

# Installation of a Green Hydrogen Electrolyser, associated infrastructure at Kimberly Clark Coleshill Mill, Flint Landscape & Visual Assessment

PREPARED BY PEGASUS GROUP ON BEHALF OF HYRO ENERGY LIMITED | MAY 2023 | P23-0117\_001A





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1. INTRODUCTION

- 1.1 This Landscape and Visual Assessment (LVA) has been prepared on behalf of HYRO Energy Ltd Limited by Pegasus Group. It relates to the proposals for the Construction of a Green Hydrogen Electrolyser and associated infrastructure at Land at Kimberly Clark Coleshill Mill, Flint. The location of the Site is shown on Figure 1.
- 1.2 This LVA considers the Site and its surrounding context in both landscape and visual terms, to assess the potential effects of the proposed development upon:
- Landscape features;
  - Landscape character; and
  - Visual amenity.
- 1.3 This assessment has been guided by the assessment criteria set out in Appendix 1. It should be noted that all of the landscape and visual effects stated within assessments such as this are considered adverse unless stated otherwise. It should also be noted that all effects are considered direct, long-term but non-permanent unless otherwise stated.
- 1.4 The assessment has been prepared through a desk study analysis of the Site and its policy context to gain an appreciation of the landscape and visual context of the Site, as well as by Site visits.
- 1.5 Landscape proposals are illustrated by Figure 4 and convey the landscape strategy for the Site.

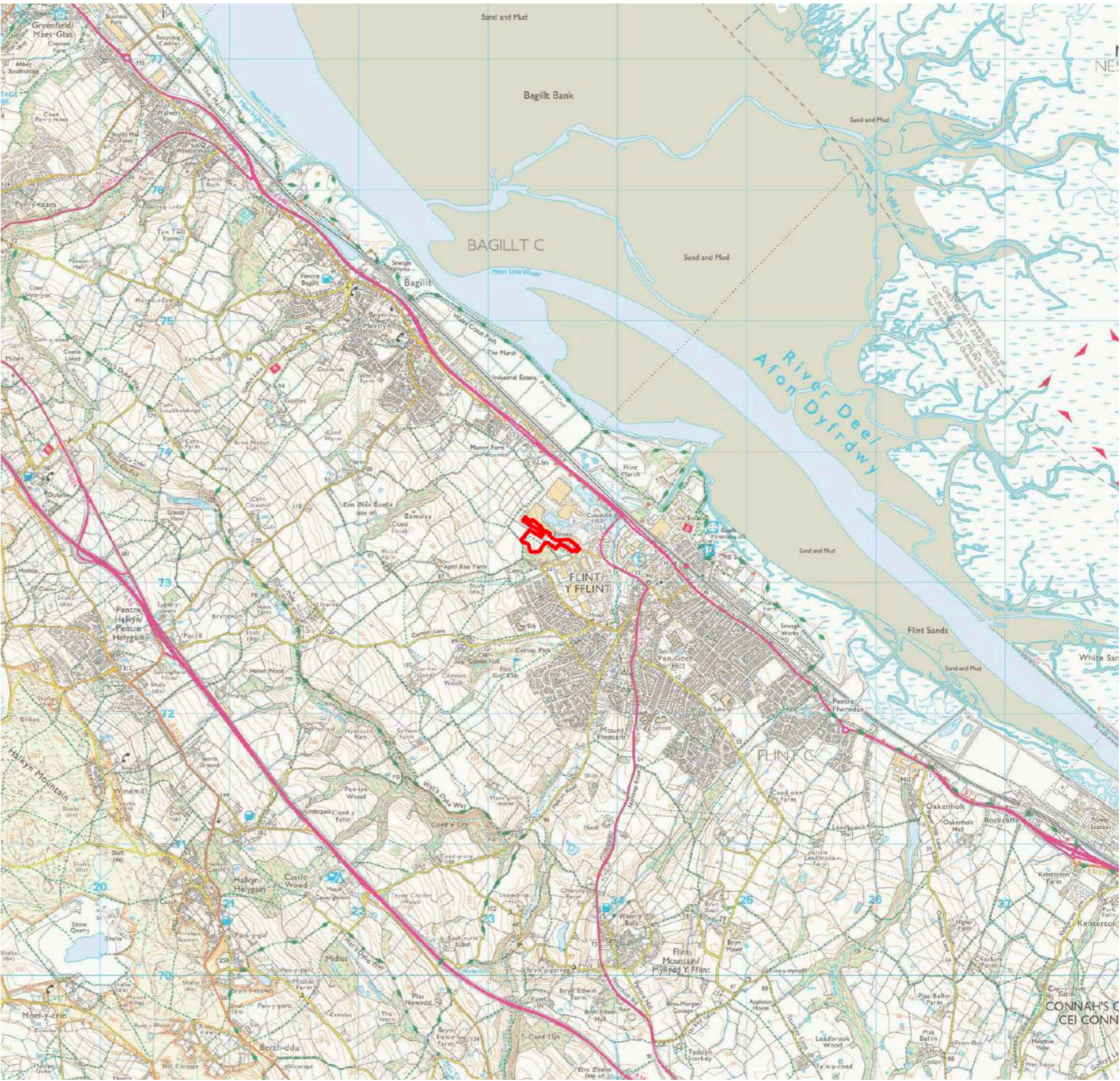


Figure 1: Site Location and Surroundings

## 2. METHODOLOGY

### Published LVA Guidance

- 2.1 The LVA has been undertaken in accordance with the principles of best practice, as outlined in published guidance documents listed in the reference section of this report, notably the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3), (Landscape Institute and the Institute for Environmental Management and Assessment, 2013).
- 2.2 The methodology and assessment criteria for the assessment have been developed in accordance with the principles established in this best practice document. It should be acknowledged that GLVIA3 establishes guidelines, not a specific methodology. The preface to GLVIA3 states:
- ‘This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.’*
- 2.3 The approach set out below and in detail in Appendix 1 has therefore been developed specifically for this assessment to ensure that the methodology is fit for purpose.

### Distinction between Landscape and Visual Effects

- 2.4 In accordance with the published guidance, landscape and visual effects were assessed separately, although the procedure for assessing each of these is closely linked. A clear distinction has been drawn between landscape and visual effects as described below:
- Landscape effects relate to the effects of the indicative proposals on the physical and perceptual characteristics of the landscape and its resulting character and quality; and
  - Visual effects relate to the effects on specific views experienced by visual receptors and on visual amenity more generally.

### Types of Landscape and Visual Impacts Considered and Duration

- 2.5 The LVA assesses both the long-term effects of the development and the temporary effects associated with its construction. Consideration has been given to seasonal variations in the visibility of the development and these are described where necessary.

- 2.6 Both beneficial and adverse effects are identified in the assessment and reported as appropriate. Where effects are described as ‘neutral’ this is where beneficial effects are deemed to balance the adverse effects. The adverse and beneficial effects are communicated in each case so that the judgement is clear.
- 2.7 As part of the proposed development, new hedgerow, tree and scrub planting would be introduced. Newly planted vegetation takes a number of years to mature and average growth rates have been taken into consideration in this assessment. The effectiveness of vegetation would improve over time (both in terms of integrating the development into the surrounding landscape and in providing visual screening) and this needs to be considered appropriately.
- 2.8 Therefore, long-term landscape and visual effects of the project are assessed both in the winter of year 1 (the year in which the development is completed) and also in the summer of year 5 (5 years after completion of the development). In this second scenario it is assumed that vegetation planted as part of the development will have established and exhibit a degree of maturity.

### Assumptions and Limitations of the Assessment

#### Assessed Proposal

- 2.9 The project proposals have been developed iteratively in conjunction with the production of the LVA with the intention of incorporating mitigation into the project from the outset. The effects identified and described as part of this LVA are based on the landscape proposals as shown in Figure 4.

#### Baseline Information

- 2.10 The baseline landscape resource and visual receptors were identified in part through a desk based study of Ordnance Survey mapping, published landscape character studies, relevant planning policies, interrogation of aerial photography and a Site visits undertaken in January and April 2023.

## 3. SITE CONTEXT

- 3.1 The Site is located adjacent to the Kimberly Clark facility, which consists of several large buildings associated with manufacturing and logistics. The main Site area lies to the south west of the Kimberly Clark complex beyond a belt of established vegetation, Red Wood or Red Pit Community Woodland forms part of the southern and western boundary of the site where the majority of infrastructure is proposed. The Site which is approximately 4.3 hectares is located to the north of the settled parts of Flint and the River Dee estuary lies to the north at approximately 1km, which is separated by the A548 and Flint Marsh.
- 3.2 The Site to the south west, where the majority of infrastructure is proposed consists a pastoral field surrounded by established field boundary vegetation and Red Wood, which is located at its southern and western boundary. Within this field there are two overhead electricity lines with poles which travel south west to north east across the field area and into the Kimberly Clark premises. A public footpath, 404/35/50 travels east for approximately 100m from the junction of Footpath 404/35/20 before changing direction south east towards Red Wood, before terminating at Aber Road which serves Aber Park Industrial Estate.
- 3.3 Other parts of the site extents to the north and east lie within the existing internal workings and access of the Kimberly Clark facility.
- 3.4 Located at the northern extents of Flint, the Site lies within countryside, immediately adjacent to industrial and commercial industry. The developed part of this landscape lies to the east and southern parts of the site and countryside lies to the north and west. Flint Cemetery and the residential streets served by Old London Road, Royal Drive and Windsor Drive lie to the south west of the Site beyond Red Wood.
- 3.5 A photographic record of views toward the Site and its local context is provided in Appendix 2, with the photographic locations illustrated in Figure 12.

4. DESIGNATION AND POLICY CONTEXT

4.1 This section provides an overview of the policies and designations of particular relevance to landscape and visual issues. The Site is located within the administrative boundaries of Flintshire County Council.

Landscape Designations

- 4.2 The Site is not covered by any national or regional landscape designations.
- 4.3 There are no listed buildings, scheduled monuments or registered parks and gardens on or in close proximity to the Site. It is noted that there are numerous ecological designations located to the north of the Site, including national and local nature reserves, Special Areas of Conservation, RAMSAR, Special Protection Areas, amongst others, however, none cover the Site itself.
- 4.4 A public right of way crosses the site (Footpath 404/35/50). A number of other public rights of way surround the Site with their locations shown on Figure 2.
- 4.5 It is acknowledged that the proposed development will affect Footpath 404/35/50 which crosses the site and a diversion is proposed which would travel along the northern edge of Red Wood, as illustrated on Figure 3.

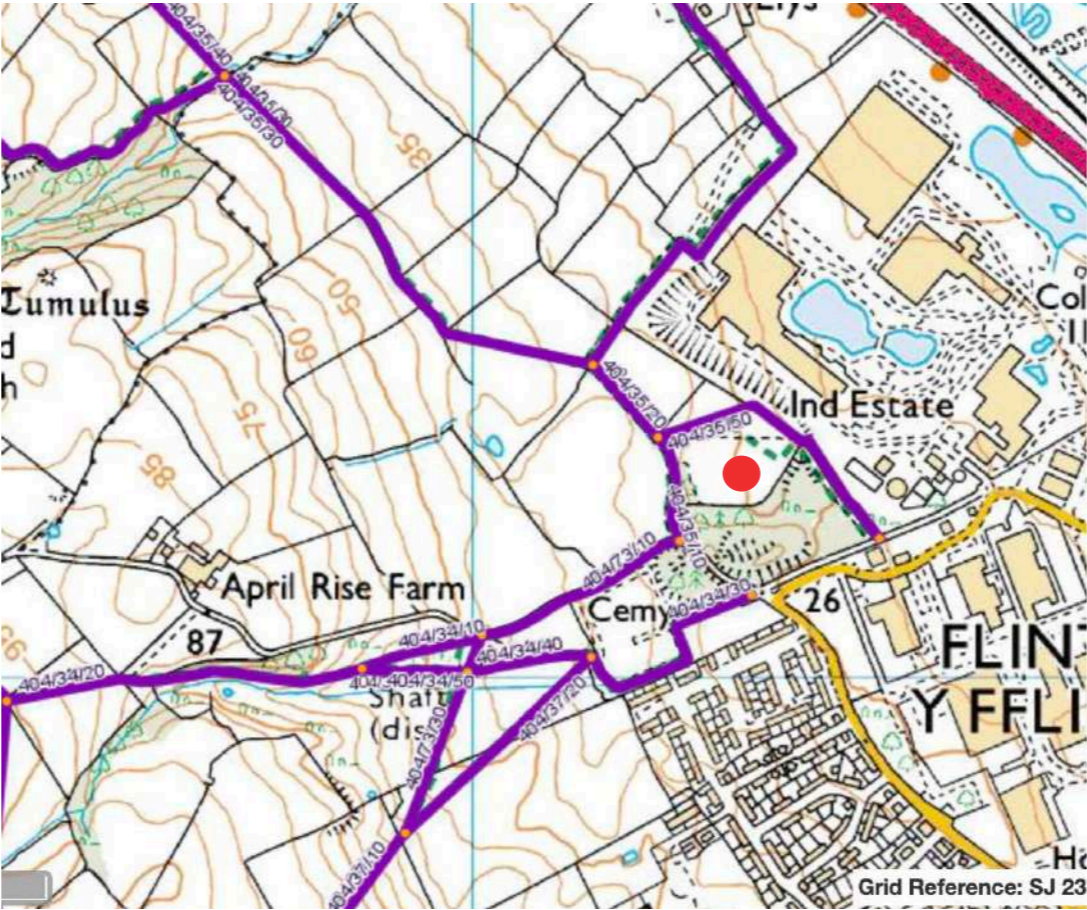


Figure 2: Extract from Flintshire County Councils interactive rights of way map (Approx Site centre shown as red dot)

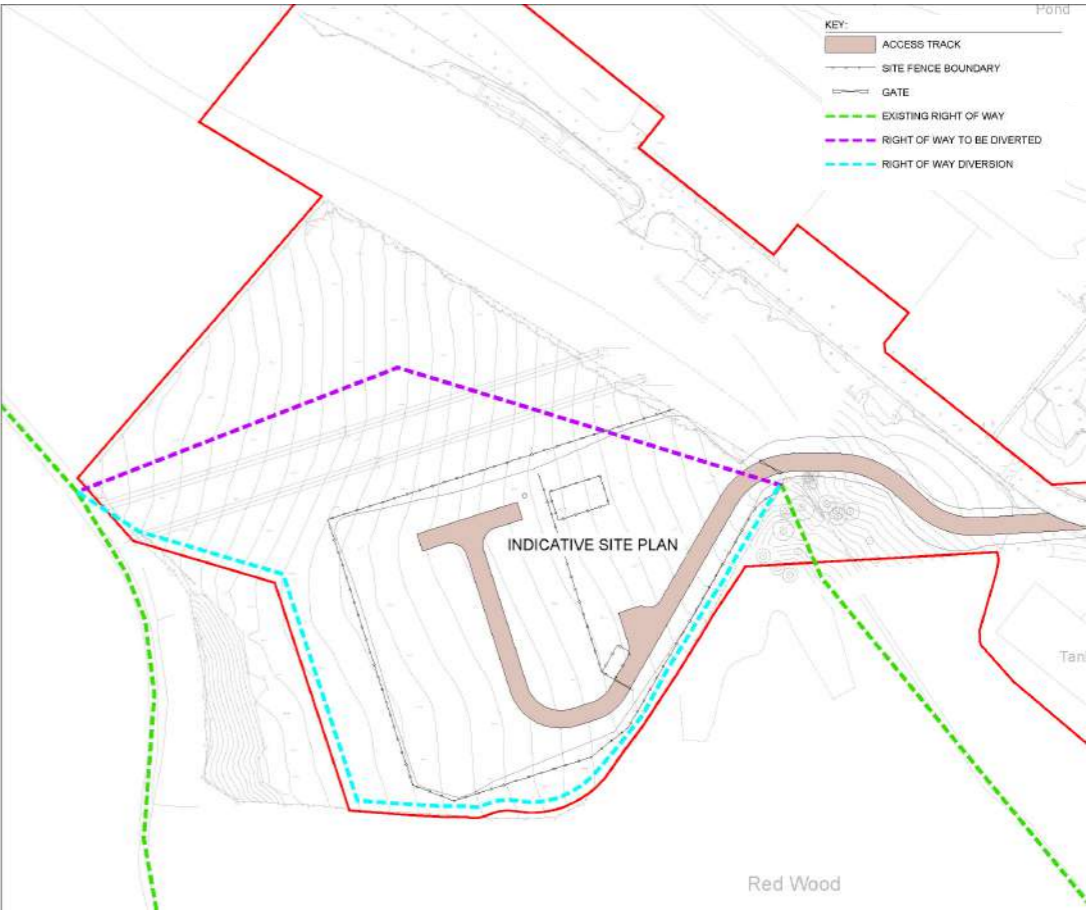


Figure 3: Extract from RES Draft Public Right of Way diversion plan showing proposed route of diversion

Relevant Landscape Planning Policy

National Planning Guidance

- 4.6
- National planning policy is set out in the Welsh Assembly Government’s Planning Policy Wales, Edition 11 (PPW11), dated February 2021.
- 4.7
- Paragraphs 3.9 and 3.10 of PPW11 discuss Character and identify that:  
  
*‘The special characteristics of an area should be central to the design of a development. The layout, form, scale and visual appearance of a proposed development and its relationship to its surroundings are important planning considerations. A clear rationale behind the design decisions made, based on site and context analysis, a strong vision, performance requirements and design principles, should be sought throughout the development process and expressed, when appropriate, in a design and access statement.*  
  
*In areas recognised for their particular landscape, townscape, cultural or historic character and value it can be appropriate to seek to promote or reinforce local distinctiveness. In those areas, the impact of development on the existing character, the scale and siting of new development, and the use of appropriate building materials (including where possible sustainably produced materials from local sources), will be particularly important.’*  
  
4.8 Chapter 6, section 6.3 of PPW11 refers to Landscape and its contribution to the Distinctive and Natural Places theme of planning policy topics. Paragraph 6.3.3 of PPW11 states that:  
  
*‘All the landscapes of Wales are valued for their intrinsic contribution to a sense of place, and local authorities should protect and enhance their special characteristics, whilst paying due regard to the social, economic, environmental and cultural benefits they provide, and to their role in creating valued places. Considering landscape at the outset of formulating strategies and policies in development plans and when proposing development is key to sustaining and enhancing their special qualities, and delivering the maximum well-being benefits for present and future generations as well as helping to deliver an effective and integrated approach to natural resource management over the long term. Collaboration and engagement with adjacent planning authorities, Natural Resources Wales (NRW), Cadw and the third sector will be necessary to draw on a wide range of expertise and evidence. This means:*  
  

• Ensuring Wales contributes to meeting international responsibilities and obligations for landscapes;

- Ensuring statutorily designated sites are properly protected and managed;
- Ensuring that the value of all landscapes for their distinctive character and special qualities is protected; and
- Ensuring the opportunities landscapes provide for tourism, outdoor recreation, local employment, renewable energy and physical and mental health and well-being are taken into account and multiple well-being benefits for people and communities secured.’

- 4.9
- Paragraphs 6.3.5 to 6.3.11 discuss the statutory landscape designations that apply in Wales, referring to National Parks and Areas of Outstanding Natural Beauty (AONB). The Site is not in a National Park or AONB nor in the setting of any of these designated areas.

Local Planning Policy

- 4.10
- The Site is situated in the Flintshire County Council local authority area.  
  
Flintshire Local Development Plan 2015 – 30, Adopted Plan, January 2023
- 4.11
- Landscape related policies include:
- 4.12
- STR13: Natural and Built Environment, Green Networks and Infrastructure – STR13 highlights that development should identify, respect, protect, enhance and connect Flintshire’s environmental assets, to create a multifunctional network of natural and historic resources.
- 4.13
- PC2: General Requirements for Development – Policy PC2 states that all development should be in keeping with the character, local distinctiveness, and landscape of the area.
- 4.14
- PC3: Design – Policy PC3 highlights that all new development should be of a high quality design, retain existing landscape and nature conservation features and incorporate opportunities to enhance biodiversity and ecological connectivity.
- 4.15
- EN4: Landscape Character – EN4 states that new development, either individually or cumulatively, must not have a significant adverse impact on the character and appearance of the landscape. Landscaping and other mitigation measures should seek to reduce landscape impact and where possible bring about enhancement. Landscape Character is discussed in Section 6 of this document.
- 4.16
- EN7: Development Affecting Trees, Woodlands and Hedgerows –Policy EN7 states that development proposals that will result in significant

loss of, or harm to, trees, woodlands or hedgerows of biodiversity, historic and amenity value will not be permitted.

SUPPLEMENTARY PLANNING GUIDANCE

- 4.17
- Supplementary Planning Guidance Note No.3 Landscaping was adopted by Flintshire County Council on 17th January 2017. This guidance note builds upon the guidance in policy D3 Landscaping, of the adopted Flintshire Unitary Development Plan, and clarifies the Council’s landscape expectations when assessing development proposals.

5. PROPOSED DEVELOPMENT

Proposed Development

- 5.1 The proposed development comprises a Green Hydrogen Electrolyser (GHE) facility with associated infrastructure. The proposed development would consist of the following, which aside from the 15m x 0.6m Emergency Ventilation Stack, would not exceed a height of 5.5m:
- Electrolyser stack and gas liquid separators;

Hydrogen storage tank;

Hydrogen facility substation building;

Emergency ventilation stack;

Nitrogen storage tank;

Office and spares container;

Compressor;

Feed water tank;

Low pressure buffer 20ft container;

Low pressure buffer 40ft container;

Associated drainage and electrical infrastructure; and

Earthwork bunds and an attenuation feature; and

Access via Aber Road.

Mitigation Proposals

- 5.2 In order to mitigate potential landscape and visual impacts arising from the scheme, the landscape proposals as illustrated at Figure 4 take account of the identified areas of sensitivity by providing additional planting where required and any relevant maintenance notes for existing planting.
- 5.3 Care has been taken to retain existing boundary trees and hedgerows where possible, to retain the character of the local area, to maintain existing visual buffers and to maintain biodiversity value. The proposals would result in the loss of a limited amount of vegetation between the western field area and the Kimberly Clark facility.

5.4 The landscape mitigation proposals include the following:

- Retention, protection and enhancement of the existing network of trees and vegetation along Site boundaries, where possible;
- Provision of a new native hedgerow along the northern, western and southern boundaries to the western part of the Site aligning with proposed fencing to provide visual enclosure, especially for people travelling along the proposed diverted Footpath;
- Planting of native scrub species to further filter views of the development and increase the biodiversity on site. Scrub to be also planted on bunding.

- Provision of scattered native tree planting within the proposed new hedgerow planting and areas of scrub. This would provide a level of filtering of views towards the proposed development;
- Creation of wildflower grassland within areas surrounding the development, including the seeding of the attenuation feature with an appropriate meadow seed mix tolerant of occasional water submergence; and
- Ongoing landscape management of planting during the lifetime of the installation.

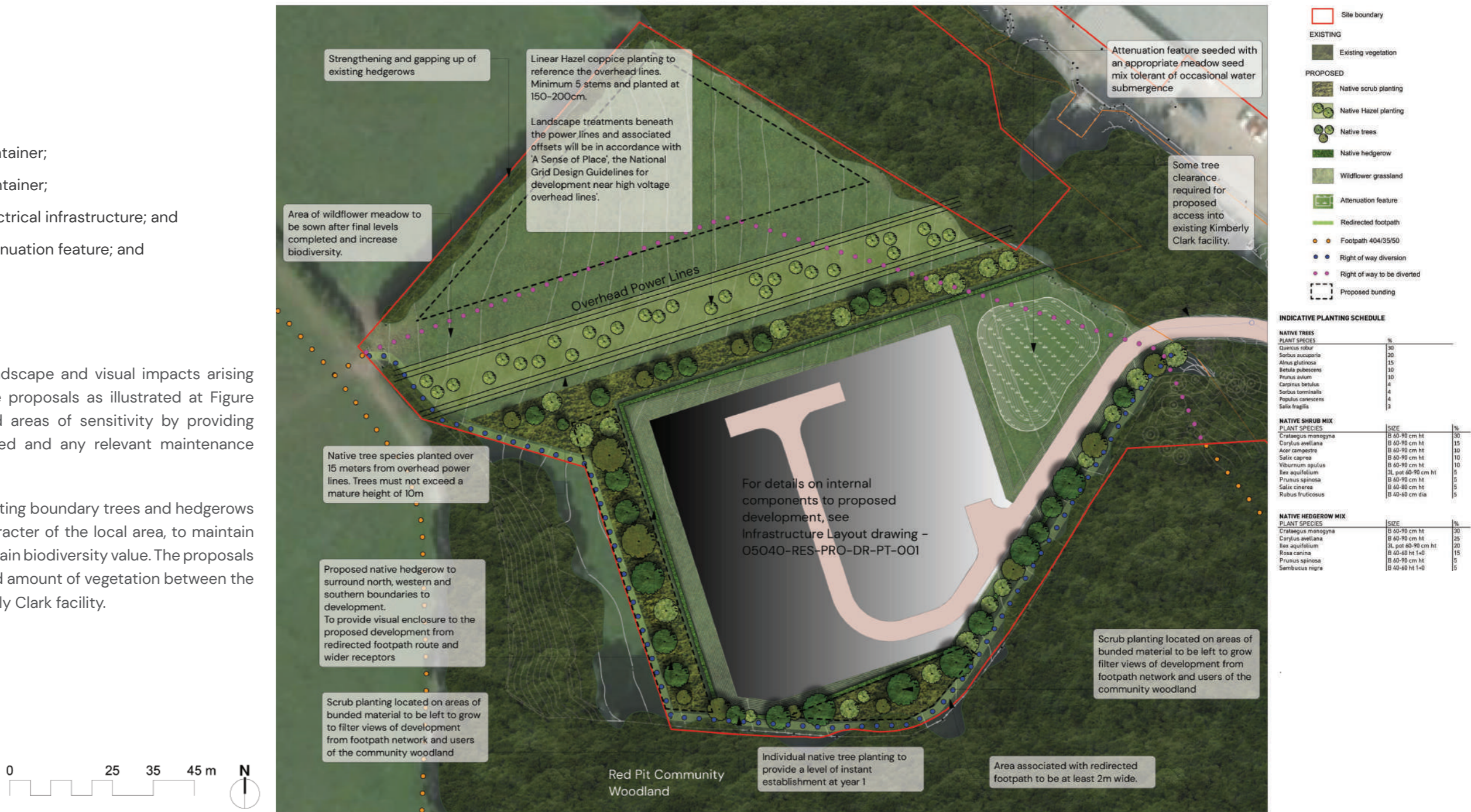


Figure 4: Landscape Masterplan

## 6. LANDSCAPE BASELINE AND EFFECTS

- 6.1 The assessment of Landscape Effects deals with the changes to the landscape as a resource. Different combinations of the physical, natural and cultural components (including aesthetic, perceptual and experiential aspects) of the landscape and their spatial distribution create the distinctive character of landscapes in different places.
- 6.2 Effects are considered in relation to both landscape features and landscape character during construction, at Year 1 and at Year 5 and beyond. The sensitivity of landscape features is a function of both their susceptibility and value, as discussed further in the Assessment Criteria at Appendix 1. A summary of landscape effects are included in Table 1.

### Landscape Features

#### Landform and Topography

- 6.3 The landform of the Site slopes west to east at an approximate difference in elevation of 15m and consists of a field at the western part of the Site area, which is bound by established vegetation and a woodland to the south and west of the field. The woodland is located on localised elevated landform, higher than that of the field. To the east of this field lies a belt of established vegetation located on landform which slopes easterly towards the kimberly Clark facility. This facility consists of large buildings and associated infrastructure for manufacturing purposes and is accessed via Aber Road to the south east. The proposed Site would share the existing access route located within the Kimberly Clark facility which is lower in elevation to that of the field area located at the west of the overall Site area. The field area is in contrast to the surrounding landform. To the north and east, landform drops gently towards the River Dee, beyond the A548 and the landform rises gently to the south towards the settled areas of Flint and land rises steeply towards the west.
- 6.4 The landform of the Site is not unusual in the locality, and is typical of the local area which is influenced by surrounding industrial and commercial development, therefore it is deemed to have a **low** value. The landform would be subject to changes in level to accommodate structure foundations, access tracks, hard surfaced areas, gates and fencing, as well as areas of bunding created from constructing the development. It is therefore deemed the Site to have a **medium** susceptibility to change, with an overall sensitivity judged to be **Medium**.
- 6.5 As there would be changes to the landform to accommodate the various components of the proposed development, which would be in contrast to its current form, the magnitude of change is considered to be **medium**, which would result in **Moderate adverse** levels of effects during all periods.



Figure 5: Aerial Photograph of site and surroundings

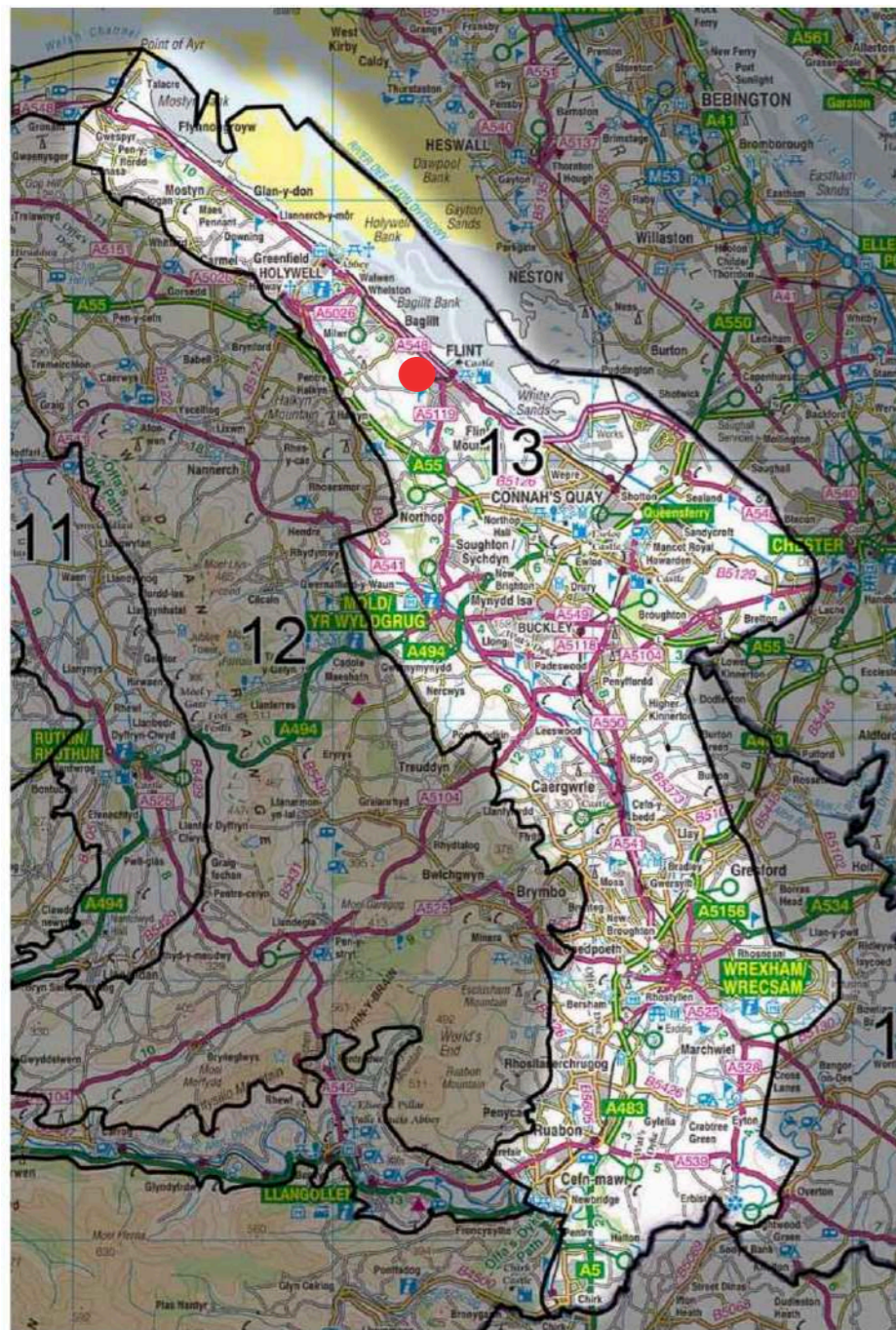
Water Features and Drainage		
6.6	There are no water features or drainage features on the Site. A large scale pond lies to the north east of the Site within the Kimberly Clark facility.	
6.7	Due to the lack of existing drainage features within the Site, they are not considered further in this report.	
Land Use, Buildings and Infrastructure		
6.8	The western part of the site represents a field which is used for pasture and includes a public footpath which travels roughly north west to the south east, as well as two overhead electrical lines with wooden poles which travel through the site roughly west to east and into the Kimberly Clark facility. Other areas of the site consist of established woodland, tracks and associated infrastructure relating to manufacturing. These elements consist of varying sizes of commercial buildings, treatment apparatus and a network of internal access tracks .	
6.9	To the south east and east of the Site lies Aber Park Industrial Estate which occupies a large section of land stretching towards the settled parts of Flint. To the south of the site beyond Red Pit Wood lies Flint Cemetery and a large residential area. Located within countryside to the west of the site lie several scattered farmsteads, which are located at varying elevations in the landscape. The landscape to the north consists open countryside with field boundary walls and fencing as far as the southern extents of Bedol. In addition to the footpath which crosses the Site, several other footpaths cross land to the north and west and are rural in character, as well as perceptually; the experience of walking these footpaths north and west of the proposed Site area is different to that of when travelling along the footpath which travels through the site. This is due to the noise and smells associated with industry filtering down as one travels beyond the north western site extents.	
6.10	The Site is in part heavily influenced by the adjacent Kimberly Clark facility, as well as other commercial uses nearby. Despite this, the western part of the Site is associated with the adjacent countryside to the north and west and has some recreational value. Therefore, it is considered that this part of the site, in which the development is proposed has a <b>medium</b> value. The proposals are likely to affect most of the western part of the Site, albeit with some influence from the surrounding context, therefore, it is considered to have a <b>medium</b> susceptibility to change. Overall, the sensitivity is deemed to be <b>medium</b> .	
6.11	The proposals would represent change to the current land use from a pastoral field with access through it in the form of a Public Footpath to an operational industrial facility, albeit in context of the adjacent Kimberly Clark facility. As such, the magnitude of change is assessed as <b>high</b> upon the Site itself, resulting in a <b>Moderate adverse</b> level of effect during all periods.	
Vegetation		
6.12	There are no trees located in the western field area, however a section of established trees and vegetation is located on landform which slopes towards the Kimberly Clark facility, which is located within the overall site area. In addition, areas of trees and vegetation are located alongside the access track which travels east towards Aber Road . A dense hedgerow with trees forms the northern boundary of western field area which allows access into a field further north at the northeastern corner of the Site.	
6.13	Red Pit Community Woodland lies adjacent to the south and south west of the western field area beyond wire fencing. There are several access points into the Community Woodland. These are along the southern extents of the wood along Aber Road and Old London Road, from Footpath 404/35/10 which travels along the western edge of the woodland, as well as at the southeastern corner of the western field area. The woodland has several routes which allow access to the entirety of the woodland, including the elevated parts of the wood at the north, which lies adjacent to the site. The woodland encloses the western field area and provides separation between the Site and the Cemetery and residential areas to the south.	
6.14	There are two areas of vegetation within the site itself, on the slope towards the Kimberly Clark facility and along the access track. Although these provide some localised amenity value, it is considered to have a <b>low</b> value overall. The proposed development would have the potential to affect a limited amount of vegetation within the Site for access purposes and further removal to accommodate elements of the development. The vegetation on site is considered to have a <b>medium</b> susceptibility to change, which gives an overall <b>medium</b> sensitivity.	
6.15	During construction, vegetation surrounding the Site alongside boundaries would be protected. There would be loss of existing vegetation during construction, as mentioned above, therefore, this would result in a <b>medium adverse</b> magnitude of change	
6.16	At Year 1, proposed mitigation would be in place, albeit that it would have yet to establish and mature. As a result, a <b>medium to low beneficial</b> magnitude of change would occur at Year 1, resulting in a <b>Moderate to Moderate/Minor</b> level of effect.	
6.17	With the benefit of maturing mitigation planting, the proposed vegetation would integrate the development with its surroundings, resulting in further localised benefits within the Site. At Year 5, a to low beneficial magnitude of change is predicted, resulting a long-term <b>Moderate/Minor</b> level of effect.	

## Landscape Character

- 6.18 This section provides an overview of the landscape character of the Site and its locality. It provides an indication of the sensitivity of the landscape character to the proposed development and the resulting effects which would arise from the development proposals.

### National Level Landscape Character

- 6.19 The Site is located within National Landscape Character Area (NLCA)



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Figure 6: Extract of NLCA 34 with approximate site location circled.

13, Deeside and Wrexham, with the Site location identified in Figure 6. The key characteristics of NLCA 13, of relevance to the Site, are set out below:

- **Lowland, foothills and levels** – sloping down to the lower Dee and Dee Estuary. Carboniferous Coal Measures interspersed with outcrops of Millstone Grit, Holywell shales and Cefn-y-Fedw sandstones. Glacial till, fluvio-glacial and river terrace drift overlay in parts of the valley floor, giving rise to localised gentle land form variation.
- **A single large river, the Dee, traverses the area.** – The Dee opens out into a broad estuary with tidal sand and mud flats. A number of minor rivers dissect the landscape, for example, the Alyn and Eitha, and associated streams.
- **A broad flat flood plain adjacent to the Dee Estuary** – with wide open views to Wirral
- **Narrow, incised, wooded tributary valleys** – many running down from the west.
- **Mixed pasture and some arable** – and farm woodland cover.
- **Archaeology** – variety of historic sites indicate the former strategic importance of the coastal route and the turbulent history of the Marchlands, including Offa's Dyke and Wat's Dyke. Late Medieval parklands and ecclesiastical / funerary sites.
- **Urban settlements** – a strongly settled character is apparent in the central and southern parts of the area, with the relatively large, almost linked settlements of Holywell–Connah's Quay–Mold–Wrexham–Ruabon.
- **An industrial character** – evident in the line of coalesced settlements at Connah's Quay and Holywell, associated both with the Chester to Holyhead railway line, mining and large scale power generation and industrial plants. Include landmark scale structures such as Broughton aircraft factory, Shotton Steel works and Connah's Quay power station. Industry tends to dwarf historic settlement and features e.g. Flint and its castle.
- **Small settlements** – outside urban areas, compact villages associated with landed estates and isolated farmsteads, or coalesced ribbon developments and encroachment upon commons, which are the legacy of the former coal and lead mining industries.

- **Culturally many connections to Chester and Merseyside**

- 6.20 The national level assessment gives a broad brush impression of a region and provides a useful contextual overview of the character of the wider landscape. However, the proposed development is not considered to have the potential to result in any perceptible effects on landscape character at this national scale and to remain proportionate to the small scale of the Site in relation to the NLCA, focus is placed upon the local landscape character and LANDMAP.

### LANDMAP

- 6.21 LANDMAP is landscape guidance for Wales developed by the Countryside Council for Wales (CCW) now part of NRW. Landscape characteristics, qualities and influences on the landscape are recorded and evaluated into nationally consistent data and retained as a Geographical Information Systems (GIS) based landscape resource. LANDMAP comprises five spatially related datasets referring to:

- Visual and Sensory;
- Geological Landscape;
- Landscape Habitats;
- Historic Landscape; and
- Cultural Landscape.

- 6.22 Within each of the five layers, there are 'aspect areas'. Each 'aspect area' is evaluated from a local to a national scale of landscape importance. The evaluation terms used include:

- Outstanding – nationally important;
- High – regional or county importance;
- Moderate – local importance; and
- Low – little or no importance.

- 6.23 The Site is in the following LANDMAP aspect areas, identified below by Unique ID and Area name and shown on Figures 7 to 11:

- FLINTCLS032 – (Cultural Landscape);
- FLNTGL868 – Flint– Baglit (Geological Landscape);
- FLNTLH031 – Baglit coastal slope grasslands (Landscape Habitats);
- FLNTHL207 – Maes Gwyn (Historic Landscape) and
- FLNTVSO14 – (Visual and Sensory)

**FLINTCLS032 – (Cultural Landscape)**

6.24 The Site is located in the eastern section of the cultural landscape aspect area and is shown at Figure 7. The aspect area is described as Mosaic Rolling Lowland. The value, condition and trend of this aspect area are not recorded.

**FLNTGL868 – Flint – Baglit (Geological Landscape)**

6.25 The Site is located in the north eastern portion of the aspect area identified as Lowland glacial and fluvioglacial depositional terrain within Lowland hills and valleys classification and is shown at Figure 8. The geographical and topographical character of this aspect areas is described as, *‘Coastally orientated slope of glacial clay with prominent central terrace of glacial sand and gravel with a steep north-eastwards facing scarp... Forms a distinctive block of the extensive glacial drift cover of the county, separated from other areas by an incised valley system... Includes small outcrops of Carboniferous bedrock where drift cover is absent...’*

6.26 Under the Evaluation section, the value of this aspect area is identified as moderate, the condition good and the trend constant. Under the Recommendations section the record states *‘Ensure that significant features of geological or geomorphological significance in the area are not lost/damaged due to development, etc...’*



Figure 7: Extract from Natural Resources Wales Environmental Information Portal – LANDMAP Cultural Landscape (site area circled)



Figure 8: Extract from Natural Resources Wales Environmental Information Portal – LANDMAP Geological Landscape (site area circled)

**FLNTLH031 – Baglit coastal slope grasslands (Landscape Habitats)**

6.27 The Site is located in the north eastern portion of the landscape habitats aspect area, classified as Improved grassland within Grassland & Marsh and Dry (Relatively) Terrestrial Habitats and is shown at Figure 9. The aspect area is described as comprising *‘the mainly improved grass fields of the coastal slope. There are a few arable fields. The most important biodiversity feature of the area are the ribbon woodlands which follow the small streams down towards the Dee Estuary. These form important biodiversity corridors and are likely to harbour a wide range of common species, together with the BAP species record’*

6.28 Recorded habitats within the aspect area include, Semi-natural broadleaved woodland, improved grassland, arable, amenity grassland and buildings. Under the description section, value is identified as moderate, condition is recorded as unassessed and trend as constant. Under recommendations the record states that *‘Many of the hedges are not stock-proof in their own right and would benefit by maintenance work and replanting of gaps.’* The evaluation matrix records an overall score of moderate for the aspect area with the following justification. *‘This costal slope between the urban development along side the Dee*

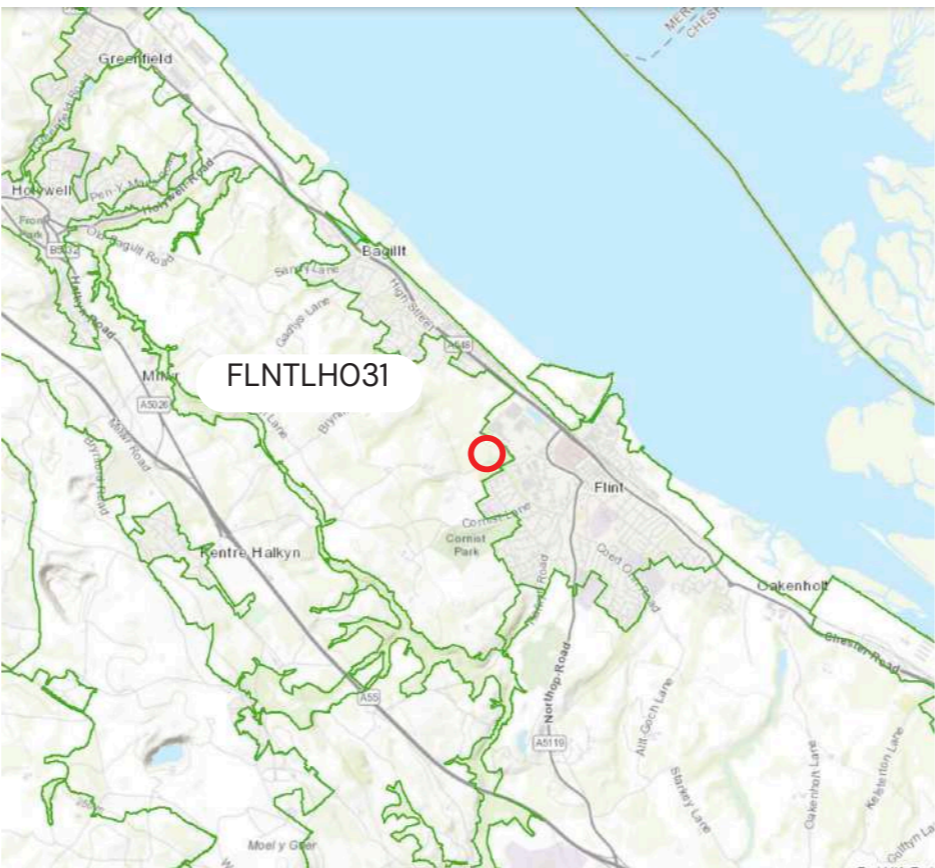


Figure 9: Extract from Natural Resources Wales Environmental Information Portal – LANDMAP Landscape Habitats (site area circled)

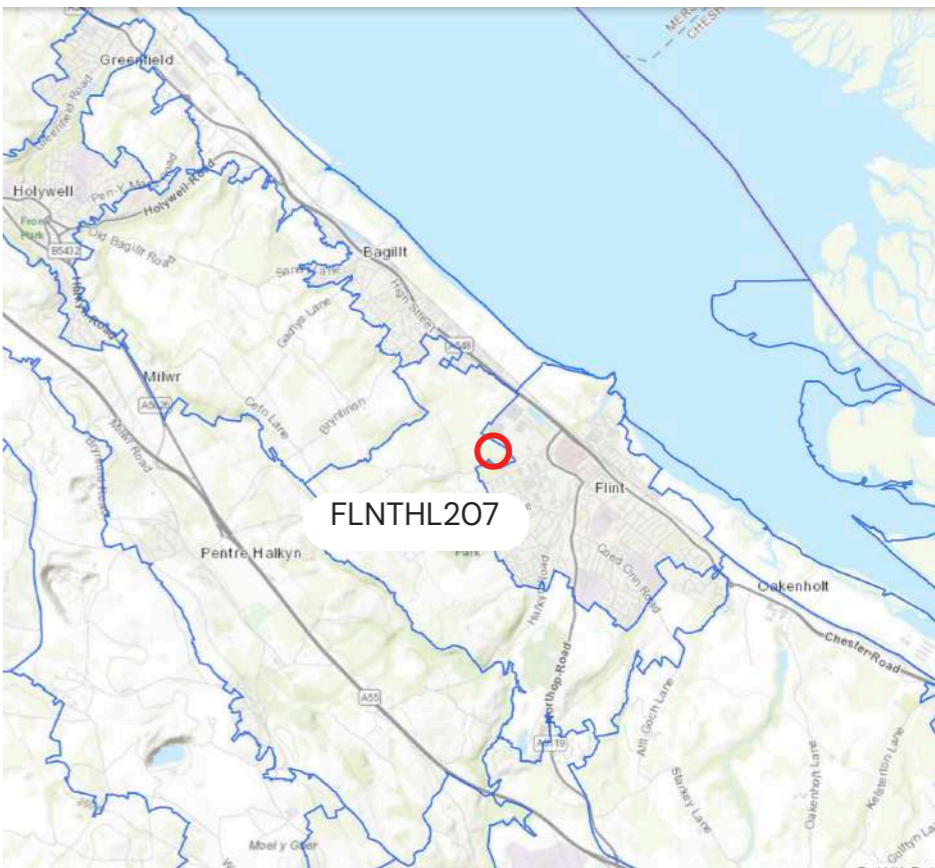


Figure 10: xtract from Natural Resources Wales Environmental Information Portal – LANDMAP Historical Landscape (site area circled).

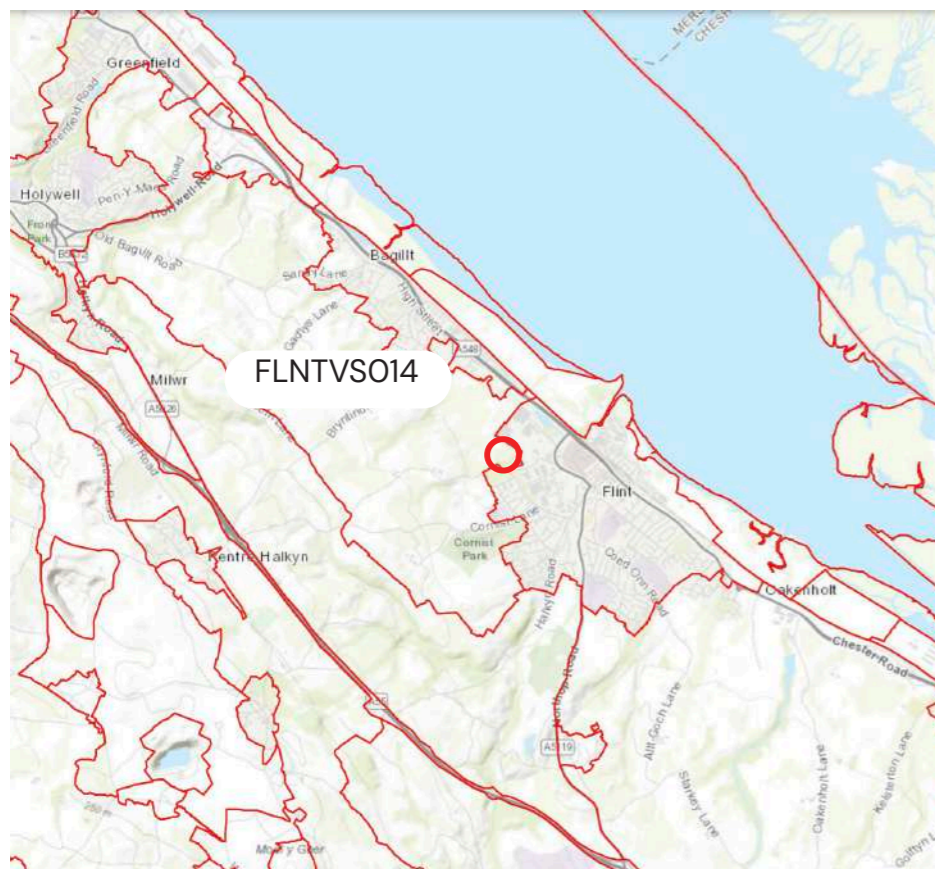


Figure 11: Extract from Natural Resources Wales Environmental Information Portal – LANDMAP Visual & sensory (site area circled).

*Estuary and the higher land contains a number of locally important woodlands, and some significant BAP species. However as the area comprises of mainly improved fields it has overall a moderate to high value.'*

#### FLNTHL207 - Maes Gwyn (Historic Landscape)

- 6.29 The Site is located in the north western section of the historic landscape aspect area describes as regular fieldscapes, within an agricultural rural environment, and is shown at Figure 10. This aspect area is described as, *'Fieldscape of strip fields and reorganised strip fields with hedged boundaries occupying the sloping land just inland from Flint, between a height of between 10-120 metres above sea level. This distinctive fieldscape, composed of fields generally aligned north-west to south-east and with individual fields about a furlong in length (220 yards) appears to represent extensive landscape reorganisation of later 13th-century associated with the Edwardian planted town of Flint.'*
- 6.30 The record notes that traditional boundary treatments include hedgerows and post and wire fences. Under the evaluation section, this historic landscape aspect is recorded as outstanding under value, with

no record of condition and a trend of constant. No recommendations are recorded. The boundaries of the Kimberly Clark complex appear to overlay this earlier field pattern within and surrounding the site.

#### FLNTVS014 – Estuary Edge & Valleys (Visual and sensory)

- 6.31 The Site is located in the north eastern section of the visual sensory aspect area under Mosaic rolling Lowland and is shown at Figure 11. This aspect area is described as *'gently sloping & rolling lowland estuary edge with distinct east/west grain and mosaic of wooded linear stream valleys, traditional & improved farmland, and a linear settled & urban fringe lower edge ; and an overall estuarine influence.'* Also noted in the description section are a rolling/undulating topographic form, with a mosaic field pattern. Under aesthetic qualities the scale is described as medium and enclosed with frequent human access, nighttime light pollution is recorded as moderate. Attractive and detractive views are recorded both in and out. The value of the aspect area is noted as moderate with the condition unassessed and the trend declining. Recommendations include, *'conserve and enhance field patterns, hedgerows and trees and integrate development into the landscape.'*

#### Other Aspect Areas

- 6.32 Although some very limited theoretical visibility is present within other surrounding LANDMAP aspect areas, it is considered that the indirect effects would be no greater than negligible and therefore, they have not been considered further as part of the assessment.

#### Effects upon the combined LANDMAP Aspect Areas

- 6.33 The site area is located on the periphery of the majority of the aspect areas, adjacent to the urban edge of Flint and the existing extents of the Kimberly Clark complex. The sensitivity of landscape character reflects its susceptibility to change and the value associated with it. The value of the aspect areas that the site is located in is generally recorded as **moderate** with historic identified as outstanding. The susceptibility of the combined aspect areas covering the landscape generally to the west and including the site would on the whole be relatively high across the predominantly rural landscape sloping north eastwards towards the Dee Estuary, however this portion of the combined aspect areas is heavily influenced by the existing urban edge of Flint and the industrial estate to the north and east which includes the Kimberly Clark complex. It is therefore judged that the susceptibility is **medium** resulting in a combined sensitivity of the combined Landmap aspect areas of **medium**.
- 6.34 Over the extents of the combined aspect areas, which generally covers an area up to approximately 4.5km to the north west of the site

area, the magnitude of change on the combined whole is judged when viewed over the whole area at this scale to be **low** – there would be a minor loss or alteration to existing landscape features; introduction of minor new features into the landscape or a minor alteration to the key physical and/or perceptual attributes of the landscape, (as a whole entity). This would result in **moderate/minor** levels of effects on the combined aspect areas, (shown in figures 7-11) during all time periods.

#### Effects on Local Landscape Character

##### *Sensitivity of the Site and immediate surroundings*

- 6.35 The site area is not covered by any landscape designations which recognise a specific or scenic importance. The site area, whilst surrounded to the north and east by existing woodland and buffer planting to the industrial complex contains very limited elements of value, being essentially a field of improved grassland. A hedgerow forms the boundary to the north west. The perceptual qualities of the site area which include the route of a public right of way are effected by the sounds and smells of the existing industrial complex to the north which can be glimpsed and heard through the intervening tree cover. The site area i.e. the grassland field is considered to be of low value.
- 6.36 The Site area would be susceptible to the type of development proposed but is also influenced by the immediately adjacent land uses to the north east. Therefore, the susceptibility to change of the Site and immediate surroundings is judged to be **low**. Therefore, the sensitivity of the Site and immediate surroundings is assessed as **low**.

*Effects on the Site and immediate surroundings*

- 6.37

The landscape character effects on the site and the immediate surroundings will be very contained due to the site setting and the existing high level of containment provided by the surrounding woodland and large scale built form. The proposed development would introduce built form into a field currently forming part of the agricultural edge to Flint and the wider agricultural landscape, albeit heavily influenced by the existing industrial complex to the north.
- 6.38

No valuable landscape features would be lost and the landscape mitigation strategy introduces further planting and containment. The influence upon the surroundings would be limited almost exclusively to within the confines of the field area, with little influence beyond the site boundaries. The magnitude of change to the Site and surrounding area is assessed as no greater than **medium to high**. (High within the site boundaries but reducing quickly to medium within the immediate surroundings) which when combined with its low sensitivity would result in a **moderate/minor** to moderate level of effect upon the landscape character of the Site and surrounding area during construction and at Year 1.
- 6.39

With the introduction of landscape mitigation, there would be some improvements to the physical and perceptual attributes of the Site and the containment of the effects. A medium magnitude of change would continue at Year 5, resulting in a **moderate/minor** level of effect. on the site and immediate surroundings

7. VISUAL EFFECTS

Introduction

- 7.1 An assessment of visual effects considers the potential for changes in views and visual amenity. The aim is to establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected, and the nature of the views and visual amenity (meaning the overall quality and pleasantness to a view).
- 7.2 Effects are considered during construction, at Year 1 and at Year 5 and beyond. New planting takes a number of years to mature and average growth rates have been taken into consideration. The effectiveness of the vegetation both in terms of integrating the development into the surrounding landscape and in providing visual screening would improve over time and needs to be considered appropriately.
- 7.3 A photographic record is included in Appendix 2 with the viewpoint locations shown on Figure 12.

Zone of Theoretical Visibility

- 7.4 The Screened Zone of Theoretical Visibility (Figure 12) identifies the potential locations from which the development may be visible. The Screened Zone of Theoretical Visibility (SZTV) has been produced using Digital Terrain Modelling (DTM) and LIDAR data. Existing built development (8m tall) and larger blocks of woodland have also been modelled (15m tall) to take account of the screening effect that these would provide. However, the screening effect provided by smaller blocks of woodland and hedgerows/hedgerow trees have not been taken into account, and consequently the actual extent of the area from which the proposed development is visible is likely to be smaller.
- 7.5 The SZTV has been run based on the varying elements which make up the Site (as shown in the key on Figure 12). For the purposes of understanding the actual visual envelope relating to the proposed development, the SZTV has been run three times; one which is based on the vent stack only; secondly for all other associated infrastructure and thirdly, where all the proposed development would be seen. For the purposes of the assessment, the worst case scenario where all development would be seen has been undertaken.

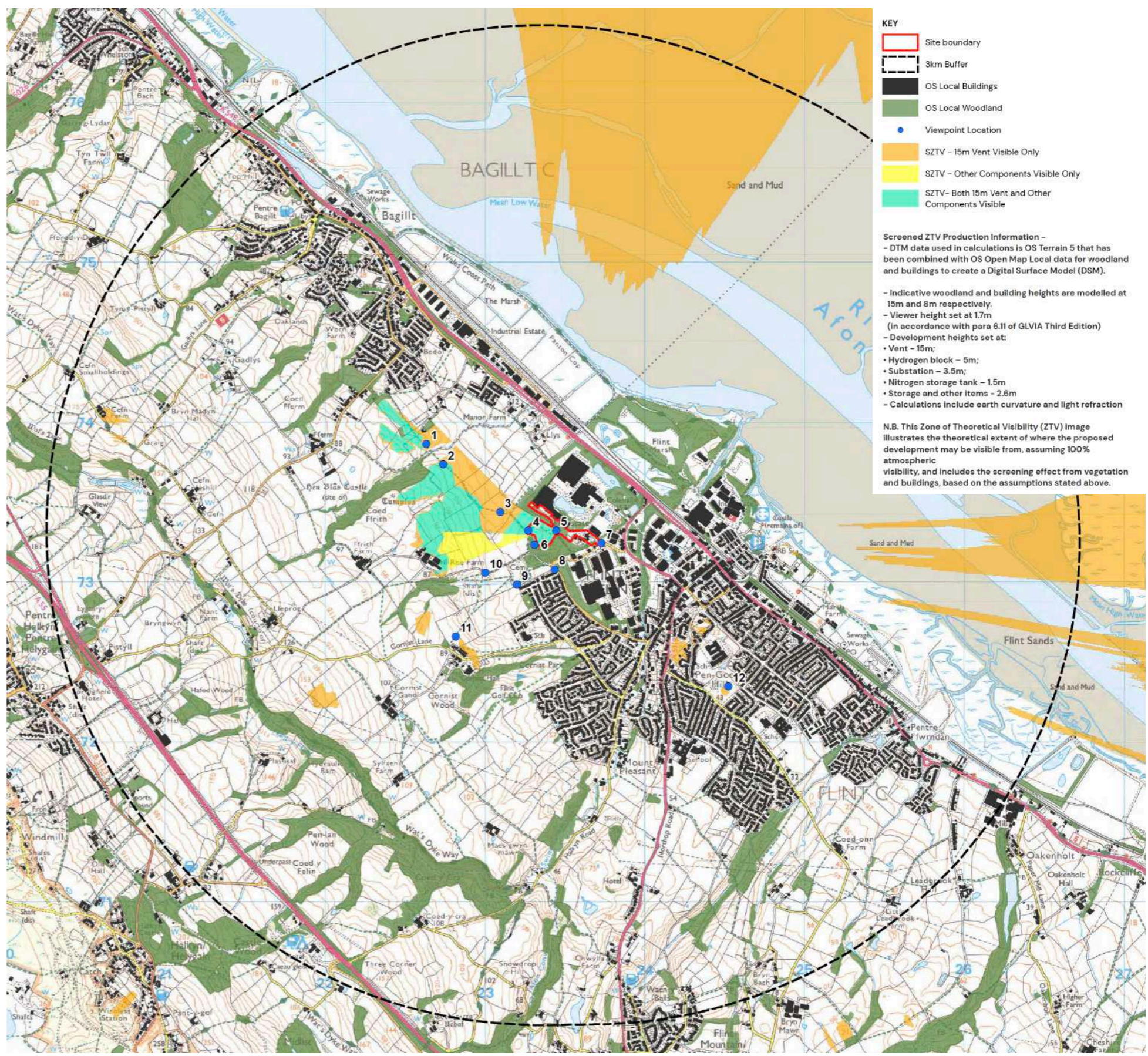


Figure 12: Screened Zone of Theoretical Visibility and Viewpoints

Sensitivity

7.6 Residential receptors and users of Footpaths are considered to have a high visual sensitivity to the change proposed, as in all cases they are considered to have a high susceptibility to changes in their views and that these views were of a high value. The approach to sensitivity of visual receptors is set out in Appendix 1.

Residential Receptors

7.7 For the purpose of this assessment, it is assumed as a worst-case, that all nearby dwellings are permanent residences.

7.8 A number of properties are located to the north west of the Site at the south of the settlement of Bedol. Due to intervening vegetation along field boundary hedgerows and trees located between this area and the Site, there would be no visibility from these properties of the proposed development, therefore, these properties are not considered further within the assessment.

7.9 It is also acknowledged that theoretically there would be views towards the Site from elevated and longer distant locations within the surrounding landscape. As illustrated on the SZTV, there is a view from Pen Goch Hill, which is a locally prominent area of landform. During the assessment whilst on site, it was noted that views towards the Site from this elevated location would be seen in context with the northern extents of Flint and heavily filtered by intervening vegetation, therefore, this location isn't considered further within this assessment. The view is indicatively represented by a photograph taken from Location 12 within Appendix 2 for context.

April Rise Farm

7.10 Views are indicatively represented by a photograph taken from Location 10 within Appendix 2.

7.11 April Rise Farm consists several agricultural buildings and a farmhouse, which is located to the north of these buildings. The farmhouse is located approximately 670m west of the western part of the Site and has a greater elevation to that of the Site (approximately 55m AOD). The primary elevation of the farmhouse is assumed southeast and views towards the Site would be slightly oblique. The farm is accessed via a track which leads on from old London Road and in part shares the route with Footpath 404/73/10 for approximately 310m, until the footpath terminates at a footpath junction and the track becomes private. The track is set down between high verge and hedgerow along the 310m length until it meets the footpath junction, where views become available of the wider landscape and to the north east in the direction of the Site.

7.12 There would be potential for the upper parts of the 15m vent stack to be seen above the trees located within Red Pit Wood from this location, therefore, a very low magnitude of change is predicted overall from this location on the track, resulting in a **Minor** level of effect during all time periods. These types of views would also be the case from the farmhouse, due to the difference in elevation in which the farmhouse is located. There would be views of the proposed 15m vent stack above the western extents of Red Pit Wood, therefore it is predicted that a low magnitude of change is predicted from this location, resulting in a **Moderate/Minor** level of effect during all time periods.

Property located south of Coleshill Road

7.13 Views are indicatively represented by a photograph taken from Location 1 within Appendix 2.

7.14 The property which lies adjacent to Footpath 404/35/30 is located approximately 800m to north west of the Site beyond open countryside. The property is accessed via Coleshill Road which leads to a private track to the property. It is assumed that the primary orientation of the dwelling is north east and the property curtilages are to the front and back. It was acknowledged that the dwelling has a first floor window on its south east facing facade looking towards the site.

7.15 Middle distant views towards the Site would be available and seen in context of a wider panoramic view from this window and limited parts of the curtilages to the property. Views of the development

itself would be limited to the 15m x 0.9m vent stack, albeit due to the diameter of the stack being slight, this would occupy only a small proportion of the overall view, which already consists of existing vertical elements which are greater in scale. It is predicted therefore that a worst case very low magnitude would arise, resulting in a **Minor** level of effect during all time periods.

Residential area south of Site

7.16 Views are indicatively represented by photographs taken from Location 8 and 9 within Appendix 2.

7.17 A large swathe of residential development is located to the south of the Site beyond Red Pit Wood, which consists several streets which are located between Old London Road at the east and Windsor Drive to the west. Royal Drive is located at the south of Flint Cemetery and is the northernmost row of properties which are closest to the Site at approximately 200m. Two further residential streets can be accessed from the south side of Royal Drive, namely Palace and Balmoral Close respectively. Elevation increases south beyond Royal Drive with the streets continuing to travel roughly east to west between Old London Road and Windsor Drive.

7.18 The residential street of Ffordd Yr Ysgol is accessed via Windsor Drive, and travels further west on an area of elevated landform. The street consists Cornist Park School, which is located on the southern side of the street.

7.19 Views are available towards the southern extents of Red Pit Wood from properties located on the northern side of Royal Drive, albeit from their rear elevations. Due to the proximity of these properties to the woodland and the rising elevation in which the woodland is located, the Site would sit down beyond the northern extents of the woodland and therefore would be screened in full by Red Pit Wood.

7.20 The residential street of Ffordd Yr Ysgol is located at a higher elevation to the properties located in and around Royal Drive at approximately 51m AOD and several properties located on the northern side of this street would experience slightly oblique views towards the Site from varying facades. Any north eastern views towards the Site would be seen in context with the Kimberly Clark facility, which lies adjacent to the western field area. It is assumed that the majority of the proposed development would be screened by Red Pit Wood. However, It is acknowledged that the upper part of the 15m vent stack would be seen above trees from this location. A very low magnitude of change is predicted overall from this location only, resulting in a **Minor** level of effect during all time periods.

Property of Bryn Goleu, north of Cornist Lane	
7.21	Views are indicatively represented by a photograph taken from Location 11 within Appendix 2.
7.22	The property and associated farm is located on elevated landform (approximately 89m AOD) off Cornist Lane, which lies close to Cornist Hall which is located to the south. There are panoramic views available from the rear of the property and curtilage towards Flint to the east and across the Dee Estuary to England.
7.23	Due to the elevation in which the property is located, views towards the Site are available and the upper parts of the vent stack would be seen from this location, albeit in context of the existing Kimberly Clark facility, which contains features which would be comparable to that of what is proposed. In addition, due to a distance of approximately 870m between the property and the Site, the diameter of the stack is such that it would appear as a slight additional man-made feature in this view, therefore it assessed as having a very low magnitude of change, resulting in a <b>Minor</b> level of effect during all time periods.

### Recreational Receptors

#### Footpath route north west to south east via Footpaths 404/35/40, 404/35/30, 404/35/20 and 404/35/10

7.24	Views are indicatively represented by photographs taken from Locations 1, 2 and 3 within Appendix 2.
7.25	The combined route travels from the north west of the Site from Nant-y-moch Farm, which is located at the south of a residential area within Bedol, and travels in a south easterly direction and terminating at the access track / Footpath 404/73/10 which serves April Rise Farm. The route is approximately 1.4km in length and is made up of four parts which crosses open countryside and field boundaries crossed by stiles. The land falls from the north west towards the south east at approximately 15m overall and the views available whilst travelling along this route are of the River Dee Estuary to the north and towards Flint and beyond; with views reaching as far as Connah’s Quay Power Station.
7.26	Travelling from the north west, the first section of route where views towards the Site are available, is along a short 70m section of the footpath in close proximity to the most southerly property which is located on Coleshill Road. The next section of the route with available views towards the Site is approximately 0.45km in length and begins on elevated land south of a watercourse, and which continues along field boundaries and into a large field area until near distant intervening vegetation which is located in close proximity to a footpath junction ahead; namely Footpaths 404/35/30, 404/36/10 and 404/35/20 screen any views towards the site.
7.27	Where Footpath 404/35/10 begins, a glimpsed view into the Site area is available through a field gate.
7.28	Where views are available towards the Site from this route, these would be direct due to the direction of travel the footpath route travels. However, any views of the development would be limited to the 15m x 0.9m vent stack which is slight in form. The majority of the development would be set down in the landscape which lies adjacent to the northern extents of Red Pit Wood, therefore, these elements would not exceed the height of the intervening vegetation in the form of field boundary vegetation. Any views of the proposed vertical element would be seen in context of other industrial and high rise residential development within this angle of view.
7.29	The lower parts of the development would be seen beyond intervening vegetation and the proposed mitigation at construction and at year 1, from the field gate entrance which is located at the northern

extents of Footpath 404/35/10. As mitigation develops, views would be limited to the 15m vertical element and associated early stages of any mitigation only. A medium magnitude of change is predicted overall for this location only, resulting in a **Moderate** level of effect during construction and at year 1. With the benefit of new planting, visibility towards the lower components of the development would be reduced. A medium to low magnitude of change is predicted at Year 5, resulting in a **Moderate to Moderate/Minor** level of effect in the longer term.

7.30	For other parts of the route, as discussed above, a low to very low magnitude of change is predicted overall, resulting in a <b>Moderate/Minor to Minor</b> level of effect during all time periods.
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#### Footpath 404/35/50 through site (current alignment)

7.31	Views are indicatively represented by photographs taken from Locations 4 and 5 within Appendix 2.
7.32	The footpath is approximately 400m in length and travels roughly north west to south east across an open pastoral field and along the eastern edge of Red Pit Wood, terminating at Aber Road, which serves the Aber Park Industrial Estate.
7.33	The route falls at approximately 15m in elevation from the north west towards the south east at Aber Road. The route branches at the north west from the Footpath junction of 404/35/20 and 404/35/10, which travels roughly north-south.
7.34	Whilst travelling south, the views along the route are limited to Red Pit Wood, the intervening vegetation which is located to the west of the Kimberly Clark facility, as well as filtered views of the facility itself. In addition, there are long distant views towards elevated landform beyond the tree line. As the route enters Red Pit Wood, views are limited to the undulating mounds and tree cover within the woodland to the west, as well as the inner workings of the Kimberly Clark facility to the east.
7.35	Travelling in a roughly north west direction along the footpath, beyond Red Pit Wood, views are limited to the western field area in the main. This is due to the well established vegetation which is located adjacent to the Kimberly Clark facility at the east, the field boundary vegetation located on elevated landform to the north and Red Pit Wood, which occupies the western flank of the field area. Some glimpsed views of the wider countryside to the west are available beyond vegetation, due to landform to the west being of a higher elevation.
7.36	Views of the proposed development would be available along approximately half of this route as it exits Red Pit Wood in both

directions. This would consist of the built elements which would be located in the southern part of the western field area.

7.37 Some filtering of views would occur, in the form of mitigation such as earth bunding and planting. It is considered that there would be a high magnitude of change in both directions of travel along this section of the footpath only during construction and at Year 1, which would result in a **Major** level of effect.

7.38 With the benefit of any new planting and earth bunds, visibility towards the proposed development would be reduced. A high to medium magnitude of change is predicted at Year 5, resulting in a **Major to Moderate** level of effect in the longer term.

Footpath 404/35/50 through site (proposed alignment)

7.39 Views are indicatively represented by photographs taken from Locations 4 and 5 within Appendix 2. Should the route be relocated, (as shown in figure 3) overall resulting effects would generally be similar to those of the existing route. However, with the diversion walkers would not be required to cross the proposed new access track from the existing complex and would follow a route away from the existing buildings and along the edge of the existing attractive woodland edge.

**Footpath 404/34/30 and footpaths located to the west of Cemetery**

7.40 Views are indicatively represented by photographs taken from Locations 9, 10 and 11 within Appendix 2.

7.41 Footpath 404/34/30 travels from the entrance of Flint Cemetery, which is located at the east, via Old London Road and travels south west along the Cemetery's main access road before changing direction south. The route then travels along its southern and western boundary to where it meets a junction of footpaths, which are located on rising landform to the west.

7.42 Due to the proximity of the Cemetery to Red Pit Wood, the wood is a dominant feature in the near landscape which would screen any views of the development. Therefore, it is assumed that there would be no visual impacts on the Cemetery and its extents and is not assessed further.

7.43 The series of footpaths located to the west of the Cemetery can be accessed via a field gate and are located on agricultural land which rises to the west and south. These routes join a wider network of footpaths to the north, south and west.

7.44 Longer distant views are available towards the north and east from the majority of these footpaths adjacent to Flint Cemetery. Views towards Red Pit Wood are available from these routes with the potential to see the upper parts of the vertical element associated with the proposed development. It is predicted that there would be an overall worst case low to very low magnitude of change to the footpaths located to the west of Flint Cemetery, resulting in a **Minor** level of effect across all periods.

**Recreational routes within Red Pit Wood (Red Pit Community Woodland)**

7.45 Views are indicatively represented by a photograph taken from Location 6 within Appendix 2.

7.46 There are several informal routes available within the densely planted Community Woodland used for recreation, which can be accessed from several locations at the south and west via Footpath 404/35/50. Within the woodland, there are routes which travel in several directions across a localised variable landform which is made up of large and in some cases steep earth mounds, which have steps built into them.

7.47 The northern extents of woodland are the most elevated parts and consist of a series of ramparts which travel roughly east to west and provide an elevated position which overlooks the western field area of the Site, albeit beyond intervening vegetation located within the woodland. Views towards the Site are heavily filtered at sections along the northern part of the woodland and views are limited to the woodland environs only. However, there are areas where direct and limited filtering occurs and views are available. A variable height of approximately 12m above the Site area occurs at several sections of the woodland, which allow views down towards the western field area part of the Site.

7.48 A medium magnitude of change is predicted at construction and year 1 from the northern extents of the woodland only, resulting in a **Moderate** level of effect. As mitigation planting matures at the southern part of the built part of the development, these would soften views towards these built elements and therefore, it is predicted that there would be a medium to low magnitude of change, which would result in a **Moderate to Moderate/Minor** level of effect.

## 8. SUMMARY AND CONCLUSIONS

### Landscape effects

8.1 The site area is not covered by any designation at a national, regional or local level that recognises a specific landscape importance.

### Landscape Features

8.2 There would be an inevitable change to the land use and land cover, (i.e. a grassland field) from its current agricultural use to form an additional part of the Kimberly Clark complex, located immediately to the north beyond a woodland buffer. The existing woodland cover would be retained, no other landscape features would be lost. The landscape mitigation strategy introduces new landscape features including tree and shrub planting and species rich wildflower grasslands.

### Landscape Character

8.3 The very contained nature of the site area strongly limits the potential effects on landscape character. Key effects would largely be limited to the site area and the very immediate surrounds. The landscape mitigation proposals would further contain the site Effects on the wider Landmap aspect areas covering the site would be limited to a very small localised area.

### Visual Receptors

8.4 Due to the location of where the infrastructure associated with the Site is proposed, (which is at a lower elevation to that of the overall wider Site area) as well as the contained nature of the western field area in the form of vegetation and woodland, views towards the proposed development are limited in nature from the wider landscape. This containment would be supplemented by the proposed landscape mitigation.

8.5 Only locations which are located adjacent to the proposals, such as the northern extents of Red Pit Community Woodland and the redirected footpath travelling through the Site would have the potential to give rise to visual effects which would be no greater than Minor.

### Conclusion

8.6 From a landscape and visual perspective, notable effects on landscape features would be very limited and confined to the site area alone. Landscape character effects would largely be contained by the existing woodland around the site and to the immediate surrounding landscape. Visual effects would also be limited and contained. The site area would form a logical and contained extension to the existing Kimberly Clark complex.

8.7 Whilst the site is currently an agricultural field with a relationship to the wider agricultural landscape, this is limited by the physical containment provided by the surrounding woodland, it is also strongly influenced by the adjacent industrial development which is clearly apparent from within the field/site area. The landscape mitigation proposals limit potential effects by providing further containment whilst also providing new and additional habitats.

## 9. REFERENCES

10.1 The following documents have been consulted during the preparation of this statement:

- Planning Policy Wales Edition 11 (February 2021);
- Natural Resources Wales, Wales Environmental Information Portal – LANDMAP Aspect Areas;
- Guidelines for Landscape and Visual Impact Assessment (3rd edition) – Landscape Institute/ Institute of Environmental Management and Assessment, 2013;
- Landscape Institute GLVIA3 Statement of Clarification 1/13, June 2013;
- Visual Representation of Development Proposals, Technical Guidance Note 06/19, September 2019; and
- Assessing landscape value outside national designations. Technical Guidance Note 02/21. Landscape Institute, 2021.

# APPENDIX 1: ASSESSMENT CRITERIA

## INTRODUCTION

This appendix presents the assessment criteria adopted for the appraisal of landscape and visual effects arising from the proposed development.

The primary source of best practice for LVA in the UK is The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) (Landscape Institute and the Institute for Environmental Management and Assessment, 2013). The assessment criteria adopted to inform the appraisal of effects has been developed in accordance with the principles established in this best practice document. It should however be acknowledged that GLVIA3 establishes guidelines not a specific methodology. The preface to GLVIA3 states:

“This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.”

The criteria set out below have therefore been specifically tailored for this appraisal to ensure that the methodology is appropriate and fit for purpose.

The purpose of an LVA when undertaken outside the context of an EIA is to identify and describe the relative level of any landscape and visual effects arising as a result of the proposals. As confirmed in GLVIA3 Statement of Clarification 1/13 (Landscape institute, 10th June 2013) an LVA for development which has been screened as not requiring EIA should avoid concluding whether the effects are significant or not and this is the approach adopted in this LVA.

An LVA must consider both:

- effects on the landscape as a resource in its own right (the landscape effects); and
- effects on specific views and visual amenity more generally (the visual effects).

Therefore, separate criteria are set out below for the assessment of landscape and visual effects.

## NATURE (SENSITIVITY) OF LANDSCAPE FEATURES

The nature or sensitivity of an individual landscape feature or element reflects its susceptibility to change and its value. It is therefore a function of factors such as its quality, rarity, contribution to landscape character, degree to which the particular element can be replaced and cultural associations or designations that apply. A particular feature may be more ‘sensitive’ in one location than in another often as a result of local values associated with the feature or in relation to its function as a key or distinctive characteristic of that local landscape. Therefore it is not possible to simply place different types of landscape features into sensitivity bands. Where individual landscape features are affected, professional judgement is used as far as possible to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.

Both the susceptibility and value of individual landscape features has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of individual landscape features which has also been described as very high, high, medium, low or very low.

## NATURE (SENSITIVITY) OF LANDSCAPE CHARACTER

Sensitivity of landscape character is also assessed through a consideration of both the susceptibility to a development of the type proposed and the value attached to the landscape. In the case of the potential for effects on landscape character, susceptibility means the ability to accommodate the proposed development without undue consequences for the existing characteristics of the site. What is meant by the value of the landscape in a Landscape and Visual Impact Assessment is the relative value that is attached to the landscape by society as a whole, bearing in mind that different stakeholders may have differing values regarding any given landscape. Paragraphs 5.20 and Box 5.1 of GVLIA set out a range of factors that can contribute to an understanding landscape value. Consideration of whether there are any formal landscape designations covering a landscape is one element of considering the value, but also relevant is the condition of the landscape, its rarity in the local area, the recreational value it provides, and any ecological or heritage importance the landscape may hold. These are considered alongside its perceptual qualities (such as tranquillity) and any associations which may be held with the landscape, such as if it has been highlighted in art, music or poetry. Further clarification on how to consider the matter of landscape value is set out in the Landscape Institute Technical Guidance Note (02/21) ‘Assessing the Value of Landscapes Outside National Designations’.

In this appraisal, the nature or sensitivity of landscape character is considered with reference to published landscape character areas/types and where relevant local landscape units as defined in this LVA for the purposes of this study. Information regarding the key characteristics of these local character areas/units has been extrapolated from relevant published studies where possible and combined with observations from on-site appraisal. With judgments undertaken employing professional judgement.

Both the susceptibility and value of landscape character has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of landscape character which has also been described as very high, high, medium, low or very low.

## NATURE (SENSITIVITY) OF VISUAL RECEPTORS

The nature or sensitivity of a visual receptor group also reflects their susceptibility to change and the value associated with the specific view in question. It varies depending on a number of factors such as the occupation of the viewer, their viewing expectations, duration of view and the angle or direction in which they would see the site. Whilst most views are valued by someone, certain viewpoints are particularly highly valued for either their cultural or historical associations and this can increase the sensitivity of the view. The following criteria are provided for guidance only and are not exclusive:

- Very Low Sensitivity – People engaged in industrial and commercial activities or military activities.
- Low Sensitivity – People at their place of work (e.g. offices); short – medium stay patients at hospital, shoppers; users of trunk/ major roads and passengers on commercial railway lines (except where these form part of a recognised and promoted scenic route).
- Medium Sensitivity – Users of public rights of way and minor roads which do not appear to be used primarily for recreational activities or the specific enjoyment of the landscape; recreational activities not specifically focused on the landscape (e.g. football); motel users.
- High Sensitivity – Residents at home; users of long distance or recreational trails and other sign posted walks; users of public rights of way and minor roads which appear to be used for recreational activities or the specific enjoyment of the landscape; users of caravan parks, campsites and ‘destination’ hotels; tourist attractions with opportunities for views of the landscape (but not specifically focused on a particular vista); slow paced recreational activities which derive part of their pleasure from an appreciation of setting (e.g. bowling, golf); allotments.

- Very High Sensitivity – People at recognised vantage points (often with interpretation boards), people at tourist attractions with a focus on a specific view, visitors to historic features/ estates where the setting is important to an appreciation and understanding of cultural value.

It is important to appreciate that it is the visual receptor (i.e. the person) that has a sensitivity and not a property, public right of way or road. Therefore, a large number of people may use a motorway for example but this does not increase the sensitivity of the receptors using it. Conversely, a residential property may only have one person living in it but this does not reduce the sensitivity of that one receptor. The number of receptors affected at any given location may be a planning consideration, but it does not alter the sensitivity of the receptor group.

Where judgements are made about the sensitivity of assessment viewpoints, the sensitivity rating provided is an evaluation of the sensitivity of the receptor group represented by the viewpoint and not a reflection of the number of people who may experience the view.

## NATURE (MAGNITUDE) OF EFFECTS – GENERAL NOTE

The following discussion sets out the approach adopted in this LVA in relation to a specific issue arising in GLVIA3 which requires a brief explanation.

Prior to the publication of GLVIA3, LVA practice had evolved over time in tandem with most other environmental disciplines to consider significance principally as a function of two factors, namely: sensitivity of the receptor and magnitude of the effect (the term ‘magnitude’ being a word most commonly used in LVA and most other environmental disciplines to describe the size or scale of an effect).

Box 3.1 on page 37 of GLVIA3 references a 2011 publication by IEMA entitled ‘The State of EIA Practice in the UK’ which reiterates the importance of considering not just the scale or size of effect but other factors which combine to define the ‘nature of the effect’ including factors such as the probability of an effect occurring and the duration, reversibility and spatial extent of the effect.

The flow diagram on page 39 of GLVIA3 now suggests that the magnitude of effect is a function of three factors (the size/scale of the effect, the duration of the effect and the reversibility of the effect).

For clarification, the approach taken in this LVA has been to consider magnitude of effect solely as the scale or size of the effect in the traditional sense of the term ‘magnitude’. Having identified the magnitude of effect as defined above the LVA also describes the

duration and reversibility of the identified effect before drawing a conclusion on the overall level of effect taking all of these factors into account.

In the context of the above discussion the following criteria have been adopted to describe the magnitude of effects.

## NATURE (MAGNITUDE) OF EFFECTS ON LANDSCAPE FEATURES

Professional judgement has been used as appropriate to determine the magnitude of direct physical effects on individual existing landscape features using the following criteria as guidance only:

- Very Low Magnitude of Change – No loss or alteration to existing landscape features;
- Low Magnitude of Change – Minor loss or alteration to part of an existing landscape feature;
- Medium Magnitude of Change – Some loss or alteration to part of an existing landscape feature;
- High Magnitude of Change – Major loss or major alteration to an existing landscape feature;
- Very High Magnitude of Change – Total loss or alteration to an existing landscape feature.

## NATURE (MAGNITUDE) OF EFFECTS ON LANDSCAPE CHARACTER

The magnitude of effect on landscape character is influenced by a number of factors including: the extent to which existing landscape features are lost or altered, the introduction of new features and the resulting alteration to the physical and perceptual characteristics of the landscape. Professional judgement has been used as appropriate to determine the magnitude using the following criteria as guidance only. In doing so, it is recognised that usually the landscape components in the immediate surroundings have a much stronger influence on the sense of landscape character than distant features whilst acknowledging the fact that more distant features can have an influence on landscape character as well.

- Very Low Magnitude of Change – No notable loss or alteration to existing landscape features; no notable introduction of new features into the landscape; and negligible change to the key physical and/or perceptual attributes of the landscape.
- Low Magnitude of Change – Minor loss or alteration to existing landscape features; introduction of minor new features into the landscape; or minor alteration to the key physical and/or perceptual attributes of the landscape.

- Medium Magnitude of Change – Some notable loss or alteration to existing landscape features; introduction of some notable new features into the landscape; or some notable change to the key physical and/or perceptual attributes of the landscape.
- High Magnitude of Change – A major loss or alteration to existing landscape features; introduction of major new features into the landscape; or a major change to the key physical and/or perceptual attributes of the landscape.
- Very High Magnitude of Change – Total loss or alteration to existing landscape features; introduction of dominant new features into the landscape; a very major change to the key physical and/or perceptual attributes of the landscape.

**NATURE (MAGNITUDE) OF EFFECTS ON VIEWS AND VISUAL AMENITY**

Visual effects are caused by the introduction of new elements into the views of a landscape or the removal of elements from the existing view.

Professional judgement has been used to determine the magnitude of impacts using the following criteria as guidance only:

- Very Low Magnitude of Change – No change or negligible change in views;
- Low Magnitude of Change – Some change in the view that is not prominent but visible to some visual receptors;
- Medium Magnitude of Change – Some change in the view that is clearly notable in the view and forms an easily identifiable component in the view;
- High Magnitude of Change – A major change in the view that is highly prominent and has a strong influence on the overall view.
- Very High Magnitude of Change – A change in the view that has a dominating or overbearing influence on the overall view.

Using this set of criteria, determining levels of magnitude is primarily dependant on how prominent the development would be in the landscape, and what may be judged to flow from that prominence or otherwise.

For clarification, the use of the term ‘prominent’ relates to how noticeable the features of the development would be. This is affected by how close the viewpoint is to the development but not entirely dependent on this factor. Other modifying factors include: the focus of the view, visual screening and the nature and scale of other landscape features within the view. Rather than specifying crude bands of distance at which the proposed development would be dominant, prominent or incidental to the view etc, the prominence

of the proposed development in each view is described in detail for each viewpoint taking all the relevant variables into consideration.

**TYPE OF EFFECT**

The assessment identifies effects which may be ‘beneficial’, ‘adverse’ or ‘neutral’. Where effects are described as ‘neutral’ this is where the beneficial effects are deemed to balance the adverse effects.

**DURATION OF EFFECT**

For the purposes of this appraisal, the temporal nature of each effect is described as follows:

- Long Term – over 5 years
- Medium Term – between 1 and 5 years
- Short Term – under 1 year

**REVERSIBILITY OF EFFECT**

The LVA also describes the reversibility of each identified effect using the following terms:

- Permanent – effect is non reversible
- Non-permanent – effect is reversible

**LEVEL OF EFFECT**

The purpose of an LVA when produced outside the context of an EIA is to identify the relative level of effects on landscape and visual amenity arising from the proposed development. The judgements provided within the LVA may then inform the planning balance to be carried out by the determining authority.

In this LVA, the relative level of the identified landscape and visual effects has been determined by combining judgements regarding the sensitivity of the landscape or view, magnitude of change, duration of effect and the reversibility of the effect. The level of effect is described as Major, Major/Moderate, Moderate, Moderate/Minor or Minor. No Effect may also be recorded as appropriate where the effect is so negligible it is not even noteworthy. In determining the level of residual effects, all mitigation measures are taken into account

APPENDIX 2: PHOTOGRAPHIC RECORD













Kimberly Clark facility

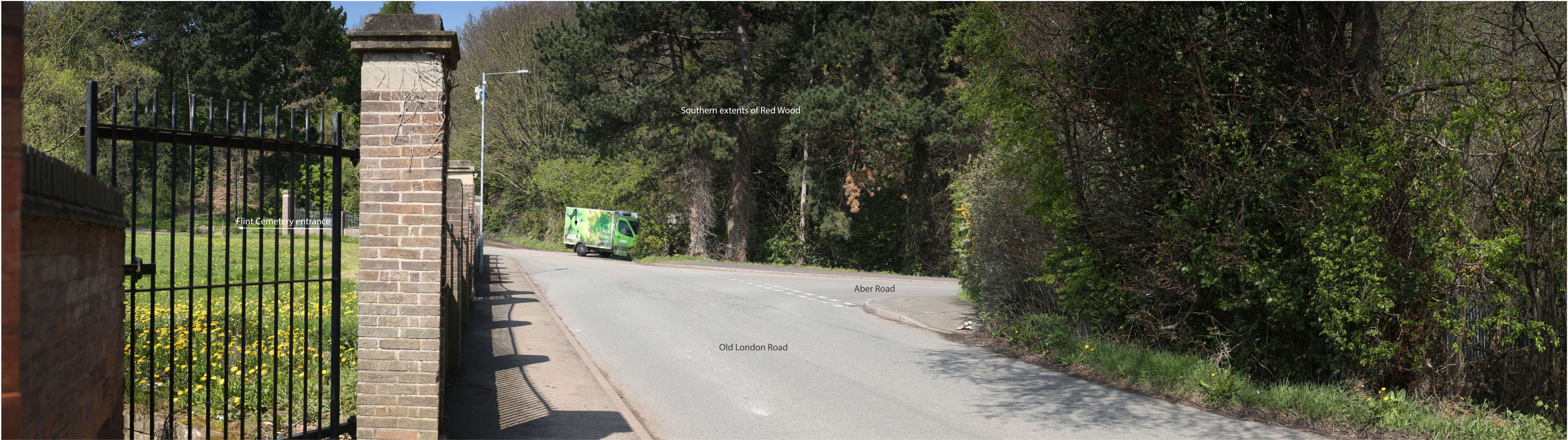
Fence which surrounds Red Pit Community Woodland

Sign within Red Pit Wood

VIEWPOINT 6 - VIEW LOOKING NORTH EAST ON ELEVATED GROUND WITHIN NORTH WESTERN EXTENTS OF RED PIT COMMUNITY WOODLAND

P23-0117.002 | Kimberly Clark Coleshill Mill, Flint | HYRO Energy Ltd



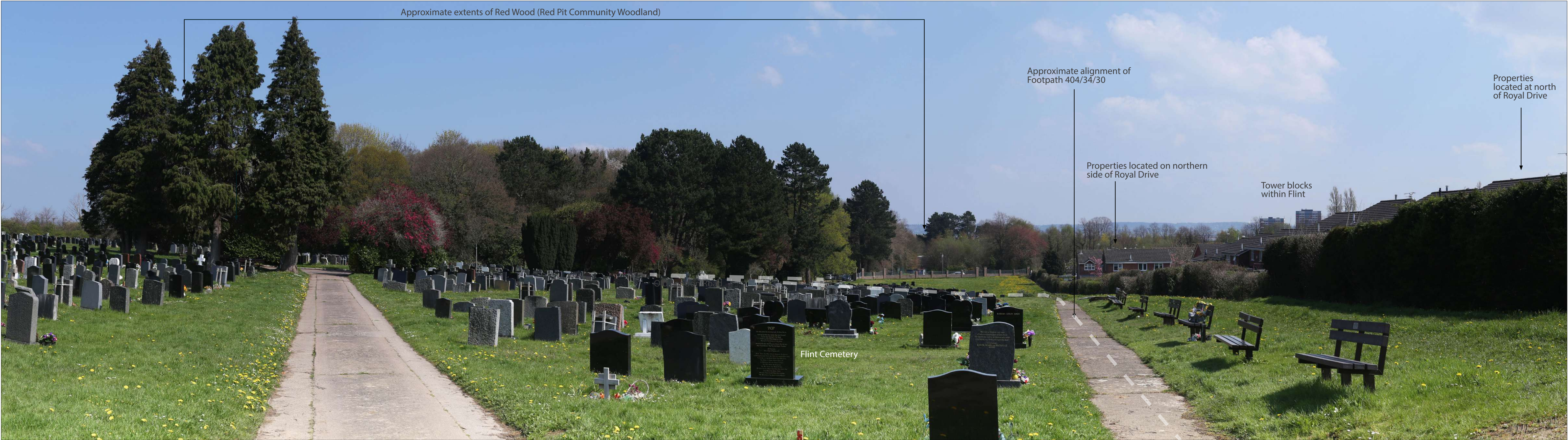


Flint Cemetery entrance

Southern extents of Red Wood

Aber Road

Old London Road











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