13

**MATERIAL ASSETS** 





# 13 MATERIAL ASSETS

# 13.1 INTRODUCTION

This remedial Environmental Impact Assessment Report (rEIAR) has been prepared to accompany a substitute consent application for an existing quarry at Philipstown and Red Bog, Co. Kildare. The Development is located within the administrative boundary of Kildare County Council, (KCC).

This chapter of the rEIAR has been prepared by WSP Ireland Consulting Ltd (WSP) and addresses the direct and indirect significant effects, if any, on material assets located in the vicinity of the Site, which have occurred, or which are occurring or which can reasonably be expected to occur because the Development, the subject of the application for substitute consent, was carried out.

Material assets are comprised of the physical resources in the environment, which may be of human or natural origin. The objective of the assessment contained in the following sections is to ensure that these assets have been used in a sustainable manner with respect to operations at the Site.

Material Assets in the vicinity of the Site comprise of built services and infrastructure, such as surface water drainage, roads, traffic, telecommunications, electricity, gas and water supply infrastructure and geological resources.

Other material assets include roads and traffic, which have been assessed in Chapter 12 of this rEIAR.

#### 13.1.1 TECHNICAL SCOPE

This assessment has been made with guidance from the 'Guidelines on the information to be contained in environmental impact assessment reports', published by the EPA in May 2022. The guidelines were drafted by the EPA with a view to facilitating compliance with EIA Directive (2014/52/EU).

The 2022 guidelines suggest the following subheadings under which to arrange issues concerning 'Built Services'; "Electricity, Telecommunications, Gas, Water Supply Infrastructure, Sewerage".

Having regard to the above guidance, particularly the 2022 EPA guidelines, and the characteristics and context of the lands that are the subject of this application, this rEIAR chapter aims to identify the likely significant effects that the Development may have on 'built services' and these are discussed under the following headings:

- Electricity network utilities;
- Gas infrastructure;
- Telecommunications:
- Local water supplies and foul water network;
- Surface water drainage infrastructure;
- Waste management infrastructure; and
- Geological resource.

#### 13.1.2 GEOGRAPHICAL AND TEMPORAL SCOPE

The assessment directly covers the physical extent of the EIA site boundary for the Site as shown in Figure 13-1 and the assessment area has been extended as appropriate to identify the relevant material assets surrounding the Development. In the context of the rEIAR, the Site boundary

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



contains lands which form the existing quarry site and some areas which extend beyond the working areas. The EIA boundary encompasses the substitute consent application boundary. The substitute consent (the Planning Application) boundary is shown on the drawing set which accompanies the planning application.

The temporal scope of this assessment covers the baseline of this rEIAR has been set to September 2020, and the rEIAR process has assessed environmental impacts from that date to the present. This assessment period equates to approximately three and a half years and is identified as 'short-term' duration (those lasting one to seven years).

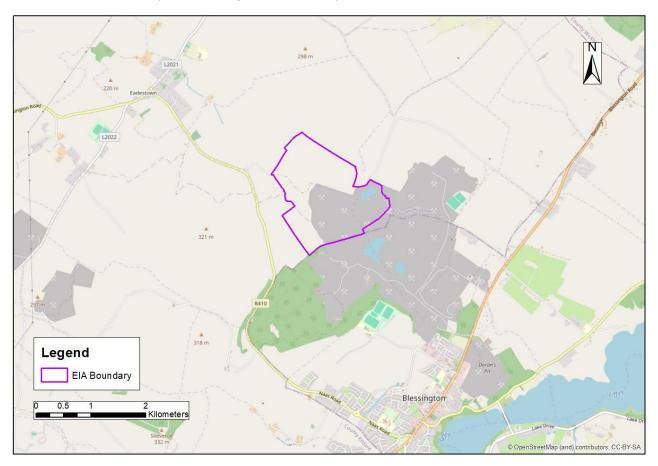


Figure 13-1 - Location of the Site (EIA site boundary).

# 13.2 LEGISLATIVE AND POLICY CONTEXT

## 13.2.1 LEGISLATION AND DEFINITIONS

Annex IV of the amended EIA Directive (2014/52/EU) requires that the developer provides a description of the factors (specified in Article 3(1)) which are likely to be significantly affected by the project, including a study of the potential impacts to material assets.

The 2014/52/EU Directive was transposed into Irish law through European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) which amended the Planning and Development Act, 2000, and the Planning and Development Regulations, 2001. This rEIAR has been produced in accordance with these relevant legislative requirements and Statutory Instruments.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



#### 13.2.2 RELEVANT POLICIES AND PLANS

The Kildare County Development Plan 2023-2029 (KCDP) is the key strategy document which structures the proper planning and sustainable development of land-use across County Kildare over the six-year statutory time period of the plan. There is an increasing demand for aggregates and that areas for extraction of aggregates and minerals are needed in the county. To address this the Council identifies that planning policies should be carefully constructed to avoid adverse effects on aggregate resources and related extractive industries. The KCDP notes that it is necessary to ensure that aggregates can be sourced without significantly damaging the landscape, environment, groundwater and aquifer sources, road network, heritage and / or residential amenities of the area.

Kildare County Council sand and gravel extraction policies and objectives relevant to this assessment include:

- RD P8 -Support and manage the appropriate future development of Kildare's natural aggregate resources in appropriate locations to ensure adequate supplies are available to meet the future needs of the county and the region in line with the principles of sustainable development and environmental management and to require operators to appropriately manage extraction sites when extraction has ceased.
- RD O42 Ensure that development for aggregate extraction, processing and associated concrete production does not significantly impact the following:
  - Special Areas of Conservation (SACs)
  - Special Protection Areas (SPAs)
  - Natural Heritage Areas (NHAs)
  - Other areas of importance for the conservation of flora and fauna.
  - Zones of Archaeological Potential.
  - The vicinity of a recorded monument.
  - Sensitive landscape areas as identified in Chapter 13 of this Plan.
  - · Scenic views and prospects.
  - Protected Structures.
  - Established rights of way and walking routes.
  - Potential World Heritage Sites in Kildare on the UNESCO Tentative List, Ireland.

#### 13.2.3 RELEVANT GUIDANCE

This assessment has been made with guidance from the 'Guidelines on the information to be contained in environmental impact assessment reports', published by the EPA in May 2022.

# 13.3 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

#### 13.3.1 ASSESSMENT AIMS

As identified above, the key objectives of this assessment are to assess:

Identification of the likely direct and indirect significant effects of the Development on the material assets in the surrounding environment during the assessment period.

#### 13.3.2 EIA SIGNIFICANCE TERMINOLOGY

As identified in Chapter 1 (Introduction) of this rEIAR, a common framework of assessment criteria and terminology has been used based on the EPA's draft Guidelines on the Information to be

SUBSTITUTE CONSENT - rEIAR

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



Contained in EIARs (EPA, 2022). This common framework follows a 'matrix approach' to environmental assessment which is based on the characteristics of the impact (magnitude and nature) and the value (sensitivity) of the receptor.

The assessment reported below is based on the common framework described in Chapter 1 of this rEIAR. It has been assumed that the value (sensitivity) of the material assets is no greater than Medium, which equates to 'Medium or high importance and rarity, regional scale, limited potential for substitution' (see Table 1.4 of Chapter 1). This sensitivity has been assumed given the importance of the assets to users surrounding the Development, and their sensitivity to potential disruption from the impaired use.

A description of the significance categories used is provided in Table 13-1. Effects that are either Large or Profound are considered to be Significant, and effects that are Moderate, Slight or Imperceptible are considered to be Not Significant. How the level of effect is determined, based on the environmental value and magnitude of impact, is explained in Section 1.6.2 of Chapter 1.

Table 13-1 - Significance categories and typical descriptions.

Significance Category	Typical Description				
Profound	An effect which obliterates sensitive characteristics.				
	Only adverse effects are usually assigned this level of significance. These factors are key issues in the decision-making and consent process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance which are likely to suffer a most damaging impact and loss of resource integrity. However, a major change in a site or feature of local importance may also be included in this significance category.				
Large	An effect which, by its character, magnitude, duration or intensity alters a significant proportion of a sensitive aspect of the environment.				
	These can be beneficial or adverse effects and are considered to be very important issues which are likely to be substantial in the decision-making process.				
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.				
	These are beneficial or adverse effects which may be important but are not likely to be central to decision-making or consent. The cumulative effects of these factors may influence consent or decision-making if they should lead to an increase in the overall adverse effect on a particular resource or receptor.				
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.				
	These beneficial or adverse effects may be raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the project.				
Imperceptible	An effect capable of measurement but without significant consequences.				
	No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.				

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



# 13.4 BASELINE AND SUBSEQUENT CONDITIONS (2020 TO PRESENT)

The Application Site located in the townlands of Philipstown and Redbog, Co. Kildare. The Site is located within an area of historical extraction.

#### 13.4.1 ESB NETWORK UTILITIES

Two service maps were received from ESB on 06 December 2023 detailing both the layout of underground and overhead ESB lines on-site and in the locality. The received service maps have been provided in Appendix 13A of this chapter.

The service maps provided by ESB indicates that the Site is connected to the grid by an underground medium/low voltage cable. Premises around the site are serviced by medium and low voltage overhead lines which traverse the area to the west, east and north.

#### **13.4.2 GAS SUPPLY**

A service map was received from Gas Networks Ireland (GNI) on 04 December 2023 detailing the gas network in the area. The map indicates that there is a high-pressure transmission pipe located within northern section of the Site.

The service map indicates that no other gas pipelines are found within the area and no premises in the surrounding area are serviced by GNI infrastructure.

These GNI service routes have been included in Appendix 13B.

#### 13.4.3 TELECOMMUNICATIONS NETWORK

Service maps have been sourced from the Eir CBYD online mapping request portal and have been redrawn to an appropriate scale for reporting purposes, Figure 13-2. Transmission poles carry over ground services along the R410 and L6038-1. These lines service the ribbon residential developments situated adjacent to them. Trench routes also run along the R410. No other telecommunication lines or services were identified within the Site including telecom masts or underground services.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



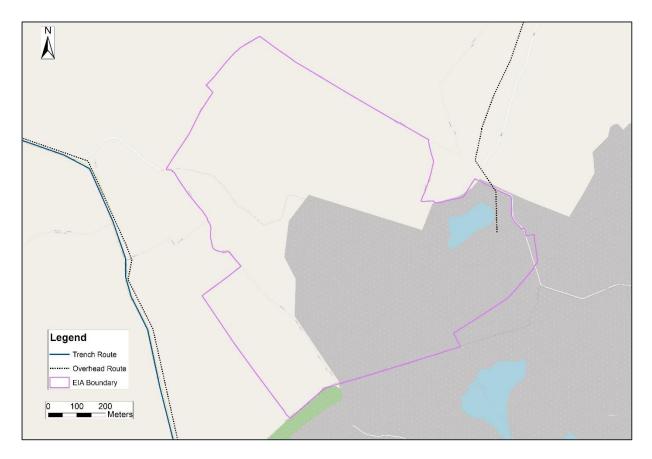


Figure 13-2 - Telecommunication Services in the Area (EIR Service Maps, January 2024)

# 13.4.4 LOCAL WATER SUPPLIES AND SEWERAGE INFRASTRUCTURE

A public mains connection services the office/canteen, control rooms and welfare facilities onsite. During the Assessment period water was abstracted from Pond K1 and Pond K2 onsite to service the water recycling tanks, maintenance shed (including welfare facility) and aggregate plant. The water from these ponds servicing the maintenance shed undergoes UV treatment in a dedicated unit at the shed.

Foul water is treated at the proprietary wastewater treatment system at the maintenance shed. Foul water is collected in holding tanks at the control room and the office/canteen and is removed off-Site regularly by an appropriately qualified and permitted contractor.

A potable water network, operated by Uisce Eireann, services houses in the locality. A service layout has been provided in Figure 13-3. The Uisce Eireann mapping indicate that a 300 m ductile iron main runs along the R410 west of the site and services the residential dwellings in that area. To the northeast of the Site, residential dwellings are served by HDPE and uPVC mains supplies.

Sewerage services at the same dwellings are covered by independent septic tank systems.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



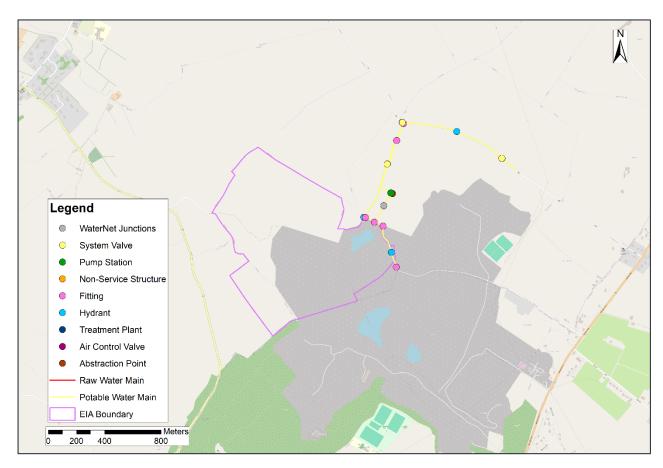


Figure 13-3 – Uisce Eireann Services in the Area.

#### 13.4.5 SURFACE WATER DRAINAGE INFRASTRUCTURE

Lands within the Site are dominated by sand and gravel and rock extraction areas, recolonising bare ground and improved grassland fields. Currently the surface water infiltrates through the underlying soils and sub-soils.

There are no existing public surface water networks within the Site.

#### 13.4.6 WASTE MANAGEMENT AND LOCAL WASTE INFRASTRUCTURE

Small amounts of general refuse waste are generated by the site office and staff facilities.

Waste is generated onsite from servicing equipment and plant. Waste oil and other waste and parts associated with this maintenance are disposed by the service contractor.

# 13.4.7 GEOLOGICAL RESOURCE AND LOCAL ECONOMY

The geology of the Site is described in detail in Chapter 5 (Land, Soils and Geology). As outlined previously, the existing activities undertaken at the Site include the extraction of aggregate for use in the construction industry.

# 13.4.8 LAND RESOURCE AND LOCAL AGRICULTURE

The Site is described in detail in Chapter 2 (Scope and Project Description), Chapter 4 (Ecology and Biodiversity) and Chapter 5 (Lands, Soil and Geology). The EIA boundary comprises approximately 95.8 ha.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



To the north and west of the Site lands are predominantly in agricultural usage with residential dwellings scattered along roads. To the south and east lands are predominantly in use by the extractive industry with an area of forestry to the southwest.

# 13.5 CHARACTERISTICS OF THE DEVELOPMENT

The rEIAR has been prepared to accompany a substitute consent application for an existing quarry located in the townlands of Philipstown and Redbog, Co. Kildare. The lands the subject of this rEIAR (EIA boundary) extend to 95.8 ha. The quarry area that makes up the application for substitute consent planning unit currently extends to approximately 71.9 ha.

Activities at the Site involved the extraction of both rock (greywacke) and sand and gravel using excavation techniques. There was no blasting of rock undertaken over the review period. The extraction activities continued to take place above the water table with dry quarrying of the sands and gravels and rock.

## 13.6 POTENTIAL EFFECTS

The main potential impacts and associated effects that have been considered in the assessment relate to the following:

- Activities or events that might have impacted electrical services and utilities for surrounding users;
- Activities or events that might have impacted gas services and utilities for surrounding users;
- Activities or events that might have impacted telecommunications networks for surrounding users;
- Activities or events that might have impacted surface water drainage networks surrounding the Site;
- Activities or events that might have impacted water supplies and services for surrounding users; including, impacts on quality and quantity of supply for groundwater users, and the impacts of blasting on water supply pipelines;
- Activities or events that might have impacted waste water networks for surrounding users;
- Activities or events that might have impacted waste management infrastructure; and
- Activities that might have impacted geological resources surrounding the Site.

These potential impacts during the assessment period of September 2020 to present are considered and assessed in the following sections.

Given the nature of the rEIAR and the Substitute Consent process the potential impacts of a 'Do Nothing' scenario if the Development were not operating during this period have not been considered.

## 13.6.1 ESB NETWORK UTILITIES

The Development has utilised electricity supplies to the Site via the onsite connection to the grid. Previous extraction activities did not result in any significant impacts to the quality or availability of electrical utilities to the surrounding users.

The impact from the Development on the local electricity supply during the assessment period is therefore considered to have been 'Imperceptible'.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



#### **13.6.2 GAS SUPPLY**

There have been no requirements for GNI connections to service the Development. Therefore, there has been no additional supply demands on the GNI network.

The GNI service map indicates that a main high pressure transmission line exists in the North of the Site however, quarrying has not been extended into this area of the Site. The previous extraction activities did not result in any significant impacts to the quality or availability of gas supply to the surrounding users.

There were no vibration effects from blasting on this gas line as blasting was not conducted during the assessment period.

Therefore, the effects of the development on the GNI transmission lines and gas supplies is determined to have been 'Imperceptible'

#### 13.6.3 TELECOMMUNICATIONS NETWORK

The telecommunications network has been utilised at the site office. No additional telecommunications have been set up.

The Development has not required the movement or relocation of transmission lines or other infrastructure. The impact of the Development on the telecommunications network during the assessment period has been 'Imperceptible'.

### 13.6.4 LOCAL WATER SUPPLIES AND SEWERAGE INFRASTRUCTURE

No changes have been made to the existing water abstraction process onsite.

Residential properties local to the Site, utilise both private and public water supplies. These residential dwellings use domestic septic tanks systems for wastewater.

The impact from the development on the local water and sewerage supply is considered to have been 'Imperceptible'.

#### 13.6.5 SURFACE WATER DRAINAGE INFRASTRUCTURE

As noted, surface water infiltrates through the underlying soils and sub-soils. There are no existing public surface water networks within the Site, therefore the Site has had no effect on public surface water networks.

#### 13.6.6 WASTE MANAGEMENT AND LOCAL WASTE INFRASTRUCTURE

Waste from the Site is managed by suitable qualified and permitted and licenced contractors. Due to the limited waste streams generated on site it is considered that there has been an '*Imperceptible*' effect on local waste infrastructure resulting from Site activities.

# 13.6.7 GEOLOGICAL RESOURCE AND LOCAL ECONOMY

The geology of the Site is described in detail in Chapter 5.0 (Land, Soils and Geology). As outlined previously, the activities undertaken at the Site include the extraction of aggregate for use in the local and regional projects. The Development has resulted in a permanent loss of the geological resource within the confines of the Site. Currently the geological exposures are visible along the southern side of the Site. These exposures have offered a valuable insight into the geology of the area which may not have been previously exposed if there was no quarrying of the Site.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



Additionally, the extraction of the aggregate during the period of September 2020 to present is considered an acceptable use of the economic resource at the Site and material extracted from the Site has been used as raw materials in the construction industry.

Therefore, potential impacts from the Site's extraction of the geological resources is considered to be 'low' resulting in effects during the September 2020 to present assessment period that are 'slight'.

# 13.6.8 LAND RESOURCE AND LOCAL AGRICULTURE

Within the Site there has been a minor loss of grassland (ca. 1.5 ha) which was already in the main operational area and not utilised for agriculture. However, as outlined in Section 13.6.7 the extraction of aggregates onsite is considered an acceptable use of the resource which will benefit the economy.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



Table 13-2 – Evaluation of Initial Impacts and their Effect Significance.

Receptor	Sensitivity	Source of Impact/Description of Change	Impact Magnitude	Level of Effect
Electrical Infrastructure / Utilities	Medium	Disruption to electrical supplies as a result of Site activities.	Negligible (adverse)	Imperceptible
Gas Infrastructure / Utilities	Medium	Impacts to gas supplies by consumption from Site activities.	Negligible (neutral)	Imperceptible
Gas Infrastructure / Utilities	Medium	Disruption to gas supplies and damage to the supply network as a result of Site activities, (e.g. excavation and blasting).	Negligible (adverse)	Imperceptible
Telecommunication Infrastructure / Utilities	Medium	Disruption to telecommunications networks as a result of Site activities.	Negligible (adverse)	Imperceptible
Water Supplies	Medium	Impacts to water supplies by consumption from Site activities.	Negligible (adverse)	Imperceptible
Water Supplies	Medium	Impacts to quality of surrounding water supplies (groundwater well users) from quarrying activities on Site.	Negligible to Low (adverse)	Imperceptible
Water Supplies	Medium	Impacts to quantity of surrounding water supplies (groundwater well users) from quarrying activities on Site.	Negligible to Low (adverse)	Imperceptible
Wastewater Networks	Medium	Impacts or impairment of local wastewater networks as a result Site activities or contributions.	Negligible (adverse)	Imperceptible
Waste Management Infrastructure	Medium	Impacts or impairment of local waste management infrastructure as a result Site activities generating wastes.	Negligible (adverse)	Imperceptible
Geological Resource	Medium	Use of the underlying geology used as an economic resource for aggregate and supply to the construction industry.	Low (beneficial)	Slight
Local Agriculture	Medium	Loss of agricultural land	Low (adverse)	Slight

SUBSTITUTE CONSENT - rEIAR

Project No.: 40000328 | Our Ref No.: 40000328.R01.13 Hudson Brothers Limited



# 13.7 REMEDIAL MEASURES REQUIRED

No remedial measures have been identified in this chapter of the rEIAR. Other measures which may be required are detailed separately in the below chapters of this EIAR:

- Chapter 6 Water;
- Chapter 7 Air Quality;
- Chapter 9 Noise and Vibration;
- Chapter 11 Landscape and Visual Impact; and
- Chapter 12 Traffic.

# 13.8 RESIDUAL EFFECTS

The assessment concludes that the Development did not give rise to significant adverse effects on material assets surrounding the Site during the assessment period of September 2020 to present. In all cases the residual effect is **Not Significant** and not greater than 'Slight'.

#### 13.9 CUMULATIVE EFFECTS

The impacts identified during the assessment period were mitigated by design or good practice. Effects from the Site in isolation have been deemed in all instances to be '*Imperceptible*' or not greater than '*Slight* (adverse)'.

Assuming other developments in the area have incorporated widely adopted good design, practice and mitigation measures it is considered that there has been no significant cumulative effects of the Development with other similar developments in the locality during the assessment period.

#### 13.10 MONITORING

No monitoring is proposed for material assets as part of this retrospective assessment.

#### 13.11 DIFFICULTIES ENCOUNTERED

No particular difficulties were encountered in the preparation of this chapter of the rEIAR.

#### 13.12 SUMMARY AND CONCLUSIONS

To conclude, the activities at the Site have not caused any significant adverse effects to the material assets surrounding the Site during the assessment period of September 2020 to present.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13



# 13.13 REFERENCES

EPA. 2022. Guidelines on the information to be contained in Environmental Impact Assessment Reports.

Gas Networks Ireland (2021) Code of Practice for Working in the Vicinity of the Transmission Network.

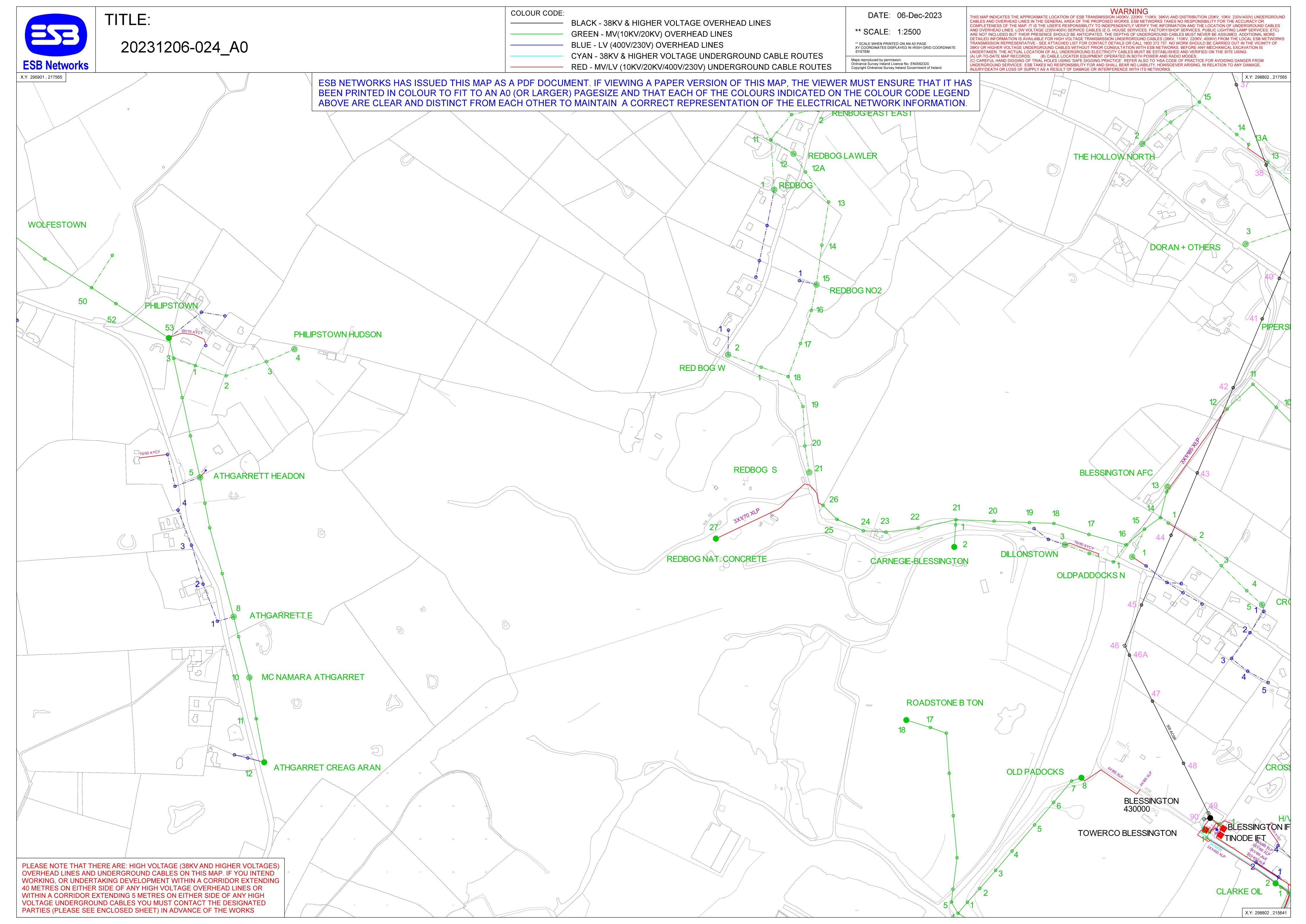
Kildare County Council (2023) Kildare County Development Plan 2023-2029.

Project No.: 40000328 | Our Ref No.: 40000328.R01.13

# Appendix 13A

**ESB SERVICE MAPS** 





# Appendix 13B

**GAS NETWORKS IRELAND MAP** 



