL's original agreement to provide the land for the school.

Towards the end of 2017, BDL made a financial commitment to place significant funding into aligning the Masterplan with the recommendations of more recent commercial advice received through Savills. This identified the following market position:

- Demand from residential developers and interest expressed in the Site (open market and affordable) and Brymbo.
- Retail need in Brymbo due to a calculated 92% outward expenditure (leakage) from the study area. Two viable options were identified either through:
 - i) A small district centre of c.20,000 to 30,000 sq ft, including a 10,000 to 15,000 sq ft supermarket and up to 20,000 sq ft of additional service retail and leisure uses. This could include a standalone dining pub of c. 4,000 sq ft, subject to occupier interest.
 - ii) A small district centre of c.10,000 sq ft, including 4,000 to 5,000 sq ft of additional service retail and leisure uses.
- The absence of any viable employment interest in the Site for employment uses. Over time it has become clear that there are far more attractive and appropriate sites in terms of location (such as Wrexham Tech Park, Wrexham Industrial Estate and Llay Industrial Estate) in the County Borough. These sites will compete with the Brymbo Site and therefore attracting hi-tec manufacturing or modern logistics to Brymbo will be extremely challenging. The Council is aware of significant investment planned by companies located on Wrexham Industrial Estate which could generate over 1,500 jobs in coming years, but this investment is not and will not be targeted at Brymbo.

The opportunity now exists to capitalise on the residential and retail demand to reinvigorate and finally complete development at Brymbo Park.



Figure 5. Existing open space area

1.3. Progress and Investment

Great progress has been made by BDL to date to get the land ready for and to progress development including:

- Transforming 95 hectares of land including despoiling and decontaminating and the creation of a development plateau;
- Construction of 1.8 kilometres of new adopted highways;
- Installation of storm and foul drainage;
- 12.75 hectares of phase 1 housing land (circa 469 dwellings built out);
- Building a Community Enterprise Centre,
- 25 hectares of public open space, community woodland, grass land and cycle ways.

This has been possible due to significant investment and funding (Figure 7).



Figure 6. Progress to date – Enterprise Centre (right), new housing (left), new road and openspace and cycleways (middle), development plateau (bottom), reclaimed land (top)

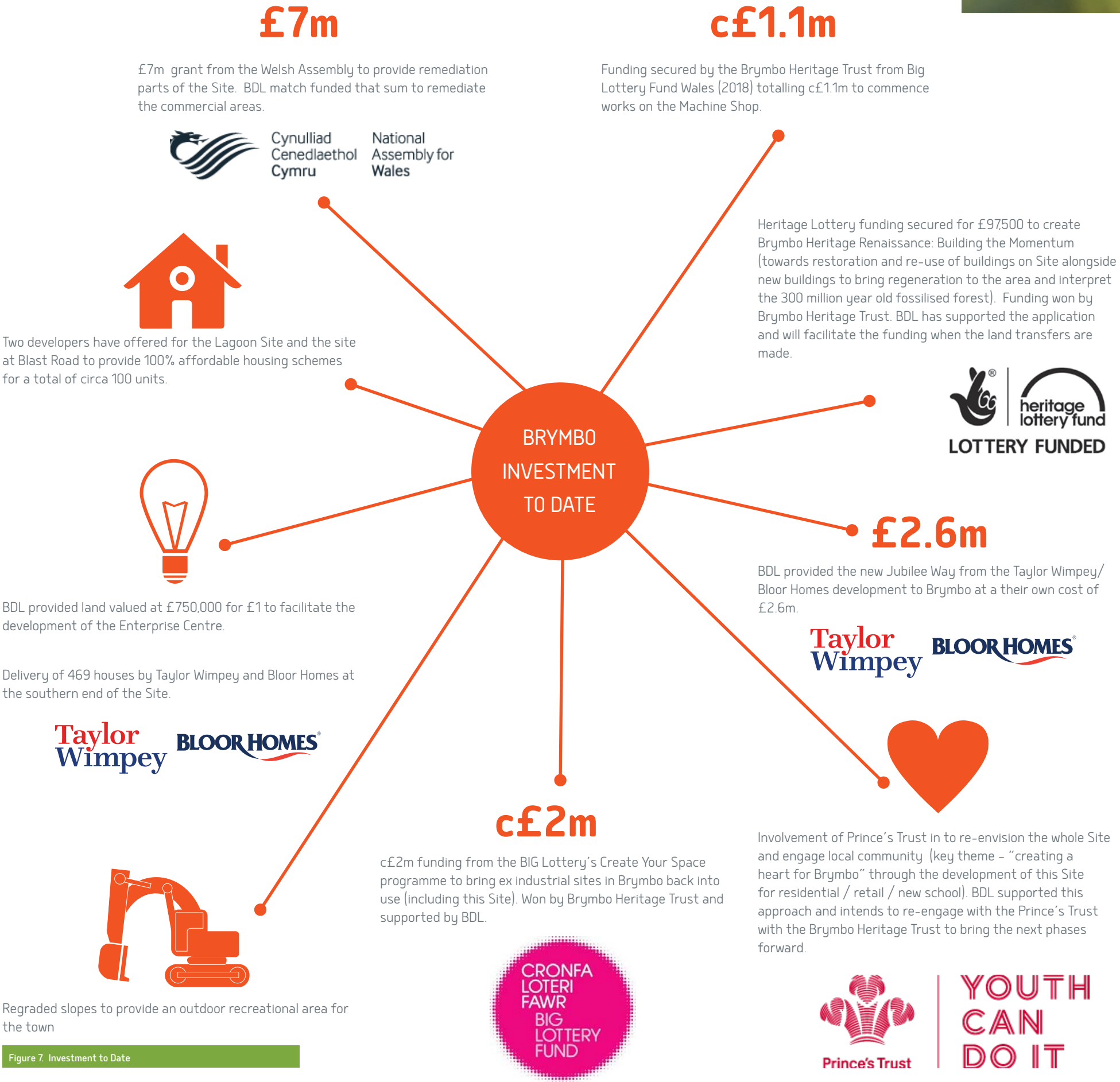


Figure 7. Investment to Date

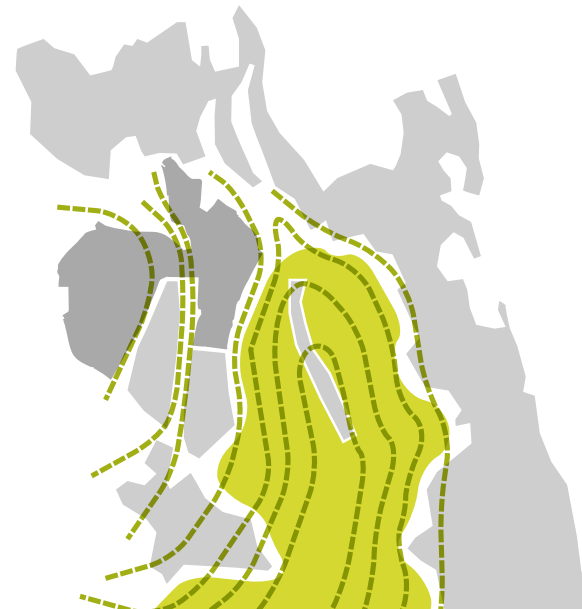
1.4. Concept Rationale

Underpinning the new development proposals are four key principles. These principles are born from the Site's landscape, topography and the pattern of existing urban development, whilst also responding to the needs of a modern new community. Taken together, these principles provide the framework for the creation of a distinctive and vibrant place.



MAXIMISING BRYMBO'S LANDSCAPE POTENTIAL

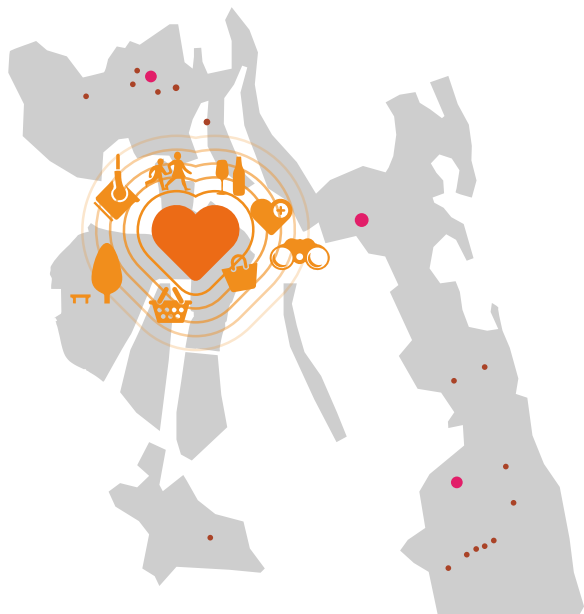
The proposals sensitively respect the wider landscape context, while retaining and greatly enhancing the on-site green infrastructure. The existing fragmented on Site landscape will be stitched together to form a green web of interlinked and usable spaces whilst integrating the scheme into its wider context.



DEVELOPMENT FOLLOWING CONTOURS

Brymbo Park continues the historic pattern of development present in the area where built form works with the natural topography. This pattern of development delivers distinctive, sinuous neighbourhoods flowing along the Site's contours, rising from the valley floor to the ridgeline of hills.

Figure 8. Concept diagrams



NEIGHBOURHOOD STITCHES

The new neighbourhoods are ‘pinned’ together with a series of pedestrian and cycle routes working within the landscape to deliver a framework to encourage a pattern of sustainable movement within the development.



THE HEART OF BRYMBO

At the heart of the proposals the new centre provides for the needs of the new community. The new pedestrian and cycle connections ensure strong sustainable connectivity between the community and its heart. New high quality and accessible routes also encourage visitors to explore the Site, understand its heritage and take in the dramatic views.

1.5. The Application Proposal

The application proposal masterplan provides for up to 450 new dwellings, a primary school, retail/community facilities and open space.

The outline planning application seeks permission for up to 450 dwellings (Class C3 use), provision of a primary school (2-form entry), small district centre comprising up to 1,395sqm of Class A1 Retail, up to 372sqm of Class A3 Restaurant/Public House, up to 465sqm of Class D1 use, multi-functional green infrastructure, including children's play areas and informal open space, surface water attenuation, vehicle accesses, car parking, engineering works, public footpaths and hard and soft landscaping, underground services, and all ancillary and enabling works, with all matters reserved except for vehicular access from Brymbo Road.

KEY

1. Food store and car park
2. Retail unit shops with residential above
3. Non-residential unit
4. Primary School
5. Pub/restaurant
6. Residential development
7. Village Green
8. Traffic calming to Phoenix Drive
9. Public Car park and access to Heritage Hub
10. Ty Cerrig Connection
11. Vehicular access to Ty Cerrig
12. Emergency vehicular access to Ty Cerrig
13. Indicative Fossil Forest buildings
14. Open space and orchard
15. Retained and reinforced tree planting



Figure 9. Application Masterplan



Assessment and evaluation

2.1. Context Appraisal

The development team has examined the context of the Site from an environmental, technical, geographical and infrastructure point of view. The findings of this exercise are summarised in this section and graphically depicted on the accompanying plans and diagrams.

SITE CONTEXT

The Site is located to the north-west of Wrexham in a landscape strongly influenced by settlements including Coedpoeth and Gwersylt, Brymbo to the north and New Broughton, Brynteg and Pentre Broughton to the east.

There are existing residential properties to the north, east and south, with the Site sitting centrally within the settlement of Brymbo. The Brymbo Enterprise Centre is located to the north of the site and provides facilities such as a community hub, sports hall, meeting rooms, café and post office. To the east are existing footpaths running adjacent to the site and Kent Road (B5101) and to the west there is agricultural land as well as a substation and a number of farmsteads.

Phoenix Drive splits the site north to south and forms the main route into Brymbo as well as to Wrexham to the south east. Brymbo Road is located on the southern boundary of Ty Cerrig and links Brymbo with Bwlchgwyn to the west.

KEY LANDSCAPE & HERITAGE DESIGNATIONS

- Offa's Dyke Scheduled Monument within the western part of the Site.
- Brymbo Fossil Forest SSSI and remaining structures of Brymbo Steelworks, subject to Scheduled Monument and Listed Building status, to the north.
- The Clwydian Range AONB encompassing Minera and Esclusham Mountains to the south-west.

VEGETATION

The rural landscape around the Site is characterised by a robust network of hedgerows with numerous canopy trees. Strong linear belts of woodland extend along valley floors, enclosing river corridors and flanking ridgelines.

DEVELOPMENT LANDSCAPE PRINCIPLES

As a result of the Landscape and Visual Appraisal, a series of development principles have been established in order to reduce or avoid adverse effects on landscape character and visual amenity resulting from the proposed development. These include:

- Reinforce the existing structural vegetation on Ty Cerrig, enhancing the existing structural and visual containment.
- Strengthen the Green Infrastructure route through the Site by reinforcing native planting along the eastern slopes of Ty Cerrig.
- Reduce impact on views from the Clwydian Range AONB by:
 - A. Retain the visually sensitive southern field of Ty Cerrig as open space;
 - B. Provide woodland on the western side of Ty Cerrig to screen views of the proposed development in the western field of Ty Cerrig;
 - C. On the highest ground of Ty Cerrig, introduce development with limited ridgeline height and at very low density thereby also reducing built-form dominance on skyline in views from the north.
- Provide canopy trees on Ty Cerrig and along the eastern boundary to assimilate and soften built-form, tying into the existing settled ridgeline character.
- Vary orientation of the built-form on north slopes of Ty Cerrig, assimilating with the existing settlement pattern.
- Set back development from Offa's Dyke and provide a varying set-back of development from the eastern edge of the plateau landform to avoid dominance of built-form in views from the east.
- Vary height and form of buildings to reduce the emphasis on artificial landform.
- Enhance the public right of way (PROW) network through

the Site. Provide new opportunities for wider recreational access.



Sources:
 ^ OS Mapping
 # Natural Resources Wales GIS Data Set
 ~ Cadw GIS Data Set
 * Wrexham County Borough and Flintshire Council PROW GIS Map
 ## Lie A Geo-Portal for Wales - Landmap Visual Sensory - GIS Data
 ** Wrexham Unitary Development Plan 1996-2011, Adopted February 2005

Data collated for constraints and analysis mapping is based on publicly available sources at the time of preparation inserted using the British National Grid and may itself not be accurate. Barton Willmore shall not be liable for the accuracy of data derived from external sources.

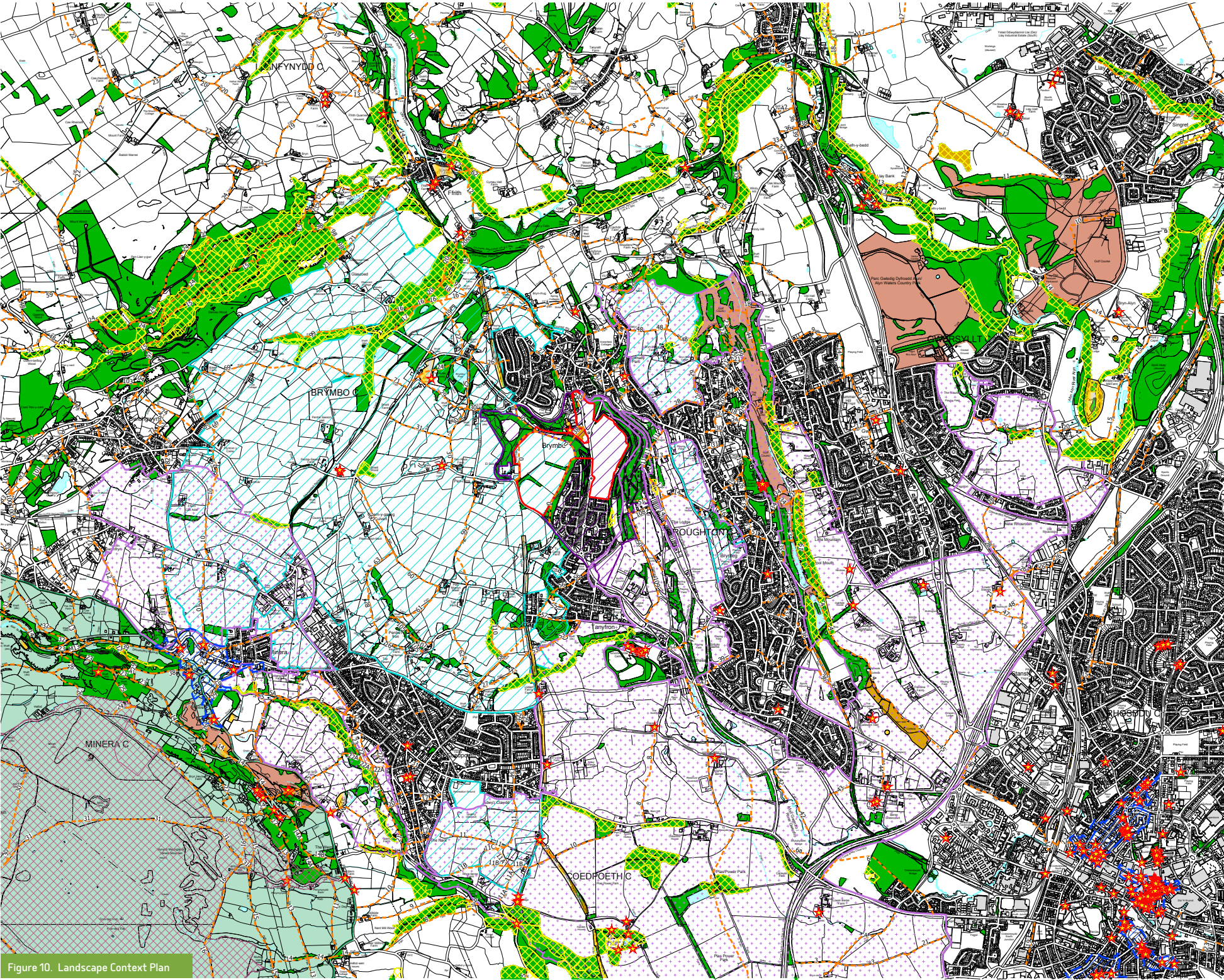


Figure 10. Landscape Context Plan

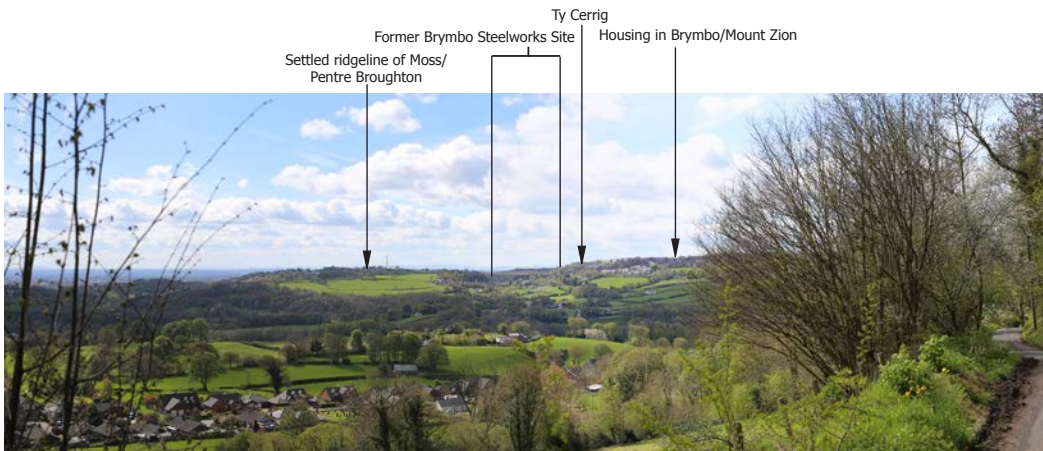
TOPOGRAPHY

The Site is within a transitional landscape between the broad vale of the River Dee to the east, and the mountainous landform of the Clwydian Range to the west. At a local level, the Site is situated on the east-facing slopes of a broad foothill flanked by a valley and ridgeline to the east. To the north, levels fall to the valley of the River Cegidog, before rising again to Hope Mountain.

VIEWS

At a local scale, the Site is visible from parts of Brymbo, the west-facing slopes of the ridgeline to the east and limited parts of valley to the south, seen in the context of existing built-form in filtered and glimpsed views between intervening built-form and vegetation.

In long range views, the Site is partially visible from the southern slopes of Hope Mountain. The artificial landform of the steelworks Site is apparent and the north facing slopes of Ty Cerrig are also visible in the context of existing built form on the skyline. The southern part of Ty Cerrig is visible from Esclusham Mountain to the south-west.



SITE CONTEXT PHOTOGRAPH 5: VIEW SOUTH FROM CYMAU

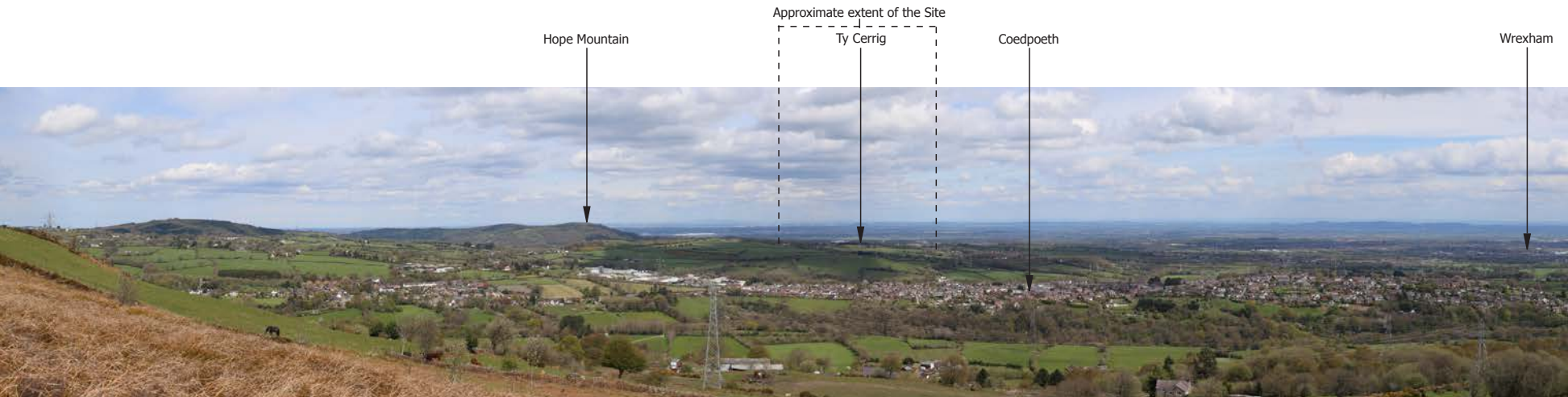


Figure 11. Landscape Character Analysis

SITE CHARACTER

The main former steelworks Site is characterised by a broad, artificial plateau of open derelict land with panoramic views out to the Dee Valley.

The rising landform of Ty Cerrig, comprising fields of open pasture has a rural character, greater enclosure resulting from robust field boundary vegetation, but also expansive views to the south.



EXISTING FACILITIES

Brymbo is located within the hilly terrain of Wales approximately 4km north west of Wrexham and is largely surrounded by farmland. The Site is located approximately 500m south of the existing village and has good access to the existing facilities within the village. Current facilities are local in nature and include a convenience store, pharmacy, primary school, church and two pubs. Immediately south of the Site is the relatively new Brymbo Sports and Social Complex with offers a range of indoor and outdoor activities.

The Brymbo Enterprise Centre is a new facility recently opened providing a café, flexible space for meetings, conferencing, training and sports accessible to community groups, businesses and individuals. Along with the heritage Site of the steel works these uses provide an important link and helps to bridge the ‘gap’ between the Site and Brymbo village.

Further to the east in the valley is the village of Pentre Broughton which houses a greater diversity of independent shops, a post office and doctors surgery strung along the High Street and is served by a local bus service. Although geographically these services are located relatively close by, the steep topography makes accessing these facilities challenging.

Brynmally Park and Gardens is located to the to the north east within Pentre Broughton and provides a good location for dog walking and taking in views across the countryside, otherwise there is limited provision of local parks and gardens within Brymbo itself.

EXISTING TRANSPORT INFRASTRUCTURE

A regular bus service is provided by Arriva to Brymbo from Wrexham Bus Station. Route 14 travels along Phoenix Drive but currently does not stop within the Site.

The closest mainline station is Wrexham General with services into London Euston taking just under 3 and a half hours into the city.

-  Site Boundary
-  Built Up Area
-  Woodland
-  Train Station
-  School
-  Place of Worship
-  Library
-  Pharmacy
-  Hospital
-  Supermarket
-  Convenience Store
-  Sports / Leisure Complex
-  Restaurant
-  Doctors Surgery / Medical Centre
-  Post Office
-  Pub
-  University

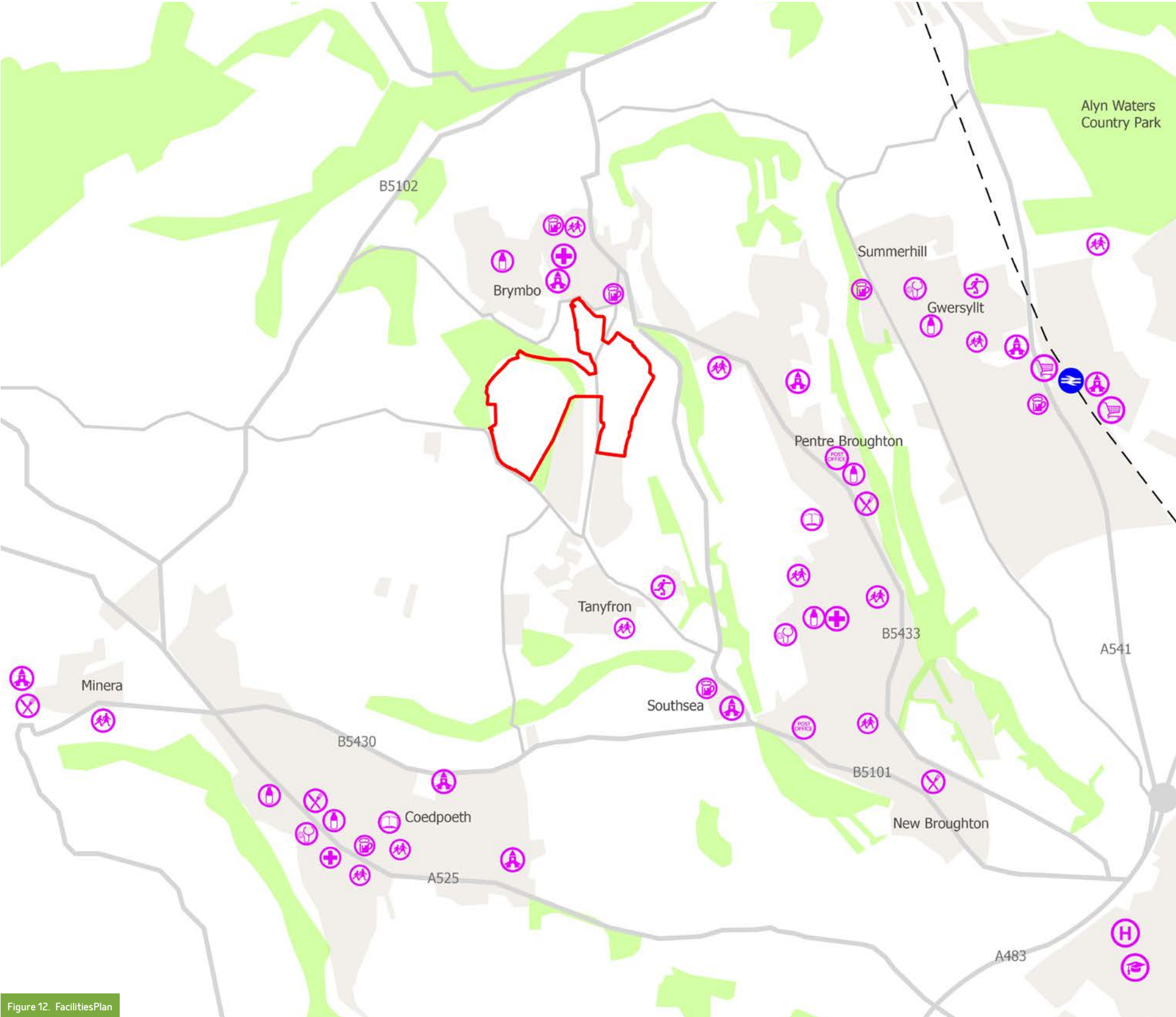


Figure 12. FacilitiesPlan

2.2. Planning Policy

THE DEVELOPMENT PLAN

Wrexham Unitary Development Plan

The Wrexham Unitary Development Plan 1996 – 2011 (UDP) was adopted in February 2005, and is ‘time expired’.

The Plan identifies the area formerly occupied by the Brymbo. It includes the former Steelworks land but also that at Ty Cerrig and the ‘slopes’.

The Plan confirms that the area shall be reclaimed and restored for beneficial use as: ‘Housing / Employment / Amenity’.

Wrexham Local Development Plan 2 (LDP2) 2013 to 2028

Progress of the initial replacement Local Development Plan (LDP) was halted in January 2012 during the Plan’s Examination in Public; the Inspector considered that proposed housing provision was too low – 46% more was needed. The submitted Plan was subsequently withdrawn by the Council who then restated the preparatory process.

This then placed the Council in a confirmed position where they have been unable to demonstrate a 5-year housing land supply by default.

Housing provision and employment protection

The Deposit Local Development Plan was submitted to the Welsh Government for examination in November 2018. The Plan makes provision for 8,525 new homes in order to deliver a minimum requirement of 7,750 homes over the plan period.

The Council’s approach to the spatial distribution of the identified housing amount is through a tiered settlement hierarchy. The principle sets 5 tiers ranging from Tier 1 as a Primary Key Settlement to Tier 5 as a Hamlet. Brymbo is defined as a Tier 3: Local Service Centre i.e. a settlement with fewer services and which have relatively good accessibility by non-car modes.

The distribution of housing amongst the tiers was defined by the Council through three Options, tested through the Sustainability Appraisal. The Council’s Preferred option was to concentrate development on the Primary Key Settlement (Tier 1) of Wrexham Town and Wrexham Industrial Estate through the regeneration of brownfield land, along with the release of key strategic greenfield site allocations on the edge of the settlement.

The option also directs a proportion of new development to those settlements identified within Tier 2 and 3, as appropriate ‘in terms of the function, form, facilities and

viability of those settlements to deliver new development’. Some settlements within Tier 4 are also selected for development due to their ‘proximity and relatively accessibility by non-car modes to Wrexham Town’. No housing is proposed to be allocated at Brymbo within the Deposit Plan.

With regard to the Site and proposed Masterplan submitted, the LDP makes the following allocations:

- Northern Masterplan area: Allocation through Policy EM1: Protection of Existing Employment land (8 ha). Allocation of the Parkhill’s remaining undeveloped land within the Masterplan through this policy was unexpected following the positive discussions with the officers of WCBC, where it had been informally agreed that class B employment uses were not suitable for this location and a greater amount of residential should be sought instead.
- Central Masterplan area: No allocation or clear indication as to the uses that are expected to sit adjacent to employment or whether development will be further supported
- Ty Cerrig: No allocation (adjoining settlement boundary)
- Across all areas of the Site: Types of mineral safeguarding

This is despite all of the positive momentum and preferred development direction which has been shared with WCBC, the Deposit Version of the LDP unexpectedly and most unfortunately, seeks to completely stymie progress and deliverability.

BDL is generally supportive of the Council’s aspirations to deliver sustainable housing and economic growth across a number of settlements in Wrexham. Notwithstanding this, BDL expresses serious concerns with the proposed development strategy, absence of any identification or allocation which will support their ongoing vision for Brymbo, as well as many and many observations with proposed policies and the evidence base which are set out in the following Section.



Figure 13. Ty Cerrig view

NATIONAL PLANNING POLICY

Planning Policy Wales (10th Edition, December 2018)

PPW10 was adopted in December 2018 and is therefore a material consideration when determining this planning application.

PPW10 as the National Development Framework embeds the spirit of the Well-being of Future Generations Act and plays significant contribution to the improvement of well-being in all aspects as defined by the statutory well-being goals.

The fundamental purpose of the planning system is to contribute to the achievement of sustainable development. PPW10 has also introduced the concept of placemaking which is a key element to deliver on the aspirations of the Well-being of Future Generations Act through plan making and development management decisions.

Planning for Sustainability

Local Planning Authorities (LPAs) should seek to promote sustainable patterns of development and locate development of previously development land and buildings where possible. Proposals should seek to maintain and improve the vitality and viability of centres, propose development in well serviced and appropriate locations which are resilient to climate change. Managing urban form by means of green belts and green wedges.

PPW10 seeks to clarify the role of Green Wedges (and green belt). The term that also encompasses Green Barriers and confirms that they must be soundly based on a formal assessment of their contribution to urban form and the location of new development, and that the main difference between Green Belt and Green Wedge is permanence. It is confirmed that land within a green belt “should be protected for a longer period than the current development plan period, whereas green wedge policies should be reviewed as part of the development plan review process”. It confirms when defining Green Wedges (within the LDP), it is important to only include land which is strictly necessary to fulfil the purposes of the policy, and that they should be reviewed as part of the development plan process.

When considering applications for planning permission in green wedges, a presumption against inappropriate development applies, and that planning permission should only be granted in very exceptional circumstances and “where other considerations clearly outweigh the harm which

development would do to the green wedge [...]. These very exceptional cases would therefore be treated as departures from the plan”.

Design Principles

The policy seeks to promote good design and the objectives of good design should be applied in all development proposals – access, character, movement, environmental sustainability and community safety.

Placemaking

Chapter 2 of PPW10 outlines “People and Places: Achieving Well-being Through Placemaking” and provides detail of how development proposals will be expected to maximise well-being and create sustainable places through placemaking. This is built on by a requirement to create high quality development and public spaces that promote people’s prosperity, health, happiness and well being in the widest sense.

Welsh Language

Policy encourages and supports the use of the Welsh Language and seeks to strengthen its use in everyday life. Proposals must consider the likely impact on the Welsh Language and is material consideration in planning decision.

Conservation of the Natural Heritage

Proposals must take account of the wildlife or landscape value of an area, and it is important to balance conservation objectives with the wider economic needs of local business and communities. LPAs should consider and avoid any adverse impacts on the environment. Statutory designations do not prohibit development, but their effect must be assessed.

The Historic Environment

Proposals must ensure that adequate information has been submitted in support of the application in relation to heritage considerations, and any action must be in proportion to the impact on the proposals, and the effects on the significance of the assets and the heritage values.

Landscape

PPW10 protects landscapes, townscapes and historic character and requires that new development should seek to conserve and reinforce local distinctiveness and respect existing character. The LPA will protect the special

characteristics of all landscapes including for their intrinsic contribution to a sense of place. Landscape and Green Infrastructure will also be expected to form an integral part of the design process

Economic Development

PPW10 seeks to make provision for the needs of the entire economy and supports economic and employment growth alongside social and environmental considerations within the context of sustainable development.

Transport

A transport hierarchy approach to development is supported by PPW10. It seeks to establish that development should, wherever possible, be accessible by walking and cycling, then by public transport followed by private car. Car parking minimum standards are no longer considered appropriate. PPW9 also confirms that when determining planning applications, LPAs should take into account the impact of the proposed development on travel demand; level and nature of public transport provision; accessibility by range of different transport modes; and opportunities to promote active travel journeys and active travel; willingness of developer to promote travel; environmental impact generated; and the effects on the safety and convenience of other users .

Housing

LPAs must ensure that sufficient land is available or will become available to provide a 5 year supply of land for housing . It also confirms that when determining applications for new housing, LPAs must ensure that the proposed development does not damage an area’s character or amenity, and that affordable housing is a material consideration in determining relevant applications .

Infrastructure and Services

PPW 10 identifies that planning policy at all levels should facilitate the delivery of the ambition set out in Energy Wales: A Low Carbon Transition and the Renewable Energy Directive. It sets out LPAs role in helping to move towards a low carbon economy.

Flood Risk

In determining planning applications, LPAs should work closely with NRW, drainage bodies, sewerage undertakes and relevant authorities, to ensure that surface water run-off is controlled as near to the source as possible by the use of SUDS and to ensure that development does not – increase the role of flooding elsewhere by loss of flood storage / flood flow route; or increase the problem of surface water run-off. It confirms that NRW advice is a material consideration in determining planning applications.

Contaminated Land

Planning decisions should take account of the potential hazards that contamination presents to the development, its occupants and the local environment, and the results of a specialist investigation and assessment by the development to determine the extent of contamination and how this can be addressed.

Air Quality

The potential for pollution is a material consideration and the following factors will be taken into account – location, impact on health and amenity; risk and impact of potential pollution; prevention of nuisance; impact on road and other network, including traffic generation; and need to restore land. LPAs should work closely with pollution conclusions when determining planning applications.

Noise Pollution

Noise is identified as a material planning consideration and LPAs should make a careful assessment of likely noise levels prior to determining planning applications.

Minerals

The chapter identifies that proposals for minerals development or where mineral resources are relevant will be assessed against other guidance contained with the PPW. In relation to sand (non-energy mineral aggregate), it identifies that the importance of minerals should be taken into account when determining planning applications.



Figure 14. Existing open space

2.3. Site Analysis

As part of the comprehensive review of the Site, a series of existing Site characteristics and resulting development constraints have been identified and summarised below. For more detailed analysis of each matter, reference should be made to the package of technical reports submitted with this application.

SITE HISTORY

The settlement of Brymbo first appears in the archival record in 1339, the name believed to derive from the Welsh 'Bryn baw' meaning 'mud hill'. As far back as the 15th century the area was associated with coal mining with rights to dig being granted as early as 1410. The earliest coal pit in the area is believed to have been sunk on the common land at Harwood, at the centre of the current village at the end of the 15th century.

Brymbo Hall was located to the southwest of the ironworks Site; built in 1624 for John Griffith. The house was later occupied by the Darby family who were appointed as managers of the ironworks in 1846. By the 1930s the house was unoccupied and fell into disrepair. Used by the military during World War II, the house was eventually demolished in 1973.

The late 18th century saw an expansion in coal mining in the area and the purchase of Brymbo Hall estate by John Wilkinson in the 1790s. Wilkinson continued to industrialise the estate throughout the 19th century, sinking mines to provide coal and iron ore to supply his ironworks. By the mid-1800s there were over 40 coal pits on the Brymbo Hall estate. Construction of the ironworks began in 1795 and the No.1 Furnace is one of the earliest structures to survive on the Site

The 19th century also saw the development of the existing settlement of Brymbo, which was built to house the growing number of miners and ironworkers employed locally. In 1842 the works were acquired by the Scottish engineer Henry Robertson and in 1846 under his direction the 'Brymbo Company' was formed. Robertson oversaw the bringing of the railway to the village. The project took some time to get off the ground with the railway reaching Brymbo in 1847 and providing much more efficient means of transporting goods to and from the works, with spurs to the north where the

later furnaces were stoked from above.

The late 19th century saw a move away from iron production toward steel and an experimental steel furnace was erected on the Site in 1883. The results were impressive, and Robertson took the decision to diversify. The Brymbo Steel Company was founded and began operations in 1885. The outbreak of war in 1914 saw the works taken over by the Ministry of Munitions when they were commissioned for the production of specialist steel for the military. Following the war, the steelworks fell on harder times with the Miners' Strike (1921), General Strike (1926) and the Great Depression (1929-32) all taking their toll. The steelworks went into administration and closed its doors in 1932.

In 1933 Sir Henry Robertson brought the works out of administration and diversified production, securing contracts with companies such as Rolls Royce and the Air Ministry to

supply specialist steel for aircraft engines. During World War II the steel works employed a number of local women and following the war the steelworks continued to increase steel production. In 1956 the steelworks, under the ownership of Guest, Keen and Nettleford Ltd (GKN), underwent large scale expansion to the east of the historic works. The creation of a vast man-made plateau allowed the construction of new melting works, filling the width of the valley and resulting in the loss of most of the village of Lodge in the process.

The 1980s saw a falling demand for steel from British industries and increased competition from European markets resulted in difficult times for the steelworks. The decision of British Steel to invest in their Rotherham steelworks was the beginning of the end of steel production at Brymbo. The steelworks continued to operate until the late 1990s and was finally closed in September 1990.

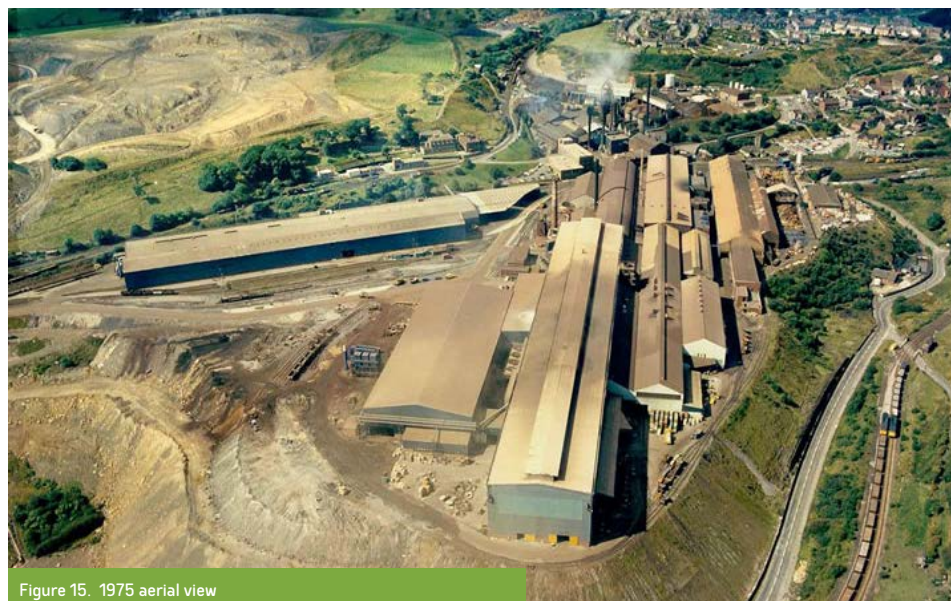


Figure 15. 1975 aerial view

TOPOGRAPHY AND VEGETATION

The development Site is defined by its strong topography. Successive mining and industrial operations and subsequent reclamation and remediation procedures have created a series of platforms connected with a sequence of steeply sloping banks. Above these platforms Ty Cerrig, itself a man-made landform created during remediation operations, rises to form the highest part of the Site. The banks between the development platform have been planted with native species to form birch woodland. Ty Cerrig consists of a series of grass pastures, contained within and divided by, a series of well-defined hedgerows and woodland strips with a typical Welsh hillside topography.

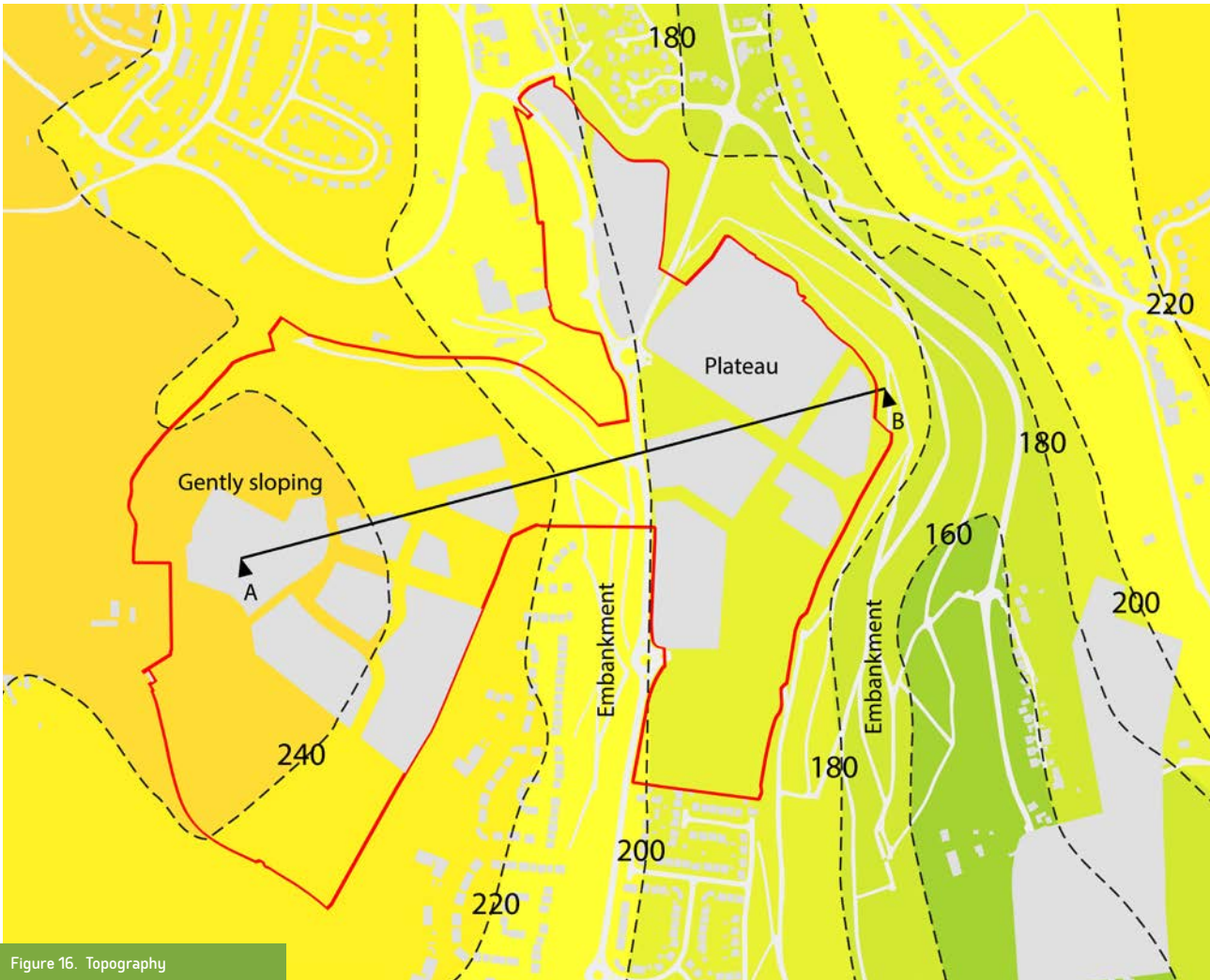
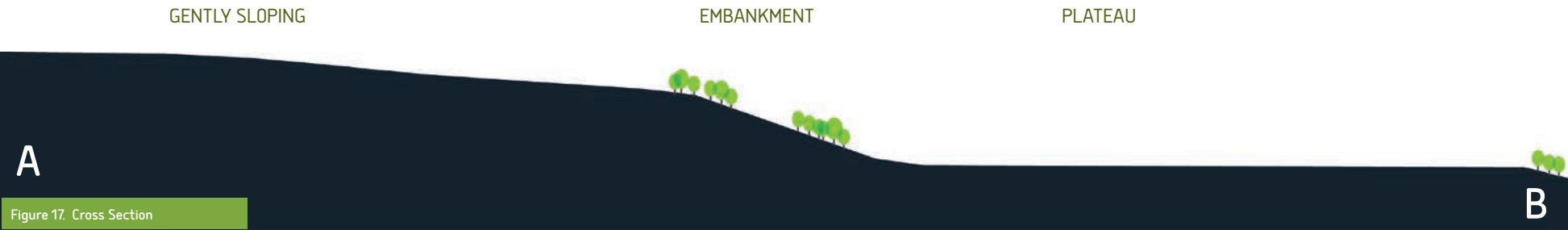


Figure 16. Topography



ECOLOGY

The Site comprises of two compartments; a western arable expanse (known locally as Ty Cerrig) and an eastern plateau, which are connected in the centre of the Site by a vegetated hill that rises to the west. There is one statutory designated site and 14 non-statutory designated sites within 2km of the Site, the closest being Coedwig Ffossil Brymbo Fossil Forest SSSI, designated for geological value rather than nature conservation. Development proposals are located entirely outside of the SSSI and will not impact upon the geological features for which the SSSI is designated. The other non-statutory designated sites are considered too distant and/or lacking ecological connectivity for proposals on the Site to impact upon them.

Priority and notable habitats of native hedgerows and plantation woodland were recorded within Ty Cerrig and should be retained, as far as possible, within development proposals, particularly the species-rich lengths of hedgerows. Where small lengths need to be removed for access, compensatory lengths should be provided elsewhere within the Site, composed of native species that occur naturally in the local area.

Protected/ notable species which could potentially be affected by development proposals are bats, badger, great crested newt, reptiles and breeding birds .

Mitigation measures will be proposed in order to reduce the severity and magnitude of proposed works to an acceptable level for identified habitats and species. Measures include undertaking any vegetation clearance/excavation works under Reasonable Avoidance Measures, to reduce risk of encountering or impacting reptiles and great crested newt and timing vegetation clearance to avoid impacts upon nesting birds (or a pre-commencement check for nest by an ecologist). In addition, a small amount of Japanese knotweed, noted in the northern part of the Site, will require remediation prior to the commencement of works.

The proposed development offers opportunities to enhance biodiversity, particularly on the areas of open space to be provided on Ty Cerrig and include planting of new hedgerows and woodlands and provision of swamp and wet grasslands habitats associated with any drainage features.

In conclusion, it is considered that there are no significant ecological constraints to the development. With appropriate mitigation measures and additional survey/assessment the ecological receptors identified in this report would not be adversely affected by the development.

ARBORICULTURE

The trees on and immediately adjacent to the Site have been assessed in accordance with the guidance set out in BS 5837:2012. This included 24 individual trees, 20 tree groups, six woodlands and three hedgerows. An area of recently planted trees (surveyed woodlands W4 and W5) was found on the Ancient Woodland Inventory (AWI). Due to the industrial usage on the Site and subsequent clearance and land reprofiling since the Brymbo Steelworks shut down, there are no remnants of ancient woodland left. Natural Resources Wales (NRW) have stated that the Ancient Woodland (AW)site designation will be removed from the AWI. Five ‘B’ quality and 19 ‘C’ quality individual trees were found on and immediately adjacent to the Site. Eight tree groups were categorised as ‘B’ Quality and 12 as ‘C’ quality. Three of the woodlands were categorised as ‘B’ quality, whilst the other three woodlands were categorised as ‘C’ quality. The surveyed hedgerows were not categorised, as BS 5837 does not include a methodology for the categorisation of hedgerows.

There are currently no trees within or immediately adjacent to the Site protected by Conservation Area status. Tree Preservation Order No. 184, 1996 designation W5 protects the surveyed tree T23 and tree group G11. Parts of the surveyed woodlands W4 and W5 are protected by TPO designated woodland W4 and surveyed woodland W3 and G9 is protected by the TPO designated woodland W3. There are no veteran trees on or immediately adjacent to the Site.

The outline masterplan seeks to retain existing trees of Category B status and Category C where possible and where they have the potential to add to the future arboricultural value of the Site. Retained trees will be protected with tree protection fencing as per the recommendations set out in BS 5837:2012 during construction.

RIGHTS OF WAY

Existing public rights of way (PROW) are found at the peripherals of the Site, particularly around Ty Cerrig. A key PROW runs adjacent to Blast Road connecting into the existing village of Brymbo. This path continues around the boundary of the Site running all the way to connect to Brymbo Road to the south. Further north along Brymbo Road at the north-west corner of the Site there is another PROW which runs along the western boundary to feed back into the previously mentioned PROW.

The PROW found on Site are part of the existing pedestrian network. There are many existing footpaths around the Site, particularly beyond the western boundary on the slopes down to Lodge. It is important to enhance the existing footpaths on and around the Site , and connect these paths to provide a cohesive network.

-  Site Boundary
-  Existing Buildings
-  Grade II* Listed Building
-  Existing Public Right of Way
-  Contours
-  Existing Trees
-  Existing Hedgerows Woodland Areas
-  Geo Technical Area (with 10m offset to account for inaccuracies in digitizing original data)
-  Scheduled Ancient Monument / Heritage Site
-  Ancient Woodland
-  SSSI

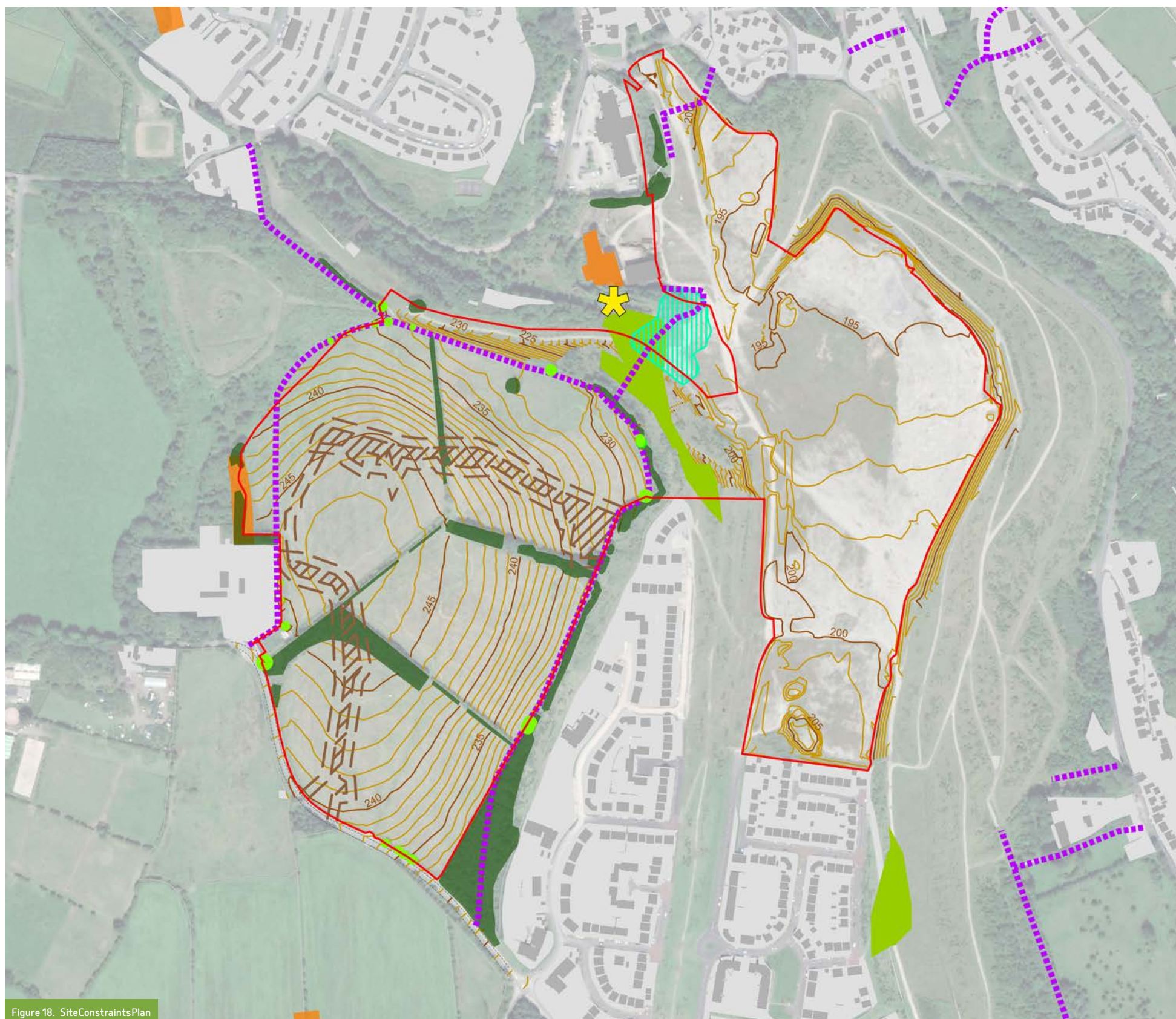


Figure 18. SiteConstraintsPlan

ARCHAEOLOGY & HERITAGE

The Site forms part of the land that was previously occupied by Brymbo Steelworks which closed in 1990. The development Site consists of the man-made hill to the east and southeast of the surviving Ironworks, founded in the 18th century by John Wilkinson, as well as including land to the southwest which historically formed part of the historic Brymbo Hall Estate.

A number of heritage assets have been identified as having the potential to be impacted by the proposed redevelopment of the former steelworks Site.

The remains of the former steelworks are located to the south of the village of Brymbo and include the historic ironworks site. The ironworks are currently managed by the Brymbo Heritage Trust and contains the following heritage assets:

- Early Blast Furnace, Cast House and Foundry – Scheduled Monument
- Former Agent’s House at Site of Brymbo Ironworks – Grade II* Listed

A number of other structures are present within the former ironworks site and these would be considered to be of heritage value given their direct association with the assets noted above. The ironworks site as a whole is a rare surviving industrial monument which has the potential to enhance our knowledge and understanding of 18th and 19th century industrial practices in this part of Wales.

The former ironworks occupies a large area of land cut out of the existing hillside, the landscape is characterised by the remnants of the industrial operations that were once common place. To the south of the former ironworks is the Brymbo Fossil Forest which was discovered in 2003 during reclamation works on the Site. Whilst not a specific heritage designation, this feature is considered to be of archaeological importance and is the only known fossil forest in Wales.

Within the wider landscape a number of designated heritage assets were considered, including the former site of Brymbo Hall and the scheduled Offa’s Dyke. Assets such as Pen-Rhos Engine House and The Bottle Chimney are located over 440m and 600m respectively from the former ironworks on the other side of the hill and are therefore not considered to be affected by the development proposals.

There are no visible remains of Brymbo Hall within the landscape and the Site is not subject to any heritage

designations. It is therefore unlikely that any impact would affect below ground archaeological remains in the unlikely scenario that they survived the extensive and intrusive mineral extraction of Ty Cerrig carried out by the National Coal Board in the 1970s. The scheduled Offa’s Dyke runs north/south, part of which is located on the western boundary of the Site. The proposed land use plan shows that the areas immediately adjacent to the dyke will be public open space, however any development proposed to the east of the dyke will need to consider its setting within the landscape and this would be included within the accompanying Heritage Statement.

UTILITIES

Following the reclamation of the former Brymbo Steelworks, Brymbo Developments Limited (BDL) commissioned Utilities Connections Management Limited (UCML) to advise on the existing services around the Site and provide an overview of the capacities required / available for the proposed built development; plus the service diversions required to facilitate the construction of the Spine Road through the Site. UCML is an independent utility consultancy providing services relating to the provision of utility connections for developers. Their Utility Impact Study report was completed in December 2013 and the Spine Road was constructed shortly thereafter.

Because of their previous knowledge of the utilities, both on and around the Site, UCML were re-commissioned to advise on the utilities situation in the formulation of the Brymbo Park planning application. Their report provides a Level 2 Utility Study and includes:

- examination of existing statutory infrastructure records.
- technical review of the existing infrastructure.
- obtaining points of connection for electricity, gas and water supplies to the Site from the utility providers.
- budget estimates for connection, diversion and disconnection works, including any necessary off-site reinforcement works.
- cost risk and analysis.
- timescales for the required works in relation to the project programme.
- risks associated with the need for wayleaves and easements.

It has been confirmed by SP Energy that there is

sufficient electrical capacity within the existing electricity infrastructure to serve the proposed development; which can be connected to the High Voltage 11kV distribution network. The point of connection would be located at the northern end of Brymbo Road near the existing sub-stations. A new sub-station will have to be provided and some off-site reinforcement works are required to complement those which have already taken place.

Wales and West Utilities have confirmed that there is sufficient gas capacity within its existing Low Pressure network to supply the proposed mixed use development. The nearest point of connection would be located at the junction of Railway Road and Mount Hill i.e. at the northern limit of the north-eastern arm of the Spine Road. A point of connection may also be available from the GTC low pressure network running along Brymbo Road.

It has been confirmed by Hafren Dyfrdwy (formerly Dee Valley Water) that the current network in the immediate vicinity of the Site has sufficient water capacity to supply the proposed mixed development. There are three potential points of connection around the Site perimeter. Hafren Dyfrdwy service connections for all new domestic dwellings are 32mm in diameter, as required for the installation of domestic fire sprinkler systems within all new build residential dwellings constructed from January 2016; reference The Domestic Fire Safety (Wales) Measure February 2011.

It is anticipated that relatively minor diversion works will be required to the electricity, gas and water services in Brymbo Road, as part of the new access road construction works for the Ty-Cerrig development area of the Site.

Openreach own and operate telecommunications apparatus in the vicinity of the Site under the terms of its statutory licence issued by Ofcom. They have offered to service the development with Fibre To The Premises (FTTP) which will provide ultrafast broadband speeds and deliver a level of future proofing for broadband as the demand for speed increases.

It is concluded that the existing utility infrastructure within the vicinity of Brymbo Park is capable of supporting the additional demand required to provide connections to the proposed mixed development.

NOISE

There are no existing significant environmental noise sources in the immediate surrounding area. Therefore adverse impacts, with respect to noise, are not expected to occur.

With respect to the design of the new buildings, ingress of noise will be suitably controlled by the use of appropriate glazing and ventilation strategies, which can be designed at the relevant stage.

GROUND CONDITIONS

In relation to ground conditions, the Brymbo Development is composed of an eastern reclaimed area (the former Brymbo Steelworks) which is ready for built development; and a western area (the former Ty-Cerryg opencast coal site) which needs to be re-engineered to facilitate built development.

The former Brymbo Steelworks had a long history of development from the mid-1750s until it closed in 1990. This industrial site was subsequently bought by Brymbo Developments who obtained planning permission for a major reclamation project. The reclamation operations were undertaken in the 2003 to 2005 period and involved major earthworks to regrade the steep eastern slopes, create development platforms in the southern and northern areas of the Site; with a large excavation in the central area to remove shallow old mineworkings and mineshafts and thereby recover the residual coal seams.

The earthworks materials were placed to an engineering specification to facilitate subsequent development and this work was designed and supervised by the consultants Scott Wilson (now AECOM). The environmental consultants Smith Grant provided advice on dealing with the industrial contamination plus supervision of the earthworks. The reclaimed area was notionally sub-divided into a series of development modules. The consultants provided reports for each module which confirmed that the ground conditions were suitable for built development and that residual contamination was not a constraint to development. Additionally, there are no development constraints due to shallow mineworkings or old mineshafts.

Three of the modules in the southern area of the Site have already been developed for residential housing. The Brymbo Land Use Plan incorporates four of the former development modules to the east of the Spine Road which runs north / south through the Site. Because the abovementioned

certification reports were issued over ten years ago, the consultants Wardell Armstrong have been commissioned to review the reports, particularly the geotechnical and contamination aspects, and provide a new Ground Conditions Assessment report for each of the four modules. This will ensure that all of the (revised) development modules shown on the Land Use Plan will have a report confirming the suitability of that module for built development with no residual contamination constraints.

The Ty-Cerryg Site area was not included in the steelworks reclamation project, as it was not affected by the industrial development of the steelworks. The area is part of the much larger Ty-Cerryg opencast coal site which operated in the early 1970's. The natural materials which were returned to the excavation void were not compacted to an engineering specification. Consequently, the land needs to be re-engineered to facilitate built development. The granular nature (predominantly sandstones) of the backfill materials and the extensive depth to the groundwater table indicates that a range of ground improvement techniques would be available to re-engineer the ground conditions. For example:

- excavation, recompaction and re-contouring works upto a depth of circa 5m could provide a uniform surface crust across the whole development area for subsequent

building, including roads and services.

- dynamic compaction is the technique of dropping a large weight (typically 15 tonnes) from a height of 20m onto the ground. This technique could be used on the uncompacted ground prior to the formation of the compacted crust – thereby further improving the bearing capacity of the ground with reduced settlements.

- the excavated materials could be placed as a surcharge on the development areas – thereby improving the bearing capacity of the ground with reduced settlements.

The development module boundaries shown on the Land Use Plan have taken into account the former batter areas of the Ty-Cerryg excavation void. These steep batter zones have been avoided, in order to ensure there are no ground movement problems due to large differential settlements. At the appropriate time, a ground investigation will be undertaken to provide geotechnical information on the backfill materials and thereby decide on the most appropriate ground improvement technique(s). It is not anticipated that there will be constraints due to old shallow mineworkings or old shafts. The consultants Wardell Armstrong and the specialist ground engineering consultancy Discovery CE have been commissioned to advise on the required works.



Figure 19. Remediated development plateaux

2.4. Local built character summary

To create a place that strengthens and enhances the local distinctiveness of Brymbo, the character and context must be explored and understood. This section provides some guidance on how the layout for the Site can incorporate characteristics of the wider area.

The undulating topography is central to the character of Brymbo. Key features which typify the existing urban form and their particular response to the local topography provides precedents for the proposed development.



Figure 20. Local Neighbourhoods

- Steps from road to footpath - footpath to dwelling entrance 1
- Dwelling set lower than the street 2
- Dwelling set higher than the street 3
- Examples of built form at hairpin bend 4
- Examples of built form at hairpin bend 5
- Dwellings sit prominently on the skyline facing out toward the view 6

STREET PATTERN

- A 'zigzag' and elongated loop street pattern is dictated by the steep contours. This condition creates tight hairpin bend corners
- Large height differences between dwellings facing across a street
- Recent infill development departs from this pattern, largely arranged around cul-de-sacs engineered to provide flat development platforms

BUILDING TYPES

- Predominantly semi-detached and short terraces, no purpose built apartment buildings were evident
- Range and mix of ages from 18th century stone cottages,

19th century Victorian and 20th century brick semis and terraced dwellings. Occasional detached dwellings.

PUBLIC REALM

- Strips of landscape between fingers of development help to make up the level differences and contribute a wooded backdrop
- Generous grass verges also utilized to change the levels across a street
- Street trees evident in some locations
- Views out to wider landscape

BUILDING FRONTAGE

- A tighter grain appears along older and principal routes with dwellings close to the pavement accessed via steps
- Elsewhere large front gardens are used to span level differences

BUILDING HEIGHTS

- Predominantly 2 storeys
- Occasional single storey bungalows and three storey town-houses



Figure 21. Local built character examples

The following features are typical of the existing built form of Brymbo and could provide a precedent for the appearance of the proposed development:

ARCHITECTURAL FEATURES

- Symmetrical frontage central entrance porch
- Simple gabled roof form following the street
- Chimneys at gable end walls and adjoining walls
- Rectangular ground floor bay windows

MATERIALS

- Welsh stone frontage
- Red brick frontage
- White or Cream rendered frontage
- Slate roof tiles

- White/cream window cills and lintels contrasting with a brick frontage
- Exposed stone quoins infilled with white/cream render
- White window frames

BOUNDARY TREATMENT

- Stone and brick walls feature heavily lining the streets often acting as retaining walls
- Walls appear in combination with clipped hedges or railings
- Walls stepped along the gradient of a street
- Red clay or stone capping

PARKING

- Older dwellings rely on on-street parking
- Late 20th and 21st century development have on plot parking within garages or on hardstanding

KEY MATERIALS PROVIDING A PRECEDENT



- 1 Victorian semi-detached dwelling
- 2 Welsh stone cottage, white cills and lintels
- 3 Welsh stone dwelling symmetrical frontage
- 4 Generous front garden enclosed by clipped hedges
- 5 Exposed stone quoins with infill white render, brick chimneys
- 6 21st century development of detached dwellings depart from historic street pattern but take cues from local materials
- 7 Possible precedent for Mews street
- 8 White rendered frontage red brick boundary wall
- 9 Limestone wall with hedge above



Figure 22. Local features/material examples

2.5. Sitewide Opportunities Plan

The analysis of the Site identifies a series of significant opportunities to create a distinctive place, embedded in its context and responsive to the needs of its community.

- Village Centre: the relative lack of existing facilities, including retail and medical facilities, as well as the growing requirement for school places, creates the opportunity to combine these uses in a new Village Centre.
- The existing heritage assets, and more specifically their ongoing rejuvenation by the Brymbo Heritage Trust, offers a unique opportunity to co-locate the Village Centre with a new heritage based visitor attraction.
- The existing development platforms and land at Ty Cerrig create the potential for a series of new residential neighbourhoods clustered around the Village Centre which are connected together by a network of pedestrian and cycle routes.
- These new neighbourhoods benefit from proximity to and views over open green spaces as well as outstanding long range views west.
- Good existing and potential vehicle access points exist to each of the proposed new residential neighbourhoods.

-  Site Boundary
-  Existing Buildings
-  Heritage Buildings
-  Potential to Create Strong Link Between Neighbourhoods
-  Potential Vehicular Main Access Points
-  Potential to Integrate Between New and Existing Neighbourhoods
-  Notable Views
-  High Value Frontages
-  Opportunity for a Heritage Centre
-  Opportunity for the Neighbourhood Hub
-  Opportunity for New Neighbourhoods
-  Existing Park Land

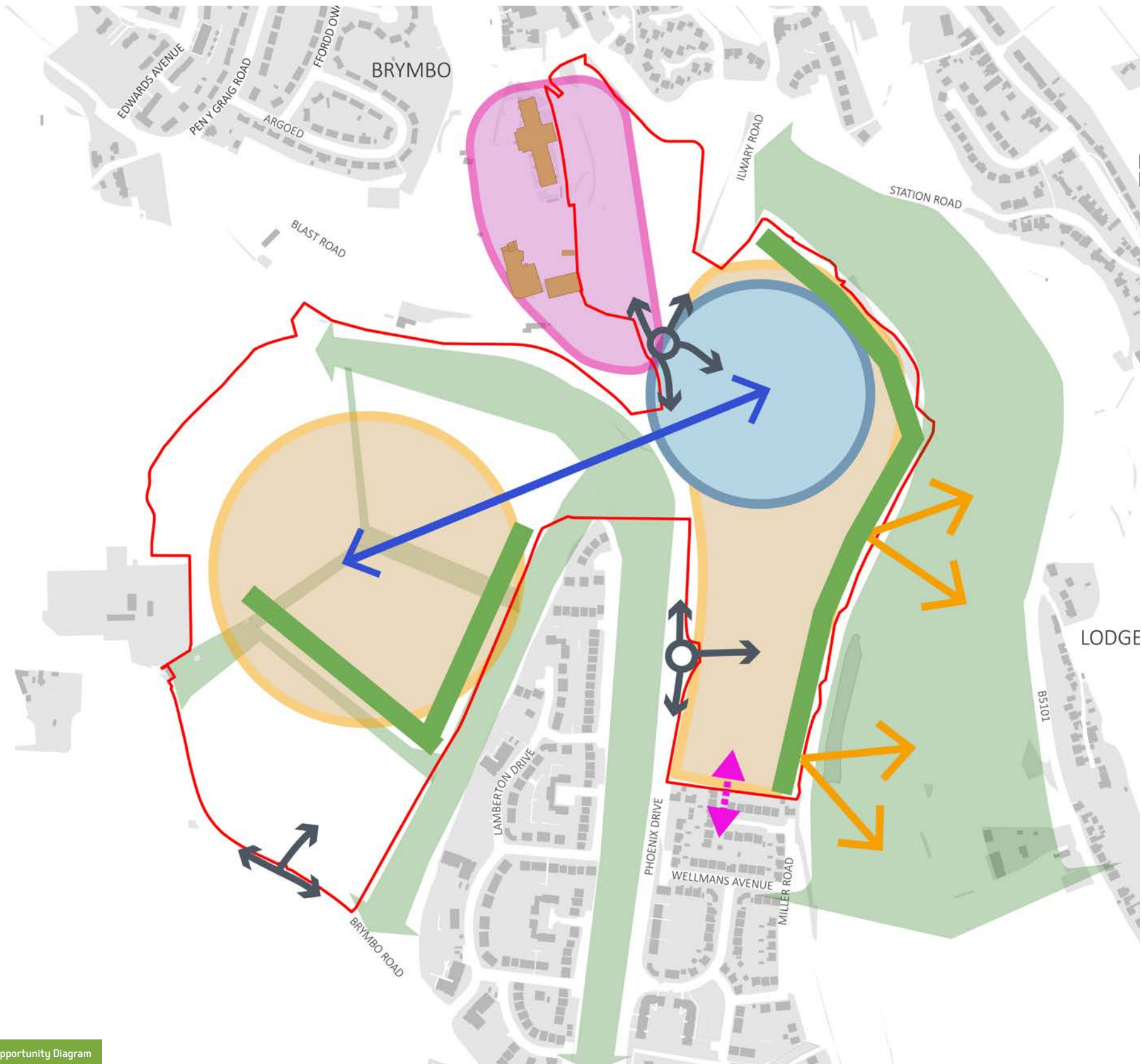


Figure 23. Site Opportunity Diagram

3 Involvement and design evolution

3.1. Stakeholder Engagement and Public Consultation

A public exhibition was held on Tuesday 25th September 2018 (3pm – 7pm) at Brymbo & Tanyfon Regeneration Trust Building (The Enterprise Centre), Blast Road, Brymbo, Wrexham, LL11 5BT. Information about the exhibition, the dates, times and venue had been included in the leaflets distributed locally, emails to Officers at the Council, local Councillors, Cabinet Members and also on the project website.

The venue was accessible to all. Visitors were met by a representative of the project team on arrival to ensure that everyone could be directed to the main exhibition. The Brymbo Heritage Trust also attended with their own exhibition boards in order to provide a cohesive approach and inform members of the local community on how the wider scheme was key to their work, having worked closely with Brymbo Developments Ltd for a number of years.

The event was very popular with circa 100 local residents/ members attending during the session. Exhibition boards explaining the proposals were on display including details of progress and investment to date, the masterplan and Ty Cerrig. Representatives from the project team were on hand to discuss the proposals and answer specific questions.

Many members of the public took the opportunity to discuss the proposals, ask questions and provide suggestions for how they felt the proposals could better meet their needs. Comment forms were available for completion at the exhibition as well as addressed envelopes and details of the website should people wish to respond at a later date. The website can be accessed at <http://www.brymbo-park.co.uk/> and went live on Tuesday 25th September 2018 prior to the beginning of the public exhibition. Parkhill Estates felt it was key to ensure that the consultation was as inclusive as possible, with a range of opportunities to engage and ‘make views known’.

Comments from the consultation event were collated and were largely supportive of the scheme and highlighted the aspiration of local people that the proposals would come forward. There were also suggestions on how the proposals could be further developed to work better for local people. In regards to the district centre there were suggestions of retailers and facilities that should be located within the small district centre. For the scheme as a whole there were concerns about the number of new homes as well as the type of new homes that would come forward e.g. affordable housing. There were also concerns regarding ensuring connectivity in terms of pedestrian links as well as the impact on the highways, including parking around the school. There

were also many suggestions on how to make best use of the open space.

As a result of these comments and concerns the masterplan was amended to ensure cohesive pedestrian links with sustainable connectivity at the forefront of the design process for the project. The concerns regarding highways have fed into the refinement of the highway design work.

A number of the other factors raised will be relevant at Reserved Matters stage and will be incorporated where possible. The responses from this consultation therefore positively contributed to the development of the proposals going forward to the application stage.



Figure 24. Public consultation event



WELCOME

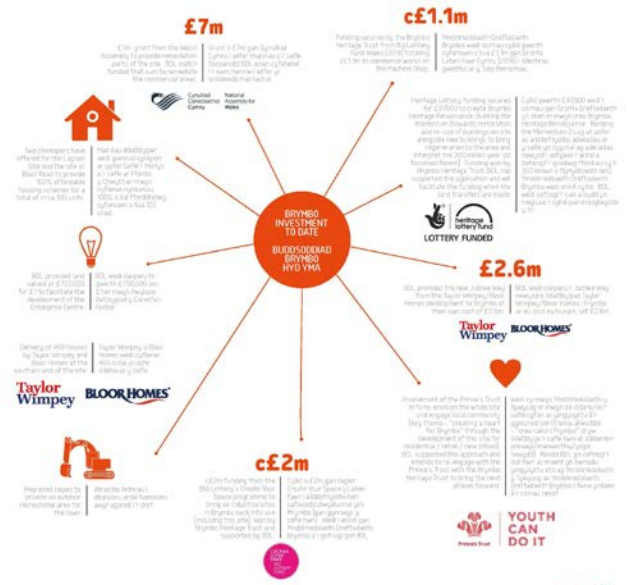
Brymbo Developments Ltd are bringing forward their proposals for the development of Brymbo Park. Brymbo Park is more than just housing. At the heart of this community is a new primary school, community facilities, shopping and leisure opportunities. These facilities are proposed to be located adjacent to the retained industrial heritage of the site. Brymbo benefits from a rich industrial heritage and a dramatic setting. Our proposals aim to maximise and integrate these two assets to complete the missing pieces of this development.

CROESO

Mae Brymbo Developments Ltd yn cyflwyno eu cynigion ar gyfer datblygu Parc Brymbo. Mae mwy na dim ond tai i Barc Brymbo. Yng nghanol y gymuned hon mae ysgol gynradd newydd, cyfleusterau cymunedol, a chyfleoedd siopa a hamdden. Rydym yn cynnig gosod y cyfleusterau hyn wrth ymyl trefnadaeth ddiwydiannol y safle a fydd yn cael ei chadw. Mae Brymbo'n elwa ar drefnadaeth ddiwydiannol gyfoethog a lleoliad trawiadol. Nod ein cynigion ydy integreiddio'r ddau ased hyn a manteisio i'r eithaf arnynt er mwyn cwblhau darnau olaf y datblygiad hwn.



PROGRESS & INVESTMENT TO DATE
BUDDSODDIAD HYD YMA



THE MASTERPLAN
CYNLLUN MEISTR



Figure 25. Public consultation display



DISTRICT CENTRE PLAN
CYNLLUN Y GANOLFAN ARDAL



Tŷ CERRG & CONNECTIONS
Tŷ CERRG A CYSYLLTIADAU



3.2. Design Evolution

DESIGN EVOLUTION

The approach to the masterplan layout and design evolution is rooted in the contextual understanding of the Site and its surroundings and collaborative design sessions with the local authority, client and the wider consultant team. The starting point was working with the two distinct development platforms and how to unify them as one place, working with the topography to capture views out to the east of the rolling landscape while being mindful of softening long-range views from the west. Development blocks oriented east-west provide 'framed' views out to the east reinforcing the Sites unique location and terrain.

Three development clusters were identified, Ty Cerrig on the hill to the west, a village extension on the plain adjacent to the existing residential development and most importantly a mixed-use core including the heritage Site as a 'pivot' between the surrounding development clusters and new development to help connect them as a unified place. Two main organising axes were introduced into the plan one 'grey' and the other 'green' to provide vehicular and pedestrian connections between the neighbourhoods respectively. A new village green was created at the heart of the village core to galvanise the individual neighbourhoods together and create a focal space for the development, to provide a strong sense of place and character for Brymbo Park.

After visiting the Site and experiencing the extent of the change in level between the Village Heart and Ty Cerrig the initial design idea for the connection between these two neighbourhoods by a series of steps and 'play platforms' snaking its way up the slope was developed. The result is a distinctive public realm design which will create a strong identity for the Site.

The initial vision for Ty Cerrig was to create a gentle crescent of development around a new cricket green and recreation space. During the design development stage we were advised that the historic industrial use of the Site had left a legacy of unstable ground conditions which were best avoided. This constraint coupled with a better understanding of the visual impact on the landscape and in particular the visual sensitivity of the southern and western edges along with the varying topography led to a more 'organic' approach for this part of the masterplan. Development was subsequently pulled back from the west and southern edges. Existing mature hedgerows and tree belts were integrated within smaller development clusters, creating a lower density landscape led neighbourhood.

Public uses including shops, pub and medical centre were grouped together around a new square along the 'High Street' to create a destination with residential dwellings completing the rest of the street. Following a design workshop and market advice on the location of commercial uses the following changes were made. The primary school was moved to front directly onto the High Street, the medical centre relocated to anchor the eastern end of the street. The pub was positioned on a new junction on Phoenix Drive to optimise visibility and maximise passing trade. Following a review of retail provision, a larger Site for a food store was created within the central mixed-use block overlooking the village green and the size of the car park increased to provide greater capacity.

1

2

3



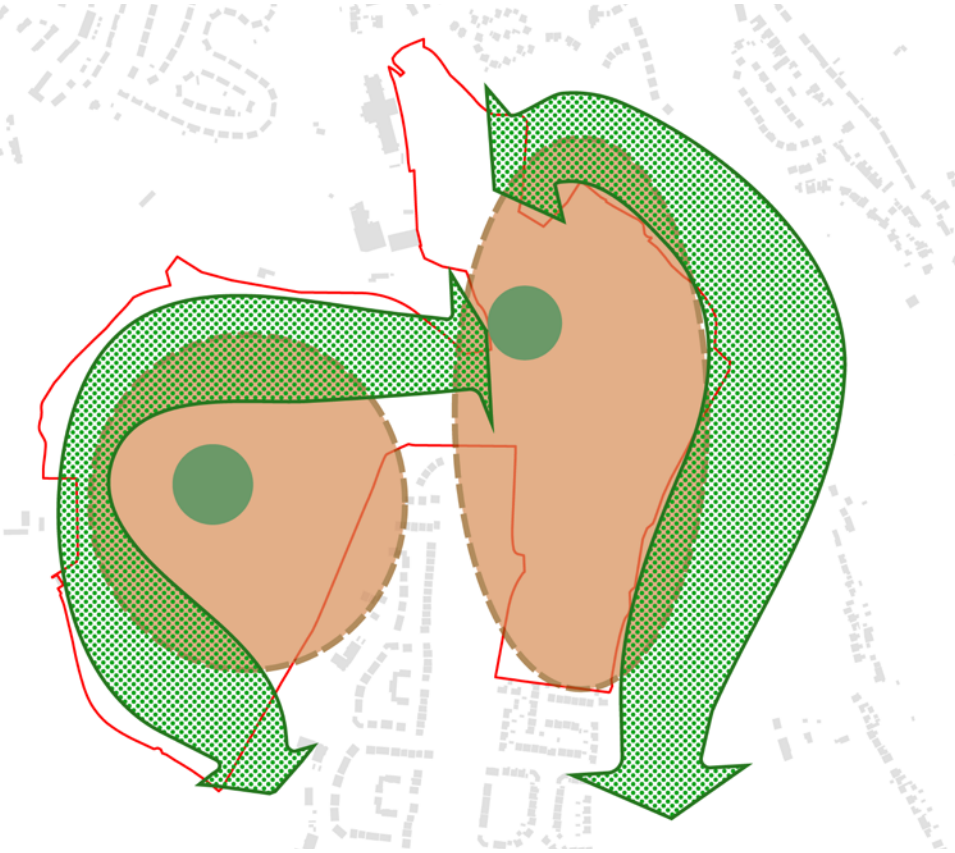
Figure 26. Masterplan evolution

4

Brymbo Masterplan

4.1. The 4 Steps to the Masterplan

There are four ideas which create a strong concept for the masterplan. Each step has an underpinning 'big idea', responding to natural and man-made features found on the Site or in the direct context.

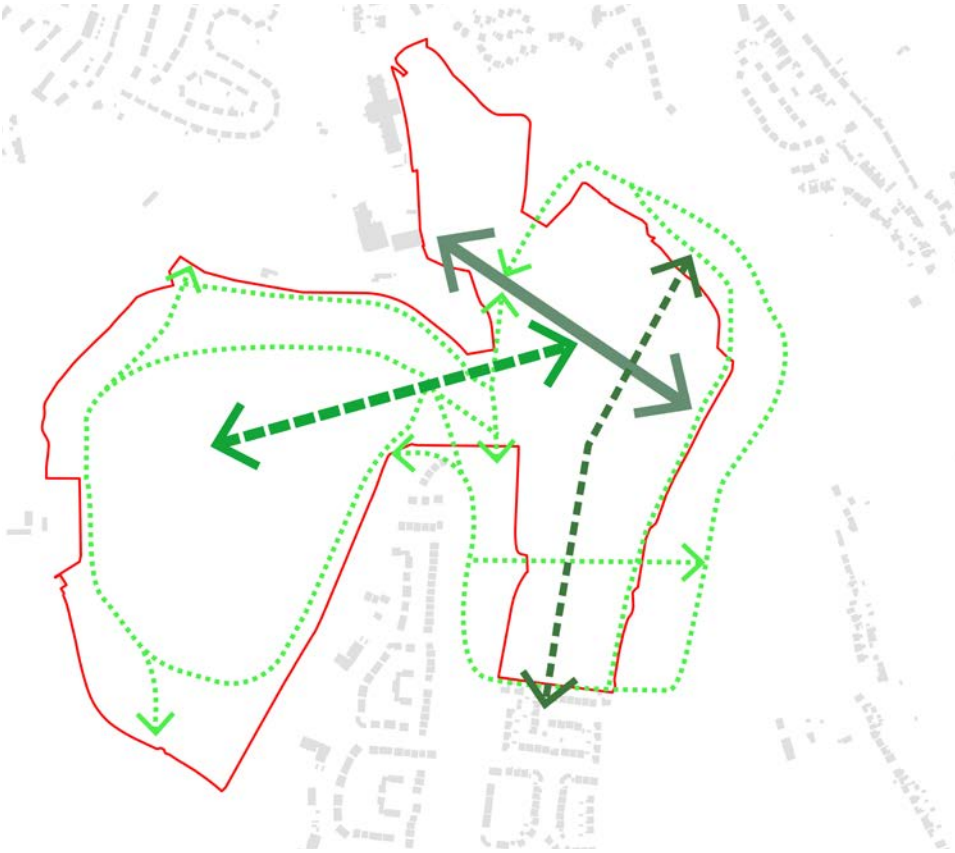


1. NEIGHBOURHOODS SET WITHIN THE LANDSCAPE

Two neighbourhoods are nestled within the existing landscape structure, connected by a network of proposed and existing local parks wrapping around the development areas.

Each neighbourhood is distinct drawing on the surrounding landscape character; a hilltop neighbourhood defined by its topography and a village on the plain. Both are set around local parks, acting as a nucleus for activity.

- Site Boundary
- Network of Local Parks
- Neighbourhoods Nestled within the Landscape
- Formal Parks within the Neighbourhoods

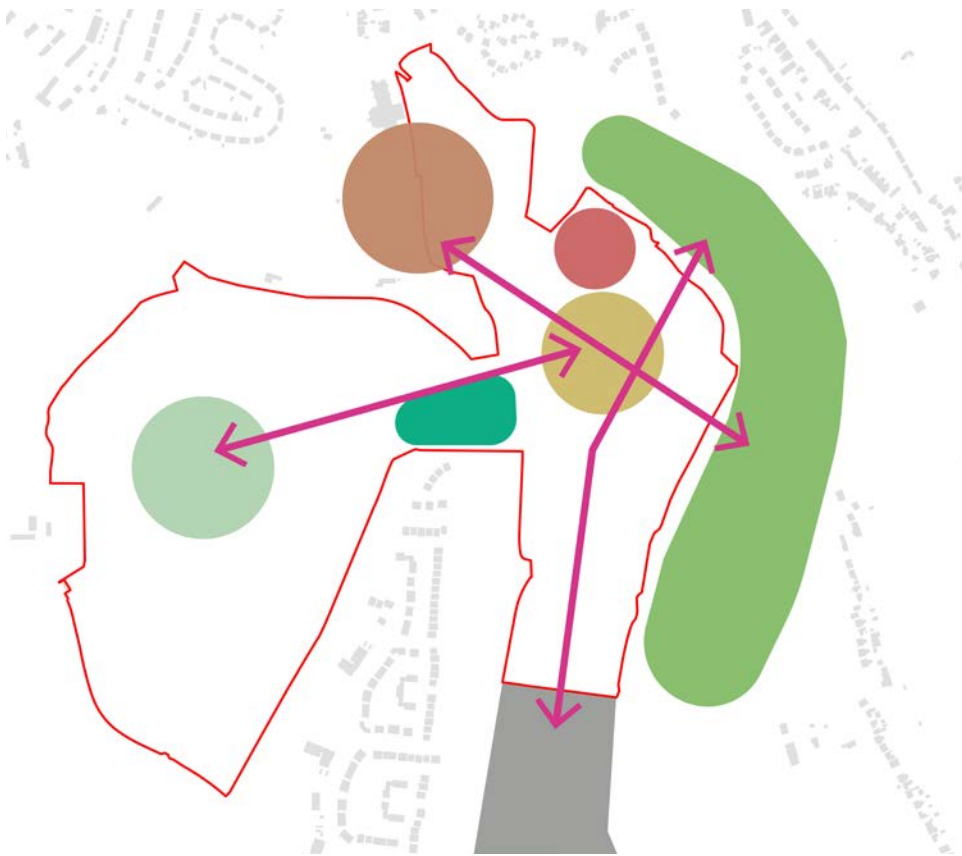


2. HIERARCHY OF PEDESTRIAN ROUTES

1. Local High Street: This primary route connects the key amenities of the Site, heritage area, school and the small district centre
2. The Brymbo Steps: Connecting both neighbourhoods through an area of adventure and play
3. Neighbourhood Spine: Providing access from the existing neighbourhood to the proposed school and small district centre
4. A web of Leisure and Nature Trails: Provide a network of leisurely routes running through existing and proposed parkland

- Site Boundary
- Existing Buildings
- 1. Local High Street
- 2. The Brymbo Steps
- 3. Neighbourhood Spine
- 4. Web of Leisure and Nature Trails

Figure 27. Masterplan concepts



3. PLACES CONNECTED BY NEIGHBOURHOOD SPINES

The key spaces on Site are to be connected through well defined and accessible neighbourhood spines. These spines are primarily a pedestrian link, however they also provide strong visual connections. Through these spines each resident and visitor will have easy access to the key natural and built assets on Site.

- Site Boundary
- Existing Buildings
- Neighbourhood Spines
- School
- Heritage Hub
- Small District Centre
- Existing Neighbourhood
- Orchard Park
- Hillside Adventure
- Views and Village Park



4. FOUR DISTINCT CHARACTER AREAS

Orchard Village: Characterised by existing landscape features and planting of native Orchard species in pockets of green space define this area.

Heritage Hub: The Heritage Hub is a main destination, containing significant listed buildings and unique geological features:

Village Heart: Contains the main amenities for the development clustered together to create an activated centre.

Village Extension: Connecting into and continuing the existing neighbourhood to the south.

- Site Boundary
- Orchard Village
- Heritage Hub
- Village Heart
- Village Extension

4.2. Brymbo Park Masterplan

A strong placemaking approach is the fundamental underpinning idea for the Brymbo Park Masterplan. This is centred around the creation of a new local mixed-use hub with a primary school, health centre, and a range of retail facilities which front onto a new village green. This space will be the heart of the neighbourhood. Development blocks are typically sized to allow for houses with back gardens abutting each other to ensure buildings front onto streets to create an animated and safe environment that is overlooked and naturally surveilled. A larger parcel is provided for the mixed-use block to accommodate concealed servicing areas for retail to avoid conflicting frontage relationships with adjacent dwellings. A continuous frontage is created along Phoenix Drive with outward facing residential dwellings to maintain a domestic scale and identity along this street and signal the approach to the new small district centre.

A 'High Street' is created on an east-west axis to connect the future Heritage Hub and Fossil Forest buildings to the Neighbourhood Centre and pedestrian promenade along the eastern edge of the Site. A new raised table is provided along Phoenix Drive to give pedestrians priority and a safe means of crossing easily between these uses. General traffic is removed from the street adjacent to the primary school to create a seamless public space between the school and village green enabling a safe space for students to be dropped off, collected by their parents and to access the shops.

A single north-south street connected to Phoenix Drive is created for the lower development platform as the main organising spine and vehicular access route to the village heart. Development blocks extend perpendicularly from the spine to create local east-west streets. Subtle changes in direction are introduced along this street to restrict vehicular speeds and create a sense of journey to the small district centre. Local accent and landmark buildings provide interest and creates an attractive and varied townscape along this spine. Collectively this framework provides a legible street network that is easy to navigate and move around. To make the most of the picturesque setting to the east, houses are oriented with their fronts towards the view and the promenade. Houses are positioned in a 'faceted' arrangement to create widenings along the promenade to provide small play spaces and vantage points for pause and relaxing.

A contrasting landscape led approach is taken for Ty Cerrig to respond to its sensitive landscape setting and to incorporate existing mature hedgerows and tree belts. These existing landscape assets and restrictive ground conditions create the organising structure for this neighbourhood. The resulting

pattern is small residential clusters nestled within a patch work of orchards and local 'greens'. The network of landscape spaces will create a verdant and attractive place to live and allow dwellings to be sensitively integrated into the landscape.

A linear set of steps is used to visually and physically connect Ty Cerrig to the Neighbourhood Centre and the 'Village' on the plain. This street is framed by houses on either side which is terminated by the primary school to the east and accent building to the west. A network of accessible ramps and supporting steps provide additional connectivity between both neighbourhoods. Main vehicular access is provided from Brymbo Road to the south, gently rising along the contours of the hillside. A secondary emergency vehicular access is provided from the north connecting to Phoenix Drive.

The Fossil Forest enclosure is strategically positioned as an important landmark and gateway marker along with the pub at the northern end of Phoenix Drive. These facilities are connected to the Heritage Hub by a traffic calmed street and new parking square provided for the public wanting to access either the Neighbourhood Centre or Heritage Hub.

Typically, buildings will be two storeys across both neighbourhoods with potential for three storeys in the Neighbourhood Centre to help increase critical mass and provide greater vitality. Building heights are restricted to 1.5 storeys along the western edge of Ty Cerrig to minimise visual impact along this sensitive part of the Site.

KEY

1. Food store and car park
2. Retail unit shops with residential above
3. Non-residential use
4. Primary School
5. Pub/restaurant
6. Residential development
7. Village Green
8. Traffic calming to Phoenix Drive
9. Public Car park and access to Heritage Hub
10. Ty Cerrig Connection
11. Vehicular access to Ty Cerrig
12. Emergency vehicular access to Ty Cerrig
13. Indicative Fossil Forest buildings
14. Open space and orchard
15. Retained and reinforced tree planting
16. Heritage Hub
17. Pedestrian Promenade



Figure 28. Application Masterplan

This section of the DAS provides a comprehensive description of the design parameters underpinning the application masterplan. The level of detail provided is appropriate to the issues, context and scope for an outline planning permission with all matters reserved except access.



Application Plans

5.1. Land Use

The distribution of land uses is illustrated opposite and the quantum of each proposed land use are shown in the table below.

Land Use	Ha	Ac
Residential Development	10.77	26.6
Residential (Higher Density)	0.15	0.38
Mixed Use	0.88	2.17
Pub/Restaurant	0.51	1.25
Non-residential Use	0.21	0.52
Primary School (2FE)	2.1	5.19
Existing Access / Infrastructure	3.14	7.75
Shared Car Parking	0.39	0.96
Public Open Space	14.45	35.71
Total	32.59	80.54

A mix of uses are provided to create a diverse and well-balanced development. Central to creating active place is the co-location of retail, leisure, higher density residential and the primary school to provide a vibrant small district centre to serve the new and surrounding communities.

RESIDENTIAL

A variety of housing types and tenures are envisaged to create an inclusive community. Residential will be the predominant use on the Site, and along with the existing residential development will provide a critical mass of residents.

Residential development is provided in two main locations. The first is an extension of the existing residential area on the existing development platform adjacent to Phoenix Drive, with the second on the higher ground to the west of the Site.

An area of higher density residential is strategically located opposite the mixed-use block as a bookend to the primary school building.

PRIMARY SCHOOL

A 2.1 ha site is provided for the primary school to the north of the Site. This location has been chosen for the school to optimise its integration and be a key anchor use within the heart of the scheme.

MIXED USE: RETAIL, LEISURE AND RESIDENTIAL

An appropriate amount of retail and leisure provision has been made within the development to ensure that the daily needs and services required by residents can be readily met.

Retail is provided as part of mixed-use block to the south of the village green and adjacent to Phoenix Drive to ensure it has maximum visibility and accessibility. Retail and leisure uses provided include a food store, retail unit shops and a pub. A modest number of residential apartments are included above ground floor retail to help maintain an animated space over longer periods of the day.

The pub is located at the western end of the ‘High Street’ as an important anchor and link to the Heritage Hub.

NON-RESIDENTIAL USE

A self-contained unit for non-residential use is located at the southern end of the High Street. This unit has the potential to become a number of future uses including a health centre, day nursery or library. This is integrated as part of the south residential area while retaining good access to the small district centre and public transport.

-  Site Boundary Boundary
-  Residential
-  Residential (Higher Density)
-  Pub/Restaurant
-  Mixed Use (Foodstore, retail & residential)
-  Non Residential Use
-  Primary School (2FE)
-  Existing Access / Infrastructure
-  Shared Car Parking and Public Realm
-  Public Open Space
-  Steps
-  Footpath Network
-  Emergency Access
-  Existing Public Right of Way
-  Existing Trees
-  Existing Hedgerows Woodland Areas

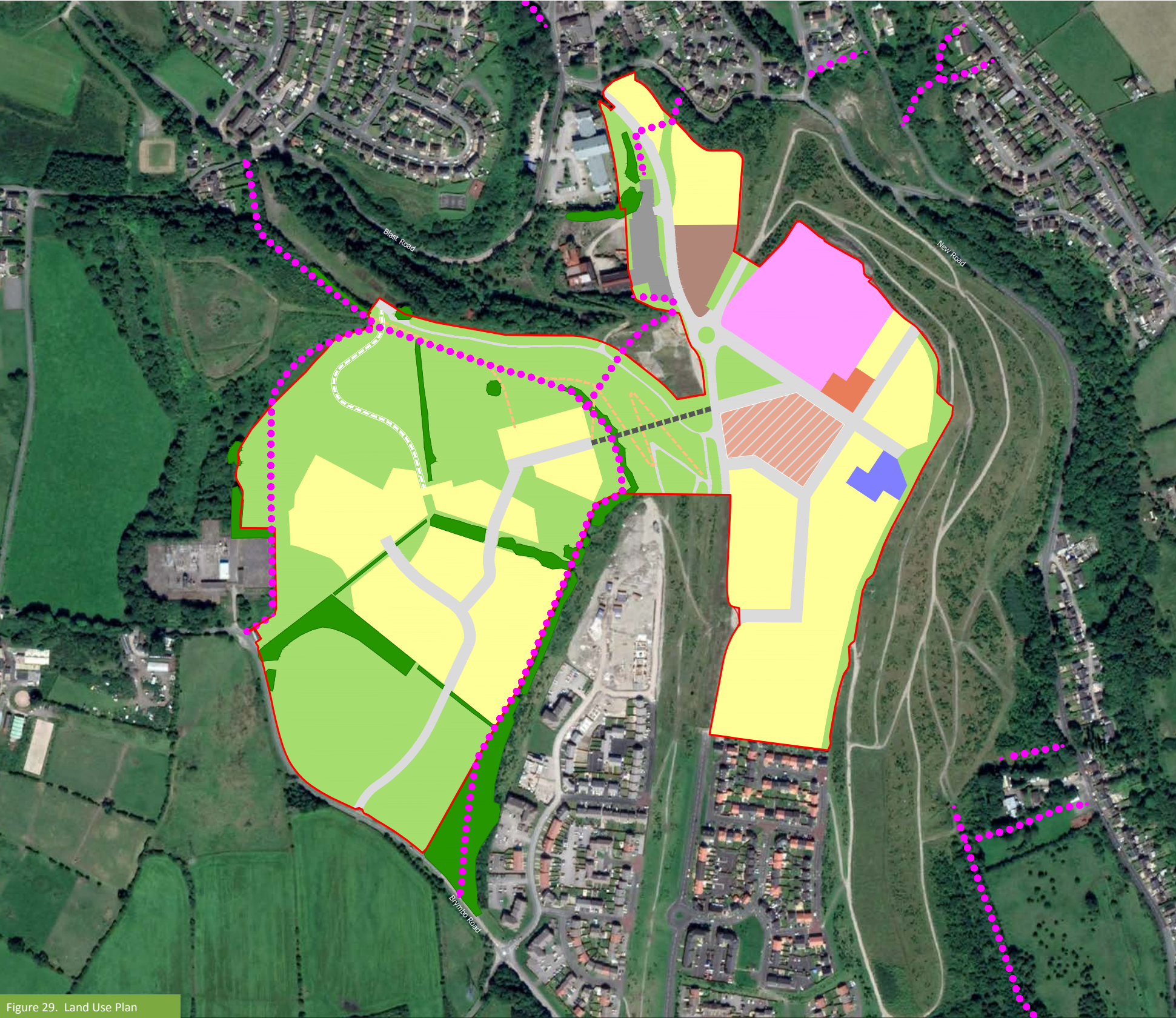


Figure 29. Land Use Plan

5.2. Connectivity

ACCESSIBILITY

Access to local amenities is a basic requirement for a development Site in ensuring any development proposals positively contribute to both the Site’s and local community’s social, economic and environmental sustainability. Guidance provided by the Institution of Highways and Transportation (IHT) in their publication ‘Guidelines for Providing for Journeys on Foot’ (2000) suggests that in terms of commuting, walking to school and recreational journeys; walk distances of up to 2,000m can be considered as a preferred maximum, with ‘desirable’ and ‘acceptable’ distances being 500m and 1,000m, respectively.

It should however be noted that journeys of a longer length are often undertaken. For non-commuter journeys, the Guidance suggests that walking distance of up to 1,200m can be considered a preferred maximum, with the ‘desirable’ and ‘acceptable’ distances being 400m and 800m, respectively. Again, it should be noted that journeys of a longer length are often undertaken.

The Site will provide a new school and small district centre, including a proposed medical centre, bringing key amenities within desirable walking distances. A permeable street design and network of pedestrian and cycle linkages will assist in minimising the need to travel and increasing accessibility by modes other than the private car.

The proposed development would provide pedestrian connections from the Site to the surrounding network of pedestrian infrastructure. The key pedestrian desire line will be between the small district centre and Ty Cerrig.

ACCESS TO TY CERRIG

The main vehicular access to the Ty Cerrig Site is proposed to be gained from off Brymbo Road. Brymbo Road itself is circa 6.5m wide narrowing to circa 5.5m on approach to the Ty Cerrig Site western boundary. Beyond the Site boundary the road narrows further to circa 5.2m. The vertical and horizontal alignment of Brymbo Road is such that the

placement of the access is restricted to a relatively small window of opportunity along the frontage of land within the control of the applicant. Notwithstanding this, opportunity exists to provide a safe and suitable access to the Site for all people.

The posted speed limit on Brymbo Road is 40mph rising to 60mph circa 150m to the west of the roundabout with Lamberton Drive. The nature of the road is such that the 85th percentile speed of vehicles is less than the posted limit (as confirmed by speed surveys) and adequate visibility can be achieved with some works within the site boundary. Access will take the form of a simple priority junction.

ACCESS FROM PHOENIX DRIVE

There are opportunities to significantly change the character of Phoenix Drive. This could be achieved by ensuring there is a strong development frontage and activity.

Opportunities for physical improvements to Phoenix Drive will be developed through the masterplan and in consultation with the local highway authority however options include:

- Introduction of development access(es), likely be in the form of simple priority junctions, compact roundabouts or modifications to existing junctions;
- Providing building frontage;
- Reducing the speed limit;
- Prioritising pedestrian/cycle movement adjacent to the small district centre;
- Proving gateway features on approaches to the Site;
- Vertical and/or horizontal traffic calming;
- Providing footways and/or cycle paths adjacent to the carriageway;
- Providing bus stops (subject to public transport strategy and routeing)

Surrounding residential areas and the proposed amenities and community facilities are within the Site itself and therefore connections beyond the Site boundary will be considered within the overall movement plan and developed through the masterplan.

PUBLIC TRANSPORT

A regular (20 minute frequency) bus service is provided by Arriva to Brymbo from Wrexham Bus Station. Working with local operators there is an opportunity to provide a bus service into the development to ensure that all dwellings are located within 400m of a bus stop facilitated by a suitably designed internal road network.

With the appropriate pump priming this will enable sustainable linkages to the employment opportunities and public transport hubs within Wrexham. The service could link to the proposed school and small district centre, potentially providing a bus terminus at this location providing residents of the Site and adjacent local communities with opportunities to travel by bus to key local destinations. Links to locations further afield could be enabled through bus trips to Wrexham and links to Wrexham Central Rail station as part of a multi modal journey.





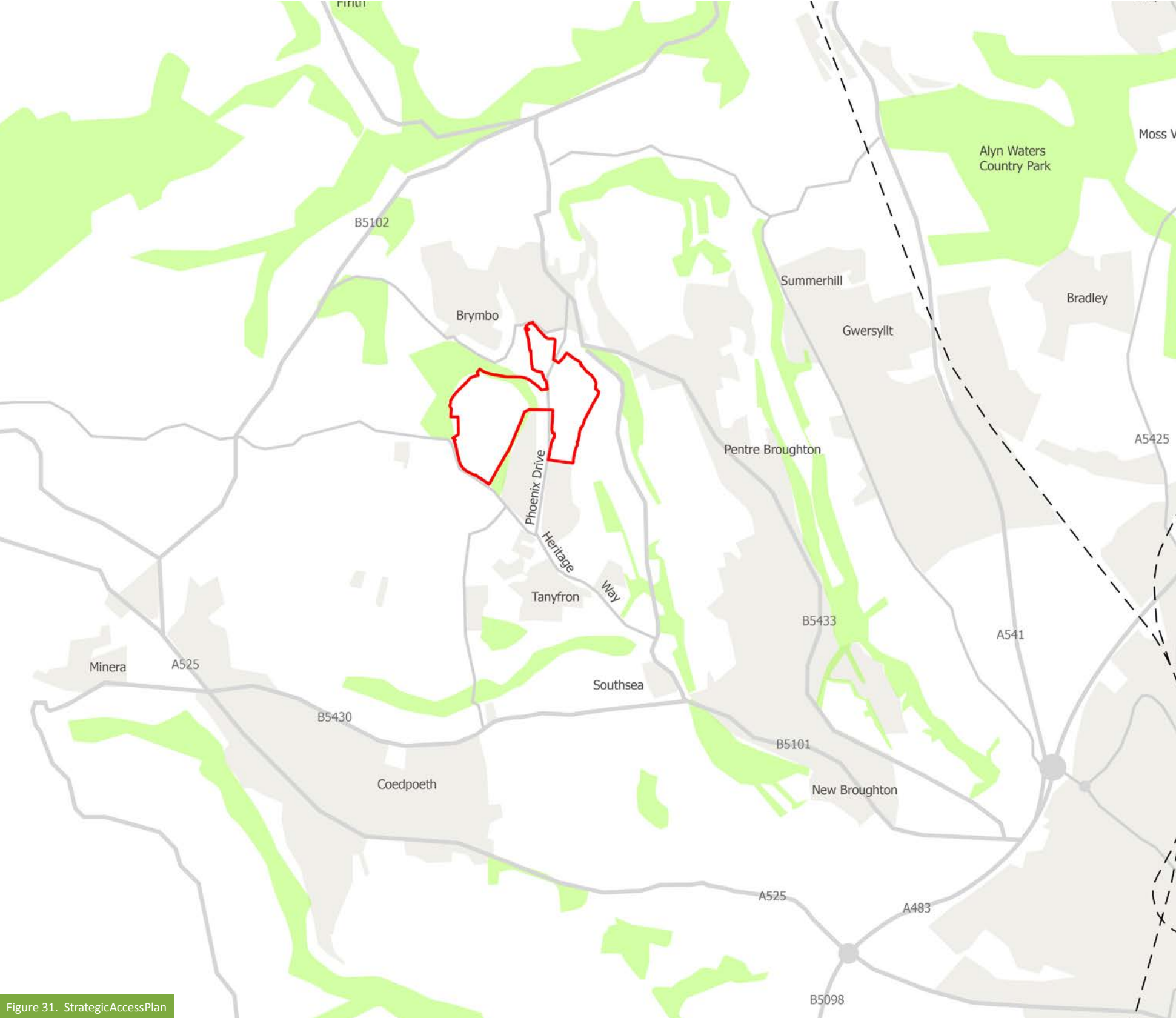


Figure 31. StrategicAccessPlan

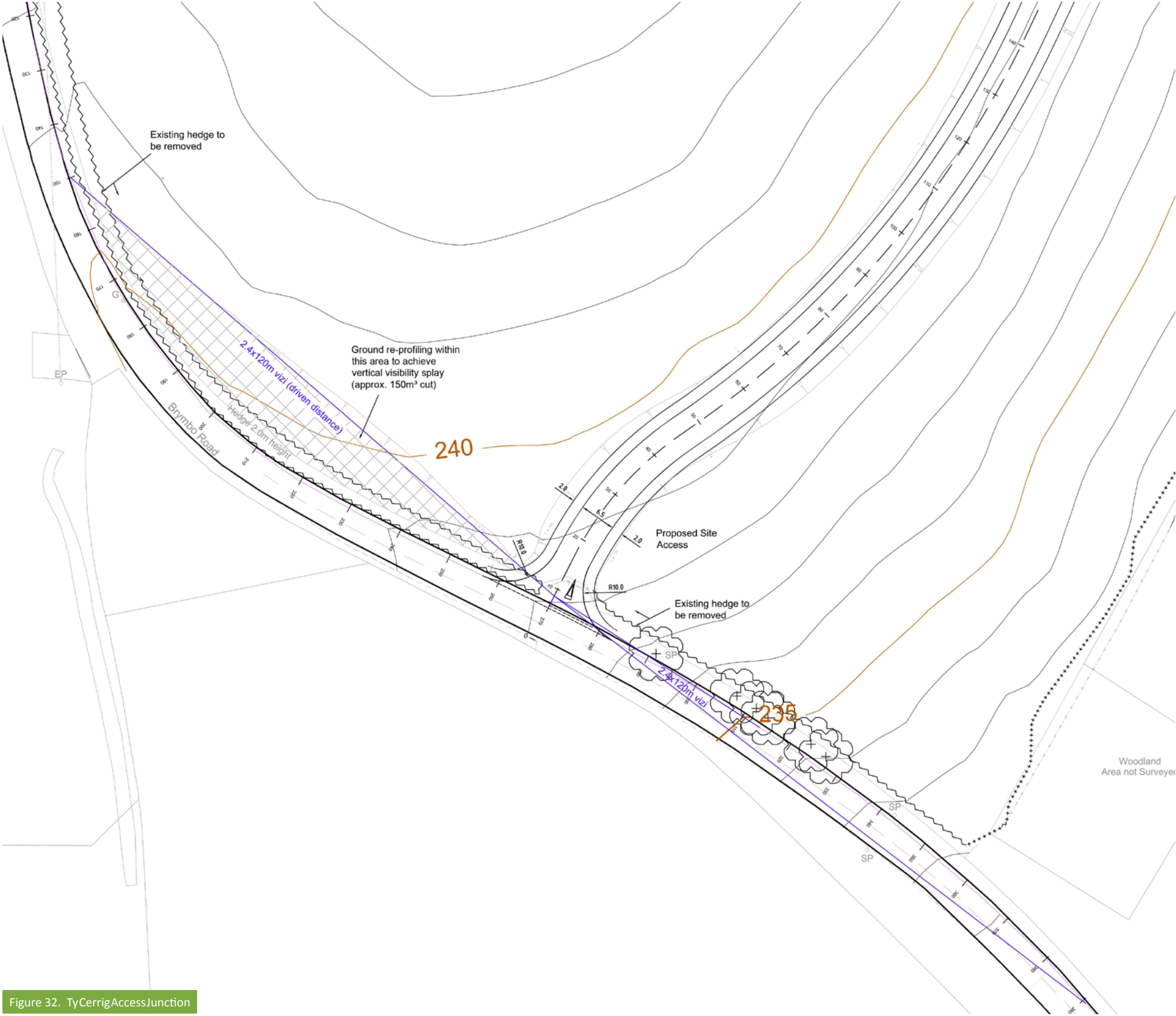


Figure 32. TyCerrig Access Junction

5.3. Green Infrastructure

OPEN SPACE AND PLAY PROVISION

The provision of open space in the development has been carefully designed to make best use of the existing landscape features. Areas of existing tree planting along the steeply banked sides of the Site are retained and enhanced to provide screening and a sense of enclosure to built up areas. These areas also retain the extensive path network which is linked into the new on Site network of paths and trails.

Greenspace that sits on top of the hill in Ty Cerrig has been named as the Brymbo Commons, an open parkland that contrasts with the surrounding woodland. Throughout the development area a series of key green spaces provide pockets of quality public space around which the community can gather. In addition to above the ‘common’ provided along the southern field of Ty Cerrig helps protect this visually sensitive landscape while enhancing the setting of the adjacent residential development.

	Requirement for 273 dwellings (ha)*	Provision in masterplan (ha)
Passive OSVP	1.45	2.85
Active OSVP	1.26	0.16
Total	2.71	3.01

DRAINAGE STRATEGY

Attenuation areas positioned within key green spaces and Brymbo Commons allow for excess water run-off to be collected during storm events.

-  Site Boundary
-  Existing Buildings
-  Tree Lined Streets
-  Large Canopy Tree Planting
-  Retained Hedgerows
-  Retained/Replanted Banks
-  Key Open Space
-  Brymbo Commons
-  Attenuation Feature



Figure 33. Landscape Structure Diagram

5.4. Urban Structure

TOWNSCAPE AND IDENTITY

To create a place that is easy to navigate and move around it is essential that the development parcels relate to and reinforce the main access routes. To achieve this, primary frontages with a high degree of continuity are proposed along Phoenix Drive and The High Street. Primary frontages with a lower degree of continuity is provided along the village edge, western and southern edges of Ty Cerrig to capture views out over the countryside and create a softer feathered development edge integrated with pockets of landscape, while creating an attractive townscape from distant views. A more relaxed approach is provided along tertiary streets to reflect their respective role in the overall hierarchy of the development.

To establish a distinctive identity for Brymbo Park several accent buildings are identified along important views. Several of these, along with the opportunity for taller buildings, are identified around the village green to recognise this primary gateway into the development. This location also serves to connect the Neighbourhood Centre to Ty Cerrig. Secondary gateways marked with landmark and accent buildings have also been identified at the main vehicular access points into the each of the two neighbourhoods from Brymbo Road and Phoenix Drive.

Development parcels within the eastern neighbourhood are generally larger and orthogonal to optimise development efficiency and blend in with the existing development to the south.

A more contextual responsive approach is adopted for Ty Cerrig, where smaller parcels are ‘nestled’ within the topography and ground constraints creating an organic pattern of development. This pattern of development is in keeping with the local character of the area and has the additional benefit of incorporating small landscape pockets and trees to be interwoven through the development, helping to mitigate the visual impact from sensitive views.

To optimise views out across the landscape to the east and reinforce a sense of place, streets providing breaks in the development parcels are encouraged to capture ‘framed’ vistas.

Area	Maximum	Minimum
Ty Cerrig Neighbourhood		
Buildings/continual run	Length 170m, 45m Width, (this is defined as the continuous length of any number of buildings placed together)	Width 5.5m, Depth 6m (This is defined for a single standalone building)
Garages	Single- Length 6.1m, Width 3m Double- Length 8.8m, Width 6.1m	Single- Length 4.9m, Width 2.4m Double- Length 4.9m, Width 4.6m
District Centre Neighbourhood		
Buildings/continual run	Primary school Length 130m, Depth 50m, (this is defined as the continuous length of any number of buildings placed together)	Length 65m, Depth 20m
	Mixed Use/Retail Length 120m, Depth 35m	Length 55m, Depth 12m
	Pub Length 30m, Depth 25m	Length 12m, Depth 12m
	Residential Length 130m, Depth 45m (Depth 15m for individual buildings)	Width 5.5m, Depth 8m (This is defined for a single standalone building)
Garages	Single- Length 6.1m, Width 3m Double- Length 8.8m, Width 6.1m	Single- Length 4.9m, Width 2.4m Double- Length 4.9m, Width 4.6m

- 

Site Boundary
- 

Existing Buildings
- 

Primary Views
- 

Local Views
- 

Primary Frontage (Typically Continuous)
- 

Primary Frontage (Broken)
- 

Secondary Frontage (Typically Continuous)
- 

Secondary Frontage (Broken)
- 

Main Gateway
- 

Secondary Gateway
- 

Existing Landmak
- 

Primary Landmark Building
- 

Local Accents
- 

Primary Landscape Landmarks
- 

Primary School Frontage (maximum length 130m, minimum length 65m) continuous to street
- 

Mixed Use/Retail Frontage (maximum length 120m, minimum length 55m) continuous to street
- 

Pub Frontage (maximum length 30m, minimum length 12m) continuous to street

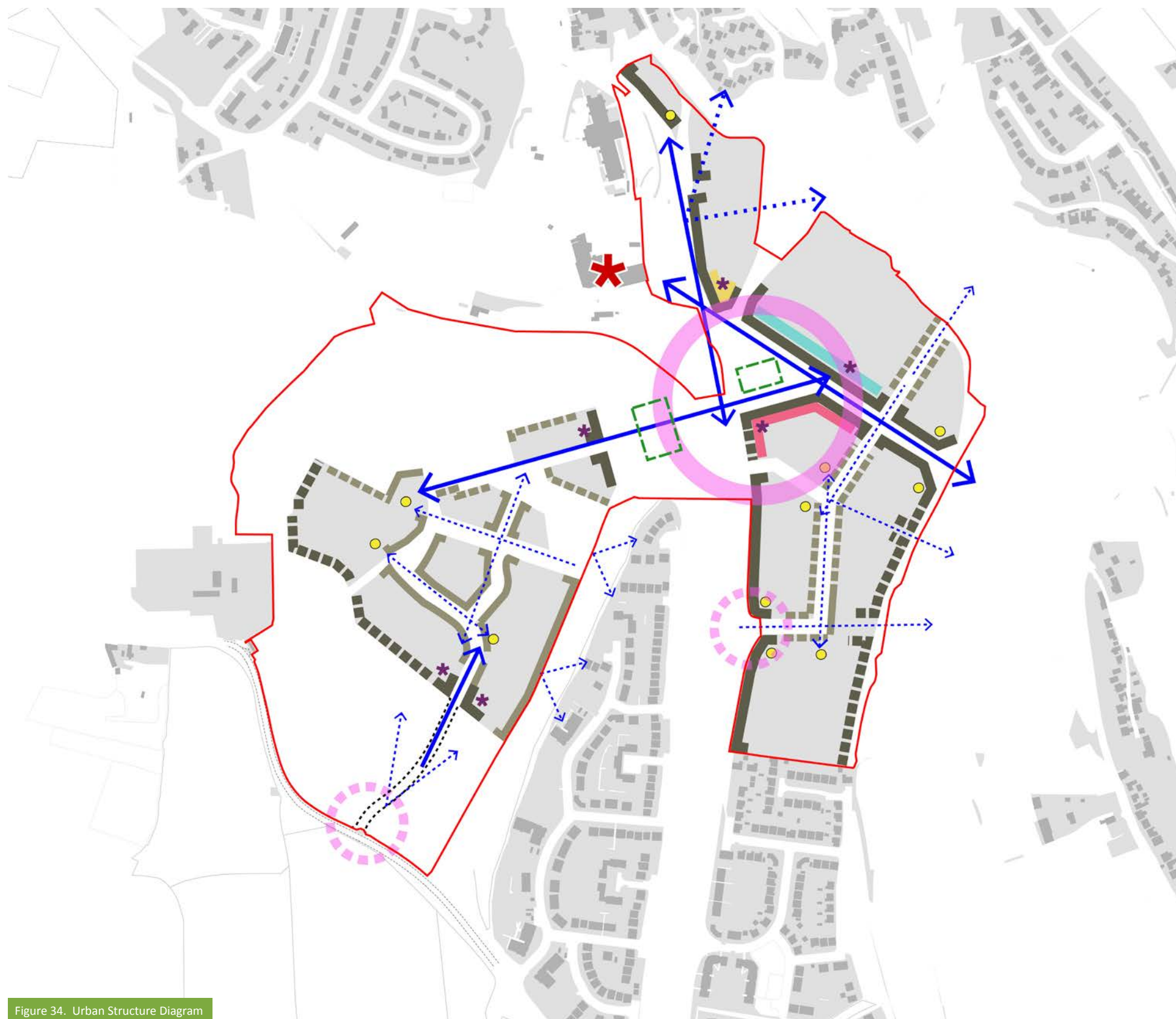


Figure 34. Urban Structure Diagram

5.5. Building Heights

BUILDING HEIGHTS

In relation to the existing context it is proposed that generally modest building heights of 2 storeys are used across the majority of the development to blend in with the existing townscape. However, building heights up to 3 storeys are proposed for development parcels around the village green to create a greater sense of enclosure and presence.

Lower building heights of 1.5 storeys are suggested for the western most parcel of Ty Cerrig to mitigate against sensitive views.

DENSITY

It is envisaged that development density will be an average density of approximately 35 dwellings per hectare, ranging between 30- 40dph. Lower densities up to 25dph may also be acceptable on Ty Cerrig in correlation with the lower building heights.

-  Site Boundary
-  Existing Buildings
-  Predominantly 2-3 Stories
Maximum height for non-residential-16m
Minimum height for non-residential-13m
Maximum height for residential-11.5m
Minimum height for residential- 8m
-  Predominantly 2 Stories
Maximum height for non residential- 12m
Minimum height for non residential- 9.5m
Maximum height for residential- 8.5m
Minimum height for residential- 8m
-  Predominantly 1.5 Stories
Non residential uses not applicable
Maximum height for residential- 6.5m
Minimum height for residential- 5.5m



Figure 35. Block Structure and Density Diagram

The urban design principles that would ensure the creation of a high quality, locally distinctive place have been set out here for illustrative purposes.

6

Layout and appearance principles

6.1. The Village Heart (Small district centre)

KEY

1. Food store and carpark
2. Shops
3. Non-residential use
4. Primary school Site
5. Pub/restaurant
6. Residential development
7. Village green
8. Traffic calming to existing road
9. Proposed car park and access to heritage buildings
10. Stepped and ramp links to Ty Cerrig
11. Emergency vehicular access to Ty Cerrig
12. Indicative Fossil Forest buildings

VISITOR ATTRACTIONS



Location Plan



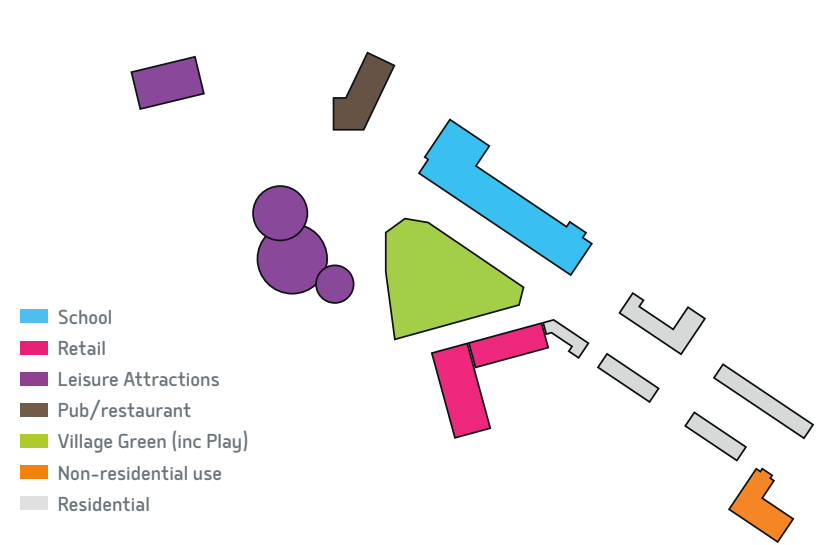


Figure 36. Village Heart (small district centre)

Precedent Imagery

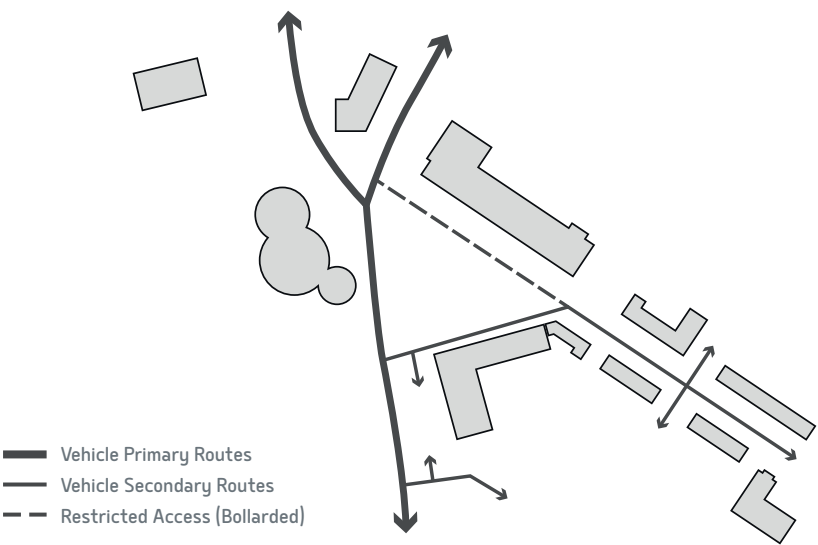


DESIGN PRINCIPLES



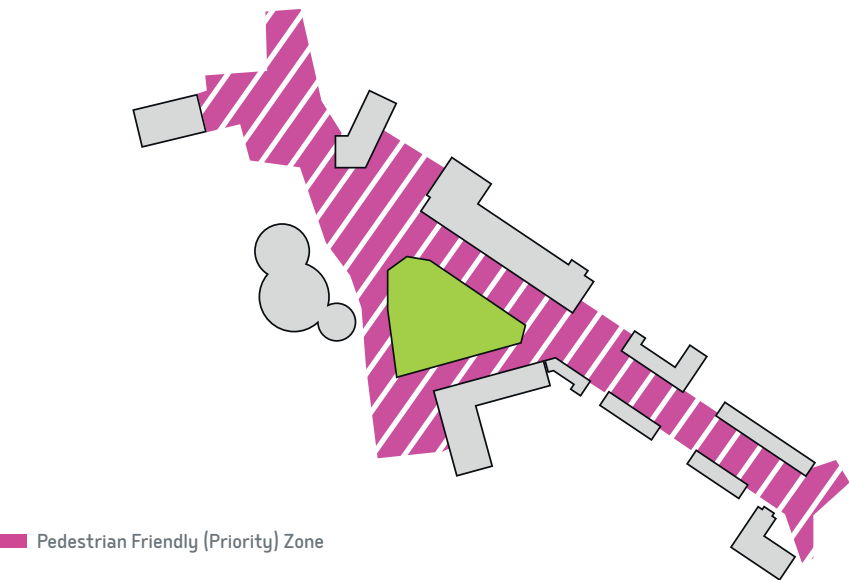
1. A MIX OF USES

The Village Heart (small district centre) will provide a range of facilities in close proximity to each other. The co-location encourages pedestrian movement between uses. This combination of uses and pedestrian movement is a key component to delivering a vibrant centre whilst also supporting the commercial viability of the individual operations. Parents bringing children to school can use the shops and local facilities, visitors to the Heritage Centre use the pub/restuarant and shops. The Village Green has the potential to become the heart of the expanded community with the scale to accommodate a wide-range of community activities and events.



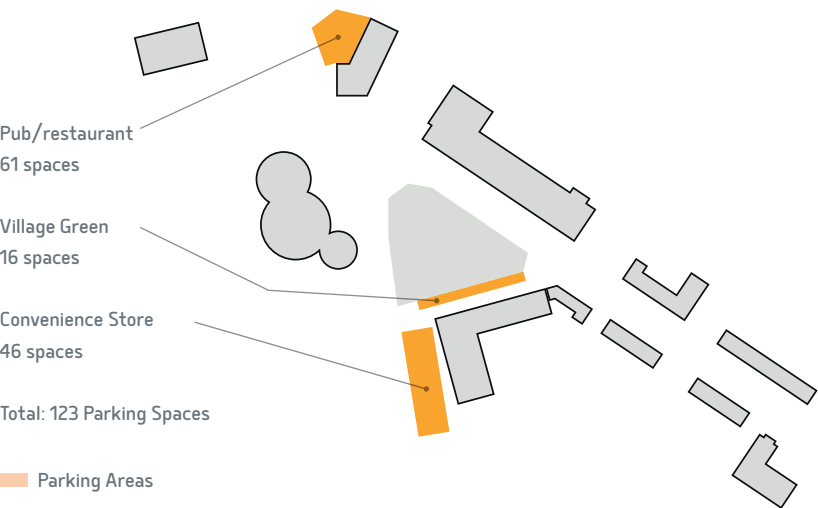
2. VEHICULAR MOVEMENT

The existing road through the application Site encourages motorists to drive at speed. The road serves to bisect the Site and discourages pedestrian movement. The application proposes a series of traffic calming measures to slow vehicular speeds and encourage pedestrian movement across Phoenix Drive between the Village Green, Ty Cerrig and the Heritage Hub. The existing roundabout will be de-engineered modifying its geometry to slow traffic movement. A series of road narrowings and speed tables will be introduced at key crossing points to prioritise pedestrian movement. The area in front of the school will be reserved for pedestrians encouraging safe access to the school building. Vehicular access to the Village Heart (small district centre) will be allowed but through traffic will be discouraged creating a pedestrian dominated environment.



3. PEDESTRIAN FRIENDLY ZONE

The Village Heart (small district centre) proposals are centred around the ambition to create a pedestrian-friendly zone at the heart of the community. This zone places sustainable movement at the heart of the application proposals.



4. PARKING

Adequate car parking provision is distributed throughout the Village Heart (small district centre). The design aim has been to distribute this quantum of car parking and encourage the sharing of its use at different times of the day and week. The Heritage Hub car park, for example, has the capacity to supplement the school drop-off car park during weekday mornings while, during the day and at weekends, it provides parking for the Heritage Hub visitors. In this way the application proposals avoid the need for large areas of under-used, unsightly and expensive surface car parks.

Figure 37. Village Heart (small district centre) design principles

The strategies for traffic calming within the small district centre will help to reduce the speed of passing traffic while putting pedestrians at the heart of the development. A large raised table centred on the roundabout lets drivers know that they are entering a slower vehicle zone. At key points formal and informal crossing points make navigating the centre easier for pedestrians with a main pedestrianised road outside the school providing easy access to the village green. Controlled emergency access to Ty Cerrig is provided to the west of the small district centre.

Location Plan



Precedent Imagery



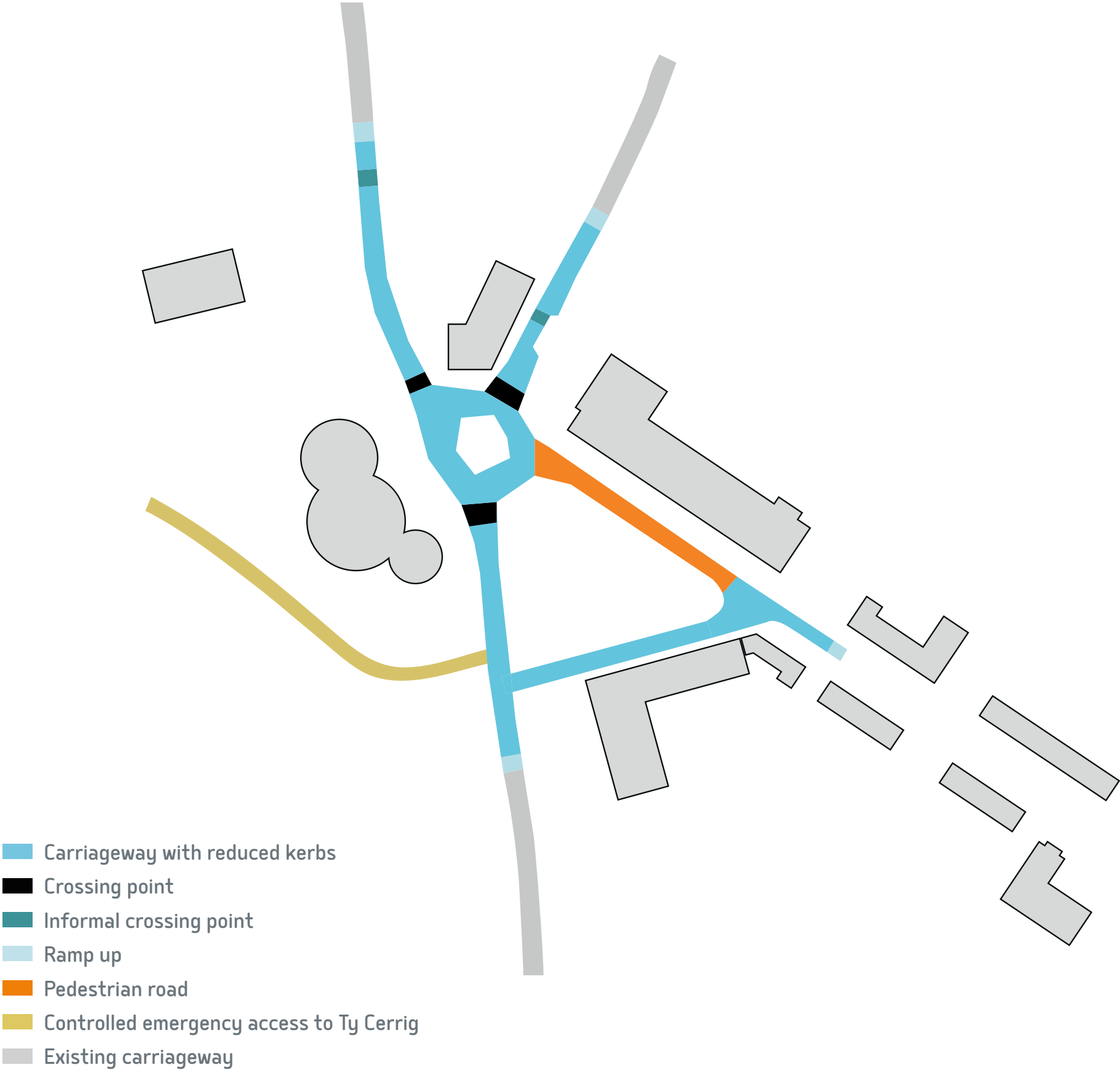


Figure 38. Village Heart (small district centre) traffic calming strategy

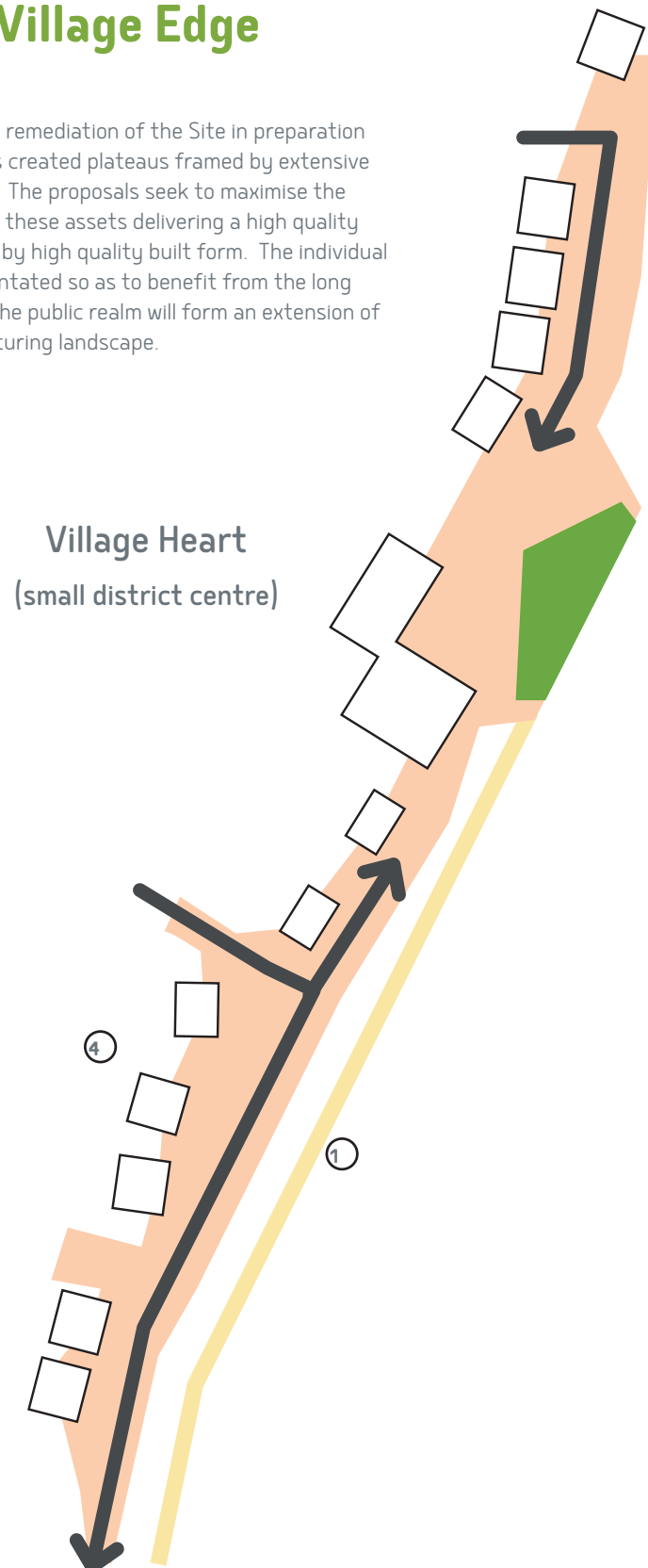


Figure 39. View of Village Green towards retail units in a mixed use block



6.2. The Village Edge

The reclamation and remediation of the Site in preparation for development has created plateaus framed by extensive ribbons of parkland. The proposals seek to maximise the potential offered by these assets delivering a high quality public realm framed by high quality built form. The individual dwellings will be orientated so as to benefit from the long range views, whilst the public realm will form an extension of the surrounding maturing landscape.



Location Plan



KEY

1. Footpath network
2. Non-residential use
3. Primary school site
4. Residential development
5. Incidental green space

Precedent Imagery



Figure 40. Village Edge



6.3. Ty Cerrig Connection

The application proposals will deliver strong pedestrian and cycle links. Ty Cerrig and the Village Heart (small district centre) are located in close geographical proximity. There is, however, a pronounced level difference between the two neighbourhoods. The proposals deliver a broad series of pedestrian steps punctuated by generous landings and rest points. The steps are delivered in conjunction with a broad sloping pedestrian ramp. This ramp has been designed in accordance with the recommendations of the 'Active Travel (Wales) Act 2013', and associated design guidance. Both ramp and steps will be lit to provide safe twenty-four hour access, whilst also running through an attractive landscape setting. To allow the route to Ty Cerrig to safely cross the existing road traffic calming and pedestrian crossing points will be provided.

Location Plan



CONCEPT DIAGRAM

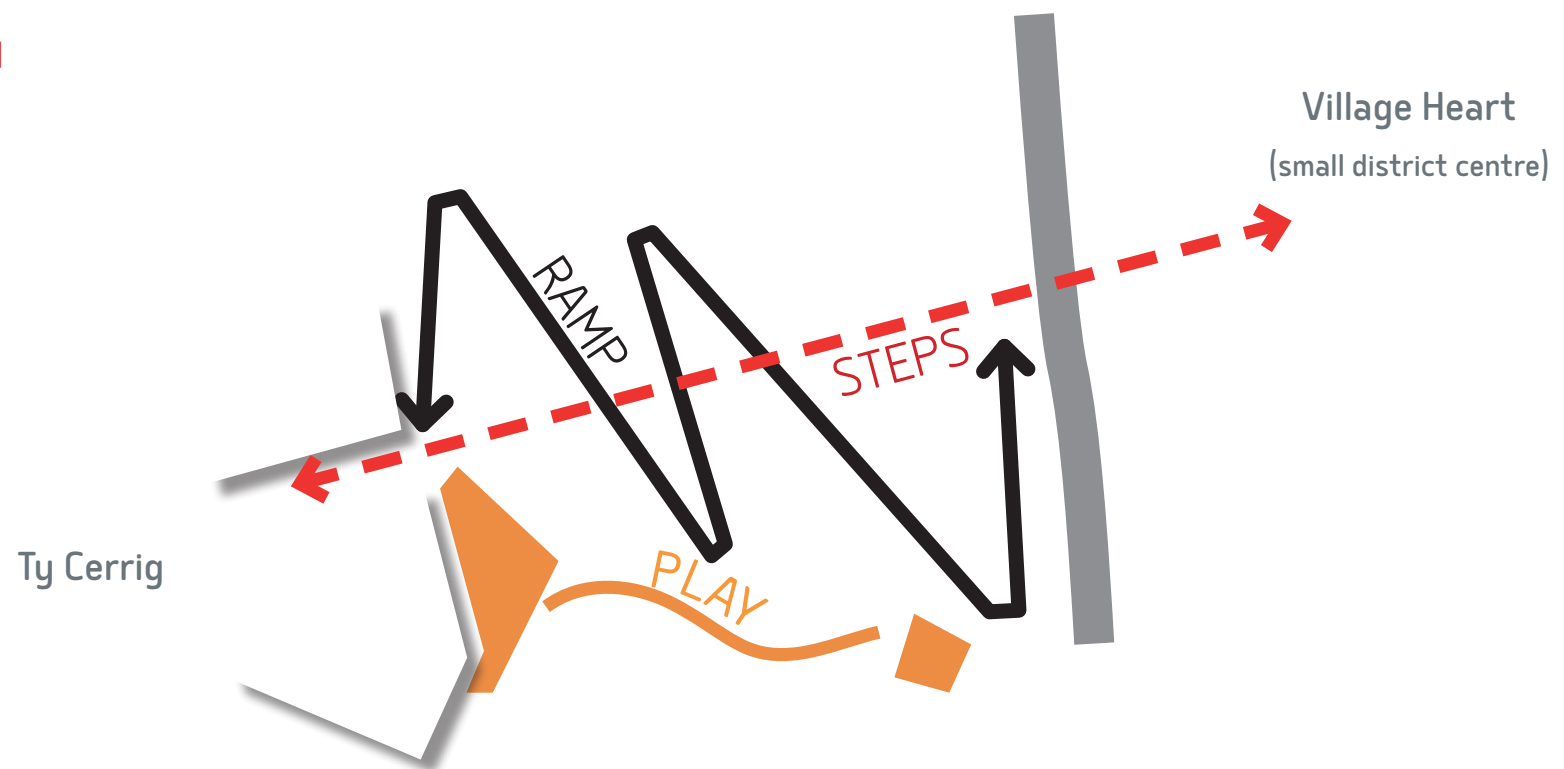
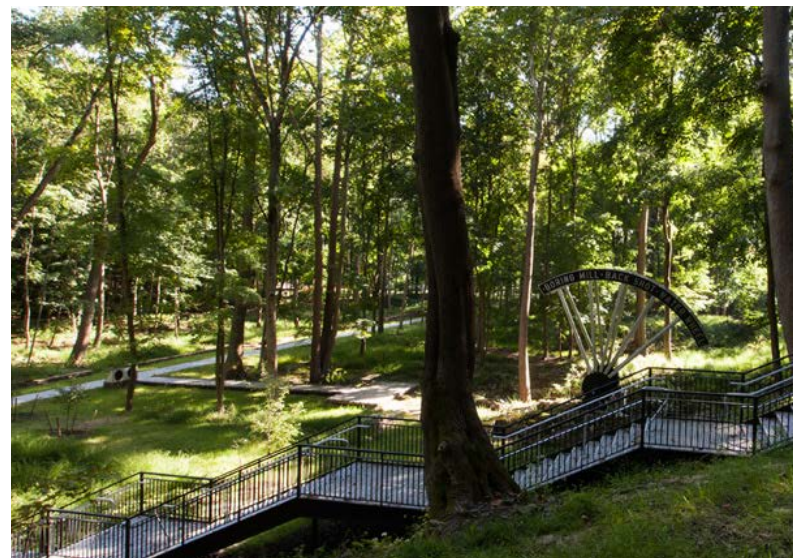
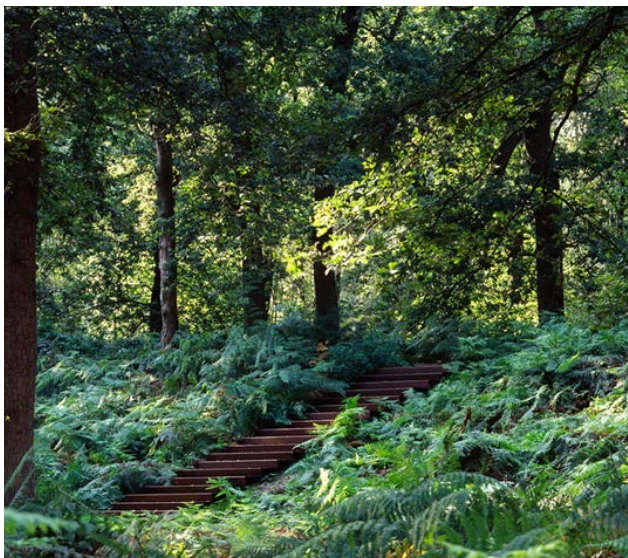
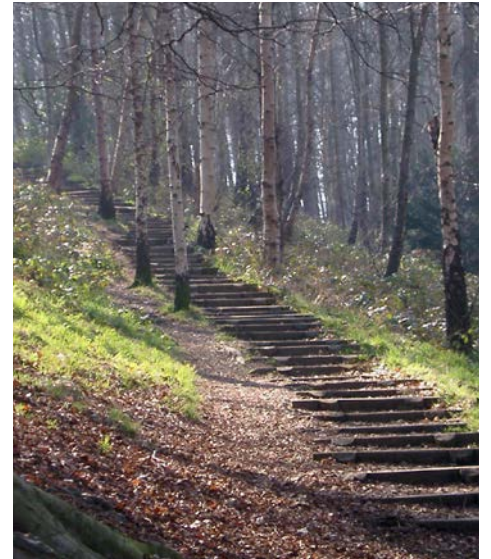


Figure 41. Ty Cerrig Connection Concept

Precedent Imagery



KEY

1. Connections to potential adventure playground and existing path network
2. Crossing point across Phoenix Drive
3. Viewing platforms
4. Lighting to steps and footpath





Figure 43. Ty Cerrig Connections

6.4. Ty Cerrig Residential Area

Ty Cerrig will provide a range of residential accommodation carefully nestled within the existing and enhanced landscape structure. The Ty Cerrig neighbourhood will be accessed from a new road junction on Brymbo Road. The development on Ty Cerrig will be of a lower density and height than that proposed on the lower portions of the Site in closer proximity to the Neighbourhood Centre. The proposed pattern of development respects the existing ground conditions resulting from previous mining and subsequent remediation operations. The existing landscape structure of linear hedgerows will be further supplemented with new hedgerow and woodland planting alongside orchard planting to connect the development into the wider informal public open spaces. There is potential to include reference to the former location of Brymbo Hall integrated into the open space, for example with public art and interpretation.

KEY

1. Orchard play space
2. Enhanced tree planting
3. Retained hedgerows
4. Ty Cerrig connection
5. Brymbo Hall memory space
6. Attenuation pond
7. Vehicle access

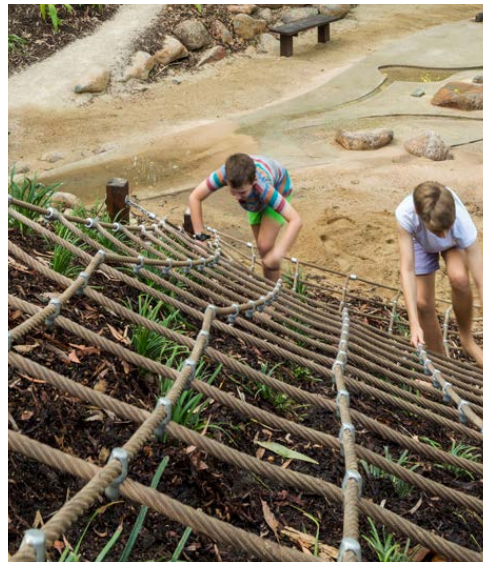
Location Plan



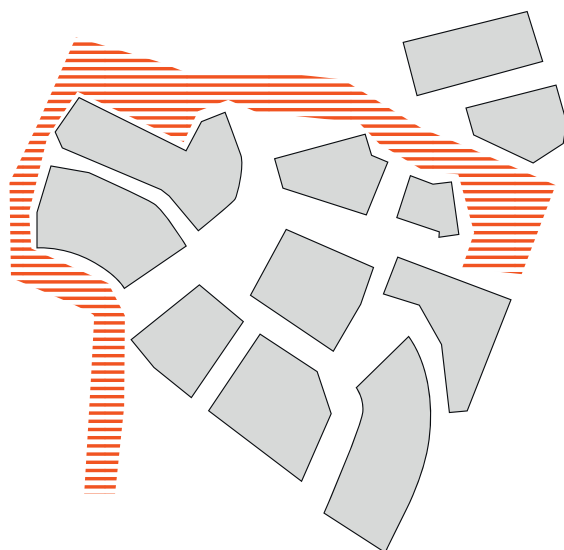


Figure 44. Ty Cerrig Residential Area

Precedent Imagery



DESIGN PRINCIPLES



1. GEOTECHNICAL FAULT AREA

Historic mining operations on Site have left some areas unsuitable for use as building plots. These areas are used as open space for tree planting and recreation.



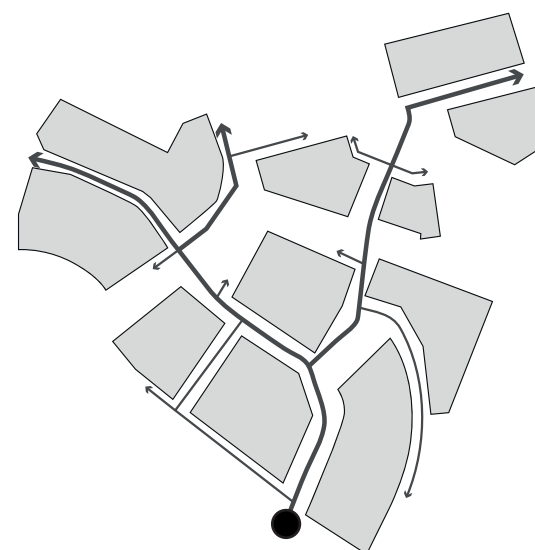
2. TREE PLANTING AND SCREENING

The existing structure of woodland and hedges is complimented by further planting of trees to screen development.



3. TOPOGRAPHY AND BUILT FORM

The built form is designed to respond to the changes in topography by focusing development on areas of less steep topography.



4. VEHICULAR MOVEMENT

Vehicular access network within Ty Cerrig allows for the creation of smaller mews like streets leading off of the primary residential roads.

Figure 45. Ty Cerrig design principles

