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The Secretary,
An Coimisiún Pleanála,
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Date: 14th October 2026
Ref.: 25278 / IL / MC

Re: Response to Third-Party Appeal in respect of Meath County Council decision to grant permission for the construction of an industrial laundry processing and distribution warehouse facility and all associated site works at a c. 4.5 ha site at Boyne Village Business Park, Athlumney, within the Townlands of Ferganstown, Ballymacon and Athlumney, Navan, Co. Meath.

Meath County Council Reg. Ref.: 26/60226
ACP Ref: PL-502119-MH-26

Dear Sir/Madam,

1.0 INTRODUCTION

We, JSA Planning, 39 Fitzwilliam Place, Dublin 2, on behalf of Albert Developments Limited, Balmoral, Kells Road, Navan, County Meath, submit this response to a single third-party appeal lodged by Stephen Flanagan, 12 The Court, Glenveigh, Navan, Meath, in respect of the decision of Meath County Council to grant permission for the proposed industrial laundry processing and distribution facility at Boyne Village Business Park, Athlumney, Navan, Co. Meath (Planning Ref. 26/60226).

The submitted response is in reply to the An Coimisiún Pleanála letter dated the 17th of September enclosed at Appendix 1 (ACP Ref: PL-502119-MH-26).

At the outset, the applicant is pleased to receive a notification of a decision to grant permission for the proposed development after extensive engagement with Meath County Council, over an extended period. The proposal will deliver significant employment creation on appropriately zoned lands within the Boyne Village Business Park in accordance with the wider agreed Masterplan for the MP12 lands, contributing to sustainable work-live communities and a live-work community in the area, consolidating the earlier grant for 3 no. warehouses on lands to the east (MCC Reg. Ref.: 22/1703; ACP- 318533-23) and residential permissions to the south of the Local Distributor Road 6.

The appeal raises a broad range of issues relating to, *inter alia*, water supply and wastewater infrastructure, surface water drainage, flood risk, ecology, environmental assessment, noise, residential amenity, operational matters and the overall suitability of the development at this location. While the appeal seeks to characterise a number of detailed technical matters as unresolved, it is important to note that the appellant's submission replicates and overlaps with issues raised within Mr. Flanagan's observation submitted to the planning application. Item 4 of the Meath County Council (MCC) further information request invited the applicant to respond to observations and in this regard, the issues raised by the

appellant were comprehensively addressed within the further information response, examined by the Planning Authority throughout the planning application process and also included consultation with prescribed bodies and review by relevant technical departments. MCC issued a decision to grant permission subject to conditions, which in the view of the applicant, are appropriate and reasonable in response to the concerns raised by the appellant.

In assessing the application, the planning authority had regard to the strategic planning context of the site, the zoning objectives applicable to the lands, the extensive suite of specialist reports submitted in support of the application, submissions received from prescribed bodies and third parties, and the additional information furnished in response to the Further Information request. Following this assessment, the Planning authority concluded that the proposed development constituted an appropriate form of development on strategically located employment lands and would not give rise to unacceptable impacts on residential amenity, environmental receptors or infrastructure, subject to the implementation of appropriate mitigation measures and planning conditions.

We note that the appellant has previously appealed other development projects in the MP12 area. In the context of the comprehensive information provided in the application and further information response, which in the opinion of our client fully addresses the appellant's ongoing concerns it is disappointing that the proposed development is subject to unnecessary delay at appeal stage. This response will address each of the issues raised in the third-party appeal, which can be summarised as follows:

- This appeal response includes updated Ecological Impact Assessment, Natura Impact Assessment and EIA Screening Report to capture and assess the description of the development proposed by the applicant at FI stage and subsequently permitted by MCC. Conclusions of these reports come to the same findings as previous versions and have been supplemented by other assessments now forming part of this appeal response.

- The appellant seeks clarity on the conclusion of the EIA Screening Report in respect of the classification of the proposed development. Ultimately, the conclusions reached by the EIA Screening Report and the planning authority in respect of significant effects are clear and supported by the comprehensive assessments submitted with the planning application.

- In respect of water supply and trade effluent, we would note that notwithstanding the appellant's concerns, Uisce Éireann issued an updated letter confirming that water and wastewater connections are *"feasible subject to upgrades"* and subject to a connection agreement required by condition 8(iii) and condition 9 of the MCC decision to grant permission. Importantly, the construction programme for the proposed Elis laundry facility is aligned with the pending Uisce Éireann upgrades for water and wastewater and therefore capacity will exist upon operation of the development. The potential groundwater well will supplement the water supply alongside water conservation measures on site, required by MCC condition. Condition 9 requires that final water supply arrangements be agreed with MCC and Uisce Éireann, confirming that any water supply from a groundwater well will be required to demonstrate sustainable supply with no negative environmental effects.

- In respect of noise and potential impacts on residential amenity, the Redkite Appeal Response confirms that in respect of the amended design and reduction in building height at FI stage that *"the revised height as permitted by Meath County Council has not changed the fundamental conclusions and recommendations of the June 2026 report"*. Meath County Council have accepted the conclusions of the noise impact

assessment submitted at FI stage and included condition 17(x) which requires a Noise Management Plan. There are no significant impacts to residential amenity anticipated to arise from the proposals.

- In respect of Irish Rail / Iarnród Éireann lands, it is noted that a package of information was issued to the statutory body in June 2026 in response to the observation on the application. This confirmed that there *is no proposal to discharge surface water or effluent onto railway property* and the attenuation infrastructure is setback 5 metres from the railway boundary. No objection was received by Irish Rail and the proposed approach accepted by MCC.

- In relation to surface water outfall, the strategy was set out at application and FI stage and confirms that "*Surface water from the proposed development site is to discharge to the Millrace/Farganstown Stream via the existing field drains located along the railway line"*, with potential for future disposal to new pipes beneath the railway line in future, subject to Uisce Éireann and MCC agreement. In both cases, as well as in considered potential blockage of the existing culvert, there is not anticipated to be any increased flood risk to the appellant's lands, confirmed by JBA in the accompanying Appeal Response.

- The proposals include a strategy for dealing with contaminated firewater in the event of a fire event at the premises, informed by a Firewater Retention Assessment enclosed. The submitted chemical summary prepared by Elis confirms relevant inventories for storage and management of products on site. The HRA Appeal Response confirms strategy for drainage of firewater.

- The visual impact assessment submitted with the application includes a viewpoint from Glenveigh residential development to the west of the application site, noting *"low magnitude, slight significance and a neutral effect in the long term"*. CSR consider that in respect of the appellant's dwelling, there *"would be no additional effect on No 12 The Court"* and the effect *"would be less"* to that assessed at VP7.

- An updated Lighting Report is enclosed with this appeal response which confirms preparation "*in accordance the Council's technical specification" and that "drawings indicate all luminaries are positioned away from ecological corridors such as drainage ditches, hedgerows, treelines and woodland"*. This is consistent with best practice and will be subject to agreement with MCC by way of condition.

This response should be read in tandem with the following:

- Appendix 1: ACP Letter 17th September
- Appendix 2: MCC Decision to Grant Permission
- Appendix 3: Elis Chemical Summary
- Appendix 4: Hendrick Ryan Associates Appeal Response & Engineering Drawings
- Appendix 5: ORS Groundwater Supply Desk Study Feasibility Assessment
- Appendix 6: Redkite Noise Impact Appeal Response
- Appendix 7: ORS Firewater Retention Assessment
- Appendix 8: JBA Consulting Flood Risk Appeal Response
- Appendix 9: ORS Updated Lighting Report
- Appendix 10: ORS Updated Ecological Impact Assessment
- Appendix 11: ORS Updated Natura Impact Assessment
- Appendix 12: ORS Ecology Memorandum
- Appendix 13: CSR Landscape Appeal Response
- Appendix 14: JSA Updated Environmental Impact Screening Report

Having regard to the strategic employment zoning of the lands, the objectives of the Meath County Development Plan 2021-2027 (as varied), the agreed MP12 Masterplan framework, the extensive technical information submitted, and the detailed assessment undertaken by the Planning authority, it is respectfully submitted that the appeal does not identify any planning basis upon which the decision of Meath County Council should be overturned and that the grant of permission should be upheld.

2.0 SITE LOCATION & DESCRIPTION

The proposed development site extends to approximately 4.5 hectares. The application site is situated north to north-west of the recently constructed LDR6 (LIHAF-funded) Farganstown Access Road and east of the former railway lands, occupying the north-west corner of the MP12 lands at Athlumney, Navan. The LDR6 connects southwards to the Kentstown Road. The subject lands are currently greenfield and are bordered to the north by predominantly agricultural lands with some dispersed residential properties, to the east by Boyne Village Business Park and undeveloped greenfield lands within the MP12 area and to the south by undeveloped lands located between the site and the LDR6. A number of residential developments have been permitted south of the LDR6, as detail further below. To the west, the site adjoins the disused Navan railway line, beyond which lies existing residential development; this western boundary is defined by a mature hedgerow. The River Boyne is located approximately 350 metres north of the site.

Navan town centre lies roughly 2.5 kilometres to the west and provides a wide range of retail, commercial, community and civic services, including Navan Shopping Centre, restaurants, cafés, a cinema, banks, libraries and places of worship, as well as Our Lady's Hospital, Navan. Lands to the south and east of the LDR6 have been the subject of several planning applications, including permission for Phase 1 of the enterprise lands, comprising three commercial warehouse units and associated access infrastructure.

Figure 2.1: Aerial view of site location (Google Earth).



Access to the proposed development will be provided via an extension of the internal Estate Roads and Access Road B, extending north and then west from the LDR6 roundabout. Part 1 of the Estate Road has already been permitted under Phase 1 of the enterprise lands (Reg. Ref.: 22/1703) and is included in the red line boundary to enable this section to be implemented as part of the proposed development. A new link road connecting the Kentstown Road–Metges Road junction to the development area via Hodgett Road is currently under construction and will ultimately serve the wider lands. The site adjoins the former Navan railway line, which is currently non-operational for passenger services; however, the reinstatement of the Navan rail line is identified within the NTA's Greater Dublin Area Transport Strategy for future passenger use.

Figure 2.2: LIHAF Road Access from Kentstown Road



The (LDR6) Farganstown Access Road is one of the Government's 30 approved LIHAF projects under Rebuilding Ireland. LIHAF is designed to activate housing supply by putting in place enabling public infrastructure by unlocking lands to facilitate development.

3.0 RELEVANT PLANNING HISTORY

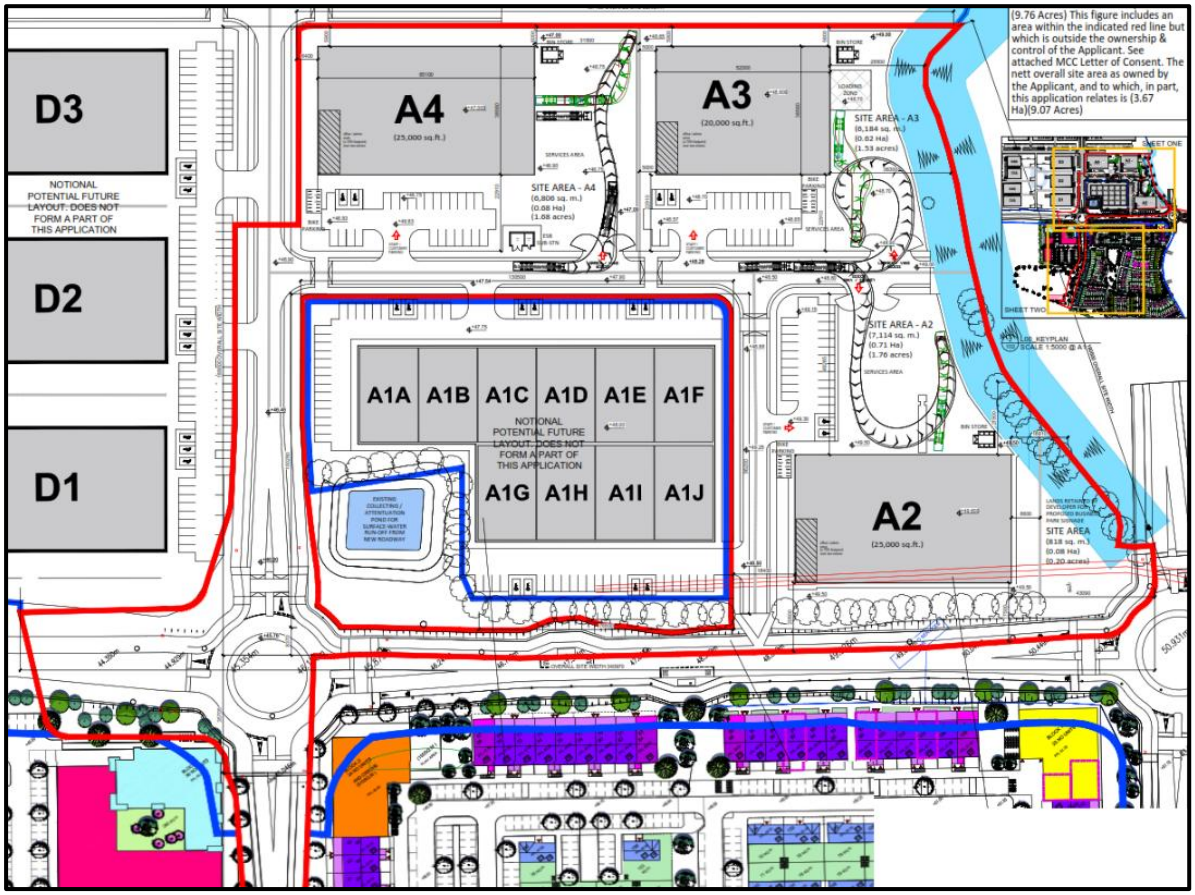
There is no planning history for the subject site.

Other relevant applications on adjacent sites are noted below.

3.1 Meath County Council Reg. Ref. 22/1703 (ACP- 318533-23)

On 14th January 2025, An Bord Pleanála (as then) issued a grant of permission for development comprising Phase 1 of the Boyne Village Enterprise Park comprising construction of: 3 no. commercial high-bay warehouse units.

Figure 3.1: Site Layout

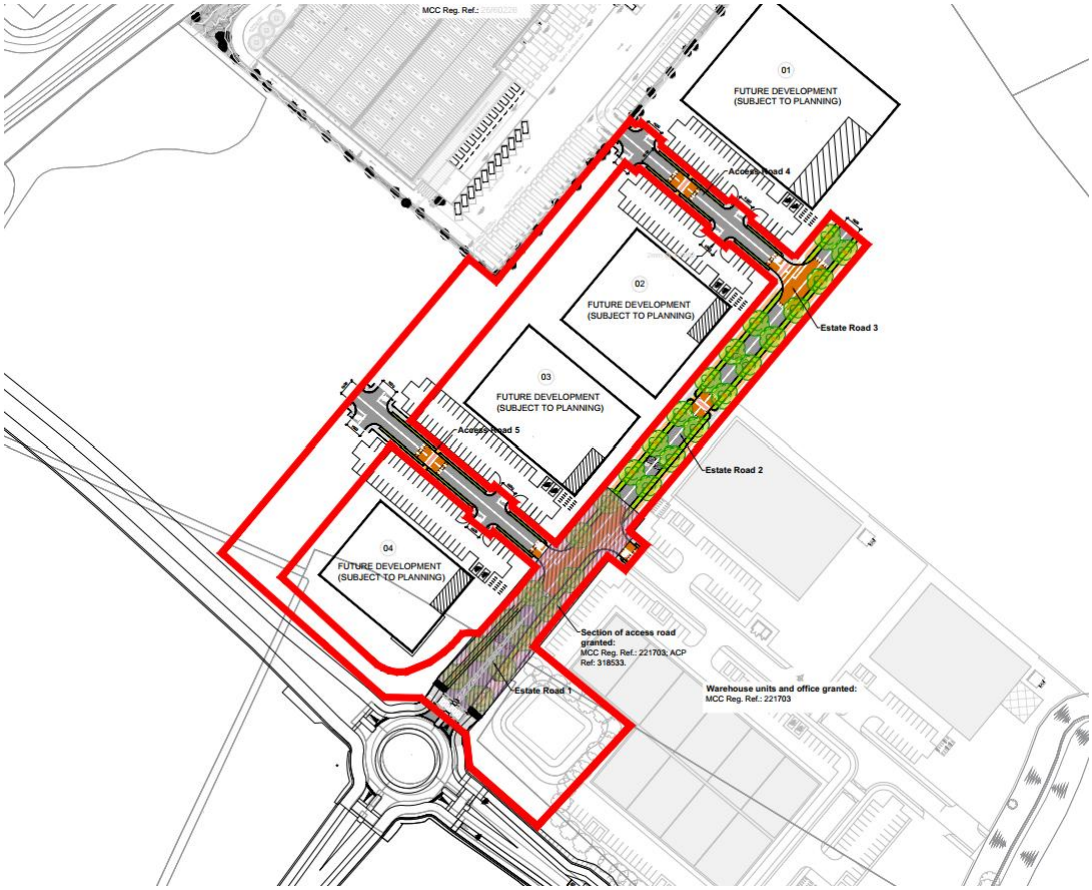


The permitted development includes commercial high-bay warehouses, road and pedestrian access extending north from the LRD6 distributor road and associated site works.

3.2 Meath County Council Planning Reg. Ref.: 2661048

Meath County Council issued a further information request on 13th October 2026 for a construction of an estate road and access roads at Boyne Village Business Park, Navan. The site overlaps slightly with the Elis application to provide spine road and secondary access roads to the west to facilitate future development. There are no interdependencies of the proposed Elis application and the estate roads application.

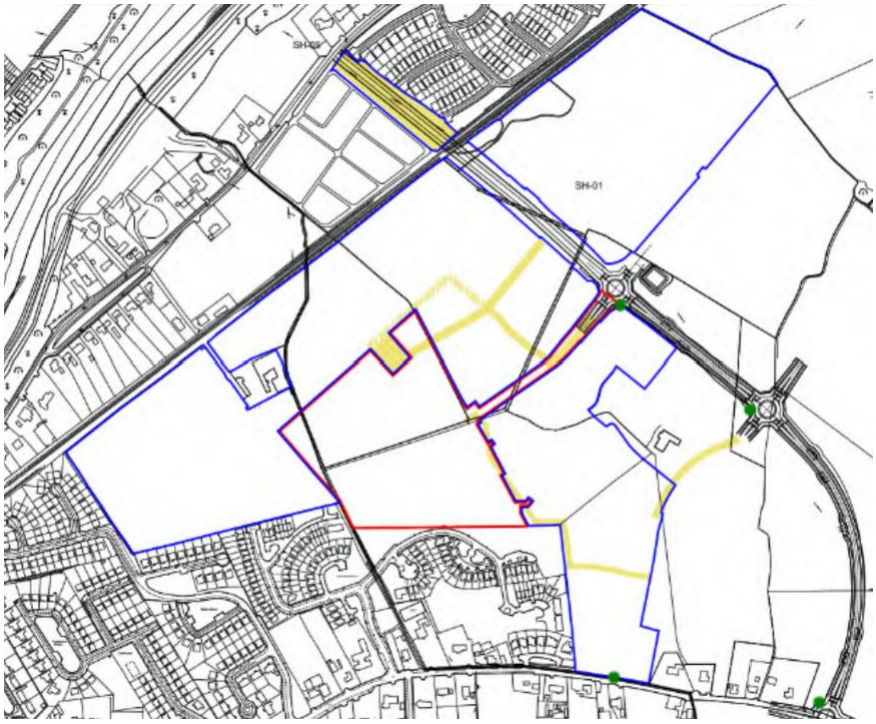
Figure 3.2: Site Layout



3.3 Meath County Council Planning Reg. Ref.: Ref. 2660120 / ACP PL-501989-MH-26

Meath County Council issued a notification of a decision to grant for 83 no. dwellings on lands south of the LDR6 road south of the application site at Athlumney on 28th August 2026. The application is currently subject to a single third-party appeal submitted by Mr. Flanagan.

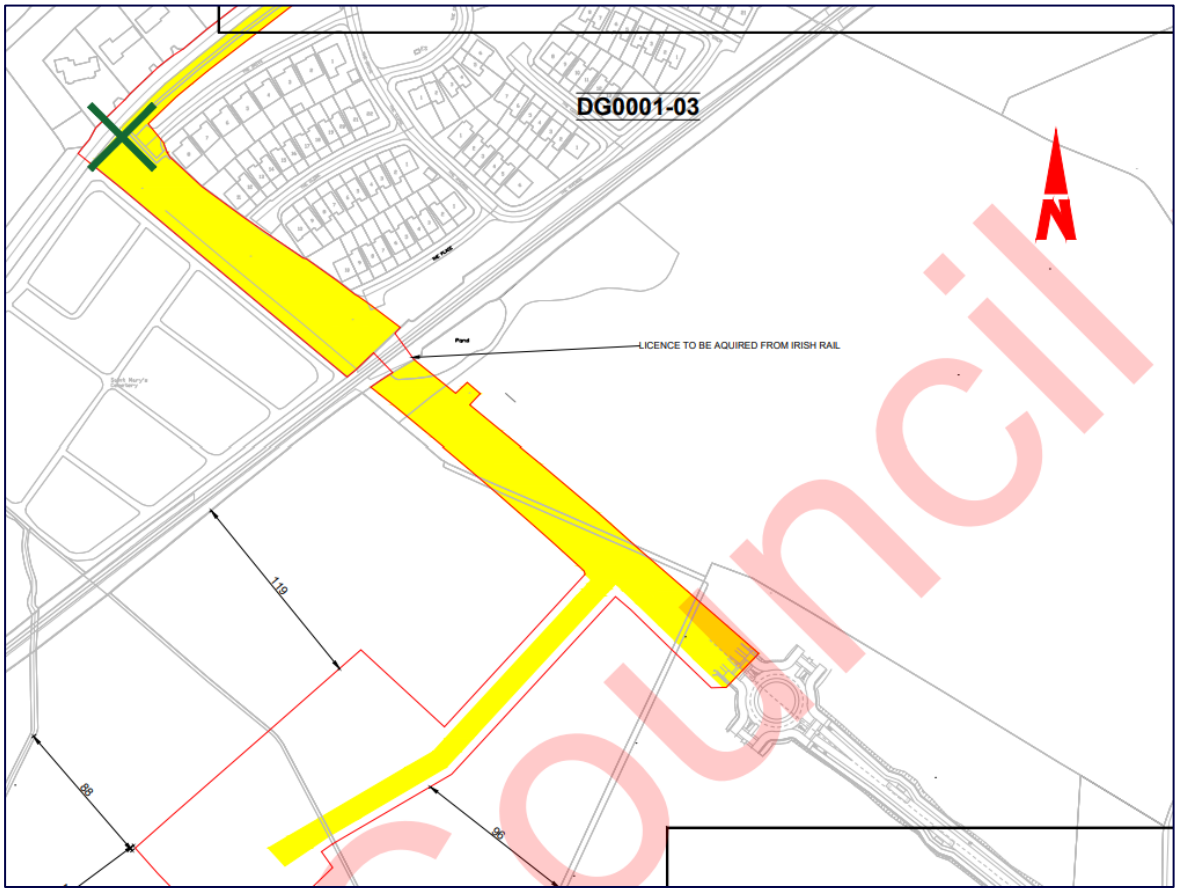
Figure 3.3: Site Location



3.4 Meath County Council Planning Reg. Ref. 2460066

Meath County Council granted permission on 28th November 2024 for development consisting of a new wastewater pumping station that discharges to the inlet pipework of the Navan WWTP via two new rising main sewerage pipes on lands generally to the south of the application site at Ferganstown & Ballymacon and Athlumney, Navan, Co Meath.

Figure 3.4: Site Layout



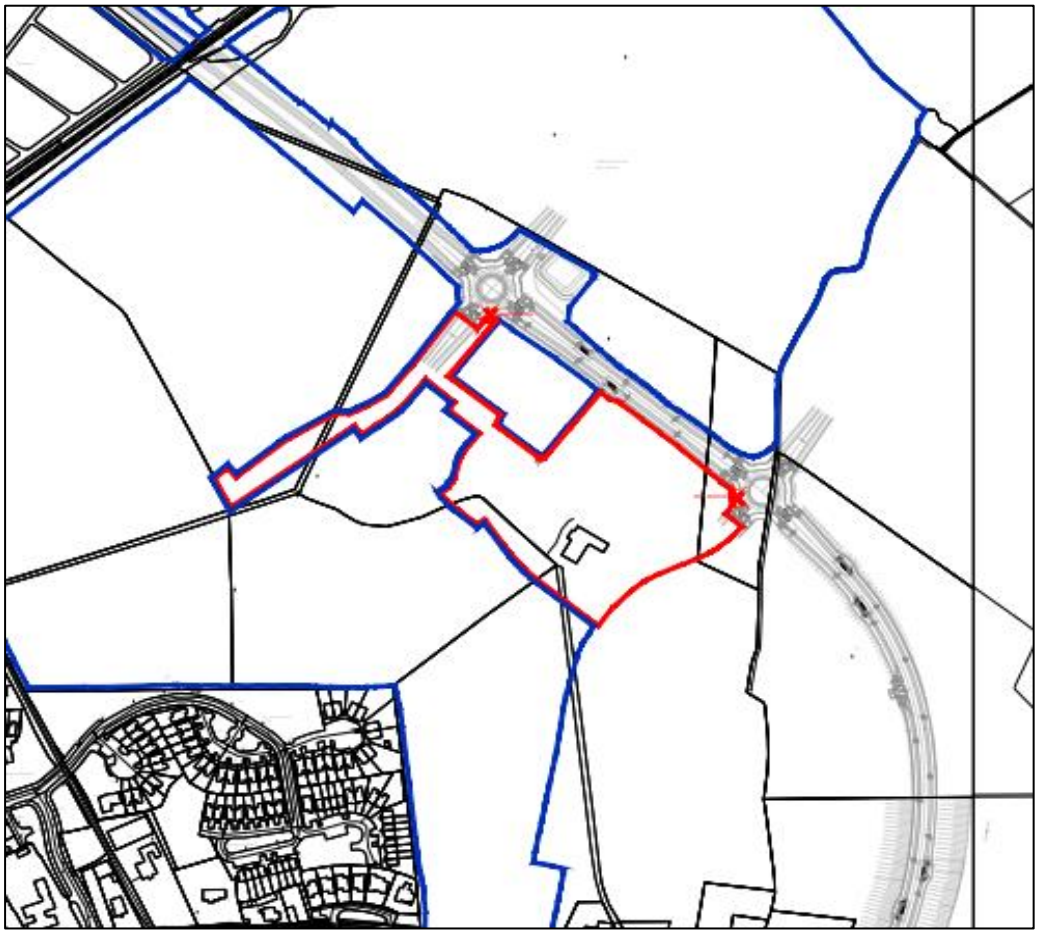
Council

3.5 Meath County Council Planning Reg. Ref. 211046 (ABP- 312746-22)

Meath County Council issued a notification of a decision to grant permission for the development of (phase 1a) comprising the demolition of existing agricultural structures (c. 530sqm) and the construction of 98 no. residential units.

The appeal was decided on 29th September 2023 where the Board granted permission subject to revised conditions. This development has commenced construction.

Figure 3.5: Site Location of Application Ref. 211046



3.6 Meath County Council Planning Reg. Ref. 2460415 (ACP Ref: 322341-25)

On the 25th of March 2025 Meath County Council issued a notification of a decision to grant permission for development comprising inter alia 322 no. dwellings, (212 no. houses & 110 no. duplex apartments/apartments) consisting of 177 no. 3-bedroom houses, 35 no. 4-bedroom houses, 26 no. apartments/duplex apartments (13 no. 2-bedroom apartments and 13 no. 3-bedroom duplex apartments), 35 no. 1-bedroom apartments and 49 no. 2-bedroom apartments in 3 no. separate blocks, a Community Centre & Sports Hall, creche, as well as a Neighbourhood Centre of c.2,002 sq. m (including an anchor retail unit 1,000 sq. m net, GP Surgery, Café, Pharmacy and Takeaway), access, infrastructure, car parking, open space, boundary treatments and all associated site development works.

Figure 3.6: Site Layout



The proposed development will provide c.3.72 hectares of open space which includes a District Park (c.1.65 ha), neighbourhood park of c.0.47 ha, western open space areas (0.89 ha) and a series of smaller open space areas.

The decision was subject to a Third-Party appeal and was subsequently granted by ACP subject to revised conditions 28th July 2025.

3.7 Meath County Council Planning Reg. Ref. 2560539 (ACP Ref: ACP-323854-25)

On 15th October 2025 Meath County Council issued a notification of a decision to grant permission for a Large-Scale Residential Development consisting of 223 no. residential dwellings (26no. 1 -bed, 50no. 2-bed, 138no. 3-bed and 9no. 4-bed) and a crèche on lands at Athlumney, Alexander Reid, Ferganstown and Ballymacon, Navan, Co.Meath. The single third-party appeal was withdrawn, and the permission is currently under construction.

Figure 3.7: Site Layout



3.8 Other Developments to the South

It is noted further development to the south is planned as part of a Part 10 by Meath County Council (permitted in July 2021) and a proposal for 95 no. dwellings (PRR 21/21) which was granted under appeal (PL17.311673) – both of these applications will also use the LIHAF road and will result in sequential development in a south to north manner.

4.0 SUMMARY OF PROPOSED DEVELOPMENT & PLANNING CONTEXT

4.1 Development Summary

The development description as per the plans and particulars submitted at FI stage is set out as follows:

"The development consists of:

- *The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:*
  - *a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and*
  - *a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.*

- *Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.*

- *Parking and loading facilities including:*
  - *106 car parking spaces (including 5 accessible spaces and 1 set-down space);*
  - *30 bicycle parking spaces;*
  - *19 truck parking spaces;*
  - *c. 20 van parking spaces;*
  - *10 truck loading bays; and*
  - *12 van loading bays.*

- *Ancillary structures and services including:*
  - *an ESB substation;*
  - *a sprinkler pump room & asscoiated sprinkler tank;*
  - *water storage infrastructure;*
  - *surface water attenuation infrastructure; and*
  - *associated utility infrastructure.*

- *Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works."*

Table 4.1: Summary of Key Site Statistics

Key Site Statistic	Detail
Red Line Area	4.5ha
Site Area (Unit C1)	2.4ha
Land use zoning	E1 Strategic Employment Zones E3 Warehousing & Distribution
Car Parking	106
Bicycle Parking	30
Gross Floor Area	10,514m2
Building Height	12.895m

The proposed development consists of a purpose-built industrial laundry and warehousing facility with a total gross floor area of 10,514 sq.m, including approximately 9,000 sq.m of ground-floor processing and warehouse space and a 1,514 sq.m mezzanine comprising ancillary offices, storage and staff areas. The building is positioned along the western edge of the site, an arrangement that facilitates the operational requirement for a dedicated service yard along the eastern elevation. This yard accommodates HGV and van movements, including access to the full suite of loading bays, and allows vehicles to enter, manoeuvre and exit safely. Staff and visitor parking is located to the north and east, directly adjoining the office entrance.

The warehouse itself adopts a functional and contemporary industrial form appropriate for its intended use. It is a rectangular, steel-frame structure designed with a clear internal height of 12 metres to accommodate the specific machinery and equipment associated with large-scale laundry processing. The external profile incorporates a parapet that conceals the natural roof slope, providing a consistent building line around the perimeter. Minor steps in the long elevations help to modulate the massing, particularly at the loading areas where a canopy is integrated over the van dock zone.

The external elevations feature a combination of a rendered blockwork plinth and insulated metal-clad panels. The plinth provides durability at ground level, while the cladding panels—which are vertically orientated—help reduce the visual scale of the building. The primary cladding colour (RAL 7000) is used up to approximately 10 metres, with a lighter tone (RAL 7035) above this height to soften the visual appearance and reduce the perceived bulk when viewed against the sky. A darker colour (RAL 7015) is used selectively to articulate the main office façade and entrance, providing a modest architectural emphasis.

Glazing is concentrated in the staff and office areas, where a two-storey glazed entrance element identifies the main access point and provides natural light to internal workspaces. Loading doors and dock levellers are arranged along the east elevation in a simple, functional layout that supports efficient internal processing flows. Ancillary structures required for site operations—such as the sprinkler tank, pump room and ESB substation—are positioned discreetly within the service areas and integrated into the overall layout.

Overall, the building design reflects a practical and straightforward architectural approach typical of modern industrial facilities, using durable materials, clear circulation arrangements and logical servicing relationships aligned with the operational needs of the end user.

4.2 Meath County Development Plan 2021-2027 (as varied)

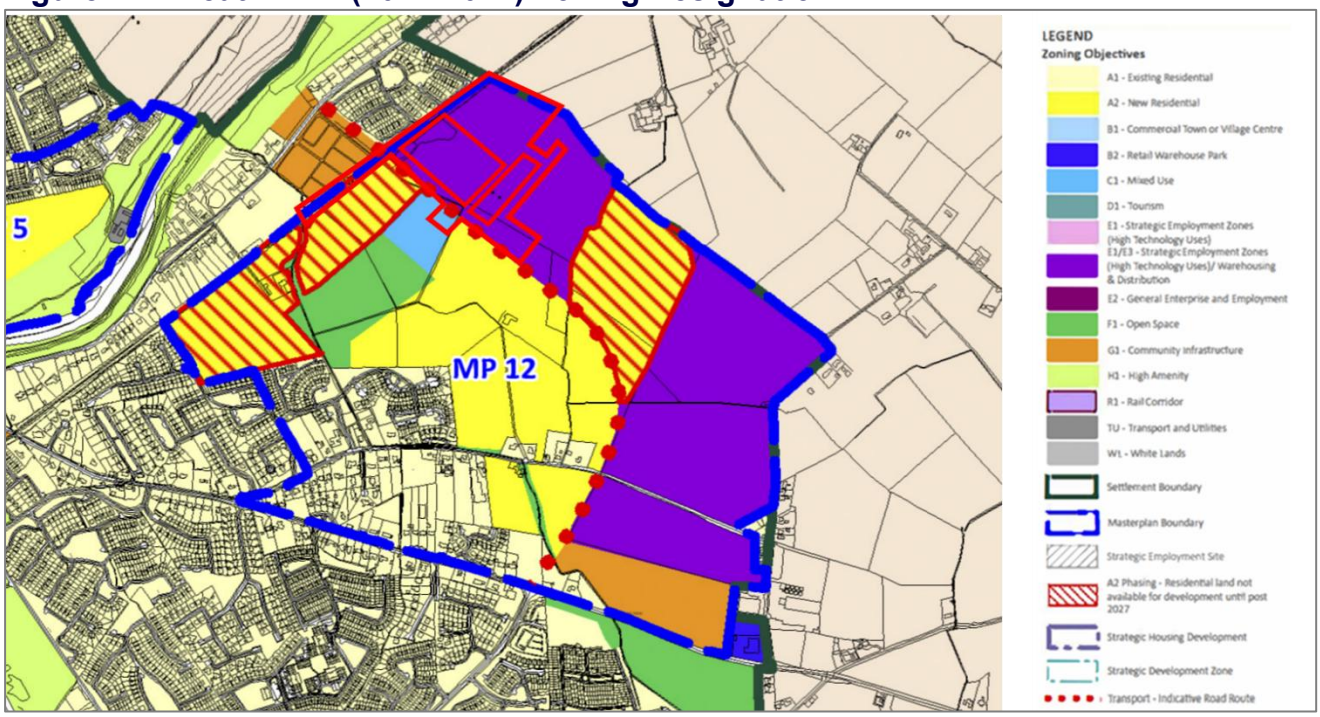
The Meath County Development Plan 2021–2027 provides the statutory framework for development in County Meath and outlines a spatial development strategy organised around a hierarchy of settlements. Within this hierarchy, Navan is identified as a **"Key Town"**, serving as the largest settlement and the primary growth centre in the County. The application site is located within the MP12 lands at Athlumney, situated in the northeast of the Navan settlement boundary. These lands form part of an identified strategic employment area with a focus on enterprise and logistics-related development.

The Development Plan assigns the following land use zoning to the subject lands: *"E1 / E3 Strategic Employment Zones / Warehousing & Distribution*
Objective: To facilitate logistics, warehousing, distribution and supply chain management inclusive of related industry facilities which require good access to the major road network."

Under this zoning designation, *'Warehousing'* is specifically identified as a **'Permitted Use'**, supporting a broad range of enterprise and logistics operations within these strategic employment lands. The Plan's land use zoning objectives relevant to the site include:

- **E3 Warehousing and Distribution –**
  "To facilitate logistics, warehousing, distribution and supply chain management inclusive of related industry facilities which require good access to the major road network."
- **E1 High Technology / Knowledge-Based Employment –**
  "To provide for high technology uses, including knowledge-orientated services and manufacturing."

Figure 4.1: Meath CDP (2021-2027) Zoning Designation.



Indicative Site outlined in Red.

We note that Meath County Council accepted the principle of development and issued a notification of a decision to grant planning permission on 21st August 2026, subject to 27 conditions.

The strategic purpose of these lands is reinforced through the Athlumney/Farganstown MP12 Masterplan which establishes a clear vision for the area and specifically states:
"This Masterplan will see the area becoming a strategic employment zone for high value jobs and will support the creation of a 'live-work' community in Navan."

The Masterplan further identifies the lands east of the LDR6 as*"creating a modern and contemporary employment and business park as part of the MP12 Masterplan."*

Importantly, the Masterplan recognises that the development of these lands will *"promote economic growth, investment in the region by creating significant employment opportunities and contributing to the stock of large-scale, high-end employment generating activities."*

The planning authority has recognised and accepted the contribution of the proposed Elis facility which will directly deliver on these objectives. The development represents a

substantial employment investment within a designated strategic employment area and will generate c. 200 direct jobs in and is therefore aligned with the planning policy framework.

5.0 RESPONSE TO THIRD PARTY APPEAL

As noted above, this submission responds to the single third-party appeal submitted by Mr. Stephen Flanagan, 12 The Court, Glenveigh, Navan, County Meath. The appeal document is structured into 6 no. headings comprising grounds of appeal. Each subheading is set out and assessed in turn below.

5.1 Ground 1 – Final Project and Environmental Assessment

The appellant raises concerns in respect of the plans and particulars submitted to MCC at FI stage and the potential implications of these changes to the assessments and conclusions of the:

- *EIA Screening Report*
- *Natura Impact Statement*
- *Ecological Impact Assessment*

The appellant seeks clarification that the final combined proposal / operational design "is workable", having regard to the revisions to the proposal at FI stage as well as with respect to water services.

5.1.1 Response

In response to this item, we refer the Commission to the following documents enclosed with this submission:

- Updated EIA Screening Report prepared by JSA Planning.
- Updated Natura Impact Statement prepared by ORS.
- Updated Ecological Impact Statement prepared by ORS.
- Ecology Memorandum prepared by ORS.

Each of the updated documents now specifically reflect the development description of the proposal as submitted at FI stage and subsequently permitted by MCC. Assessments within each of the reports have been amended to capture these changes and confirm that impact assessment are based on the characteristic of the updated development description.

At the outset, it is important to recognise that the proposed development was accompanied by a detailed and stand-alone EIA Screening Report which was specifically prepared to assess the proposal having regard to Schedule 7 and Schedule 7A of the Planning and Development Regulations 2001, as amended. The screening exercise was not undertaken in isolation. Rather, it drew upon and incorporated findings from an extensive suite of specialist environmental and technical reports as well as drawings, submitted with the application, including:

- Ecological Impact Assessment;
- Natura Impact Statement;
- Flood Risk Assessment;
- Engineering Services Report;
- Construction Environmental Management Plan;
- Resource and Waste Management Plan;
- Operational Waste Management Plan;
- Landscape Assessment;

- Traffic Assessment;
- Archaeological Impact Assessment;
- Climate and Energy Assessment; and
- Public Lighting Assessment.

The screening exercise therefore considered all principal environmental receptors including population and human health, biodiversity, land, soils, water, hydrogeology, climate, air quality, material assets, archaeology, cultural heritage, landscape and cumulative effects. Importantly, the EIA Screening Report did not simply assess the development against the thresholds contained within Schedule 5. The report expressly considered the potential for likely significant environmental effects arising from a sub-threshold development having regard to all of the criteria set out under Schedule 7 of the Regulations, including project characteristics, project location and the nature and characteristics of potential impacts. The enclosed updated EIA Screening Report has had regard to the corresponding updated versions of the documents listed above.

In response to paragraph 2.2, the appellant considers that the EIA Screening Report *"says that the water and wastewater services can meet the development's needs without significant environment effects"*. The submitted Engineering Services Report included a letter from Uisce Éireann confirming that water and wastewater connections are feasible subject to upgrade and encourages the use of water conservation measures on site. The inclusion of the potential groundwater well is a direct response to Uisce Éireann and can, if deemed appropriate subject to further hydrogeological testing as per condition 9(i) of the MCC decision to grant permission, can supplement the water supply to the proposed development, mitigating reliance on the public network. The environmental effects of the potential use of a groundwater well have been considered by the ORS Groundwater Supply Desk Study Feasibility Assessment accompanying this submission which states:

"Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m3/day from an onsite well are potentially sustainable without impacting offsite receptors. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test."

As per condition 9(i) of the MCC decision to grant the potential use of a groundwater well at the development is subject to *"hydrogeological investigations and will be dependent upon demonstrating an adequate and sustainable yield together with water quality suitable for the intended use"* and the ultimate agreement of the planning authority. This condition is agreeable to the applicant and confirms that the installation of a well will only be acceptable in planning terms upon further testing.

Notwithstanding this, the ORS Groundwater Supply Desk Study Feasibility Assessment helpfully states that a modest yield to supplement water supply via the public network is *"potentially sustainable without impacting offsite receptors".* In this respect, and having regard to the conclusions of the updated NIS and EcIA and the other supporting documents submitted with the planning application, the EIA Screening Report conclusion that *"by reason of the nature, scale and location of the subject site, there is no real likelihood of significant effects on the environment arising from the proposed development and an Environmental Impact Assessment Report (EIAR) is not required",* remains valid.

In respect of paragraph 2.3, the enclosed updated EcIA and NIS have considered the possible use of a groundwater well in the assessments now enclosed. The submitted drainage strategy confirms the *"clearly defined and assessed route"* which is reflected in the EcIA and NIS. As set out in the HRA Appeal Response:

"Surface water from the proposed development site is to discharge to the Millrace/Farganstown Stream via the existing field drains located along the railway line. These drains are to be regraded to form a trapezoidal drainage ditch. For clarity, this specific scheme is not reliant on any additional crossings of the railway or surface water discharge points beyond those identified in the previous Planning Submission, which set out the surface water discharge permitted by Meath County Council in their Notification of Decision to Grant Permission (Planning Ref. 26/61226) subject to agreement by condition."

HRA proceed to state:

"In the future, it is proposed to install two new pipes/culverts beneath the railway line, subject to agreement with Iarnród Éireann. These culverts would facilitate the future development of the MP12 lands and provide additional surface water drainage connections. The installation of these two culverts will also reduce the volume of surface water runoff conveyed to the millrace adjacent to the lands owned by Mr. Flanagan. The first culvert is proposed at the point where the LDR6 extension meets the railway line. This culvert would convey surface water from the future LDR6 extension and some of the MP12 lands to the north, connecting to the existing drainage network along the Boyne Road, which discharges to the River Boyne. The second culvert is proposed approximately 50 m east of the Millrace. This culvert would convey flows from the existing field drains beneath the railway line and discharge to the Millrace on the opposite side. It is understood that Meath County Council is currently in discussions with Iarnród Éireann regarding the installation of the proposed culverts beneath the railway line as part of the overall development of lands in Athlumney."

The ORS Ecology Memorandum confirms that:

"The revised NIS considers the potential effects arising from the proposed development and the development description submitted at FI stage. The revised NIS considers the final project design including the potential use of the well during the operational phase of the development, and concludes that likely significant effects can be excluded, following the implementation of mitigation measures."

The appellant seeks clarity on the conclusion of the EIA Screening Report in respect of the classification of the proposed development at paragraph 2.6 of the appeal. Section 4.2 of the screening report considers the proposals to be sub-threshold in the context of Part 2 of Schedule 5 of the Planning and Development Regulations 2001 (as amended) and concludes that *"there is no real likelihood of significant effects on the environment arising from the proposed development"*. This conclusion is unchanged based on the proposals submitted at FI stage and permitted by MCC.

The conclusion is also consistent with that set out at section 11.0 of the MCC Planner's Report consider the proposal does "*is not a class of development specified in Part 1 or 2, Schedule 5 of the Planning & Development Regulations 2001-2025, nor is it considered a sub-threshold development for the purpose of Schedule 7 of the Planning and Development 2001-2025 and will not on its own cumulatively with other projects result in significant effects on the environment and as such, an EIAR is not required"*. Notwithstanding the opinion of the Council in respect of categorisation, the conclusions on significant effects are clear and consistent, supported by the comprehensive assessments submitted with the planning application.

In respect of paragraph 2.7, we refer the Commission to the updated NIS now submitted which has been revised to reflect the development description as submitted at FI stage and permitted by MCC. The ORS Ecology Memorandum states *"The Natura Impact Statement (NIS) and Ecological Impact Assessment (EcIA) consider the potential use of the proposed well and its potential effects on the local groundwater and nearby European sites."*

In respect of potential implications of a groundwater well *"An assessment on the sustainable supply of water from a well on-site is required to prevent significant effects arising from the operational phase of the development".* As part of this appeal response and as noted above, ORS have undertaken a Groundwater Supply Desk Study Feasibility Assessment which considered that modest yields from an on site well *"are potentially sustainable without impacting off site receptors, including the identified European sites"*. This is subject to further investigations as set out in condition 9 of the MCC decision to grant permission.

The conclusion of NIS concludes:

"It is considered that, following mitigation, the proposed project does not have the potential to significantly affect the conservation objectives of the aforementioned Natura 2000 sites, and will not adversely affect the integrity of the sites."

As set out at section 10 of the MCC Planner's Report:

"The Planning authority's Screening for Appropriate Assessment has considered the potential effects including direct, indirect and in-combination effects of the proposed development, individually or in combination with the permitted developments and cumulatively with other plans or projects on European Sites. The Planning authority concludes that the proposed development (entire project), by itself or in combination with other plans and developments in the vicinity, would not be likely to have a significant effect on European Site(s)."

5.1.2 Ground 1 - Conclusion

The Appellant has not demonstrated any error in the EIA Screening process and has not identified any likely significant environmental effect which has not already been assessed by the applicant's environmental consultants and the Planning authority. The mitigation measures set out in the updated EIA Screening Report are applicable to the operation of any groundwater well at the site, if subject to testing, this supply is deemed sustainable and without any environmental effects following further testing in accordance with condition 9(i) of the MCC permission.

The updated EIA Screening Report enclosed has been amended to base its assessment on the development submitted at FI stage and permitted by MCC and has comprehensively assessed the proposed development having regard to the requirements of the EIA Directive, the Planning and Development Regulations, Schedule 7 and Schedule 7A criteria, cumulative effects and the findings of numerous specialist technical assessments.

The Planning authority subsequently reassessed the proposal following the submission of Further Information and expressly concluded that the proposed development would not result in significant environmental effects and that an EIAR was not required. The conclusions are unchanged factoring in the potential operation of a groundwater at the site, which is ultimately subject to the agreement of MCC following required comprehensive investigations, therefore mitigating any potential environmental effects on sensitive receptors.

The existence of planning conditions addressing detailed technical matters does not undermine the validity of the EIA Screening determination and does not indicate the presence of likely significant environmental effects. Condition 9(i) is a safeguard against potential environmental effects and confirms that any groundwater well would be required to demonstrate sustainable yield via further hydrogeological assessments.

Accordingly, it is respectfully submitted that the Planning authority's EIA Screening determination was robust, reasonable, legally compliant and fully justified having regard to the nature, scale, location and environmental characteristics of the proposed development. This ground of appeal should therefore be dismissed.
The enclosed EcIA and NIS have been updated to reflect the development as submitted at FI stage and as permitted by MCC. The conclusions are unchanged having regard to the potential operation of a groundwater well, with mitigation measures in both reports required to be implemented as per condition 11 of the MCC decision to grant permission.

The ecological assessments specifically considered hydrological pathways, groundwater, drainage, construction activities, operational effects and cumulative impacts and identified detailed mitigation measures to avoid ecological effects. These measures are secured through planning conditions.

No competing ecological evidence has been submitted by the appellant and no scientific basis has been advanced which would justify departing from the conclusions reached by the applicant's ecological consultants and the Planning authority.

Accordingly, it is respectfully submitted that the Appellant has failed to identify any deficiency in the Appropriate Assessment process and that this ground of appeal should be dismissed.

5.2 Ground 2: Water Supply and Trade Effluent

A principal ground of appeal relates to the proposed water supply strategy, wastewater infrastructure, trade effluent management and the potential future use of a groundwater well.

The Appellant contends that uncertainties remain regarding the ultimate servicing strategy for the development and argues that:

- *Uisce Éireann identified constraints within the local water supply network;*
- *Upgrades to the public water network are required before a connection can be facilitated;*
- *Wastewater infrastructure upgrades are required before the development can be serviced;*
- *Uisce Éireann had not accepted the proposed trade effluent flows at the time of determination;*
- *The potential future groundwater well has not been adequately assessed;*
- *The final servicing strategy remains unresolved; and*
- *The planning authority has relied excessively on planning conditions rather than requiring final servicing arrangements to be demonstrated in advance.*

While acknowledging that Uisce Éireann recommended conditions rather than refusal, the Appellant contends that the final operational water supply and wastewater management solution has not yet been demonstrated and that these matters are fundamental to the acceptability of the development.

5.2.1 Response

In response to this item, we refer the Commission to the enclosed:

- HRA Appeal Response

It is respectfully submitted that the concerns raised by the appellant were comprehensively considered by both the planning authority and Uisce Éireann throughout the assessment process and do not provide any basis to overturn the grant of permission.

At the outset, it is important to distinguish between:

1. the existence of utility network constraints and future infrastructure upgrades; and
2. the existence of unacceptable planning, environmental or servicing impacts.

The appellant repeatedly conflates these separate issues.

The fact that infrastructure upgrades may be required before a development can connect to public services does not render a development unacceptable in planning terms. The relevant planning consideration is whether satisfactory servicing arrangements can be secured prior to commencement and operation of the development. Both Uisce Éireann and the planning authority concluded that this can be achieved in the present case.

Most significantly, Uisce Éireann did not object to the development and did not recommend refusal of planning permission. Instead, Uisce Éireann recommended that planning permission be granted subject to conditions governing water supply and wastewater infrastructure. Had Uisce Éireann considered that the development could not be serviced, or that the proposal would give rise to unacceptable environmental effects, it could have recommended refusal. It expressly chose not to do so.

The planning authority carefully considered these submissions during its assessment. The final Planner's Report notes that Uisce Éireann confirmed that the development could be facilitated subject to compliance with the conditions recommended in its submission. The Planning authority accepted this position and incorporated these requirements into Conditions 8 and 9 of the permission.

The Planner's Report considered the observations raised by Uisce Éireann, the water demand requirements of the facility, the wastewater treatment proposals and the additional information submitted in response to the Further Information request. Having assessed these matters, the planning authority did not identify any reason to conclude that the development was incapable of being satisfactorily serviced.

Indeed, the Planning authority ultimately concluded that "*subject to compliance with the conditions set out hereunder, the proposed development would not seriously injure the amenities of the area, would not be prejudicial to public health and would be in accordance with the proper planning and sustainable development of the area.*"

This conclusion was reached following detailed consideration of all water supply, wastewater and trade effluent matters now raised in the appeal.

The appellant places particular emphasis on the fact that Uisce Éireann identified water supply constraints and advised that additional water infrastructure would be required before a connection could be facilitated. However, this does not demonstrate that the development cannot be served and confirms that the connections will subject to further assessment at connection stage. Such circumstances arise regularly in the planning system and are routinely managed through phasing conditions and utility provider approvals.

The timeframes for the water and wastewater upgrades set out by the Uisce Éireann letter align fully with the development programme for the proposed development and connections are ultimately subject to agreement with the statutory body. The content of condition 9 requires water conservation measures on site and the potential for the operation of a groundwater well on site. Both have the potential to reduce water supply requirements to the development, mitigating reliance on the public infrastructure network. There are nothing unusual in the conditions attached, in this regard.

The accompanying Hendrick Ryan Associates (HRA) Appeal Response states that as the project has progressed, design development has indicated a reduced potential need for water supply:

"Based on the revised allowance of 28 m³/hour over a 16-hour working day, the daily water demand for the laundry process would be 448m³. Including the additional allowance of 10m³/day for staff welfare facilities, the total estimated daily water demand for the facility would be 458m³ (458,000 litres). This represents a reduction of approximately 21% compared with the original PCE estimate of 580m³/day."

HRA confirm that these figures will be used for the purposes of future discussions with Uisce Éireann.

The Planning authority correctly recognised that planning permission and utility connection approvals are separate processes. The grant of planning permission does not automatically authorise a connection to public infrastructure. Instead, it establishes that the use and development of the land is acceptable in planning terms, subject to compliance with all planning conditions and the requirements of the relevant infrastructure provider. Accordingly, the existence of short term network constraints or planned infrastructure upgrades does not constitute a planning reason for refusal, which is confirmed by the Uisce Éireann observation letter of March 2026, instead recommending conditions incorporated by the MCC decision to grant permission.

The same principle applies to wastewater infrastructure. The Appellant repeatedly highlights the fact that Uisce Éireann indicated that wastewater upgrades would be required before the development could connect to the public network. Again, this was fully understood by the planning authority and expressly addressed through the conditions attached to the permission. Condition 8(iii) requires that *"Prior to commencement of any of the proposed development, the applicant shall agree in writing with the planning authority and Uisce Éireann the management of the wastewater from the proposed laundry facility"*. Condition 9 requires that final water supply arrangements be agreed with MCC and Uisce Éireann.

The permission therefore does not authorise development in the absence of suitable servicing infrastructure. Rather, it ensures that development cannot proceed until satisfactory arrangements have been demonstrated and approved by the planning authority and Uisce Éireann. Importantly, Uisce Éireann confirm that connections are feasible.

It is noted that the construction programme for the proposed facility will be approached in phases. As set out at section 2.1.3 of the HRA Appeal Response:

"It is currently envisaged that construction works at the Elis site will commence in February / March 2027. Although the building and associated site works will be undertaken as a single development, the commercial laundry operations will be introduced on a phased basis…

This phased approach will allow Uisce Éireann to reassess the development's water supply requirements in the context of the planned network upgrades."

This approach is therefore aligned with the upgrades to the water and wastewater networks as advised by Uisce Éireann.

The appellant also places considerable reliance on the fact that Uisce Éireann had not accepted the proposed trade effluent flows at the time of determination. This argument similarly overlooks the detailed assessment undertaken by the planning authority.

The proposed trade effluent strategy formed a significant component of the Further Information process. In response to the Planning authority's request, the applicant submitted substantial additional technical information regarding:

- water consumption;
- wastewater generation;
- wastewater treatment processes;
- cooling systems;
- chemical removal systems;
- pH correction measures;
- storage arrangements;
- discharge management measures; and
- trade effluent controls.

The Planner's Report specifically records that additional information was received regarding the proposed wastewater treatment process and management of trade effluent and that these matters were reviewed as part of the final assessment.

The planning authority also acknowledged that trade effluent management would remain subject to agreement with Uisce Éireann and imposed conditions accordingly. Importantly, the appellant has not submitted any engineering evidence demonstrating that the proposed wastewater treatment strategy is incapable of functioning as proposed. Nor has the appellant submitted any technical assessment demonstrating that the proposed trade effluent cannot be treated to the standard required for discharge.

The enclosed HRA Appeal Response states in respect of wastewater discharge:

"For the purposes of estimating wastewater discharge, it is reasonable to assume that the volume of water consumed will broadly correspond to the volume discharged to the public sewer, subject to losses and any water retained or otherwise managed on site. On this basis, the daily wastewater discharge is estimated at approximately 458 m³. This represents a reduction of approximately 21% compared with the original PCE estimate of 580 m³/day."

Furthermore, in respect of water treatment and recovery, HRA note that:

"A dedicated section of the building is allocated for water treatment and recovery systems. Wastewater designated for recycling is pumped from an underground chamber to an above-ground filtration system, where it is treated to remove impurities before being reused in the laundry process."

And ultimately that:

"Wastewater designated for discharge to the public sewer is pumped from a separate underground chamber to an above-ground holding tank. Within this system, heat is recovered from the wastewater and transferred for use in the recycled water system, thereby reducing the temperature of the water prior to discharge. The wastewater is also treated to remove chemicals and adjust its pH to an appropriate level before being discharged to the public sewer with discharge parameters subject to the agreement of Uisce Éireann / Meath CC. The laundry process water passes through sampling pits immediately outside the building prior to connecting to the wastewater sewer."

The appellant's concern is therefore addressed through the documents submitted to the planning authority at planning application stage and FI stage, further clarified within the HRA Appeal Response enclosed with this submission which demonstrates that water source and discharge arrangements are demonstrably workable.

The appellant at paragraphs 3.4 – 3.6 also argues that the potential groundwater well has not been sufficiently assessed alongside concerns around trade effluent. This is not accepted.

In respect of the potential groundwater well and storage, the HRA response states:

"The potential use of groundwater as a supplementary or interim water supply for the proposed development has been assessed by ORS. The ORS report concludes that a yield of 40–60 m³/day is potentially sustainable without adversely affecting off-site receptors, subject to the findings of an on-site pumping test…

A number of circular steel water storage tanks are proposed at the rear of the building to support the commercial laundry process. The tanks will be supplied by a combination of water from the public watermain and on-site groundwater well. Prior to use within the facility, the stored water may require treatment, such as water softening, to ensure it meets the operational requirements of the laundry process. The combined storage capacity of the tanks is approximately 200 m³."

The updated EIA Screening Report and NIS now enclosed fully assess the potential groundwater well in the context of combined effects of local permitted and proposed development in the MP12 area. This is consolidated by the ORS Groundwater Feasibility Study which concludes that yields from *"an onsite well are potentially sustainable without impacting offsite receptors"* subject to further testing as required by MCC conditions.

The further information response clearly identified the groundwater well only as a potential solution to supplement water supply to the development subject to further investigations and agreements with MCC.

The planning authority specifically addressed this matter through Condition 9, which requires any groundwater abstraction proposal to be subject to:

- hydrogeological assessment;
- demonstration of sustainable yield;
- confirmation of suitable water quality;
- agreement with the Planning authority; and
- compliance with all relevant environmental and regulatory requirements.

The Planner's Report expressly considered the potential well and nevertheless concluded that the development remained acceptable subject to compliance with the attached conditions.

Any future well proposal remains subject to detailed assessment and cannot proceed unless it is demonstrated to be environmentally acceptable. The planning authority also considered these issues in the context of the wider environmental assessment of the development.

The final Planner's Report notes that the revised engineering submissions, the Further Information response, the updated ecological assessments and the proposed mitigation measures were all reviewed prior to determination.

The report further records that the revised water protection measures were considered acceptable and that the development could proceed subject to compliance with the recommended mitigation and planning conditions.

Accordingly, the planning authority was fully aware of:

- the proposed water demand;
- water conservation measures;

- wastewater generation rates;
- treatment and discharge arrangements;
- trade effluent requirements;
- Uisce Éireann's observations;
- the proposed groundwater contingency option; and
- future infrastructure upgrades.

Having regard to all of this information, the planning authority concluded that the proposal was acceptable and could be appropriately serviced. The appellant has not submitted any engineering, hydrogeological, wastewater or environmental evidence which would justify departing from that conclusion.

5.2.2 Ground 2 - Conclusion

The matters raised by the Appellant have already been comprehensively assessed by both the planning authority and Uisce Éireann and do not identify any deficiency in the planning application or the planning authority's assessment.

Crucially, Uisce Éireann did not object to the development and instead recommended conditions to ensure that satisfactory water supply, wastewater and trade effluent arrangements are secured prior to commencement and operation of the development.

The planning authority accepted this approach, reviewed the extensive technical information submitted with both the planning application and the Further Information response, and concluded that the development could be satisfactorily serviced subject to compliance with Conditions 8 and 9.

The appellant has not submitted any engineering, hydrogeological or environmental evidence demonstrating that the proposed development cannot be serviced, that the proposed treatment systems are inadequate, or that unacceptable environmental impacts would arise.

Accordingly, it is respectfully submitted that the water supply, wastewater and trade effluent matters raised in the appeal have been appropriately addressed in the planning application documents, FI response and this appeal response with MCC including appropriate conditions. On this basis, the appellant’s ground of appeal should be dismissed.

5.3 Ground 3: Noise, Final Building Design and Class 4 Amenity

The Appellant contends that uncertainty remains regarding a number of operational and design matters associated with the proposed development, including the final specification and location of plant, dryer stacks, operational timetabling, building height revisions, screening effects and compliance with the Class 4 Light Industrial standard. It is argued that, due to the evolving nature of certain aspects of the detailed design, the noise assessment does not adequately assess the final operation of the facility and that the Planning authority has relied on conditions to address matters which, in the view of the Appellant, should have been fully resolved prior to the grant of permission.

The Appellant further contends that revisions introduced through the Further Information process, including the reduction in building height and relocation of ancillary infrastructure, warrant further assessment in respect of potential impacts on nearby residential properties, particularly at Glenveigh.

5.3.1 Response

In response to this item, we refer ACP to the enclosed:

- Redkite Noise Appeal Response

The issues raised by the Appellant in relation to noise, operational impacts and residential amenity were specifically considered by the Planning authority during the assessment of the application and formed part of the detailed Further Information process undertaken in respect of the proposed development.

The enclosed Redkite Appeal Response fully addresses the concerns raised by the appellant and importantly in respect of paragraph 4.8 of the appeal, confirms that in respect of the amended design and reduction in building height at FI stage that *"the revised height as permitted by Meath County Council has not changed the fundamental conclusions and recommendations of the June 2026 report"*.

In response to paragraph 4.1, the Redkite appeal response addresses concerns regarding detail design of processing machinery and the chosen spectrum and insulation of the final facades, openings and roof. Redkite significantly notes that based on a visit to the Elis Dun Laoghaire facility, *"No internal noise breakout of concern was noted"* and that the design as permitted by MCC provides for a reduced noise emitting façade with *"the predicted internal noise breakout to the nearest NSLs as decibels are calculated on a logarithmic basis. The resulting internal noise breakout to the nearest NSL assessed at 65m, is still 23 dB with an additional 3dB added to account for as built conditions giving a total of 26 dB."* Condition 17(x) of the MCC permission requires consideration of additional noise abatement measures where necessary *"during the detailed design stage to ensure that the expected cumulative noise impact from all noise sources, external and internal, at the nearest NSLs does not exceed the existing background levels for day evening and night by more than +5 dB"*. Redkite consider that:

"The limits based on existing background and the application of BS4142: 2014 +A1:2019 are stringent in nature and are much lower than those typically set for development authorized by the EPA in locations similar to the permitted development. For example, a typical night-time limit set for a facility licensed by the EPA is LAr,eq,t 45 dB(A)."

In this regard, the appellant's concerns are fully addressed.

In respect of paragraphs 4.2 and 4.5, Redkite confirms that the assessment has been based on a building height of 12.895 metres which will *"still provide a similar level of screening as it still completely blocks the NSLs in Glenveigh from the loading bays on the eastern façade which are the primary noise concern. The results in the June 2026 report were slightly over-estimated therefore the updated predicted noise level from loading operations at the closest NSLs in Glenveigh with a 12.895m height for the proposed building range from 18 – 23 dB. The highest cumulative impact at 21 The Walk with the western façade is predicted to be 28 dB(A) and is therefore unchanged from the results presented in the June 2026 report".*

In paragraph 4.3, the appellant claims that his dwelling was not assessed. Redkite state that this was the case as it is not the closest noise sensitive receptor to the proposed development and confirm that *"the predicted cumulative noise level at No. 12 The Court is 24 dB(A). Even allowing a 3-decibel addition for distinguishable noise, the predicted rated noise level is well below the existing night-time background noise level (34 dB(A))".*

In response to paragraph 4.4, Redkite confirm that *"Elis Ireland have provided an update on traffic patterns patterns"* and note that *"June report considered 30 vehicles arriving and departing, which is far higher than 28 units departing only"*. Redkite note that the *"June*

report assessed a worst-case scenario against the average background noise levels for the night-time period (23.00 - 07.00hrs)" and that *"truck and van movements will be screened from Glenveigh"* with detailed design and the noise management plan taking account of average background noise levels for day, evening and night prior to development.

In respect of paragraph 4.6, Redkite confirm that *"there is a buffer zone between the Glenveigh development and the proposal"* and that the proposed development is not located in a residential area, rather it is *"on E1/E3 Strategic Employment Zones / Warehousing & Distribution zoned land and lies across an embankment, tree belt and a railway line"* c. 65 metres from the closest dwelling. Notwithstanding this, Redkite has undertaken an assessment in accordance with best practice and British standard guidelines for assessing industrial and commercial sound and concludes:

"In this instance, the predicted cumulative rated noise level is below existing background levels (and well below the ideal limit of 50 -55 dB LAeq,16hr). Overall, it can be concluded that the assessment does not just consider a numerical noise limit."

Paragraph 4.7 is addressed in the response to 4.1, which references condition 17 of the MCC decision. Redkite confirm that the June 2026 assessment *"considered a conservative worst-case scenario"* and the development design as permitted has no material effect on the conclusions of that report.

It is important to note that noise and residential amenity issues were expressly identified within the third-party submissions received by the planning authority and were subsequently addressed through the submission of an updated Environmental Noise Impact Assessment prepared by Redkite, dated June 2026. MCC reviewed this information in detail and specifically assessed the potential effects of the proposed development on adjoining residential areas.

In assessing the Further Information response, MCC noted that the revised design incorporated a reduction in the overall height of the building by approximately 2.6 metres, reducing the parapet height to 12.896 metres above ground level. The roof profile was also amended to reduce the visual massing of the structure and to further mitigate impacts on adjoining lands and nearby residential receptors. MCC acknowledged these revisions as part of its assessment of the scheme.

MCC recorded that the updated Noise Impact Assessment assessed both delivery noise and operational noise associated with the proposed laundry facility. In this regard, MCC noted the findings of the Redkite assessment including that *"Delivery noise is predicted to be 19-25 dB(A) at the nearest existing NSLs in Glenveigh and is therefore well below existing background noise levels."*

The planning authority also recorded the conclusions of the operational noise assessment which determined that "*The predicted noise level at the nearest dwelling (No. 21 The Walk) is 26 dB(A)."* and further noted that *"The average daytime and evening background noise levels are 40 and 38 dB(A) respectively. Hence, the predicted operational noise impact is much less than background levels."*

The Planning authority specifically stated within its assessment that the Noise Impact Assessment concluded that noise generated by the proposed facility would fall "*below existing background noise levels"* and that the proposed development *"is not expected to adversely affect local residents provided the mitigation measures outlined in the report are implemented."*

Accordingly, the Planning authority was satisfied, based on a detailed technical assessment, that the operational characteristics of the proposed development would not give rise to unacceptable impacts on residential amenity.

Furthermore, the Planning authority did not merely rely upon the applicant's assessment. Rather, it imposed a comprehensive suite of operational controls through Condition 17 of the permission specifically to safeguard residential amenity and ensure ongoing compliance throughout the lifetime of the development.

Condition 17 requires the preparation and implementation of a Noise Management Plan and incorporates a range of robust mitigation and monitoring measures which provide a highly robust framework for the management of operational noise and residential amenity.

The appellant has not submitted any independent acoustic assessment, technical critique or expert evidence which contradicts the conclusions of the Environmental Noise Impact Assessment or demonstrates that the methodology adopted therein is flawed. Nor has any evidence been presented by the appellant to demonstrate that the conclusions reached by the planning authority regarding residential amenity are incorrect.

The appellant’s concerns raised are largely speculative in nature and relate to matters of detailed design and operational management which are expressly regulated through planning conditions and will be further controlled through separate statutory processes, detailed design development and operational management procedures.

The Planning authority, having reviewed the revised plans, the updated Environmental Noise Impact Assessment and the Further Information response, was satisfied that the proposed development could operate without giving rise to unacceptable impacts on residential amenity and that any residual impacts could be appropriately controlled through the conditions attached to the permission. This is further confirmed by the Redkite Appeal Response now enclosed.

5.3.2 Ground 3 - Conclusion

The Appellant has not submitted any technical acoustic evidence capable of undermining the conclusions of the Environmental Noise Impact Assessment or the findings of the Planning authority. The issue of residential amenity was comprehensively assessed throughout the application process, including through the Further Information procedure, and the planning authority concluded that the development would not result in unacceptable noise impacts subject to the implementation of mitigation measures and the extensive controls secured through Condition 17.

Furthermore, this is confirmed by the Redkite Appeal Response which states that *“the revised height as permitted by Meath County Council has not changed the fundamental conclusions and recommendations of the June 2026 report.”*

Accordingly, there is no basis upon which to depart from the planning authority's reasoned assessment of this issue.

5.4 Ground 4: Railway Boundary and Initial Surface Water Outfall

The Appellant raises a number of concerns relating to the proposed surface water drainage strategy, the interface with adjoining railway lands and the delivery of both the interim and long-term drainage solutions.

Specifically, the Appellant argues that uncertainty remains regarding:

- *the relationship between the proposed development and lands under the control of Iarnród Éireann;*
- *the proposed temporary and long-term drainage outfall arrangements;*
- *the proposed attenuation infrastructure;*
- *the requirement for future culvert infrastructure;*
- *the extent to which the final drainage strategy has been agreed;*
- *potential impacts on neighbouring lands;*
- *the assessment of flood risk associated with the drainage proposals; and*
- *the practical implementation of the proposed drainage strategy together with the ecological mitigation measures identified in the NIS and EcIA;*
- *Other planning applications on adjacent lands.*

The Appellant notes that Iarnród Éireann initially raised concerns regarding drainage and boundary matters and argues that final agreement with Iarnród Éireann had not been confirmed prior to determination of the application. The Appellant further contends that aspects of the drainage strategy remain subject to future agreement and that additional clarification is required regarding the operation of the temporary outfall strategy and its interaction with the wider drainage network."

5.4.1 Response

In response to this item, we refer ACP to:
- HRA Appeal Response
- JBA Appeal Response
- ORS Ecology Memorandum

It is respectfully submitted that the issues raised by the appellant were comprehensively examined during the planning process and formed a significant component of the Further Information request issued by the planning authority.

The Planning authority was fully aware of the issues raised by Iarnród Éireann and specifically sought additional information regarding:
- the relationship with railway lands;
- attenuation infrastructure;
- drainage routes;
- outfall arrangements;
- surface water management;
- engineering design details; and
- the proposed temporary and long-term drainage solutions.

The applicant subsequently submitted extensive additional engineering information in response to the Further Information request, including revised drainage proposals, revised layouts, additional engineering assessments and clarification regarding the interface with railway lands.

Importantly, the Further Information response directly addressed the concerns raised by Iarnród Éireann. The attenuation infrastructure was revised and relocated, increased setbacks from the railway boundary were provided and additional clarification was submitted regarding the proposed drainage route and outfall arrangements.

The planning authority carefully assessed this revised information prior to determination. Significantly, following review of the Further Information submissions, the Environment Flooding and Surface Water Section concluded "*The development as proposed broadly meets the requirements of Meath County Council Environment Flooding-Surface Water Section with respect to the orderly collection, treatment and disposal of surface water."*

This represents a clear endorsement from the Planning authority's specialist drainage engineers that the proposed development can be appropriately serviced from a surface water management perspective.

Importantly, the Surface Water Report did not recommend refusal of the application. Rather, the report concluded that "*The proposed surface water system is acceptable in principle"* subject to final agreement of certain detailed matters through planning conditions.

In particular, Condition 8 requires:

- agreement of final outfall arrangements;
- agreement of the attenuation system;
- agreement of drainage infrastructure;
- updated confirmation regarding railway interfaces where necessary;
- implementation of all approved drainage measures; and
- compliance with the requirements of the Planning authority's drainage engineers.

The existence of these conditions reflects the planning authority's conclusion that the proposed drainage strategy had been adequately demonstrated in principle and that the remaining engineering details could appropriately be finalised through condition compliance.

The Planner's Report records that the issues relating to railway lands, drainage infrastructure and outfall arrangements were addressed through the Further Information process and specifically notes that the attenuation infrastructure was relocated and revised drainage proposals submitted. The Planner further concluded that the revised information satisfactorily addressed the issues raised by the relevant consultees.

The applicant submitted detailed engineering information regarding both the temporary and long-term drainage arrangements. These proposals were reviewed by the planning authority's drainage engineers and no objection was raised. Indeed, the Surface Water Section expressly confirmed acceptance of the strategy in principle, subject only to final agreement of detailed engineering design matters.

The planning authority therefore concluded that the proposals represented an acceptable surface water strategy. The final Planner's Report further records that the revised water protection measures submitted as part of the Further Information response were considered acceptable and that all mitigation identified within the engineering and environmental assessments should be implemented.

The planning authority ultimately concluded that the proposed development would not give rise to unacceptable drainage, flooding or environmental impacts and would accord with the proper planning and sustainable development of the area.

In response to paragraphs 5.1 and 5.2, we note that condition 10 of the MCC decision to grant permission includes various requirements in the context of the Irish Rail / CIE lands to the west of the proposed development and obligations primarily in relation to the construction phase of development. The content of this condition is acknowledged and fully accepted by the applicant who welcomes the opportunity to engage further with Iarnród Éireann in respect of these matters. The applicant engaged with CIE at FI stage and provided information in respect of the proposed development and interactions with lands under ownership of CIE. We note that no response was received, which importantly demonstrates that CIE stated no objection to the proposals. Subject to conditions as listed under condition 10, it is considered that there will be no danger or hazard posed to railway operations.

In the context of the appellant's concerns, condition 11(iv) requires that *"The discharge of any additional liquids, including surface water or effluent, onto railway property or into railway drains or ditches is prohibited. An updated stormwater layout plan shall be submitted to Iarnród Éireann for review and approval. The applicant shall maintain a buffer of 5 meters for the proposed attenuation tank from the railway boundary."* This reflects the proposed drainage and attenuation strategy proposed at FI stage which included a 5-metre buffer of the attenuation tank from the railway boundary, which was deemed acceptable to MCC.

HRA stated in their FI response issued to Irish Rail / Iarnród Éireann on 10th June 2026:

"There is no proposal to discharge surface water or effluent onto railway property. An existing field drain / ditch runs along the boundary between the site of the proposed development and the railway line. This field drain extends to the millrace / Farganstown Stream 400-500m from the proposed building and drains the lands to the east of the railway."

This is reiterated and expanded upon at section 5.2 of the enclosed HRA Appeal Response.

In response to paragraph 5.3, the JBA Appeal Response addresses the concerns of the appellant in terms of flood risk and blockage of the railway culvert. JBA state:

"The assessment demonstrates that the proposed development remains outside the predicted flood extent under the modelled 67% blockage scenario. The existing OPW maintenance arrangements, the conservative sensitivity assessment and the location of all developable areas within Flood Zone C provide an appropriate basis for concluding that further blockage sensitivity modelling is not warranted for the purposes of this FRA."
The JBA section in respect of the culvert blockage concludes:

"The purpose of residual-risk assessment within a site-specific FRA is to establish the safety and resilience of the proposed development under exceptional flood conditions, rather than to assess flood risk to third-party lands or properties. Accordingly, the 67% railway culvert blockage scenario was undertaken exclusively to determine whether the proposed development would remain safe under such conditions. Assessment of flood risk to neighbouring properties falls outside the purpose and scope of this residual-risk assessment."

JBA note that the Millrace stream forms part of the OPW-maintained drainage network and is therefore ultimately responsible for the maintenance of the Millrace as well as the existing railway culvert and management of potential blockages.

These conclusions have been accepted by the planning authority in issuing a decision to grant for the proposed development.

In response to paragraph 5.4, we refer ACP to the HRA Appeal Response which confirms that:

"Surface water from the proposed development site is to discharge to the Millrace/Farganstown Stream via the existing field drains located along the railway line. These drains are to be regraded to form a trapezoidal drainage ditch."

This is reiterated and expanded upon at section 5.2 of the enclosed HRA Appeal Response.

This is detailed further within the planning application documents and engineering response submitted to MCC at FI stage which note that reiterate that "*Surface water arising from the development will be attenuated on site prior to discharge, thereby ensuring that runoff*

entering the receiving watercourse does not exceed the pre-development greenfield discharge rate. The proposed trapezoidal open ditch forms part of the engineered drainage network and is intended to provide a controlled conveyance route for attenuated surface water. Existing field drains within the site will generally be re-aligned, cleared and/or regraded only where necessary to restore and maintain their existing drainage function… Accordingly, it is considered that the proposed drainage works will not adversely affect the physical integrity, ecological function, or water quality of the Ferganstown and Ballymacon Stream, either directly or indirectly, and will not give rise to adverse effects on the receiving environment downstream."

HRA confirmed at FI stage and within their Appeal Response enclosed that "*There is no proposal to discharge surface water or effluent onto railway property"*.

In response to the appellant's concerns, this demonstrates the initial drainage route and discharge point and confirms this is workable and acceptable in terms of drainage strategy. This was subject to engagement with MCC at FI stage, with MCC confirming that the development as proposed "*meets the requirements of Meath County Council Environment Flooding-Surface Water Section with respect to the orderly collection, treatment and disposal of surface water".* This has been accepted by MCC, with provision included at condition 8(i) for agreement of surface water outfall, incorporating the possible future connection to a new railway surface water culvert.

Furthermore, HRA note that:

"In the future, it is proposed to install two new pipes/culverts beneath the railway line, subject to agreement with Iarnród Éireann. These culverts would facilitate the future development of the MP12 lands and provide additional surface water drainage connections. The installation of these two culverts will also reduce the volume of surface water runoff conveyed to the millrace adjacent to the lands owned by Mr. Flanagan."

In this respect, the appellant's lands will be safeguarded through the overall drainage strategy for the MP12 lands, which the applicant is engaged with Uisce Éireann and Meath County Council.

In respect of *"comparison of effects"* and *"flood risk on neighbouring land",* the JBA Appeal Response states:

"all developable areas are located exclusively within Flood Zone C, outside the identified fluvial floodplain. No development works are proposed within the small Flood Zone A/B area at the western boundary. Consequently, the proposed development does not involve the displacement of existing fluvial floodplain storage, obstruction of fluvial flow paths or alteration of the watercourse or existing railway culvert.

The purpose of comparative pre-development and post-development hydraulic modelling is to establish the hydraulic implications of proposed changes that could affect floodplain storage, flood conveyance or flood levels elsewhere. ***In this instance, the proposed development is entirely outside the identified fluvial floodplain, and no such changes are proposed. There is therefore no identified mechanism by which the physical development works would alter the existing fluvial floodplain or increase fluvial water levels on neighbouring lands****."* (JSA emphasis added)

Furthermore, JBA note:

"The culvert blockage scenario represents a hypothetical obstruction of an existing hydraulic structure. The resulting increase in water levels is caused by the assumed reduction in the

culvert's conveyance capacity and not by the proposed development. The appellant also acknowledges that Figure 5-2 does not demonstrate that the proposed development causes flooding at the neighbouring property."

It is therefore clear that the appellant's lands have been considered in the overall flood risk assessment for the development in accordance with best practice requirements and the Planning System Flood Risk Management Guidelines 2009. These conclusions should be read in tandem with the SSFRA submitted at application stage and the FI response prepared by JBA, within which the appellant's concerns were previously addressed.

In response to paragraph 5.5, it is respectfully submitted that the appellant's claims in respect of riparian corridors have been incorrected stated.

The wording of Objective INF OBJ 38 from Chapter 6 of the Meath CDP 2021-2027 is replicated in full below for ease of reference:

***"INF OBJ 38** To establish riparian corridors free from new development along all significant watercourses and streams in the County as follows: -A 10 metre wide riparian buffer strip measured from the top of the bank either side of all watercourses in urban areas; - A 30m wide riparian buffer strip from top of bank to either side of all watercourses is required as a minimum outside of urban areas."*

We note that the existing field drain along the western side of the site would not constitute a *"significant watercourse"* or stream and in this respect, the establishment of a 10-metre-wide riparian buffer strip would not be required.

Notwithstanding this, the proposed development is not located closer than 10 metres to the field ditch at the southwest corner of main application site.

ORS note in the enclosed Ecology Memorandum:

"The mitigation measures in the revised NIS and EcIA are appropriate and considered sufficient to prevent significant effects upon the identified European sites from arising. The proposed 10 metre buffer is not applicable to drainage ditches as they are not a registered watercourse and therefore does not meet the MCC criteria of a 'significant watercourse' requiring setback."

In response to paragraph 5.6 which raises concerns regarding drainage strategy for a proposed estate road currently pending a decision under Reg. Ref.: 26/61048, the HRA Appeal Response confirms that:

"The surface water drainage strategy for each application complies with the requirements of the SuDS Manual and the Greater Dublin Code of Practice for Drainage Works with surface water runoff limited to predevelopment greenfield discharge.

The two surface water drainage strategies share certain elements, including the drainage arrangements for the spine road north of Roundabout 3. However, while the strategies are related, each can be implemented independently without relying on the other. The arrangements are also compatible, allowing the spine road and both access roads to be constructed and brought into operation prior to the development of the Elis site."

The estate road application was accompanied by a NIS which has assessed the potential impacts of the proposal on Natura 2000 sites and sensitive receptors. There is no reliance of the Elis application on the pending road application under Reg. Ref.: 26/61048 or vice versa. Both applications can be implemented independently.

In respect of the appellant's comments regarding the existing detention basin at roundabout 3, the HRA Appeal Response notes:

"The surface water drainage design for the existing section of the LDR6 has been reviewed to assess whether the existing detention basin has sufficient capacity to accommodate runoff from the proposed spine road or requires enlargement. The assessment determined that the basin must be enlarged to provide the additional attenuation capacity required to accommodate runoff from the spine road.
The final drainage arrangements, including the proposed enlargement of the detention basin, are to be agreed in writing with Meath County Council, in accordance with the conditions attached to the grant of planning permission."

5.4.2 Ground 4 - Conclusion

The issues raised by the appellant regarding railway lands, drainage infrastructure, attenuation systems and outfall arrangements were comprehensively assessed throughout the planning process and formed a significant element of the Further Information request. The applicant provided substantial additional engineering information in response to these concerns, including revised drainage proposals, increased railway setbacks and clarification of outfall arrangements.

Following review of this information, the Planning authority's Environment Flooding and Surface Water Section concluded that the proposal *" meets the requirements of Meath County Council Environment Flooding-Surface Water Section"* and further confirmed that "*The proposed surface water system is acceptable in principle."*

The planning authority accepted this professional advice and imposed detailed conditions in respect of the final design and implementation of the drainage system.

The appellant has not submitted any independent engineering evidence demonstrating that the proposed drainage strategy is defective, unworkable or likely to give rise to unacceptable impacts. The enclosed HRA and JBA Appeal Response fully address the appellant's concerns in relation to Irish Rail lands, drainage outfall arrangements and flood risk potential.

Accordingly, it is respectfully submitted that the planning authority correctly concluded that the drainage proposals are acceptable subject to compliance with the attached conditions and that this ground of appeal should therefore be dismissed.

5.5 Ground 5: Chemicals and Ancillary Infrastructure

The appellant raises concerns regarding the proposed storage, handling and management of chemicals associated with the operation of the industrial laundry facility. In particular, concerns are expressed regarding:

- *The proposed detergent and chemical inventory.*
- *The nature and quantity of chemicals proposed to be stored on site.*
- *Potential discrepancies identified within the submitted chemical inventory documentation.*
- *The adequacy of spill containment measures.*
- *The potential for accidental discharges reaching surface water infrastructure.*
- *The absence of detail regarding firewater containment measures.*
- *The proposed truck wash and fuel pump facilities.*
- *The effectiveness of operational and environmental protection measures associated with the facility.*

The appellant contends that these matters have not been sufficiently detailed or assessed and argues that further information is required in order to demonstrate that the operation can be undertaken without risk to surface waters, groundwater or the wider receiving environment.

5.5.1 Response

In response to this item, we refer ACP to:

- HRA Appeal Response
- Elis Chemical Summary
- ORS Firewater Retention Assessment

The concerns raised by the appellant were considered by the planning authority as part of its assessment of the planning application and subsequent Further Information response. The planning authority had regard not only to the planning application documentation, but also to the additional information submitted specifically in response to third-party concerns regarding wastewater treatment, chemical management and environmental protection measures.

Importantly, the proposed development does not comprise a heavy industrial or hazardous industrial operation. Rather, the facility relates to the industrial washing, processing and distribution of textiles within a controlled industrial building environment, with all associated chemical storage and handling activities occurring within purpose-designed operational areas.

The application documentation includes substantial information regarding:

- chemical storage procedures;
- detergent management systems;
- wastewater treatment processes;
- bunded storage arrangements;
- automatic dosing systems;
- chemical containment measures;
- wastewater monitoring systems;
- pollution control measures;
- spill response procedures; and
- environmental protection safeguards.

The Further Information response submitted by the applicant specifically addressed third-party concerns relating to chemical usage and operational processes. The information submitted by Elis confirmed that detergents are stored within dedicated storage facilities and are automatically dosed into the operational systems. The submitted documentation further confirmed that wastewater generated as part of the laundering process is treated prior to discharge and that pH adjustment and chemical removal processes are incorporated into the treatment regime before discharge to the public wastewater network.

The planning authority was satisfied that the proposed development incorporates a comprehensive suite of environmental safeguards designed to prevent uncontrolled discharge, contamination of surface waters, contamination of groundwater or pollution of the wider receiving environment.

In response to paragraph 6.2 of the appeal, an updated Chemical Summary document has been prepared by Elis for the purposes of this appeal response and is appended to this document.

It is also important to note that the appellant has not identified any legislative, regulatory or environmental standard which the proposed development fails to comply with. Nor has any independent engineering, environmental or pollution risk assessment been submitted to demonstrate that the proposed system is inadequate.

The appeal instead highlights a number of matters relating to detailed operational design and environmental management which are more appropriately addressed through detailed operational procedures, engineering specifications and regulatory controls governing the operation of the facility.

In response to paragraph 6.3, we refer to the HRA Appeal Response which notes:

"A designated area at the rear of the building is allocated for the storage of products used in the laundry process, including detergents and other chemicals.

These products will be stored in Intermediate Bulk Containers (IBCs), which typically comprise cube-shaped high-density polyethylene containers enclosed within protective galvanised steel cages. The containers generally have a capacity of 600–1,000 litres and are designed to be transported, handled and stacked using a forklift.

The IBCs will be stored within reinforced concrete (RC) bunds designed to contain any spillage resulting from damage to, or leakage of, the primary containers. Each bund will be appropriately sized to provide sufficient containment capacity for the entire contents of all IBCs stored within it, assuming simultaneous failure of all containers.

A drainage channel will be provided within the floor of the storeroom and connected to the non-recycled laundry process drainage system via an underground chamber with a minimum capacity of 1.2 m³ above the invert level of the outfall pipe. The chamber will be fitted with an isolating gate valve that can be closed in the event of a spillage, thereby preventing the spilled material from entering the downstream drainage system and allowing it to be contained within the chamber for appropriate recovery and disposal.

A drainage channel will also be provided externally at the designated unloading area where IBCs are transferred from delivery vehicles. This channel will be connected to the underground containment chamber beneath the storeroom, allowing any accidental spillages occurring during unloading to be directed to and contained within the chamber for subsequent recovery and appropriate disposal."

The accompanying ORS Firewater Retention Assessment concludes:

"In ORS opinion, as the facility is not an IED / EPA licenced facility the requirement for compliance with the firewater retention modelling set out in the EPA Guidance on Retention Requirements for Firewater Run-off (2019) is not a requirement for the proposed Elis facility at Boyne Village Business Park, Navan, Co. Meath. There is ample attenuation onsite to cater for a fire in the Chemical Storage Room during a 1 in 10 year 24-hour rainfall event in the and in the Truck Wash & Fuel Filling Station during a 1 in 10 year 18-hour rainfall event s long as the recommendations outlined below are implemented in the finalised facility during detailed design and construction."

This is aligned with the strategy set out in the HRA Appeal Response which states:

"In the event of a fire, water discharged from the internal sprinkler system will enter the laundry process drainage system via open, grated covers provided over designated connection points. This water will subsequently be conveyed to the public wastewater sewer.

Firefighting water may also accumulate on external hardstanding areas, including access roads and service yards, and enter the surface water drainage system. In such circumstances, the water will be conveyed to the two underground surface water attenuation systems. The outfall manholes downstream of the attenuation systems will be fitted with isolation gate valves linked to the fire alarm system. Upon activation of the fire alarm, these valves will close, preventing potentially contaminated firefighting water from discharging off-site via the surface water drainage network. Instead, the water will be diverted to the wastewater drainage system through an overflow pipe incorporated into the outfall manholes."

In response to paragraph 6.4, we note that specification in respect of a fuel pump, truck wash and gas skid will be captured in a final operational layout to be confirmed through compliance with MCC. These are standard features for a facility such as proposed with no anticipated negative impacts on surrounding land uses or the environment. The HRA Appeal Response states in this respect:

"A combined truck wash and fuel-filling station will be located on site at the point where the wastewater drainage network exits the site. A concrete slab will be provided around both facilities.

The truck wash will utilise a high-pressure jet wash system. ACO drainage channels will be installed around the perimeter of the truck wash / fuel filling station, and surfaces will be graded to direct water runoff into these channels for collection. Run-off from the ACO channels will pass through a silt trap and petrol interceptor prior to discharging to the public sewer."

5.5.2 Ground 5 - Conclusion

The issues raised by the appellant relate primarily to detailed operational and engineering matters which are addressed through the design of the facility, environmental management systems and regulatory controls governing the operation of the development.

The planning authority was satisfied that the proposed development incorporates appropriate safeguards in respect of chemical storage, wastewater treatment, pollution prevention and environmental protection and accepted the conclusions of the supporting technical documentation submitted with the application and Further Information response.

Further details submitted as part of this appeal response demonstrate that the proposed development can operate safely in respect of chemical storage and management and that an effective strategy can be implemented to sufficiently address potential impacts in the event of a fire and contaminated firewater disposal.

No technical evidence has been submitted by the appellant to demonstrate that the proposed environmental protection measures are deficient or that the development would give rise to unacceptable environmental impacts. The appeal therefore provides no basis to depart from the conclusions reached by the planning authority in respect of this issue.

5.6 Ground 6: Residential Visual Impact and Lighting Effects

The appellant raises concerns regarding the visual and lighting impacts associated with the proposed development and submits that:

- *the visual relationship between the proposed development and nearby residential properties requires further consideration;*
- *Viewpoint 7 (VP7) should be reassessed, particularly having regard to the Appellant's residence;*

- *the effectiveness of proposed landscaping and screening cannot be relied upon immediately following construction;*
- *the lighting design remains preliminary in nature; and*
- *further detail should be provided regarding the final operational lighting strategy and its potential effects on residential amenity and ecological receptors.*

The Appellant contends that additional consideration should be given to visual effects experienced from residential properties west of the former railway corridor and that further clarification is required regarding how the final lighting design will protect both residential amenity and ecological features.

5.6.1 Response

In response to this item, we refer ACP to:
- CSR Appeal Response
- ORS Updated Lighting Report
- ORS Ecology Memorandum

In response to paragraph 7,1 of the appeal, it is respectfully submitted that visual and landscape impacts were comprehensively assessed as part of the planning application and were considered in detail by both the planning authority and the project design team.

The application was accompanied by:
- a Landscape and Visual Impact Assessment (LVIA);
- a series of verified views and photomontages;
- an Architectural Design Statement;
- a Landscape Design Statement;
- a Site Lighting Report;
- an Ecological Impact Assessment; and
- revised verified views submitted as part of the Further Information response.

The planning authority therefore had the benefit of a comprehensive suite of visual assessment material which specifically considered the appearance of the proposed development from surrounding viewpoints and residential receptors. This included a verified view (VP7) from Glenveigh residential development to the west of the site and close to the appellant's property.

The enclosed CSR Appeal Response specifically addresses the appellant's concerns in respect of his dwelling at 12 The Court, Glenveigh. The enclosed response states:

"VP7 is not from within the private curtilage of a house on this street; however it does represent views experienced by residents on the street or in their front gardens. For assessment purposes the view is orientated towards the site or development, however the residences along the street are not orientated in this direction. VP7 is actually orientated along the street and therefore at right angles to residents looking out their windows from internal rooms. It offers a more open view of the site than would be experienced from within houses on the street.

For No 12 the Court which is mid-way along the street, there are no principal windows oriented towards the proposed development. ***Therefore, VP7 actually offers a worst case scenario than from this house****."* (JSA emphasis added)

CSR conclude, noting *"we maintain the original assessment of low magnitude, slight significance and a neutral effect in the long term.* ***There would be no additional effect on No 12 The Court. In fact the effect would be less.****"* (JSA emphasis added)

In response to paragraph 7.2 of the appeal, we refer the Commission to the updated ORS Lighting Report and the ORS Ecology Memorandum. The memo states in response to this item:

"The revised public lighting report has been prepared in accordance the Council's technical specification. The lighting design has been prepared in accordance with BCI guidance on lighting. The lighting plan and associated drawings indicate all luminaries are positioned away from ecological corridors such as drainage ditches, hedgerows, treelines and woodland. The position, orientation and height of the lighting fittings, the use of integrated shields, and the implementation of 2700K CCT with 0% upward light are sufficient to ensure the boundary hedgerows, drainage ditches and woodlands are kept dark and will not significantly affect local bat populations, while maintaining sufficient lux coverage of the site."

We note that MCC include lighting design requirements as part of condition 12 attached to the decision to grant including *"a detailed lighting design that is in accordance Bat Conservation Ireland Guidance (BCIrelandGuidelines_Lighting.pdf), demonstrating that rivers, ditches, hedgerows and woodland will be kept in darkness".* This is consistent with the updated Lighting Report and will be subject to agreement with MCC by way of compliance.

5.6.2 Ground 6 - Conclusion

The visual and lighting effects of the proposed development have been comprehensively assessed through the LVIA, verified views, revised verified views, Architectural Design Statement, Ecological Impact Assessment and Site Lighting Report.

The planning authority considered these assessments in detail and concluded that the proposal represents an acceptable form of development within a strategically designated employment area.

The proposal has been further refined through the Further Information process, including a reduction in building height, revised elevations, updated visual material and additional controls relating to landscaping and lighting.

The potential visual impacts on the appellant's dwelling have been assessed by CSR in the submitted Appeal Response which concludes that there *"would be no additional effect on No 12 The Court*" and indeed this would be less than shown in VP7 from Glenveigh.

The Planning authority concluded that the proposal would not give rise to unacceptable visual or lighting impacts and imposed detailed conditions requiring implementation of landscaping measures and the preparation of a final lighting design that protects both residential amenity and ecological receptors. This is consistent with the updated ORS Lighting Report now submitted.

The Appellant has not submitted any competing visual assessment, landscape review or lighting analysis demonstrating otherwise.

Accordingly, it is respectfully submitted that visual and lighting impacts have been adequately assessed and appropriately controlled and that this ground of appeal should therefore be dismissed.

6.0 CONCLUDING STATEMENT

The appellant's appeal raises a broad range of matters relating to planning policy, environmental assessment, ecology, water supply, wastewater infrastructure, trade effluent management, noise, drainage, flood risk, visual impact and lighting. However, when

considered in their entirety, these grounds do not identify any substantive error in the planning authority's assessment, nor do they demonstrate any deficiency in the technical information submitted in support of the application.

A recurring theme throughout the appeal is the assertion that certain matters remain subject to future agreement, detailed design or compliance with planning conditions. However, the existence of planning conditions does not indicate that a development is unacceptable in principle. On the contrary, the planning authority carefully considered each of the issues raised during the assessment process and concluded that appropriate safeguards could be secured through robust and enforceable conditions attached to the permission. The planning authority concluded that the development constituted an appropriate form of strategic employment development on a key employment site and would be in accordance with the proper planning and sustainable development of the area. The appeal does not provide any competing technical evidence which undermines these conclusions.

Instead, the appeal largely consists of assertions that further detail should be provided or that certain matters should have been resolved prior to the granting of permission. However, the planning authority considered those issues and determined that the principle and acceptability of the proposed development had been adequately demonstrated and that the remaining detailed matters could be appropriately addressed through condition compliance and subsequent regulatory approvals.

The planning authority ultimately concluded that:

"The proposed development would therefore be in accordance with the proper planning and sustainable development of the area."

Having regard to:

- the strategic zoning and Masterplan designation of the site & the agreed MP12;
- the policy support contained within the Meath County Development Plan 2021-2027 (as varied);
- the comprehensive environmental and technical assessments prepared in support of the application;
- the extensive Further Information process;
- the conclusions of the Planning authority and its specialist consultees;
- the absence of objection from key statutory bodies;
- the Appropriate Assessment/NIS conclusions (including update);
- the EIA Screening conclusion; and
- the extensive suite of mitigation measures and planning conditions attached to the permission,

it is respectfully submitted that the appellant has failed to identify any planning, environmental, engineering, ecological or legal basis upon which the decision of Meath County Council should be overturned.

Accordingly, An Coimisiún Pleanála is respectfully requested to dismiss the appeal and uphold the decision of Meath County Council to grant permission for the proposed development.

Yours faithfully,

JSA Planning

JSA Planning

Enclosures:

- Appendix 1: ACP Letter 17th September
- Appendix 2: MCC Decision to Grant Permission
- Appendix 3: Elis Chemical Summary
- Appendix 4: Hendrick Ryan Associates Appeal Response & Engineering Drawings
- Appendix 5: ORS Groundwater Supply Desk Study Feasibility Assessment
- Appendix 6: Redkite Noise Impact Appeal Response
- Appendix 7: ORS Firewater Retention Assessment
- Appendix 8: JBA Consulting Flood Risk Appeal Response
- Appendix 9: ORS Updated Lighting Report
- Appendix 10: ORS Updated Ecological Impact Assessment
- Appendix 11: ORS Updated Natura Impact Assessment
- Appendix 12: ORS Ecology Memorandum
- Appendix 13: CSR Landscape Appeal Response
- Appendix 14: JSA Updated Environmental Impact Screening Report

Appendix 1: ACP Letter 17th September

Our Case Number: PL-502119-MH-26

Planning Authority Reference Number: 2660226

Your Reference: Albert Developments Ltd

An Coimisiún Pleanála

RECEIVED
18 SEP 2026

JSA Planning (John Spain Associates)
39 Fitzwilliam Place
Dublin 2
D02 ND61

Date: 17 September 2026

Re: Construction of industrial laundry processing and distribution facility warehouse and all associated site works. A Natura Impact Statement was submitted with the application.
c. 4.5 ha. site at Boyne Village Business Park Athlumney, within the townlands of Ferganstown Ballymacon and Athlumney, Navan Co. Meath

Dear Sir/Madam,

Enclosed is a copy of an appeal under the Planning and Development Act, 2000, (as amended).

As a party to the appeal under section 129 of the Planning and Development Act, 2000, (as amended), you may make submissions or observations in writing to the Commission within a **period of 4 weeks** beginning on the date of this letter.

Any submissions or observations received by the Commission outside of that period shall not be considered and where none have been validly received, the Commission may determine the appeal without further notice to you.

Please note when making a response/submission only to the appeal it may be emailed to appeals@pleanala.ie and there is no fee required.

Please quote the above appeal reference number in any further correspondence.

Tell Tel (01) 858 8100
Glao Áitiúil LoCall 1890 275 175
Facs Fax (01) 872 2684
Láithreán Gréasáin Website www.pleanala.ie
Ríomhphost Email communications@pleanala.ie

64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902

If you have any queries in the meantime, please contact the undersigned officer of the Commission at appeals@pleanala.ie.

Yours faithfully,
Dillon Corcoran

BP05 Enclosures

Appendix 2: MCC Decision to Grant Permission

comhairle chontae na mí
meath county council

Teach Buvinda, Bóthar Átha Cliath, An Uaimh, Contae na Mí. C15 Y291
Buvinda House, Dublin Rd., Navan, Co.Meath. C15 Y291

Planning & Development Act 2000 – 2023
NOTIFICATION OF DECISION

TO: Albert Developments Ltd.
John Spain
John Spain Associates,
39 Fitzwilliam Place,
Dublin 2 D02 ND61

GRANT

PLANNING REGISTER NUMBER: 26/60226
APPLICATION RECEIPT DATE: 26/02/2026
FURTHER INFORMATION DATE: 30/06/2026

In pursuance of the powers conferred upon them by the above-mentioned Act, Meath County Council has by Order dated 21/08/2026 decided to **GRANT** PERMISSION to the above named for development of land, in accordance with the documents submitted namely:- • The construction of a two-storey (building height of c. 15.5m above ground level) industrial laundry processing and distribution facility warehouse (with a gross floor area (GFA) of c.10,514 sq.m), including: a ground floor warehouse and processing area of c.9,000 sq.m; a mezzanine level of c. 1,514 sq.m (including ancillary offices, storage, and staff amenities) with backlit signage extending to 22.5 sqm on the eastern elevation; • Vehicular access to the site will be via roundabout 3 at the Local Distributor Road 6 and the existing and permitted estate roads at Boyne Village Business Park estate roads; • Parking and loading facilities including: 107 staff car parking spaces (102 standard, 5 accessible) with 1 set-down space, 30 bicycle parking spaces, 19 truck parking spaces and 20 van parking spaces, 10 truck loading bays and 12 van loading bays; • Ancillary structures and services including single storey ESB substation (c. 22 sq.m), sprinkler system pump room (c. 40 sq.m), sprinkler attenuation tank, external water tank, external CO2 tanks and gas skid; • Site boundary works, landscaping, roads and drainage infrastructure (including foul and surface water drainage and attenuation measures and extension of estate road) as well as all other ancillary and associated development works. A Natura Impact Statement will be submitted to the planning authority with the application. Significant further information/revised plans submitted on this application at c. 4.5 ha. site at Boyne Village Business Park, Athlumney, within the townlands of Ferganstown, Ballymacon, and Athlumney, Navan, Co. Meath, subject to the 27 conditions set out in the Schedule attached.

DATE: 21/08/2026

Chris Rourke

On behalf of MEATH COUNTY COUNCIL

Provided there is no appeal against this DECISION a grant of planning permission will issue at the end of six weeks.

THIS NOTICE IS NOT A GRANT OF PERMISSION AND WORK SHOULD NOT COMMENCE UNTIL GRANT OF PLANNING PERMISSION HAS ISSUED

NOTE:

1. Any appeal against a decision of a Planning Authority under Section 34 of the Planning and Development Act, of 2000-2023 may be made to An Coimisiún Pleanála. Any person may appeal WITHIN FOUR WEEKS beginning on the date of the decision.

2. Appeals should be addressed to An Coimisiún Pleanála, 64 Marlborough Street, Dublin 1. An appeal by the applicant should be accompanied by this form. **In the case of a third party appeal, the acknowledgement from the Planning Authority of receipt of the submission or observation made by the person to the Planning Authority at application stage should be submitted and the name of the person, particulars of the proposed development and the date of the decision of the Planning Authority should be stated.**

comhairle chontae na mí
meath county council

Teach Buvinda, Bóthar Átha Cliath, An Uaimh, Contae na Mí. C15 Y291
Buvinda House, Dublin Rd., Navan, Co.Meath. C15 Y291

Guide to Fees payable to the Board

a. Appeal against a decision of a planning authority on a planning application relating to commercial development[1] made by the person by whom the planning application was made, where the application included the retention of development is € 4,500 or € 9,000 if EIA R/ NIS involved[2].

b. Appeal against a decision of a planning authority on a planning application relating to commercial development[1], made by the person by whom the planning application was made, other than an appeal mentioned at (a) is € 1,500 or € 3,000 if EIA R / NIS involved[2].

c. Appeal against a decision of a planning authority on a planning application made by the person by whom the planning application was made, where the application included the retention of development, other than an appeal mentioned at (a) or (b) is € 660.

d. Appeal other than an appeal mentioned at (a), (b), (c) or (f)[3] is € 220

e. Application for leave to appeal is € 110.

f. Appeal following a grant of leave to appeal € 110.

g. Any first party appeal solely against contribution conditions under section 48 or 49 of the 2000 – 2023 Acts, as amended, attracts a fee of €220 irrespective of the nature of the application

An appeal will be invalid unless accompanied by the appropriate fee and evidence of payment of submission fee to the Planning Authority.

Submissions or observations to An Coimisiún Pleanála by or on behalf of a person (other than the applicant) as regards an appeal made by another person must be submitted within four weeks of receipt of the appeal by An Coimisiún Pleanála and must be accompanied by a fee of € 50.

Footnote

[1] Commercial development includes 2 or more dwellings. See Board's order determining fees and its appeal guide.

[2] The higher fee applies where an Environmental Impact Assessment Report(EIA R) or Natura Impact Statement (NIS) was submitted to the planning authority under section 172(1) and / or 177T of the 2000 - 2023 Planning Act or article 103(1) of the 2001-2026 Planning Regulations, as amended except where the appeal relates solely to a section 48 / 49 development / supplementary development contribution scheme and/or a special financial contribution. (refer to (g) above.

[3] Applies to:- (i) All third party appeals except where the appeal follows a grant of leave to appeal; (ii) First party normal planning appeals (section 37) not involving commercial or unauthorised development, or an EIA R; (iii) All other appeals (non-section 37).

While every care has been taken to ensure the accuracy and completeness of this information, it is the responsibility of any person / body making an appeal to ensure that their appeal is accompanied by the correct fee.

For more information on Appeals you can contact An Coimisiún Pleanála at:

Tel: 01 - 8588100 or LoCall: 1890 275 175
Fax: 01 – 8722684E-mail: appeals@pleanala.ie
Web: www.pleanala.ie

Schedule of Conditions

1. The development shall be carried out in accordance with the plans and particulars lodged with the application on *26/02/2026* and further information received on *22/06/2026 & 30/06/2026* except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: To ensure a satisfactory standard of development in accordance with the approved plans.

2. The design and external finishes of the structure hereby permitted shall be as shown on the drawings date received *on 22/06/2026* unless otherwise agreed in writing with the Planning Authority and prior to commencement of development.

(i) The height of the proposed building shall not exceed 2.6 metres with a maximum parapet height of 12.896 metres above ground level.

Reason: In the interests of visual amenity.

3. The use of the proposed unit hereby permitted shall be restricted to that of High Technology / Light Industrial Building (Class 4) building and for no other class of use specified in Part 4 of Schedule 2 of the Planning and Development Regulations 2001-2026, unless authorised by a further grant of permission. The office floor areas shall be ancillary to the permitted use.

Reason: In the interests of clarity and to prohibit an unacceptable change of use.

4. The applicant shall submit for agreement prior to commencement the detailed design of the secondary access roads that link the proposed development to LDR 6. This includes, but is not limited to, the junction with the roundabout, the internal junctions, drainage, kerbs, footpaths, cycleways and public lighting.

Reason: In the interest of traffic safety and orderly development.

5. Prior to commencement of development a Stage 2 Road Safety Audit, for the proposed development shall be prepared and submitted to the planning authority. Where this audit identifies the need for design changes, revised design details should be submitted to and agreed in writing with the planning authority.

Reason: In the interest of traffic safety and orderly development.

6. The applicant shall submit a Construction Stage Traffic Management Plan for agreement with Meath County Council prior to commencement of development.

Reason: In the interest of orderly development.

7. Accessible car parking shall be in accordance with Part M of the Building Regulations and include a 1200 mm wide access zone on both sides and at the rear of each designated parking bay. The access zone at the rear of the parking bay should be clear of vehicular circulation routes. The access zone should contrast visually with the adjoining surfaces to ensure it is kept clear.

(i) The applicant shall include the provision of necessary infrastructure to be capable of accommodating future Electric Vehicle charging points, at a rate of 20% of total space numbers.
(ii) The applicant shall provide four fully functional charging points for Electric Vehicles in accordance with IEC 61851 Standard for Electric Vehicle Conductive Charging Systems.
(iii) Pedestrian crossings, including tactile paving, shall comply with the "Traffic Management Guidelines".
(iv) All signs and road markings shall comply with the "Traffic Signs Manual". Placement of signs shall be in accordance with Chapter 1.

Reason: In the interest of traffic safety and orderly development.

8. The following issues shall be addressed to the satisfaction of Meath County Council Environment Flooding-Surface Water Section prior to commencing construction on site in relation to the proposed surface water system which is acceptable in principle.

(i) Prior to commencement of any of the proposed development the applicant shall agree in writing with the planning authority, details of the proposed surface water outfall. The applicant shall ensure that the proposed surface water design has incorporated the possible future connection to a new railway surface water culvert.
(ii) Prior to commencement of any of the proposed development the applicant shall agree in writing the final design of the extended attenuation pond with particular reference to future maintenance requirements.
(iii) Prior to commencement of any of the proposed development, the applicant shall agree in writing with the planning authority and Uisce Éireann the management of the wastewater from the proposed laundry facility.
(iv) Prior to commencement of any of the proposed development, the applicant shall provide up to date confirmation from Iarnród Éireann regarding their objection and observations.
(v) All surface water design/work shall comply fully with the Greater Dublin Strategic Drainage Study (GDSDS) Regional Drainage Policies Volume 2, for New Developments.
(vi) All surface water design/work shall comply fully with the Greater Dublin Regional Code of Practice for Drainage Works Volume 6.

Reason: In the interests of environmental protection.

9. Prior to commencement of any of the proposed development, the applicant shall agree in writing with the Planning Authority and Uisce Éireann, details in relation to water supply to serve the proposed laundry facility;

(i) Pending upgrade of the public water supply network, any proposed interim proposals for the sinking of a private groundwater wall to supplement the public water supply shall be the subject of hydrogeological investigations and will be dependent upon demonstrating an adequate and sustainable yield together with water quality suitable for the intended use.

(ii) Incorporation of appropriate water conservation measures to minimise water demand shall be implemented as part of the proposed laundry facility development.

Reason: In the interests of environmental protection.

10. The Railway Safety Act 2005 places an obligation on any 3rd party working near the railway to ensure no danger or hazard is posed to railway operations. Due to the proximity of this site to the railway corridor, the Applicant must take due consideration of this obligation during the planning and construction of the development.

(i) Due to proximity of the Drogheda to Tara Mines railway line, a 2.4m high suitably designed boundary treatment shall be erected by the applicant on the applicants' side of the property boundary. The maintenance of this boundary treatment rests with the Applicant and the Successor-in-Title. The exact location and details of this boundary treatment must be identified on site in co-operation with this office.

(ii) At no point should the applicant or their representatives enter railway property to undertake the construction of this development. It is imperative that the railway always remains inaccessible to prevent trespassing, both during the construction phase and in the future. This includes safeguarding against unauthorized access, especially through scaffolding or any other means.

(iii) Railway mounds and ditches must be preserved unless prior written consent is obtained from the Third-Party Approvals Office.

(iv) The discharge of any additional liquids, including surface water or effluent, onto railway property or into railway drains or ditches is prohibited. An updated stormwater layout plan shall be submitted to Iarnród Éireann for review and approval. The applicant shall maintain a buffer of 5 meters for the proposed attenuation tank from the railway boundary.

(v) The development may not undermine the integrity of the embankment supporting the public road or the Bridge structure to the north of the development, for which Iarnród Éireann has a statutory obligation to maintain.

(vi) Should the development require the use of a crane that could swing over the railway property, then the developer must enter into an agreement with Iarnród Éireann / CIÉ regarding this issue.

(vii) Any services proposed to cross over, under, or along railway property must be subject to a licence agreement with Iarnród Éireann / C.I.É. In addition, any services located within Iarnród Éireann / C.I.É lands and running parallel to the railway corridor will also require a licence agreement. No overhang of any part of the development over the railway property is to be allowed.

Reason: To ensure the protection of railway operations and infrastructure, to safeguard public safety, and to prevent adverse impacts on adjacent railway lands and associated drainage and maintenance systems.

11. All mitigation measures set out within the EcIA and NIS shall be implemented in full.

Reason: In the interest of environmental and ecological protection.

12. Prior to commencement of development the applicant shall submit for written agreement with the Planning Authority a detailed lighting design that is in accordance Bat Conservation Ireland Guidance (BCIrelandGuidelines_Lighting.pdf), demonstrating that rivers, ditches, hedgerows and woodland will be kept in darkness.

(i) Hedgerow trimming and site stripping shall be carried outside of the breeding bird season or under the supervision of an Ecological Clerk of Works and in accordance with guidelines for the Treatment of Bats during the Construction of National Road Schemes (TII, 2005).
(ii) An ecologist shall carry out a pre-construction ecology survey of the site within 6 months prior to commencement on site to ensure no change in baseline has occurred.
(iii) No standing deadwood or ivy should be removed as per the recommendations of the tree survey report, standing deadwood and ivy clad trees are important forage and shelter to birds, bats and macroinvertebrates. Treelines should be supplemented with additional planting of trees to be managed in to mature specimens capable of providing commuting corridors for bats and birds.

Reason: In the interests of ecological protection of the area, biodiversity and protection of bats.

13. The applicant is required to engage the services of a suitably qualified archaeologist to carry out a detailed Archaeological Impact Assessment of the development site. The assessment will include the results of an archaeological geophysical survey. No subsurface work should be undertaken in the absence of the archaeologist without his/her express consent.

(i) The Archaeological Impact Assessment shall take into account the mitigation proposals included in the Archaeological Impact Assessment Report (ACSU. February 2026, Section 7, pages 18-19).
(ii) The archaeologist shall carry out any relevant documentary research and inspect the site.
(iii) Test trenches shall be excavated at locations chosen by the archaeologist (licensed under the National Monuments Acts 1930-2004), having consulted the site drawings. Having completed the work, the archaeologist shall submit a written report to the Planning Authority and to this Department (Development Applications Unit (DAU)) in advance of the commencement of construction works. Where archaeological material/features are shown to be present, preservation in situ, preservation by record (excavation) or monitoring may be required.

(iv) It should be borne in mind that, if significant archaeological remains are found further monitoring or excavation may be required. Construction will not commence until the Planning Authority and the Department (Development Applications Unit (DAU)) have had the opportunity to evaluate the detailed Archaeological Impact Assessment. This Department will forward a recommendation to the Planning Authority based on the Archaeological Impact Assessment.

Reason: To ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.

14. Landscaping shall be carried out in accordance with the Landscape Plan and particulars submitted to the Planning Authority on 26/02/2026.

(i) Landscaping shall commence no later than the first planting season following commencement of development on site.

(ii) Any trees or hedging which die, are removed or become seriously damaged or diseased, within a period of 5 years from the completion of the development, shall be replaced within the next planting season with others of similar size and species, unless otherwise agreed in writing with the planning authority.

(iii) A professionally qualified Arborist is recommended to be retained as required by the principal contractor or developer to monitor and advise on any works within the RPA of retained trees to ensure successful tree retention and planning compliance.

(iv) Copies of the Tree Survey and all accompanying drawings, a copy of BS 5837:2012, and NJUG 4 (2007) *'Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees'* should all be kept available on site by the contractor during development. All works are to be in accordance with these documents.

(v) All retained trees shall be subject to expert re-inspection within 12 months and/or prior to completion of development and public occupancy/access of the site.

(vi) Boundary treatments shall be implemented in accordance with the Landscaping Plan submitted on 26/02/2026 except where revised on plans and particulars for boundary treatments submitted on 22/06/2026 in in relation to third-party agreements.

Reason: To ensure the provision of amenity afforded by appropriate landscape design and residential amenity in the area.

15. The public lighting design received by the Planning Authority with the application shall be constructed as per "Meath County Councils; Public Lighting Technical Specification & Requirements" document.

Reason: In the interests of the proper planning of the area.

16. Prior to commencement of development, precise details of signage (both affixed to the permitted structure and to be erected at the site entrance) to include text, size, logos, position, colour, materials and the level of illumination (lux) of the signage shall be submitted for the written agreement of the Planning Authority.

(i) No advertisements signs (including any such signage visible through windows), advertisement structures including freestanding structures, banners, canopies, flags or other projecting element shall be displayed or erected on the building or within its curtilage or attached to glazing without a prior grant of permission.

Reason: In the interests of visual amenity.

17. Prior to commencement of development, the applicant shall submit for written agreement with the Planning Authority, a Noise Management Plan to include the following aspects relating to operation of the development;

(i) Signage and noise awareness training for drivers and staff promoting respect for nearby neighbours.
(ii) Designation of a Manager/ staff member to deal with complaints from neighbours.
(iii) Implementation of a complaint procedure including contact details to be made available to adjoining residents.
(iv) All complaints will be logged and thoroughly investigated.
(v) The written complaints log will be maintained by the General Manager or their appointee. This will, at a minimum, record the name of the complainant, date and time of the complaint and a record of the details of the complaint including the date and time of when the effect was observed and what was observed e.g. rowdy behaviour.
(vi) Immediate action will be taken on receipt of the complaint.
(vii) Corrective actions will be detailed in the log.
(viii) Unloading in the yard area will be prohibited in areas other than under the van canopy for vans and via the dock shelters for trucks.
(ix) The reverse beepers shall be switched off during the night-time period (23.00 - 07.00hrs) within the site.
(x) Additional noise abatement measures shall be considered where necessary during the detailed design stage to ensure that the expected cumulative noise impact from all noise sources, external and internal, at the nearest NSLs does not exceed the existing background levels for day evening and night by more than +5 dB.
(xi) During daytime and evening periods rigorous efforts shall be made to minimise clearly audible tones and impulsive noise at all NSLs.7 This excludes occasional safety alarms and reverse beepers on vehicles
(xii) During the night-time period no tonal or impulsive noise from the facility shall be clearly audible or measurable at any NSL.
(xiii) An acoustician shall be appointed to ensure that the limits and conditions as set out in (xi) and (xii) above are achieved.

Reason: To ensure the provision of amenity afforded by appropriate noise mitigation measures and residential amenity in the area.

18. Construction of the development shall be undertaken in accordance with the Resource Waste Management Plan (RWMP) submitted on 26/02/2026 and as set out in the EPA's Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects (2021). The RWMP shall include specific proposals as to how the RWMP will be measured and monitored for effectiveness. All records (including for waste and all resources) pursuant to the agreed RWMP shall be made available for inspection at the site office at all times.

Reason: In the interest of reducing waste and encouraging recycling.

19. Construction of the development shall be managed in accordance with the Construction and Environmental Management Plan (CEMP) submitted to the Planning Authority on 26/02/2026. For the purposes of clarity, the CEMP shall provide details of intended construction practice for the development, to be circulated to all personnel, including;

(i) Location of the site and materials compound(s) including area(s) identified for the storage of construction refuse;
(ii) Location of areas for construction site offices & staff facilities;
(iii) Details of site security fencing and hoardings;
(iv) Details of on-site car parking facilities for site workers during the course of construction;
(v) Details of the timing and routing of construction traffic to and from the construction site and associated directional signage, to include proposals to facilitate the delivery of abnormal loads to the site;
(vi) Measures to prevent the spillage or deposit of clay, rubble or other debris on the public road network;
(vii) Dust emissions during the construction phase shall not exceed 350mg/m2/day at the site boundaries.
(viii) Prior to commencement of development, the applicant shall submit a dust monitoring programme for the written agreement of the Planning Authority.
(ix) The applicant shall ensure adequate supply of spill kits and absorbent pads are stocked on site.
(x) The construction works shall be carried out in accordance with the noise guidance set out by BS 5228-1:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites and the NRA Guidelines for the treatment of Noise and Vibration in National Roads Schemes.
(xi) During the construction phase noise levels at noise sensitive locations shall not exceed 70dB(A) between 0700 to 1900 hours Monday to Friday and 0800 to 1400 hours Saturday and 45dB(A) at any other time.
(xii) (Noise exceedance activities must be agreed in writing with Meath County Council prior to the activity taking place.
(xiii) The Applicant shall, during the construction stage, maintain a Complaints Register to record any complaints regarding but not limited to noise, odour, dust, traffic or any other environmental nuisance. The Complaint Register shall include details of the complaint and measures taken to address the complaint and prevent repetition of the complaint.
(xiv) Prior to commencement, a noise monitoring programme shall be submitted for the written agreement of the Planning Authority.

Reason: In the interests of environmental protection, residential amenity and orderly development of the area.

20. Prior to commencement of development, the applicant shall engage with the Broadband Officer of Meath County Council at Cormac.mccann@meathcoco.ie with regard to underground connection to existing telecoms network providers. The applicant shall note that;

(i) Meath County Council owns and manages telecoms ducting on the LDR 6. This ducting provides connections for Enet, SIRO and open Eir duct networks on an open access basis.

Reason: In the interests of orderly development and proper planning of the area.

21. Prior to commencement of development, the applicant shall engage with the Rural Regeneration Officer of Meath County Council in relation to proposed services at the main entrance to the site from the roundabout.

Reason: In the interests of the orderly development and proper planning of the area.

22. Precise details including samples of the materials, colours and textures of all the external finishes to the proposed building shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.

Reason: In the interest of the visual amenities of the area.

23. All service cables associated with the proposed development (such as electrical, telephone and public lighting cables) shall be run underground within the site.

Reason: In the interest of orderly development and the visual amenities of the area.

24. Construction Hours of Operation - the developer shall comply in full with the following:

a. The hours of construction shall be restricted to between 7.00 a.m. to 6.00 p.m., Monday to Friday, and 8.00 a.m. to 2.00 p.m. on Saturdays.

b. No activities shall take place on-site on Sundays, bank or public holidays.

c. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from Meath County Council. Such approval may be given subject to conditions pertaining to the particular circumstances being set by Meath County Council.

Reason: In the interests of residential amenity.

25. The developer shall pay the sum of **€26,600.00** to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the Planning Authority in the provision and extension of social infrastructure (open spaces, recreational and community facilities, amenities and landscaping works) by the Council benefiting development in the area of the Authority, as provided for in the Contribution Scheme of Meath County Council adopted in accordance with the provisions of Section 48 of the Planning & Development Acts 2000 – 2023. Payment of this sum shall be made prior to commencement of development unless the phasing of payments and the giving of security to ensure payment in full is agreed in writing with the Planning Authority prior to the commencement of development.

The above sum shall apply until 31st December 2026 and shall be subject to review on that date and to annual review thereafter unless previously paid. The contribution rates shall be updated effective from January 1st each year during the lifetime of the Development Contribution Scheme in accordance with the Wholesale Price Indices – Building and Construction (Capital Goods) published by the Central Statistics Office.

Reason: The provision of such social infrastructure in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing these services.

26. The developer shall pay the sum of **€85,584.00** to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the Planning Authority in the provision, refurbishment, upgrading, enlargement or replacement of public roads and public transport infrastructure by the Council benefiting development in the area of the Authority, as provided for in the Contribution Scheme of Meath County Council adopted in accordance with the provisions of Section 48 of the Planning & Development Acts 2000 – 2023. Payment of this sum shall be made prior to commencement of development unless the phasing of payments and the giving of security to ensure payment in full is agreed in writing with the Planning Authority prior to the commencement of development.

The above sum shall apply until 31st December 2026 and shall be subject to review on that date and to annual review thereafter unless previously paid. The contribution rates shall be updated effective from January 1st each year during the lifetime of the Development Contribution Scheme in accordance with the Wholesale Price Indices – Building and Construction (Capital Goods) published by the Central Statistics Office.

Reason: The provision of s such roads and public transport infrastructure in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing these services.

27. The developer shall pay the sum of **€3,470.00** to the Planning Authority as a contribution towards expenditure that was and/or that is proposed to be incurred by the Planning Authority in the provision of surface water drainage infrastructure by the Council benefiting development in the area of the Authority, as provided for in the Contribution Scheme of Meath County Council adopted in accordance with the provisions of Section 48 of the Planning & Development Acts 2000 – 2023. Payment of this sum shall be made prior to commencement of development unless the phasing of payments and the giving of security to ensure payment in

full is agreed in writing with the Planning Authority prior to the commencement of development.

The above sum shall apply until 31st December 2026 and shall be subject to review on that date and to annual review thereafter unless previously paid. The contribution rates shall be updated effective from January 1st each year during the lifetime of the Development Contribution Scheme in accordance with the Wholesale Price Indices – Building and Construction (Capital Goods) published by the Central Statistics Office.

Reason: The provision of surface water drainage in the area by the Council will facilitate the proposed development. It is considered reasonable that the developer should contribute towards the cost of providing these services.

Advice Notes

1. The Applicant is advised that in accordance with the provisions of Section 34(13) of the Planning and Development Act 2000-2023 a person shall not be entitled solely by reason of a permission to carry out any development.

2. It should be clearly understood that a grant of permission does not relieve the Applicant/ Developer of the responsibility of complying with any requirements under other statutory codes affecting the development.

3. This permission does not confer title. It is the responsibility of the Applicant/Developer to ensure that they control all the lands necessary to carry out the proposed development.

4. This permission does not alter or extinguish or otherwise affect any existing or valid right of way crossing, impinging or otherwise pertaining to these lands.

5. A grant of planning permission does not entitle a person to construct a development that would oversail, overhang or otherwise physically impinge upon an adjoining property without the permission of the adjoining property owner

6. The Applicant/Developer shall make all necessary arrangements to apply for and obtain a Road Opening License(s) from Meath County Council in respect of all openings in public areas and shall pay Road Opening License fees and Road Restoration costs. The Applicant/Developer shall abide by all of the conditions as set out in said license(s).

7. During construction the Applicant should provide adequate off carriageway parking facilities for all traffic associated with the proposed development, including delivery and service vehicles/trucks. There shall be no parking along the public road.

8. No muck, dirt, debris or other material should be deposited on the public road or verge by machinery or vehicles travelling to or from the site during the construction phase. The Applicant/Developer should arrange for vehicles leaving the site to be kept clean.

9. All waste generated during construction, including surplus excavation material to be taken off-site, shall be only recovered or disposed of at an authorised site which has a current Waste Licence or Waste Permit in accordance with the Waste Management Acts, 1996 to 2008. This shall not apply to the reuse of excavated uncontaminated soil and other naturally occurring material within the Applicant's site boundary.

10. In accordance with the Wildlife Act, any necessary hedgerow removal should be carried out outside of the main bird nesting season (March 1st to August 31st, inclusive).

11. All Applicants are advised to make themselves aware of the requirements of the Building Control Regulations 1997 to 2015 and the Construction Products Regulations (CPR) (Regulation (EU no. 305/2011). Information leaflets can be viewed or downloaded from the Department of Environment, Community and Local Government website http://www.environ.ie/en/.'

12. Where the Applicant/Developer proposes to connect to a public water/wastewater network operated by Irish Water, the Applicant must sign a connection agreement with Irish Water prior to the commencement of the development and adhere to the standards and conditions set out in that agreement.

13. In the interest of Public Health and Environmental Sustainability, Uisce Éireann Infrastructure capacity requirements and proposed connections to the Water and Wastewater Infrastructure will be subject to the constraints of the Uisce Éireann Capital Investment Programme. All work to comply with current Uisce Éireann Code of Practice for Water and Wastewater. Any proposals by the Applicant to divert or build over existing water or wastewater services should be submitted to Uisce Éireann for written approval prior to works commencing.

14. In the event it is necessary to import soil and stone or topsoil for any element of the proposed development to Applicant shall ensure a Certificate of Registration or Waste Facility Permit as per the Waste Management (Facility and Registration) Regulations 2007, as amended is secured in advance of the works or an under Article 27 declaration submitted to the Environmental Protection Agency.

15. The reuse of excavated soil and stone being reused within the curtilage of the proposed development will have no waste implications here by virtue of non-application of the Act, as referenced under Article 4 of the European Community (Waste Directive Regulations) 2011. Any soil and stone deemed surplus to requirements and that is to be exported from the site should be treated as either a Waste (removal to an appropriately authorised facility) or a by-product (Under Article 27 declaration) and not both.

16. The production and use of waste derived aggregates should not be used onsite in the absence of an Article 28 'End of Waste' status issued by the Agency. All waste derived onsite shall be removed to an appropriately licensed facility and there will be NO crushing conducted onsite without receiving a Waste Facility Permit or Certificate of Registration from Meath County Council.

17. The Applicant is advised to contact the ESB in advance of commencement of construction in relation to works adjacent to electricity infrastructure.

18. A Fire Safety Certificate may be required for elements of the development under Part III of the Building Control Regulations.

    Note 1: Fire safety issues with regard to the design, layout and construction of the proposed buildings, as well as all proposed active and passive fire protection systems will be examined in more detail by the Fire Officer at certification stage.

    Note 2: The design of dwelling units should incorporate the relevant provisions of Technical Guidance Document B, Volume 2, Dwelling Houses.

19. Planning Compliance must be submitted (hard copies not required) by email to planningcompliance@meathcoco.ie and must include a cover letter stating the condition number(s) the submission refers to and outlining relevant compliance issues together with the appropriate drawings/reports in PDF format.

Appendix 3: Elis Chemical Summary

Commercial Laundry Detergents & Consumption Summary (Navan Facility) - Rev A - 12.10.26

Following the request for further information regarding the Trade Effluent and Chemical Storage, we have attached a document which demonstrates the following

1) The Design Data used for the Navan Facility for the anticipated Water usage through each machine including the recycling – tab **Raw data for Process Volumes**
2) **The Water Flows to Wash Equipment** tab shows the volumes of water and Recycling in a Process Diagram
3) **Drains and recovery Tanks Tab** shows the Drainage design system for the operation including the Sump pit arrangement before discharge
4) **Chemical storage volumes Tab.** This shows the Detergent based products which are used in the facility and the volumes. Data sheets are also provided
5) **Effluent Results – Pottery Road and Tallaght** tab shows the volumes of the discharge from two similar facilities in Dublin one at Pottery Road and one at Tallaght.

In Summary, Clean Water is used as part of the cleaning process for laundry mixed with various detergents. These detergents are stored in specifically designed IBC units and stored within the Chemical storage Room, automatically dosing the machines and equipment. The design of the chemical room itself is bunded to ensure that the IBC s can be contained in the event of their individual or collective failure .
The chemicals and their associated dosing is dependent upon the material being washed and the typical values are shown in Section 2
The typical volumes stored in the Chemical storage Room are also shown in Section 2

As shown in the flow diagrams the dosing is controlled by a specialist Chemical dosing system which mixes the required chemical automatically for each required process via piped system.

When discharged from the Equipment the resulting wastewater is treated and reused with the PH level adjusted by the Process before it is discharged into the Mains drainage system to achieve the required levels required by Irish Water . Those discharge rates are closely monitored using a sophisticated monitoring system, the data being made available to the Water Authority in this case Irish Water.

1. Chemical spillage safety measures

- All chemicals will be stored on correctly sized bunds, that will hold the full volume of the chemical container, in case of a spillage
- In addition, all drains in the chemical room, and chemical handing areas are only connected to the trade effluent drains. These will have an automatic cut off valve in the event of spillage, to prevent any chemical entering the treatment works
- There will be no risk of any chemical spillage entering the surface water drains or open ditch

2. Detergent System Overview

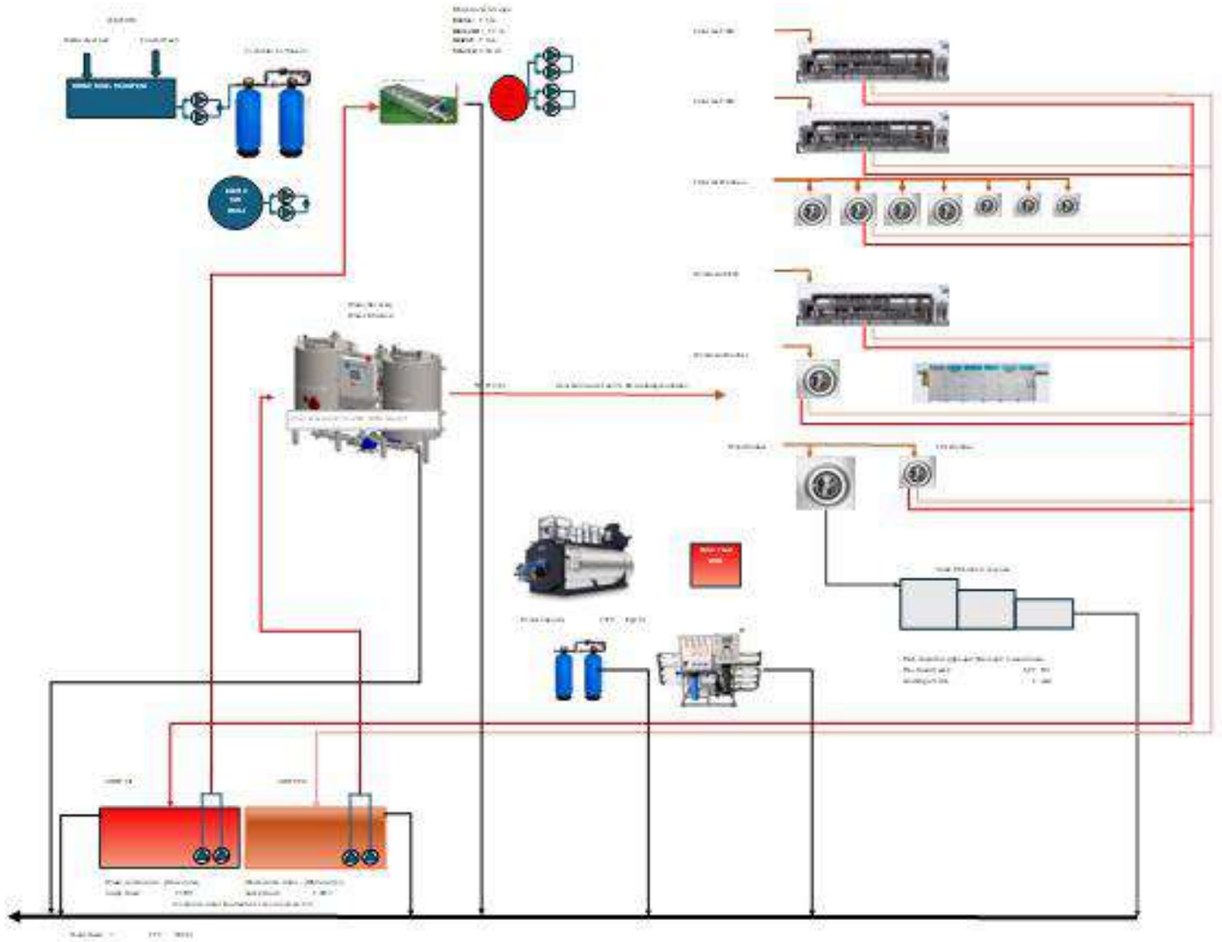
Commercial laundries use multi-chemical dosing systems tailored to textile types (linen, workwear, mats, CRT).

Chemical Types, Functions and Typical Dosing

Chemical Type	Function	Typical Storage	Typical Dose (ml/kg)
Alkali	Breaks down grease, oils and proteins	IBC (1000L)	2–6 ml/kg
Detergent/Surfactant	Removes and suspends dirt	IBC	3–8 ml/kg
Oxygen Bleach	Stain removal, fabric-safe whitening	IBC	2–5 ml/kg
Chlorine Bleach	Disinfection and heavy stain removal	IBC	1–3 ml/kg
Enzymes	Break down proteins, starch and fats	200L drums	0.5–2 ml/kg
Neutraliser (Acid)	Controls pH post-wash	IBC	1–3 ml/kg
Bisulphite	Neutralises residual chlorine	IBC	0.5–1.5 ml/kg
Softener	Improves fabric finish and feel	200L drums	2–5 ml/kg

3. Water Consumption

Total water demand ~42 m3/hr (Cold: 7.4, Warm: 17.4, Recycled: 17.3).







			in Chemical room		in Storage container		
Products	1	Alkali	2	IBC	2	IBC	SDS Liquid Caustic Soda 30% ww REV 0.1 02.11.23
	2	Surfactant	2	IBC	1	IBC	Jetstream Jetclean-English (UK)
	3	Peroxide	2	IBC	1	IBC	Personril-English (UK)
	4	Chlorine	2	IBC			SDS Sodium Hypochlorite 14-15% Rev 0.2 24.09.24 (3)
	5	Softener	2	200L Drum	2	200L Drum	Elpa soft
	6	Bisulphite	2	IBC			SDS Sodium Bisulphite Rev0.0 19.08.2025
	7	Formic Acid	2	IBC			SDS Liquid Caustic Soda 30% ww REV 0.1 02.11.23
	8	Main detergent	2	IBC	2	IBC	Ozomoflux ideal
	9	Enzyme	2	200L Drum	2	200L Drum	Smart Enzyme
	10	Water Treatment - Nitric acid (option)	2	IBC			Horolith V

WATER IN

Well water Feed

Council Feed

BREAK TANK -Hard Water

5m3 Cold Hard Water
Length: 2m
Width: 2m
Height: 1.2 m
Volume: = 5m³

2 x Duplex Softeners?

2000KG Soft Water

Radius: -3.17m
Diameter: -6.3 m
Height: -6.3/m
Volume: = 200 m³

Warm water Storage
Radius: - 1.1 m
Diameter: - 2.2m
Height: -20 m
Volume: = 10 m³

Heat Recovery

Water Recovery
Water Filtration

2m3 - sand and Charcoal Filtered

Ratwork CBW 60 Kg

Ratwork CBW 60 Kg

Ratwork Washers
100 100 100 100 50 50 50

Workwear CBW 75 Kg

Workwear Washer
100 Kg

Main Washer
400 Kg

CBT Washer
200 Kg

40 Kgs of Steam per Hour

40 Kgs of Steam per Hour

200 Kgs of Steam per Hour

312 Kgs of Steam per Hour

Washer
40 Kgs of Steam per Hour

Tunnel Finisher
10 Kgs of Steam per Hour

Main
220 Kgs of Steam per Hour

CBT Washer
96 Kgs of Steam per Hour

Boiler Feed Tank

Boiler Capacity 2377 Kgs/Hr

Boiler 8 bar

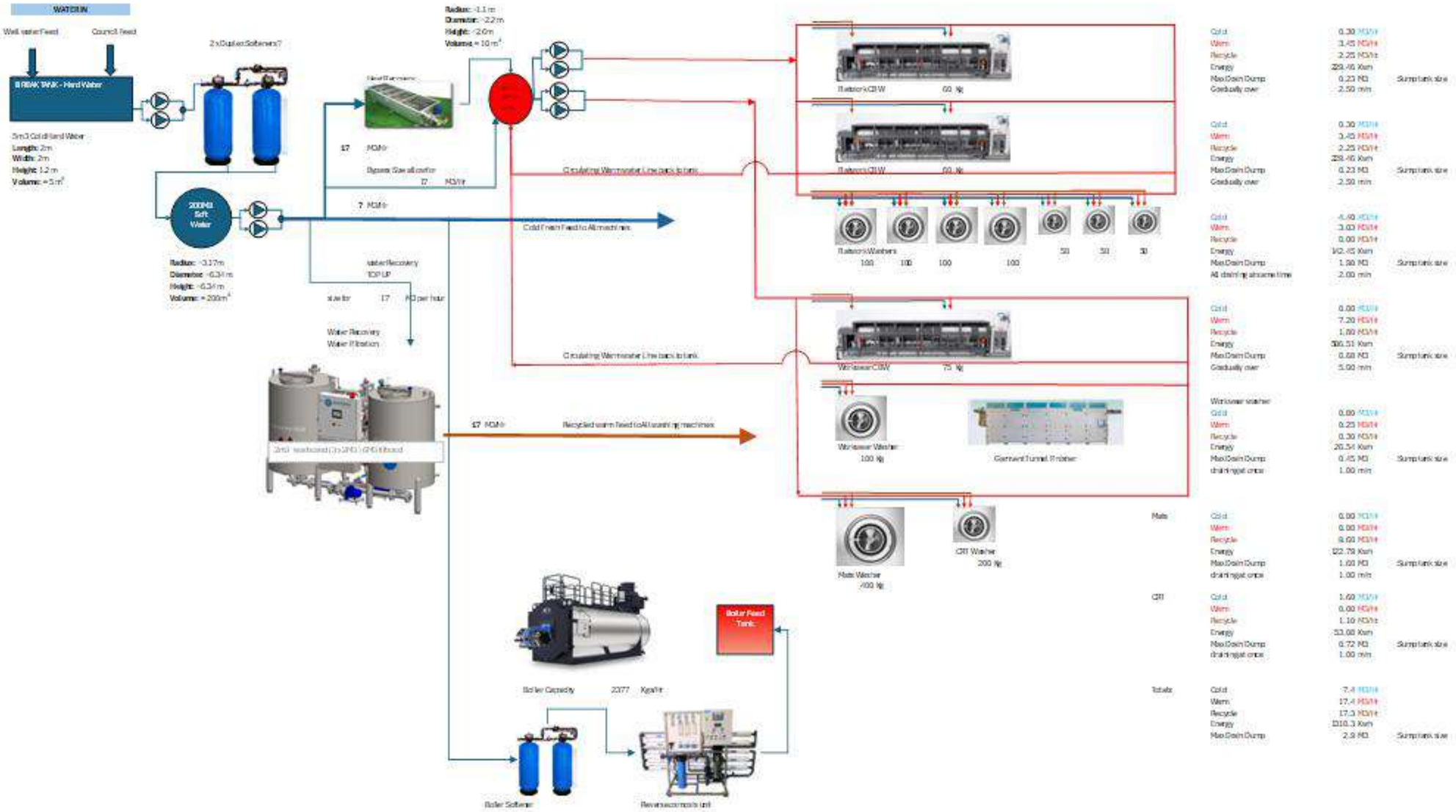
Warm water water -(Blue water)

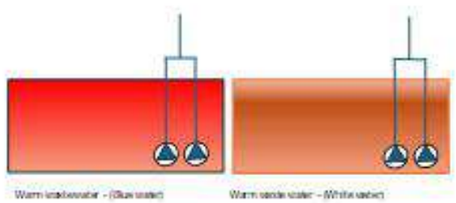
Warm water water – (White water)

Located in water treatment room cross hatched in

Project description and target

- Building designed for the following on 2 shift operation
  - 300 ton flat linen
  - 120,000 WW pieces
  - 4000 CBT
  - 40 ton Mats





Project description and target

- Building designed for the following on 2 shift operation
  - 300 ton flat linen
  - 120,000 WW pieces
  - 4000 CRT
  - 40 ton Mats



Project description and target

- Building designed for the following ex-2 HP operation
  - 700 bunkhouses
  - 120,000 MW people
  - 4000 CPT
  - dense-load



Appendix 4: Hendrick Ryan Associates Appeal Response & Engineering Drawings

HENDRICKRYAN
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Proposed Development at Boyne Village Business Park, Athlumney, Navan, Co. Meath (Phase 1D)

Planning Ref: 2660226

ACP Ref: PL-502119-MH-26

Date: 14th October 2026

Dear Sir/Madam,

Albert Developments Limited propose to develop a commercial laundry to be operated by Elis at Athlumney, Co. Meath. A third-party appeal by Stephen Flanagan has been lodged which raises concerns regarding several topics. Our response is Mr. Flanagan's appeal is set out as follows using the same headings as Mr. Flanagan for ease of reference.

- Environmental Assessments
- Water Supply & Trade Effluent
- Noise, building design and Class 4 amenity
- Operating timetable and coordinated design
- Permitted Amenity Standard
- Railway boundary and surface water outfall
- Chemicals and ancillary infrastructure
- Residential visual and lighting affects

We have addressed the matters relating to Civil and Structural Engineering. Please refer to the responses provided by the other relevant consultants in respect of all other matters.

Our response is accompanied with the following drawings / documents

2680/800 Rev P1	Internal Drainage – Sheet 1
2680/801 Rev P1	Internal Drainage – Sheet 2
2680/802 Rev P1	Internal Drainage – Sheet 3
2680/803 Rev P1	Internal Drainage – Sheet 4
2680/804 Rev P1	Internal Drainage – Sheet 5

Groundwater Supply Feasibility Assessment by ORS

ACEI ASSOCIATION OF CONSULTING ENGINEERS OF IRELAND

ISO 9001:2015 EQA QUALITY ASSURED SERVICE

Hendrick Ryan + Associates Ltd.
Registered in Ireland, Registration No. 235066.

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HENDRICKRYAN
Consulting Engineers

Introduction

This document has been prepared by Hendrick Ryan in response to matters relating to Civil and Structural Engineering raised by Mr. Flanagan in his appeal against Meath County Council's decision to grant planning permission for the proposed industrial laundry facility at Boyne Village Enterprise Park, Athlumney, Navan.

Hendrick Ryan has been involved in the proposed development of lands at Athlumney, Navan, for over twenty years. In February 2026, we prepared the Civil and Structural Engineering drawings and reports submitted in support of the planning application and Uisce Éireann pre-connection enquiry for the proposed development. We subsequently prepared a response to Meath County Council's Request for Further Information in June 2026. In addition, we have engaged with Meath County Council during pre-planning consultations regarding the proposed development and the wider MP12 lands.

Our response addresses only those matters raised by Mr. Flanagan that fall within the scope of Civil and Structural Engineering, including roads, drainage and water supply. Responses to the other matters identified in the appeal have been provided by the appropriately qualified consultants responsible for those respective disciplines.

This response should be read in conjunction with documents issued with the planning application and the response to the Further information Request.

Proposed development

The development consists of:

- The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:
  - a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and
  - a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.
- Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.
- Parking and loading facilities including:
  - 106 car parking spaces (including 5 accessible spaces and 1 set-down space);
  - 30 bicycle parking spaces;
  - 19 truck parking spaces;
  - c. 20 van parking spaces;
  - 10 truck loading bays; and
  - 12 van loading bays.
- Ancillary structures and services including:
  - an ESB substation;
  - a sprinkler pump room & asscoiated sprinkler tank;
  - water storage infrastructure;
  - surface water attenuation infrastructure; and
  - associated utility infrastructure.
- Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works.

1 Environmental assessment

1.1 Surface water drainage

Surface water from the proposed development site is to discharge to the Millrace / Farganstown Stream via the existing field drains located along the railway line. These drains are to be regraded to form a trapezoidal drainage ditch. The outfall from the field drains to the millrace is adjacent to the existing arched culvert under the railway line.

For clarity, this specific scheme is not reliant on any additional crossings of the railway or surface water discharge points beyond those identified in the previous Planning Submission, which set out the surface water discharge permitted by Meath County Council in their Notification of Decision to Grant Permission (Planning Ref. 26/61226) subject to agreement by condition.

In the future, it is proposed to install two new pipes/culverts beneath the railway line, subject to agreement with Iarnród Éireann. These culverts would facilitate the future development of the LDR 6, MP12 lands and provide additional surface water drainage connections. The installation of these two culverts will also reduce the volume of surface water runoff conveyed to the millrace adjacent to the lands owned by Mr. Flanagan.

The first culvert is proposed at the point where the LDR 6 extension meets the railway line. This culvert would convey surface water from the future LDR 6 extension and some of the MP12 lands to the north, connecting to the existing drainage network along the Boyne Road, which discharges to the River Boyne. Surface water from the site of the proposed development could be directed to the Boyne Road using this culvert in the future.

The second culvert is proposed approximately 50m east of the millrace / Farganstown Stream. This culvert would convey flows from existing field drains beneath the railway line and discharge to the Millrace on the opposite side.

It is understood that Meath County Council is currently in discussions with Iarnród Éireann regarding the installation of the proposed culverts beneath the railway line as part of the overall development of lands in Athlumney.

The potential use of groundwater as a supplementary or interim water supply for the proposed development has been assessed by ORS. The ORS report concludes that a yield of 40–60 m³/day is potentially sustainable without adversely affecting off-site receptors, subject to the findings of an on-site pumping test. Please refer to the ORS report for further details.

Refer to Section 2 for more detail.

1.2 Potential groundwater supply

Refer to Section 2.

1.3 Uisce Éireann

Refer to Section 2.

2 Water Supply and trade effluent

2.1 Water supply

2.1.1 Commercial laundry operation

The commercial laundry is proposed to operate five days per week, 52 weeks per year. Each working day will comprise two 8-hour shifts, resulting in a total daily operating period of 16 hours.

2.1.2 Pre-Connection Enquiry (PCE) & Confirmation of Feasibility (CoF)

A Pre-Connection Enquiry (PCE) was submitted to Uisce Éireann (UÉ) prior to lodging the planning application. The PCE was based on an estimated water demand of 35 m³/hour for the commercial laundry process, operating over a 16-hour working day.

In early 2026, UÉ issued a Confirmation of Feasibility following its review of the proposed development's water and wastewater connection requirements. The confirmation stated that both the water supply and wastewater connections were feasible, subject to the completion of the necessary network upgrades.

Our Ref: CDS26003395 Pre-Connection Enquiry
Unit C1 Boyne Village, Business Park, Navan, Meath

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Business Connection of 1 unit(s) at Unit C1 Boyne Village, Business Park, Navan, Meath, (the **Development**).

Based upon the details provided we can advise the following regarding connecting to the networks;

- **Water Connection** - Feasible Subject to upgrades
  - The supply to area is at capacity, which does not have the capacity to supply the demand outlined in the PCE. As such we are unable to facilitate this connection at the present time. There is a project underway to allow additional water to supply this area via the Staleen WTP, with an aim to having additional capacity available in early 2028, at which point we will be able to reassess this application.

    UÉ ask that the customer considers adding water conservation practices and infrastructure where possible for future assessment.
- **Wastewater Connection** - Feasible Subject to upgrades

Figure 2-1: Extract from Uisce Éireann Confirmation of Feasibility

The Confirmation of Feasibility states that the existing water supply capacity in the area is currently fully utilised. A project to provide additional capacity is underway and is scheduled for completion in early 2028, at which point UÉ will be able to reassess the application. UÉ also recommends that the customer consider incorporating water conservation measures and associated infrastructure, where practicable, to inform any future assessment.

2.1.3 Construction programme & phasing of operations

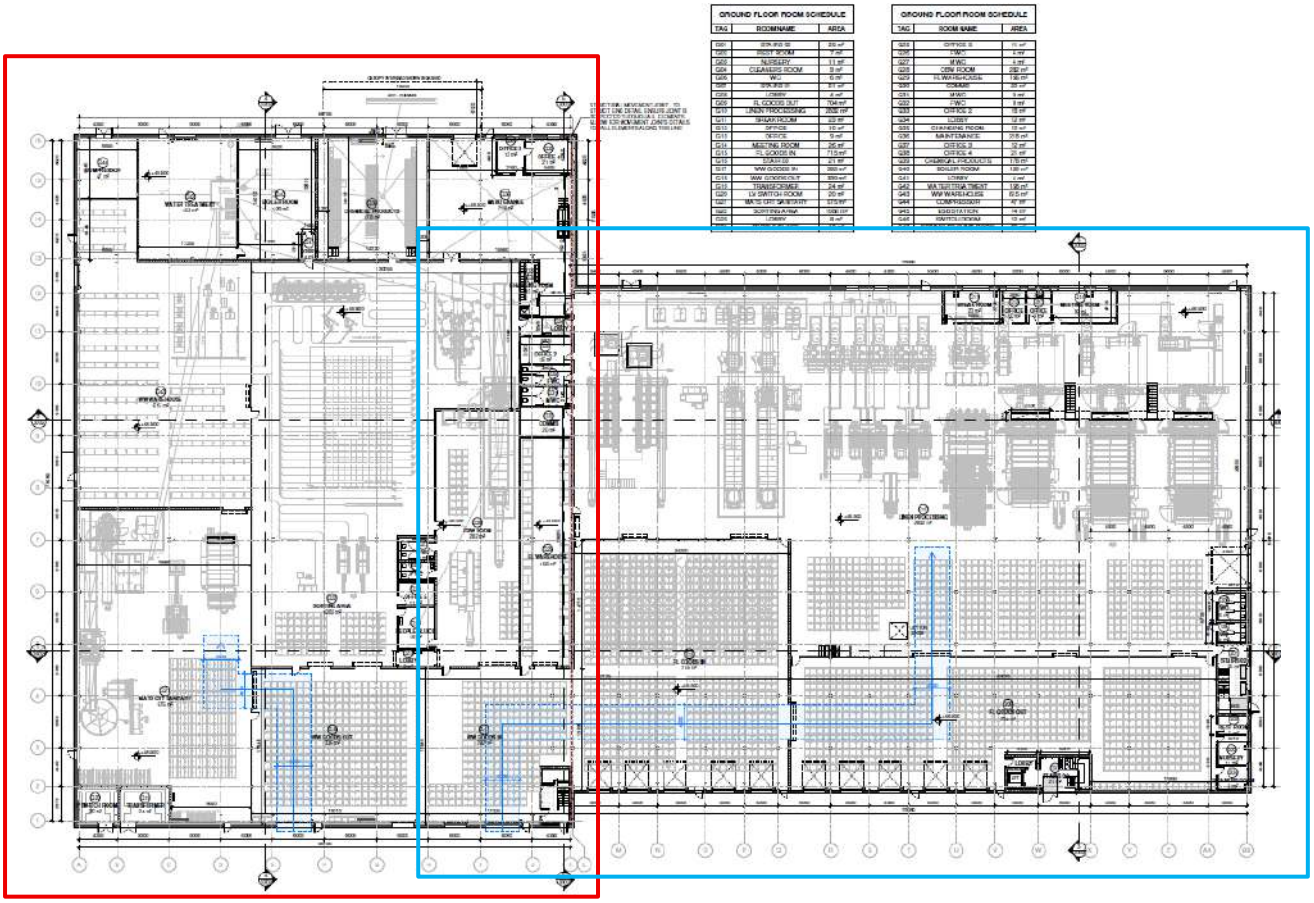


Figure 2-2: Phasing of operations

The Confirmation of Feasibility further confirms that the necessary upgrade works at Staleen Water Treatment Plant are programmed for completion in early 2028.

It is currently envisaged that construction works at the Elis site will commence in February / March 2027. Although the building and associated site works will be undertaken as a single development, the commercial laundry operations will be introduced on a phased basis.

Phase 1 will generally comprise laundry services for workwear, such as uniforms. The area associated with Phase 1 is indicated by the red rectangle in Figure 2-2. Assuming a construction programme of approximately 12 months, Phase 1 is scheduled to commence operations in early to mid-2028.

Phase 2 will generally comprise laundry services for flat linen, including towels and bed linen for hotels, hospitals and similar facilities. The area associated with Phase 2 is indicated by the blue rectangle in Figure 2-2. Phase 2 is scheduled to commence operations approximately six to twelve months after Phase 1.

Accordingly, it is anticipated that the facility will be fully operational by the end of 2028 or early 2029 (Q4 2028 / Q1 2029).

Consequently, the water supply requirements for Phase 1, followed by the full water demand associated with both phases, will arise progressively rather than immediately upon completion of the upgrade works at Staleen Water Treatment Plant (WTP). Based on the anticipated programme, full operational water demand is not expected until approximately six to twelve months after Phase 1 commences operations. This phased approach will allow Uisce Éireann to reassess the development's water supply requirements in the context of the planned network upgrades.

2.1.4 Water supply requirements

The Pre-Connection Enquiry (PCE) and the Water Demand Estimate included in the Engineering Services Report are based on a preliminary estimated commercial laundry process water demand of 35 m³/hour over a 16-hour working day, equating to a daily consumption of 560m³ (560,000 litres). An additional allowance of 20m³ (20,000 litres) per day had also been included for staff welfare facilities. Accordingly, the total estimated daily water demand identified in the PCE is 580m³ (580,000 litres).

As the laundry design has progressed, machinery has been selected and water recovery systems have been developed, allowing the anticipated water demand to be reassessed. Assuming all water recovery systems operate as intended, Phase 1 is estimated to require approximately 23m³ of water per hour. Phase 2 is expected to require an additional 2m³ per hour, as a significant proportion of the water used in the laundry process can be recovered and recycled.

Accordingly, the revised total hourly water demand for the fully operational laundry process is estimated at approximately 25m³, subject to the water recovery systems performing as designed. This represents a substantial 29% reduction in the anticipated water demand compared with the original estimate of 35m³ / hour.

For the purposes of future discussions with Uisce Éireann, a design allowance of 28m³/hour for the laundry process over the 16-hour working day is considered appropriate. This provides an additional margin of approximately 12% above the revised estimated demand of 25m³/hour to account for potential inefficiencies in the water recovery systems or an allowance for a temporary maintenance shutdown.

The water supply requirement for staff welfare (toilets, handwashing and canteen facilities) has also been re-assessed based on proposed staff requirements. If 100 people work each 8-hour shift and each employee uses approximately 50 litres of water per day, the total water requirement for staff welfare is 10,000 litres / day (10m³ / day).

Based on the revised allowance of 28 m³/hour over a 16-hour working day, the daily water demand for the laundry process would be 448m³. Including the additional allowance of 10m³/day for staff welfare facilities, the total estimated daily water demand for the facility would be 458m³ (458,000 litres). This represents a reduction of approximately 21% compared with the original PCE estimate of 580m³/day.

Paragraph 3.1 of Mr. Flanagan's appeal states:

> *"The later process table identifies about 42m³/hour total demand, including the 17.3m³/hour recycled water, with recovery and feed diagrams."*

Subtracting the recycled water flow of 17.3 m³/hour from the total process demand of 42 m³/hour gives a nett water requirement of 24.7 m³/hour from the public water supply network. This figure has been rounded up to 25 m³/hour in the preceding assessment.

2.1.5 Groundwater well

The potential use of groundwater as a supplementary or interim water supply for the proposed development has been assessed by ORS. The ORS report concludes that a yield of 40–60 m³/day is potentially sustainable without adversely affecting off-site receptors, subject to the findings of an on-site pumping test.

Please refer to the ORS Groundwater Supply Feasibility Assessment (enclosed) for further details.

2.1.6 Process water storage tanks

A number of circular steel water storage tanks are proposed at the rear of the building to support the commercial laundry process. The tanks will be supplied by a combination of water from the public watermain and on-site groundwater well, subject to pump tests. Prior to use within the facility, the stored water may require treatment, such as water softening, to ensure it meets the operational requirements of the laundry process. The combined storage capacity of the tanks is approximately 200m³.

Mr. Flanagan refers to the process water storage tanks in Section 3.6 of his appeal.

2.1.7 Water conservation

Planning Condition 9 requires the incorporation of appropriate water conservation measures to minimise water demand at the proposed facility.

As outlined above, the anticipated water demand has been reassessed following the development of the detailed laundry design, including the incorporation of water recovery systems. As a result, the estimated total daily water demand has been reduced from the original PCE estimate of 580 m³/day to 458 m³/day, representing a reduction of approximately 21%.

Should a groundwater well be installed, it could provide a supplementary water supply of approximately 40–60m³/day, subject to confirmation through an on-site pumping test. This would further reduce reliance on the public water supply network, with the estimated daily demand from the public watermain potentially decreasing to approximately 398–418 m³/day. This would represent a total reduction of 28 – 32% of the water consumption noted in the original pre-connection enquiry.

2.2 Wastewater discharge

2.2.1 Pre-Connection Enquiry (PCE) & Confirmation of Feasibility (CoF)

A Pre-Connection Enquiry (PCE) was submitted to Uisce Éireann (UÉ) prior to lodging the planning application. The PCE was based on an estimated wastewater discharge of 35 m³/hour for the commercial laundry process, operating over a 16-hour working day.

In early 2026, UÉ issued a Confirmation of Feasibility following its review of the proposed development's water and wastewater connection requirements. The confirmation stated that both the water supply and wastewater connections were feasible, subject to the completion of the necessary network upgrades.

2.2.2 Construction programme & phasing of operations

As noted in Section 2.1, construction of the proposed development is programmed to commence in early 2027 with completion of the works aligning with the timelines set out by Irish Water with the Farganstown WWPS now programmed for completion in late 2027.

2.2.3 Wastewater requirements

The Pre-Connection Enquiry (PCE) and the Wastewater estimates included in the Engineering Services Report are based on a preliminary estimated commercial laundry process water demand of 35 m³/hour over a 16-hour working day, equating to a daily consumption of 560m³ (560,000 litres). An additional allowance of 20m³ (20,000 litres) per day had also been included for staff welfare facilities. Accordingly, the total estimated daily water demand identified in the PCE is 580m³ (580,000 litres).

As the laundry design has progressed and the proposed water recovery systems have been developed, the anticipated water demand for the facility has been reassessed. Based on a revised allowance of 28 m³/hour over a 16-hour working day, the daily water demand for the laundry process is estimated at 448 m³. Including an additional allowance of 10m³/day for staff welfare facilities, the revised total daily water demand is estimated at 458m³ (458,000 litres).

For the purposes of estimating wastewater discharge, it is reasonable to assume that the volume of water consumed will broadly correspond to the volume discharged to the public sewer, subject to losses and any water retained or otherwise managed on site. On this basis, the daily wastewater discharge is estimated at approximately 458m³. This represents a reduction of approximately 21% compared with the original PCE estimate of 580m³/day.

2.2.4 Wastewater

The internal drainage layout for the proposed building is illustrated on Hendrick Ryan Drawing No. 2680/800 Rev. P1, reproduced in Figure 2-3. Four separate drainage systems are proposed within the building.

The surface water drainage system is indicated by blue lines on Drawing No. 2680/800 Rev. P1 and is separate from the other drainage systems. Wastewater generated by staff welfare facilities, including toilets, handwashing facilities and the canteen, is indicated by red lines.

The laundry process drainage system is indicated by green and orange lines on Drawing No. 2680/800 Rev P1. The orange lines represent the recycled water system, while the green lines represent the non-recycled water system. Each washing machine can discharge to either system, depending on the quality of the wastewater generated during the washing cycle. All laundry process drainage discharges to the external wastewater sewer following use in the laundry.

Items may undergo several washing cycles depending on the level of soiling. Water from the initial wash of heavily soiled items may be discharged to the non-recycled water system, while water from subsequent, cleaner wash cycles can be directed to the recycled water system for reuse within the laundry process.

A dedicated section of the building is allocated for water treatment and recovery systems. Wastewater designated for recycling is pumped from an underground chamber to an above-ground filtration system, where it is treated to remove impurities before being reused in the laundry process.

Wastewater designated for discharge to the public sewer is pumped from a separate underground chamber to an above-ground holding tank. Within this system, heat is recovered from the wastewater and transferred for use in the recycled water system, thereby reducing the temperature of the water prior to discharge. The wastewater is also treated to remove chemicals and adjust its pH to an appropriate level before being discharged to the public sewer with discharge parameters subject to the agreement of the appropriate authority eg Uisce Éireann, Meath CC. The laundry process water passes through sampling pits immediately outside the building prior to connecting to the wastewater sewer.

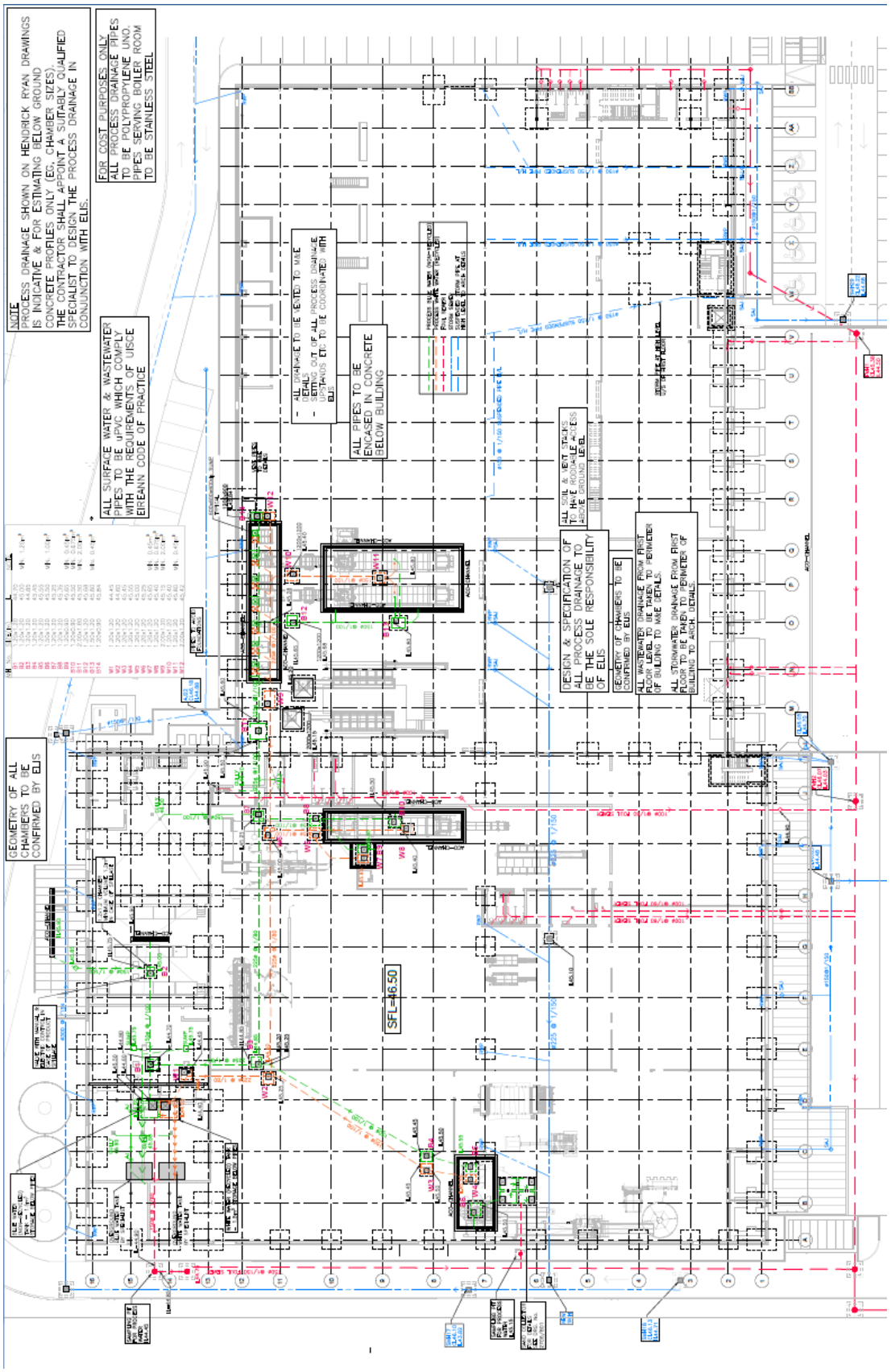


Figure 2-3: Internal drainage

2.2.5 Power outage / treatment failure

In the event of a large-scale power failure, all machinery will shut down, and the laundry will cease operating, and wastewater will remain in the underground chamber.

Each underground chamber in the water treatment section of the building will be provided with two pumps which work on a duty-standby-assist schedule. If one of the pumps fails, it can be removed from the underground chamber and repaired or replaced whilst the other pump continues operating.

Refer to responses by others regarding potential treatment failure.

3 Noise, final building design and Class 4 amenity

Please refer to responses by other Consultants.

4 Operating timetable and coordinated design

Please refer to responses by other Consultants.

5 Railway boundary and surface water outfall

5.1 Iarnród Éireann

The Developer has previously addressed all objections / observations noted in the Iarnród Éireann (IÉ) submission to the planning application confirming that the proposed works have been set back an appropriate distance from the railway line / embankment and that the works will not have a hazardous impact on railway operations. Refer to response to Further information Request.

There *is no proposal to discharge surface water or effluent onto railway property* and the underground attenuation system has been set back to provide a 5m buffer between the attenuation system and the site boundary.

The proposed development will be carried out in accordance with all conditions of the Grant of Planning Permission including Conditions 8 & 10.

5.2 Surface Water

Surface water from the proposed development site is to discharge to the Millrace / Farganstown Stream via the existing field drains located along the railway line. These drains are to be regraded to form a trapezoidal drainage ditch. The outfall from the field drains to the millrace is adjacent to the existing arched culvert under the railway line.

For clarity, this specific scheme is not reliant on any additional crossings of the railway or surface water discharge points beyond those identified in the previous Planning Submission, which set out the surface water discharge permitted by Meath County Council in their Notification of Decision to Grant Permission (Planning Ref. 26/61226) subject to agreement by condition.

In the future, it is proposed to install two new pipes/culverts beneath the railway line, subject to agreement with Iarnród Éireann. These culverts would facilitate the future development of the MP12 lands and provide additional surface water drainage connections. The installation of these two culverts would also reduce the volume of surface water runoff conveyed to the millrace adjacent to the lands owned by Mr. Flanagan

The first culvert is proposed at the point where the LDR6 extension meets the railway line. This culvert would convey surface water from the future LDR6 extension and some of the MP12 lands to the north, connecting to the existing drainage network along the Boyne Road, which discharges to the River Boyne.

The second culvert is proposed approximately 50 m east of the Millrace. This culvert would convey flows from the existing field drains beneath the railway line and discharge to the Millrace on the opposite side.

It is understood that Meath County Council is currently in discussions with Iarnród Éireann regarding the installation of the proposed culverts beneath the railway line as part of the overall development of lands in Athlumney. It is considered unlikely that either of the new railway culverts will be completed prior to the proposed development becoming operational.

Surface water drainage for the proposed development has been designed to comply with the SuDS Manual and the Greater Dublin Code of Practice for Drainage Works – Version 6.

The discharge from the proposed development has been restricted to the pre-development greenfield runoff rate, calculated using site-specific rainfall data provided by Met Éireann. A 20% allowance has been applied to the rainfall data to account for the potential future effects of climate change.

The proposed attenuation system will restrict surface water discharge from the site to the calculated pre-development greenfield runoff rate, thereby limiting peak discharge rates following development. Accordingly, the proposed development will not increase surface water runoff rates above pre-development levels and will not give rise to an increased risk of downstream flooding.

5.2.1 Planning Conditions

The proposed development will be carried out in accordance with all conditions of the Grant of Planning Permission including Conditions 8 & 10 which are referred to in Mr. Flanagan's appeal.

5.2.2 Existing field drains

Large sections of these existing field drains which are to be used to convey surface water from the proposed development to the millrace / Farganstown Stream are dry for periods of the year and do not function as significant watercourses.

5.3 Separate planning applications for Elis site and estate / access road

Separate planning applications have been submitted for the Elis development and the adjoining estate/access road.

The planning drawings for the **Elis development** indicate the following surface water drainage strategy:

- **Elis development**: Surface water runoff from the site will be directed to underground attenuation systems before being discharged to the Millrace via the existing field drains and ditches. Discharge rates will be restricted to the pre-development greenfield runoff rates.
- **Spine road north of Roundabout 3**: Surface water runoff from the spine road will be conveyed to the existing detention basin adjacent to Roundabout 3. From there, the surface water will discharge to the Millrace via the existing field drains and ditches, with discharge rates restricted to the pre-development greenfield runoff rates.
- **Access road to Elis Site**: Surface water runoff from the access road will be conveyed to the Millrace via a network of pipes, field drains and ditches. The planning drawings do not indicate any attenuation provision specifically for this access road.
- **Second access road:** The second access road is excluded from the scope of these drawings.

The planning drawings for the **Enterprise Lands – Estate Roads** indicate the following surface water strategy:

- **Elis site**: The Elis site is excluded from the scope of these drawings.
- **Spine road north of Roundabout 3**: Surface water runoff from the spine road will be conveyed to the existing detention basin adjacent to Roundabout 3. From there, the surface water will discharge to the Millrace via the existing field drains and ditches, with discharge rates restricted to the pre-development greenfield runoff rates.
- **Two smaller access roads**: Surface water runoff from each access road will be directed to underground infiltrations trenches located beside the respective roads. Overflow from the infiltration trenches will be conveyed through temporary detention basins before discharging to existing field drains, which ultimately flow to the millrace / Farganstown Stream

The surface water drainage strategy for each application complies with the requirements of the SuDS Manual and the Greater Dublin Code of Practice for Drainage Works with surface water runoff limited to pre-development greenfield discharge.

The two surface water drainage strategies share certain elements, including the drainage arrangements for the spine road north of Roundabout 3. However, while the strategies are related, each can be implemented independently without relying on the other. The arrangements are also compatible, allowing the spine road and both access roads to be constructed and brought into operation prior to the development of the Elis site.

The temporary detention basins indicated on the planning drawings for the Enterprise Lands – Estate Road application can be removed on completion of all drainage works associated when the proposed Elis development.

5.4 Existing detention basin at Roundabout 3

The planning drawings indicate that surface water runoff from the spine road to the north of Roundabout 3 is to be conveyed to the existing detention basin adjacent to the roundabout. From the basin, surface water will discharge to the Millrace via field drains and ditches at a controlled rate.

The surface water drainage design for the existing section of the LDR6 has been reviewed to assess whether the existing detention basin has sufficient capacity to accommodate runoff from the proposed spine road or requires enlargement. The assessment determined that the basin must be enlarged to provide the additional attenuation capacity required to accommodate runoff from the spine road.

The final drainage arrangements, including the proposed enlargement of the detention basin, are to be agreed in writing with Meath County Council, in accordance with the conditions attached to the grant of planning permission.

5.5 Flood Risk

A Site-Specific Flood Risk Assessment (SSFRA) was prepared by JBA Consulting in support of the planning application. Please refer to JBA Consulting's response to the queries raised by the appellant regarding flood risk.

6 Chemicals and ancillary storage

6.1 Chemical store

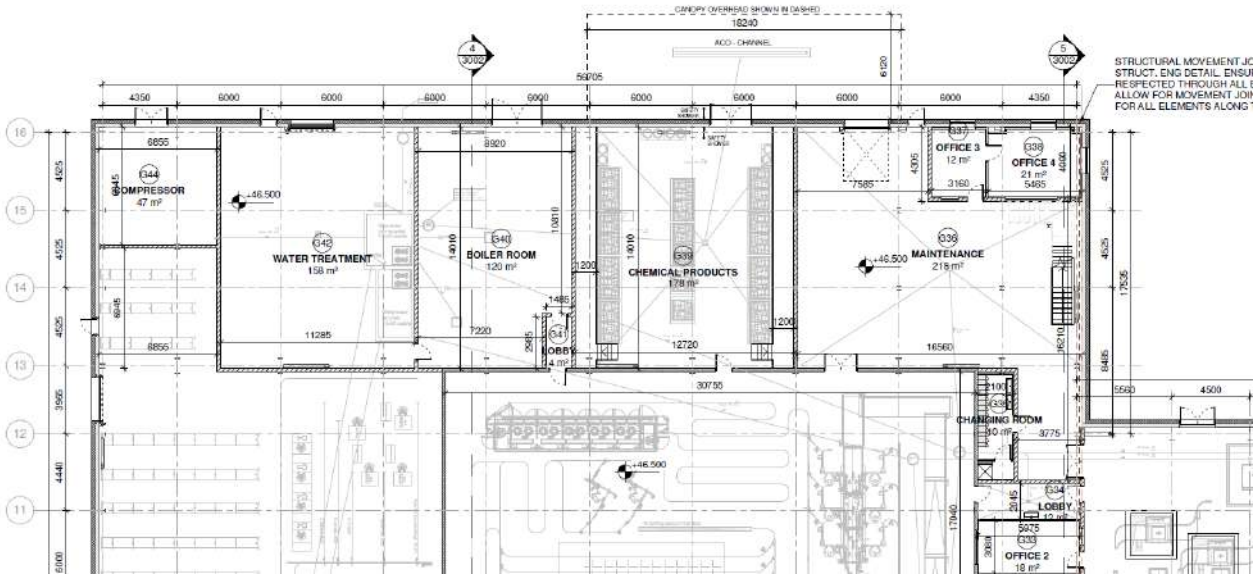


Figure 6-1: Extract from Architect's Ground Floor Plan showing location of chemical store

A designated area at the rear of the building is allocated for the storage of products used in the laundry process, including detergents and other chemicals.

These products will be stored in Intermediate Bulk Containers (IBCs), which typically comprise cube-shaped high-density polyethylene containers enclosed within protective galvanised steel cages. The containers generally have a capacity of 600–1,000 litres and are designed to be transported, handled and stacked using a forklift.

The IBCs will be stored within reinforced concrete (RC) bunds designed to contain any spillage resulting from damage to, or leakage of, the primary containers. Each bund will be appropriately sized to provide sufficient containment capacity for the entire contents of all IBCs stored within it, assuming simultaneous failure of all containers.

A drainage channel will be provided within the floor of the storeroom and connected to the non-recycled laundry process drainage system via an underground chamber with a minimum capacity of 1.2m³ above the invert level of the outfall pipe. The chamber will be fitted with an isolating gate valve that can be closed in the event of a spillage, thereby preventing the spilled material from entering the downstream drainage system and allowing it to be contained within the chamber for appropriate recovery and disposal.

A drainage channel will also be provided externally at the designated unloading area where IBCs are transferred from delivery vehicles. This channel will be connected to the underground containment chamber beneath the storeroom, allowing any accidental spillages occurring during unloading to be directed to and contained within the chamber for subsequent recovery and appropriate disposal.

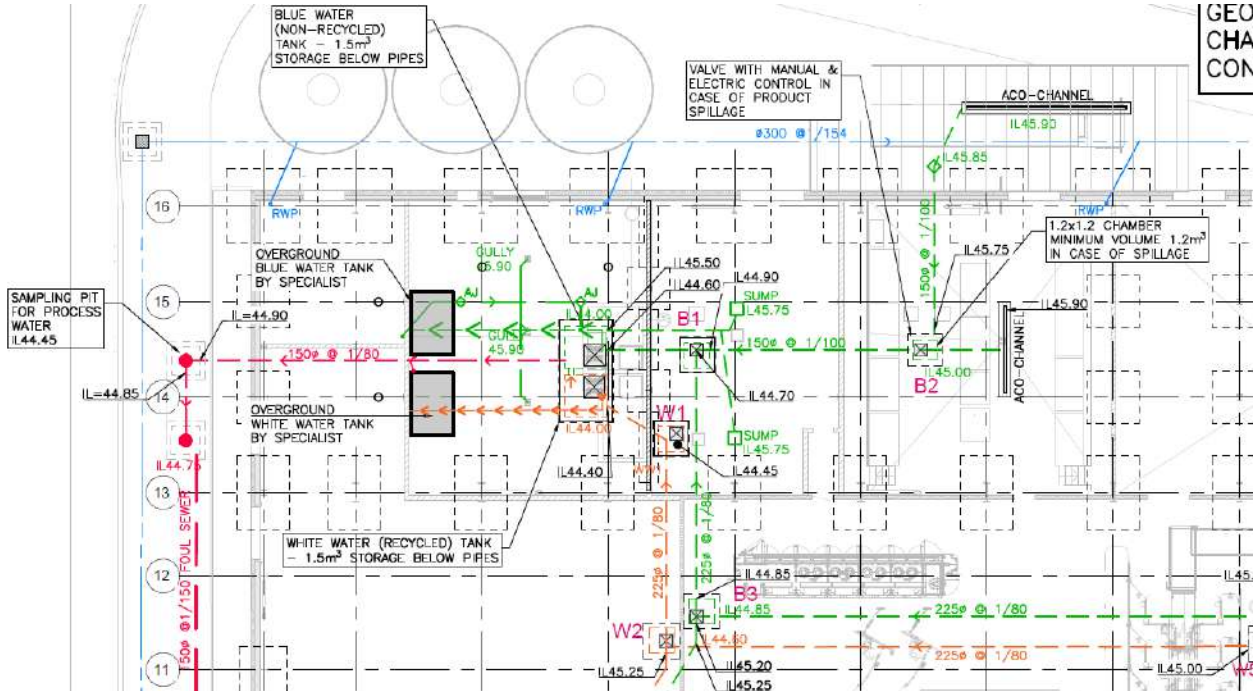


Figure 6-2: Extract from Hendrick Ryan Drg No. 2680/800 showing drainage at chemical store

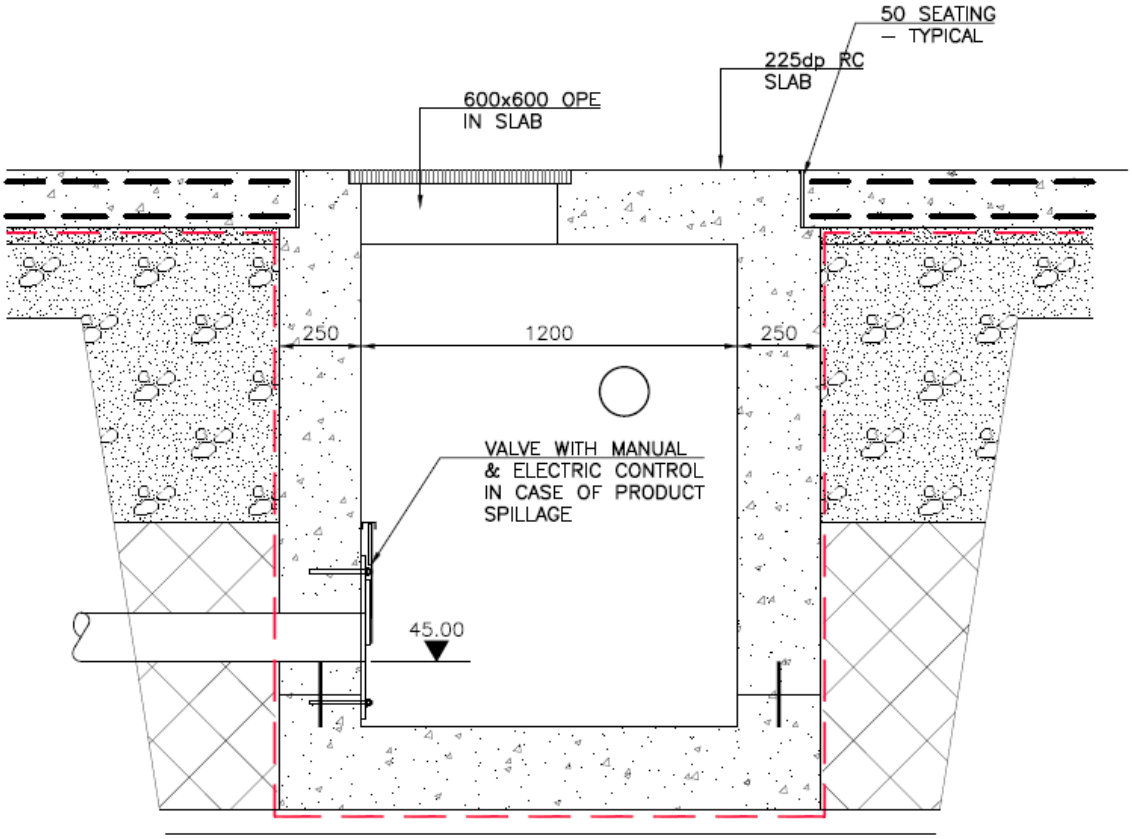


Figure 6-3: Extract from Hendrick Ryan Drg No. 2680/804 showing containment chamber beneath chemical store

6.2 Containment of fire-fighting water

Four separate drainage systems are proposed within the building:

- Surface water drainage.
- Wastewater drainage serving staff welfare facilities, including toilets, handwashing facilities and the canteen.
- Recycled laundry process water drainage.
- Non-recycled laundry process water drainage.

The surface water drainage system is entirely separate from the other three systems, which discharge to the public wastewater sewer.

In the event of a fire, water discharged from the internal sprinkler system will enter the laundry process drainage system via ACO channels and open, grated covers provided over designated connection points. This water will subsequently be conveyed to the public wastewater sewer.

Firefighting water may also accumulate on external hardstanding areas, including access roads and service yards, and enter the surface water drainage system. In such circumstances, the water will be conveyed to the two underground surface water attenuation systems. The outfall manholes downstream of the attenuation systems will be fitted with isolation gate valves linked to the fire alarm system. Upon activation of the fire alarm, these valves will close, preventing potentially contaminated firefighting water from discharging off-site via the surface water drainage network. Instead, the water will be diverted to the wastewater drainage system through an overflow pipe incorporated into the outfall manholes.

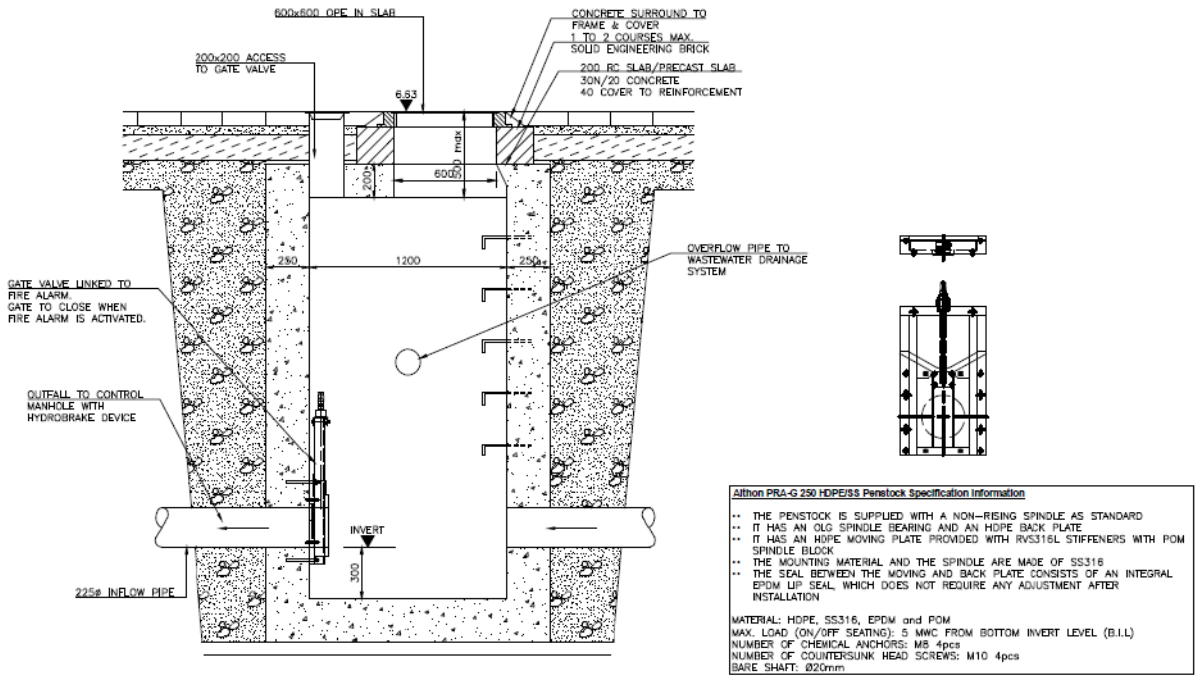


Figure 6-3: Outfall manhole with gate valve linked to fire alarm

Any firefighting water retained within the attenuation systems can subsequently be recovered and removed for appropriate treatment and disposal. These attenuation systems will be lined with an impermeable membrane to prevent infiltration of potentially contaminated firefighting water into the underlying ground.

6.3 Truck wash and fuel filling station

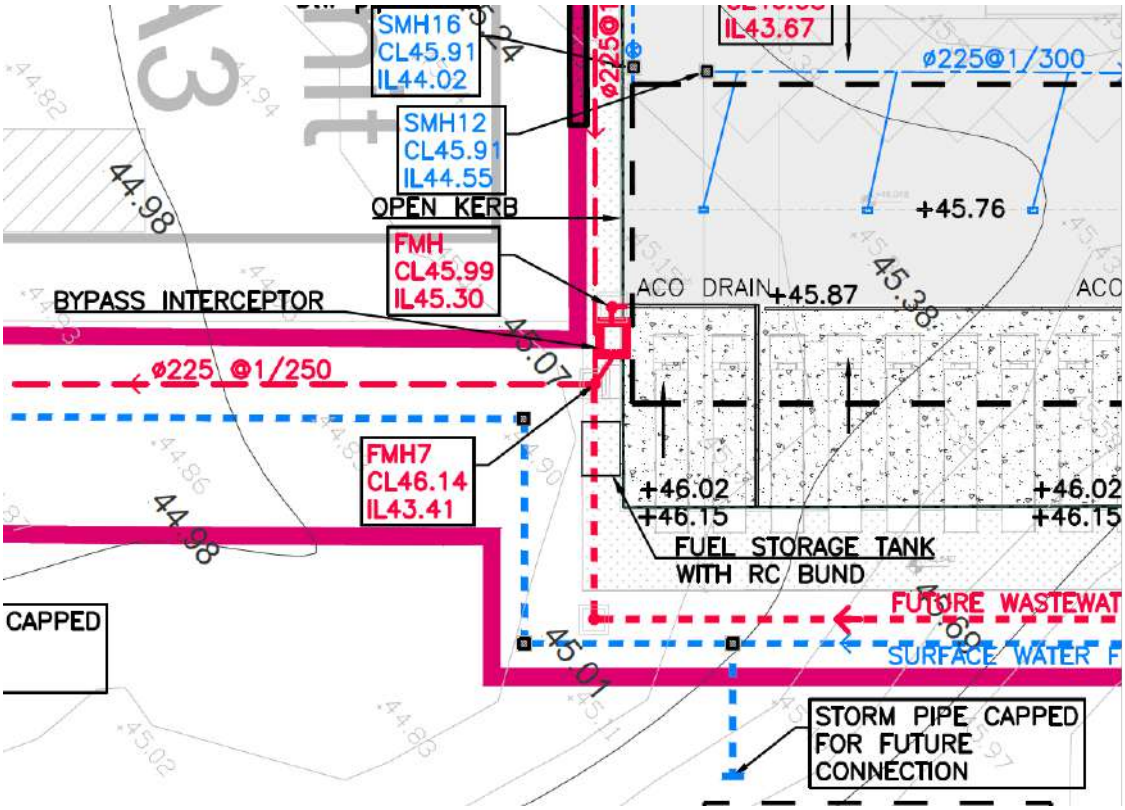


Figure 6-4: Location of truck wash and fuel pump

A combined truck wash and fuel-filling station will be located on site at the point where the wastewater drainage network exits the site. A concrete slab will be provided around both facilities.

The truck wash will utilise a high-pressure jet wash system. ACO drainage channels will be installed around the perimeter of the truck wash / fuel filling station, and surfaces will be graded to direct water runoff into these channels for collection. Run-off from the ACO channels will pass through a silt trap and petrol interceptor prior to discharging to the public sewer.

An example of a typical fuel filling station used by Elis at other facilities sites is shown in Figure 6-5. The storage tank is made steel, double-skinned and typically store up to 20,000 litres. The tank and filling station is to be located inside a reinforced concrete bund.



Figure 6-5: Example of typical fuel filling station

7 Residential visual and lighting affects

Please refer to responses by other Consultants.

If you have any queries, please do not hesitate to contact the undersigned.

Yours sincerely,

Patrick McStay

HENDRICKRYAN
Consulting Engineers

DRAWING ISSUE SHEET

Project	Elis, Athlumney	Page No:	2
Project No:	2680	Sheet No:	1

Issued To:		Date	14/01/26	04/02/26	05/02/26	06/02/26	11/02/26	24/02/26	25/02/26	17/06/26	09/10/26	14/10/26						
Albert Developments - Client			E	E		E	E	E	E	E	E	E						
Arthur Gibney & Partners - Architect			E	E		E	E	E	E	E								
John Spain Associates - Planning Consultant			E	E	E	E	E	E	E	E	E	E						
Trafficwise - Traffic & Transportation Consultant			E	E		E	E			E								
Cunnane Strattan Reynolds - Landscape Architect			E	E		E	E			E								
JBA Consulting -Flood Risk Modelling & Assessment			E	E		E	E			E								
ORS - Environmental Consultant			E	E		E	E			E	E							
Seven - Project Management			E	E														
Elis			E	E														
Meath County Council																		
Planning									E									
Size	#	Title/Description																
		Foul																
	500	Foul Drainage Layout - Sheet 1					P1		P1	P2	P2							
	501	Foul Drainage Layout - Sheet 2					P1		P1	P2	P2							
	520	Foul Drainage Details - Sheet 1	P1	P1			P1		P1									
	521	Foul Drainage Details - Sheet 2	P1	P1			P1		P1									
	522	Foul Drainage Details - Sheet 3	P1	P1			P1		P1									
	523	Foul Drainage Details - Sheet 4	P1	P1			P1		P1									
	524	Foul Drainage Details - Sheet 5								superseded								
	525	Foul Drainage Details - Sheet 6		P1			P1		P1									
	530	Foul Drainage - Longitudinal Section		P1			P1		P1									
		Watermain																
	600	Watermain Layout - Sheet 1	P1	P2			P3		P3	P4	P4							
	601	Watermain Layout - Sheet 2		P2			P3		P3	P4	P4							
	620	Watermain Details - Sheet 1	P1	P1			P1		P1									
	621	Watermain Details - Sheet 2	P1	P1			P1		P1									
	622	Watermain Details - Sheet 3	P1	P1			P1		P1									
	623	Watermain Details - Sheet 4								superseded								
	624	Watermain Details - Sheet 5	P1	P1			P1		P1									
	625	Watermain Details - Sheet 6								superseded								
	800	Internal Drainage - Sheet 1										P1						
	801	Internal Drainage - Sheet 2										P1						
	802	Internal Drainage - Sheet 3										P1						
	803	Internal Drainage - Sheet 4										P1						
	804	Internal Drainage - Sheet 5										P1						
		Reports																
		Engineering Services Report			P1	P2		P3	P3									
		Flood Risk Assessment																
		Construction Env. Mangement Plan																
		Resource & Waste Management Plan																

Notes: P = Planning, T = Tender, E = email issue, CD = CD ROM issue, Drawing size A1 unless otherwise noted

GEOMETRY OF ALL CHAMBERS TO BE CONFIRMED BY ELIS

MH No.	SIZE(m)	IL	NOTE
B1	1.20x1.20	44.70	
B2	1.20x1.20	45.00	MIN. 1.20m³
B3	1.20x1.20	44.85	
B4	1.20x1.20	45.45	
B5	1.20x1.20	45.55	
B6	1.50x1.20	45.50	MIN. 1.00m³
B7	1.20x1.20	45.25	
B8	1.20x1.20	45.35	
B9	1.20x0.90	45.65	MIN. 0.45m³
B10	1.20x0.90	45.50	MIN. 0.675m³
B11	2.00x1.80	45.50	MIN. 2.00m³
B12	1.20x1.20	45.68	
B13	1.50x1.20	45.80	MIN. 0.45m³
B14	1.20x0.90	45.84	
W1	1.20x1.20	44.45	
W2	1.20x1.20	44.60	
W3	1.20x1.20	45.45	
W4	1.20x1.20	45.55	
W5	1.20x1.20	45.00	
W6	1.20x1.20	45.25	
W7	1.20x1.20	45.65	MIN. 0.45m³
W8	1.20x1.20	45.40	MIN. 0.675m³
W9	2.00x1.20	45.15	MIN. 2.00m³
W10	1.20x1.20	45.40	
W11	1.20x1.20	45.80	MIN. 0.45m³
W12	2.00x1.20	45.42	

NOTE
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THE CONTRACTOR SHALL APPOINT A SUITABLY QUALIFIED SPECIALIST TO DESIGN THE PROCESS DRAINAGE IN CONJUNCTION WITH ELIS.

ALL SURFACE WATER & WASTEWATER PIPES TO BE uPVC WHICH COMPLY WITH THE REQUIREMENTS OF UISCE EIREANN CODE OF PRACTICE

FOR COST PURPOSES ONLY
ALL PROCESS DRAINAGE PIPES TO BE POLYPROPYLENE UNO.
PIPES SERVING BOILER ROOM TO BE STAINLESS STEEL

- ALL DRAINAGE TO BE VENTED TO M&E DETAILS
- SETTING OUT OF ALL PROCESS DRAINAGE, UPSTANDS ETC TO BE COORDINATED WITH ELIS

ALL PIPES TO BE ENCASED IN CONCRETE BELOW BUILDING

SFL=46.50

DESIGN & SPECIFICATION OF ALL PROCESS DRAINAGE TO BE THE SOLE RESPONSIBILITY OF ELIS

GEOMETRY OF CHAMBERS TO BE CONFIRMED BY ELIS

ALL WASTEWATER DRAINAGE FROM FIRST FLOOR LEVEL TO BE TAKEN TO PERIMETER OF BUILDING TO M&E DETAILS.

ALL STORMWATER DRAINAGE FROM FIRST FLOOR TO BE TAKEN TO PERIMETER OF BUILDING TO ARCH. DETAILS.

ALL SOIL & VENT STACKS TO HAVE RODDABLE ACCESS ABOVE GROUND LEVEL

PROCESS BLUE WATER (NON-RECYCLED)
PROCESS WHITE WATER (RECYCLED)
FOUL SEWER
STORM SEWER
SUSPENDED STORM PIPE AT HIGH LEVEL TO ARCH DETAILS

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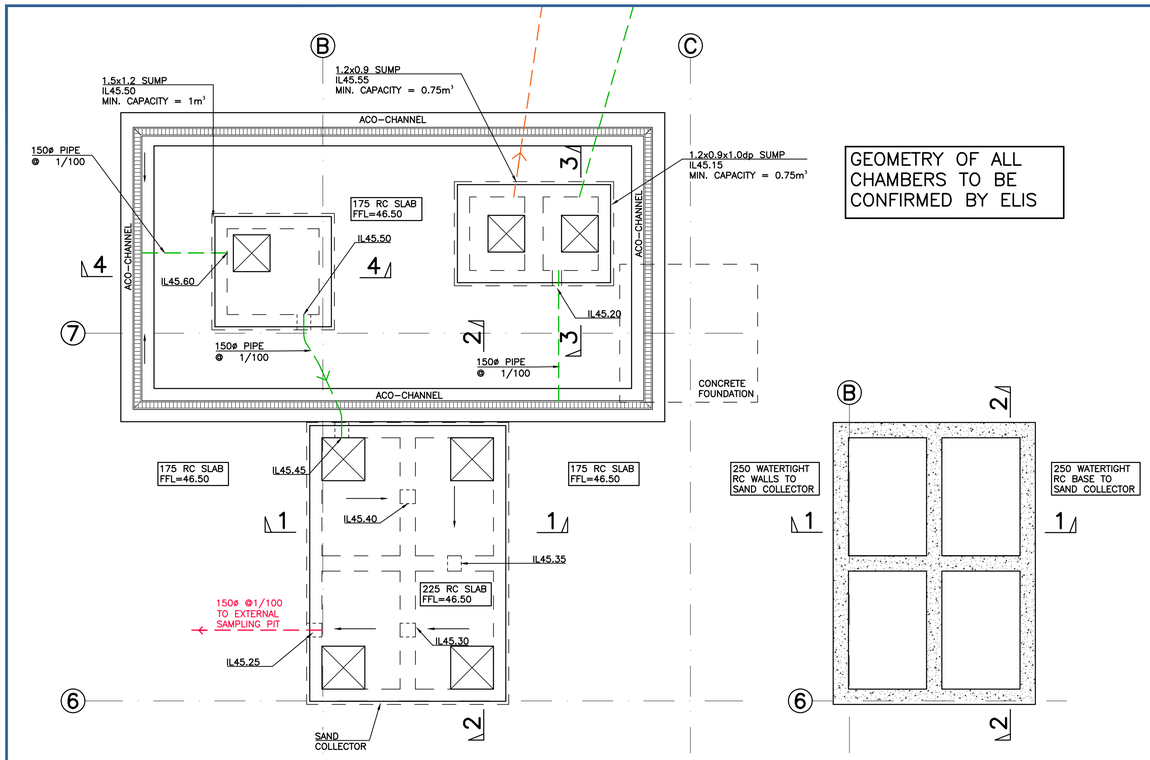
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Project: ELIS, ATHLUMNEY
Drawing Title: INTERNAL DRAINAGE - SHEET 1

Project Number:	Drawing Number:	Revision:	Size:
2680	800	P1	A1
Scale: 1:200			Stage: PLANNING
Date: 22/06/2026	Drawn By: LB	Checked By: PMcS	Approved By: PMcS



FLOOR LEVEL

BASE

SAND COLLECTOR PLANS

SCALE 1:50

GEOMETRY OF ALL CHAMBERS TO BE CONFIRMED BY ELIS

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WATERTIGHT MEMBRANE SPECIFICATION

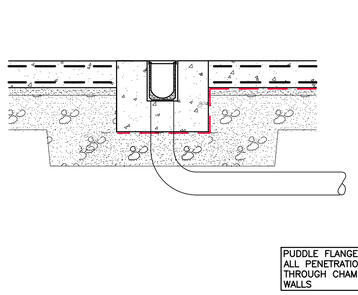
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BITUTHENE 8000 WATERTIGHT MEMBRANE TO ALL RETAINING WALLS AND VERTICAL SURFACES BELOW GROUND
SERVISTRIP TO ALL CONCRETE CONSTRUCTION JOINTS BELOW GROUND
SEAL ALL SERVICE PENETRATIONS OF WATERTIGHT SURFACES AND ALL PILE PERIMETERS

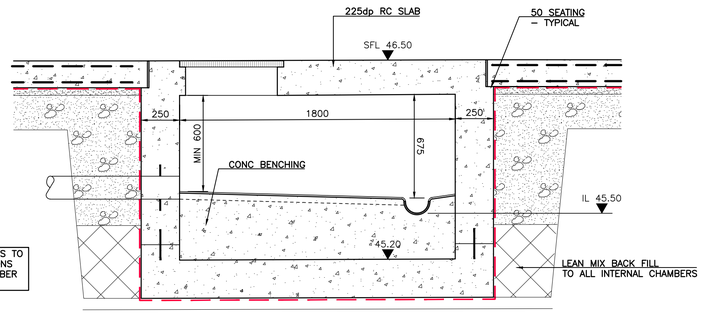
PREPARE ALL SURFACES AND INSTALL ALL PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS
ALL INSTALLATIONS TO BE CARRIED OUT UNDER SUPERVISION TRAINED BY THE MANUFACTURER

OVERLAPS WITH DPCs ETC TO BE AGREED WITH ARCHITECTS

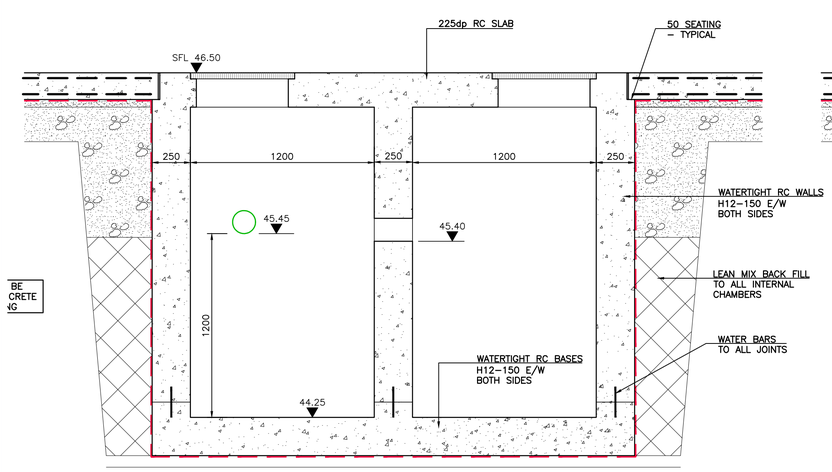
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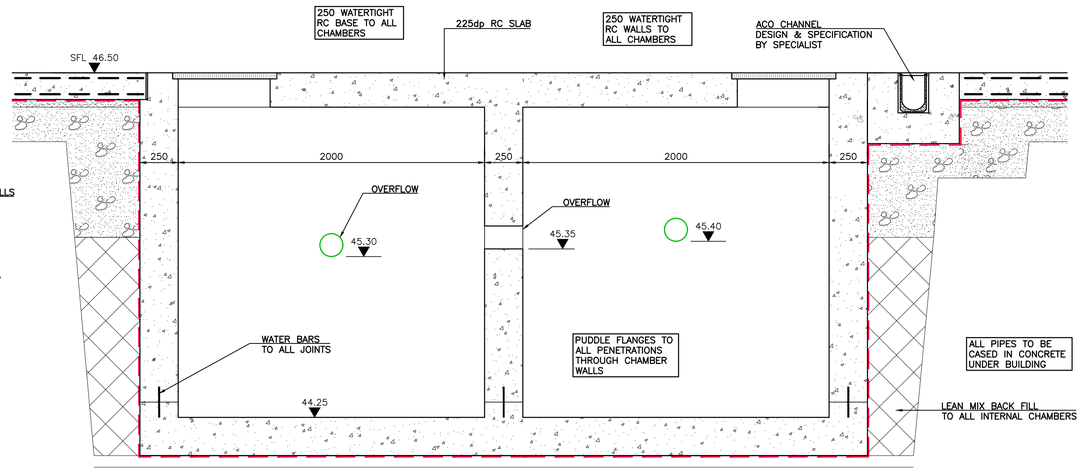




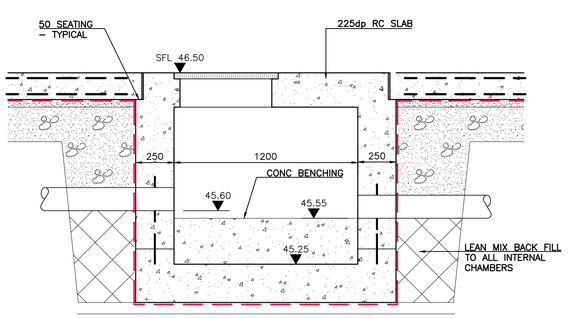
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1 – 1
SCALE 1:20



2 – 2
SCALE 1:20



3 – 3
SCALE 1:20

SAND COLLECTOR DETAILS

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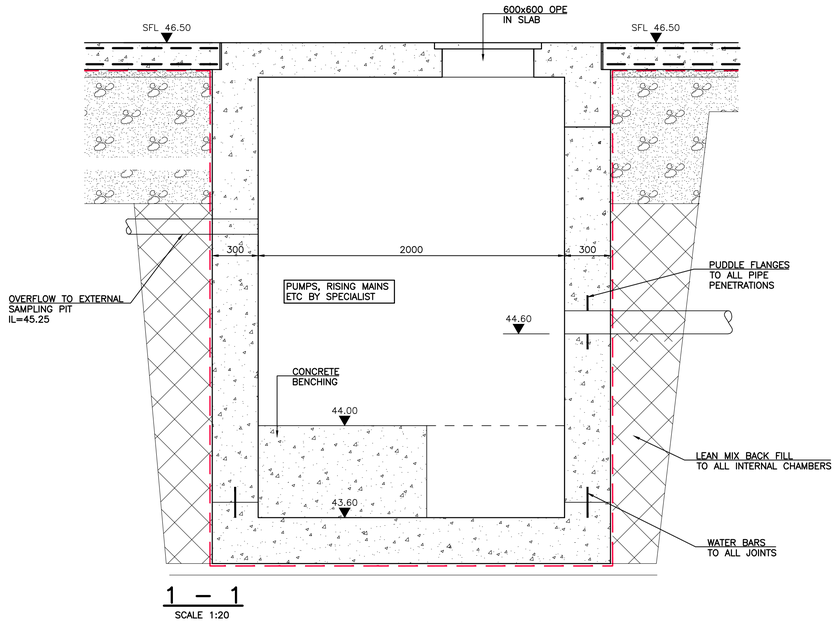
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Project: ELIS, ATHLUMNEY
Drawing Title: INTERNAL DRAINAGE - SHEET 2

Project Number:	Drawing Number:	Revision:	Size:
2680	801	P1	A1
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Date: 22/06/2026	Drawn By: LB	Checked By: PMcS	Approved By: PMcS



1 – 1
SCALE 1:20

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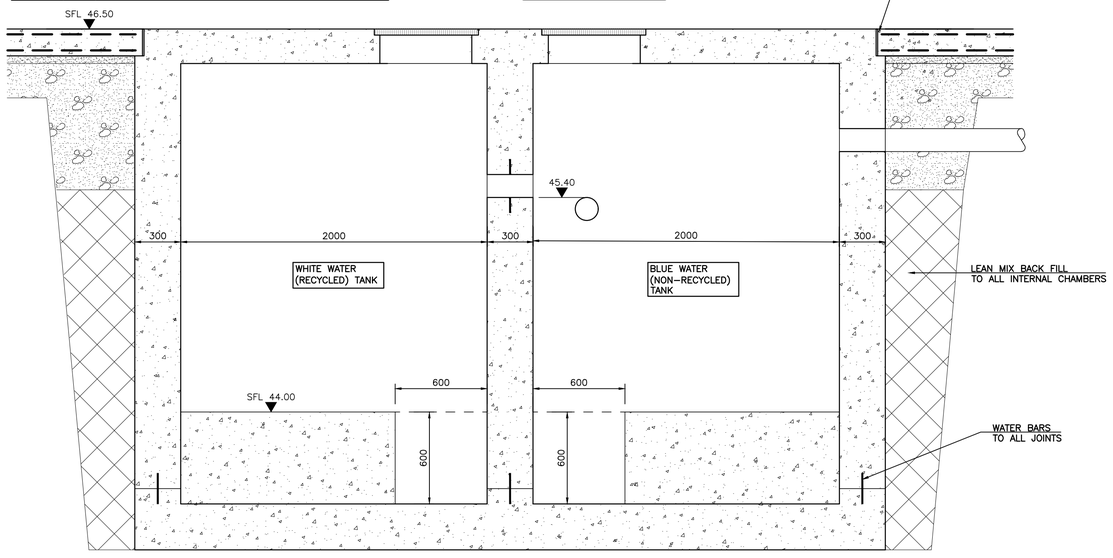
MANHOLE COVER & FRAME TO IS/EN 124, CLASS D400 (OR E600 FOR HEAVILY TRAFFICKED MAIN ROADS) MANUFACTURED FROM SPHEROIDAL GRAPHITE CAST IRON (DUCTILE CAST IRON) 600x600 (600dia) CLEAR OPENING

300 WATERTIGHT RC TANKS OVERLAPS WITH DPCs ETC TO BE AGREED WITH ARCHITECTS

WATERTIGHT MEMBRANE SPECIFICATION

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BITUTHENE 8000 WATERTIGHT MEMBRANE TO ALL RETAINING WALLS AND VERTICAL SURFACES BELOW GROUND
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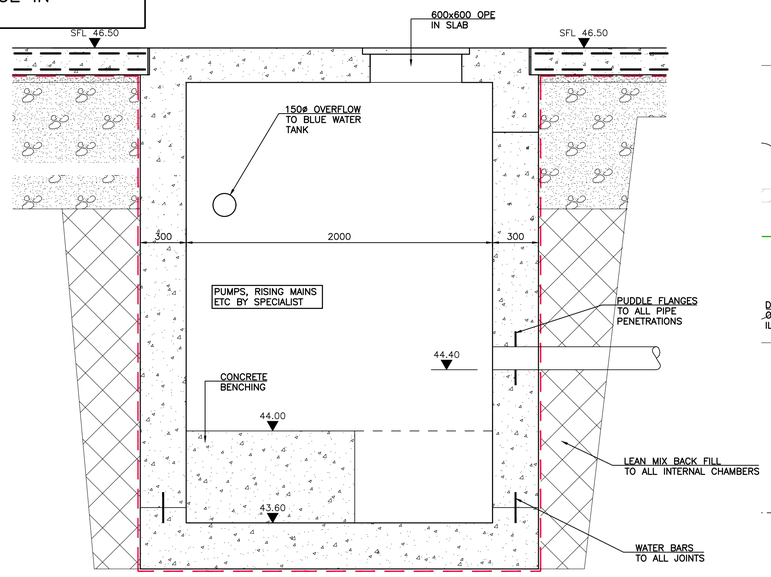
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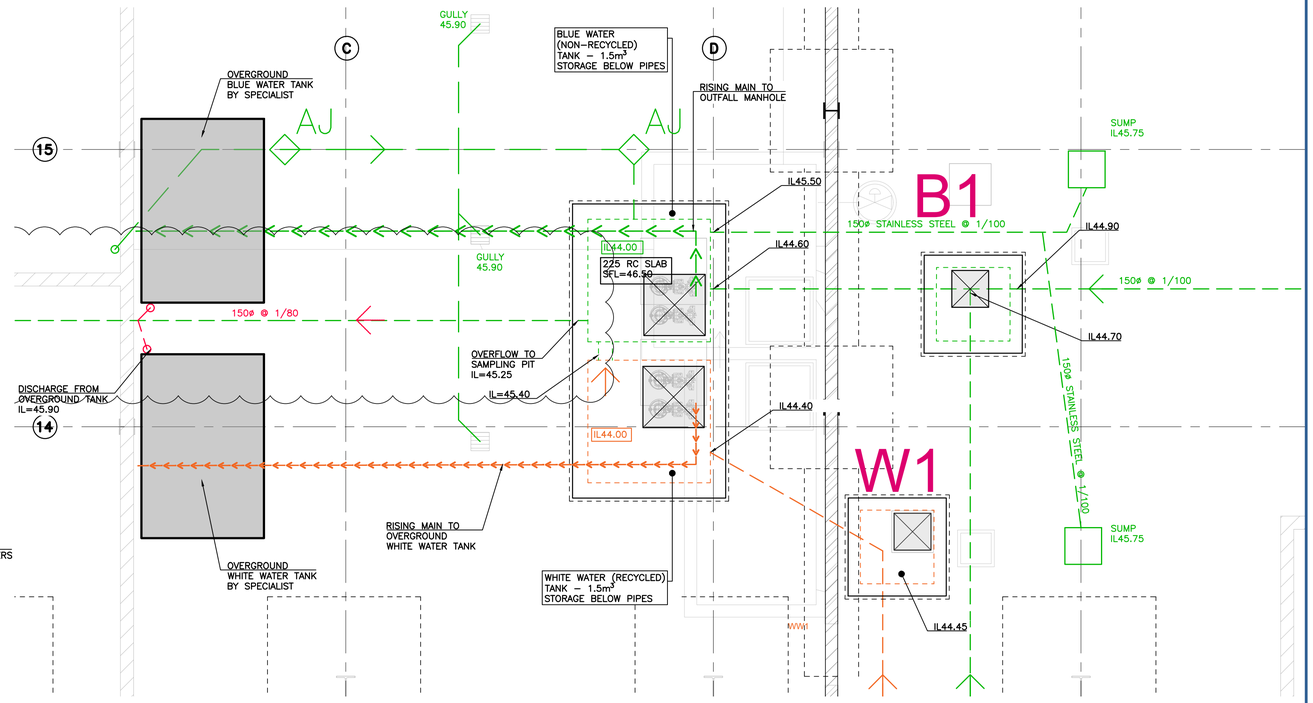
3 – 3
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GEOMETRY OF ALL CHAMBERS TO BE CONFIRMED BY ELIS



2 – 2
SCALE 1:20



UNDERGROUND BLUE WATER & WHITE WATER TANKS
SCALE 1:20

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Project: ELIS, ATHLUMNEY
Drawing Title: INTERNAL DRAINAGE - SHEET 3

Project Number:	Drawing Number:	Revision:	Size:
2680	802	P1	A1
Scale: 1:20			Stage: PLANNING
Date: 22/06/2026	Drawn By: LB	Checked By: PMcS	Approved By: PMcS

TRENCH BACKFILL & BEDDING

READ IN CONJUNCTION WITH IRISH WATER STANDARD DETAIL STD-WW-07

1. ALL DIMENSIONS IN MILLIMETRES (mm) UNO.
2. THE MINIMUM DEPTH OF COVER FROM THE FINISHED SURFACE TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHALL BE AS FOLLOWS:
   - A) GARDENS & PATHWAYS WITHOUT VEHICULAR ACCESS – DEPTH ≥ 0.5m.(THIS WOULD NORMALLY RELATE TO DRAINS IN PRIVATE PROPERTY. SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT BUILDING REGULATIONS)
   - B) DRIVEWAYS, PARKING AREAS & YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT EXCEEDING 7.5 TONNES – DEPTH ≥ 0.75m.
   - C) DRIVEWAYS, PARKING AREAS & NARROW STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES – DEPTH ≥ 0.9m.
   - D) DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ABOVE.
   - E) AGRICULTURAL LAND AND PUBLIC OPEN SPACE – DEPTH ≥ 0.9m.
   - F) OTHER HIGHWAYS & PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT EXCEEDING 7.5 TONNES – DEPTH ≥ 1.2m.
3. CLAUSE 804/808 MATERIAL (TII: SPECIFICATION FOR ROAD WORKS) IS TO BE USED AS BACKFILL MATERIAL WHERE THE WATER MAIN IS LOCATED IN ROADS, FOOTPATHS OR WHERE THE NEAREST PART OF THE TRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 804/808 MATERIAL IS TO BE COMPACTED IN ACCORDANCE WITH CLAUSE 802 OF THE TII: SPECIFICATION FOR ROAD WORKS. CLAUSE 808 MATERIAL IS TO BE USED WITHIN 500mm OF CEMENT BOUND MATERIALS, CONCRETE PAVEMENTS, CONCRETE STRUCTURES OR CONCRETE PRODUCTS
4. SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF 'ACCEPTABLE MATERIAL' AS OUTLINED IN CLAUSE 601 IF THE TII SPECIFICATION FOR ROAD WORKS (TABLE 6/1, CLASS 8, CLASS 2) MAY BE USED IN GREEN-FIELD AREAS ABOVE GRANULAR FILL SURROUND MATERIAL SUBJECT TO IRISH WATER APPROVAL.
5. PIPE BEDDING SHALL COMPLY WITH WIS 4-08-02 AND IGN 4-08-01.
   THE PIPE BEDDING GRANULAR MATERIALS SHALL BE 14-5mm (d/D 2/14) GRADED AGGREGATE OR 10mm (d/D 4/10) SINGLE SIZED AGGREGATE TO IS EN 13242.
   CONCRETE BED, HAUNCH & SURROUND, WHERE REQUIRED, SHALL BE TO IRISH WATER DETAIL STD-WW-08.
6. IN SOFT GROUND CONDITIONS (CBR <5) THE SOIL SHOULD BE EXCAVATED OUT AND DISPOSED OF IN ACCORDANCE WITH THE WASTE MANAGEMENT ACT. CLAUSE 804 / 808 MATERIAL (TII: SPECIFICATION FOR ROAD WORKS) SURROUNDED IN GEOTEXTILE WRAPPING SHALL BE USED TO REPLACE THE EXCAVATED MATERIAL.
   ALTERNATIVELY, SPECIAL PIPE SUPPORT ARRANGEMENTS (INCLUDING PILING ETC) MAY BE REQUIRED WHERE THE DEPTH OF SOFT MATERIAL IS EXCESSIVE. SUCH ARRANGEMENTS SHALL BE SUBJECT TO ASSESSMENT BY IRISH WATER BEFORE ADVANCING WITH THE WORK.
7. IN GREEN FIELD AREAS, TYPE B BACKFILL (SELECTED EXCAVATED MATERIAL COMPLYING WITH THE REQUIREMENTS OF 'ACCEPTABLE MATERIAL' AS OUTLINED IN CLAUSE 601 IF THE TII SPECIFICATION FOR ROAD WORKS (TABLE 6/1, CLASS 8, CLASS 2) WILL BE ALLOWED ABOVE THE SIDE HAUNCH GRANULAR MATERIAL IN THE CASE OF RIGID PIPES.
   A GRANULAR SURROUND OF A MINIMUM DEPTH OF 150mm ABOVE THE CROWN OF THE PIPE IS REQUIRED FOR FLEXIBLE PIPES. TYPE B MATERIAL MY BE USED AS BACKFILL ABOVE THIS.
   ALL RISING MAINS IN GREEN-FIELD AREAS SHALL HAVE A MINIMUM COVER OF 300mm OF GRANULAR MATERIAL ABOVE THE EXTERNAL CROWN OF THE PIPE.
8. PIPES SHALL NOT BE SUPPORTED ON STONES, ROCKS OR ANY HARD OBJECT WITHIN THE PIPE TRENCH. ROCK SHALL BE EXCAVATED TO 150mm BELOW THE PROPOSED DEPTH OF THE TRENCH WITH ANY VOIDS FILLED WITH CLAUSE 804/808 MATERIAL (TII: SPECIFICATION FOR ROAD WORKS).
9. NON-DEGRADABLE MARKER TAPE SHALL BE INSTALLED AT TOP OF PIPE BEDDING LAYER FOR SEWERS AND RISING MAINS. IT SHOULD RUN CONTINUOUSLY AROUND MANHOLES
   IN THE CASE OF NON-METAL PIPE MATERIAL, THE MARKER TAPE SHALL INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS & TERMINATED AT THE WASTE WATER PUMPING STATION (IF PROVIDED) AND/OR DISCHARGE MANHOLE.
10. TRENCH WIDTHS FOR PIPE SIZES <=80mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS.
11. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
12. EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

CONCRETE PROTECTION SLAB

READ IN CONJUNCTION WITH IRISH WATER STANDARD DETAIL STD-WW-08

1. FOR ANY SLABBING WORKS TO BE CARRIED OUT WITHIN THE VICINITY OF PIPELINE, THE MAIN CONTRACTOR SHALL ISSUE A METHOD STATEMENT TO IRISH WATER FOR APPROVAL
2. MARKER TAPE TO BE PLACED ABOVE THE PROTECTION SLAB ALONG THE DIRECTION OF THE PIPE
3. CONCRETE TO BE GRADE C30/35
4. MINIMUM COVER TO STEEL REINFORCEMENT TO BE 40mm
5. SLABS TO BE DESIGNED FOR USE UNDER HB25 IN ACCORDANCE WITH BS8400-2. DESIGN TO BE SUBMITTED TO IRISH WATER FOR ASSESSMENT PRIOR TO INSTALLATION
6. THE SOIL ON WHICH THE SLAB RESTS MUST HAVE A CBR OF 10% OR GREATER. WHERE THE CBR IS LESS THAN 10%, THE SOIL SHALL BE REMOVED AND REPLACED WITH IMPORTED GRANULAR FILL (CLAUSE 804/808 MATERIAL TO TII SPECIFICATION FOR ROAD WORKS)
7. IF DIRECTION OF PIPELINE AND DIRECTION OF TRAFFIC ARE PARALLEL, THE SLAB SHALL BE LAID AGAINST THE DIRECTION OF TRAFFIC FLOW
8. IF PIPELINE PROTECTION SLAB IS TO BE USED SOLELY FOR IMPACT PROTECTION & OVERALL DEPTH OF COVER IS GREATER THAT 1.2m THE DISTANCE BETWEEN UNDERSIDE OF SLAB & TOP OF PIPE MAY BE INCREASED FOLLOWING CONSULTATION WITH IRISH WATER

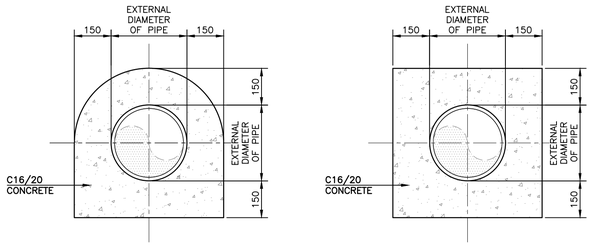
BED, HAUNCH & SURROUND TO WASTEWATER PIPES

9. ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE
10. CONCRETE BED & HAUNCHES MAY BE REQUIRED TO PROVIDE ADDITIONAL SUPPORT IN POOR GROUND CONDITIONS. PROPOSALS TO BE PROVIDED TO IRISH WATER WITH GEOTECHNICAL REPORT SUPPORTING THEIR USE
11. CONCRETE SURROUNDS SHALL HAVE A MINIMUM THICKNESS OF 150mm WITH AN ABSOLUTE MINIMUM DEPTH OF COVER ABOVE THE EXTERNAL CROWN OF THE PIPE OF 750mm
12. ALL CONCRETE TO BE GRADE C16/20 IN ACCORDANCE WITH IS EN 206
13. HAUNCHES AND SURROUNDS TO BE FORMED USING FORMWORK TO PROVIDE A ROUGHCAST FINISH
14. EXPANSION JOINTS IN THE CONCRETE SHALL BE PROVIDED AT ALL PIPE JOINTS TO ALLOW PIPE FLEXIBILITY. COMPRESSION FILLER BOARD TO BE 18mm THICK IN ACCORDANCE WITH BS EN 622-1 AND BS EN 622-4
15. POLYETHYLENE AND uPVC PIPES SHALL BE WRAPPED IN PLASTIC SHEETING HAVING A COMPOSITION IN ACCORDANCE WITH BS 6076 BEFORE BEING CAST INTO CONCRETE
16. BITUMINOUS MATERIAL SHALL NOT BE PUT IN CONTACT WITH PE OF PVC PIPES

DESIGN & SPECIFICATION OF ALL PROCESS DRAINAGE TO BE THE SOLE RESPONSIBILITY OF ELIS

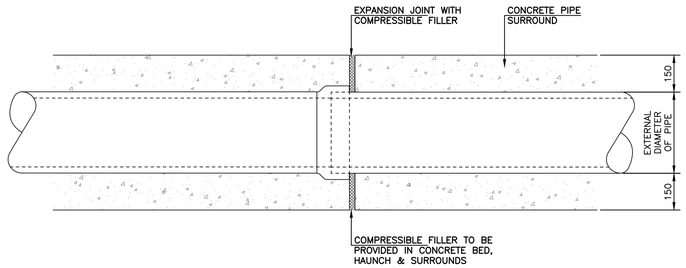
GEOMETRY OF ALL CHAMBERS TO BE CONFIRMED BY ELIS

TYPE 'C' OR TYPE 'D' CONCRETE SURROUND TO BE PROVIDED WHERE DEPTH OF COVER IS LESS THAN 900mm IN FIELDS OR 1200mm IN ROADS & ALL TRAFFICKED AREAS



TYPE 'C' (SURROUND)
SCALE 1:10

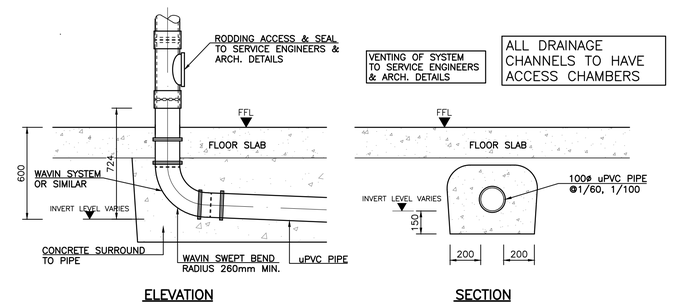
TYPE 'D' (SURROUND)
SCALE 1:10



CONCRETE PROTECTION SLAB, BED, HAUNCH & SURROUND TO WASTEWATER PIPES

SCALE 1:20

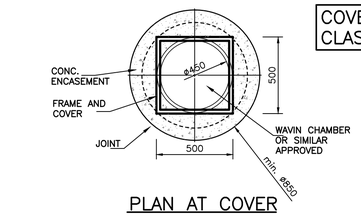
(STD-WW-08)



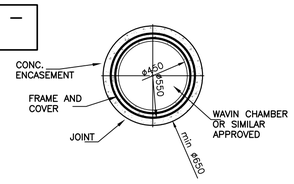
ELEVATION

SECTION

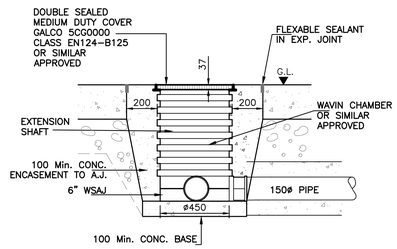
TYPICAL SOIL STACK DETAIL



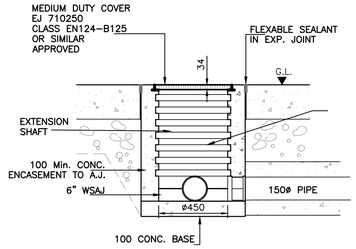
PLAN AT COVER



PLAN AT BASE



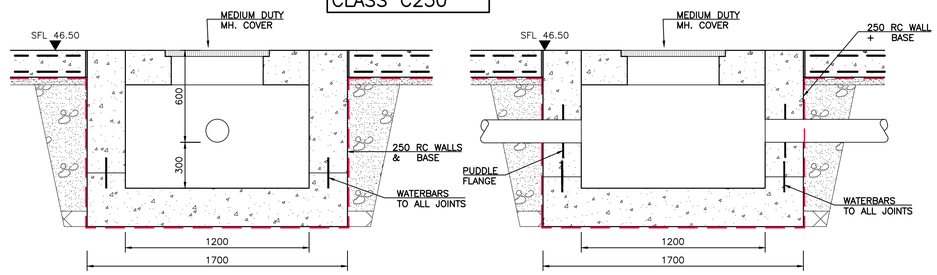
SECTION



SECTION

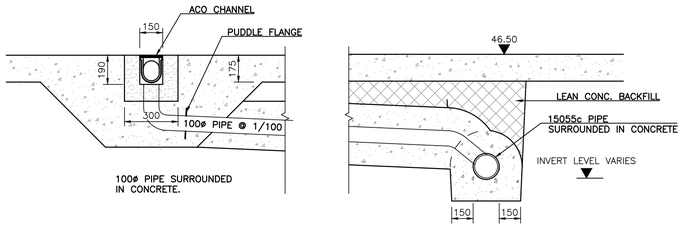
STORM TYPICAL 6"AJ DETAILS

COVER LOAD – CLASS C250



MANHOLE AT START OF DRAIN

SCALE 1:20



TYP. SECT. THRO CHANNEL CONNECTION PIPE

SCALE 1:20

NOTE
PROCESS DRAINAGE SHOWN ON HENDRICK RYAN DRAWINGS IS INDICATIVE & FOR ESTIMATING BELOW GROUND CONCRETE PROFILES ONLY (EG, CHAMBER SIZES).
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Rev.:	Date:	Description:	Drawn	Appr'd

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Project:	ELIS, ATHLUMNEY
Drawing Title:	INTERNAL DRAINAGE - SHEET 4
Project Number:	2680
Drawing Number:	803
Revision:	P1
Size:	A1
Scale:	1:20
Stage:	PLANNING
Date:	22/06/2026
Drawn By:	LB
Checked By:	PMcS
Approved By:	PMcS

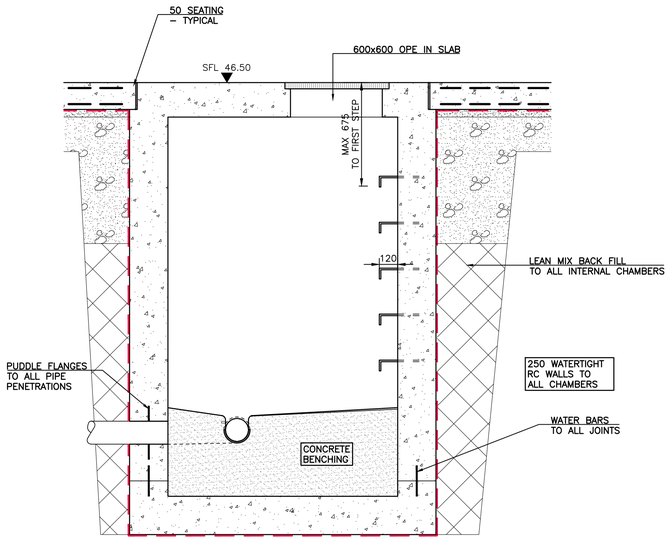
WATERTIGHT MEMBRANE SPECIFICATION

PREPRUFE 300R WATERTIGHT MEMBRANE BELOW HORIZONTAL SURFACES BELOW GROUND
BITUTHENE 8000 WATERTIGHT MEMBRANE TO ALL RETAINING WALLS AND VERTICAL SURFACES BELOW GROUND
SERVISTRIP TO ALL CONCRETE CONSTRUCTION JOINTS BELOW GROUND
SEAL ALL SERVICE PENETRATIONS OF WATERTIGHT SURFACES AND ALL PILE PERIMETERS

PREPARE ALL SURFACES AND INSTALL ALL PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS
ALL INSTALLATIONS TO BE CARRIED OUT UNDER SUPERVISION TRAINED BY THE MANUFACTURER

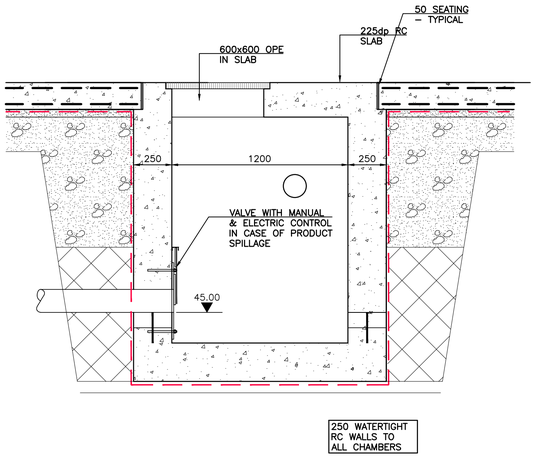
OVERLAPS WITH DPCs ETC TO BE AGREED WITH ARCHITECTS

CONCRETE BENCHING (20N/20)
BENCHING FINISHED IN 2:1 SAND/CEMENT MORTAR SMOOTH TROWEL FINISH 1 IN 30 SLOPE TOWARDS CHANNEL



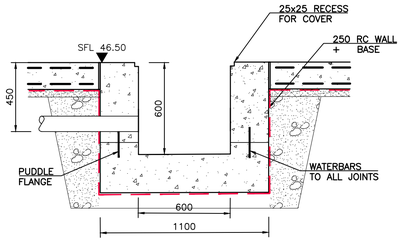
TYPICAL CHAMBER DETAIL

SCALE 1:20



MANHOLE IN CHEMICAL STORE

SCALE 1:20



GEOMETRY OF ALL CHAMBERS TO BE CONFIRMED BY ELIS

NOTE
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Project: ELIS, ATHLUMNEY			
Drawing Title: INTERNAL DRAINAGE - SHEET 5			
Project Number: 2680	Drawing Number: 804	Revision: P1	Size: A1
Scale: 1:20			Stage: PLANNING
Date: 22/06/2026	Drawn By: LB	Checked By: PMcS	Approved By: PMcS

Appendix 5: ORS Groundwater Supply Desk Study Feasibility Assessment

2026

Groundwater Supply Desk Study Feasibility Assessment, Proposed Laundry Site, Athlumney, Navan Co. Meath

ORS

Engineers Ireland
Corporate Partner 2025
Member of ACEI

AMTIVO
ISO 9001
ISO 14001
ISO 45001
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Groundwater Supply Desk Study Feasibility Assessment

Document Control Sheet

Client:	Fitzwilliam Properties Ltd
Document No:	263400-ORS-XX-XX-RP-EN-13d-002

Revision	Status	Author:	Reviewed by:	Approved By:	Issue Date
P01	**DRAFT**	**PK**	**SM**	**SM**	**07/10/26**
	FINAL	**PK**	**SM**	**SM**	**13/10/2026**

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1 Introduction

1.1 Background

Ellis propose to development a commercial laundry with a proposed water usage of circa 560^3 per day, in Athlumney the outskirts of Navan, Co. Meath (Planning Ref 2660226). A Confirmation of Feasibility was received from Irish Water which states that the supply to the area is currently at capacity and requires upgrading of an existing Water Treatment Plant. The upgrade work is programmed to be completed in early 2028, which is a similar timeframe for completion of the proposed development. The Client is considering installing a groundwater supply well on site to support the overall water supply demand for the laundry. An indicative location was shown on architectural drawings submitted at further information stage and permitted by Meath County Council.

1.2 Planning Appeal

A third-party appeal has been lodged which raises concerns regarding the potential use of groundwater as a supplementary or interim water supply source for the proposed facility. The appeal questions the sustainability of the groundwater resource, potential environmental effects associated with abstraction, and the adequacy of the hydrogeological assessment completed to date. This report has been prepared to specifically address those concerns and assess the feasibility of a groundwater supply for the proposed development which was included in the submitted plans at FI stage.

1.3 Methodology

The assessment was a desk study based on publicly available data sources, including two previous studies on the feasibility of obtaining a groundwater supply for the lands which included the subject site. The reports, Minerex Environmental Limited (2006): Ref: 1817-046 (First Draft - Rev 0) and Minerex Environmental Limited (2006): Ref: 1817-088 (Final) are in **Appendix A and B.**

Other data sources reviewed as part of the desk study included:

- Environmental Protection Agency (EPA): *https://gis.epa.ie/EPAMaps*
- Geological Survey of Ireland (GSI): *dcenr.maps.arcgis.com*
- Catchment: *https://www.catchments.ie*
- Teagasc: *http://gis.teagasc.ie/isis/map.php*
- McConnell, B., Philcox, M. & Geraghty, M. (2001) Geology of Meath, Sheet 13, Geological Survey of Ireland.
- Working Group on Groundwater (2004) Guidance document GW8: *Methodology for risk characterisation of Ireland's groundwater.*

2 Environmental Setting

2.1 Site Location

The proposed development boundary comprises a greenfield site of c.4.5 hectares. The Ellis Laundry site within this boundary covers 2.5ha. The site is situated approximately 3km north-east of Navan town, Co. Meath, on the slopes of the Boyne Valley. The site is bounded to the north-west by a railway line (used by Tara Mines), followed by a cemetery and an existing housing estate. The land has predominantly been used for agriculture, although the surrounding area has been developed in recent years, as shown in **Figure 2.1**

The site is located north to north-west of the recently constructed LDR6 (LIHAF-funded) Farganstown Access Road and east of the former railway lands, occupying the north-west corner of the MP12 lands at Athlumney, Navan.

Furthermore, the site forms part of Masterplan 12 and is part of the natural and planned extension of the town as set out in the Navan Written Statement of the Meath County Development Plan 2021- 2027 and the Navan 2050 Vision Document. Land to the south and east of the LDR6 have been the subject of several planning applications, including permission for Phase 1 of the enterprise lands, comprising three commercial warehouse units and associated access infrastructure.

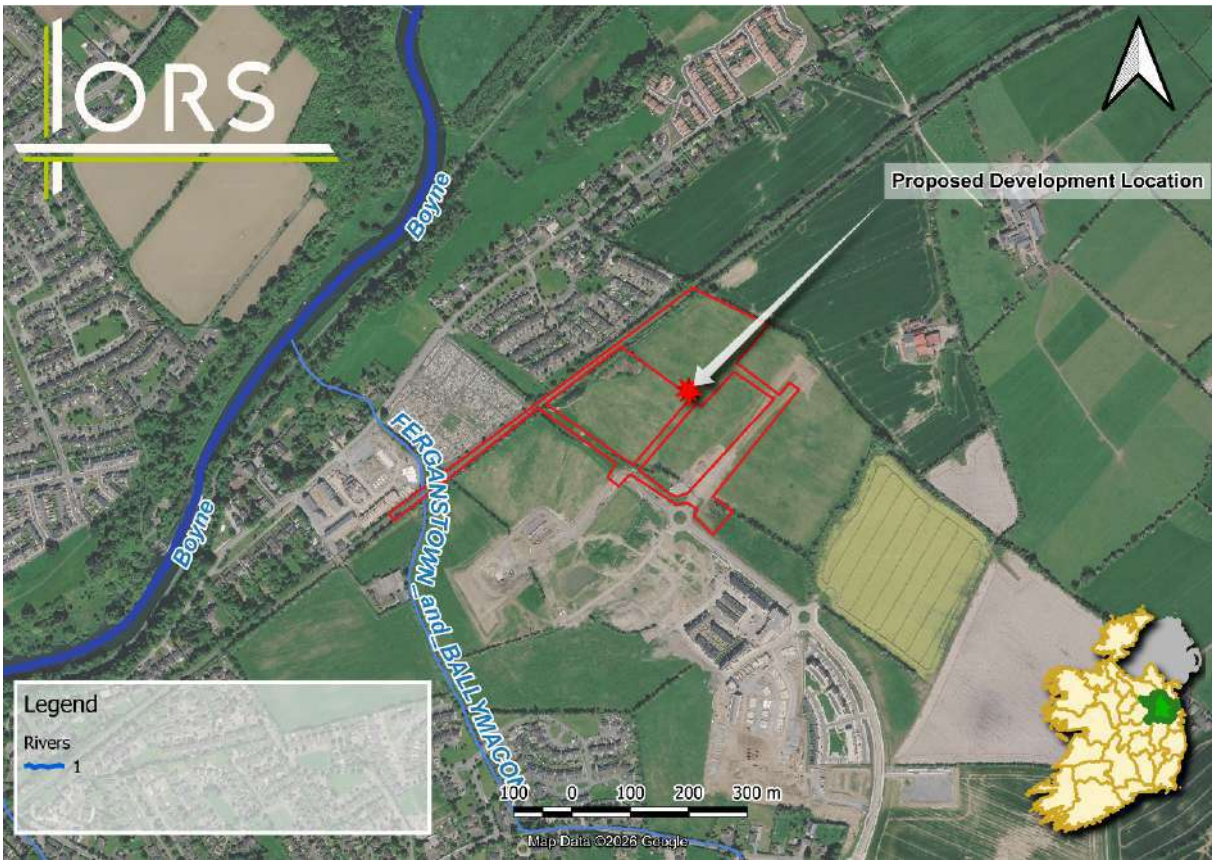


Figure 2.1 Proposed commercial laundry location outline

2.1 Topography

The site is gently sloping from north to south, with the northern side at 50m AOD and the southern side at 40m AOD.

2.2 Hydrology

2.2.1 Regional Hydrology

The proposed development site is located within the River Boyne Catchment (Hydrometric area ID_07_1) and Boyne Sub-catchment (Boyne_SC_110). The River Boyne Catchment forms part of the wider Eastern River Basin District (Eastern RBD).

The River Boyne represents the principal surface watercourse in the vicinity of the proposed development site and is the primary hydrological receptor of relevance to the site. The river and its tributaries (i.e., Mill Stream Boyne _40) drain the surrounding agricultural and urban landscape before ultimately discharging to the River Boyne water body.

2.2.2 Local Hydrology

The River Boyne is located ca.430m northwest of the site boundary and flows to the northeast towards Drogheda, where it discharges to the Estuary. The River Boyne drains an area of approximately 2694km^2. A tributary of the River Boyne, known as Mill Stream (Boyne_ 140), is located ca. 480m southwest of the site and flows in a north-easterly direction discharging to the River Boyne, as shown in **Figure 2.3**. The Mill stream water body is under “review”, whereas the downstream water bodies (Boyne_150) are “not at risk”, with a good Ecological status according to 2019-2024 EPA data.

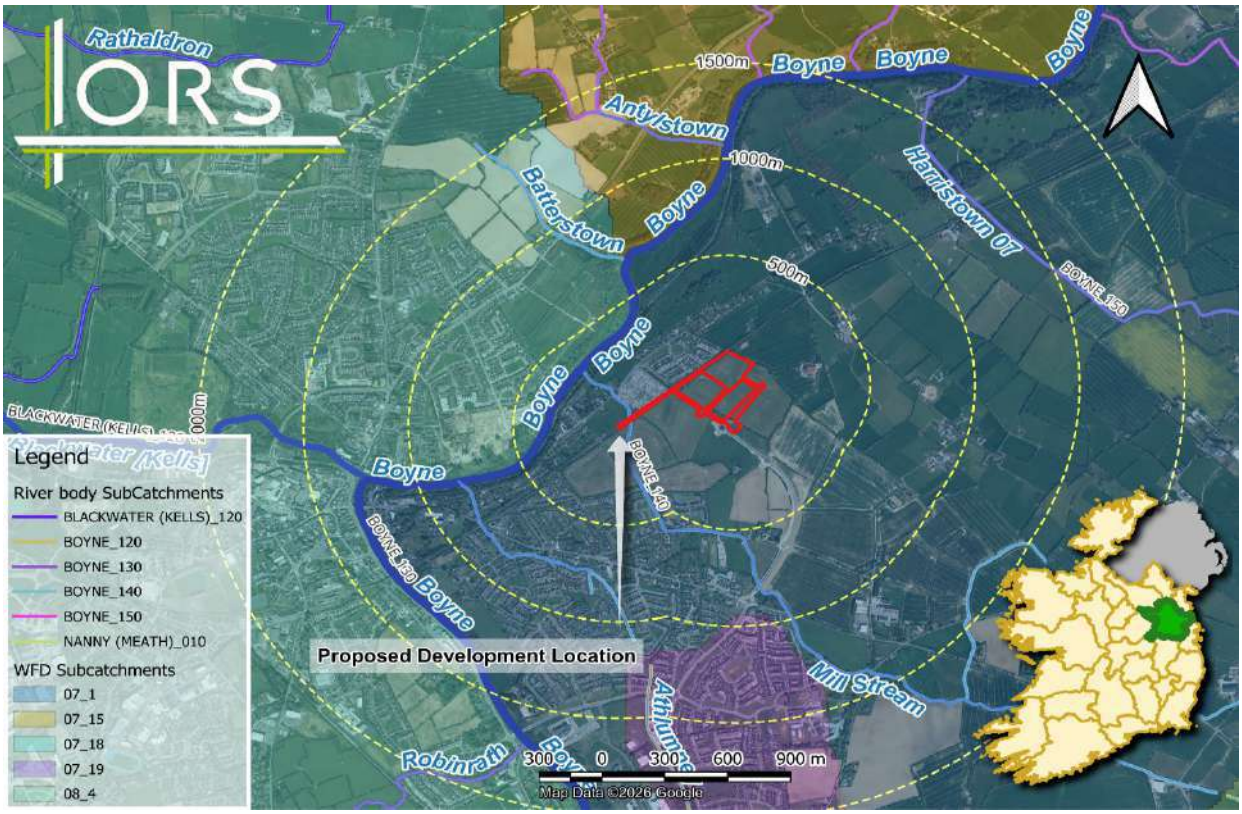


Figure 2.2 River and WFD Subcatchments

2.3 Ecological Receptors

The proposed development site is located in the vicinity of Special Areas of Conservation (SAC) and Special Protected Areas (SPA) and includes the Boyne River and the Blackwater River as outlined in **Table 2.1.** Both environmental receptors are ca. 350 m from the site boundary, as shown in **Figure 2.2.**

Table 2.1 SAC and SPA

Name	Site Code	Designation	Reason for Protection
Boyne and Blackwater River	002299	SAC	Alkaline fens, Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae), River Lamprey, Salmon and Otter
Boyne and Blackwater River	004232	SPA	Kingfisher (Alcedo atthis)

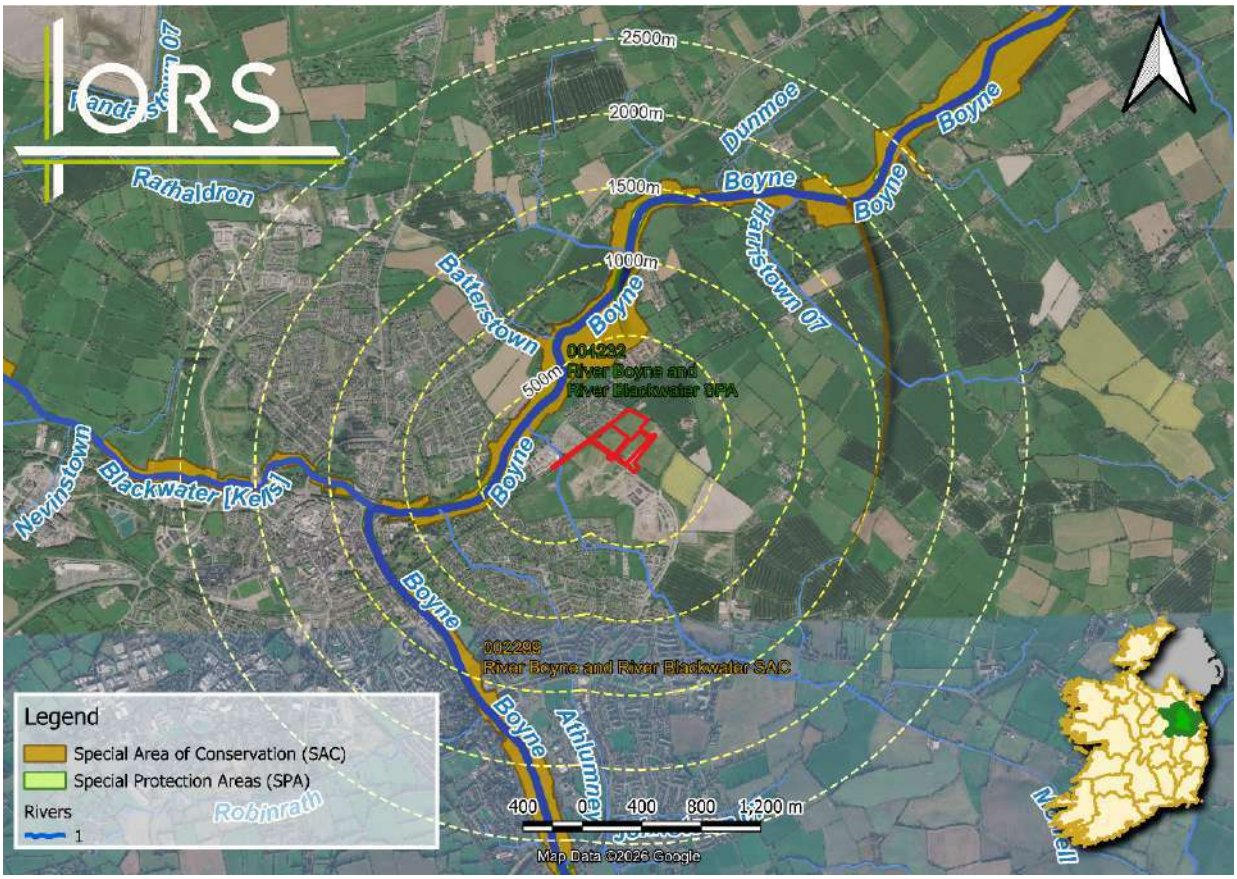


Figure 2.3 SAC and SPA

2.3.1 Groundwater Bodies

The proposed development site is underlain by the Trim Groundwater Body (IE_EA_G_002). The EPA described the groundwater body as productive fissured bedrock. The closest other groundwater body is Walkintowns (EA_G_010) located ca. 1.5km NW, and is unproductive.

2.3.2 Groundwater Quality and WFD Status

The Trim Groundwater Body is assigned an overall at-risk status by the Water Framework Directive (WFD). According to the WFD, at-risk status represents the risk for a water body of failing to meet its Water Framework Directive (WFD) objectives by 2027.

2.3.3 Groundwater Flow

Local groundwater flow direction is likely to be towards the River Boyne to the northwest. The nature of the local topography is such that the groundwater gradient is likely to be very gentle.

2.4 Soils and Subsoils

According to Teagasc, soils within the proposed development comprise fine loamy drift with limestone (Elton_1000a).

The subsoils comprise glacial till derived from limestone (TLs), as shown in **Figure 2.4.** The heterogeneous nature of glacial till was confirmed, based on the geophysical survey completed by Minerex in 2006 as shown in **Appendix A,** the underlying glacial till is mixed with varied depths of homogeneous gravel and boulder clay (i.e. Cohesive) followed by a weathered profile, as shown in 2D profile lines R4, R5 and R6, **Appendix B**.

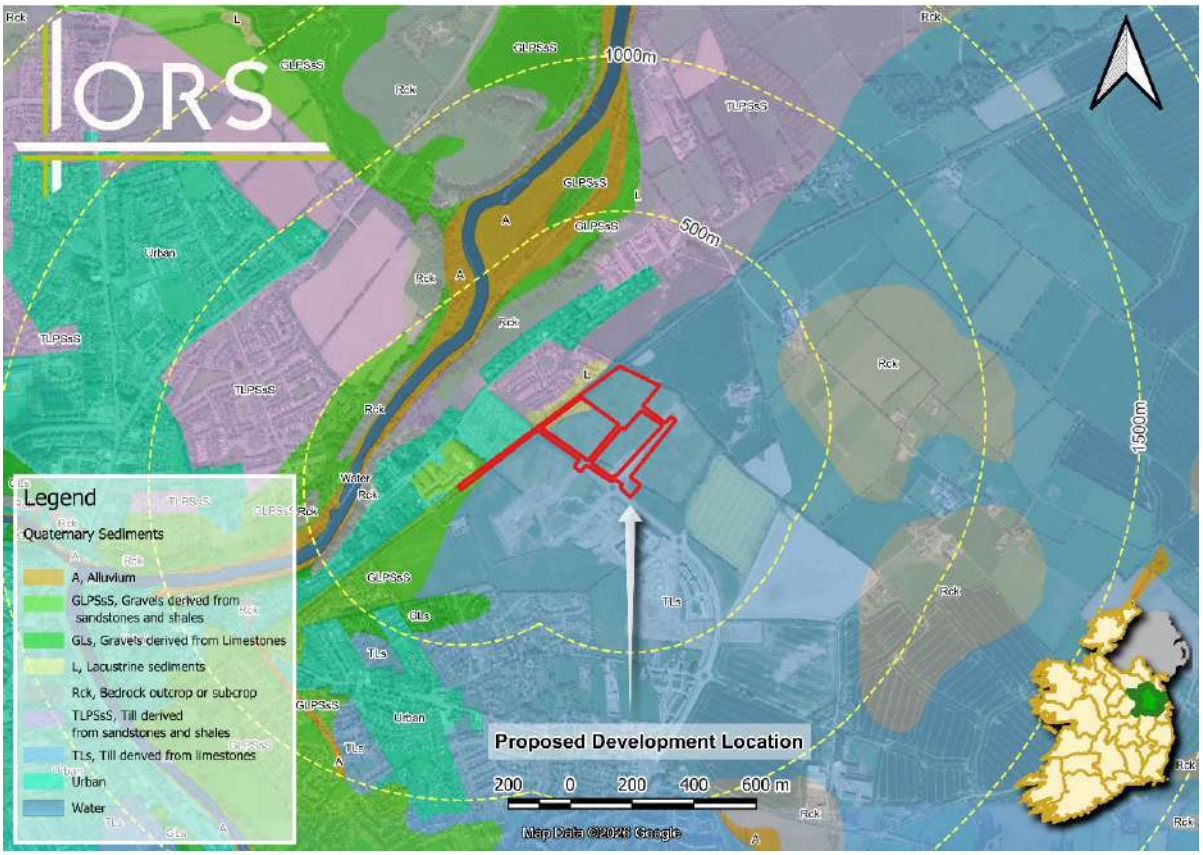


Figure 2.4 Subsoils

2.5 Local Geology

The site is underlain by the Lucan Formation (LU), described by the GSI as dark limestone and shale, also referred to as Calp Limestone (McConnell 2001). The Lucan Limestone (formerly known as the Boyne Formation) It is part of the Navan-Meath Basin and, in turn, part of the Greater Dublin Basin, which is a composite basin of sedimentary and structural origin (McConnell 2001).

The bedrock beneath the site is fractured and fissured, with weathering along the faults over time increasing the secondary permeability of the bedrock and increasing potential for groundwater storage. The primary faults are shown in **Figure 2.6.**

According to Drilling undertaken by K.T. Cullen & Co Appendix A, and from existing borehole data, the bedrock is between 7.5m and 10.3m below ground level, with overburden thinning to the west.

Furthermore, the 2D resistivity profiles R2 located within the development site completed by Minerex in 2006 (shown in Appendix B), interpreted weathered bedrock profiles described as ‘‘Shales/Claystone broken weathered rock’’ from 10m bgl to depths up to 40m bgl, as shown in **Figure 2.5.** Potentially significant groundwater was noted in the gravel deposits and in the weathered shale.

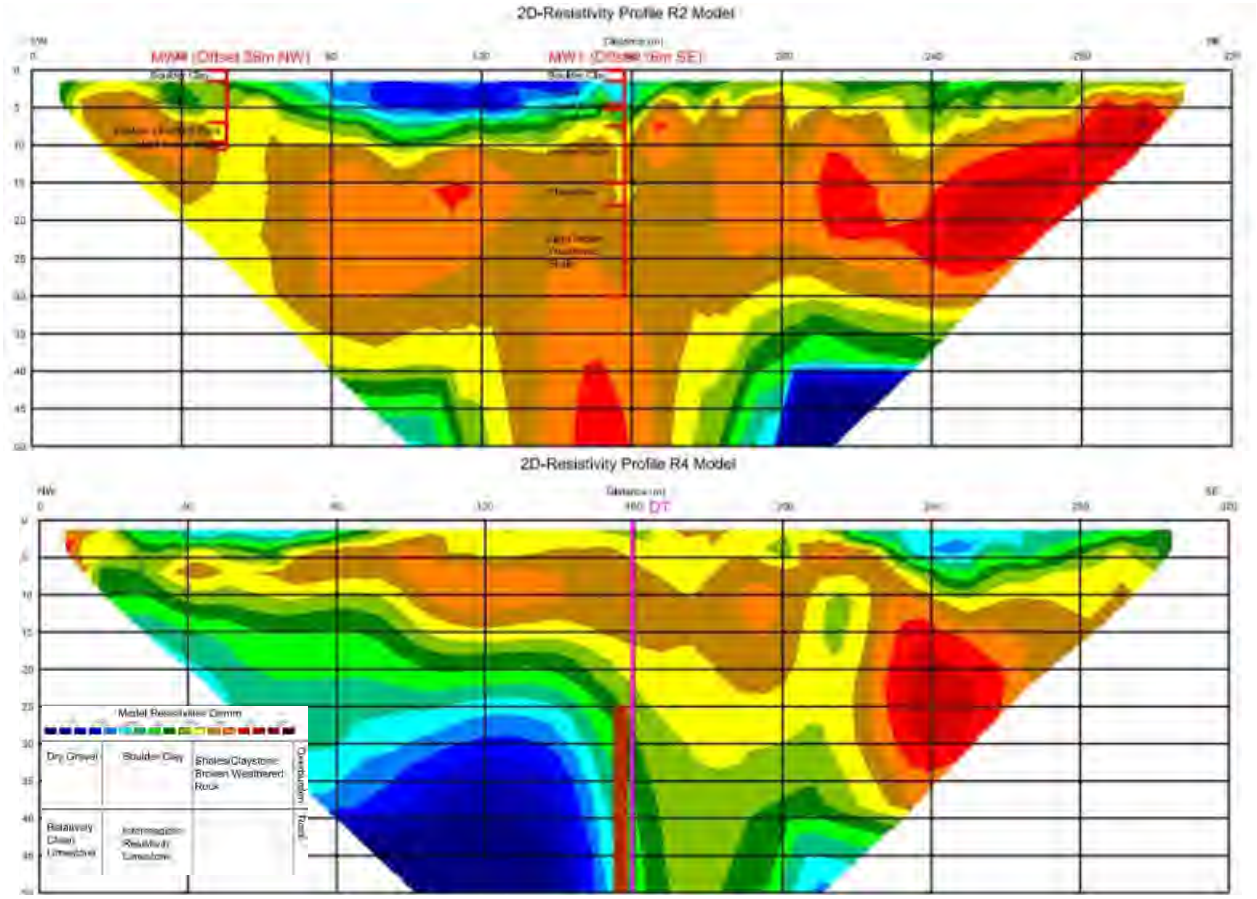


Figure 2.5 2D resistivity profile R2 and R4 (Sourced from Minerex 2006)

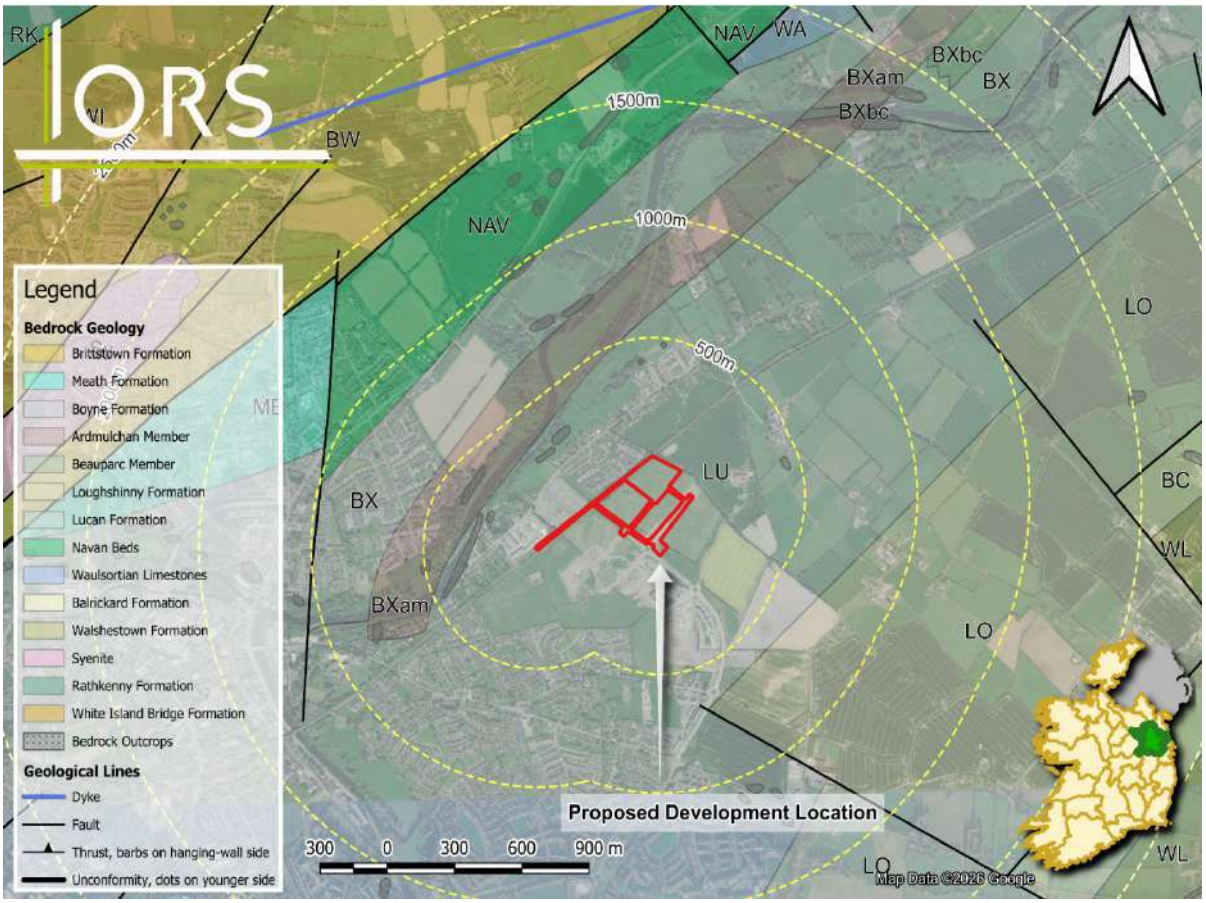


Figure 2.6 Local Geology

2.6 Hydrogeology

2.6.1 Aquifer Classification

Based on GSI aquifer classification mapping, the bedrock underlying the Proposed Development Site is classified as a Locally Important (Lm) Aquifer – Bedrock, which is Moderately Productive, as shown in **Figure 2.8**. In this type of aquifer groundwater flow paths can extend 100s of metres and groundwater yields from the bedrock can range for 10s of m^3/day to greater than 400m^3/day.

The Minerex 2000 Report indicates that there were over 30 wells in the Calp yielding over 100m^3/ day, including 11 yielding over 400m^3/ day (Ref. 3). However, many wells have lower yields, as low as 10m^3/ day. In County Meath the bedrock has been established as being capable of moderate well yields of 100-400m^3/ day due to the relatively clean nature of the limestone compared to the Calp further south and southwest.

The Calp Limestone has very high yields at Ballivor/ Summerfield/ Enfield region and the Ashbourne, Dunshaughlin/Dunboyne region, in which there are large public supply groundwater wells located. These supplies typically coincide with areas of regional faulting in a north-east to south-west direction

The 2000 Geophysics Assessment of the lands also support the potential for high yields from groundwater locally. In the 2000 study a groundwater well was installed just south of the subject site. During drilling of the borehole for this well the broken nature of the bedrock observed indicated significant secondary permeability in the bedrock most likely associated with fracturing and faulting in the bedrock. A pump test undertaken in the well indicated an approximate well yield of 75m^3/ day – 100m^3/ day.

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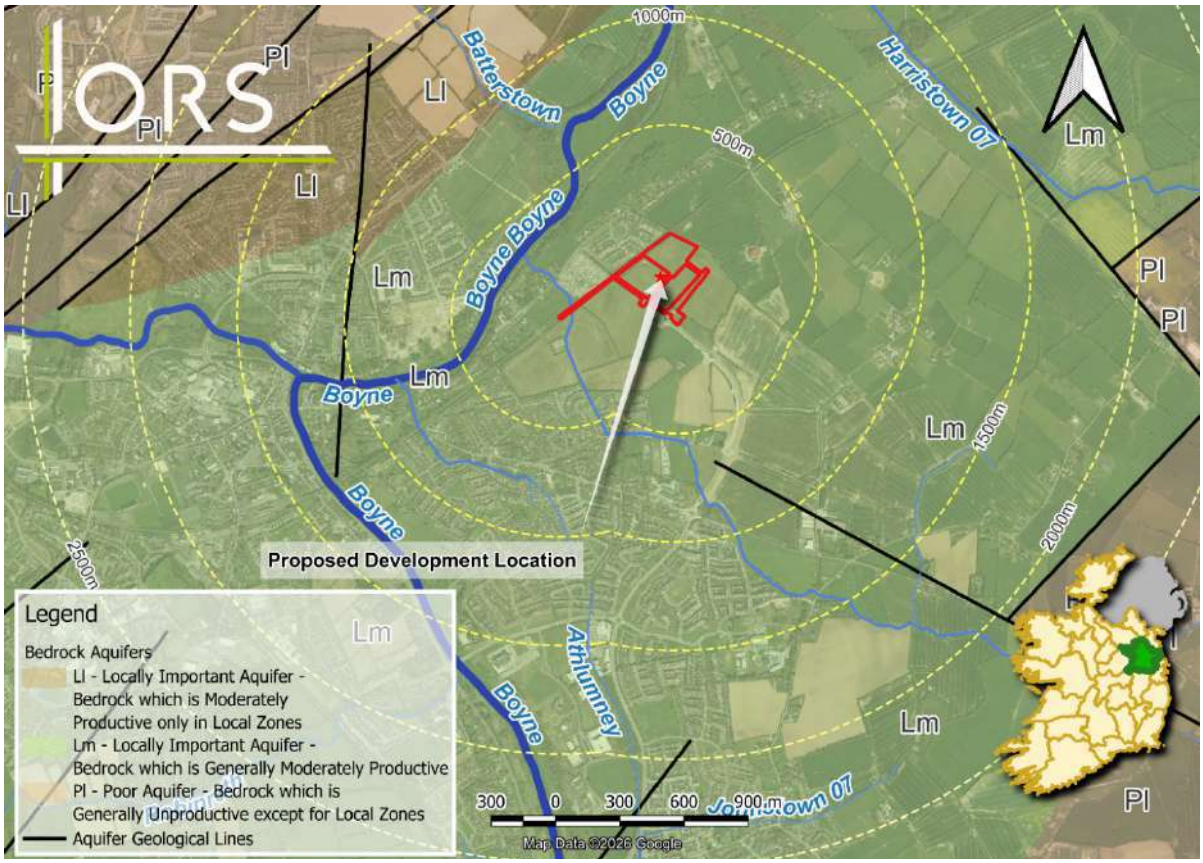


Figure 2.7 Bedrock Aquifer and aquifer structures

Groundwater vulnerability reflects the susceptibility of groundwater to contamination arising from activities at or near the ground surface and is primarily determined by the nature and thickness of the overlying subsoils, including till, sands and gravels, as well as the characteristics of the underlying bedrock.

GSI groundwater vulnerability mapping indicates that groundwater vulnerability across the Site is high, as shown in **Figure 2.9.** High Vulnerability typically indicates the presence of 3-5 m of subsoil above the bedrock.



Figure 2.8 Ground water Vulnerability

2.6.2 Existing Water Wells and Yield

The Dinantian Pure Unbedded Limestone hydrostratigraphic unit is the main aquifer used for public supply in Co. Meath, with supplies exceeding 1000m^3/ day at Athboy, Curragha and Slane, according to McConnel (2001).

According to the study completed by Minerex (Appendix A), the following aquifer assessment was completed, which aligns with the most up-to-date data from the GSI and EPA database of 2026.

From the most up-to-date available GSI water well data, no. 18 borehole wells are present within a 3 km radius of the proposed development site, as shown in **Figure 2.6.** The water wells are used for a mix of domestic and public purposes. Existing wells were either drilled and hand-dug at no. 13 and no. 5, respectively, as shown in **Table 2.2** - GSI Well data within 3km of the proposed site.Bedrock was encountered in the majority of the drilled wells, with bedrock depth ranging from 1.8 to 11.6m bgl. Some drilled wells did not record drilled depth, yield or

bedrock. All hand-dug wells encountered no bedrock. With that, drilled well data is more reliable for direct comparison.

The highest-yielding wells within 3 km of the proposed development site are 2625NEW133, 2625NEW106 and 2625NEW046, which were drilled to depths ranging from 49.2 to 64.6 meters below ground within the bedrock. The yield from the existing wells ranges from 6.5 to 218 (m³/hr), with an average yield of 46 (m³/hr) or 1,100 per day.

The water well test completed by K.T. Cullen & Co. in the year 2000 is located ca. 370m south of the proposed development site.



Figure 2.9 Existing water wells included hand dug wells (100 to 50B) and drilled wells (1K to 500B)

Table 2.2 - GSI Well data within 3km of the proposed site.

Well ID	Depth (m bgl)	Yield (m^3/hr)	Bedrock (m)	Interpretation
2625NEW133	64.6	6.5	7.6	Groundwater encountered; reported as Poor yield. Public Supply
2625NEW106	64.6	No data	9	No groundwater yield recorded.
2625NEW043	0.9	No data	No data No data	No groundwater yield recorded. Hand Dug
2625NEW107	7.3	7.6	No bedrock met	Groundwater encountered; reported as Poor yield. Hand Dug.
2625NEW108	4.8	7.6	No bedrock met	Groundwater encountered; reported as Poor yield. Hand Dug.
2625NEW039	7.3	No data	1.8	Low groundwater yield recorded.
2625NEW041	4.6	No data	No data	No groundwater yield recorded. Hand Dug
2625NEW046	49.2	218	1.8	Groundwater encountered: reported as Good Yield
2927SWW076	30.5	43.6	3	Groundwater encountered: reported as Moderate
2927SWW077	18.3	33	11.6	Groundwater encountered: reported as poor
2927SWW069	16.5	65	7.9	Groundwater encountered: reported as Moderate
2927SWW072	16.5	67	10.7	Groundwater encountered: reported as Moderate
2927SWW074	13.7	21.8	9.8	Groundwater encountered: reported as poor
2925SWW075	21.9	65	2.4	Groundwater encountered: reported as Moderate
2625NEW078	4	No data	No bedrock met	No groundwater yield recorded. Hand Dug.
2625NEW109	8.2	7.6	No bedrock met	Groundwater encountered; reported as Poor yield. Hand Dug.
2625NEW044	18.3	33	Unknown	Groundwater encountered: reported as poor
2625NEW044	19.5	27	Unknown	Groundwater encountered: reported as poor

****Average yield per drilled well: 46 (m^3/hr)***

2.6.3 Groundwater Recharge

Groundwater recharge represents the proportion of rainfall that infiltrates through the soil and subsoil and ultimately reaches the underlying groundwater system. Recharge rates are influenced by rainfall, soil drainage characteristics, subsoil permeability, topography and underlying geological conditions. Within the Trim Groundwater Body, diffuse groundwater recharge occurs across much of the land surface, particularly where permeable sands and gravels, permeable till and bedrock outcrop are present.

3 Assessment of Potential Groundwater Yield

The site is underlain by a Locally Important (Lm) aquifer within the Dinantian Pure Unbedded Limestone . Eighteen (18 no.) groundwater wells have been identified within a 3km radius of the site, indicating that there is some potential for groundwater supply locally. While the wells have variable yields ranging from 6.5 to 218 (m^3/hr), a pump test in a well to the south of the site in 2000, yielded between 75m^3 – 100m^3/ day. Higher yields may be available due to the presence of gravels above the bedrock providing additional storage and fractures and faults in the bedrock locally.

The proposed development is to operate as a commercial laundry. An updated assessment of the proposed water usage of ca. 458m^3 per day, with a portion of that water usage deriving from the temporary /permanent water well on site.

If an on-site well is to be part of the water supply to the proposed development, consideration must be given to the potential to impact off-site receptors, including other groundwater users in the vicinity of the site, flow to surface water courses or downstream ecological receptors.

This requires an assessment of the potential zone of contribution under pumping that such a well would generate. That is the area around the well required to obtain a particular yield.

Assuming the zone of contribution extends to the site area (25,000m^2) and an effective rainfall of c300mm/yr this indicates a potential groundwater yield of c20.5m^3/day. It should be noted however that this assumes a well is pumping 365 days a year 24 hours per day. It is more likely that the abstraction would occur at most for 12 hours per day and therefore a higher yield c42m^3/day would be feasible and sustainable without impacting off-site receptors.

It is also likely that higher yields would be sustainable given the observed additional storage in the underlying gravels and enhanced permeability from fractures and fissures in the bedrock without impacting on offsite receptors.

Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m^3/day form an onsite well are potentially sustainable without impacting off site receptors. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test.

3.1 Regulatory Requirements

Under the Water Environment (Abstractions and Associated Impoundments) Regulations 2024(S.I. No. 419/2024) an abstraction greater than 25m^3 of water per day must be registered with the EPA. If it is greater than 2000m^3/day a licence is required. If multiple wells are used on the same site, it is still assessed as a single abstraction.

Given the potential yield for an onsite well on the subject site such a well would require registration with the EPA but would not require an abstraction license.

4 Conclusions and Recommendations

4.1 Conclusions

The desk study indicates that a sustainable supply of 20.5m3 per day can be supplied.

Higher yields may be sustainable given the observed additional storage in the underlying gravels and enhanced permeability from fractures and fissures in the bedrock without impacting on offsite receptors.

Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m^3/day from an onsite well are potentially sustainable without impacting offsite receptors. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test.

A well if used for water supply on the site would require registration with the EPA.

4.2 Recommendations

If groundwater is to be part of the water supply for the development a test well should be installed on the site and the sustainable yield and zone of contribution established through pump testing.

If a permanent well is installed the specification for well should be in accordance with EPA Advice Note 14 Borehole Construction and Well Head Protection.
https://www.epa.ie/publications/compliance--enforcement/drinking-water/advice--guidance/EPA_DrinkingWater_AdviceNoteNo14b_web.pdf

Appendix A - Minerex Environmental Limited (2006): Ref: 1817-046 (First Draft - Rev 0)

Hendrick Ryan & Associates
Lands at Navan, Co. Meath
Water Supply

Desk study on groundwater resources at Lands in Navan, Co. Meath

MEL Brief A1
MEL Doc. Ref: 1817-046 (First Draft - Rev 0)
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Appendices

Appendix	Title	Pages	MEL Document Reference
Appendix A	Site Location	1 x A3	1800-008.pdf
Appendix B	Bedrock geology	1 x A3	1800-008.pdf
Appendix C	Results of well search	1 x A4	1800-048.msg

1. Introduction

1.1 Background and purpose

Hendrick Ryan & Associates are the consulting engineers for a large residential development on the outskirts of Navan, Co. Meath. The development requires a water supply for 1600 houses in the first and second construction phases, with a view to the County Council attaining the water supply if a good supply is established.

1.2 Scope of works

Hendrick Ryan & Associates commissioned Minerex to prepare a desk study on the potential of onsite groundwater resources to supply the residential development. The desk study, which is reported here, includes the following:

1. An assessment of the aquifer potential and vulnerability to contamination;
2. An assessment of the water requirements of the facility and the existing water supply capacity.

1.3 Data sources

Hendrick Ryan provided Minerex with site maps and a previous study on the soils and hydrogeology of part of the site undertaken by K.T. Cullen & Co. in 2000 (Ref. 1). Hendrick Ryan provided all other information pertaining to the water requirements and the development verbally.

2. Local Environment

2.1 Site Description

The site is situated approximately 3km north-east of Navan, Co. Meath on the slopes of the Boyne Valley (Appendix A). The proposed site is approximately 150 acres in area and is between 40m and 50m above sea level at Malin Head. The surrounding area is comprised of mainly agricultural land. The site is bound to the north-west by a railway line, beyond which is a cemetery.

2.2 Hydrology

2.2.1 The River Boyne is located approximately 300m from the site boundary and flows to the north-east towards Drogheda where it discharges to the coast. The River Boyne drains an area of approximately 2600km2 and is classified as being slightly polluted at 2km downstream of Navan according to water quality mapping undertaken by the EPA (Ref. 2).

2.2.2 A tributary of the River Boyne flows from the south-western corner of the site, in a north-easterly direction and traverses the site in the north. The stream flows beneath the railway line and hugs the western boundary of the cemetery to the north.

2.3 Geology

2.3.1 The site is underlain by the Boyne Formation, which is described as dark limestone and shale and is also referred to as Calp Limestone (Appendix B) (Ref. 3). Calp Limestone formed as a result of thick sequences of muds and muddy limestone accumulating in deep marine environments with limited fauna (Ref. 3). The Boyne Formation is predominantly comprised of shales and micrites (Ref. 3). It is part of the Navan-Meath Basin and in turn part of the Greater Dublin Basin, which is a composite basin of sedimentary and structural origin (Ref. 3). The thickness of the unit is unknown.

2.3.2 Regional faulting in the area is north-east to south-west as a result of the Caledonian Orogeny and also north-west to south-east as a result of the Variscan Orogeny. The compressive forces of the Variscan Orogeny resulted in faults characterised by brittle failure, causing dilation and therefore enhanced permeability for groundwater flow.

2.3.3 Drilling undertaken by K.T. Cullen & Co., in part of the site, shows bedrock at between 7.5m and 10.3m below the ground level, with overburden thinning to the west (Ref. 1). Highly weathered shale was encountered, which inhibited drilling deeper than 30m below ground level due to the collapsing nature of the material.

2.3.4 Drilling showed the bedrock to be overlain by glacially derived limestone till, comprised of clay underlain by gravel with boulders and cobbles underlain by boulder clays (Ref. 1). Groundwater was noted in the gravel deposits and in the weathered shale.

2.4 Hydrogeology

2.4.1 The Calp Limestone is very variable but is dominated by low permeability, fine-grained and argillaceous limestone and shales and is generally considered unproductive (Ref. 3). However the Calp is a much better aquifer in Co. Meath than elsewhere in Ireland. The Calp is the main aquifer used for public supply in Co. Meath, with supplies exceeding 1000m^3/ day at Athboy, Curragha and Slane (Ref. 3). Well records for Co. Meath show over 30 wells in the Calp yielding over 100m^3/ day, including 11 yielding over 400m^3/ day (Ref. 3). However many wells have lower yields, as low as 10m^3/ day. Due to its variability, the Calp Limestone of the Boyne Formation is classified as a locally important aquifer, which is generally moderately productive

(Lm) (Ref. 4). Locally important aquifers are capable of moderate well yields of 100-400m^3/ day (Ref. 5)

2.4.2 The Calp Limestone can be high yielding in areas of Co. Meath where the Calp is particularly pure such as the Ballivor/ Summerfield/ Enfield region and the Ashbourne, Dunshaughlin/ Dunboyne region, which coincide with some of the important public supply sources in the county (Ref. 7). The locations of these important public supply sources also coincide with areas in which there is regional faulting in a north-east to south-west direction.

2.4.3 Regional faulting in the Navan area coincides with structural trends in the areas in which important public supply sources are located and also with structural trends of the Variscan Orogeny, suggesting that high well yields may be attainable. The broken nature of the bedrock noted during drilling suggests that the secondary permeability of the Calp Limestone in the area of the site is well-developed as a result of fracturing and faulting.

2.4.4 Depth to groundwater beneath the site ranges between 1.65m and 2.43m below ground level (Ref. 1). Local groundwater flow direction is likely to be towards the stream to the west and northwest of the site, while regional groundwater flow is likely to be downslope towards the River Boyne. The nature of the local topography is such that the groundwater gradient is likely to be very gentle.

2.4.5 The findings of a pump test undertaken by K.T. Cullen & Co. in 2000 at a bored well onsite indicate an approximate well yield of 75m^3/ day – 100m^3/ day (Ref. 1). The well was drilled to 30m below ground level through broken rock and weathered shale. According to Hendrik Ryan & Associates, there is a natural spring in the centre of the proposed site area. This is outside of the area under study in the K.T. Cullen & Co. report.

2.5 Aquifer vulnerability

2.5.1 A groundwater protection scheme has been completed for Co. Meath, which includes vulnerability mapping and groundwater protection zone delineation. The area in which the site is located has been classified as having high vulnerability to groundwater contamination (Ref. 4). Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities (Ref. 5). The vulnerability of groundwater depends the connectivity between the land surface and the aquifer, therefore it is a function of subsoil permeability, subsoil depth and recharge type i.e. diffuse or point recharge.

2.5.2 Groundwater protection zones are obtained by integrating the aquifer classification and the vulnerability rating for the site, resulting in Lm/ H for the site (Ref. 4). There are no source protection areas within the vicinity of the site

2.6 Well Audit

A search of the GSI well database based on a 3km radius of the site shows there to be a total of 10 dug wells and 16 bored wells in the area (Appendix C) (Ref. 6). Of all the wells, 14 are used for public water supply, 5 for domestic purposes with the usage of the remainder unknown. Yield information for the wells ranges between 6.5m^3/ day and 87m^3/ day. The majority of these well yields are classified as poor (<40m^3/ day) according to GSI yield classifications. Of all the wells, 3 are noted to be failed wells. Details of water strike are available for only 1 well, in which water was noted at 5.5m below the surface. The results of a well search of the GSI database concurs with depth to bedrock data for the site, showing it to range between 1.8m and 13m within 3km of the site. The main aquifer lithologies identified are gravel and limestone bedrock.

3. Groundwater potential

3.1 Recharge

3.1.1 Based on rainfall data collected over 30 years (1961-1990), the annual average rainfall for the area obtained from the nearest Met Eireann climate station, which is located in Navan town, is 823mm/ year (Ref. 8). Based on climate data collected over 20 years (1970-1990), the annual average potential evapotranspiration for the area obtained from the nearest synoptic Met Eireann station, which is located in Mullingar, is 444.5mm/ year (Ref. 9). Actual evapotranspiration is estimated at 400mm/ year using methodology used by the Geological Survey of Ireland as 95% of potential evapotranspiration for the area to allow for moisture deficits for part of the year (Ref. 10).

3.1.2 Using the above figures, the effective rainfall is taken as approximately 423mm/ year. The volume of effective rainfall likely to reach groundwater, i.e. recharge, was estimated from recharge coefficients compiled by the Working Group on Groundwater, which are based on soil drainage, subsoil permeability, vulnerability and aquifer type (Ref. 11). Assuming that 80% of effective rainfall reaches groundwater, then recharge is approximately 338.4mm/ year.

3.2 Zone of contribution

3.2.1 In order to estimate the theoretical zone of contribution (ZOC) to the existing well, which was tested by K.T. Cullen & Co., a simplified water budget was used, based on methodology used by the Geological Survey of Ireland (Ref. 12).

$$Q/ R = A$$

Q = Annual volume of water abstracted (m^3)
R = Annual average recharge (m)
A = Area of ZOC (m^2)

3.2.2 The potential annual yield was calculated from the proven yield i.e. approximately 100m^3/ day (1.16l/s) x 365days = 36500m^3/ year. The potential annual yield (36500m^3/ year) divided by the annual average recharge (0.3384m/ year) gives an estimated theoretical ZOC or well catchment area for the proven yield of 107860.5m^2 or approximately 330m x 330m area.

3.2.3 Given the current knowledge of the hydrogeological setting, the theoretical ZOC or well catchment area of the proven yield of the bored well is likely to extend in a north-east to south-westerly direction and possibly be oval shaped i.e. 107860.5m^2 or approximately 460m x 230m based on an oval shape. The estimation assumes that all pumped water is recharge from rainfall within the oval shape, with no preferential routes.

4. Water Requirements

The planned residential development is to consist of 1600 houses. The Water Framework Directive applies a figure of 200 litres/ day of water used per capita on average in the EU (Ref. 13). Based on an average of four people per household, the water requirements for the development are 1280m^3/ day or approximately 15l/s. In general, only karstified limestone bedrock or very weathered limestone is capable of well yields in excess of 4.6l/s. With a proven yield of approximately 1.16l/s at the existing bored well, it is likely, that in order to obtain a water supply of 15l/s, a well field comprising of four or more good yielding wells will be required.

5. Conclusions & Recommendations

5.1 Conclusions

The scope for achieving the water requirements is based on the enhanced permeability of the Boyne Formation as a result of fracturing and weathering. The presence of weathered bedrock, a natural spring onsite and the trend in regional faulting in the area suggest that groundwater resources onsite have a high potential. It is our current view that the target of approximately 15l/s is achievable.

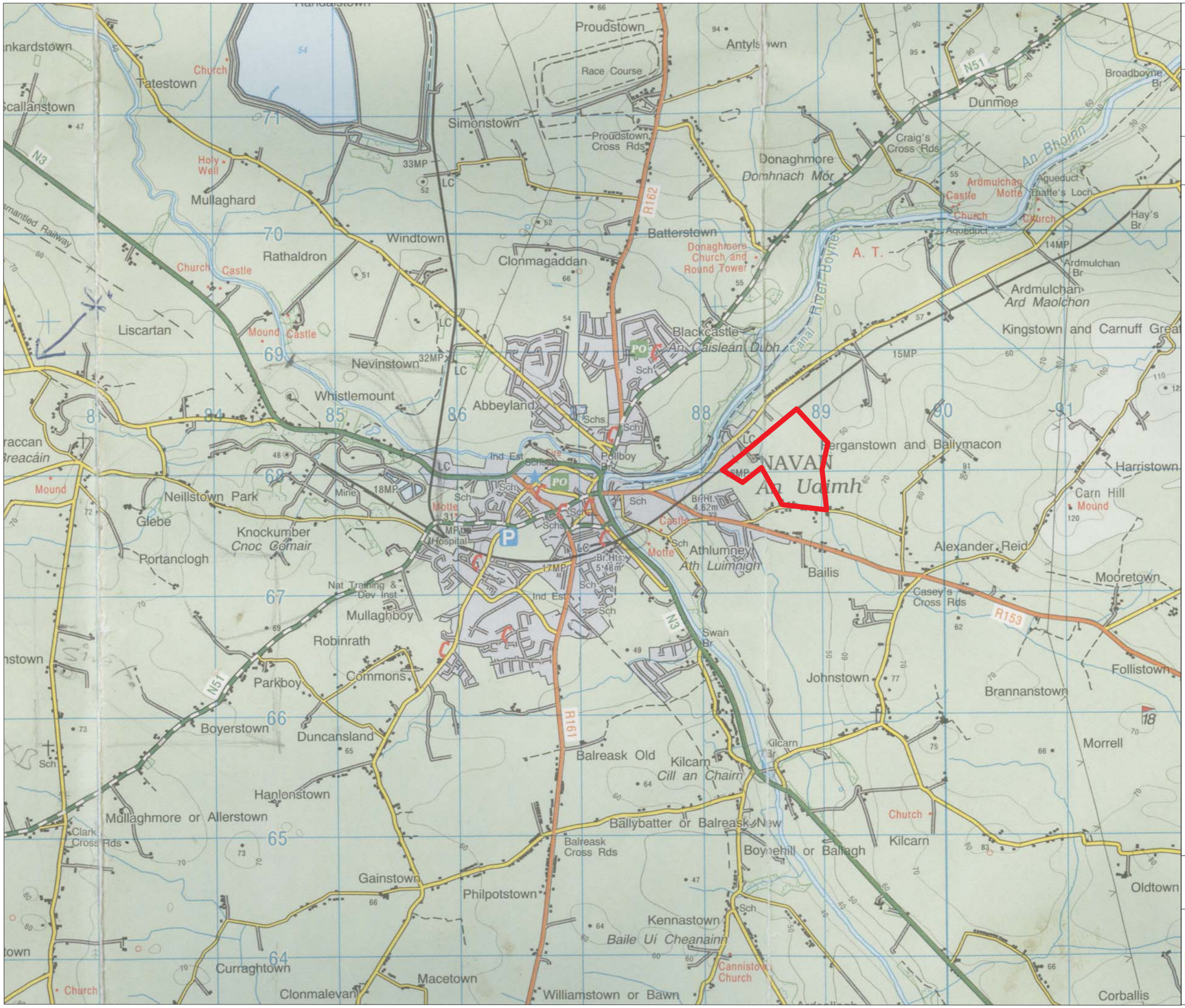
5.2 Recommendations

In order to achieve these key objectives, it is recommended that (1) a comprehensive geophysical survey be carried out to determine the extent of the fractured/ weathered bedrock and to locate any subsurface anomalies capable of transmitting groundwater and that (2) trial well drilling and testing be carried out to determine the resource potential of the site.

6. References

No.	Description	Minerex Doc. Ref.
1.	K.T. Cullen & Co. Ltd. (2000) Soil & hydrogeological investigation for a Greenfield site, Navan, Co. Meath	1800-045
2.	www.epa.ie Environmental Protection Agency – online water quality mapping	
3.	McConnell, B., Philcox, M. & Geraghty, M. (2001) Geology of Meath, Sheet 13, Geological Survey of Ireland.	M148
4.	www.gsi.ie Geological Survey of Ireland – online aquifer & vulnerability classification	
5.	Department of the Environment, Environmental Protection Agency & Geological Survey of Ireland (1999) Groundwater Protection Schemes	F514
6.	Geodata well database, Geological Survey of Ireland	
7.	Finch, T.F. *et al* (1983) Soils of Co. Meath, National Soil Survey of Ireland	B71
8.	www.met.ie Climate data – 30 year averages	
9.	Met Eireann, Mean monthly potential evapotranspiration & rainfall 1961-1990	F68
10.	Woods, L. (1996) Dunboyne Public Supply, Geological Survey of Ireland	F660
11.	Working Group on Groundwater (2004) Guidance document GW8: *Methodology for risk characterisation of Ireland's groundwater.*	1736-133
12.	Cronin, C., Daly, D. & Meehan R. (1998) Ardmore Public Supply – Groundwater source protection zones, Geological Survey of Ireland	F512
13.	https://www.epa.ie/NewsCentre/ReportsPublications/IrelandsEnvironment2004/pdffiles/FileUpload,106,en.pdf	

Appendix A



Appendix A
Site Location Map

Groundwater resource development at Lands in Navan, Co. Meath

Drawing Ref.: 1800-008.cdr
JR 18/06/06

Legend

Site outline

N (National Grid)

NOTES
- Basemap courtesy of Ordnance Survey (1:50,000 Discovery Series Sheet No. 42)

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Appendix B

Appendix B
Bedrock geology

Groundwater resource development
at Lands in Navan, Co. Meath

Drawing Ref.: 1800-008.cdr
JR 18/06/06

Legend

Site outline

Boyne Formation
Dark limestone & shale (Calp)

N (National Grid)

NOTES
- Basemap courtesy of Geological Survey of Ireland
(Bedrock series sheet No. 13)

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Appendix C

GSIHOLENAME	TYPE	USAGE	EASTING	NORTHING	ACCURACY	TOWNLAND	DTB	DEPTH	YIELD	YIELDCLASS	WATERSTRIKE	MAIN AQUIFER LITHOLOGY
2925NWW078	WB	P	29068	26994	3	ARDMULCHAN		88.4				
2927SWW076	WB		29045	27110	7	DUNMOE	3	30.5	43.6	M		
2927SWW077	WB		29045	27105	7	DUNMOE	11.6	18.3	33	P		
2625NEW136	WB		28790	26910	8	NAVAN		21.3	19	P		
2625NEW133	WB	P	28910	26865	7	FERGANSTOWN	7.6	64.6	6.5	P		CLAY, GRAVEL, ROCK
2625NEW098	WD	P	28887	26752	4	BAILIS		6.1	7.1	P		
2625NEW102	WB	P	28775	26894	4	DONAGHMORE	13	44.8	6.5	P		
2625NEW104	WB	P	28589	26939	4	WINDTOWN	7.6	9.1	7.6	P		
2625NEW105	WB	P	28722	26953	4	CLONMAGADDAN		24.4		U		
2625NEW106	WB	P	28871	26895	4	MORGANSTOWN	9	64.6		U		
2625NEW107	WD	P	28874	26808	4	ATHLUMNEY		7.3	7.6	P		
2625NEW108	WD	P	28964	26689	4	ALEXANDER REID		4.8	7.6	P		
2625NEW109	WD	P	28949	26593	4	ALEXANDER REID		8.2	7.6	P		
2925NWW062	WB	P	29044	26744	4	CASTLETOWN TARA		16.5	6.5	P		
2625NEW039	WB		28995	26730	7	ALEXANDER REID	1.8	7.3		U		GRAVEL, LIMESTONE
2625NEW041	WD	P	28995	26720	7	ALEXANDER REID		4.6		U		
2625NEW043	WD	D	28805	26730	7	ATHLUMNEY		0.9	11	P		
2625NEW046	WB	D	28685	26750	7	NAVAN	1.8	49.2		G		
2625NEW006	WD	P	28676	26610	3	BALREASK OLD		7		U		
2625NEW009	WB		28573	26959	3	WINDTOWN		14		U		
2925NWW014	WD	P	29073	26745	3	ALEXANDER REID		6.6		U		
2925NWW016	WD	O	29088	26996	3	ARDMULCHAN		33.5		F		
2925NWW002	WB	D	29090	26770	4	ALEXANDER REID	3.1	42.7	23.3	P	5.5	
2927SWW080	WB		29125	27033	3	ARDMULCHAN		42.7		F		
2927SWW079	WB	D	29124	27050	3	ARDMULCHAN		53.3	87	M		
2927SWW078	WD	D	29123	27054	3	ARDMULCHAN		5.5		F		

GEOLOGICAL SURVEY OF IRELAND

GROUNDWATER DATABASE

List of abbreviations

GSIHolename. 1:25,000 sheet Number and number of the well on that sheet

EASTING (E) & NORTHING (N) 5 figure Grid Reference of the well

Grid Acc or Acc Accuracy level, refers to the accuracy of the grid reference.

1 = 10m	5 = 200m	9 = 5km
2 = 20m	6 = 500m	10 = 10km
3 = 50m	7 = 1km	
4 = 100m	8 = 2km	

Schemename Name of the person or organisation who own the well.

Townland Name of the area where the well is located

Co. County i.e. DO = County Donegal

Six or Six" 1:10,560 sheet number (6" sheet number)

InvType Well Type:

WD = Dug Well	WB = Bored Well
WS = Spring	WU = Unknown

U Usage:

A = Agricultural use only	B = Agricultural & Domestic use
D = Domestic use only	G = Group Scheme
I = Industrial use	P = Public Supply
O = Other	

Y or Yield Class Yield:

F = Failure	P = Poor (<40m^3/d)
M = Moderate (40 – 100m^3/d)	G = Good (100 – 400m^3/d)
E = Excellent (>400m^3/d)	U = Unknown

Depth Total depth of the well in metres

DTB Depth to bedrock in metres

Yield Usually yield obtained during initial well testing in m^3/day

SpeCap_Abstract Discharge/ Drawdown m^3/day/ m (from yield test or abstraction data)

MainAquifer Lith. General description of the geological unit supplying water to the well.

AveDailyAbstract m^3/day

WaterStrike Metres below dipping reference – ground level unless stated otherwise

Appendix B - Minerex Environmental Limited (2006): Ref: 1817-088 (Final)

Lands at Navan, Co. Meath

Geophysical Survey

Report Status: Final

MGX Project Number: 5122

MGX File Reference: 5122f-003.doc

16th October 2006

Confidential Report To:

Minerex Environmental Ltd.
Taney Hall
Dundrum
Dublin 14

Report submitted by :

Minerex Geophysics Limited
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Issued by:

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Minerex Geophysics Limited

Geophysical Services

EXECUTIVE SUMMARY

1. Minerex Geophysics Ltd. (MGX) carried out a geophysical survey consisting of 2D-Resistivity Profiles at Lands at Navan, Co. Meath as part of a groundwater investigation programme.
2. The main objectives of the survey were to determine the ground conditions under the site and delineate possible high permeability zones, such as faults and fractures.
3. The survey profiles are displayed on Map 1 and the results of the survey are displayed as interpreted cross sections on Figure 1a & 1b.
4. A deposit of clean dry gravel has been mapped under parts of the site where it lies close to the surface and forms small ridges. Saturated gravels may occur below it but can not be mapped because of similar resistivities between saturated gravels and boulder clay.
5. The high resistivity values indicate relatively clean limestone deposits are present at depths of approx. 50m and more. However, some muddy limestone or shale layers may also exist within this unit. A clean limestone that is fractured can have a good ground water potential both in terms of quality and quantity. Any drilling programme should therefore be deep enough to reach these layers.
6. Folding and faulting was detected and may act as zones of increased permeability and should be the subject of additional investigation.
7. A detailed examination of the previously acquired well log data reveals a close correlation with the 2D-Resistivity datasets. All boreholes MW1 to MW4 terminate within layer 3. The well MW1 used in the previous pump test lies on a possible structural trend.
8. Two potential drill targets are proposed on profiles R1 and R4 where lateral resistivity changes indicate possible folding or faulting.

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1.2 Objectives 1

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5. REFERENCES 7

List of Tables, Maps and Figures:

Title	Pages	Document Reference
Table 1: Summary of Results and Interpretation	In text	In text
Table 2: Locations of Recommended Boreholes	In text	In text
Map 1: Location Map	1 x A3	5122f_Maps.dwg
Figure 1a: Results of 2D-Resistivity Profiles	1 x A3	5122f_Figs.dwg
Figure 1b: Interpretation of 2D-Resistivity Profiles	1 x A3	5122f_Figs.dwg

1. INTRODUCTION

1.1 Background

Minerex Geophysics Ltd. (MGX) carried out a geophysical survey as part of a ground water investigation at 'Lands at Navan', Co. Meath. The work was done at the request of Minerex Environmental Ltd. (MEL), whose client is Hendrick Ryan and Associates. The survey consisted of six 2D-Resistivity Profiles. The existing well MW1 yielded 100m^3/day and its Zone of Contribution (ZOC) is estimated at 108,000m^2. The required amount of water is approximately 1280m^3/day (MEL 2006).

1.2 Objectives

The main objectives of the geophysical survey were:

- To determine the ground conditions under the site
- To identify lithological and stratigraphical boundaries
- To delineate high permeability zones, such as faults and fractures
- To determine depth to rock and dip of faults
- To select optimum drilling locations for future test wells

1.3 Site Description

The surveyed area consists mainly of agricultural lands and is approximately 43.3 hectares in area; the site covers about 60 hectares in total. It was not possible to gain access to some eastern and southern parts of the site because of objections from some landowners. The survey was further restricted by a forested area in the east and a construction site in the far south. A rail line forms the north-western boundary of the site.

1.4 Geology

The bedrock geology consists of Calp Limestone which is a dark limestone and shale. The existing well log data shows that the bedrock is overlain by broken rock, gravel and boulder clay deposits (MEL 2006).

1.5 Report

This report includes the draft results and interpretation of the geophysical survey. A Map, figures and a table are included to illustrate the survey and the results. More detailed descriptions of geophysical methods and measurements can be found in GSEG (2002), Milsom (1989) and Reynolds (1997).

The client provided a topographical map which was used as the background for the map in this report.

The interpretative nature and the non-intrusive survey methods must be taken into account when considering the results of this survey and Minerex Geophysics Limited, while using appropriate practice to execute, interpret and present the data give no guarantees in relation to the existing subsurface.

2. GEOPHYSICAL SURVEY

2.1 Methodology

The methodology consisted of 6 deep penetrating 2D-Resistivity Profiles (R1 to R6).

The 2D-Resistivity profiles were located to give a good coverage of the site and situated as close as possible to the boundaries as any potential wells must be placed far apart in order to maximise the zone of contribution. Profiles were also surveyed close to existing boreholes and wells. 2D-Resistivity Profiles with electrode spacing of 5m and 64 electrodes per set-up were surveyed at the locations shown on Map 1. This gave a profile length of 315m and a maximum depth of penetration at the centre of each profile of 50m. The readings were taken with a Tigre Resistivity Meter and Imager Cables.

2.2 Site Work

The geophysical survey was carried out on the 2nd and 3rd October 2006 in good weather conditions.

3. RESULTS AND INTERPRETATION

The interpretation of geophysical data was carried out utilising the known response of geophysical measurements, typical physical parameters for subsurface features that may underlay the site and the experience of the authors.

The 2D-Resistivity data was inverted with the RES2DINV inversion package. The resulting models were colour contoured and they are displayed as cross sections (Fig. 1a). The colour scale is the same for all profiles. The interpretation of each of the profiles as well as the existing and proposed test wells is shown in Figure 1b. All sections are drawn with a twofold vertical exaggeration.

The interpretation (Fig 1b) has been made using all available information, the 2D-Resistivity, monitoring well and topographical data. The apparent resistivity values indicate the type of material within a layer, and have been used to interpret the type of overburden and deeper rock. While the range of resistivity values is limited to < 1,000 Ohmm it is very clear that the subsurface can be divided into a number of layers. It is also important to note that a given range of recorded values may represent different lithologies depending on the recording depth, (See layers 2 and 4 in Table 1).

Layer 1 which is clean dry gravel is most extensive on profile R5 which lies in the northeast of the area and follows the crest of a southwest – northeast trending ridge. The smaller gravel areas recorded on R2 and R6 are also coincident with localised ridges. The thickness of these gravels is defined by the sudden vertical change in resistivities on each of the three profiles. At the base of the dry unsaturated gravels may be a layer of saturated gravels. On Profile 2 there is a good correlation between the gravel resistivity values and the thickness of gravel as recorded on MW1 which is located 16m northeast of R2.

The data reveals that layer 2, the boulder clay, is present throughout the survey area and overlies two layers. Layer 3 has a very low range of values reflective of a number of different materials. The previous boreholes MW1 to MW4 indicate broken rock, soft claystone, weathered shale and fractured shaley siltstone. All of these material and also boulder clays can have resistivities within the range of Layer 3.

Layer 4 is in this report described as an intermediate resistivity limestone in terms of its resistivity range. It is possible that it may be an unfractured compact siltstone, a fractured clean limestone or a compact shaley limestone. All of these geological materials can have a resistivity within the range of layer 4. The deepest layer, layer 5, is a relatively clean limestone. The water bearing potential of layers 3, 4 and 5 is described in Table 1.

The appearance of the resistivity sections indicates that this area has undergone some faulting and folding. Indications for some folding are present on most sections and the clearest indication is seen on R3. The rapid lateral change in the data on R1 at 165m shows that a near vertical fault may be present in the southwest of the survey area.

Map1 shows the location of the survey profiles but also shows three structural trends which are based on the data. The Southwest – Northeast and West northwest – East southeast trends link similar low resistivity

zones on each of the profiles. It is important to note that while the recorded data is two dimensional the trend lines link 3D features which may represent dipping or inclined structures. The fault on R1 may be vertical or steeply dipping and probably has a northwest – southeast trend. This could be determined by additional profiles carried out to the north and south.

Table 1: Summary of Results and Interpretation

Layer	**General Model Resistivity Range (Ohm/m)**	**Interpretation**	**Potential Well Yield**
1	> 400	Clean Dry Gravel (Within the overburden)	No yield
2	100 – 400	Boulder Clay (Within the overburden) Or saturated gravel	Poor Good to excellent
3	< 100	Shales/Claystone/Broken Weathered Rock	Poor to moderate
4	100 – 400	Intermediate Resistivity Limestone (At depth) consisting of possible: Unfractured Compact Siltstone Fractured Broken Clean Limestone Compact Shaley Limestone	 Poor Good - Excellent Poor
5	> 400	Relatively Clean Limestone (At depth) Compact and not jointed Some joints and open bedding planes	N/A Poor to moderate Moderate to good

In faults between some of these bedrock types the yield could be good to excellent.

The following table lists the recommended borehole or drill target locations.

Table 2: Locations of Recommended Boreholes

Borehole	**Location**	**ING Easting**	**ING Northing**
Drill target on R4	162m on R1	288350	268040
Drill target on R4	160m on R4	289116	268535

Countour maps of model resistivities at depths of 5, 15 and 30 m were drawn over the survey area (Maps 2 – 4). The maps are interpolated between the six profiles and care must be taken when using this data from such widely spread out datum points. The colour scales used in the contour maps and the figures are similar.

4. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are made:

- The 2D-Resisivity profiles have determined a five layer model for the survey site with lithologies ranging from boulder clay and clean dry gravel to relatively clean limestone.
- Where present the dry gravels form small localised ridges and lie at shallow depth and are no more than ~9m thick at their maximum. Saturated gravels may occur at the base of these dry gravels within the resistivity range of the boulder clay.
- The highest resistivity values recorded at depth represent relatively clean limestones which may contain limited amounts of other material such as an argillaceous limestone. An increase in resistivity values with depth indicates that at depth limestones become cleaner. Considering that this limestone has the potential for good ground water quantity and quality drilling should proceed deep enough to reach these layers especially where the extent of weathering is also thought to be developed to this depth.
- The results reveal that this area has been affected by significant structural deformation in the form of folding and faulting. Faults may act as high permeability zones and are areas of further investigation. Linear structural trends were inferred from the data and are drawn on Map1. Because of three dimensional effects they do not always coincide with the proposed borehole locations.
- The lithologies as determined by the survey fit with the data recorded in the four previously drilled wells. At each of the four locations claystones, siltstones and weathered shales all fall within the relatively low resistivity range of < 100 Ohmm.
- The existing well/ spring (on R3) lies on a possible anticline or fault and this may be the reason for the existence of artesian water.
- Two drill targets are proposed on profiles R1 and R4, where lateral changes indicate possible faulting. These are close to the boundaries of the site which would increase the recharge area. It should also be noted that the wells are located at a considerable distance from the graveyard. The overburden gravels could also be drilled at their thickest and deepest extent but it is noteworthy that the gravels are likely to be more prone to contamination from surface activities.
- The suggested drill targets also target anomalies within the data. The potential drill targets are positioned on possible faults and/or between two rock types. Therefore increased ground water permeability can be expected. The wells are also located on two different fault systems or structural trends (in two different directions).
- It may be of an advantage to drill a well on R1 near the boundary of the field rather than in the centre. Further 2D-Resistivity profiles could be done to determine the location of the possible fault closer to the field boundary.

- Following the drilling of the proposed drill targets, pumping tests should be undertaken. Further wells can be located afterwards and/or more geophysical surveying could be considered.
- The zone of contribution for $100m^3$/day is approximately $108,000m^2$. Due to the fact that the surveyed site is ~43.3 hectares, (433,000 m^2), it may only generate $400m^3$ while the requirement is $1280m^3$/day. The ground water would have to be drawn through fault systems from a much wider area. Any future development will also mean large parts of the site will have a sealed surface. It is therefore important to note that, pending the outcome of the test wells, access to additional adjacent lands may be required for further ground water development.

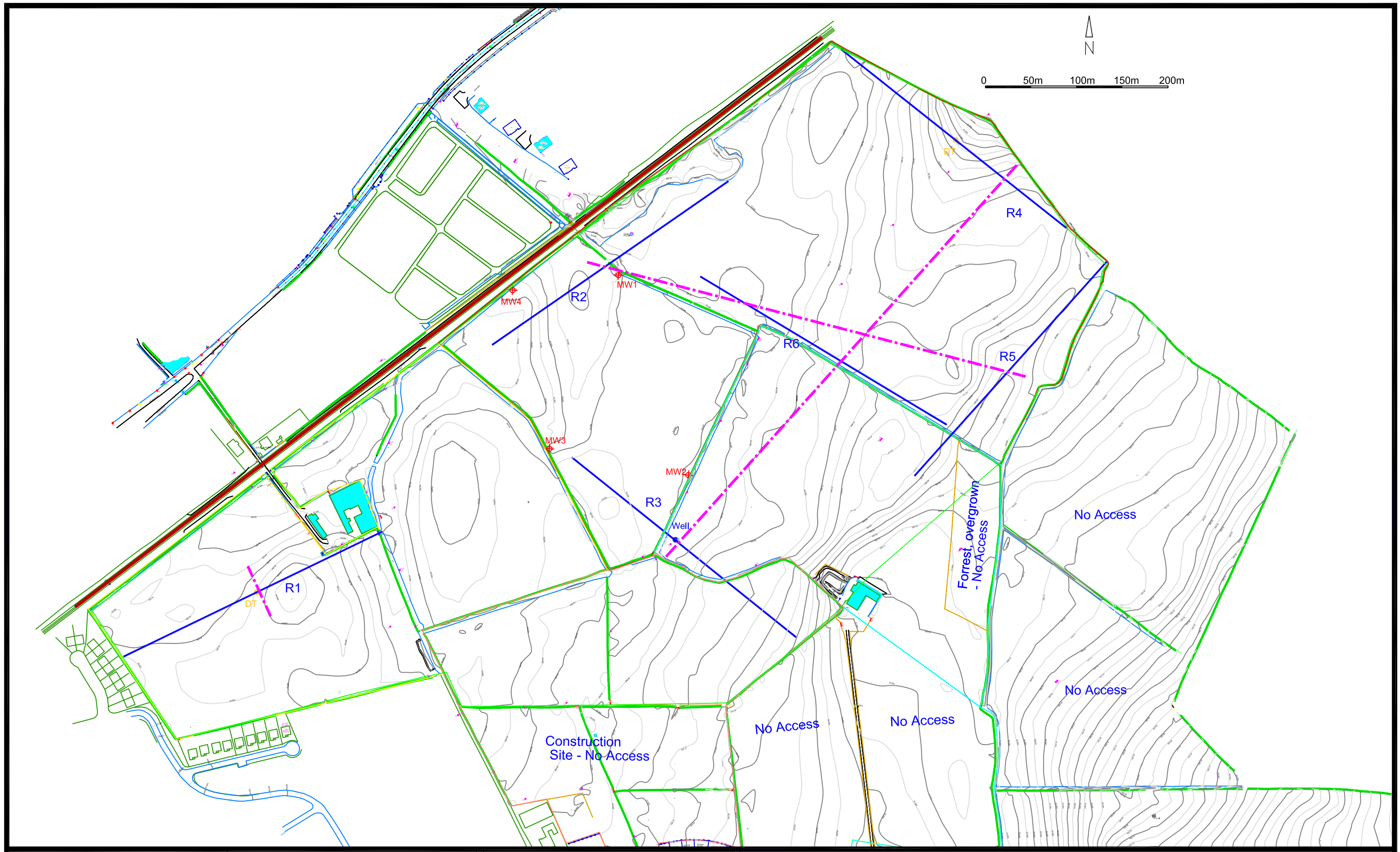
5. REFERENCES

1. **GSEG 2002.** Geophysics in Engineering Investigations, 2002. Geological Society Engineering Geology Special Publication 19, London, 2002.

2. **Minerex Environmental Limited, 2006.** Desk study on groundwater resources at Lands in Navan, Co. Meath. Minerex Environmental Ltd., 2006, Document Reference 1817-046 (First Draft – Rev 0).

3. **Milsom, 1989.** Field Geophysics. John Wiley and Sons.

4. **Reynolds, 1997.** An Introduction to Applied and Environmental Geophysics. John Wiley and Son.



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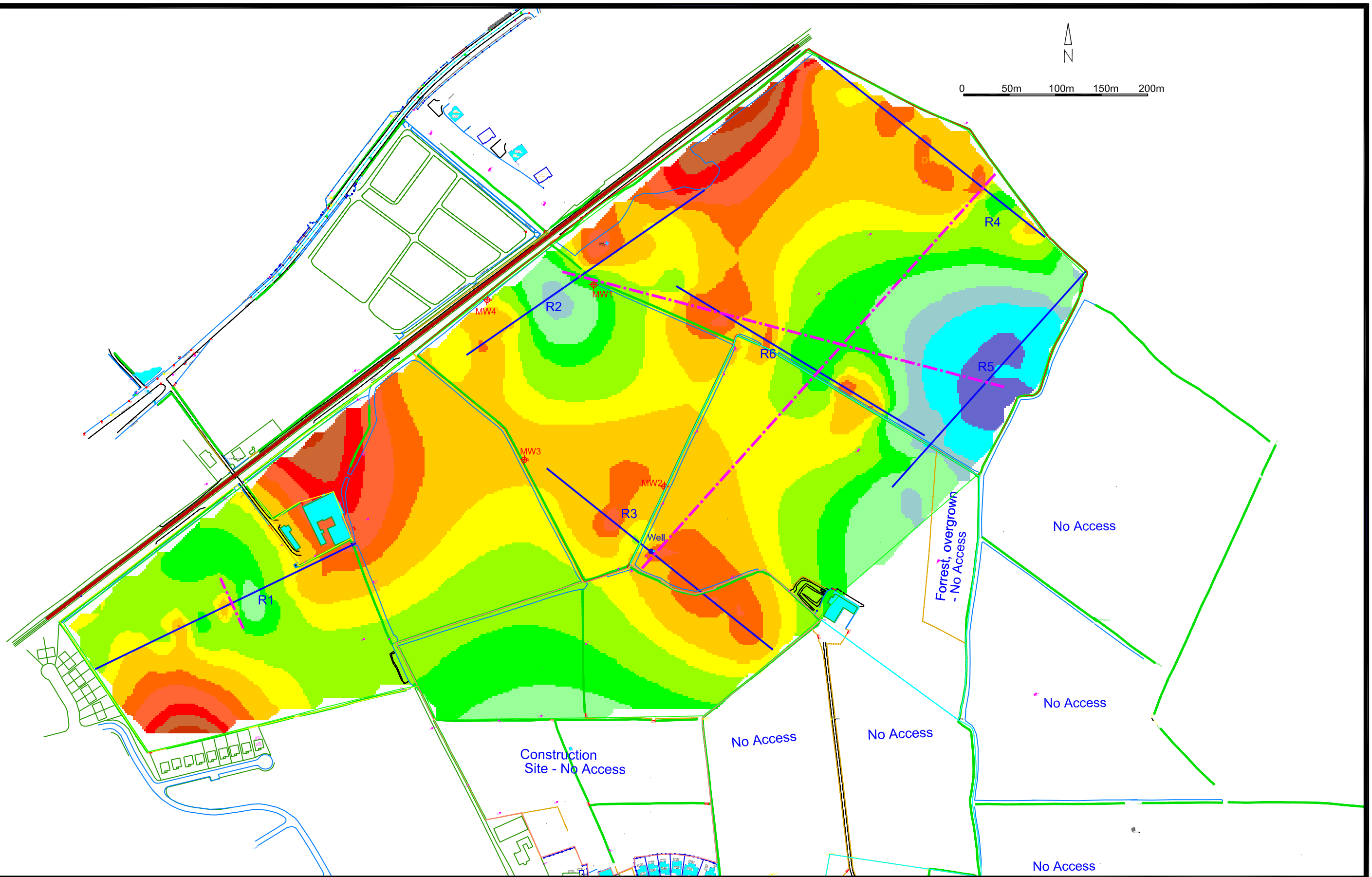
CLIENT	Minerex Environmental Ltd.
PROJECT	Lands at Navan, Co. Meath Geophysical Survey
TITLE	Map 1: Location Map

SCALE:	1:4000 at A3
PROJECT:	5122
DRAWN:	TL
DATE:	11/10/06
MGX FILE:	5122f_Maps.dwg
BASED ON:	

LEGEND:

- 2D-Resistivity Profile
- Survey Area
- BH — Borehole Location
- Well — Existing Well Location
- Potential Drill Target
- Structural Trend from 2D-Resistivity

STATUS: Final



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CLIENT	Minerex Environmental Ltd.
PROJECT	Lands at Navan, Co. Meath Geophysical Survey
TITLE	Map 2: Model Resistivities (5m depth)

SCALE:	1:4000 at A3
PROJECT:	5122
DRAWN:	ÖAB
DATE:	20/10/06
MGX FILE:	5122f_Maps.dwg
BASED ON:	

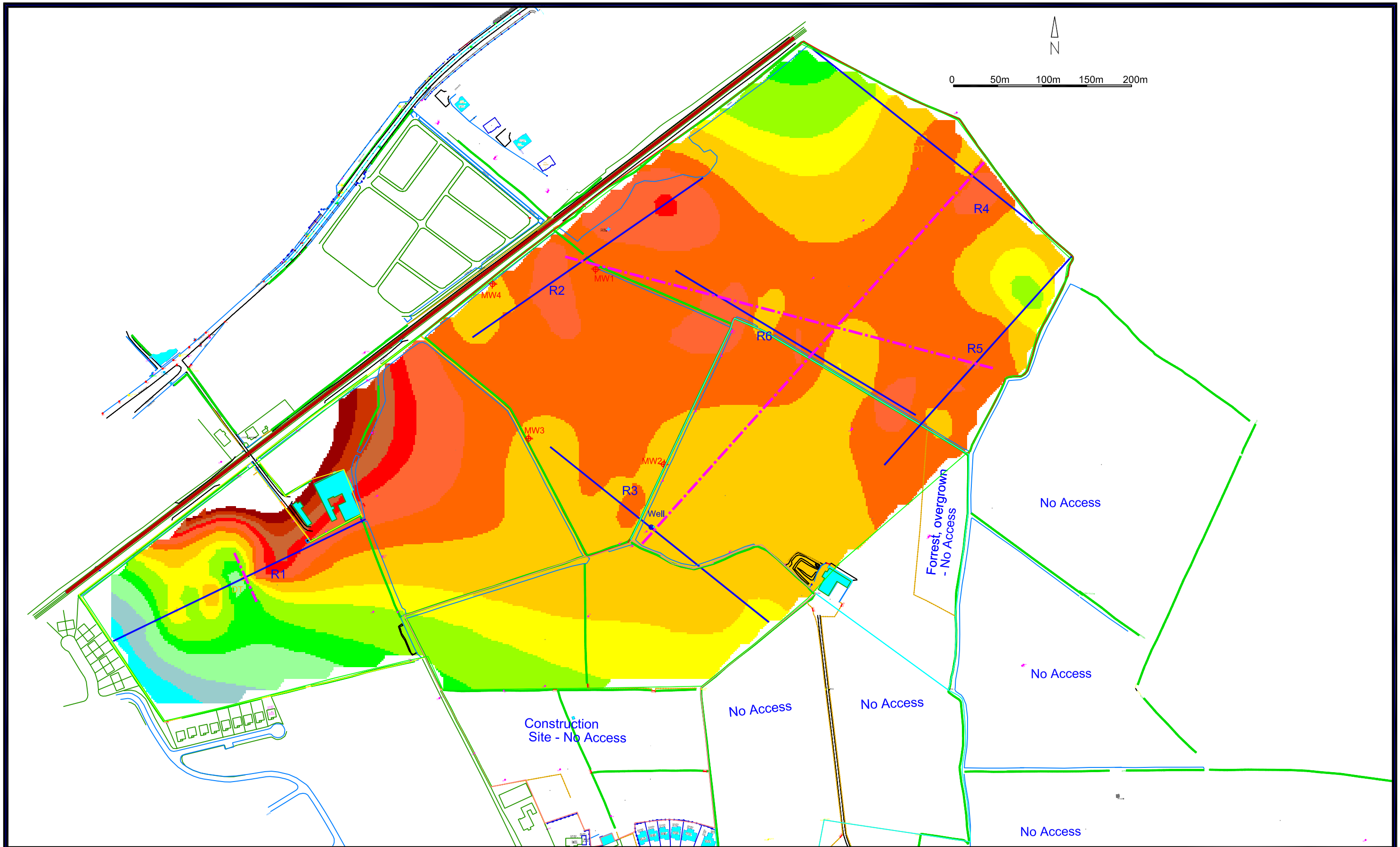
LEGEND:

- 2D-Resistivity Profile
- BH — Borehole Location
- Well — Existing Well Location
- Proposed Test Well
- Structural Trend From 2D-Resistivity

Model Resistivities Ohmm

0 10 20 30 40 60 80 120 160 240 320 480 640 960 1250

STATUS: Final



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CLIENT	Minerex Environmental Ltd.
PROJECT	Lands at Navan, Co. Meath Geophysical Survey
TITLE	Map 3: Model Resistivities (15m depth)

SCALE:	1:4000 at A3
PROJECT:	5122
DRAWN:	ÖAB
DATE:	20/10/06
MGX FILE:	5122f_Maps.dwg
BASED ON:	

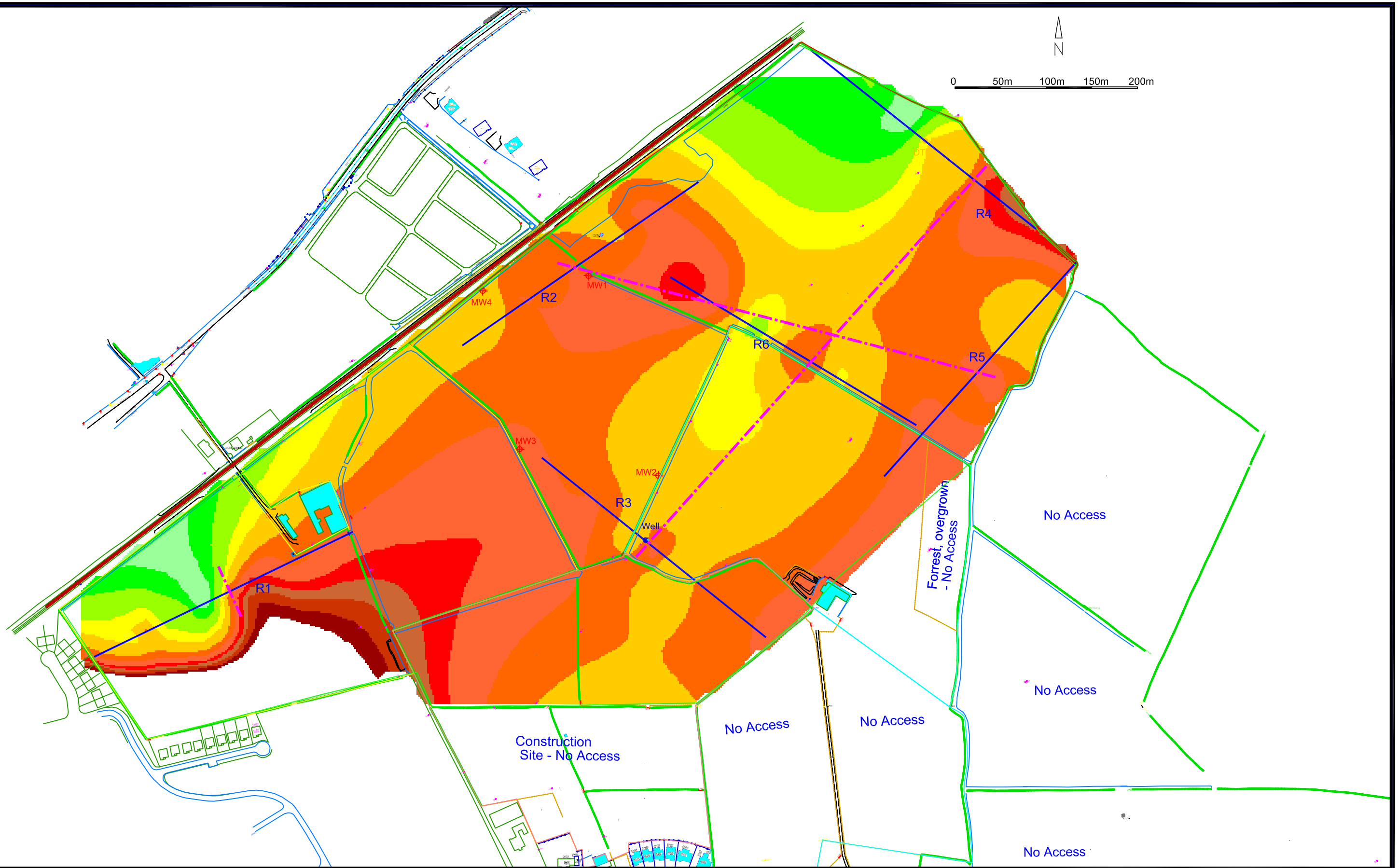
LEGEND:

- 2D-Resistivity Profile
- BH — Borehole Location
- Well — Existing Well Location
- Proposed Test Well
- Structural Trend From 2D-Resistivity

Model Resistivities Ohmm

0 10 20 30 40 60 80 120 160 240 320 480 640 960 125(

STATUS: Final



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CLIENT	Minerex Environmental Ltd.
PROJECT	Lands at Navan, Co. Meath Geophysical Survey
TITLE	Map 4: Model Resistivities (30m depth)

SCALE:	1:4000 at A3
PROJECT:	5122
DRAWN:	ÓAB
DATE:	20/10/06
MGX FILE:	5122f_Maps.dwg
BASED ON:	

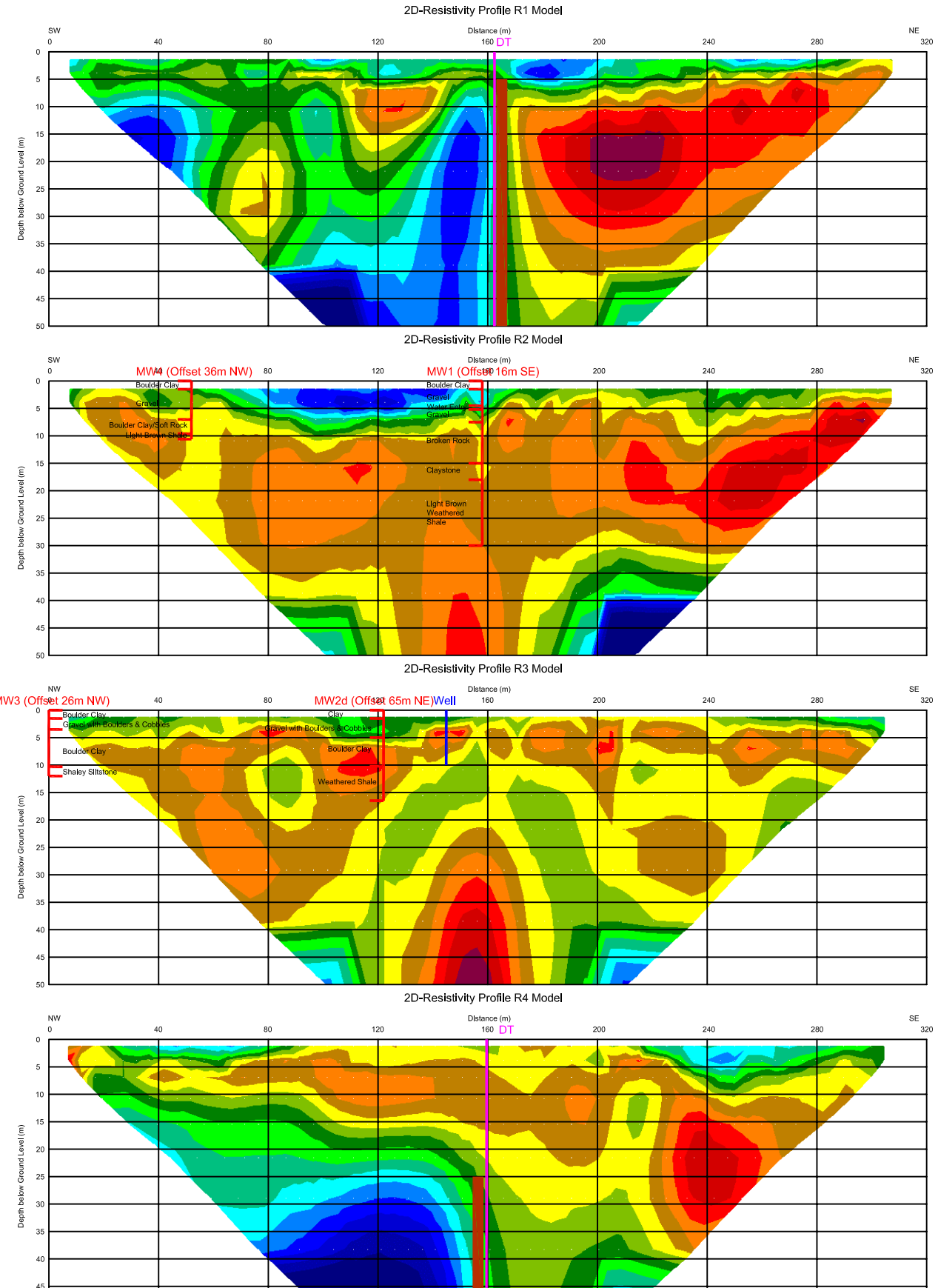
LEGEND:

- 2D-Resistivity Profile
- BH — Borehole Location
- Well — Existing Well Location
- Proposed Test Well
- Structural Trend From 2D-Resistivity

Model Resistivities Ohmm

0 10 20 30 40 60 80 120 160 240 320 480 640 960 125(

STATUS: Final



Refer to Report for Details

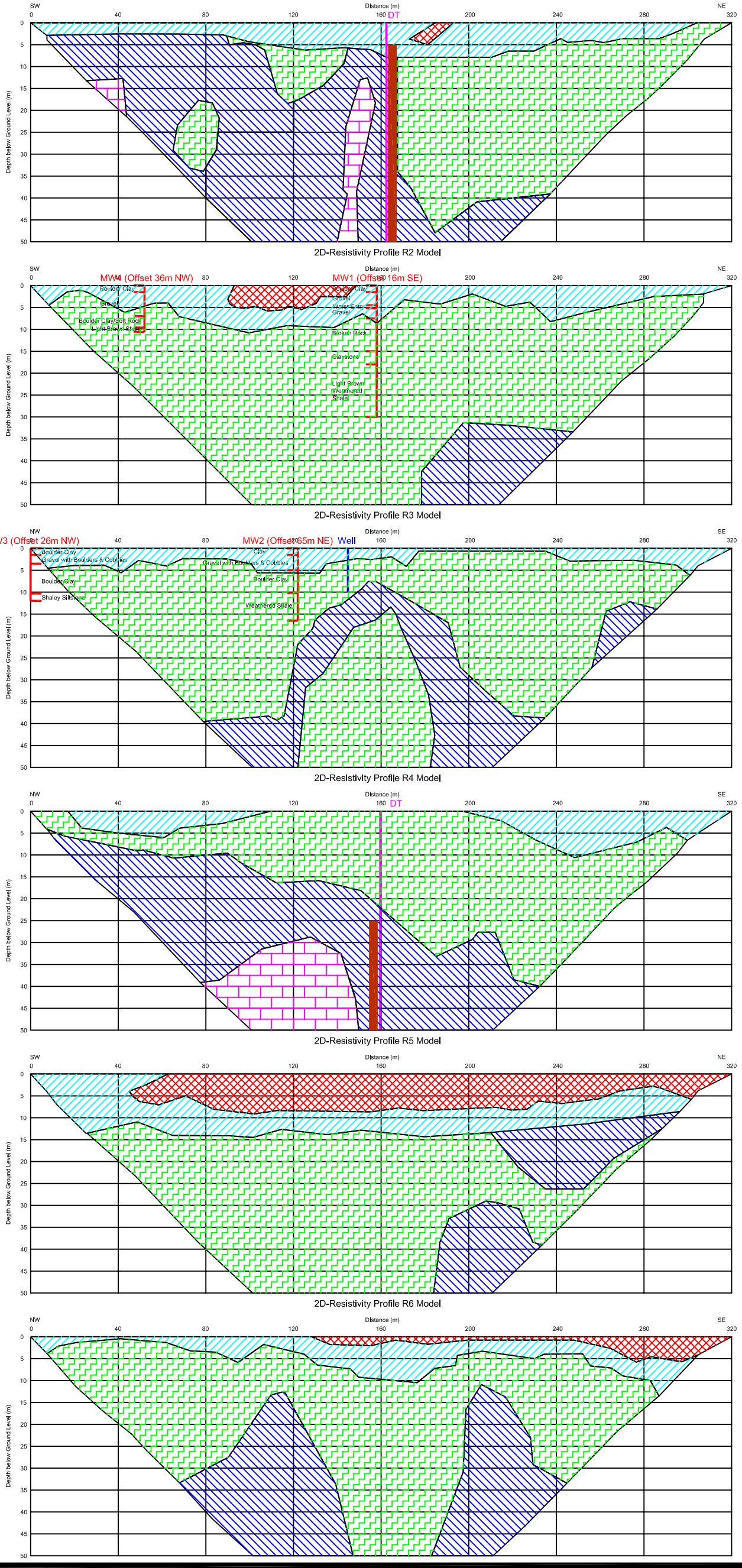
Model Resistivities Ohmm	Overburden	Rock
25.0	Shales/Claystone Broken Weathered Rock	
39.7		
63.0		
100.0	Boulder Clay	Intermediate Resistivity Limestone
159		
252		
400	Dry Gravel	Relatively Clean Limestone
635		

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CLIENT	Minerex Environmental Ltd.
PROJECT	Lands at Navan, Co. Meath Geophysical Survey
TITLE	Fig 1a: Results of 2D-Resistivity Profiles

SCALE:	NTS, V.E. x2
PROJECT:	5122
DRAWN:	HK/TL
DATE:	11/10/06
MGX FILE:	5122f_Figs.dwg
STATUS:	Final

LEGEND:
- MW1 — Existing Monitoring Well & Description
- Well — Existing Well
- DT — Potential Drill Target
- Possible Fault



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CLIENT	Minerex Environmental Ltd.
PROJECT	Lands at Navan, Co. Meath Geophysical Survey
TITLE	Fig 1b: Interpretation of 2D-Resistivity Profiles

SCALE:	NTS, V.E. x2
PROJECT:	5122
DRAWN:	TL
DATE:	11/10/06
MGX FILE:	5122f_Figs.dwg
STATUS:	Final

LEGEND:

- Layer 1 - Clean, Dry Gravel
- Layer 2 - Boulder Clay
- Layer 3 - Shales/Claystone/Broken Weathered Rock
- Layer 4 - Intermediate Resistivity Limestone
- Layer 5 - Relatively Clean Limestone

Appendix 6: Redkite Noise Impact Appeal Response

Redkite Environmental

Email: siobhan@Redkite.ie

M: 087 9170693

8th October 2026

The Secretary,
An Coimisiún Pleanála,
64 Marlborough Street,
Dublin 1

Re: Planning Ref: PL-502119–MH-26 Construction of Industrial Laundry & Distribution Warehouse

Dear Sir/Madam,

Please find a detailed response below to noise issues raised in the above-named appeal by Mr. Stephen Flanagan to An Coimisiún Pleanála.

In summary, it is our understanding that the key concern relates to the reduced building height in terms of the effect on acoustic screening provided to the Glenveigh residential development as a higher building height was used in the Noise Impact Assessment Report (NIAR), dated 4th June 2026.

Item 4 of the appeal deals with Noise, final building design and Class 4 amenity. The description of development to which this assessment relates is set out in Appendix A.

Final sources, screening and Glenveigh receptors

Item 4.1 notes:

> …*"The issue is whether the chosen spectrum and insulation assumptions represent the final facades, openings and roof, not whether the local dryer reading should be applied to the whole building."*

The assumptions in the June 2026 report considered internal noise levels likely to break out from the western façade facing NSLs in Glenveigh. The façade area considered in the report was based on 12m x 78m = 936m^2 as an emitting façade. Following review of the revised elevation drawings submitted as part of the further information request, the height of the western façade was revised down to 11.105m. This gives a lower surface area of 866m^2 for the

façade which means there is a slightly lower area of noise emitting façade however there is no corresponding reduction in the predicted internal noise breakout to the nearest NSLs as decibels are calculated on a logarithmic basis. The resulting internal noise breakout to the nearest NSL assessed at 65m, is still 23 dB with an additional 3dB added to account for as built conditions giving a total of 26 dB.

The external building envelope proposed has relatively high sound insulation and is not, for example, the same as the likely external cladding typically proposed for warehouse development which is lower in sound insulation. The proposed material performs well across the whole frequency spectrum. Please refer to Appendix C of the June 2026 report. The revised drawings submitted as part of the response to the further information request also list Eurobond panels for the building envelope. Condition 2 of the planning permission requires that the building be constructed as per the drawings submitted on the 12th, June 2026.

As noted in the report, the dryers form a small part of the building footprint in the Elis Dun Laoghaire facility where the highest noise levels occur. The final detailed design will take account of the internal layout to minimize noise breakout from the dryers and this can include internal partitioning and/or placement away from the western façade. Furthermore, Elis can choose inherently quieter equipment as part of the detailed design. Any potential noise emissions from stacks can be abated within ducting if necessary. It should be noted that there are no complaints from adjacent residents (<30m distant) relating to dryer noise emissions or any other processes at the Dun Laoghaire facility. No internal noise breakout of concern was noted during the site visit to Dun Laoghaire. Therefore, it is considered that the final internal design can be accommodated within the proposals as set out in the further information request.

Furthermore, planning permission condition 17 (x) requires the following:

> *Additional noise abatement measures shall be considered where necessary during the detailed design stage to ensure that the expected cumulative noise impact from all noise sources, external and internal, at the nearest NSLs does not exceed the existing background levels for day evening and night by more than +5 dB.*

The June 2026 report sets out background noise levels for day, evening and night.

The limits based on existing background and the application of BS4142: 2014 +A1:2019 are stringent in nature and are much lower than those typically set for development authorized by the EPA in locations similar to the permitted development. For example, a typical night-time limit set for a facility licensed by the EPA is $L_{Ar,eq,t}$ 45 dB(A).

Item 4.2 notes that the noise report expressly relies on a building height of 15.5m for screening of NSLs in Glenveigh. The building height has now been adjusted in the noise model to 12.895m for the purposes of this response. This will still

provide a similar level of screening as it still completely blocks the NSLs in Glenveigh from the loading bays on the eastern façade which are the primary noise concern. The results in the June 2026 report were slightly over-estimated, therefore the updated predicted noise level from loading operations at the closest NSLs in Glenveigh with a 12.895m height for the proposed building range from 18 – 23 dB. The highest cumulative impact at 21 The Walk with the western façade is predicted to be 28 dB(A) and is therefore unchanged from the results presented in the June 2026 report.

The relocation of the sprinkler pump room to the northeast has no bearing on the predicted noise levels from the loading/unloading area or internal noise breakout. The pump room and sprinkler tank were not inputted into the original model at the western facade. Therefore, the predicted results did not rely on screening by these structures.

Item 4.3

The appellant essentially notes that No. 12 The Court was not assessed.

The June 2026 report assessed NSLs closest to the western façade. No. 12 The Court, Glenveigh is set back further into the Glenveigh estate and is therefore less affected by the proposed development because of increased distance attenuation and partial screening by neighbouring dwellings. The predicted cumulative noise level at No. 12 The Court is 24 dB(A). Even allowing a 3-decibel addition for distinguishable noise, the predicted rated noise level is well below the existing night-time background noise level (34 dB(A)). A 4m assessment height at receptors is standard for 2-storey dwellings as bedrooms are the most sensitive parts of a dwelling to noise ingress especially at night-time. If the receptor heights were lower i.e. in the garden of the dwellings then the predicted noise levels would be lower. Furthermore, the background levels that apply to gardens are higher in the daytime and evening (when gardens are usually in use) at 40 and 38 dB(A) respectively. The predicted rated noise level at No. 12 The Court is therefore 13 and 11 dB(A) below background respectively. The existing day and evening ambient noise levels are influenced by other extraneous sources. It is highly unlikely that facility specific noise levels will be noticeable or intrusive in the garden at No. 12 The Court.

Operating Timetable & Coordinated Design

Item 4.4

The appellant notes that the June Noise Report "*assesses phased vehicle movements from 04.00, including the flow during a busy hour potentially occurring between 04.00 – 05.00. It anticipates a 16-hour processing day starting later than the 04.00 deliveries but fixes no processing start time. Its reference to 44 dBA) background at 06.00 illustrates rising morning noise. It is not an operating commitment.*"

The appellant notes that there is an absence of a timetable specific to this facility linking processing, dryers, staff, loading and fleet activity to the simultaneous sources assessed.

Page 12 of the June report addressed traffic noise arising from the proposed development on the local road network. In this, approx. 30 vehicles were considered arriving and departing potentially within the period 04.00 – 05.00hrs. Elis Ireland have provided an update on traffic patterns. Vans and trucks are loaded in the evening in preparedness for departures from 04.00hrs. During Phase 1 approx. 2x 7.5 tonne trucks and 16 small vans could depart from 04.00hrs onwards. Phase 2 will increase by a further 10 trucks. Therefore, the total units departing will be up to 28 units. The June report considered 30 vehicles arriving and departing, which is far higher than 28 units departing only.

Elis has also confirmed operating patterns which match commentary already provided in the June report. While trucks and vans may be loaded from 04.00hrs onwards, the processing will occur over a 16-hour day from 06.00 – 22.00hrs. The June report assessed a worst-case scenario against the average background noise levels for the night-time period (23.00 - 07.00hrs) even though there will be only 1-hour of processing activity during the night-time period from 06.00 – 07.00hrs. The report considered a high level of activity at the loading bay and processing occurring simultaneously during a period of low background noise levels. The assessment showed that no adverse impact is anticipated during a worst-case scenario. As noted in the report, truck and van movements will be screened from Glenveigh. All significant other sources will be internal and/or abated at emission point as necessary. The detailed design and operational plan will take account of the average background noise levels for day, evening and night prior to development.

Item 4.5

The revised assessment results as presented in this letter take account of the changed building heights. Condition 2 of the planning permission requires that the permitted design and external finishes shall be as shown on the drawings received on the 12th, June 2026. Item 2(i) is confusing and likely a typo as it does state:

> *(i) The height of the proposed building shall not exceed 2.6 metres with a maximum parapet height of 12.896 metres above ground level.*

However, the preceding paragraph referring to the drawings is unambiguous.

The permitted amenity standard

Item 4.6

The appellant questions whether the proposal satisfies the amenity standard under Class 4 - a light industrial building that can operate in a residential area without detriment to the amenity of that area from noise etc. not only a numerical noise limit.

The proposed development is on E1/E3 Strategic Employment Zones / Warehousing & Distribution zoned land and lies across an embankment, tree belt and a railway line. The western façade is approx. 65m from the nearest

dwelling facade. Therefore, there is a buffer zone between the Glenveigh development and the proposal. Existing vegetation will be retained. Vegetation will have a negligible impact on noise levels but will positively impact on the perception of any noise and hence on the amenity of the area.

Notwithstanding this, in any assessment of impact on residential amenity by noise, predicted noise levels are used. Studies and findings of the World Health Organization for example refer to noise levels after which adverse effects are noted.

BS8233:2014 states that the acoustic environment of external amenity areas that are an intrinsic part of the overall design of a residential development should ideally not be above the range 50 -55 dB $L_{Aeq,16hr}$.

BS4142:2014 +A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound, has been applied in the assessment. It is a relative method, i.e. the predicted specific rated noise level is compared to the existing background, and the context of the change (a non-numerical factor) is also a consideration to determine if an adverse effect is likely to occur. In this method, a noise limit is not just arbitrarily applied. The rated noise level also takes account of the characteristics of the noise under assessment e.g. tonality. In this instance, the predicted cumulative rated noise level is below existing background levels (and well below the ideal limit of 50 -55 dB $L_{Aeq,16hr}$). Overall, it can be concluded that the assessment does not just consider a numerical noise limit. Meath County Council has also taken account of the characteristics of noise in Condition 17.

Item 4.7

The appellant notes that Condition 17 lists controls that can secure operation and mitigation demonstrated to work, but do not supply the final source, building and timetable assumptions needed to establish that compliance is achievable.

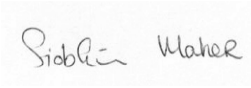
Condition 17 is based on the conclusions and recommendations of the Noise Report which is a comprehensive assessment taking into consideration an existing similar plant in Dun Laoghaire. As noted earlier in this response, the assessment considered a conservative worst-case scenario. Please refer to the response to Item 4.1 earlier.

Item 4.8

As noted earlier, the revised height as permitted by Meath County Council has not changed the fundamental conclusions and recommendations of the June 2026 report. The cumulative impact at No. 12 The Court is listed under Item 4.3 earlier. The final detailed design will ensure that the Conditions set out in Condition 17 are fully implemented.

We hope that the above satisfactorily addresses the concerns raised, however please do not hesitate to contact me if you have any further questions.

Yours sincerely,
for Redkite Environmental



Siobhan Maher

Member of the Institute of Acoustics (MIOA)

Attachment A

JSA PLANNING

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Development Description

The development consists of:

- The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:
    - a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and
    - a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.

- Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.

- Parking and loading facilities including:
    - 106 car parking spaces (including 5 accessible spaces and 1 set-down space);
    - 30 bicycle parking spaces;
    - 19 truck parking spaces;
    - c. 20 van parking spaces;
    - 10 truck loading bays; and
    - 12 van loading bays.

- Ancillary structures and services including:
    - an ESB substation;
    - a sprinkler pump room & asscoiated sprinkler tank;
    - water storage infrastructure;
    - surface water attenuation infrastructure; and
    - associated utility infrastructure.

- Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works.

Appendix 7: ORS Firewater Retention Assessment

2026

Boyne Village Business Park, Navan, Co. Meath
Firewater Risk Assessment

Boyne Village Business Park, Navan, Co. Meath

Firewater Risk Assessment

Document Control Sheet

Client:	Albert Development Ltd.
Document No:	252248-ORS-XX-XX-RP-EN-13d-006

Revision	Status	Author:	Reviewed by:	Approved By:	Issue Date
P01	Draft	CT/JW	KS	CT	14/10/2026

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1 Introduction

1.1 Background

ORS have been appointed by Albert Developments Ltd. to compile a response to the ACP appeal point 6.2:

The planning issue is whether storage, transfer, segregation and drainage isolation substantiate the assurance that spills cannot reach surface water drains or the open ditch. The layout should identify bund capacity, isolation and failure response, with proportionate provision for potentially contaminated firewater in light of the inventory and drainage pathways. This supports the trade effluent and outfall grounds: it concerns the containment system's effectiveness, not the ordinary use of laundry chemicals. [D13, PDF pp.1 and 4; D21, PDF p.5]

In order to address the above concern ORS have compiled, as a best practice measure (BAT), an EPA Firewater Retention Risk Assessment (FWRA) for the proposed industrial laundry processing and distribution warehouse located at the Boyne Village Park, Navan, Co. Meath (herein: “the facility”).

1.2 Licenced Activities

Operation of the proposed facility will not require and EPA licence.

The proposed facility is not mandatorily required to complete a FWRA or to maintain provision in line with the guidance set out in *EPA Guidance on Retention Requirements for Firewater Run-off* (2019). Specific EPA (IED) and facilities operating under local council issued waste licence are required as part of their licence conditions to complete a FWRA and to reassess following any structural or operational changes on site.

1.3 EPA Guidance

In 2019, following a period of public consultation and input from the Fire Services, the Environmental Protection Agency (EPA) published a document titled “*Guidance on Retention Requirements for Firewater Run-off”* (herein: “the Guidance”). The Guidance utilises the following criteria to aid sites in the implementation of more practical solutions:

- Emphasis on the significance of a fire event rather than the likelihood – The updated guidelines require an assessment of significance of a fire event vs the environmental hazard potential.
- Substance Storage thresholds based on hazard statements rather than risk phrases.
- Firewater capacity calculated based on:
  - Contribution of individual sections of the site (on condition there is adequate separation between ‘high risk’ areas from ‘low risk’ areas).
  - Change in rainfall contribution from a 1 in 20-year to a 1 in 10-year rainfall event.
- Bunds can no longer be used to provide firewater retention storage unless directly involved with the fire event.

1.4 Objectives

This purpose of this Firewater Risk Assessment is to:

- Calculate the volume of firewater retention required at the development.
- Evaluate the suitability of the existing proposed drainage capacity at the installation for firewater retention.
- Provide recommendations of suitable options to ensure adequate firewater retention storage is present on-site at all times.

2 Methodology

The methodology applied for this Firewater Risk Assessment has been developed by ORS in accordance with the Guidance. **Figure 2.1** outlines the steps followed in a typical FWRA.

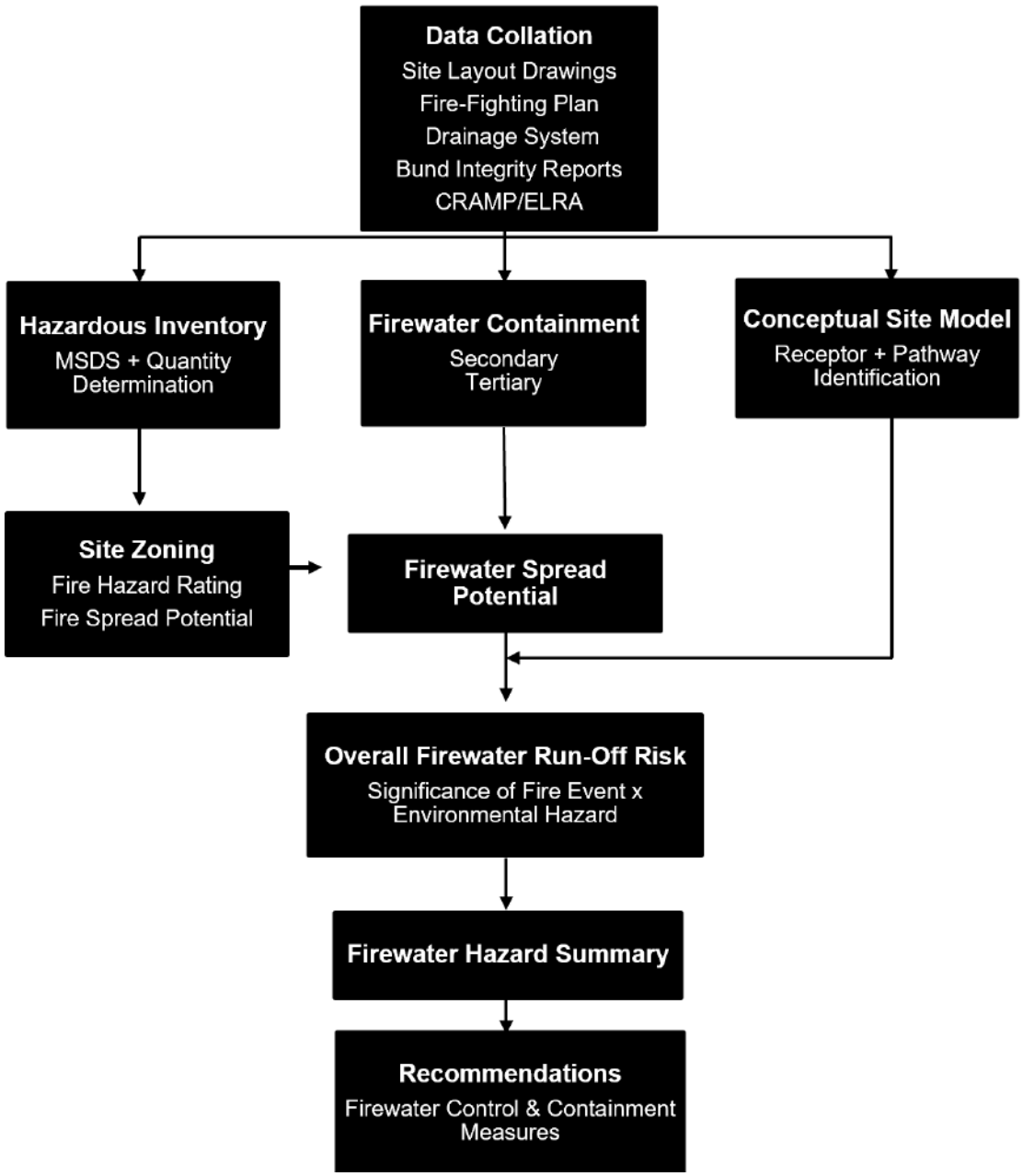


Figure 2.1: Steps in a Firewater Risk Assessment (EPA, 2019).

2.1 Data Collation

A comprehensive desktop review was carried out by ORS in order to develop the initial Conceptual Site Model.

The following documentation was obtained:

- Generic Material Safety Data Sheets (MSDS) for substances proposed to be stored on-site.
- Commercial Laundry Detergents Summary.
- Site Layout Drawings.
- Site Drainage Schematics.
- Bund Infrastructure.

The following publicly available sources were consulted to describe the environmental setting and identify potential sensitive receptors in the vicinity of the installation. **Section 5** outlines the findings of this assessment.

- EPA/GSI Online Mapping.
- Flood Mapping.
- MyPlan.
- Historical Maps (OSI Geo Hive 6'' Cassini etc).

2.2 Necessity for FWRA

The guidance, in Section 2, Firewater Retention Qualifying Criteria (page 6), clearly sets out two qualifying criteria:

1. Environmentally Hazardous Substance Storage Thresholds;
2. Environmental Receptor Criteria for sites whose activities involve potentially polluting substances.

If a site meets either of these criteria, firewater retention is required.

2.2.1 H400 Storage Thresholds

As per Section 2.2.1 of the Guidance, Environmentally Hazardous Substance Storage Thresholds, the first qualifying criterion is the quantity of substances on site that possess environmental H-Statements, as defined in the Classification, Labelling and Packaging (CLP) Regulation (EC) No. 1272/2008.

Only substances with environmental H-Statements are considered for this qualifying criteria assessment. These H-statements fall within the following range;

- H400 - H499 Environmental hazards (e.g. Toxic to Aquatic Life, Harmful to Aquatic Life).

Table 2.2 in the following subsection specifies the storage thresholds for specific environmental H-Statements which will lead to the requirement for firewater retention. Facilities storing substances with these H-Statements at or above the stated thresholds will require firewater retention facilities due to the nature and quantities of hazardous substances.

2.2.2 Environmental Receptors Criteria

As per Section 2.2.2 of the Guidance, Firewater retention is required for sites whose activities involve potentially polluting substances and have a **direct storm water discharge** from source to receptor, to any one of the following types of receiving waters:

- Municipal drinking water intake points.
- Designated bathing waters.
- Freshwater pearl mussel rivers.
- Designated shellfish waters.
- Water bodies characterised as High Status under the Water Framework Directive.
- Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Natural Heritage Areas (NHA).

2.3 Site Zoning

Facilities can be separated into different assessment zones based on based on distance and/or fire containment properties. If the separation of parts of a site into individual assessment zones cannot be justified with adequate supporting documentation, then they must be assessed together. The methods of fire spread include:

- Direct flame impingement.
- Flow of flammable liquid.
- Radiation.

Site separation cannot be used in the assessment if **explosion** is a risk on-site.

2.4 Firewater Risk Assessment

The potential **Risk (R)** of firewater run-off to the environment is assessed based on the **Significance (S)** of a fire event that could generate substantial quantities of firewater, and a potential **Environmental Hazard (H)**, due to the generation of firewater run-off.

2.4.1 Significance of Fire Event (S)

The significance of a fire event will depend on the fire load, the detection system in place and mitigation measures in place. A summary of the fire safety features specific to the site is provided in **Section 4** including a description of:

- Quantities and Types of Flammable and Combustible Materials.
- Fire Detection in Place.
- Sprinkler/ Deluge Systems.
- Preventative Measures.

The significance of a fire event is then evaluated based on this data and an '**S**' rating is assigned as summarised in **Table 2.1**.

Table 2.1: Evaluation of the significance of a fire event

Significance (S)	Description
S1	Low Significance
S2	Medium Significance
S3	High Significance

2.4.2 Environmental Hazard Potential (H)

The Environmental Hazard Potential is influenced by the specific properties and quantities of hazardous substances stored on site.

Table 2.2: Evaluation of the hazard potential

Hazard Statement	Hazard Details	Storage Threshold (Tonnes)
H400 H410	Very toxic to aquatic life Very toxic to aquatic life with long lasting effects	1
H401 H411	Toxic to aquatic life Toxic to aquatic life with long lasting effects	10
H402 H412	Harmful to aquatic life Harmful to aquatic life with long lasting effects	100
H413	May Cause Long Lasting Harmful Effects to Aquatic Life	1000

An inventory of proposed substances to be stored on site was compiled. Generic MSDS for each substance were reviewed to quantify substances which bear the 'Hazardous to the Aquatic Environment' Hazard Statement.

Any applicable substances stored in quantities above the thresholds listed in **Table 2.2** are assigned a '**H**' rating of H1 as outlined in **Table 2.3**.

Table 2.3: Evaluation of the hazard potential

Hazard Potential (H)	Description
H0	No Hazard Potential Present
H1	Hazard Potential Present

2.4.3 Firewater Runoff Risk (R)

The overall firewater runoff risk is calculated as a function of Significance '**S**' and Hazard Potential '**H**' as shown in **Table 2.4**.

Table 2.4: Evaluation of the Firewater Runoff Risk

Firewater Runoff Risk		
	H0	**H1**
S1	**R0**	**R1**
S2	**R0**	**R1**
S3	**R1**	**R1**

R0 – No dedicated firewater retention required.
R1 – Firewater run-off must be retained within the operational site.

2.5 Firewater Retention Capacity Calculation

The appropriate volume of firewater retention capacity required at any given site is dependent on the following factors:

- Potential harm of the contaminated fire-fighting water to the environment.
- Primary capacity of the vessel in which harmful material is stored.
- Potential amount of rainfall during the emergency event.
- Firefighting and cooling water.
- Fire-fighting foam.

Two retention capacity calculation methodologies are set out in the EPA guidance document assuming the separation of the site into distinct zones is feasible. A third calculation methodology is outlined if site separation is not feasible. The applicability of each method is dependent on the characteristics of the area being evaluated, and the availability of accurate data about the area, and the associated fire protection measures. The applicable method for the proposed facility is:

2.5.1 Method 1: Warehouse Retention

This method provides an opportunity for a reduction in firewater retention volume required for the site, where fire protection measures, such as sprinklers, are provided to control and limit the fire spread area.

This method should only be used by facilities that can provide evidence that the installation design meets an appropriate design standard, and for which up-to-date maintenance records are available. Documentation verifying that systems are designed, inspected, and maintained to an appropriate standard should be readily available on site, and upon request from EPA.

2.6 Retention Formula

Firewater Run-off Retention at a given site.

$$V_R = V_P + W_E + *W_F + R_W - E$$

Where,

V_R = Firewater Retention Required.
V_P = Full volume of Product Loss.
W_E = Extinguishing Medium (Water/Foam) (including Fire Brigade resources).
R_W = Rainwater Contribution.
E = Retention Volume Directly Available (i.e. capacity at area on fire only).
$*W_F$ = Cooling Water for adjacent tanks (Applicable for tank farm method only).

2.7 Firewater Retention Design

Firewater retention can be provided by means of the installation's drainage system and other suitable infrastructure, which is not exclusively foreseen for firewater retention (e.g. storm water attenuation ponds / tanks in waste-water treatment plants).

All elements of the site infrastructure to be used for firewater retention (including shut-off valves) must be regularly inspected and tested, to ensure functionality and impermeability.

The retention facilities must remain impermeable for the duration of the incident up to the removal of the firewater run-off. The documented available retention capacity in the existing

site infrastructure must be monitored and maintained.

Automatic shut-off valves, which engage as soon as the fire alarm is activated must be maintained and tested. Diversion of firewater to retention facilities must be automatic on activation of the site fire alarm. On-site bunds cannot be used to provide firewater retention unless the content of a bund is directly involved in the fire event.

The existing site drainage system is assessed as a means of providing adequate retention capacity. Additional scenarios including the installation of automatic shut-off valves to isolate parts of the drainage system along with dedicated retention infrastructure are also considered.

3 Site Overview

3.1 Site Location

The facility is a 4.61 hectare site located at the Boyne Village Business Park, in the townland of Athlumney, Navan, Co. Meath with associated services, access roads and car parking (approximate ITM Coordinates: 688617, 768171). The indicative boundary of the site is outlined in **Figure 3.1**.



Figure 3.1: Site Location (Source: Google Satellite)

3.2 Site Layout

The facility layout is shown in **Appendix A** . The facility consists of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising a ground floor laundry processing and warehouse area (ca. 9,000 sq.m) and a mezzanine level (ca. 1,514 sq.m) incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.

Vehicular access is via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park. The development footprint also provides parking and loading facilities as well as ancillary structures and services including an ESB

substation, a sprinkler pump room & associated sprinkler tank, water storage infrastructure and surface water attenuation infrastructure. The site layout is presented below in **Figure 3.2**.

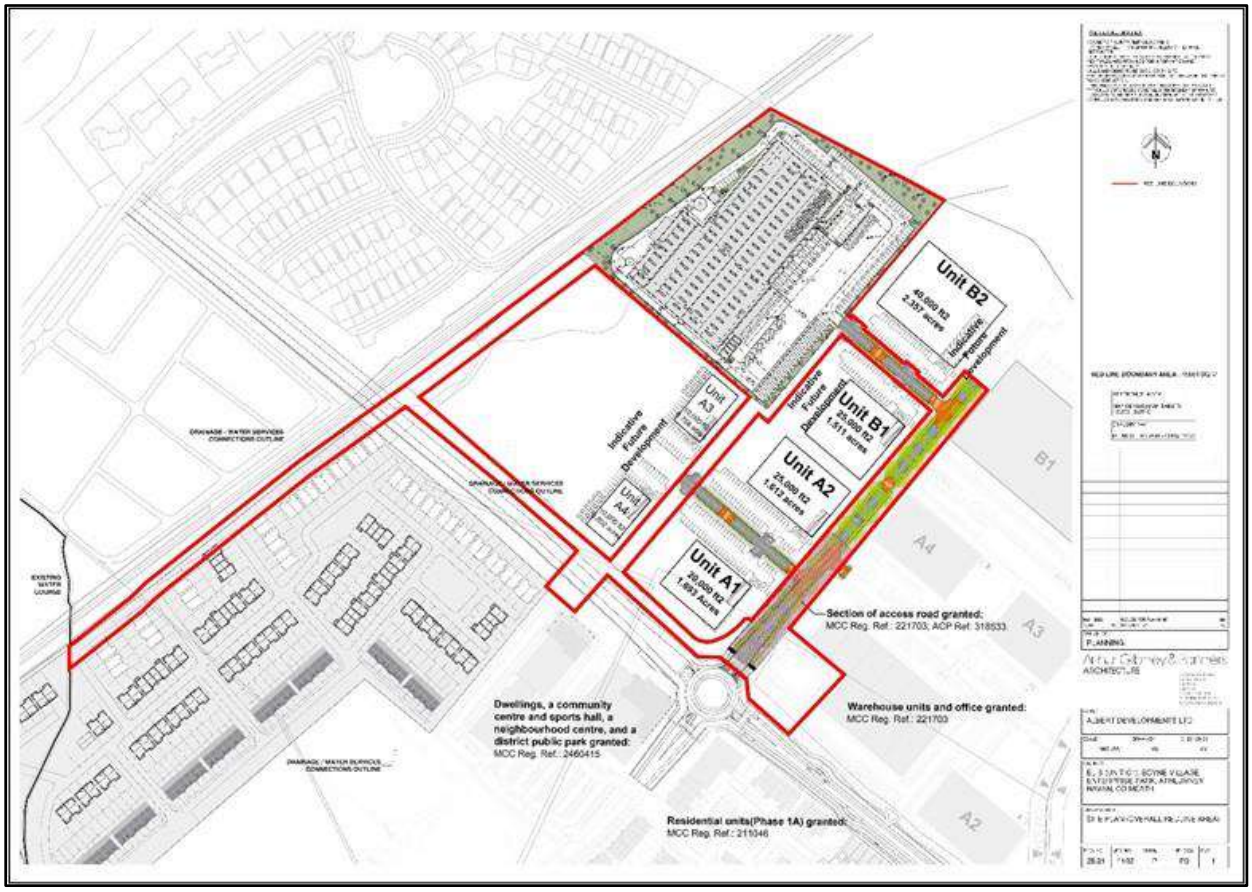


Figure 3.2: Site Layout (Cropped - Source: Arthur Gibney & Partners Architecture – Drawing No. 1102.

3.3 Site Activities

Development activities principally involve the washing and distribution of laundry on an industrial scale. The commercial laundry operation uses a multi-chemical dosing system tailored to various textile types.

3.4 Raw Materials

Below is a list of relevant materials that are typically stored within the site. The volumes of these materials stored on site are detailed in Table 6.1**.**

- Alkali
- Detergent/Surfactant
- Oxygen Bleach
- Chlorine Bleach
- Enzymes
- Neutraliser (Acid)

- Bisulphate
- Softener
- Diesel/ HVO

3.5 Building Occupants

The submitted fire safety certificate (FSC) states that the facility building will have a total occupancy of 385.

A breakdown of the occupancy by floor and room can be found in FSC application 261001-ORS-Z1-XX-RP-FS-001 (issued 10/09/26).

3.6 Retention Assets

3.6.1 Bunds

There are two noted proposed chemical storage areas on site. The Chemical Storage Room and Storage Container.

It is proposed that the Chemical storage room will have storage capacity for 16 no. IBC's and 4 no. 200L drums, all of which will be stored on reinforced concrete or steel bunds. Each bund will have capacity to retain the large of:

- 110% of the largest vessel (eg. 1000L IBC = 1100L bund)
- Or, 25% of the total volume stored within the bund (eg. 5 no. IBC's @ 25% = 1,250L bund)

A further Storage Container (external Chemstore unit) will store 4 no. IBC's and 4 no. 200 L drums, as shown in **Table 3.1**.

Table 3.1: Proposed Bunds & Sumps

Bund	Location	Bund Capacity Minimum (m^3)	Max Volume Storage (m^3)	Construction	Assumed Storage
Bund 1 (Left)	Chemical Storage Room	1.5	6	RE Concrete	6 IBC's
Bund 2 (Middle)	Chemical Storage Room	1.2	4.8	RE Concrete	4 x IBC's 4 x 200L Drums
Bund 3 (Right)	Chemical Storage Room	1.5	6	RE Concrete	6 IBC's
Sump	Chemical Storage Room	1.2	-	RE Concrete	-
Sump/ Tank	Boiler Room	3	-	RE Concrete	-
Bund (Chemstore)	Storage Container	1.2	4.8	Steel	4 x IBC's 4 x 200L Drums
Diesel Bund	Truck Wash & Fuel Filling Station	22	20	RE Concrete	20m^3 Diesel

Details on the final bund sizing & design will be confirmed at detailed design stage. Figures

noted above are indicative.

3.6.2 Attenuation

The stormwater drainage system layout is shown in **Appendix A** . The proposed site is divided into two catchment areas (Drawing 411-P2, Hendrick Ryan) which drain to two attenuation tanks to the south, A, and north, B. The capacity of each these is:

- Attenuation A = 500m^3
- Attenuation B = 300m^3

The design of both of these is detailed in the Engineering Service Report, issued by Hendrick Ryan on the 10/02/26. To summarise they are of Stormtech design with a compacted low permeable base. It is proposed to line the base of system with a 1200 gauge visqueen or similar liner to further limit percolation into underlying ground.

3.6.3 Stormwater

The layout of the stormwater is summarised in **Appendix A** . The network design is detailed in the Engineering Service Report, issued by Hendrick Ryan on the 10/02/26. It will be constructed of mainly PVC and/or Coripipe, or similar. Manhole chambers will predominantly be of pre-cast concrete design. **Table 3.2** summarise the pipe/manhole diameter and length/ depth with the volume of retention provided by each assets calculated. In total the stormwater manholes and pipelines have capacity to retain 184.3 m^3.

As noted in **Section 0** all stormwater flows via two attenuation tanks before discharging to an open drain to the northwest of the site. It is proposed that a penstock linked to the onsite fire alarms will be installed at manhole SMH 32 to retain and potential firewater run-off with the site footprint and existing retention/ drainage assets.

Table 3.2: Storm water Pipeline & Manhole Retention Capacities

Pipelines						Manholes			
Node US	Node DS	(mm) Dia	(m) Length	Volume m3		SMH	Diameter (mm)	Depth (m)	Volume m3
1	2	225	76.255	3.03		1	1050	0.825	0.71
2	3	225	78.433	3.12		2	1050	2.835	2.45
3	5	225	4.525	0.18		3	1050	1.585	1.37
4	5	225	66.381	2.64		4	1200	1.425	1.61
5	11	225	15.202	0.60		5	1200	1.355	1.53
6	7	225	23.519	0.94		6	1050	0.88	0.76
7	8	225	16.488	0.66		7	1050	1.28	1.11
8	10	225	37.953	1.51		8	1050	1.54	1.33
9	10	300	17.588	1.24		9	1050	1.54	1.33
10	11	375	33.466	3.70		10	1350	1.125	1.61
11	14	375	33.432	3.69		11	1200	1.205	1.36
12	13	225	42.03	1.67		12	1050	1.355	1.17
13	14	225	5.654	0.22		13	1050	1.395	1.21
14	15	375	5.025	0.55		14	1200	1.375	1.56
15	16	1025	42.142	34.77		15	1200	1.475	1.67
16	17	375	55.16	6.09		16	1200	1.895	2.14

17	32	375	70.567	7.79		17	1050	2.285	1.98
18	20	225	71.951	2.86		18	1050	1.425	1.23
19	20	225	7.353	0.29		19	1050	1.45	1.26
20	23	300	64.094	4.53		20	1200	1.955	2.21
22	23	225	16.345	0.65		22	1050	1.3	1.13
23	28	300	1.286	0.09		23	1200	2.5	2.83
24	25	225	22.688	0.90		24	1050	1.43	1.24
25	26	225	12.165	0.48		25	1050	1.76	1.52
26	27	225	22.828	0.91		26	1050	1.91	1.65
27	28	225	63.267	2.52		27	1050	2.16	1.87
28	29	300	5.456	0.39		28	1200	2.5	2.83
29	30	300	2.446	0.17		29	1050	2.6	2.25
30	31	875	58.88	35.41		30	1200	2.75	3.11
31	32	375	3.88	0.43		31	1200	1.65	1.87
32	33	375	5.987	0.66		32	1050	1.68	1.45
34	35	225	58.388	2.32		33	1050	1.73	1.50
35	9	225	32.761	1.30		34	1050	1.425	1.23
36	22	225	40.284	1.60		35	1050	1.425	1.23
						36	1050	1.15	1.00
Total Retention (m^3)				**127.93 m^3**					**56.33 m^3**

3.6.4 Foul

The foul network discharge to the southwest of the site into the Uisce Eireann sewer network. Discharges from the building will discharge via a pumped/ rising main to upstream of manhole FM3. It is not proposed to account for the foul network in retaining firewater in a potential scenario.

3.6.5 Process

A process network returning heated and dirty water to the water treatment room will be present within footprint of the building. It is proposed that this network will be constructed of a combination of HDPP and stainless steel to cater for the high temperatures. This network contains a serious of sumps and Acos which drain from the Chemical Products, Boiler room and external truck unloading bay. Any spills beyond the bunds proposed in the Chemical storage room will be retained within the 1.2m^3 sump within the room. An automated valve will close to ensure spills don't discharge to the boiler room. An additional below ground level sump/ tank in the boiler room has capacity for 3m^3.

4 Fire Safety Management

4.1 Fire Detection & Warning Systems

General fire detection and warning measures detailed in the FSC throughout the building are as follows:

- Automatic fire detection systems present in all admin buildings.
- Manual ‘Break-Glass’ call points located at every exit.
- Smoke detectors.
- Heat Detectors.
- Fire Sounder system, audible throughout entire facility.

4.2 Fire/ Site Zoning

Drawing 261001-ORS-Z1-ZZ-DR-FS-310 issued by ORS on the 10/09/26 as part of the FSC application summarises the fire compartmentalisation zones within the ground floor of the facility.

Its important to note that the site stormwater outfall will be linked to the linked to the site fire alarm. In a fire scenario the outfall at SMH 32 will close preventing flows from discharging site.

4.2.1 Chemical Storage Room

The Chemical storage room where the majority of chemicals will be stored is proposed to have a 60/60/60 minute fire resistant compartment with the adjacent boiler room. In total these two rooms have an area of 297m2. The facility will be fitted with an automated sprinkler system which will limit the potential for fire spread.

The volume of chemical storage and bund retention within the room is detailed in **Table 3.1**. In a fire scenario, initially the localised reinforced concrete bunds would retain to the volumes detailed in **Table 3.1**. Overtopping by chemical spillage and sprinkler firewater contribution would then be captured in the 1.2m^3 sump. The automated valve would register chemical spill and close. It is then envisaged that firewater will over fill the sump and discharge via the external loading bay Aco channel, as shown in **Figure 4.2**. Run-off would be captured in a nearby stormwater road gully where it would be retained in the site stormwater and attenuation network, as shown in **Figure 4.3**.

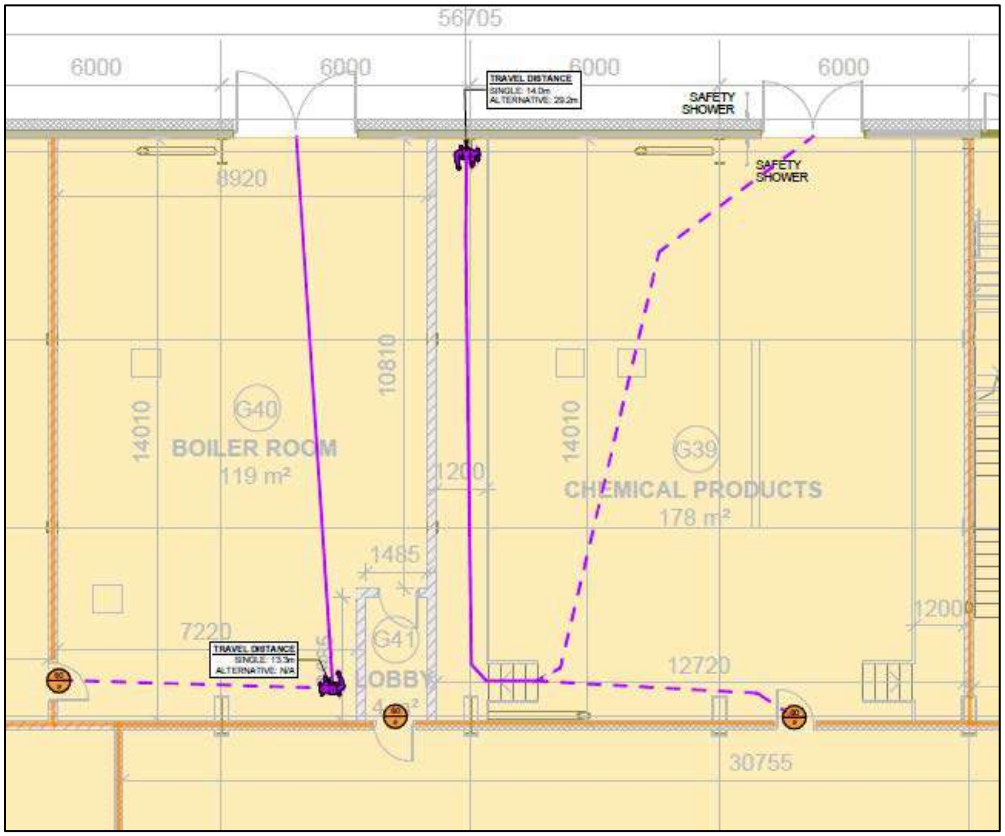


Figure 4.1: Chemical Storage Room Fire Zoning

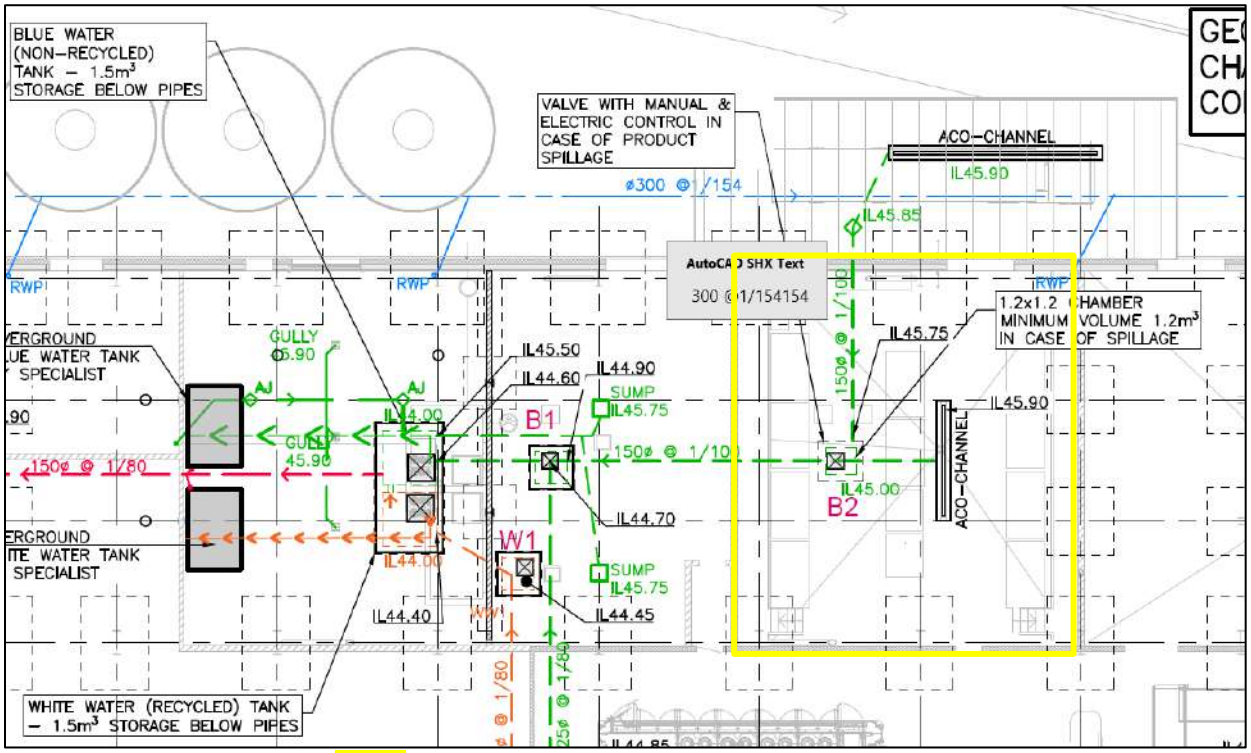


Figure 4.2: Chemical Storage (Yellow), Boiler Room & Loading Bay Drainage layout

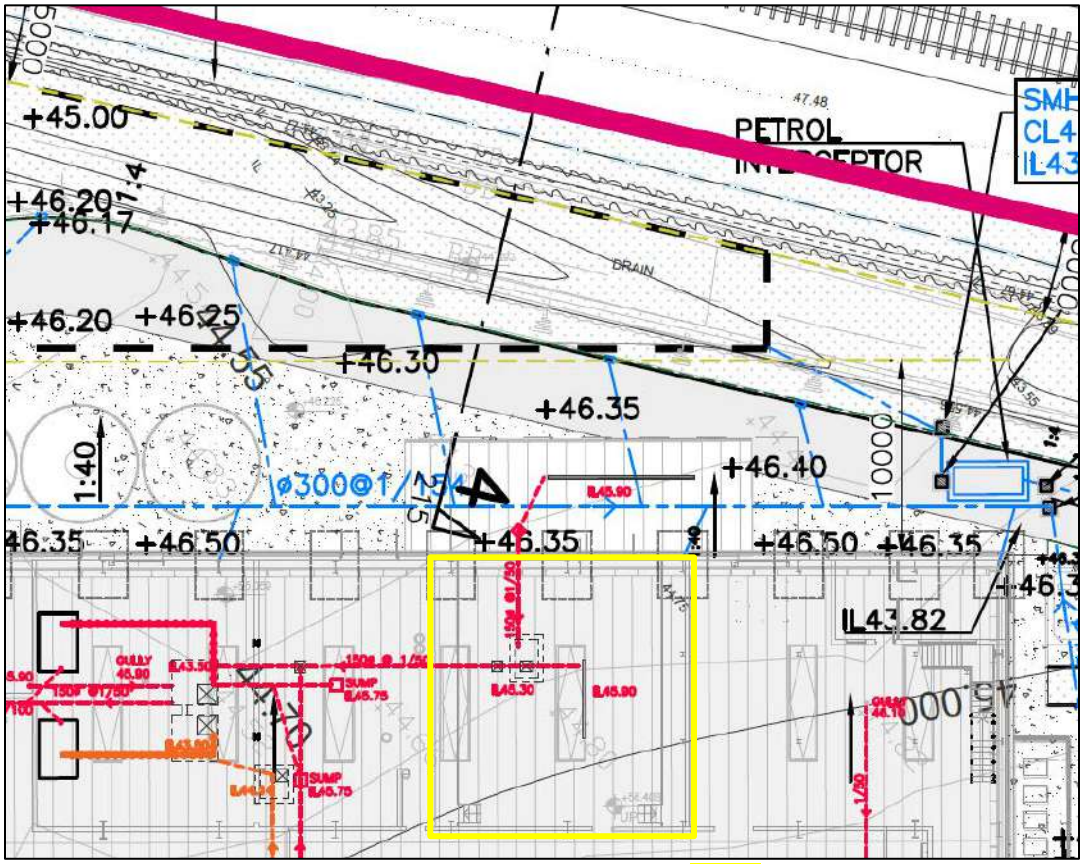


Figure 4.3: External Stormwater Drainage at Chemical Storage (Yellow) & Loading Bay

4.2.2 Chemical Storage Container

The Storage Container where the remainder of chemicals are stored will be situated outside and >15m away from the walls of the building. The exact location will be confirmed at detailed design stage. Its design will be of Chemstore or similar, as shown in **Figure 4.4**.



Figure 4.4: Chemstore or similar design

4.2.3 Truck Wash & Fuel Filling Station

The truck wash and fuel filling station are situated in the southwest corner of the facility. It located greater than 15m from the facility building which provides sufficient separation to permit separate zoning as per the EPA guidance (2019). Refer to **Figure 4.5**.

The diesel tank is a self-bunded steel tank of 20m^3 capacity. Additionally, to this there will be a 22m^3 (110%) reinforced concrete bund. Any spills or firewater run-off from this location would initially be captured within the self-bunded tank and associated 22m^3 concrete bund. Over topping of this bund flows will be intercepted by Aco drains connected to the site foul network outfall. Beyond this, flows would become entrained within the on-site stormwater & attenuation network via road gullies.

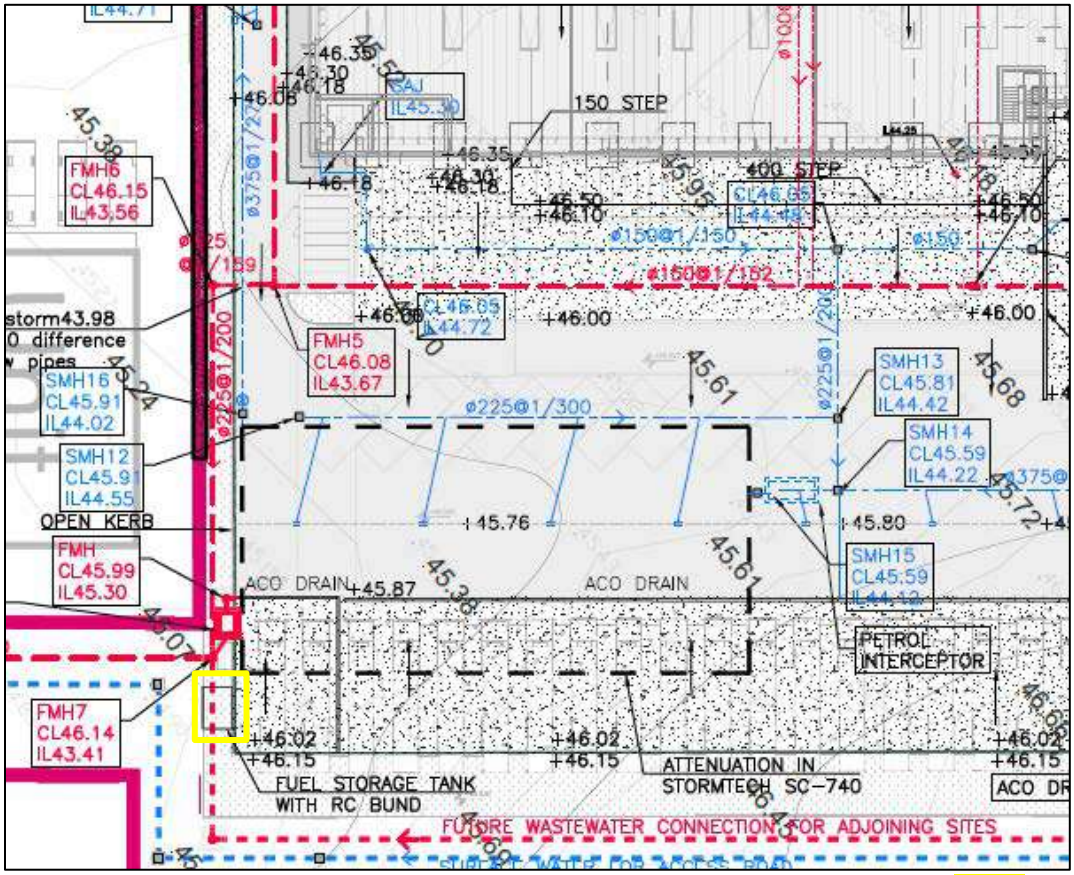


Figure 4.5: Diesel Bund zoning due to >15m from building. Located in bottom left corner (Yellow)

4.3 Firefighting Equipment

The specification and sizing of the sprinkler system is still being progressed by EDC.

9 no. fire hydrants are located around the designed building perimeter. Fire extinguishers will be located throughout the building at strategic locations.

5 Environmental Setting

5.1 Rainfall Data

Met Eireann Rainfall return period table for the site location were retrieved and can be found in **Appendix B** . As part of retention calculations, a 1 in 10 year 24-hour rainfall event must be accounted for, which equals 53.7mm for the site area.

As detailed in the Hendrick Ryan Engineering Service Report, the site has 20,630m^2 of rood, hard standing and permeable paving. They estimated that ca. 20% of this was permeable paving area. Thus it is has been taken that the shared drainage area on site will be of 16,504m^2.

5.2 Hydrology & Topography

The proposed site is located within the Boyne_140 Sub-Basin; Boyne Catchment; Boyne_SC_110 Subcatchment; Hydrometric Area 07. The principal hydrological feature within the vicinity of the site is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located ca. 290m west of the site. The stream flows in a north direction and meets the River Boyne (EPA Code: 07B04) ca. 380m north. The River Boyne flows into the Irish Sea ca. 28km northeast of the development location. According to the EPA maps, the Ferganstown and Ballymacon stream and River Boyne have a WFD status of ‘Moderate’ with their risk status under review.

The site is between ca. 51 m AOD and 45 m OD across the entire site, with a slight slope towards the southwest. This indicates a vertical difference from the highest point to the lowest point of ca. 6m over a horizontal distance of ca. 300m, resulting in a slope of approximately 2.5%. **Figure 5.1** illustrates the Site’s hydrological setting.



Figure 5.1: Hydrological Setting of the site (Source: EPA Datasets & Google Map Data)

5.2.1 Geology & Hydrogeology

Teagasc soil mapping indicates the site is underlain primarily of till derived chiefly from limestone and is Carboniferous in age. It is deep well drained mineral and mainly basic. The site is underlain by the Lucan Formation which is described as dark limestone and shale.

According to GSI groundwater maps, the site overlays a 'Locally Important Aquifer – Bedrock which is Generally Moderately Productive'. This is described as an aquifer capable of supplying locally important water supplies. The site overlies the Trim ground waterbody, which has a 'Good' Water Framework Directive (WFD) status. The Risk is current "under review".

The groundwater vulnerability index at the site is classed as high. This indicates that the groundwater in this area has natural characteristics that make it highly vulnerable to contamination by human activities. There are no karst features in the vicinity of the site.

5.2.2 European Sites & National Heritage Areas

There are no European Sites or National Heritage Areas (NHA) within the area the site. The closest designated site is River Boyne and River Blackwater SAC (Site Code: 002299), which is ca. 350m to the north. The River Boyne and River Blackwater SPA (Site Code: 004232) also occurs ca. 400m north of the site and is hydrologically connected to the SAC.

There is indirect hydrological connectivity via to these sites via an adjacent drainage ditch which feeds the nearby Ferganstown and Ballymacon stream. The stream flows northwards and adjoins the SAC ca. 350m north of the site.

Figure 5.2 illustrates the Site's proximity to European Sites.



Figure 5.2: Site's proximity to European Sites (Source: EPA Datasets & Google Map Data)

6 Retention Threshold Assessment

6.1 Environmental Hazardous Storage Threshold

6.1.1 Hazardous Materials

Only substances with environmental H-Statements that fall within the following range are considered for this qualifying criteria assessment;

- **H400 - H499** Environmental hazards (e.g. Toxic to Aquatic Life, Harmful to Aquatic Life).

For completeness of the assessment, hazardous substances classified under the H200 (Physical Hazards) and H300 (Health Hazards) hazard classes have also been considered.

While the primary focus of this assessment is the management of firewater runoff, inclusion of these substances ensures that all relevant hazardous materials present on site have been evaluated with respect to their potential release, mobilisation, and environmental impact during a fire event.

Table 6.1 below provides an inventory of relevant substances located on-site which may pose a threat to water receptors should they become entrained in run-off resulting from a fire event.. MSDS for the listed chemicals to retrieve the Hazard classifications, Water Hazard Class (WGK) and density were obtained from a combination of:

- Elis
- https://pubchem.ncbi.nlm.nih.gov/
- https://gestis-database.dguv.de/search

Table 6.1: Inventory of Potentially Hazardous Substances On-Site & Threshold Exceedance

Substance	Storage	Density g/cm³	Volume m³	Tonne	Volume m³	Tonne	Hazard Code	WGK
			Chemical Room		Storage Container			
Alkali SDS Liquid Caustic Soda 30% ww REV 0.1 02.11.23	IBC	1.33	2	2.66	2	2.66	• H290: May be corrosive to metals. • H314: Causes severe skin burns and eye damage. • H318: Causes serious eye damage	1
Surfactant Jetstream Jetclean	IBC	0.95	2	1.9	1	0.95	• H318 Causes serious eye damage. • H412 Harmful to aquatic life with long lasting effects.	-
Peroxide Personril-English (UK)	IBC	1.11	2	2.22	1	1.11	• H272: May intensify fire; oxidizer (where high peroxide content applies)• H290 May be corrosive to metals • H302: Harmful if swallowed • H314 / H318: Causes severe skin burns and eye damage (or causes serious eye damage depending on concentration/formulation) • H335: May cause respiratory irritation	1 or 2
Chlorine SDS Sodium Hypochlorite 14-15% Rev 0.2 24.09.24 (3) ELPA	IBC	1.2	2	2.4	-	-	• H290 May be corrosive to metals. • H314 Causes severe skin burns and eye damage. • H400 Very toxic to aquatic life.	-
Softener	200L Drum	-	0.4	0.2	0.4	0.2		
Bisulphite SDS Sodium Bisulphite Rev0.0 19.08.2025	IBC	1.3	2	2.6	-	-	• H302: Harmful if swallowed. • H318: Causes serious eye damage. • H317: May cause an allergic skin reaction.	1
Formic Acid SDS Liquid Caustic Soda 30% ww REV 0.1 02.11.23	IBC	1.32	2	2.64	-	-	• H290: May be corrosive to metals • H314: Causes severe skin burns and eye damage	1
Main detergent Ozomoflux ideal	IBC	1.172	2	2.34	2	2.34	• H290: May be corrosive to metals.	-

Substance	Storage	Density g/cm³	Volume m³	Tonne	Volume m³	Tonne	Hazard Code	WGK
							• H314: Causes severe skin burns and eye damage	
Enzyme	200L Drum	1	0.4	0.4	0.4	0.4	NA	-
Nitric acid Water Treatment (option) Horolith V	IBC	1.23	2	2.46		0	• H290: May be corrosive to metals • H314: Causes severe skin burns and eye damage • H318: Causes serious eye damage • H331: Toxic if inhaled	1
Location								
Diesel	Self-bunded steel tank on concrete bund	0.82	20	16.4	Truck Wash & Fuel Filling Station – Stored externally on concrete bund		• H226: Flammable liquid and vapour (Category 3 or 4 depending on flash point). • H304: May be fatal if swallowed and enters airways (Aspiration hazard). • H315: Causes skin irritation. • H332: Harmful if inhaled. • H351: Suspected of causing cancer. • H373: May cause damage to organs through prolonged or repeated exposure. • H411: Toxic to aquatic life with long-lasting effects	-

Cross referencing the storage volumes in **Table 6.1** with the limit values in **Table 2.2** the facility exceeds the Environmental Hazardous Material Storage Threshold for the following substances:

- **Chemical Room**: 2.4t of Chlorine (Sodium Hypochlorite 14-15%) exceeds H400 1t threshold
- **External**: 16.4t of Diesel exceeds H411 10t threshold.

This results in a Hazard potential of H1 for both fire zones in the which firewater retention is necessary. Its important to highlight that as the proposed facility will not be an EPA (IED) licenced facility it is not required to complete this assessment or comply with the requirements of the *EPA Guidance on Retention Requirements for Firewater Run-off* (2019).

The firewater retention provisions and design considerations for the facility are further developed and assessed in the subsequent sections of this report.

6.1.2 Combustible Materials

The Operational Waste Management Report (OWMP) details the site must have weekly capacity for 50.35 m^3 / 13.1 tonne of waste. All waste will be stored externally in metal skips as noted in the OWMP. As the volume waste will not be within the curtilage of the building it is not taken into consideration.

6.2 Environmental Receptor Threshold

As the stormwater network will have an automated penstock linked to the stormwater outfall in manhole SMH 32 there will be no direct discharges from the facility to any receptors detailed in **Table 6.2**.

Table 6.2: Environmental Receptor Threshold

"Does the facility have a direct stormwater discharge from source to receptor…"	**Yes / No**
Municipal drinking water intake points	No
Designated bathing waters	No
Freshwater pearl mussel rivers	No
Designated shellfish waters	No
Water bodies characterised as High Status under the Water Framework Directive	No
SAC, SPA and NHA	No

6.3 Conclusion

	Threshold Criteria	Exceeds?
1.	Environmental Hazardous Material Storage	Yes
2.	Environmental Receptor	No

Its important to highlight that as the proposed facility will not be an EPA (IED) licenced facility it is not required to complete this assessment or comply with the requirements of the *EPA Guidance on Retention Requirements for Firewater Run-off* (2019). This assessment is for best practice purpose.

7 Firewater Retention Capacity

7.1 Calculation Methods

The EPA guidance deems Method 1 (Warehouse) as the appropriate calculation methodology. The calculation sheets are included in **Appendix D** .

Compartmentalisation of the proposed building is shown in the submitted FSC application. As such three assessments were modelled for as shown in **Table 7.1**.

Table 7.1: Summary of Fire Zoning & Retention Requirement

Fire Zone	Zoning	Retention Required
Chemical Storage Room	60/60/60 Fire rated Sprinklers	Yes exceed H400 storage threshold
Chemical Storage Container	External > 15m from building	No below storage threshold
Truck Wash & Fuel Filling Station	External > 15m from building	Yes exceed H411 storage threshold

7.2 Calculation Inputs

The calculation inputs are summarised in the model reports shown in **Appendix D** , **Appendix E** and **Appendix F** . The values for each have been outlined in the **Sections 3** & **5** of this report.

7.3 Retention Capacity

Section 3.6 of this report details the potential retention assets on site. Requirement for Firewater retention was only required in the Chemical Storage Room and Truck Wash & Fuel Filling Station fire zones. Summaries of the modelled fire water retention requirement and available attenuation assets are detailed in **Table 7.2** and **Table 7.3**. No retention modelling was required for the Chemical storage container as volumes did not exceed the threshold.

Table 7.2: Summary of FWRA Retention Calculation - Chemical Storage Room

Chemical Storage Room Model 1 - Warehouse	1 in 10 year 24-hour rainfall event (EPA guidance)	Attenuation Available (m^3)
Fire Water Retention Required (m^3)	962.96	
Attenuation Stormtech A		500
Attenuation Stormtech B		300
Storm Lines		128
Storm Manholes		56.3
Chemical Storage Bunds		4.2
Chemical Storage Sump		1.2
Total	962.96	989.7
Attenuation Surplus	26.7m^3	

Table 7.3: Summary of FWRA Retention Calculation -Truck Wash & Fuel Filling Station

Truck Wash & Fuel Filling Station Model 3 – General Area	1 in 10 year 24-hour rainfall event (EPA guidance)	1 in 10 year 18-hour rainfall event	Attenuation Available (m^3)
Fire Water Retention Required (m^3)	1042	959	
Attenuation Stormtech A			500
Attenuation Stormtech B			300
Storm Lines			128
Storm Manholes			56.3
RC Diesel Bund			22
Total	1042	959	1006.3
Attenuation	35.3 m^3 Deficit	47.3 m^3 Surplus	

8 Conclusions & Recommendations

8.1 Conclusion

There is sufficient retention capacity within the existing site to retain firewater from a fire incident in the Chemical Storage Room in combination with a 1 in 10 year 24-hour rainfall event, as set out in the *EPA Guidance on Retention Requirements for Firewater Run-off* (2019).

In the case of a fire at the 20m^3 diesel fuel tank in the Truck Wash & Fuel Filling Station there is not sufficient attenuation capacity to retain product loss, fire fighting water and rainfall contribution during a 1 in 10 year 24-hour rainfall event. However, the proposed facility is not and IED/ EPA licenced facility and is not required to comply with the requirements set out in the *EPA Guidance on Retention Requirements for Firewater Run-off* (2019) which mandates a 1 in 10 year 24-hour rainfall event. When modelled on a 1 in 10 year 18-hour rainfall event there is sufficient attenuation capacity and 47.3 m^3 surplus capacity at the Truck Wash & Fuel Filling Station during fire scenario.

In ORS opinion, as the facility is not an IED / EPA licenced facility the requirement for compliance with the firewater retention modelling set out in the *EPA Guidance on Retention Requirements for Firewater Run-off* (2019) is not a requirement for the proposed Elis facility at Boyne Village Business Park, Navan, Co. Meath. There is ample attenuation onsite to cater for a fire in the Chemical Storage Room during a 1 in 10 year 24-hour rainfall event in the and in the Truck Wash & Fuel Filling Station during a 1 in 10 year 18-hour rainfall event s long as the recommendations outlined below are implemented in the finalised facility during detailed design and construction.

8.2 Recommendations

The following recommendations are made in relation to firewater management capabilities on site:

- Automatic shut-off valves linked to the fire alarm system should be installed at SMH 32. The valves should activate automatically upon activation of the site fire alarm.
- The two Stromtech attenuation systems should be lined with a 1200 gauge visqueen or similar liner to render impervious in order to retain firewater runoff.
- Ensure all bunds are designed to retain the large of:
    i. 110% of the largest vessel (eg. 1000L IBC = 1100L bund)
    ii. Or, 25% of the total volume stored within the bund (eg. 5 no. IBC's @ 25% = 1,250L bund)
- Design of the storage container should be of Chemstore or similar. It must be located >15m from the facility building and Diesel fuel tank. It should be situated on hard standing away from gullies and drains with appropriate security and fire suppression measure nearby.
- Review requirement for storage of Diesel on site and assess the viability of storing an alternative product, HVO, which poses no H411 environmental hazard code.

9 Post Fire Event Treatment & Disposal Options for Retained Firewater

Following the successful containment and retention of firewater during a fire incident, appropriate management of the retained firewater is required to prevent secondary environmental impacts. Firewater may contain a range of contaminants depending on the nature of the fire, including suspended solids, hydrocarbons, firefighting foams, combustion by-products, heavy metals, chemicals from damaged containers, and contaminated debris.

A post-incident assessment should be undertaken to determine the volume and quality of retained firewater and to identify suitable treatment and disposal options. Sampling and analysis should be conducted by suitably qualified personnel to establish the contaminant profile and classify the waste in accordance with applicable waste management and environmental regulations.

Potential treatment and disposal options may include:

- Off-site treatment and disposal at a licensed wastewater treatment or hazardous waste facility, depending on contamination levels.
- On-site treatment, where feasible, through separation, filtration, sediment removal, pH adjustment, oil-water separation, or other appropriate treatment technologies.
- Discharge to the foul sewer network, subject to analytical results and prior agreement with the relevant wastewater authority.
- Reuse or recycling of treated water where quality standards and operational requirements can be satisfied.
- Disposal as hazardous waste where contamination levels exceed acceptance criteria for conventional wastewater treatment facilities.

The selected disposal route should be based on the characteristics of the retained firewater, available infrastructure, regulatory requirements, and advice from environmental specialists and relevant authorities. All transportation, treatment, and disposal activities should be undertaken by appropriately licensed contractors and documented to provide a complete audit trail to be submitted to the EPA.

A post-fire review should also be completed to assess the effectiveness of the containment measures, identify any improvements required to the firewater management strategy, and ensure that retention systems are restored to operational condition following the incident.

The implementation of these measures will help minimise environmental impacts, demonstrate regulatory compliance, and support the overall objectives of the Firewater Risk Assessment.

Appendix A - Site Layout

THIS DRAWING SHOWS MINIMUM ATTENUATIONS STORAGE REQUIREMENTS.
REFER TO LANDSCAPE ARCHITECT'S DRAWINGS FOR LANDSCAPING DETAILS.

CCTV CONDITION SURVEY TO BE CARRIED OUT ON ALL MAIN DRAINS FOLLOWING INSTALLATION

ALL FOUL AND STORM ABOVE FIRST FLOOR LEVEL TO BE PIPED TO FRONT OF BUILDING AT UNDERSIDE OF FIRST FLOOR

EXTERNAL FACE OF MANHOLE CHAMBERS TO BE MIN. 0.5m FROM KERB LINE
EXTERNAL FACE OF SEWERS TO BE MINIMUM 1m FROM KERB LINE

PROVIDE MINIMUM CLEARANCE OF 3m FROM EXTERNAL FACE OF PIPE TO PROPOSED AND EXISTING STRUCTURES

KEYPLAN

LEGEND:
- PROPOSED STORM SEWER
- PROPOSED FOUL SEWER
- SAJ STORM ARMSTRONG JUNCTION
- FAJ FOUL ARMSTRONG JUNCTION
- SITE BOUNDARY
- G ROAD GULLY
- FLOW CONTROL
- ASPHALT
- PERMEABLE PAVING
- CYCLEPATH
- 100 CONCRETE FOOTPATH
- GRASS/PLANTING
- 125mm KERB (STANDARD ROAD)
- 0–6mm KERB (PEDESTRIAN CROSSING)
- 10–25mm KERB (VEHICLE CROSSING)

SMH1 CL 43.95 IL 42.63 IL 42.68
CROSSING INVERT LEVEL OVER RISING MAINS MIN IL 42.096 IL 42.74
HEADWALL IL 42.80
CROSSING INVERT LEVEL OVER RISING MAINS MIN_IL 42.096
EXISTING 180ø WATERMAIN IL 38.88
EXISTING 500ø WATERMAIN IL approx.38.92
TRAPEZOIDAL DITCH
PROPOSED UISCE EIREANN RISING MAINS
EXISTING UISCE EIREANN WATER MAINS
TRAPEZOIDAL DITCH SEE DRG. No. 2680/425
RETAINING WALL
SMH18 CL46.13 IL44.71
FMH6 CL46.15 IL43.56
FMH5 CL46.08 IL43.67
SMH16 CL45.91 IL44.02
SMH12 CL45.93 IL44.55
OPEN KERB
FMH CL45.99 IL45.30
BYPASS INTERCEPTOR
FMH7 CL46.14 IL43.41
OUTFALL MANHOLE approx. IL43.33(adp)
CONNECTION FROM FUTURE SITES
FUTURE WASTEWATER CONNECTION FOR ADJOINING SITES
SURFACE WATER FOR ACCESS ROAD
FUTURE ATTENUATION
STORM PIPE CAPPED FOR FUTURE CONNECTION
EX. 180ø WATERMAIN IL 43.60
EX. 500ø WATERMAIN IL 41.77
MIN IL FOR FUTURE FOUL SEWER IL42.70 (TBC)
FOUL CONNECTED TO UISCE EIREANN SEWER
FMH11 CL44.12 IL 42.81
FMH10 CL44.13 IL42.87
FMH9 CL44.95 IL43.00
FMH8 CL44.80 IL43.21
PROPOSED 750ø FOUL SEWER IL 41.69 TP@42.60
PROPOSED ø750 FOUL IL 41.801 TP@42.55
FUTURE ø750 FOUL SEWER
EX.225ø WATERMAIN
EX.225ø STORM
SC OUTFALL (adp) IL 43.00
SMH31 CL45.00 IL43.35
SMH33 CL45.00 IL43.27
SMH32 CL45.00 IL43.32
SMH19 CL46.10 IL44.65
SMH20 CL46.15 IL44.3
ATTENUATION IN STORMTECH SC-740
PETROL INTERCEPTOR
SMH30 CL46.20 IL43.45
SMH29 CL46.20 IL43.60
SMH28 IL43.70
SMH23 CL46.25 IL43.75
EXISTING FILED DRAIN TO BE DIVERTED USING 300ø PERFORATED PIPE IN 1.2m WIDE STONE TRENCH
AJ26 CL46.30 IL45.15
SMH27 CL46.25 IL44.09
SMH26 CL46.20 IL44.29
AJ22 CL46.10 IL44.88
SMH25 CL46.13 IL44.37
SMH34 CL46.50 IL45.08
SMH24 CL45.95 IL44.52
SMH1 CL46.05 IL45.23
SMH6 CL46.10 IL45.22
SMH7 CL46.30 IL45.12
SMH8 CL46.40 IL45.32
SMH35 CL46.30 IL44.88
SMH10 CL45.63 IL44.51
SMH11 CL46.36 IL44.36
SMH13 CL45.81 IL44.42
SMH14 CL45.59 IL44.22
SMH15 CL45.59 IL44.12
SMH5 CL46.00 IL43.65
SMH3 CL46.20 IL44.70
SMH4 CL46.61 IL45.18
FMH1 CL45.98 IL44.50
SMH22 CL46.22 IL44.88
FMH2 CL46.07 IL44.03
CL46.30 IL45.20
CL46.05 IL44.70
CL46.05 IL44.72
CL46.03 IL44.43
FMH3 CL46.18 IL44.75
FMH4 CL46.18 IL44.50
CL46.63 IL45.17
AJ IL45.30
150 STEP
400 STEP
ACO DRAIN
300 RC WALL
250RC SLAB
RETAINING WALL
FUEL STORAGE TANK WITH RC BUND
ATTENUATION IN STORMTECH SC-740
FOUL PIPE CAPPED FOR FUTURE CONNECTION
FFL=46.50
INDICATIVE FUTURE DEVELOPMENT
ACCESS ROAD
Unit A4
Unit A3
Unit A2
Unit A1

NOTES:
READ IN CONJUNCTION WITH ARCHITECT'S, ENGINEER'S & BUILDING WORK DRAWINGS & SPECIFICATIONS AND HENDRICK RYAN DRAWING No. N01 - CIVIL / STRUCTURAL ENGINEERING NOTES

DO NOT SCALE FROM THIS DRAWING.
USE WRITTEN DIMENSIONS ONLY
THE CONTRACTOR IS REQUIRED TO CHECK ALL DIMENSIONS ON SITE. ANY DISCREPANCY TO BE NOTIFIED TO THE ENGINEER/ARCHITECT

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Drawing Title: DRAINAGE LAYOUT - SHEET 1

Project Number:	Drawing Number:	Revision:	Size:
2680	300	P4	A1
Scale: 1:500			Stage: PLANNING
Date: 17/12/2025	Drawn By: LB	Checked By: PMcS	Approved By: PMcS

GEOMETRY OF ALL CHAMBERS TO BE CONFIRMED BY ELIS

MH No.	SIZE(m)	IL	NOTE
B1	1.20x1.20	44.70	
B2	1.20x1.20	45.00	MIN. 1.20m³
B3	1.20x1.20	44.85	
B4	1.20x1.20	45.45	
B5	1.20x1.20	45.55	
B6	1.50x1.20	45.50	MIN. 1.00m³
B7	1.20x1.20	45.25	
B8	1.20x1.20	45.35	
B9	1.20x0.90	45.65	MIN. 0.45m³
B10	1.20x0.90	45.50	MIN. 0.675m³
B11	2.00x1.80	45.50	MIN. 2.00m³
B12	1.20x1.20	45.68	
B13	1.50x1.20	45.80	MIN. 0.45m³
B14	1.20x0.90	45.84	
W1	1.20x1.20	44.45	
W2	1.20x1.20	44.60	
W3	1.20x1.20	45.45	
W4	1.20x1.20	45.55	
W5	1.20x1.20	45.00	
W6	1.20x1.20	45.25	
W7	1.20x1.20	45.65	MIN. 0.45m³
W8	1.20x1.20	45.40	MIN. 0.675m³
W9	2.00x1.20	45.15	MIN. 2.00m³
W10	1.20x1.20	45.40	
W11	1.20x1.20	45.80	MIN. 0.45m³
W12	2.00x1.20	45.42	

NOTE
PROCESS DRAINAGE SHOWN ON HENDRICK RYAN DRAWINGS IS INDICATIVE & FOR ESTIMATING BELOW GROUND CONCRETE PROFILES ONLY (EG, CHAMBER SIZES).
THE CONTRACTOR SHALL APPOINT A SUITABLY QUALIFIED SPECIALIST TO DESIGN THE PROCESS DRAINAGE IN CONJUNCTION WITH ELIS.

ALL SURFACE WATER & WASTEWATER PIPES TO BE uPVC WHICH COMPLY WITH THE REQUIREMENTS OF UISCE EIREANN CODE OF PRACTICE

FOR COST PURPOSES ONLY
ALL PROCESS DRAINAGE PIPES TO BE POLYPROPYLENE UNO.
PIPES SERVING BOILER ROOM TO BE STAINLESS STEEL

- ALL DRAINAGE TO BE VENTED TO M&E DETAILS
- SETTING OUT OF ALL PROCESS DRAINAGE, UPSTANDS ETC TO BE COORDINATED WITH ELIS

ALL PIPES TO BE ENCASED IN CONCRETE BELOW BUILDING

SFL=46.50

DESIGN & SPECIFICATION OF ALL PROCESS DRAINAGE TO BE THE SOLE RESPONSIBILITY OF ELIS

GEOMETRY OF CHAMBERS TO BE CONFIRMED BY ELIS

ALL WASTEWATER DRAINAGE FROM FIRST FLOOR LEVEL TO BE TAKEN TO PERIMETER OF BUILDING TO M&E DETAILS.

ALL STORMWATER DRAINAGE FROM FIRST FLOOR TO BE TAKEN TO PERIMETER OF BUILDING TO ARCH. DETAILS.

ALL SOIL & VENT STACKS TO HAVE RODDABLE ACCESS ABOVE GROUND LEVEL

PROCESS BLUE WATER (NON-RECYCLED)
PROCESS WHITE WATER (RECYCLED)
FOUL SEWER
STORM SEWER
SUSPENDED STORM PIPE AT HIGH LEVEL TO ARCH DETAILS

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NOTES:
READ IN CONJUNCTION WITH ARCHITECT'S, ENGINEER'S & BUILDING WORK DRAWINGS & SPECIFICATIONS AND HENDRICK RYAN DRAWING No. N01 - CIVIL / STRUCTURAL ENGINEERING NOTES

DO NOT SCALE FROM THIS DRAWING.
USE WRITTEN DIMENSIONS ONLY
THE CONTRACTOR IS REQUIRED TO CHECK ALL DIMENSIONS ON SITE. ANY DISCREPANCY TO BE NOTIFIED TO THE ENGINEER/ARCHITECT

Rev.:	Date:	Description:	Drawn	Appr'd

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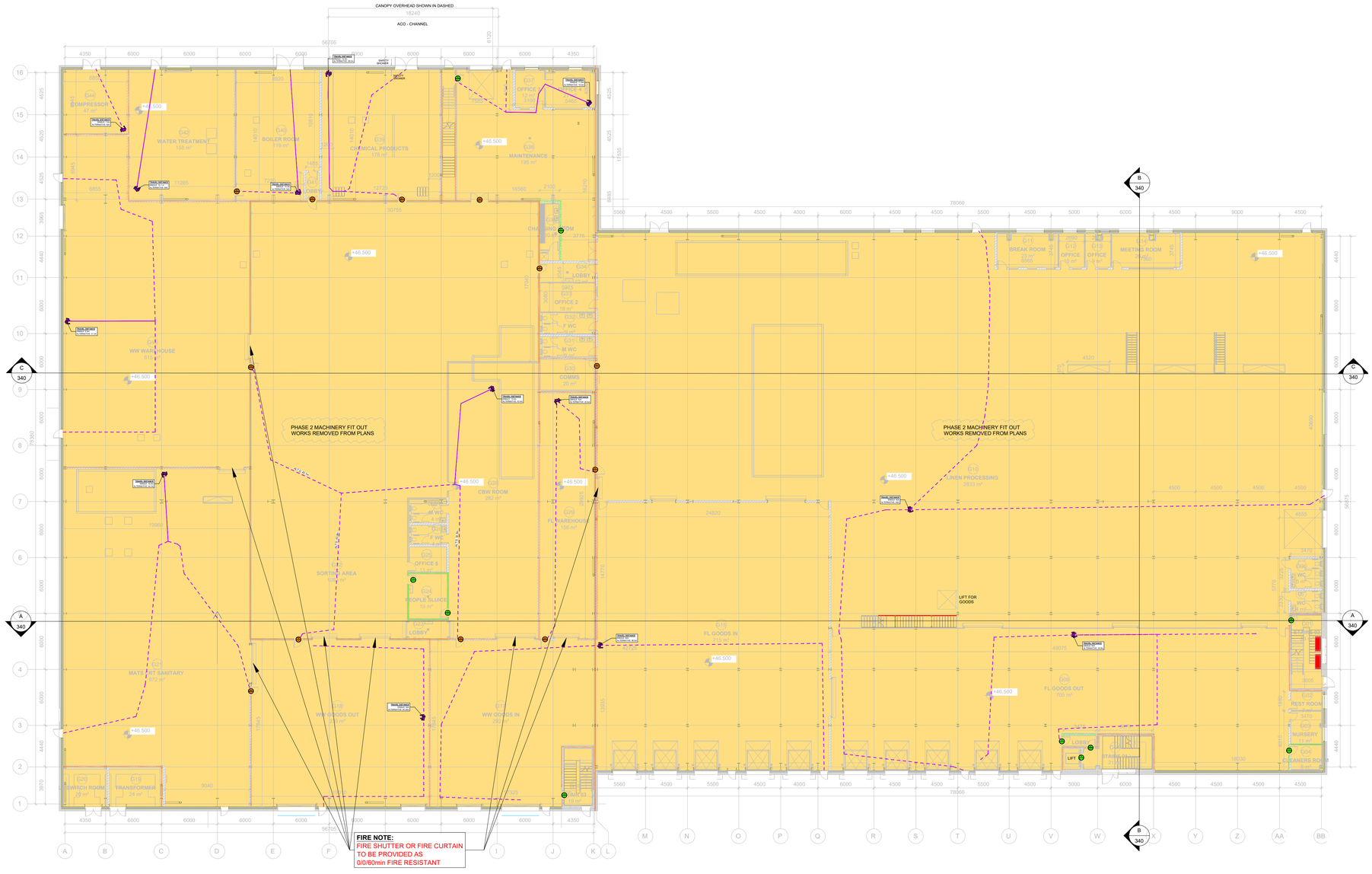
Project: ELIS, ATHLUMNEY
Drawing Title: INTERNAL DRAINAGE - SHEET 1

Project Number:	Drawing Number:	Revision:	Size:
2706	800	P4	A1
Scale: 1:200			Stage: TENDER
Date: 22/06/2026	Drawn By: LB	Checked By: PMcS	Approved By: PMcS

Appendix B - Warehouse Fire Compartmentalisation

A1

LEGEND:	FLOOR PLAN
	EXTENT OF DEVELOPMENT APPLICABLE TO THIS FIRE SAFETY CERTIFICATE APPLICATION
	INDICATES TRAVEL DISTANCE
60 S / 30 S	FIRE RESISTING DOORSET TO HAVE NOT LESS THAN XX MINUTES INTEGRITY RATING IN ACCORDANCE WITH BS:476-Part 22. DOOR TO BE PROVIDED WITH INTUMESCENT STRIPS AND SMOKE SEALS SO AS TO HAVE A LEAKAGE RATE OF NOT EXCEEDING 3M CB/M/HR (HEAD AND JAMBS). DOORSETS TO BE FITTED WITH AN AUTOMATIC SELF CLOSING DEVICE WHICH SHALL BE CAPABLE OF CLOSING THE DOOR FROM ANY ANGLE AND AGAINST ANY LATCH FITTED TO THIS DOOR (UNLESS OTHERWISE STATED IN COMPLIANCE REPORT)
	30/30/30 MINUTE FIRE RESISTING WALL CONSTRUCTION, TO BE CONTINUED UP TO THE UNDERSIDE OF COMPARTMENT FLOOR SLAB OR ROOF OVER AND FIRE STOPPED AT JUNCTIONS
	60/60/60 MINUTE FIRE RESISTING COMPARTMENT WALL CONSTRUCTION, TO BE CONTINUED UP TO THE UNDERSIDE OF COMPARTMENT FLOOR SLAB OR ROOF OVER AND FIRE STOPPED AT JUNCTIONS
AOV / OVERY	INDICATES AOV TO BE PROVIDED IN STAIRWAY/ ESCAPE CORRIDOR. AOV TO BE AUTOMATICALLY OPEN BY ACTIVATION OF SMOKE DETECTORS IN THE ENCLOSURE OR BY PUSH OF A MANUAL PUSH BUTTON.



1 GROUND FLOOR PLAN
SCALE: 1:250

FSC

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Figured dimension only to be taken from this drawing. All dimensions to be checked on site. Consultants to be informed immediately of any discrepancies before work proceeds.

This drawing is to be read in conjunction with ORS compliance report. This drawing forms part of the fire safety certificate application only and is not to be used as construction drawings or construction fire drawings.

REV NO:	DATE:	REVISION NOTE:	DWN BY:	CKD BY:
P01	20/05/2026	ISSUED TO DESIGN TEAM FOR REVIEW & COMMENT	TD	SC
P01-02	04/06/2026	ISSUED TO DESIGN TEAM FOR REVIEW & COMMENT	TD	SC
P01-03	20/07/2026	ISSUED TO DESIGN TEAM FOR REVIEW & COMMENT	TD	SC
P02	10/09/2026	ISSUED TO LOCAL AUTHORITY	TD	SC

CLIENT:	ELIS TEXTILE SERVICES LTD
PROJECT:	(UNITS C1), BOYNE VILLAGE ENTERPRISE PARK, ATHLUMNEY, NAVAN, CO.MEATH
TITLE:	GROUND FLOOR PLAN PRELIMINARY FIRE SAFETY CERTIFICATE

DRAWN:	CHECKED:	APPROVED:	JOB NO:	REV:
TD	SC	BC	261001	P02
DATE: 10/09/2026	SCALE: 1:250		DRAWING NO: 261001-ORS-Z1-ZZ-DR-FS-310	

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IS.EN.ISO 9001:2015 Cert. no. Q3324

Appendix C - Met Eireann Rainfall Return Data

Met Éireann

Return Period Rainfall Depths

Coordinates: 53.659478, -6.654990

Duration	0.5 yrs	1 yrs	2 yrs	3 yrs	4 yrs	5 yrs	10 yrs	20 yrs	30 yrs	50 yrs	75 yrs	100 yrs	120 yrs
5 mins	2.8	3.9	4.4	5.3	5.9	6.3	7.7	9.3	10.3	11.8	13.1	14.1	14.7
10 mins	3.7	5.1	5.8	6.8	7.5	8	9.8	11.7	12.9	14.7	16.2	17.4	18.2
15 mins	4.3	5.9	6.7	7.9	8.7	9.3	11.2	13.4	14.8	16.7	18.4	19.7	20.6
30 mins	5.7	7.7	8.7	10.2	11.1	11.9	14.2	16.8	18.5	20.8	22.8	24.3	25.4
1 hour	7.6	10.1	11.3	13.1	14.3	15.2	18	21.2	23.2	25.9	28.3	30.1	31.3
2 hours	10	13.1	14.6	16.8	18.3	19.4	22.9	26.6	29	32.3	35.1	37.2	38.6
3 hours	11.8	15.3	17	19.5	21.2	22.4	26.3	30.4	33.1	36.7	39.8	42.1	43.7
4 hours	13.3	17.1	19	21.7	23.5	24.8	29	33.5	36.3	40.2	43.5	46	47.7
6 hours	15.6	20	22.1	25.1	27.1	28.6	33.3	38.3	41.4	45.7	49.3	52.1	53.9
9 hours	18.4	23.3	25.7	29.2	31.4	33	38.2	43.8	47.2	51.9	55.9	59	61
12 hours	20.7	26	28.7	32.4	34.8	36.6	42.2	48.1	51.9	56.9	61.2	64.4	66.5
18 hours	24.3	30.4	33.4	37.5	40.2	42.2	48.5	55.1	59.2	64.7	69.4	72.9	75.2
24 hours	27.3	34	37.2	41.7	44.6	46.8	53.5	60.5	64.9	70.8	75.9	79.6	82.1
2 days	33.7	41.3	44.9	49.9	53.2	55.6	63	70.7	75.4	81.8	87.2	91.2	93.8

Appendix D - EPA Retention Tool (Method 1) – Chemical Storage Room

FIRE WATER RETENTION RISK ASSESSMENT

Chemical Storage Room - Assessment Area

Organisation Name	**Elis Navan**	
Licence Number	**NA**	
Completed By	**Name**	Cathal Tighe
	Position	Environmental Consultant
	Email	c.tighe@ors.ie
	Direct Tel.	015547532
	Date:	13/10/2026

This Fire Water Retention Risk Assessment Spreadsheet is to be used in conjunction with the EPA Guidance on Retention Requirements for Firewater Run-off. The purpose of this workbook is to determine, at a conservative level, whether firewater retention is required for the facility, and if so the required retention capacity.

SHEET DESCRIPTION	INSTRUCTIONS	COMMENT
Significance of Fire Event	Please enter the fire protection measures that are available in each area of the site and the quantity of flammable and combustible material storage within these areas.	Input Required
Hazard Potential	Please enter the quantities of hazardous substances stored within each "assessment area" of the site. If the site is a licensed waste disposal facility please select "Hazardous" or "Non-Hazardous", or "N/A" if this does not apply.	Input Required
Fire Water Run-Off Risk	This tab will outline the Overall Fire Water Run-Off Risk of each area based on the Significance of a Fire event and the Hazard Potential in each "assessment area". The conclusion as to whether or not the site requires fire water retention is stated here.	Risk Assessment Result
Method 1: Warehouse Retention Calculation	A calculation of the fire water retention required for a warehouse area storage is outlined here. The method is based on the Swiss Federation Firewater Retention Practical Guide.	Input Required
Method 2: Tank Farm / Process Plant Retention Calculation	For other areas, e.g. tank farm, process room, etc. a detailed assessment should be carried out to determine firewater retention volume required. This involves acquiring information on expected fire duration, sprinkler flow rates, etc. See Section 4.3 of the Guidance Report.	Input of Calculation and Support Data
Method 3: General Retention Calculation	A generic calculation can also be used based on first principles of fire water retention. This is a conservative approach to retention volume calculation.	Input Required

Significance of Fire Event

Chemical Storage Room - Assessment Area

Number	Fire Protection Measures in this Area	Response		
	1. Fire Prevention Measures			
1.1	Fire Detection and Alarm Systems (FDAS). IS 3218:2013	Yes		
1.2	Automatic Fire Protection	Yes		
	2. Materials Stored	**Tonnes**	**Substance Name(s)**	
	H224 (extremely flammable)	0		Tonnes
	H225 (highly flammable)	0		Tonnes
	H226 (flammable)[1]	0		Tonnes
2.1	**Flammable Liquids Storage**	0		**Tonnes**
	H220 (extremely flammable)	0		Tonnes
	H221 (flammable)	0		Tonnes
2.2	**Flammable Gas Storage**	0		**Tonnes**
	H228 (flammable)	0		Tonnes
2.3	**Flammable Solids Storage**	0		**Tonnes**
	H227 Combustible Liquids	0		Tonnes
	Waste	0		Tonnes
	Packaging (including pallets)	0		Tonnes
	Plastic (if not in packaging above)	0		Tonnes
	Oils/fuels (not classified as flammable)	0		Tonnes
	Process materials (not classified as flammable)	0		Tonnes
	Any other combustible material	0		Tonnes
2.4	**Combustible Materials Storage**	0		**Tonnes**
	Percent of S1 Storage	0%		
	Percent of S2 Storage	0%		
	Percent of S3 Storage	0%		

0.0

Fire Significance **S1 - Low Significance**

Likelihood	Description
S 1	Low Significance
S 2	Medium Significance
S 3	High Significance

Scoring Details		
Flammable Material Threshold (see Information Tab for Threshold details)	**Fire Protection**	**Significance**
None	N/A	S 1
Lower	FDAS	S 1
Lower	None	S 2
Middle	FDAS Sprinklers	S 1
Middle	FDAS	S 2

Middle	None	S 3
Upper	Any	S 3

Note 1 H226 Flammable Liquids have a large flash point range. Higher flash point flammables (e.g. Diesel - Flash Point 55-56°C) can be considered as combustible for the purpose of this exercise if the material under normal environmental or workplace operational conditions will always be handled at temperatures at least 15ºC below their flashpoint and in consequence will not produce a flammable atmosphere. See *HSG140 - Safe Use and Handling of Flammable Liquids* , UK HSE 2015, for more information. Ambient external temperature in Ireland does not generally exceed 30ºC. See Appendix A of Guidance Report for more information.

Hazard Potential

Chemical Storage Room - Assessment Area

Number	Material Stored in this Area	Response	Hazard Category	
	1. Hazardous Material Storage on Site[3]			
1.1	H400/H410 Environmentally Hazardous Material (GHS Classification) (tonnes)	2.4		Chlorine
1.2	H401/411 Environmentally Hazardous Material (GHS Classification) (tonnes)	0		
1.3	H402/412 Environmentally Hazardous Material (GHS Classification) (tonnes)	1.9		Jetstream Jetclean
1.4	H413 Environmentally Hazardous Material (GHS Classification) (tonnes)	0		
	Total H400 Equivalent Material	**2.419**	**H1**	
	Note on WGK Classification: Use either H statement or WGK classification of a material. Start with H statement if available, if not available use WGK classification instead. DO NOT ENTER THE SAME MATERIAL UNDER BOTH CLASSIFICATIONS See Appendix A of the Guidance Document for further instruction			
1.5	WGK3 Water Hazardous Material (German Classification) (tonnes)	0		
1.6	WGK2 Water Hazardous Material (German Classification) (tonnes)	0		
1.7	WGK1 Water Hazardous Material (German Classification - See information tab) (tonnes)	15.8		Other Chemicals
	Total WGK3 Equivalent Material	**0.158**	**H0**	
1.8	Laboratories which contain Genetically Modified Micro-Organisms (GMOs) According to Directive 2009/41/EC (Groups 3 & 4) See Appendix A of the Guidance Document for further instruction.	No	H0	
1.90	Licensed Hazardous Waste Facility	No	H0	
			1	

Hazard Potential	Description
H0	No Hazard Potential
H1	Hazard Potential

Scoring Details	
Hazard Potential	**Quantity of Material / Type of Facility**
H0	<1t WGK 3 or Equivalent[1]

No hazard potential	<1t Toxic (H400/H410 Harmful to Aquatic Life) **or** Equivalent[2]
H1 *Hazard potential*	>1t WGK 3 or Equivalent[1] <1t (H400/H410 Harmful to Aquatic Life) **or** Equivalent[2] Laboratories Which Contain Genetically Modified Micro-Organisms (GMOs) According To Directive 2009/41/EC (Groups 3 & 4) Licenced Waste Storage Facility

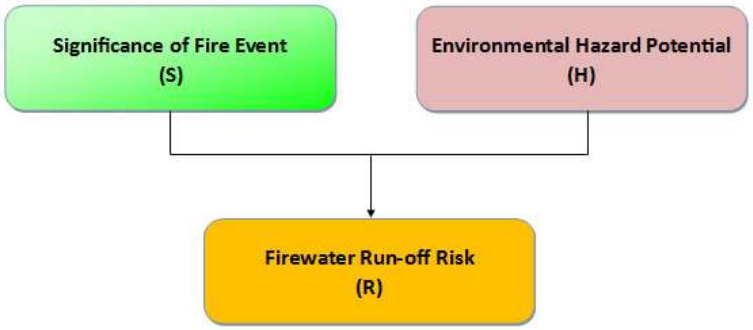
Note 1: Hazardous to the Aquatic Environment Equivalent Calculation: 100t H412/H413 = 10t H411 = 1t H400/410

Note 2: WGK Equivalent Calculation: 100t WGK1 = 10t WGK2 = 1t WGK3

Note 3: Fire-fighting foam to be used in this area should be included if relevant hazard classifications apply

Overall Fire Water Run-Off Risk

Chemical Storage Room - Assessment Area



Sheet Reference	Score
Signficance of Fire Event	S1 - Low Significance
Hazard Potential	H1 - Hazard Potential

	H0	H1
S1	R0	R1
S2	R0	R1
S3	R1	R1

	Score
Fire Water Run-Off Risk	R1 - Risk of Environmental Contamination

Risk	Minimum Firewater Retention Measures Required
R0 No Risk	No dedicated firewater retention required.
R1 Risk of Environmental Contamination	Firewater run-off must be retained within the operational site. The retention can be provided by means of the site's drainage system and other suitable infrastructure which is not exclusively foreseen for firewater retention (e.g. storm water ponds / tanks in waste water treatment plants). All elements of the site infrastructure to be used for firewater retention (including shutoff valves) must be regularly inspected to ensure functionality and impermeability. The retention facility must remain impermeable for the duration of the incident up to the removal of the firewater run-off The documented available retention capacity in the existing site infrastructure must be monitored and maintained. Automatic shut-off valves must be maintained and tested. Diversion of firewater to retention facilities must be automatic on activation of the site fire alarm. Onsite bunds cannot be used to provide firewater retention unless the content of a bund is directly involved in the fire event.

Conclusion	
Fire Water Retention Required on Site?	Yes

Fire Water Retention Calculation

Warehouse Area - Chemical Storage Room

Number	Calculation Steps	Response	Comment
1.1	Size of Storage Area (m^2)	297	Input Required
1.2	Flammable Material (tonnes)	0	From Significance tab
1.3	Combustible Material (tonnes)	0	From Significance tab
1.5	Aerosol materials, not already classified as flammable - H222, H223 (tonnes)	0	Input Required
1.6	Oxidising Material not already classified - H270, H271 (tonnes)	0	Input Required
1.7	Oxidising Material not already classified - H272 (tonnes)	2.22	Input Required
1.4	Non Combustible Material (tonnes) (see note 1)	25.76	Input Required
1.8	Total F1/F2 Materials	0	
1.9	Total F3/F4 Materials	2.22	
1.1	Total Storage in this Area (tonnes)	27.98	
1.11	Fire Hazard Category	F3/F4	
1.12	Storage Density (kg/m^2)	94.21	
1.13	Storage Density Factor	0.5	
1.14	Type of Storage	Non-racked Storage	Input Required
	Preliminary Fire Water Retention Required m^3 (without storage density factor)		160
	Sprinklers	Yes	160
	Note on Preliminary Result		**Fire Compartment Size is Acceptable**

Total Storage Quantity (kg)	27.98
Fire Hazard Category	F3/F4
Warehouse Area (m^2)	297
Sprinklers?	Yes
Storage Type	Non-racked Storage
Retention Volume Required m^3 (with density factor)	80

1.10	Area of Site which shares common drainage with Area (m^2)	16504	Input Required	
1.11	1 in 10 year 24hour rainfall event for local area (m)	0.0535	Input Required	
1.12	Rain Water (m^3)[1]	882.96		
	Fire Water Retention Required (m^3)	962.96		
Attenuation systems	Attenuation Stormtech A	500		
	Attenuation Stormtech B	300		
	Storm Lines	128		
	Storm Manholes	56.3		
	Chemical Storage Bunds	4.2		
	Chemical Storage Sump	1.2		
	Total	989.7	m3	
	Attenuation Surplus	**26.7**	m3	

Note 1

Examples of non-combustible materials include HCl, NaOH, glass container storage etc. Any non-combustible materials stored in this "assessment area" should be reviewed against their relevent Material Safety Data Sheets and confirmed as non-combustible before being included in the calculation above.

Appendix E - EPA Retention Tool (Method 1) – Storage Container

FIRE WATER RETENTION RISK ASSESSMENT

Storage Container - Assessment Area

Organisation Name	**Elis Navan**	
Licence Number	**NA**	
Completed By	**Name**	Cathal Tighe
	Position	Environmental Consultant
	Email	c.tighe@ors.ie
	Direct Tel.	015547532
	Date:	46308

This Fire Water Retention Risk Assessment Spreadsheet is to be used in conjunction with the EPA Guidance on Retention Requirements for Firewater Run-off. The purpose of this workbook is to determine, at a conservative level, whether firewater retention is required for the facility, and if so the required retention capacity.

SHEET DESCRIPTION	INSTRUCTIONS	COMMENT
Significance of Fire Event	Please enter the fire protection measures that are available in each area of the site and the quantity of flammable and combustible material storage within these areas.	Input Required
Hazard Potential	Please enter the quantities of hazardous substances stored within each "assessment area" of the site. If the site is a licensed waste disposal facility please select "Hazardous" or "Non-Hazardous", or "N/A" if this does not apply.	Input Required
Fire Water Run-Off Risk	This tab will outline the Overall Fire Water Run-Off Risk of each area based on the Significance of a Fire event and the Hazard Potential in each "assessment area". The conclusion as to whether or not the site requires fire water retention is stated here.	Risk Assessment Result
Method 1: Warehouse Retention Calculation	A calculation of the fire water retention required for a warehouse area storage is outlined here. The method is based on the Swiss Federation Firewater Retention Practical Guide.	Input Required
Method 2: Tank Farm / Process Plant Retention Calculation	For other areas, e.g. tank farm, process room, etc. a detailed assessment should be carried out to determine firewater retention volume required. This involves acquiring information on expected fire duration, sprinkler flow rates, etc. See Section 4.3 of the Guidance Report.	Input of Calculation and Support Data
Method 3: General Retention Calculation	A generic calculation can also be used based on first principles of fire water retention. This is a conservative approach to retention volume calculation.	Input Required

Significance of Fire Event

Storage Container - Assessment Area

Number	Fire Protection Measures in this Area	Response		
	1. Fire Prevention Measures			
1.1	Fire Detection and Alarm Systems (FDAS). IS 3218:2013	Yes		
1.2	Automatic Fire Protection	No		
	2. Materials Stored	**Tonnes**	**Substance Name(s)**	
	H224 (extremely flammable)	0		Tonnes
	H225 (highly flammable)	0		Tonnes
	H226 (flammable)[1]	0		Tonnes
2.1	**Flammable Liquids Storage**	0		**Tonnes**
	H220 (extremely flammable)	0		Tonnes
	H221 (flammable)	0		Tonnes
2.2	**Flammable Gas Storage**	0		**Tonnes**
	H228 (flammable)	0		Tonnes
2.3	**Flammable Solids Storage**	0		**Tonnes**
	H227 Combustible Liquids	0		Tonnes
	Waste	0		Tonnes
	Packaging (including pallets)	0		Tonnes
	Plastic (if not in packaging above)	0		Tonnes
	Oils/fuels (not classified as flammable)	0		Tonnes
	Process materials (not classified as flammable)	0		Tonnes
	Any other combustible material	0		Tonnes
2.4	**Combustible Materials Storage**	0		**Tonnes**
	Percent of S1 Storage	0%		
	Percent of S2 Storage	0%		
	Percent of S3 Storage	0%		

0.0

Fire Significance **S1 - Low Significance**

Likelihood	Description
S 1	Low Significance
S 2	Medium Significance
S 3	High Significance

Scoring Details		
Flammable Material Threshold (see Information Tab for Threshold details)	**Fire Protection**	**Significance**
None	N/A	S 1
Lower	FDAS	S 1
Lower	None	S 2
Middle	FDAS Sprinklers	S 1
Middle	FDAS	S 2

Middle	None	S 3
Upper	Any	S 3

Note 1 H226 Flammable Liquids have a large flash point range. Higher flash point flammables (e.g. Diesel - Flash Point 55-56°C) can be considered as combustible for the purpose of this exercise if the material under normal environmental or workplace operational conditions will always be handled at temperatures at least 15ºC below their flashpoint and in consequence will not produce a flammable atmosphere. See *HSG140 - Safe Use and Handling of Flammable Liquids* , UK HSE 2015, for more information. Ambient external temperature in Ireland does not generally exceed 30ºC. See Appendix A of Guidance Report for more information.

Hazard Potential

Storage Container - Assessment Area

Number	Material Stored in this Area	Response	Hazard Category	
	1. Hazardous Material Storage on Site[3]			
1.1	H400/H410 Environmentally Hazardous Material (GHS Classification) (tonnes)	0		
1.2	H401/411 Environmentally Hazardous Material (GHS Classification) (tonnes)	0		Jetstream Jetclean
1.3	H402/412 Environmentally Hazardous Material (GHS Classification) (tonnes)	0.95		
1.4	H413 Environmentally Hazardous Material (GHS Classification) (tonnes)	0		
	Total H400 Equivalent Material	**0.0095**	**H0**	
	Note on WGK Classification: Use either H statement or WGK classification of a material. Start with H statement if available, if not available use WGK classification instead. DO NOT ENTER THE SAME MATERIAL UNDER BOTH CLASSIFICATIONS See Appendix A of the Guidance Document for further instruction			
1.5	WGK3 Water Hazardous Material (German Classification) (tonnes)	0		
1.6	WGK2 Water Hazardous Material (German Classification) (tonnes)	0		
1.7	WGK1 Water Hazardous Material (German Classification - See information tab) (tonnes)	6.73		All other chemicals
	Total WGK3 Equivalent Material	**0.0673**	**H0**	
1.8	Laboratories which contain Genetically Modified Micro-Organisms (GMOs) According to Directive 2009/41/EC (Groups 3 & 4) See Appendix A of the Guidance Document for further instruction.	No	H0	
1.90	Licensed Hazardous Waste Facility	No	H0	
			0	

Hazard Potential	Description
H0	No Hazard Potential
H1	Hazard Potential

Scoring Details	
Hazard Potential	**Quantity of Material / Type of Facility**
H0	<1t WGK 3 or Equivalent[1]

No hazard potential	<1t Toxic (H400/H410 Harmful to Aquatic Life) **or** Equivalent[2]
H1 *Hazard potential*	>1t WGK 3 or Equivalent[1] <1t (H400/H410 Harmful to Aquatic Life) **or** Equivalent[2] Laboratories Which Contain Genetically Modified Micro-Organisms (GMOs) According To Directive 2009/41/EC (Groups 3 & 4) Licenced Waste Storage Facility

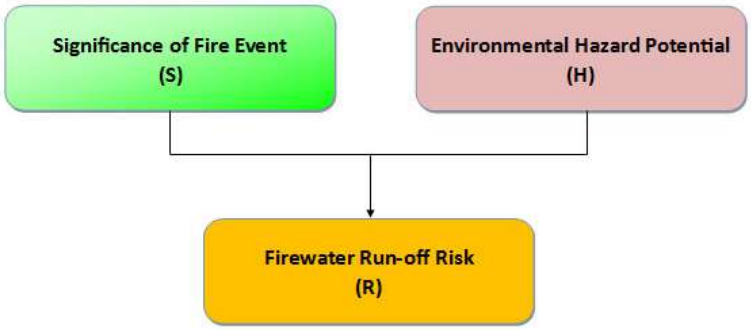
Note 1: Hazardous to the Aquatic Environment Equivalent Calculation: 100t H412/H413 = 10t H411 = 1t H400/410

Note 2: WGK Equivalent Calculation: 100t WGK1 = 10t WGK2 = 1t WGK3

Note 3: Fire-fighting foam to be used in this area should be included if relevant hazard classifications apply

Overall Fire Water Run-Off Risk

Storage Container - Assessment Area



Sheet Reference	Score
Signficance of Fire Event	S1 - Low Significance
Hazard Potential	H0 - No Hazard Potential

	H0	H1
S1	R0	R1
S2	R0	R1
S3	R1	R1

	Score
Fire Water Run-Off Risk	R0 - No Risk

Risk	Minimum Firewater Retention Measures Required
R0 No Risk	No dedicated firewater retention required.
R1 Risk of Environmental Contamination	Firewater run-off must be retained within the operational site. The retention can be provided by means of the site's drainage system and other suitable infrastructure which is not exclusively foreseen for firewater retention (e.g. storm water ponds / tanks in waste water treatment plants). All elements of the site infrastructure to be used for firewater retention (including shutoff valves) must be regularly inspected to ensure functionality and impermeability. The retention facility must remain impermeable for the duration of the incident up to the removal of the firewater run-off The documented available retention capacity in the existing site infrastructure must be monitored and maintained. Automatic shut-off valves must be maintained and tested. Diversion of firewater to retention facilities must be automatic on activation of the site fire alarm. Onsite bunds cannot be used to provide firewater retention unless the content of a bund is directly involved in the fire event.

Conclusion	
Fire Water Retention Required on Site?	No

Appendix F - EPA Retention Tool (Method 3) – Truck Wash & Fuel Filling Station

FIRE WATER RETENTION RISK ASSESSMENT

Diesel & Vehicle Wash - Assessment Area

Organisation Name	**Elis Navan**	
Licence Number	**NA**	
Completed By	**Name**	Cathal Tighe
	Position	Environmental Consultant
	Email	c.tighe@ors.ie
	Direct Tel.	015547532
	Date:	13/10/2026

This Fire Water Retention Risk Assessment Spreadsheet is to be used in conjunction with the EPA Guidance on Retention Requirements for Firewater Run-off. The purpose of this workbook is to determine, at a conservative level, whether firewater retention is required for the facility, and if so the required retention capacity.

SHEET DESCRIPTION	INSTRUCTIONS	COMMENT
Significance of Fire Event	Please enter the fire protection measures that are available in each area of the site and the quantity of flammable and combustible material storage within these areas.	Input Required
Hazard Potential	Please enter the quantities of hazardous substances stored within each "assessment area" of the site. If the site is a licensed waste disposal facility please select "Hazardous" or "Non-Hazardous", or "N/A" if this does not apply.	Input Required
Fire Water Run-Off Risk	This tab will outline the Overall Fire Water Run-Off Risk of each area based on the Significance of a Fire event and the Hazard Potential in each "assessment area". The conclusion as to whether or not the site requires fire water retention is stated here.	Risk Assessment Result
Method 1: Warehouse Retention Calculation	A calculation of the fire water retention required for a warehouse area storage is outlined here. The method is based on the Swiss Federation Firewater Retention Practical Guide.	Input Required
Method 2: Tank Farm / Process Plant Retention Calculation	For other areas, e.g. tank farm, process room, etc. a detailed assessment should be carried out to determine firewater retention volume required. This involves acquiring information on expected fire duration, sprinkler flow rates, etc. See Section 4.3 of the Guidance Report.	Input of Calculation and Support Data
Method 3: General Retention Calculation	A generic calculation can also be used based on first principles of fire water retention. This is a conservative approach to retention volume calculation.	Input Required

Significance of Fire Event

Diesel & Vehicle Wash - Assessment Area

Number	Fire Protection Measures in this Area	Response		
	1. Fire Prevention Measures			
1.1	Fire Detection and Alarm Systems (FDAS). IS 3218:2013	Yes		
1.2	Automatic Fire Protection	No		
	2. Materials Stored	**Tonnes**	**Substance Name(s)**	
	H224 (extremely flammable)	0		Tonnes
	H225 (highly flammable)	0		Tonnes
	H226 (flammable)[1]	0		Tonnes
2.1	**Flammable Liquids Storage**	0		**Tonnes**
	H220 (extremely flammable)	0		Tonnes
	H221 (flammable)	0		Tonnes
2.2	**Flammable Gas Storage**	0		**Tonnes**
	H228 (flammable)	0		Tonnes
2.3	**Flammable Solids Storage**	0		**Tonnes**
	H227 Combustible Liquids	16.4	Diesel	Tonnes
	Waste	0		Tonnes
	Packaging (including pallets)	0		Tonnes
	Plastic (if not in packaging above)	0		Tonnes
	Oils/fuels (not classified as flammable)	0		Tonnes
	Process materials (not classified as flammable)	0		Tonnes
	Any other combustible material	0		Tonnes
2.4	**Combustible Materials Storage**	16.4		**Tonnes**
	Percent of S1 Storage	820%		
	Percent of S2 Storage	55%		
	Percent of S3 Storage	8%		

0.5

Fire Significance **S1 - Low Significance**

Likelihood	Description
S 1	Low Significance
S 2	Medium Significance
S 3	High Significance

Scoring Details		
Flammable Material Threshold (see Information Tab for Threshold details)	**Fire Protection**	**Significance**
None	N/A	S 1
Lower	FDAS	S 1
Lower	None	S 2
Middle	FDAS Sprinklers	S 1
Middle	FDAS	S 2

Middle	None	S 3
Upper	Any	S 3

Note 1 H226 Flammable Liquids have a large flash point range. Higher flash point flammables (e.g. Diesel - Flash Point 55-56°C) can be considered as combustible for the purpose of this exercise if the material under normal environmental or workplace operational conditions will always be handled at temperatures at least 15ºC below their flashpoint and in consequence will not produce a flammable atmosphere. See *HSG140 - Safe Use and Handling of Flammable Liquids* , UK HSE 2015, for more information. Ambient external temperature in Ireland does not generally exceed 30ºC. See Appendix A of Guidance Report for more information.

Hazard Potential

Diesel & Vehicle Wash - Assessment Area

Number	Material Stored in this Area	Response	Hazard Category
	1. Hazardous Material Storage on Site[3]		
1.1	H400/H410 Environmentally Hazardous Material (GHS Classification) (tonnes)	0	
1.2	H401/411 Environmentally Hazardous Material (GHS Classification) (tonnes)	16.4	
1.3	H402/412 Environmentally Hazardous Material (GHS Classification) (tonnes)	0	
1.4	H413 Environmentally Hazardous Material (GHS Classification) (tonnes)	0	
	Total H400 Equivalent Material	**1.64**	**H1**
	Note on WGK Classification: Use either H statement or WGK classification of a material. Start with H statement if available, if not available use WGK classification instead. DO NOT ENTER THE SAME MATERIAL UNDER BOTH CLASSIFICATIONS See Appendix A of the Guidance Document for further instruction		
1.5	WGK3 Water Hazardous Material (German Classification) (tonnes)	0	
1.6	WGK2 Water Hazardous Material (German Classification) (tonnes)	0	
1.7	WGK1 Water Hazardous Material (German Classification - See information tab) (tonnes)	0	
	Total WGK3 Equivalent Material	**0**	**H0**
1.8	Laboratories which contain Genetically Modified Micro-Organisms (GMOs) According to Directive 2009/41/EC (Groups 3 & 4) See Appendix A of the Guidance Document for further instruction.	No	H0
1.90	Licensed Hazardous Waste Facility	No	H0
			1

Diesel

Hazard Potential	Description
H0	No Hazard Potential
H1	Hazard Potential

Scoring Details	
Hazard Potential	**Quantity of Material / Type of Facility**
H0	<1t WGK 3 or Equivalent[1]

No hazard potential	<1t Toxic (H400/H410 Harmful to Aquatic Life) **or** Equivalent[2]
H1 *Hazard potential*	>1t WGK 3 or Equivalent[1] <1t (H400/H410 Harmful to Aquatic Life) **or** Equivalent[2] Laboratories Which Contain Genetically Modified Micro-Organisms (GMOs) According To Directive 2009/41/EC (Groups 3 & 4) Licenced Waste Storage Facility

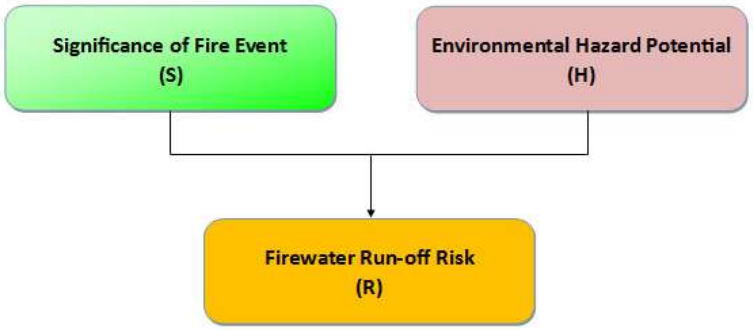
Note 1: Hazardous to the Aquatic Environment Equivalent Calculation: 100t H412/H413 = 10t H411 = 1t H400/410

Note 2: WGK Equivalent Calculation: 100t WGK1 = 10t WGK2 = 1t WGK3

Note 3: Fire-fighting foam to be used in this area should be included if relevant hazard classifications apply

Overall Fire Water Run-Off Risk

Diesel & Vehicle Wash - Assessment Area



Sheet Reference	Score
Signficance of Fire Event	S1 - Low Significance
Hazard Potential	H1 - Hazard Potential

	H0	H1
S1	R0	R1
S2	R0	R1
S3	R1	R1

	Score
Fire Water Run-Off Risk	R1 - Risk of Environmental Contamination

Risk	Minimum Firewater Retention Measures Required
R0 No Risk	No dedicated firewater retention required.
R1 Risk of Environmental Contamination	Firewater run-off must be retained within the operational site. The retention can be provided by means of the site's drainage system and other suitable infrastructure which is not exclusively foreseen for firewater retention (e.g. storm water ponds / tanks in waste water treatment plants). All elements of the site infrastructure to be used for firewater retention (including shutoff valves) must be regularly inspected to ensure functionality and impermeability. The retention facility must remain impermeable for the duration of the incident up to the removal of the firewater run-off The documented available retention capacity in the existing site infrastructure must be monitored and maintained. Automatic shut-off valves must be maintained and tested. Diversion of firewater to retention facilities must be automatic on activation of the site fire alarm. Onsite bunds cannot be used to provide firewater retention unless the content of a bund is directly involved in the fire event.

Conclusion	
Fire Water Retention Required on Site?	Yes

Fire Water Retention Calculation

General Method - Diesel & Vehicle Wash

Number	Calculation Steps	Response	Comment
1.1	Max Flow of Local Hydrants (l/min)	1500	Input Required
1.2	Fire Duration (Hours) This should be set at 6 hours unless the local fire authority has advised that a reduced time is acceptable. Note: Minimum duration is 1.5 hours	1.5	Input Required
1.3	Max FW volume from hydrants during Fire Event m^3	135	
1.4	Total Fire Water/Foam to be provided by Local Fire Brigade (m^3)	3.6	Input Required
1.5	Total Fire Water/Foam Stored on Site (m^3)	0	Input Required
1.6	Volume of Product Loss (m^3) See Section 4.5 of the Guidance Document for further information	20	Input Required
1.7	Area of Site which shares common drainage with Assessment Area (m^2)	16504	Input Required
1.8	1 in 10 year 18 hour rainfall event for local area (m)	0.0485	Input Required
1.9	Rain Water (m^3)	800	
	Fire Water Retention Required (m^3)	**959**	

2 no. engines

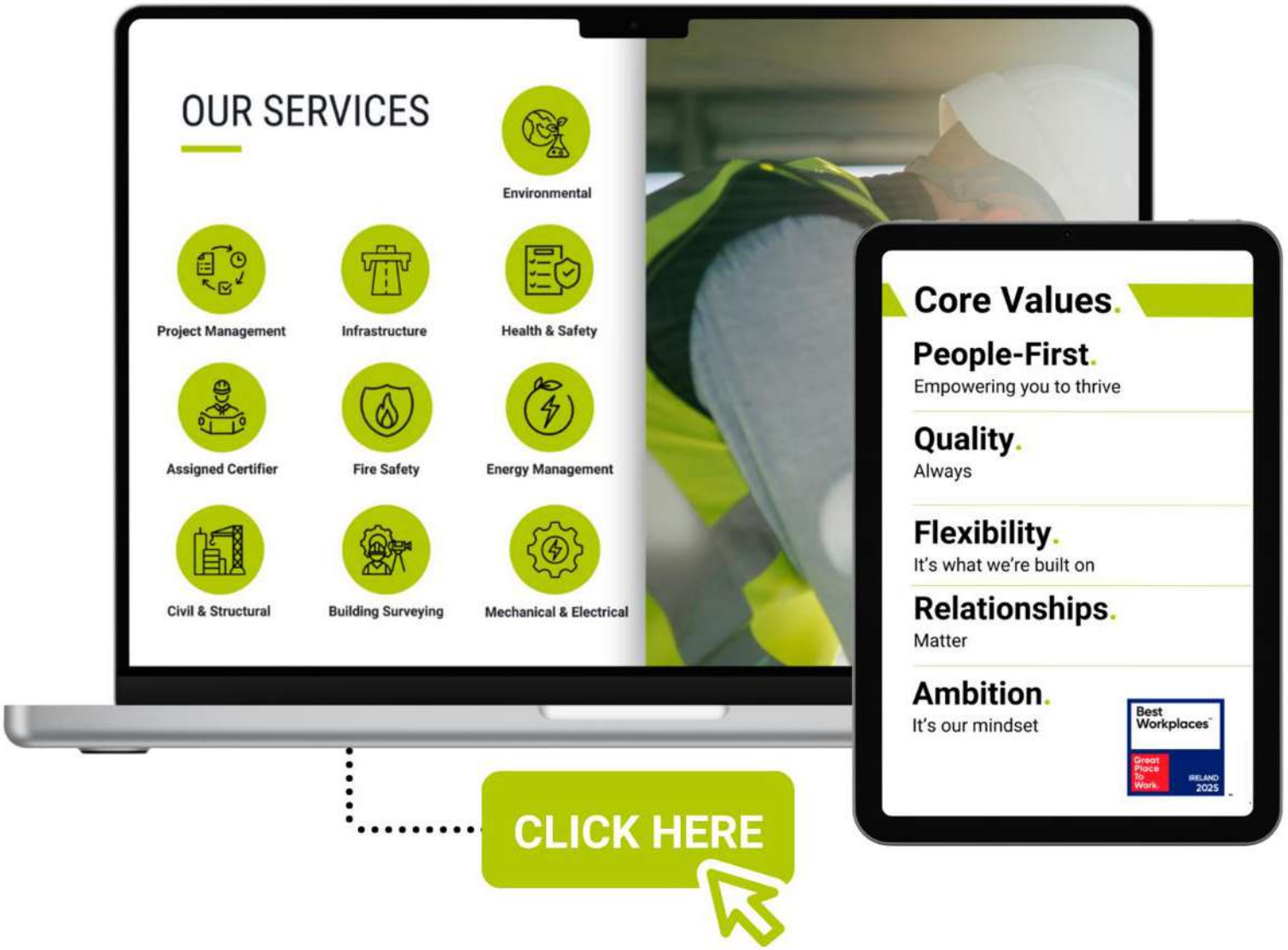
Useable Attenuation Systems	Attenuation Stormtech A	500	
	Attenuation Stormtech B	300	
	Storm Lines	128	
	Storm Manholes	56.3	
	RC Diesel Bund	22	
	Total	1006.3	m3
	Attenuation Deficit	**47.3**	m3

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Appendix 8: JBA Consulting Flood Risk Appeal Response

Response to Third-Party Appeal

An Coimisiún Pleanála Case Ref. PL-502119-MH-26

October 2026

Prepared for:

Albert Development Ltd.

www.jbaconsulting.ie

Document Status

Field	Detail
Document title	Response to Third-Party Appeal – Enterprise Lands, Athlumney
An Coimisiún Pleanála	PL-502119-MH-26
Meath County Council	26/60226
Prepared for	Albert Developments Limited
Revision	S3-P01
Date	October 2026
Original FRA	RFB-JBAI-00-00-RP-HO-0001-A3-C01 (3 February 2026)
JBA project code	2025s1681 (FRA)

Prepared by	Daniel Iordache BEng MEng Senior Analyst
Reviewed by	Ross Bryant BSc MSc CEnv MCIWEM C.WEM Director
Authorised by	Ross Bryant BSc MSc CEnv MCIWEM C.WEM Director

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Contract

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JBA Project Code	2025s1682

This report describes work commissioned by Albert Developments Ltd, by an instruction dated 09/11/2025. Daniel Iordache of JBA Consulting carried out this work.

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1 Introduction

This document has been prepared by JBA Consulting in response to the fluvial flood-risk matters raised within the third-party appeal submitted by Stephen Flanagan to An Coimisiún Pleanála against Meath County Council's decision to grant permission for the proposed industrial laundry processing and distribution facility at Boyne Village Business Park, Athlumney, Navan, Co. Meath.

JBA prepared the February 2026 Flood Risk Assessment (FRA) for the development. The FRA reviewed the Eastern CFRAM flood mapping and included a site-specific 1D–2D ESTRY–TUFLOW hydraulic model of the Millrace/Farganstown Stream to establish the fluvial flood risk at the site and consider residual risk from a potential railway culvert blockage.

The appeal raises several matters relating to the FRA, particularly the predicted flood extents associated with the 67% culvert blockage sensitivity test, discrepancies between the reported blockage water levels and the original FRA narrative, and the potential implications of the modelling results for neighbouring lands. The appellant also questions the adequacy of the blockage sensitivity assessment, the responsibility for maintaining the existing culvert and whether the proposed development could increase flood risk elsewhere.

This response addresses these matters from a fluvial flood-risk perspective. It clarifies the purpose and findings of the hydraulic assessment, corrects identified errors within the February 2026 FRA and confirms the basis for the conclusion that the proposed development will not increase fluvial flood risk elsewhere.

The assessment is limited to fluvial flood risk. Matters relating to the proposed surface-water drainage system, including the design and operation of the attenuation system and associated outfall arrangements, are addressed separately by the project drainage designers.

This response should be read alongside the February 2026 FRA.

2 Fluvial Flood Risk and Development Footprint

2.1 Existing fluvial flood zones

The Eastern CFRAM mapping and the site-specific hydraulic assessment identify the site as predominantly within Flood Zone C. Only a very small area at the western boundary lies within Flood Zones A/B.

The hydraulic modelling predicts that the 1% AEP and 0.1% AEP fluvial flood extents are concentrated along the Millrace/Farganstown Stream corridor, away from the developable area (FRA Figure 4-3).

All developable areas are located exclusively within Flood Zone C. It has also been confirmed that no proposed buildings, earthworks, roads or other development works encroach into the small area identified within Flood Zones A/B.

The proposed development therefore avoids the identified fluvial floodplain and the existing floodplain along the Millrace/Farganstown Stream will remain unaffected by the proposed development works.

2.2 Implications for fluvial flood risk elsewhere

The appellant raises concerns regarding the potential impact of the proposed development on flood risk to neighbouring lands and requests a comparison of flooding conditions with and without the development.

As established in Section 2.1, all developable areas are located exclusively within Flood Zone C, outside the identified fluvial floodplain. No development works are proposed within the small Flood Zone A/B area at the western boundary.

Consequently, the proposed development does not involve the displacement of existing fluvial floodplain storage, obstruction of fluvial flow paths or alteration of the watercourse or existing railway culvert.

The purpose of comparative pre-development and post-development hydraulic modelling is to establish the hydraulic implications of proposed changes that could affect floodplain storage, flood conveyance or flood levels elsewhere.

In this instance, the proposed development is entirely outside the identified fluvial floodplain, and no such changes are proposed. There is therefore no identified mechanism by which the physical development works would alter the existing fluvial floodplain or increase fluvial water levels on neighbouring lands.

On this basis, additional comparative pre-development and post-development hydraulic modelling is not considered necessary or proportionate to establish the fluvial flood-risk implications of the proposal.

This conclusion is based on the avoidance of the existing fluvial floodplain rather than any claim that the development would improve existing flooding conditions.

As the proposed development is located entirely outside the identified fluvial floodplain and does not result in any loss of floodplain storage or alteration of existing fluvial flow paths, no increase in fluvial flood risk to neighbouring lands is anticipated.

The assessment concerns fluvial impacts associated with the physical development works and does not replace the separate assessment of the proposed surface-water drainage system and its outfall.

3 Residual Risk: Railway Culvert Blockage

3.1 Purpose and scope of the sensitivity test

Section 5.4 of the FRA considers a 67% blockage of the railway culvert located approximately 440 m south-west of the development site during the 1% AEP fluvial event.

This assessment was undertaken as a residual-risk sensitivity test to establish whether the proposed development would remain outside the predicted flood extent under a severe assumed obstruction of the existing railway culvert.

A 67% blockage represents an established industry-standard sensitivity assumption commonly adopted in hydraulic modelling to assess residual flood risk associated with substantial culvert obstruction. The scenario assumes that approximately two-thirds of the culvert opening is obstructed, representing a significant reduction in its hydraulic conveyance capacity.

The appellant questions whether the 67% blockage assumption is sufficiently conservative and whether more severe blockage, or blockage occurring in combination with climate change, could alter the FRA conclusions.

The purpose of a residual-risk sensitivity assessment is to examine the resilience of the proposed development under a credible adverse scenario, rather than to simulate every conceivable combination of extreme conditions.

The adopted 67% blockage scenario represents a substantial obstruction of the existing culvert and is considered appropriate and proportionate for assessing the residual fluvial flood risk to the proposed development.

Furthermore, the Millrace forms part of the OPW-maintained arterial drainage network. The Office of Public Works (OPW) is responsible for the maintenance of the Millrace, including the existing railway culvert and the management and clearance of potential blockages.

The ongoing maintenance of the watercourse and associated culvert is an existing responsibility of the OPW and is not a new mitigation measure proposed as part of the development.

Considering the established maintenance arrangements and the conservative 67% blockage assumption, modelling a more severe blockage scenario is not considered necessary or proportionate for this assessment, particularly given that the entire developable area is located within Flood Zone C.

The FRA also assessed the potential implications of climate change through the 1% AEP Mid-Range Future Scenario (MRFS), incorporating a 20% increase in fluvial flows.

The climate change and culvert blockage scenarios were assessed separately. A simultaneous climate change and culvert blockage scenario was not modelled.

Importantly, these scenarios relate to the potential behaviour of an existing watercourse and culvert under extreme conditions. They do not represent changes caused by the proposed development.

The assessment demonstrates that the proposed development remains outside the predicted flood extent under the modelled 67% blockage scenario. The existing OPW maintenance arrangements, the conservative sensitivity assessment and the location of all developable areas within Flood Zone C provide an appropriate basis for concluding that further blockage sensitivity modelling is not warranted for the purposes of this FRA.

The purpose of residual-risk assessment within a site-specific FRA is to establish the safety and resilience of the proposed development under exceptional flood conditions, rather than to assess flood risk to third-party lands or properties. Accordingly, the 67% railway culvert blockage scenario was undertaken exclusively to determine whether the proposed development would remain safe under such conditions. Assessment of flood risk to neighbouring properties falls outside the purpose and scope of this residual-risk assessment.

3.2 Clarification of the reported water-level increases

The appellant correctly identifies an inconsistency between the water levels presented in FRA Tables 4-3 and 5-1 and the narrative in Section 5.4, report page 19, which states that water levels would increase by no more than 150 mm under the 67% culvert blockage scenario.

This statement is incorrect.

The modelled flood levels presented in the original FRA remain valid. The error relates to the description of the differences between the baseline and blockage water levels, rather than the hydraulic model results themselves.

The relevant modelled water levels and corrected increases are presented in Table 3-1.

Table 3-1: Flood levels at FRA reporting points and corrected blockage increases

Scenario / parameter	Reporting Point 1	Reporting Point 2
1% AEP – present day (mOD)	42.73	42.19
0.1% AEP – present day (mOD)	43.15	42.62
1% AEP – MRFS (mOD)	42.91	42.31
1% AEP – 67% blockage (mOD)	43.58	43.57
Increase: blockage vs 1% AEP (m)	+0.85	+1.38
Minimum required FFL (mOD)	43.80	43.80
FFL above blockage water level (m)	0.22	0.23

The corrected increases are therefore 0.85 m (850 mm) at Reporting Point 1 and 1.38 m (1,380 mm) at Reporting Point 2.

These increases represent differences in modelled water-surface elevations at the respective reporting points between the unobstructed 1% AEP scenario and the 1% AEP scenario incorporating 67% culvert blockage.

They are not predicted flood depths at the appellant's property and do not represent changes in flood levels attributable to the proposed development.

The modelled blockage water levels remain below the minimum required finished floor level of 43.80 mOD by approximately 0.22 m and 0.23 m at Reporting Points 1 and 2 respectively. These comparisons provide context for the modelled water levels but should not be interpreted as site-specific freeboard measurements at the proposed buildings.

The correction to the reported water-level increases therefore does not alter the principal conclusion of the residual-risk assessment: the proposed development remains outside the predicted flood extent during the modelled 1% AEP event incorporating 67% railway culvert blockage.

4 Off-Site Flood Risk and Clarification of the FRA

4.1 Off-site flood risk and interpretation of the blockage results

The appellant has reproduced FRA Figure 5-2 and marked the approximate location of neighbouring lands near Reporting Point 1.

The figure illustrates the predicted flood extent associated with a 67% blockage of the existing railway culvert during the 1% AEP fluvial event.

The modelling indicates that the assumed blockage could result in increased flood levels and more extensive flooding along the existing Millrace floodplain, including areas in the vicinity of the appellant's lands.

This is acknowledged. However, an important distinction must be made between flood risk associated with the existing watercourse and railway culvert and any additional flood risk attributable to the proposed development.

The culvert blockage scenario represents a hypothetical obstruction of an existing hydraulic structure. The resulting increase in water levels is caused by the assumed reduction in the culvert's conveyance capacity and not by the proposed development.

The appellant also acknowledges that Figure 5-2 does not demonstrate that the proposed development causes flooding at the neighbouring property.

The proposed development does not involve alterations to the existing railway culvert, modifications to the Millrace channel or works within the identified fluvial floodplain.

Consequently, there is no identified mechanism by which the proposed development would exacerbate the existing fluvial flood conditions represented within the blockage sensitivity assessment.

Under the Irish flood-risk planning framework, Flood Zones A and B are defined by the relevant baseline fluvial flood probabilities of 1% AEP and 0.1% AEP respectively, rather than by an exceptional culvert blockage sensitivity simulation.

The blockage results are therefore appropriately interpreted as a residual-risk assessment rather than as a modification to the established baseline flood zones.

While Figure 5-2 provides an indication of potential flood hazard under the assumed obstruction scenario, it does not constitute a detailed property-specific assessment of flood depths or hydraulic conditions at the appellant's lands.

Such an assessment would require detailed local topographical and hydraulic information appropriate to the individual property.

For the purposes of the present appeal, the relevant consideration is whether the proposed development would increase fluvial flood risk on neighbouring lands.

As established in Section 2, all developable areas are located within Flood Zone C, and the proposed works do not affect the existing fluvial floodplain or the conveyance capacity of the watercourse and railway culvert.

Accordingly, the existing potential for fluvial flooding on neighbouring lands, including under the modelled blockage scenario, is not increased by the proposed development works.

The separate potential effects of the proposed surface-water drainage system and outfall are outside the scope of this fluvial assessment and are addressed by the project drainage designers.

4.2 Corrections to the February 2026 FRA

Following review of the matters raised in the appeal, two statements within the original February 2026 FRA require correction and clarification.

Section 5.4 – Residual Risk, report page 19

The statement that water levels would increase by no more than 150 mm under the 67% culvert blockage scenario is incorrect.

The correct blockage-related increases at Reporting Points 1 and 2 are 850 mm and 1,380 mm respectively, as presented in Table 3-1 of this response.

These corrected values are derived directly from the modelled flood levels already presented in the original FRA. No changes to the hydraulic model results are required.

The correction does not alter the conclusion that the proposed developable area remains outside the predicted 67% culvert blockage flood extent.

Section 6 – Conclusion, report page 20

The original FRA states that the proposed development would provide a "net reduction in local flood risk".

This statement was included in error and is withdrawn.

The relevant conclusion is that the proposed development is not anticipated to increase fluvial flood risk elsewhere, as all development works are located outside Flood Zones A/B and do not involve any alteration to the existing fluvial floodplain, flood storage or watercourse conveyance.

The FRA should not be interpreted as demonstrating a reduction in existing flood risk on neighbouring lands.

Additional geographical clarification

For consistency, the references to the "eastern fringe" of the site in Sections 4.3.2 and 5.1 of the original FRA should read "western fringe/corner", as illustrated by the flood mapping.

This geographical correction does not change the mapped flood-zone arrangement or the technical conclusions.

The above corrections relate to the reporting and interpretation of the assessment findings. They do not require amendment of the underlying hydraulic model results.

5 Conclusion

JBA Consulting has reviewed the fluvial flood-risk matters raised within the third-party appeal relating to the proposed industrial laundry processing and distribution facility at Boyne Village Business Park, Athlumney, Navan, Co. Meath.

The February 2026 FRA demonstrates that the site is predominantly located within Flood Zone C, with only a small area at the western boundary falling within Flood Zones A/B.

All developable areas, including proposed buildings, roads, earthworks and associated development works, are located exclusively within Flood Zone C.

The proposed development therefore avoids the identified fluvial floodplain and does not involve the displacement of existing fluvial floodplain storage, obstruction of fluvial flow paths or modification of the existing Millrace/Farganstown Stream or railway culvert.

On this basis, additional comparative pre-development and post-development hydraulic modelling is not considered necessary, and no increase in fluvial flood risk elsewhere is anticipated as a consequence of the proposed development works.

The FRA also assessed residual flood risk associated with a 67% blockage of the existing railway culvert during the 1% AEP fluvial event.

The 67% blockage represents an established industry-standard sensitivity assumption and provides a conservative assessment of the potential effects of substantial culvert obstruction.

The Millrace and associated railway culvert are subject to existing OPW maintenance responsibilities, including the management and clearance of potential blockages. Considering these arrangements, the adopted sensitivity assessment and the location of the proposed development within Flood Zone C, additional modelling of more severe blockage scenarios is not considered necessary or proportionate.

The climate change MRFS and culvert blockage scenarios were assessed separately. Although a combined scenario could potentially result in more extensive flooding along the

existing watercourse, such a scenario has not been modelled and does not represent an impact caused by the proposed development.

The appellant correctly identified an error within the original FRA narrative concerning the magnitude of water-level increases under the 67% culvert blockage scenario.

The corrected increases are 0.85 m and 1.38 m at Reporting Points 1 and 2 respectively. These increases arise from the assumed obstruction of the existing culvert and do not represent flood-level changes attributable to the proposed development.

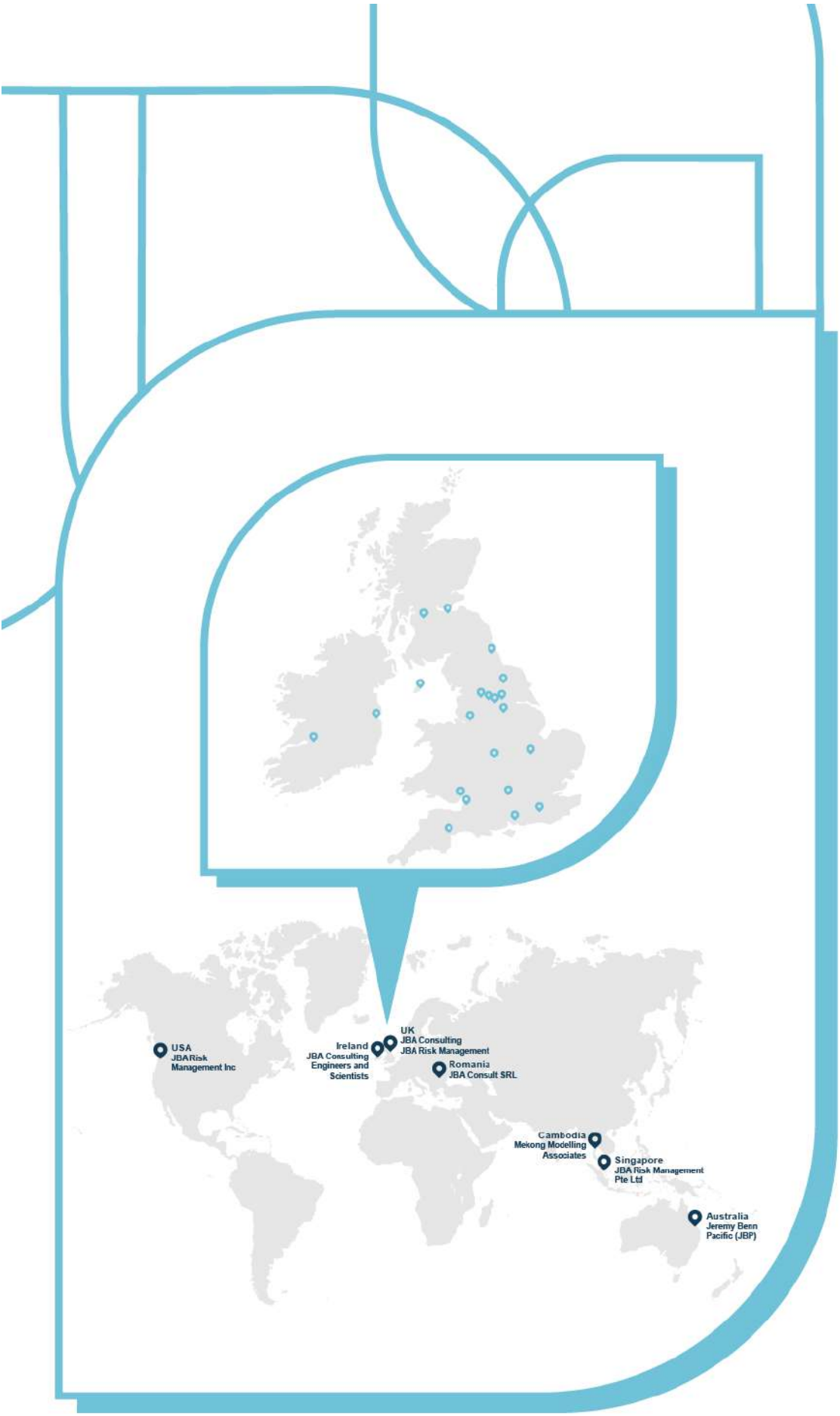
The corrected values do not alter the modelled flood extents or the conclusion that the proposed developable area remains outside the predicted blockage flood extent.

The original FRA statement indicating that the proposed development would provide a net reduction in local flood risk has also been withdrawn. The appropriate conclusion is that the proposed development is not anticipated to increase fluvial flood risk elsewhere.

The existing potential for fluvial flooding on neighbouring lands, including under the modelled railway culvert blockage scenario, is acknowledged. However, the proposed development does not alter the existing fluvial floodplain or the hydraulic capacity of the railway culvert and is not anticipated to exacerbate that existing risk.

The matters addressed in this response therefore do not change the principal conclusions of the February 2026 FRA.

The proposed development remains appropriate from a fluvial flood-risk perspective, with all developable areas located within Flood Zone C and no increase in fluvial flood risk elsewhere anticipated as a consequence of the proposed development works.



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Appendix 9: ORS Updated Lighting Report

Env_Infra Reports
Boyne Village Business Park, Co. Meath
Site Lighting Report

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Env_Infra Reports, Boyne Village Business Park, Co. Meath
Site Lighting Report

Document Control Sheet

Client:	ALBERT DEVELOPMENTS LTD
Document No:	252248-ORS-XX-XX-RP-E-0001

Revision	Status	Author:	Reviewed by:	Approved By:	Issue Date
P01	S3	Costanza Lupia	Stephen Dwane	Stephen Dwane	29/01/2026
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P04	S3	Ilaria Vincenzi	Dirk Coetzee	Dirk Coetzee	08/10/2026

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Appendix C – Public Lighting Calculations Layout

Introduction

ORS were engaged by ALBERT DEVELOPMENTS LTD to undertake an external lighting design of the property Env_Infra Reports - Boyne Village Business Park, Co. Meath. The report provides the design intent proposed for the client.

The report details the lighting design of the development, including:

- Providing adequate illumination for both pedestrians and vehicles
- Minimising light pollution on the surrounding areas and neighbours
- Reducing glare on usersThe use of efficiency LED lighting technology
- Ensuring adjacent habitats such as watercourses, hedgerows and woodland are kept dark

The complete installation shall be in accordance with all relevant Irish and European Standards including:

- IS 10101:2020 - National Rules for Electrical Installations;
- S.I. No. 291 of 2013: Safety. Health and Welfare at Work (Construction) Regulations 2013;
- IS EN 13201-2:2015 Road Lighting – Part 2: Performance Requirements;
- IS EN 13201-3:2015 Road Lighting – Part 3: Calculation of Performance;
- IS EN 13201-4:2015 Road Lighting – Part 4: Methods of Measuring Lighting Performance;
- BS 5489-1:2020 Code of Practice for the Design of Road Lighting. Part 1: Lighting of Roads and Public Amenity Areas;
- ESB Networks National Code of Practice for Customer Interface
- ESB Networks – Housing Schemes: Guidebook for ESB Networks Standards for Electrical Services
- Recommendations for Site Development Works in Housing Areas, DoEHLG
- Meath Public Lighting Technical Specification & Requirements
- Ecologist's recommendations
- Bat Conservation Ireland Guidance (2010) - Bats & Lighting Guidance Notes for Planners, Engineers, Architects and Developers



Figure 1: Env_Infra Reports, Boyne Village Business Park, Co. Meath as outlined in red. Source: Google Satellite imagery

1 Site Lighting Design

The lighting design has been prepared in accordance with the Meath Public Lighting Technical Specification and it is proposed to install new luminaires throughout the scheme:

- 11 x AktraLED Floodlights LED 2700K Asymmetric building mounted at 12m to light the truck & van loading bays.
- 3 x Metro Floodlight 170w LED 2700K building mounted at 8m to light the parking / yard areas to the east and north of the building.
- 3 x Metro Floodlight 36w LED Street Optic R01 building mounted at 8m to light the road to the west of the building.
- 7 x Metro Streetlight 134w LED 2700K Forward Throw A Optic with external luminaire integrated shield mounted on 8m columns along the perimeter of the truck / van parking areas.
- 12 x Metro Streetlight 73w LED 2700K Street Optic R03 mounted on 8m columns to light the business park roadway & paths / cycle lanes.
- 8 x Metro Streetlight 68w LED 2700K Street Optic R03 with external luminaire integrated shield mounted on 6m columns to the east and north of the building.
- 23 x Spia Canopy 26w LED Wide 58 ° Beam canopy recessed at 4m at canopy 1 & 2

Note: All fittings are specified at 2700K CCT with 0% upward light, reducing unnecessary light pollution and sky glow.

1.1 Proposed Light Fitting Details

The lighting design is based on the following light fittings:

Veelite Metro Street Size 3 134W 64LED 2700K, FTA Optic with External Integrated Back Shield		
	Led:	No. 7 x 134w 64 LED / 2700K
	Construction:	Die-cast aluminium. IP66. IK09 as standard. Driver and LED Modules are accessible for maintenance or replacement.
	Finish:	Grey RAL 9006 as standard. Other RAL colours on request.
	Life:	L90 B10 >100,000 hours (at 25°C)
	Height:	Mounted on 8m columns with no tilt.

Veelite Metro Street Size 2 68W 32 LED 2700K - Street Optic R03 with External Integrated Back Shield		
	Led:	No. 8 x 68w 32 LED / 2700K
	Construction:	Die-cast aluminium. IP66. IK09 as standard. Driver and LED Modules are accessible for maintenance or replacement..
	Finish:	Grey RAL 9006 as standard. Other RAL colours on request.
	Life:	L90 B10 >100,000 hours (at 25°C)
	Height:	Mounted on 6m columns with no tilt.

Note: Please note that the two fitting types above are incorporating an integrated back shield, and are installed along the site boundary, adjacent to the hedgerows to be protected. The integrated back shield helps to control light spill towards the hedgerows and ensures that the fittings provide 0% upward light, thereby reducing unnecessary light pollution and sky glow.

Metro Streetlight Size 2, 73W 48LED 500mA 2700K Street Optic R03		
	Led:	No. 12 x 73w 48 LED / 2700K
	Construction:	Die-cast aluminium. IP66. IK09 as standard. Driver and LED Modules are accessible for maintenance or replacement.
	Finish:	Grey RAL 9006 as standard. Other RAL colours on request.
	Life:	L90 B10 >100,000 hours (at 25°C)
	Height:	Mounted on 8m columns with no tilt.

Veelite AktraLED 240w LED, 2700K, Asymmetric		
	Led:	No. 11 x 240w, LED / 2700K
	Construction:	Die-cast Aluminium housing with tempered glass Lens. IP66. Asymmetric as standard. Other beams on request.
	Finish:	Black as standard
	Life:	-
	Height:	Building Mounted at 12m with no tilt

Veelite Spia Canopy Size 4, 26W LED 3000K Wide 58°		
	Led:	No. 23 x 26w, LED / 3000K
	Construction:	Die-cast aluminium housing, with stainless steel trim.
	Finish:	Stainless steel trim as standard. Painted on request.
	Life:	-
	Height:	Beam canopy recessed at 4m at canopy 1 & 2

Veelite AktraLED 240w LED, 2700K, Asymmetric		
	Led:	No. 11 x 240w, LED / 2700K
	Construction:	Die-cast Aluminium housing with tempered glass Lens. IP66. Asymmetric as standard. Other beams on request.
	Finish:	Black as standard
	Life:	-
	Height:	Building Mounted at 12m with no tilt

Veelite Spia Canopy Size 4, 26W LED 3000K Wide 58°		
	Led:	No. 23 x 26w, LED / 3000K
	Construction:	Die-cast aluminium housing, with stainless steel trim.
	Finish:	Stainless steel trim as standard. Painted on request.
	Life:	-
	Height:	Beam canopy recessed at 4m at canopy 1 & 2

Veelite Metro Floodlight M, 170W 80LED 700mA 2700K Street Optic R03		
	Led:	No. 3 x 170w, 80LED / 2700K
	Construction:	Grey RAL 9006 as standard. Other RAL colours on request.
	Finish:	Black as standard
	Life:	L90 B10 >100,000 hours (at 25°C).
	Height:	Building mounted at 8m with no tilt.

Veelite Metro Floodlight S, 36W 16LED 700mA, 2700K Street Optic R01		
	Led:	No. 3 x 36w, 16LED / 2700K
	Construction:	Grey RAL 9006 as standard. Other RAL colours on request.
	Finish:	Black as standard
	Life:	L90 B10 >100,000 hours (at 25°C).
	Height:	Building mounted at 8m with no tilt.

Please note that the design will be developed during the detailed design stage and the exact position and manufacturer of the light fittings may change, however the overall lighting installation will comply with the Standards listed in the **Introduction**.
The preliminary calculations were carried out using Lighting Reality software. Results below and on the drawings:

- 252248-ORS-ZZ-XX-DR-EE-6000, 252248-ORS-ZZ-XX-DR-EE-6001
- 252248-ORS-ZZ-XX-DR-EE-6002, 252248-ORS-ZZ-XX-DR-EE-6003
- 252248-ORS-ZZ-XX-DR-EE-6004, 252248-ORS-ZZ-XX-DR-EE-6005

1.2 General Data

Luminaire ref:	Label	Location			Orient	Tilt
		X	Y	Height		
1	A24-A-27	1453.9	514.7	12	270	0
2	A24-A-27	1464	514.7	12	270	0
3	A24-A-27	1473.4	514.7	12	270	0
4	A24-A-27	1439.5	514.6	12	270	0
5	A24-A-27	1486.4	514.5	12	270	0
6	A24-A-27	1501.1	514.4	12	270	0
7	A24-A-27	1384.2	511.1	12	270	0
8	A24-A-27	1394.7	511.1	12	270	0
9	A24-A-27	1405.2	511.1	12	270	0
10	A24-A-27	1417.7	511.1	12	270	0

11	A24-A-27	1429.9	511.1	12	270	0
12	MF170-R03-27	1455.7	573.7	8	90	0
13	MF170-R03-27	1513	561.8	8	0	0
14	MF170-R03-27	1513	516.2	8	0	0
15	MF36-R01-27	1376.7	575.9	8	180	0
16	MF36-R01-27	1376.7	547.5	8	180	0
17	MF36-R01-27	1376.7	519	8	180	0
18	MS134-FBS-27	1369.6	483.3	8	0	0
19	MS134-FBS-27	1528.5	482.9	8	180	0
20	MS134-FBS-27	1418.9	462.7	8	90	0
21	MS134-FBS-27	1388	462.4	8	90	0
22	MS134-FBS-27	1512.1	462.1	8	90	0
23	MS134-FBS-27	1452.5	461.9	8	90	0
24	MS134-FBS-27	1481.2	461.9	8	90	0
25	MS68-R03-BS	1389.2	608.5	6	254.532	0
26	MS68-R03-BS	1415.6	601.4	6	254.532	0
27	MS68-R03-BS	1370.1	595	6	0	0
28	MS68-R03-BS	1445.8	594.3	6	254.532	0
29	MS68-R03-BS	1477.7	588	6	257.381	0
30	MS68-R03-BS	1502.2	582.4	6	270	0
31	MS68-R03-BS	1534	532.9	6	180	0
32	MS68-R03-BS	1534	506	6	180	0
33	MS73-R03-27	1440.5	456.9	8	0	0
34	MS73-R03-27	1440.4	426.3	8	0	0
35	MS73-R03-27	1440.3	389	8	0	0
36	MS73-R03-27	1241.1	375.8	8	270	0
37	MS73-R03-27	1272.5	359.9	8	90	0
38	MS73-R03-27	1307.9	359.8	8	90	0
39	MS73-R03-27	1343.1	359.7	8	90	0
40	MS73-R03-27	1378.1	359.7	8	90	0
41	MS73-R03-27	1443.9	359.6	8	90	0
42	MS73-R03-27	1413.1	359.5	8	90	0
43	MS73-R03-27	1469.9	359.3	8	90	0
44	MS73-R03-27	1240.5	354.3	8	90.601	0
45	SC26-W-3K	1405.1	593.6	4	0	0
46	SC26-W-3K	1408.4	593.6	4	0	0
47	SC26-W-3K	1412.7	593.6	4	0	0
48	SC26-W-3K	1416.8	593.6	4	0	0
49	SC26-W-3K	1420	593.6	4	0	0

50	SC26-W-3K	1393.5	509.8	4	0	0
51	SC26-W-3K	1398.4	509.8	4	0	0
52	SC26-W-3K	1403.4	509.8	4	0	0
53	SC26-W-3K	1408.4	509.8	4	0	0
54	SC26-W-3K	1413.4	509.8	4	0	0
55	SC26-W-3K	1418.4	509.8	4	0	0
56	SC26-W-3K	1423.4	509.8	4	0	0
57	SC26-W-3K	1428.4	509.8	4	0	0
58	SC26-W-3K	1433.4	509.8	4	0	0
59	SC26-W-3K	1393.5	507.4	4	0	0
60	SC26-W-3K	1398.4	507.4	4	0	0
61	SC26-W-3K	1403.4	507.4	4	0	0
62	SC26-W-3K	1408.4	507.4	4	0	0
63	SC26-W-3K	1413.4	507.4	4	0	0
64	SC26-W-3K	1418.4	507.4	4	0	0
65	SC26-W-3K	1423.4	507.4	4	0	0
66	SC26-W-3K	1428.4	507.4	4	0	0
67	SC26-W-3K	1433.4	507.4	4	0	0

Light levels are as follows:

- **Parking / Yard** – 22 lux average, 0.27 uniformity. This complies with IS EN 12464-2 – 8.5 - Heavy Traffic Parking Areas (20 lux average, 0.25 uniformity), and also for Industrial Sites – 17.1 - Short term handling, loading/unloading (20 lux average, 0.25 uniformity).
- **Truck Loading Bays** – 58.9 lux average, 0.45 uniformity.
- **Van Loading Bays** – 52.5 lux average, 0.61 uniformity. These levels comply with IS EN 12464-2 - 17.2 - Industrial Sites and Storage Areas – Continuous Handling, loading/unloading (50 lux average, 0.40 uniformity).
- **Road** – 10.3 lux average, 5 lux minimum, 0.49 uniformity. This complies with IS EN 13201 for roads – Class P2 (10 lux average, 2 lux minimum) and also Class C4 (10 lux average, 0.40 uniformity).
- **Canopy 1** – 127 lux average, 0.63 uniformity.
- **Canopy 2** – 110 lux average, 0.76 uniformity. This complies with IS EN 12464-2 - 17.3 - Industrial Sites and Storage Areas – Covered Loading Platforms (100 lux average, 0.50 uniformity).
- **Business Park Roadway** – 15.0 lux average, 0.40 uniformity. This complies with IS EN 13201 for roads / conflict areas – Class C3 (15 lux average, 0.40 uniformity).
- **Business Park Paths / Cycle Lane** – 8.4 lux average, 1.7 lux minimum. . This complies with IS EN 13201 for paths – Class P3 (7.5 lux average, 1.5 lux minimum).
- **DAC Route** – 20 lux minimum. This meets TGD M for approach routes (20 lux minimum).

2 Ecology

To ensure the protection of rivers, ditches, hedgerows and woodland, the lighting design has been developed to minimise light spill and disturbance to these sensitive ecological features. The lighting design has been prepared in accordance with measures outlined in Bat Conservation Ireland Guidance (2010), Bats & Lighting Guidance Notes for Planners, Engineers, Architects and Developers.
The following parameters have therefore been applied:

- All fittings are specified at 2700K CCT with 0% upward light, reducing unnecessary light pollution and sky glow. No UV lights are proposed in the lighting design, with LED lights to be installed in all luminaries across the site.
- Integrated shields are provided to the pole-mounted fittings around the site perimeter, where required, to control the direction of illumination and minimise light spill towards adjacent ecological receptors.
- Lighting positions have been carefully selected to keep fittings away from hedgerows, watercourses, drainage channels and woodland.
- Fittings are oriented to direct illumination into the required areas and away from surrounding habitats.
- Directional lighting and shielding are used to minimise lateral light spill beyond the areas requiring illumination.
- Pole-mounted fittings within the main yard are 8m high, while those around the building perimeter are 6m high, with their positioning and orientation designed to minimise impacts on surrounding habitats.

These measures have been incorporated into the lighting layout to avoid unnecessary illumination of rivers, ditches, hedgerows and woodland and to minimise potential impacts on nocturnal wildlife and ecological connectivity.
The position, orientation and height of the lighting fittings, the use of integrated shields, and the implementation of 2700K CCT with 0% upward light are sufficient to ensure the boundary hedgerows, drainage ditches and woodlands are kept dark and will not significantly affect local bat populations, while maintaining sufficient lux coverage of the site.
The site lighting design will be developed further during the detailed design stage, taking on board any further recommendations from the Ecologist of Meath County Council.

3 Future Design Submission

In accordance with Meath County Council. Public Lighting requirements, a formal design submission shall be made to Meath County Council. Council for approval, prior to the installation of any public lighting, or associated columns/ poles, ducts etc. on site.

The formal submission will include the following, as required:

- Lighting performance modelling calculations by Lighting Reality® in soft format. The cover shall show:
    - The identity of the lighting designer;
    - The project name;
    - The lighting classification designed to;
    - The combined maintenance factor for the luminaire and how it was derived.
- Lighting Reality® report in PDF format.

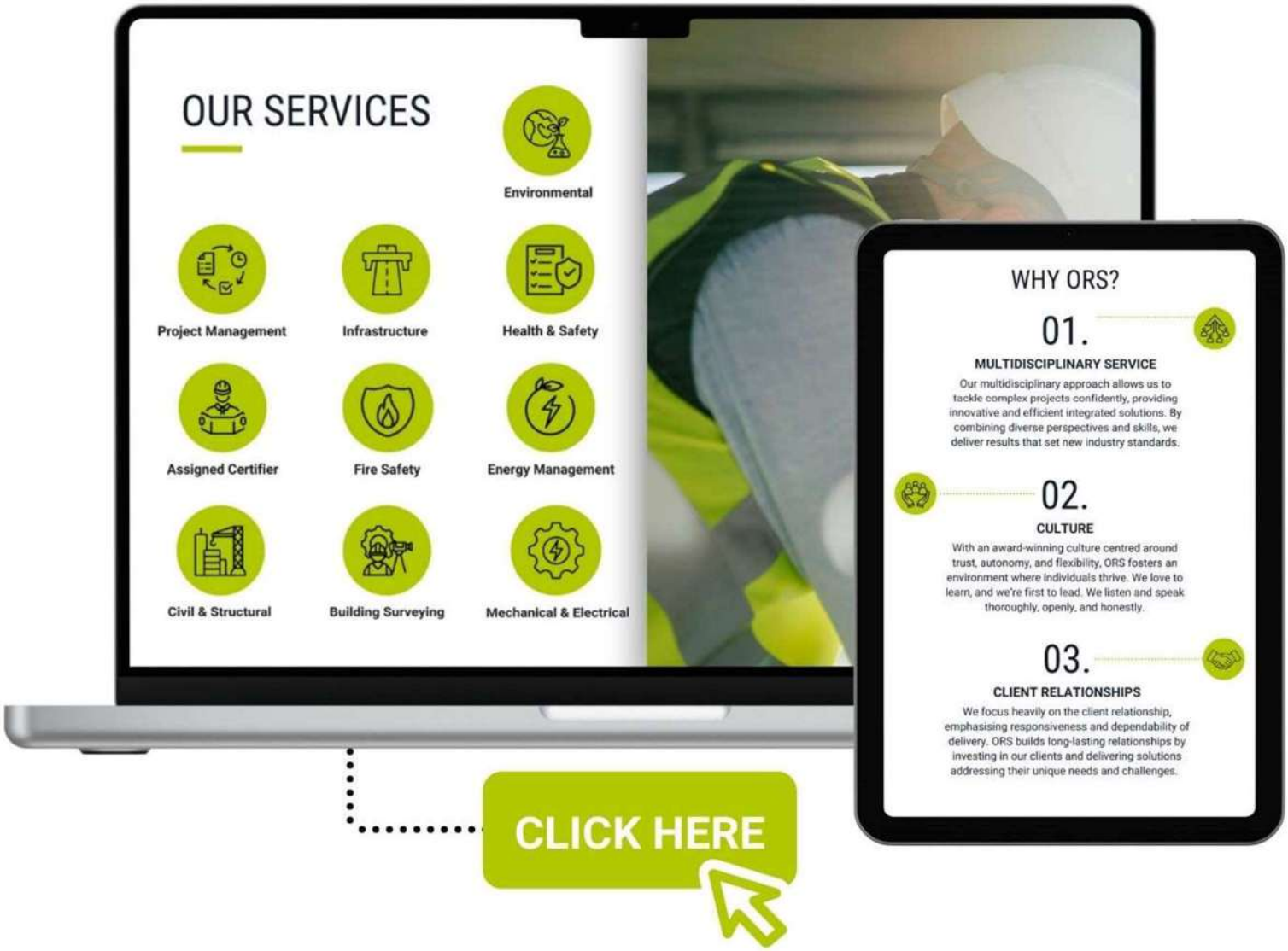
- CAD drawing in soft format showing the following information:
    - The site boundary;
    - All landscaping details;
    - All services;
    - All private areas to be hatched and identified;
    - Individually numbered columns with icons of a size to allow accurate assessment of column positions;
    - Public Lighting Ducts and Cable Access Chambers;
    - Individually numbered micro pillar locations;
    - ESB cabinet locations;
    - Individually numbered single line circuit diagrams;
    - All duct, column foundation or any other detail shall only show Meath County Council. Council approved versions;
- Technical specifications for the proposed equipment, including TM21 and LM80 reports.
- Written details outlining the Original Equipment Manufacturer(OEM) warranty and the procedure for transferring warranty to Meath County Council. Council after the project is taken in charge.
- Voltage drop calculations for each circuit.
- Lantern details including number of LEDs and drive current must be provided.
- Energy calculations including the designed dimming regime.

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Appendix 10: ORS Updated Ecological Impact Assessment

2026
Response to An Coimisiún Pleanála, ACP Ref: PL-502119-MH-26
Boyne Village Business Park, Navan, Co. Meath
Ecological Impact Assessment (EcIA)

Response to An Coimisiún Pleanála, ACP Ref: PL-502119-MH-26
Boyne Village Business Park, Navan, Co. Meath
Ecological Impact Assessment (EcIA) Report

Document Control Sheet

Client:	Albert Developments Limited
Document No:	252248-ORS-XX-XX-RP-EN-13d-005

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P05	S2	JS	SB	RE	09/10/2026

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Appendix A – Silt Fencing Location

1 Introduction

1.1 Background

ORS were appointed by *Albert Developments Ltd.* to carry out an Ecological Impact Assessment (EcIA) for the proposed development in Boyne Village, Athlumney, Navan, Co. Meath. A full description of the development site is provided in **Section 1.3** below. This assessment adheres to the industry standards and methodologies stated in the Environmental Protection Agency (EPA) and Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines to ensure comprehensive evaluation and mitigation of ecological impacts.

This EcIA follows a standard approach based upon the description of the existing baseline conditions within the site of the Proposed Development. An evaluation of the habitats and species currently present within the Proposed Development site is also given, along with the identification of the potential ecological impacts arising from the construction and operation of the Proposed Development. An assessment of the likely significance of the identified impacts on Key Ecological Receptors (KERs), both within and close to the Proposed Development site is also made. Where a significant negative impact has been identified, then suitable remedial mitigation measures are provided to prevent, reduce, or offset the impact.

The main objectives of this ecological assessment are to:

- Undertake a desktop review of existing baseline ecological data for the Proposed Development site and the wider area, including European and National sites of biodiversity importance within the Zone of Influence of the proposed development site.
- Undertake a field survey of the proposed development site.
- Evaluate the features of biodiversity value within the Proposed Development site and within the Zone of Influence of the Proposed Development site.
- Evaluate the potential negative impacts of the Proposed Development site on features of biodiversity value within the Proposed Development site and its Zone of Influence.
- Evaluate potential significant effects upon European or National sites.
- Consider measures to mitigate the potential negative impact(s) of the project on the ecology of the receiving environment.

1.2 Statement of Competency

Lead Author – Ecological Consultant

This Ecological Impact Assessment was carried out by Jack Schaerer, BSc (Hons), MSc. Jack has an honours degree in Zoology from the University of Galway and a master's degree in Conservation Behaviour from ATU Galway. Over the course of his education, Jack gained knowledge and skills regarding ecology, animal behaviour, and wildlife conservation, as well as scientific report writing and survey techniques. Jack has particular expertise in ornithology, with experience carrying out a variety of bird surveys, including for protected species such as Hen Harrier, and is a member of Birdwatch Ireland. His experience with ORS saw him conduct a wider range of ecological fieldwork, namely habitat mapping, preliminary bat surveying, mammal surveying, and reptile and amphibian surveying, and has experience carrying out Ecological Impact Assessments and Appropriate Assessments. Jack also has experience carrying out Environmental reports such as Flood Risk Assessments and Soil and Groundwater

Monitoring reports.

Reviewed by:

This Ecological Impact Assessment was reviewed by Seán Burke, BSc, MSc. Seán has a bachelor's degree in science – Single Honours Biology from Maynooth University and a master's degree in Ecology & Biodiversity from Stockholm University. His academic experience has provided fundamental training in scientific methods and a strong knowledge of the theoretical background of biological and ecological processes. Seán has previous experience working in the agri-food sector developing biological control agents for the suppression of fungal pathogens which provided hands on experience in learning laboratory techniques and studying ecological interactions. His more recent work experience with ORS has provided the opportunity to conduct a wide range of ecological services including macroinvertebrate sampling, bird surveying, habitat assessment and classification, preliminary bat surveying, mammal surveying, and ecological impact assessment as standalone reports and as part of Environmental Impact Assessment (EIA) Biodiversity chapters. This experience has been applied to projects of varying sizes across commercial, industrial, and residential projects.

1.3 Development Overview

The proposed development will occur on the site of ca. 4.61 hectares at Boyne Village Business Park, Athlumney, within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath. The development consists of:

- The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:
  - a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and
  - a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.

- Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.

- Parking and loading facilities including:
  - 106 car parking spaces (including 5 accessible spaces and 1 set-down space);
  - 30 bicycle parking spaces;
  - 19 truck parking spaces;
  - c. 20 van parking spaces;
  - 10 truck loading bays; and
  - 12 van loading bays.

- Ancillary structures and services including:
  - an ESB substation;
  - a sprinkler pump room & asscoiated sprinkler tank;
  - water storage infrastructure;
  - surface water attenuation infrastructure; and
  - associated utility infrastructure.

- Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including

foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works.

The location of the proposed development and its surrounding environs is provided in **Figure 1.1.** The layout of the proposed development is presented in **Figure 1.2**. A further assessment of the characteristics of the proposed development and its environs is included in **Sections 4** and **5** of this report.



Figure 1.1: Location of proposed development and surrounding environs (Source: Google Satellite).

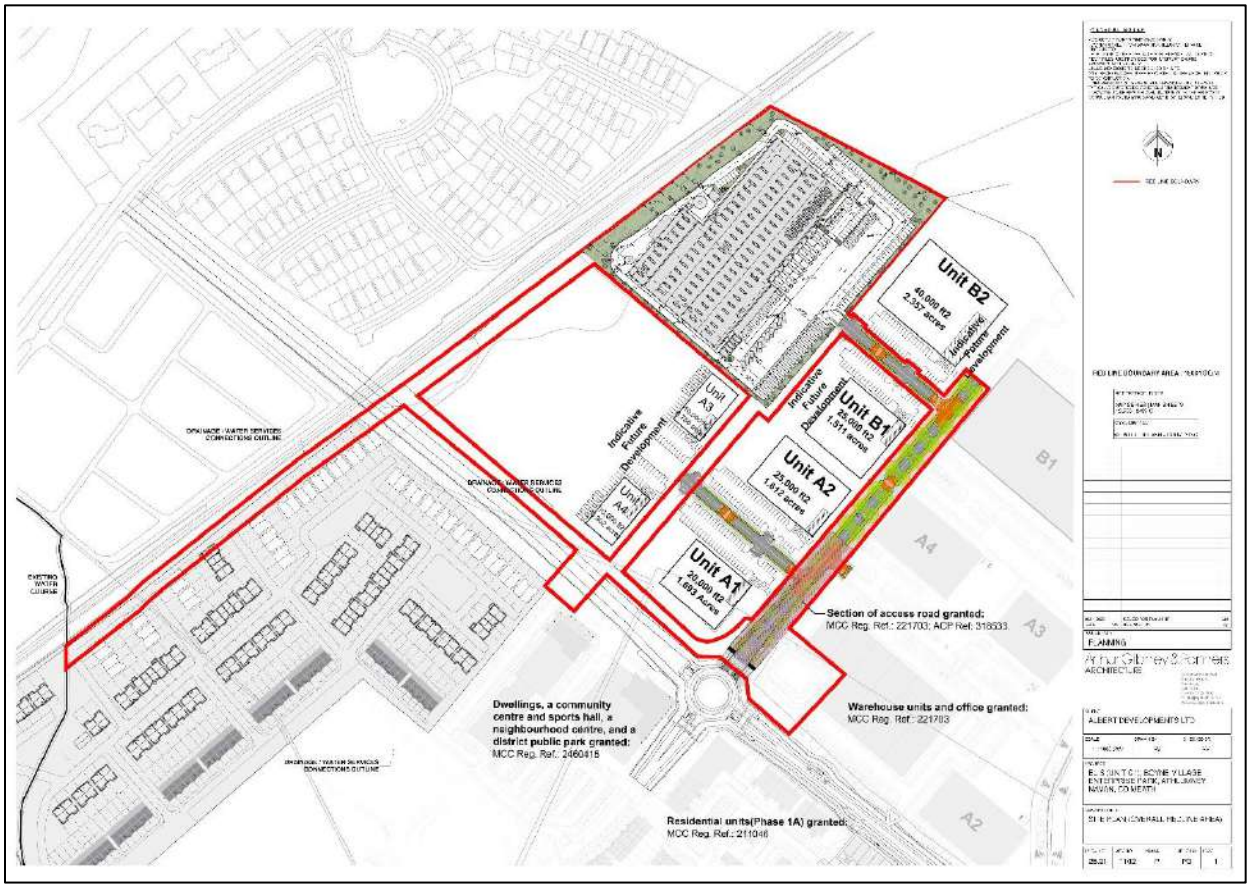


Figure 1.2: Proposed layout of the Business Park at Boyne Village, Athlumney, Navan, Co. Meath. (Cropped - Source: Arthur Gibney & Partners Architecture – Please refer to the full-scale drawing submitted as part of the planning application – Drawing No. 1102).

2 Legislation and Policy

2.1 Background

The EU Biodiversity Strategy and national biodiversity strategies reflect the need to conserve biodiversity in the face of pressure from development, other land-use change and climate change. These strategies reflect the aspirations of the Convention on Biological Diversity. International work on the benefits of nature to society (natural capital and ecosystem services), and The Economic and Social Aspects of Biodiversity in Ireland, have increased understanding of the importance of conserving biodiversity for human wellbeing and the economy. This is reflected in national policy objectives for biodiversity and nature conservation, such as the National Biodiversity Action Plan 2023-2030 in Ireland. EcIA supports implementation of national biodiversity strategies and national planning policies for safeguarding biodiversity and supporting the delivery of sustainable development. EcIA is a process of identifying, quantifying, and evaluating the potential effects of development-related or other proposed actions on habitats, species and ecosystems. EcIA can be used for the appraisal of projects of any scale: it is a systematic and repeatable process applicable to a wide range of projects.

Two uses of EcIA are:

- Providing the ecological component of Environmental Impact Assessment (EIA) required under EIA Regulations.
- Demonstrating how a project accords with relevant planning policy and legislation where an EIA is not required.

2.2 EU Policy

The foundation of ecological protection in Ireland is rooted in European Union legislation, particularly the **Habitats Directive (92/43/EEC)** and the **Birds Directive (2009/147/EC)**. These directives establish the **Natura 2000 network**, a pan-European system of protected sites aimed at safeguarding the most valuable and threatened habitats and species across the EU.

Within this network, two types of designations are used:

- **Special Areas of Conservation (SACs)**, designated under the Habitats Directive, protect habitats, flora and non-avian fauna of European importance.
- **Special Protection Areas (SPAs)**, designated under the Birds Directive, focus on the conservation of rare and migratory bird species and their habitats, including wetlands and coastal zones.

The Natura 2000 framework plays a central role in EcIA by setting a high standard for ecological assessment, particularly in relation to site integrity, conservation objectives, and the precautionary principle. These sites are legally protected, and any plan or project likely to have a significant effect on their integrity must undergo **screening for Appropriate Assessment (AA)** under **Article 6(3)** of the Habitats Directive. If significant effects cannot be ruled out, a **Natura Impact Statement (NIS)** is required to inform decision-making and ensure compliance with EU obligations, including any measures to mitigate or avoid negative effects.

2.2.1 Invasive Alien Species (IAS)

The European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374/2024), restrict the importation, distribution, sale or release of 88 species of plants and animals considered to be the most harmful Invasive Alien Species.

Regulation 17 (1) states the following:

"*Subject to paragraph (3) and Regulation 18, a person shall not –*

1. *introduce into the State,*
2. *keep, including in contained holding,*
3. *breed, including in contained holding,*
4. *import into, export from or transport within the State, except for the transportation of species to facilities in the context of eradication,*
5. *place on the market,*
6. *use, exchange or offer to exchange,*
7. *permit to reproduce, grow or cultivate, including in contained holding, or*
8. *release into the environment, an invasive alien species of national concern*."

Regulation 17 (2) states the following:

"*A person shall not –*

1. *import or otherwise introduce into the State,*
2. *place on the market*
3. *use, exchange or offer for exchange, or*
4. *release into the environment, a vector material*."

Regulation 17 (5) states the following:

"A person who breaches paragraph (1) or (2) commits an offence and shall be liable –

1. *on summary conviction, to a class A fine or to imprisonment for a term not exceeding 6 months or to both, or*
2. *on conviction on indictment, to a fine not exceeding €100,000 or to imprisonment for a term not exceeding 2 years or to both."*

2.3 National Policy

The requirements of the Habitats Directive have been transposed into Irish law through the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011). This legislation affords protection to both SPA and SAC. Flora and fauna in Ireland are also protected at a national level by the Wildlife Acts 1976 to 2023 and the Floral (Protection) Order 2015.

It is also an offence under the Wildlife Acts 1976 – 2023 to plant or otherwise cause to grow in a wild state in any place in the State any species of (exotic) flora, or the flowers, roots, seeds or spores of (exotic) flora. Under the European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374/2024), Ireland has also formally introduced a list of Invasive Alien Species of

National Concern, which complements the EU-wide Union List established under Regulation (EU) No. 1143/2014. The First Schedule of S.I. No. 374/2024 contains 48 species designated as being of National Concern. These species are not necessarily listed at the EU level but are considered to pose a significant ecological, economic, or social threat within Ireland. The inclusion of these species allows Ireland to:

- Prohibit possession, sale, breeding, and release of listed species.
- Require permits for any regulated activity involving them.
- Enforce eradication and containment measures where necessary.
- Apply site-specific restrictions based on ecological sensitivity.

This national list is legally binding and is enforced by the National Parks and Wildlife Service (NPWS).

Natural Heritage Areas (NHA) are areas that are considered to be important for the habitats present or for the species of plants and animals supported by those habitats. Under the Wildlife Amendment Act 2000, NHAs are legally protected from damage from the date they were formally proposed for designation. Section 19(1) of the Act states that 'Where there is a subsisting natural heritage area order in respect of any land, no person shall carry out, or cause or permit to be carried out, on that land any works specified in the order or any works which are liable to destroy or to significantly alter, damage or interfere with the features by reason of which the designation order was made'.

In addition, a list of **proposed NHAs (pNHAs)** was published in 1995 but to date these have not had their status confirmed. Prior to statutory designation, pNHAs are subject to limited protection under various agri-environment and forestry schemes and under local authority planning strategies such as County Development Plans.

Ireland's 4th National Biodiversity Action Plan 2023-2030 (NBAP) identifies actions that need to be taken in order to understand and protect biodiversity in Ireland. It states that biodiversity and ecosystems in Ireland should be conserved and restored, to deliver benefits that are essential to all sectors of society and that Ireland should contribute to the efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.

2.4 Regional Policy

Planning at the regional level is now guided by the Regional Spatial and Economic Strategy (RSES). The RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. The RSES recognises the requirement to conserve and enhance the nation's protected habitats and species along with its landscape and heritage. The Strategy also recognises the need to identify, protect and enhance green infrastructure and ensure effective management of natural resources. Establishing a healthy natural environment is addressed in the Strategy with regards to supporting the transition to a low carbon economy and building climate resilience, as well as ensuring provision of clean air and water.

2.5 Local Policy

2.5.1 Meath County Development Plan 2021-2027

Planning policy at the local level is currently provided by the Meath County Development Plan 2021–2027. This plan contains a number of objectives and development management requirements relevant to ecology, biodiversity, green infrastructure and nature conservation. Chapter 8 - Cultural and Natural Heritage of the Meath County Development Plan 2021- 2027 provides policy objectives relating to ecology, biodiversity, and green infrastructure. **Table 2.1** below provides a summary of relevant policies relating to ecological protection and management as per the GCDP.

Table 2.1: Meath County Development Plan 2021-2027 Policy Objectives

Policy No:	Biodiversity Policy Objectives
HER POL 27	To protect, conserve and enhance the County's biodiversity where appropriate.
HER POL 28	To integrate in the development management process the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate.
HER POL 29	To raise public awareness and understanding of the County's natural heritage and biodiversity.
HER POL 30	To promote increased public participation in biodiversity conservation by supporting and encouraging community-led initiatives.
HER POL 31	To ensure that the ecological impact of all development proposals on habitats and species are appropriately assessed by suitably qualified professional(s) in accordance with best practice guidelines – e.g. the preparation of an Ecological Impact Assessment (EcIA), Screening Statement for Appropriate Assessment, Environmental Impact Assessment, Natura Impact Statement (NIS), species surveys etc. (as appropriate).
HER POL 32	To permit development on or adjacent to designated Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas, Statutory Nature Reserves or those proposed to be designated over the period of the Plan, only where the development has been subject to the outcome of the Appropriate Assessment process and has been carried out to the satisfaction of the Planning Authority, in consultation with National Parks and Wildlife.
HER POL 33	To have regard to the views and guidance of the National Parks and Wildlife Service in respect of proposed development where there is a possibility that such development may have an impact on a designated European or National site or a site proposed for such designation.
HER POL 34	To undertake appropriate surveys and collect data to provide an evidence-base to assist the Council in meeting its obligations under Article 6 of the Habitats Directives (92/43/EEC) as transposed into Irish Law, subject to available resources.

HER POL 35	To ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites and to require an appropriate level of ecological assessment by suitably qualified professional(s) to accompany development proposals likely to impact on such areas or species.
HER POL 36	To consult with the National Parks and Wildlife Service and take account of their views and any licensing requirements, when undertaking, approving or authorising development which is likely to affect plant, animal or bird species protected by law.
HER POL 37	To encourage the retention of hedgerows and other distinctive boundary treatments in rural areas and prevent loss and fragmentation, where practically possible. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, mitigation by provision of the same type of boundary will be required.
HER POL 38	To promote and encourage planting of native hedgerow species in new developments and as part of the Council's own landscaping works.
HER POL 39	To recognise the archaeological importance of townland boundaries including hedgerows and promote their protection and retention.
HER POL 40	To protect and encourage the effective management of native and semi-natural woodlands, groups of trees and individual trees and to encourage the retention of mature trees and the use of tree surgery rather than felling, where possible, when undertaking, approving or authorising development.
HER POL 41	To protect trees the subject of Tree Preservation Orders, Champion and Heritage Trees identified on the Tree Register of Ireland and Heritage Tree Database when undertaking, approving, or authorising development.
HER POL 42	To promote the preservation of individual trees or groups of trees as identified on the Heritage Maps in Volume 2 and to manage these trees in line with arboricultural best practice.
HER POL 43	To promote best practice in the control of invasive species in the carrying out its functions in association with relevant authorities including TII and the Department of Transport, Tourism and Sport.
HER POL 44	To require all development proposals to address the presence or absence of invasive alien species on proposed development sites and (if necessary) require applicants to prepare and submit an Invasive Species Management Plan where such a species exists to comply with the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.
HER POL 45	To ensure that peatland areas which are designated (or proposed for designation) as NHAs, SACs or SPAs are conserved for their ecological, climate regulation, archaeological, cultural and educational significance.

2.5.2 County Meath Biodiversity Action Plan

At the time of writing, Meath County Council is developing a new Biodiversity Action Plan for

the period 2025 - 2030. This plan will align with national biodiversity policy and the county's heritage strategy and is expected to set out key actions under themes such as protecting and enhancing ecological networks, monitoring and research, habitat restoration, and raising public awareness.

3 Methodology

The following section outlines the methods used to evaluate the importance of ecological features in the area of the proposed development and to carry out a thorough ecological impact assessment ahead of works commencing.

3.1 Desktop Study

The initial desk study involved the examination of aerial photographs, current and historical maps and plans and drawings of the site. In addition, information was collated on designated nature sites within a 15 km radius of the proposed site and on protected and rare species within the 2km square of the site.

The following websites were used to access information and data:

- National Parks and Wildlife Service – www.npws.ie – Data on Natura 2000 sites, Natural Heritage Areas (NHAs).
- National Biodiversity Data Centre – www.biodiversitycentre.ie – Records of rare/protected/notable species within relevant grid squares.
- Ordinance Survey Ireland – www.osi.ie – Aerial photography and mapping.
- Google Maps – maps.google.ie – Aerial imagery and mapping.
- Bing Maps – www.bingmaps.com – Aerial imagery and mapping.
- My Plan – www.myplan.ie – Records of planning applications in the site vicinity.
- Environmental Protection Ireland – www.epa.ie – Mapping and data relating to site environmental conditions.
- Relevant plans, drawings, and reports received from project design team.
- Meath County Council Website – www.meath.ie.

3.2 Field Survey

A visit to the site of the proposed development at Athlumney, Navan, Co. Meath was carried out on the 11th of November 2025. Weather conditions at the time of survey were dry and overcast. Relevant field notes, species lists and photographs were taken.

3.2.1 Habitat Survey & Classification

The site was surveyed in accordance with 'Best Practice Guidance for Habitat Survey and Mapping', The Heritage Council (2011). Habitats within the application site were classified in accordance with 'A Guide to Habitats in Ireland', Fossitt (2000). The habitats recorded on site are denoted in the text along with their habitat code. Habitats were assessed for their potential to be protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened, and endangered species. The habitats recorded on site are denoted in the text along with their habitat code.

3.2.2 Flora Survey

A list of plant taxa was recorded as part of the habitat survey and mapping exercise. Habitats were characterised by examining the presence of indicator species, and abundance of these species was assessed semi-quantitively using the DAFOR scale, i.e., Dominant, Abundant, Frequent, Occasional, Rare. Any rare or threatened species encountered on site were recorded

and mapped with suitable mitigation measures for their protection provided.

3.2.3 Fauna Survey

Birds

Bird activity on site during field survey was recorded on an ad hoc basis. Birds perching or flying overhead were identified by sight using binoculars or by identifying calls and birdsong. A list of species recorded was gathered and their conservation status was listed. Habitats were assessed for their suitability to support nesting birds including trees, hedgerows, and holes/gaps in masonry, where present.

Terrestrial Mammals (excl. Bats)

Surveys for terrestrial mammals involved direct observation, track surveys, scat analysis, searches for scrapes, holts, setts, latrines, couches, spraint, footprints, hair, or evidence of feeding on particular foods. Habitats were assessed for their potential to support protected mammal species such as Otter (*Lutra lutra)* or Badger (*Meles meles*). For Otters, survey effort was focused along the site boundaries closest to the watercourses in the vicinity of the site. Identifiable signs of otter activity that was investigated throughout the site includes features such as slides, spraint, resting areas and physical evidence of Otter holts where they may be found under tree roots and under tunnels, rocks, culverts and bridges. For Badgers, while site walkover covered the entire site, survey effort was focused on habitat edges such as woodland edges and hedgerows, as the majority of habitats within the site boundary are unsuitable for badgers. Badger surveying focused on identifiable signs of Badger activity such as snuffle holes, latrines and setts.

Bats

A preliminary bat roost potential survey was conducted as part of this EcIA. This consisted of surveying trees and structures within and surrounding the site for any signs of bat roosting and habitat suitability. The following indicators of bat presence was searched for:

- Live bats.
- Dead bats.
- Droppings.
- Urine/ grease stains.
- Feeding remains.
- Scratch marks.
- Clean timbers, crevices, holes, or gaps.
- Smell of bats.
- Audible squeaking.

Habitat suitability was based on the presence of linear features such as hedgerows, trees, rivers and streams, and old buildings and structures (especially ones constructed of stone).

3.3 Survey Limitations and Constraints

No specialist fauna or floral surveys were carried out as part of this EcIA, and all instances of faunal activity were recorded on an ad-hoc basis. Considering the scale and nature of the

proposed development, this is not considered a significant limitation of the study.

Weather conditions on the date of survey were overcast making conditions unsuitable for recording local invertebrate species, particularly pollinators, that may be utilising the site.

3.4 Assessing Effects

3.4.1 Zone of Influence

The proposed works were assessed to identify potential ecological effects and from this, the Zone of Influence (ZoI) was defined. Based on the potential impacts and their ZoI, the Natura 2000 sites potentially at risk from direct, indirect, or in-combination impacts were identified. The assessment considered all potential impact sources and pathways connecting the proposed project to Natura 2000 sites, in view of the conservation objectives supporting the favourable conservation condition of the site's Qualifying Interests (QIs) or Special Conservation Interests (SCIs).

The conservation objectives relating to each Natura 2000 site and its QIs/SCIs are cited generally for SACs as "*to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or Annex II species for which the SAC has been selected*", and for SPAs "*to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*".

As defined in the Habitat's Directive, the favourable conservation status of a habitat is achieved when:

- Its natural range and area it covers within that range is stable or increasing.
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

The favourable conservation status of a species is achieved when:

- The population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Where site-specific conservation objectives (SSCOs) have been prepared for a European site, these include a series of specific attributes and targets against which effects on conservation condition, or integrity, can be measured. Where potential significant effects are identified, then these SSCOs should be considered in detail.

The proposed development will involve construction works which could generate large quantities of contaminants such as oils, fuels, silt, dust and sediment. As such, a precautionary approach to selecting the zone of influence has been adopted on account of the high groundwater vulnerability of the site, the proximity of the Ferganstown and Ballymacon stream (EPA Code: 07F17) southwest of the site and River Boyne northwest of the site. Therefore, a zone of influence of 15km has been selected for the purpose of assessment of the potential

effects of the proposed development on biodiversity and ecological functions and features near the site as well as downstream.

3.4.2 Important Ecological Features

Ecological features can be important for a variety of reasons and the rationale used to identify them is explained in the text. Importance may relate, for example, to the quality or extent of the site or habitats therein; habitat and / or species rarity; the extent to which such habitats and / or species are threatened throughout their range, or to their rate of decline.

3.4.3 Determining Importance

The importance of an ecological feature should be considered within a defined geographical context. The following frame of reference has been used in this case, relying on known/published accounts of distribution and rarity where available, and professional experience:

- International (European)
- National (Ireland)
- Regional (Leinster)
- County (Meath)
- Townland (Navan)
- Local (Athlumney)
- Site

The above frame of reference is applied to the ecological features identified during the desk study and field surveys carried out to inform this report.

In assigning a level of value to a species, it is necessary to consider its distribution and status, including a consideration of trends based on available historical records. Examples of relevant lists and criteria include species of European conservation importance (as listed on Annexes II, IV and V of the Habitats Directive or Annex 1 of the Birds Directive), species protected under the Wildlife Acts 1976 - 2021 and red or amber listed on Birds of Conservation Concern in Ireland (BoCCI).

The approach to impact assessment, as set out in CIEEM guidelines, only requires that ecological features (habitats, species, ecosystems, and their functions/processes) that are considered to be important and potentially affected by the proposed development are carried forward to detailed assessment. It is not necessary to carry out detailed assessment of receptors that are sufficiently widespread, unthreatened, and resilient to impacts from the proposed development and will remain viable and sustainable. Therefore, for the purposes of this report, only ecological features of local importance or greater and/or subject to legal protection have been subject to detailed assessment.

The Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009) were adopted as part of this methodology for the purpose of evaluating the importance of ecological features within the survey area. The site evaluation criteria from this assessment methodology are produced in accordance with NRA guidelines (2009) and CIEEM (2018), impact assessment is only undertaken of Key Ecological Receptors (KERs). These are features within the zone of influence of the proposed scheme which are "*both of sufficient value to be*

material in decision making and likely to be affected significantly". According to NRA guidelines (NRA, 2009), KERs are of local importance (higher value) or higher as per NRA value criteria. Features of local importance (lower value) are not considered in the guidance to be KERs and are therefore excluded from impact assessment.

3.4.4 Impact Assessment

Ecological features can be important for a variety of reasons and the rationale used to identify them is explained in the text. Importance may relate, for example, to the quality or extent of the site or habitats therein; habitat and / or species rarity; the extent to which such habitats and / or species are threatened throughout their range, or to their rate of decline.

The impact assessment process involves the following steps:

- Identifying and characterising potential impacts.
- Incorporating measures to avoid and mitigate (reduce) these impacts.
- Assessing the significance of any residual effects after mitigation.
- Identifying appropriate compensation measures to offset significant residual effects (if required).
- Identifying opportunities for ecological enhancement.

When describing impacts, reference has been made to the following characteristics, as appropriate:

- Positive or negative.
- Extent.
- Magnitude.
- Duration.
- Timing.
- Frequency.
- Reversibility.

The impact assessment process considers both direct and indirect impacts. Direct ecological impacts are changes that are directly attributable to a defined action, e.g., the physical loss of habitat occupied by a species during the construction process. Indirect ecological impacts are attributable to an action, but which affect ecological resources through effects on an intermediary ecosystem, process or feature, e.g., the creation of roads which cause hydrological changes, which, in the absence of mitigation, could lead to the drying out of wet grassland.

Consideration of conservation status is important for evaluating the effects of impacts on individual habitats and species and assessing their significance:

- Habitats – conservation status is determined by the sum of the influences acting on the habitat that may affect its extent, structure and functions as well as its distribution and its typical species within a given geographical area.
- Species – conservation status is determined by the sum of influences acting on the species concerned that may affect its abundance and distribution within a given geographical area.

3.4.5 Significant Effects

The concept of ecological significance is addressed in paragraphs 5.24 to 5.28 of the CIEEM guidelines. Significance is a concept related to the weight that should be attached to effects when decisions are made. For EcIA, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' (IEFs) or for biodiversity in general (i.e. KERs). Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant on a wide range of scales from international to local, and the scale of significance of an effect may or may not be the same as the geographic context in which the feature is considered important.

The nature of the identified impacts on each assessed feature is characterised. This is considered, along with available research, professional judgement about the sensitivity of the feature affected, and professional judgement about how the impact is likely to affect the site, habitat, or population's structure and continued function. Where it is concluded that an effect would be likely to reduce the importance of an assessed feature, it is described as significant.

3.4.6 Cumulative Effects

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. Cumulative effects can occur where a proposed development results in individually insignificant impacts that, when considered in combination with impacts of other proposed or permitted plans and projects, can result in significant effects.

Other plans and projects that should be considered when establishing cumulative effects are:

- Proposals for which consent has been applied but which are awaiting determination.
- Projects which have been granted consent, but which have not yet been started, or which have been started but are not yet completed (i.e. under construction).
- Proposals which have been refused permission, but which are subject to appeal, and the appeal is undetermined.
- Constructed developments whose full environmental effects are not yet felt and therefore cannot be accounted for in the baseline.
- Developments specifically referenced in a National Policy Statement, a National Plan or a Local Plan.

3.4.7 Avoidance, Mitigation, Compensation and Enhancement

When seeking mitigation or compensation solutions, efforts should be consistent with the geographical scale at which an effect is significant. For example, mitigation and compensation for effects on a species population significant at a county scale should ensure no net loss of the population at a county scale. The relative geographical scale at which the effect is significant will have a bearing on the required outcome which must be achieved.

Where potentially significant effects have been identified, the mitigation hierarchy has been applied, as recommended in the CIEEM Guidelines. The mitigation hierarchy sets out a sequential approach beginning with the avoidance of impacts where possible, the application of mitigation measures to minimise unavoidable impacts and then compensation for any

remaining impacts. Once avoidance and mitigation measures have been applied residual effects are then identified along with any necessary compensation measures, and incorporation of opportunities for enhancement.

It is important for the EcIA to clearly differentiate between avoidance, mitigation, compensation and enhancement and these terms are defined here as follows:

- Avoidance is used where an impact has been avoided, e.g. through changes in scheme design.
- Mitigation is used to refer to measures to reduce or remedy a specific negative impact in situ.
- Compensation describes measures taken to offset residual effects, i.e., where mitigation in situ is not possible.
- Enhancement is the provision of new benefits for biodiversity that are additional to those provided as part of mitigation or compensation measures, although they can be complementary.

4 Results

4.1 Desktop Survey

4.1.1 Study Area

The proposed works are located to the east of Navan, County Meath (approximate ITM Coordinates: 688617, 768171). The proposed development is an industrial laundry processing and distribution facility warehouse including ancillary offices, storage, and staff amenities located at a *ca.* 4.61-hectare site located at Boyne Village Business Park, in the townland of Athlumney, Navan, Co. Meath. The site is bounded to the west by extensive agricultural lands. Areas of housing estates and residential developments are located directly south of the site and continue south for *ca.* 2.5km reaching the outskirts of south Navan town. To the east the site is bounded by the fabric of Navan town and suburbs. Navan town comprises, densely grouped residential units with a number of housing estates as well as commercial units including Navan Town Shopping Centre. To the north the site is bound by a mix of agricultural and residential land uses. The Boyne River flows from west to east *ca.* 380m north of the proposed development. The site fronts the old Navan Railway line which is not operational for passenger service. There are plans to bring the line back into service for passengers as part of the NTA's Greater Dublin Area Transport Strategy. There is a new link road under construction which will traverse and ultimately service the proposed development. The road development links the Kentstown Road – Metges Road junction to the development via the Hodgett Road.

An overview of the subject lands is provided in **Figure 1.1**.



Figure 4.1: Land use within the site and surrounding environs (Source: Google Satellite).

4.1.2 Land Use and Surrounding Habitats

Prior to site walkover, an initial desktop assessment using up to date aerial photographs was undertaken. A preliminary overview of the land-use and habitats surrounding the site was assessed and noted. According to these images, there is a mixture of land use in the surrounding landscape. The land use to the east and northeast of the site is predominately agricultural with land parcels demarcated by hedgerows and treelines with scattered agricultural and residential units. The lands immediately south and southeast of the site however are undergoing development. Lands further south are dominated by extensive residential areas associated with Navan town. A drainage channel exists adjacent to the northwestern boundary hedgerow. A residential area and a narrow stretch of woodland lie beyond the railway, separating the site from the River Boyne. The River Boyne ultimately flows off the east Irish coast *ca.* 28km northeast of the application site.

An examination of the extent and quality of waterbodies in the vicinity of the proposed development is included in **Section 4.1.4**.

An overview of the land use and surrounding habitats can be seen in **Figure 4.1**. The results of the site-specific habitat survey are contained within **Section 4.2.1**.

4.1.3 Topography

There is slight variation across the site with regards to topography as there are localised raised areas in the north and east of the application site. These raised areas lie at *ca.* 50m OD with a downward gradient towards the west of the site which lies at *ca.* 45m OD.

4.1.4 Hydrology

The proposed site is located within the Boyne_140 Sub-Basin; Boyne Catchment; Boyne_SC_110 Subcatchment; Hydrometric Area 07.

The principle hydrological feature within the vicinity of the proposed works is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located *ca.* 290m west of the application site. A drainage channel exists along the western site boundary and joins the Ferganstown and Ballymacon stream southwest of the site. The stream flows in a north direction and meets the River Boyne (EPA Code: 07B04) *ca*. 380m north of the site. The River Boyne flows into the Irish Sea *ca.* 28km northeast of the proposed development site.

The Water Framework Directive (WFD) runs in 6-year cycles with the most recent data being generated between 2016-2021. The Directive takes rivers, lakes, estuaries, groundwater and coastal waters into consideration and each waterbody can be awarded one of five statuses: High, Good, Moderate, Poor, and Bad. Additionally, waterbodies can be assigned a risk level ("At Risk", "Not at Risk", "Review") which represents the risk of the waterbody of failing its WFD objectives by 2027. The WFD aims to achieve good status for all rivers, lakes and transitional and coastal waters in the EU. Achieving good ecological status for surface waters is critical to this.

According to the EPA maps, the Ferganstown and Ballymacon stream and River Boyne have a WFD status of 'Moderate' and the risk status is under review

Any overview of watercourses in the vicinity of the subject site is provided in **Figure 4.2**.



Figure 4.1: Watercourses in vicinity of the site (Source: Google Satellite).

Biological Q-Values

A summary of most recent Biological Q-ratings from the watercourses at points close to the site is provided in **Table 4.1**.

Table 4.1: Biological Q Values for River Boyne Watercourse (Source: EPA).

Station ID	Station Name	Result
RS07B011800	Slane Rd Br Navan	3-4 - Moderate (2024)
RS07B042010	d/s Broadboyne Br (RHS)	4 - Good (2024)

4.1.5 Soils and Geology

Teagasc soil mapping indicates the site is underlain primarily by Carboniferous tills such as Grey-brown Podzolic and Brown Earth and are well drained minerals. The Geological Survey of Ireland (GSI) bedrock database indicates that soils of the proposed site are underlain at depth by Lucan formation dark limestone and shale.

4.1.6 Groundwater

According to GSI groundwater maps, the site overlays a locally important aquifer – bedrock

which is generally moderately productive. The groundwater vulnerability at the site is classed as High.

4.1.7 Natura 2000 Sites

The Natura 2000 is a network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types, protected under the European Union's Habitats Directive and Birds Directive. These sites aim to ensure the long-term survival of Europe's most valuable and threatened species and habitats, contributing to biodiversity conservation across the EU. An assessment was carried out to determine whether any source-pathway-receptor (S-P-R) connectivity was established between the proposed site and any Natura 2000 sites identified which could lead to potential negative effects as a result of the development.

The generic conservation objectives of the SACs are:

- To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

The generic conservation objectives of the SPAs are:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

The favourable conservation status of a habitat is achieved when:

- Its natural range and area it covers within that range is stable or increasing and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future;
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- The population dynamics data on the species concerned indicate that it is maintaining itself on a long -term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

There are 2 no. Natura 2000 sites (1 SAC and 1 SPA) within a 15km radius of the proposed site with both designated sites having a Source-Pathway-Receptor connection with the proposed development site: River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. These Natura 2000 sites are located *ca.* 380m north of the application site. A Natura Impact Statement has been prepared as part of the planning application and identifies the potential sources of pollution, the pathways connected to the designated sites, any potential effects upon these designated sites, and outlines mitigation measures to prevent any significant effects (**Document Ref.: 252248-ORS-XX-XX-RP-EN-13d-004**).

Figure 4.3 below provides an overview of SACs and SPAs within a 15km radius of the proposed site, and **Figure 4.4** shows the S-P-R connectivity between the application site and

the nearby Natura 2000 sites.



Figure 4.2: Natura 2000 sites (SACs and SPAs) within a 15km radius of the site (Source: Google Satellite).



Figure 4.4: Natura 2000 sites with a Source-Pathway-Receptor connection with the application site (Source: Google Satellite).

4.1.8 Natural Heritage Areas (NHAs)

Natural Heritage Areas (NHAs) are nationally designated sites in Ireland, recognized for their importance in protecting wildlife habitats, species, and geological features under the Wildlife Acts. Proposed Natural Heritage Areas (pNHAs), while not yet statutorily designated, are identified areas of significant ecological value published on a non-statutory basis, with a process underway to formally designate some. In an ecological impact assessment, both NHAs and pNHAs are crucial considerations, requiring careful evaluation of potential impacts to ensure the conservation of their inherent biodiversity and natural attributes.

The nearest NHA to the application site is Boyne Woods pNHA (001592) located *ca.* 2.8km northeast of the proposed development. The proposed development site is hydrologically connected to the pNHA and subsequent NHAs downstream of this via the Ferganstown and Ballymacon stream located on the western boundary. Therefore, the construction phase of the proposed development could give rise to contaminants that could travel via the stream and River Boyne and give rise to significant effects upon the habitats and species occurring within the pNHA.

Figure 4.5 below provides an overview of Natural/proposed Natural Heritage Areas within a 15km radius of the proposed site.



Figure 4.5: Natural Heritage Areas and Proposed Natural Heritage Areas within a 15km radius of the site (Source: Google Satellite).

4.1.9 Records of Rare, Protected and Notable Species

A desktop review of NBDC online records was carried out to assess whether the presence of any rare, threatened, or notable species records were available within the vicinity of the proposed site. The subject site lies within the 2km grid square N86Z. A summary of recorded species gathered from the NBDC database within the past 5 years is provided in **Table 4.2** below.

Table 4.2: NBDC Species Records within Grid Square N86Z

Species Name	Record Count	Date of Last Record	Designation
Invasive Species			
Cherry Laurel (*Prunus laurocerasus*)	3	18/02/2024	Invasive Species: High Risk Invasive Species (2013 Report)
Himalayan Balsam (*Impatiens glandulifera*)	5	25/08/2023	Invasive Species: EU Invasive Alien Species Regulation No. 1143/2014, Regulation S.I. 477/2011 (Ireland), High Risk Invasive Species (2013 Report),

			Regulation S.I. 374/2024 (Ireland), Invasive Species: Detailed Risk Assessment >> High Risk
Three-cornered Garlic (*Allium triquetrum*)	5	01/04/2024	Invasive Species: Regulation S.I. 477/2011 (Ireland), Invasive Species: Detailed Risk Assessment, Invasive Species: Medium Risk Invasive Species (2013 Report), Regulation S.I. 374/2024 (Ireland), Invasive Species: Detailed Risk Assessment >> Moderate Risk
Birds			
Black-headed Gull (*Chroicocephalus ridibundus*)	6	03/01/2023	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Coot (*Fulica atra*)	2	06/01/2022	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section II Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Cormorant (*Phalacrocorax carbo*)	6	03/01/2025	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Great Spotted Woodpecker (*Dendrocopos major*)	2	17/02/2024	Protected Species: Wildlife Acts
Grey Wagtail (*Motacilla cinerea*)	7	03/03/2022	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Red List
House Martin (*Delichon urbicum*)	2	12/04/2024	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
House Sparrow (*Passer domesticus*)	2	02/09/2022	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Kingfisher (*Alcedo atthis*)	9	12/02/2021	Protected Species: Wildlife Acts, EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern - Amber List
Little Egret (*Egretta garzetta*)	10	25/11/2024	Protected Species: Wildlife Acts, EU Birds Directive >> Annex I Bird Species

Little Grebe (*Tachybaptus ruficollis*)	12	16/07/2025	Protected Species: Wildlife Acts
Mallard (*Anas platyrhynchos*)	35	02/05/2025	Protected Species: Wildlife Acts, EU Birds Directive >> Annex II, Section I >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern - Amber List
Mistle Thrush (*Turdus viscivorus*)	7	02/05/2025	Protected Species: Wildlife Acts
Mute Swan (*Cygnus olor*)	10	09/09/2025	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Pheasant (*Phasianus colchicus*)	5	01/04/2024	Protected Species: Wildlife Acts, EU Birds Directive >> Annex II, Section I Bird Species >> Annex III, Section I Bird Species
Robin (*Erithacus rubecula*)	17	18/06/2024	Protected Species: Wildlife Acts
Sand Martin (*Riparia riparia*)	3	23/05/2023	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Sparrowhawk (*Accipiter nisus*)	5	30/02/2021	Protected Species: Wildlife Acts
Starling (*Sturnus vulgaris*)	9	02/09/2022	Threatened Species: Birds of Conservation Concern - Amber List
Swallow (*Hirundo rustica*)	8	18/06/2024	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Mammals			
Daubenton's Bat (*Myotis daubentonii*)	91	20/09/2021	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Leisler's Bat (*Nyctalus leisleri*)	14	31/08/2022	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Natterer's Bat (*Myotis nattereri*)	2	31/08/2022	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	29	31/08/2022	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Insects			
Red-tailed Bumblebee (*Bombus lapidarius*)	8	07/04/2025	Threatened Species: Near threatened
Narrow-bordered Five-spot Burnet (*Zygaena lonicerae*)	2	13/06/2023	Threatened Species: Vulnerable

4.1.10 Bat Landscape Suitability Index

The overall suitability of the landscape for bats was determined using the geographic suitability index from The National Biodiversity Data Centre (NBDC). The index ranges from 0 (least favourable) to 100 (most favourable) for bats.

Results displayed in **Table 4.3** indicate that across all bat species found in Ireland, the site of the proposed development lies within a low – moderate suitability area.

The highest suitability result was for Common Pipistrelle (*Pipistrellus pipistrellus*) and Lesser Noctule (*Nyctalus leisleri*), both with an index of 51. The lowest suitability index was assigned to Lesser Horseshoe Bat (*Rhinolophus hipposideros*) with an index of 0.

Table 4.3: Bat Suitability Index for the Proposed Development (NBDC)

Bat Species	Suitability Index
All Bats	35.89
Common Pipistrelle (*Pipistrellus pipistrellus*)	51
Lesser Noctule (*Nyctalus leisleri*)	51
Brown Long-eared Bat (*Plecotus auritus*)	46
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	45
Natterer's Bat (*Myotis nattereri*)	41
Daubenton's Bat (*Myotis daubentoniid*)	40
Nathusius's Pipistrelle (*Pipistrellus nathusii*)	17
Lesser Horseshoe Bat (*Rhinolophus hipposideros*)*	0
Whiskered Bat (*Myotis mystacinus*)	32

**Annex II Species*

4.2 Field Survey

4.2.1 Habitat Survey and Classification

Habitats at the site were identified and classified according to 'A Guide to Habitats in Ireland' (Fossitt, 2000). Habitats were appraised and evaluated according to their occurrence as protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened, and endangered species. The condition and evaluation of the habitats recorded were classified in line with 'Best Practice Guidance for Habitat Survey and Mapping', The Heritage Council (2011).

Table 4.4 provides an overview of the habitats recorded across the site and an ecological evaluation of the habitats recorded. A map of the habitats identified is included in **Figure 4.6.**



Figure 4.6: Habitat classification of proposed site (Source: Google Satellite).

Table 4.4: Evaluation of Habitats within the Study Area				
Habitat Classification	**Description**	**Species Recorded**	**Condition**	**Evaluation**
GA1 – Improved Agricultural Grassland	The primary habitat type within the application site is improved grassland dominated by seeded monoculture grasses. Common agricultural herbs are also present.	Ryegrasses (*Lolium* spp.) (d), clovers (*Trifolium* spp.) (a), docks (*Rumex* spp) (o), plantains (*Plantago* spp.) (o), *Ranunculus* spp. (o).	Good	Local (Low)



Plate 1: GA1 Improved Agricultural Grassland. Primary habitat type occurs within the northern and southern parcels. Photograph taken from northern parcel, facing north.

WD1 - Hedgerow	Hedgerows border the northern and southern land parcels. Common native species are present throughout with occasional trees.	Hawthorn (*Crataegus monogyna*) (d), Buckthorn (*Rhamnus* agg.) (a), Blackthorn (*Prunus spinosa*) (a), Ivy (*Hedera* spp.) (a), Bramble (*Rubus fructicosus*) (a), Elderberry (*Sambucus* spp.) (a), Ash (*Fraxinus excelsior)* (f), willows (*Salix* spp.) (o)	Moderate	Local (High)



Plate 2: WD1 - Hedgerow. Hedgerows border the site and are composed of common and native species such as Hawthorn and Ash. Photograph facing northeast corner of the site.

FW4 – Drainage Ditch	A drainage channel runs adjacent to the western and eastern site boundary. The western channel joins the local watercourse, the Ferganstown and Ballymacon stream, southwest of the site. Common wetland vegetation is present in sections along the channel.	Water-cress (*Nasturtium officinale*) (o), Lesser Water-parsnip (*Berula erecta*) (o), Water Mint (*Mentha aquatica*) (o)	Good	Local (High)



Plate 3: FW2 – Drainage Ditch. Adjacent to the western and eastern site boundary, photograph facing west.

FS1 – Reed and Large Sedge Swamps	A localised section of the site adjacent to the western site boundary is dominated by reeds and tall grasses. At the time of survey, there was a large area of standing water, however this is likely subject to fluctuation with seasonal variation in weather.	Unidentified tall grasses (d), Reed Sweet-grass (*Glyceria maxima*) (d), Tall Fescue (*Festuca arundinace*) (a), Great Fen-sedge (*Cladium mariscus*) (a), Yellow Iris (*Iris pseudacorus*) (f), Water Mint (*Mentha aquatica*) (o), Meadowsweet (*Filipendula ulmaria*) (o), Fool's Water-cress (*Apium nodiflorum*) (o)	Good	Local (High)



Plate 4: FS1 Reed and Large Sedge Swamp. A localised swamp area in the western extent of the site supports a number of wetland species and contains standing water. Photograph facing north.

GS2 – Dry Meadow and Grassy Verge	A localised area of grassy verge exists on the border between the swamp habitat and the agricultural grassland. Tall grasses and common agricultural species are present.	False Oat-grass (*Arrhenatherum elatius*) (a), Yorkshire-fog (*Holcus lanatus*) (a), Nettle (*Urtica dioica*) (a), clovers (*Trifolium* spp.) (f).	Good	Local (Low)



Plate 5: GS2 Dry Meadow and Grassy Verge. Grassy verge habitat exists in the transition from swamp habitat to agricultural grassland. Photograph facing south.

BL3 – Buildings and artificial surfaces	A small section of the site is comprised of artificial surfaces, where previous development works have taken place. A road and roundabout have been developed to service the application site.	N/A	Good	Local (Low)



Plate 6: BL3 – Buildings and artificial surfaces. The road and roundabout servicing the application site was flooded at the time of survey in the winter. Photograph facing south.

ED2 – Spoil and Bare Ground	There are sections of the agricultural grasslands that have been disturbed by vehicular traffic and has resulted in exposed soils.	N/A	Poor	Local (Low)



Plate 7: ED2 Spoil and Bare Ground. Some areas of the agricultural grasslands have been disturbed and soil is exposed. Photograph facing northeast.

FW2 – Depositing / Lowland River	The local watercourse, the Ferganstown and Ballymacon stream, flows adjacent to the southwestern extent of the site boundary with a connection to the drainage channel along the western site boundary.	N/A	Good	Local (High)



Plate 8: FW2 Depositing / Lowland River. The local watercourse flows adjacent to the southwestern tip of the site boundary. Photograph facing south.

Species abundance and analysis of indicator species has been classified according to the DAFOR scale: d = dominant, a = abundant, f = frequent, o = occasional, r = rare.

4.2.2 Flora

No rare or protected flora species protected under the Flora Protection Order (2022), listed in Annex II and IV of the EU Habitats Directive (92/43/ECC), or listed in the Irish Red List were recorded during the survey. The current list of plant species protected by Section 21 of the Wildlife Act, 1976 is set out in the Flora (Protection) Order, 2022, which super cedes orders made in 1980, 1987, 1999 and 2015.

It is illegal to cut, uproot or damage the listed species in any way, or to offer them for sale. This prohibition extends to the taking or sale of seed. In addition, it is illegal to alter, damage or interfere in any way with their habitats. This protection applies wherever the plants are found and is not confined to sites designated for nature conservation.

4.2.3 Invasive Species Survey

The invasive species survey aimed to identify and assess the extent of non-native species that may pose ecological risks. Invasive species require special consideration when trying to clear them for development.

No invasive species listed under the 'First Schedule' of the European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374/2024) were recorded during site walkover. Despite this, best practice measures for the control of invasive species are recommended in **Section 7** of this report. These measures will ensure that translocation of invasive species does not occur during development. This is imperative as the adjacent stream has the potential to spread invasives beyond the extent of the subject site in the absence of mitigation.

4.3 Fauna

4.3.1 Bird Survey

Bird surveying was carried out on an ad hoc basis – observing birds that either flew overhead or were observed perching, nesting, or foraging of the course of the site survey. Birds in the nearby vicinity of the site were also identified via birdcall identification. Bird species and the number of individuals was recorded along with their conservation status in Ireland. Care was taken to avoid double counting individuals.

Species identification and abundance data is presented in **Table 4.5** below along with the conservation status within Ireland. Surveyors were mindful of the zone of influence of the development scheme (i.e. the distance beyond the redline boundary that a scheme may still have an impact on breeding birds, either during construction or operation). Surrounding habitat up to *ca.* 250m outside of the redline boundary was also surveyed from within or along the site boundary – particularly land immediately surrounding the site itself, and any nearby potentially valuable habitat which is likely to be impacted by development/disturbance.

Table 4.5: Bird species and counts recorded on site.		
Species	**Count**	**Conservation Status**
Rook (*Corvus frugilegus*)	3	Green
Robin (*Erithacus rubecula*)	1	Green
Jackdaw (*Coloeus monedula*)	2	Green
Magpie (*Pica pica*)	3	Green
Stonechat (*Saxicola rubicola*)	2	Green
Wood Pigeon (*Columba palumbus*)	4	Green
Wren (*Troglodytes troglodytes*)	2	Green
Goldfinch (*Carduelis carduelis*)	2	Green
Moorhen (*Gallinula chloropus*)	1	Green
Herring Gull (*Larus argentatus*)	3	Amber
Black-headed Gull (*Larus ridibundus*)	1	Amber
Yellowhammer (*Emberiza citrinella*)	1	Red

The majority of bird activity observed at the site were individuals passing over the site and the majority of species recorded are common and resident species such as corvids, Wood Pigeon (*Columba palumbus*) and common small passerines such as Robin (*Erithacus rubecula*) and Wren (*Troglodytes troglodytes*). One no. Moorhen (*Gallinula chloropus*) was recorded in the standing water associated with the swamp habitat. No other waterbird, wader or waterfowl species were recorded within or flying over the site.

Two no. amber-listed species were recorded during site walkover: Herring Gull (*Larus argentatus*) and Black-headed Gull (*Larus ridibundus*). Both of these gull species were not seen to utilise the site and were recorded flying over the site. One no. red-listed species was recorded: Yellowhammer (*Emberiza citrinella*). This individual was seen perched on a fence just outside the southern site boundary along with a male and female Stonechat (*Saxicola rubicola*). These passerines were also seen perched within the boundary hedgerow in the south of the site.

The boundary hedgerows throughout the application site could serve as suitable foraging and nesting habitat, particularly in areas where the hedgerow is thick and dense such as the northern boundary. The site is considered to be of moderate importance to local bird populations.

While extensive removal of boundary vegetation is not required as part of the proposed development, local bird populations will be subject to temporary disturbance during the process of construction and operation.

4.3.2 Mammal Survey

Survey techniques employed on this site investigation utilised direct observation methods, looking for tracks, footprints, and other signs such as scat and faeces. The mammal survey focused on identifying signs of mammal activity within the site boundary such as movement

corridors, droppings, hair, dens or setts, and evidence of foraging.

There were no clear signs of mammal activity such as those mentioned above recorded during the site survey.

The boundary hedgerows could serve as important ecological corridors for mammal species that were not recorded during surveying such as Hedgehog (*Erinaceus europaeus*), Red Fox (*Vulpes* vulpes) and rodents. The site is considered to be of low - moderate suitability for local mammal populations to utilise effectively.

4.3.3 Preliminary Bat Roost Potential (BRP)

The trees located within the boundary hedgerows site were assessed from ground level for bat roost potential. There are no other suitable features, such as derelict structures, within the site that could support roosting bats. **Table 4.6** below describes habitat suitability criteria for bat roosts. The circumference of the trunks and branches of the trees observed did not appear to be substantial enough to support roosting bats. However, it should be noted that ivy coverage prevented a thorough examination of these features.

Table 4.6: Bat roost suitability descriptors

Suitability	Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

A summary of the classification of the roost features observed on site is included in **Table 4.7**. The bat roost suitability of the boundary hedgerows was considered negligible-to-low and does not warrant further survey with regards to bats. There are no other features within the application site that could potentially support roosting bats.

The network of hedgerows could serve important foraging and commuting habitat with regard to the surrounding landscape. The nearby Ferganstown and Ballymacon stream and River Boyne also serve as an important foraging and commuting corridor, as bats favour foraging over watercourses adjacent to extensively managed pastures lined with hedgerows and treelines. For these reasons, direct and indirect disturbance to the boundary hedgerows and local watercourses should be kept to a minimum. Mitigation measures for the prevention of

disturbance are provided in **Section 7**.

Table 4.7: Preliminary Bat Roost Features			
Photograph	**Feature**	**Suitability**	**Comment**
	Occasional immature trees are located throughout the network of hedgerows	Negligible-to-Low	Circumference of trunks associated with the trees are considered unsuitable for roosting bats. The trees are immature and do not have features such as cracks, crevices and holes that could support roosting bats. The hedgerows do provide foraging and commuting habitat for local bat populations. Further survey of this habitat in relation to bats is not considered necessary. Best practice mitigation measures for disturbance emissions should be adhered to.

4.3.4 Amphibians and Reptiles

The wet nature of the swamp habitat features pooling of surface waters, particularly in the lowest point of the site adjacent to the western site boundary. These areas of swamp vegetation could potentially support Common Frog (*Rana temporaria*) and Smooth Newt (*Lissotriton vulgaris*) however the levels of pooling surface water are subject to temporal and climate variation. There were no Common Frogs or Smooth Newt recorded during site surveying. There are no features within the application site that could serve as basking spots for Common Lizard (*Zootoca vivipara*) such as boulders or other hardstanding surfaces. The site is considered to be of moderate importance for local amphibian populations and of low importance for reptile populations.

4.3.5 Invertebrates

The subject site is likely to support common invertebrate species as some wildflower species were noted during site surveying, notably in the understory vegetation of hedgerows. Weather conditions on the day were overcast which provided limited opportunity to observe active invertebrates on site. The drainage channel along the western boundary is potentially suitable for macroinvertebrates to inhabit, and the protection of water quality is important to maintain during development. Mitigation measures for the protection of water quality in the drainage channel and downstream watercourses are provided in **Section 7**.

4.4 Ecological Evaluation Summary

Taking the desktop survey and field data into account, **Table 4.8** below provides a summary evaluation of the ecological receptors and features in the vicinity of the proposed site. A determination of whether these features are considered a Key Ecological Receptor (KER) is provided. Those features that have been classified as KERs are subject to further impact assessment.

Table 4.8: Ecological Evaluation Summary Ecological Receptor/Feature Designated Sites	Evaluation	Key Ecological Receptor (KER)
River Boyne and River Blackwater SAC (002299)	International	Yes
River Boyne and River Blackwater SPA (004232)	International	Yes
Boyne Woods pNHA (001592)	National	Yes
Habitats	**Evaluation**	**Key Ecological Receptor (KER)**
GA1 – Improved Agricultural Grassland	Local (Low)	No
WL1 – Hedgerow	Local (High)	Yes
FW4 – Drainage Ditch	Local (High)	Yes
FS1 – Reed and Large Sedge Swamps	Local (High)	Yes
GS2 – Dry Meadow and Grassy Verge	Local (Low)	No
BL3 – Buildings and artificial surfaces	Local (Low)	No
ED2 – Spoil and Bare Ground	Local (Low)	No
FW2 – Depositing / Lowland River	Local (High)	Yes
Fauna	**Evaluation**	**Key Ecological Receptor (KER)**
Terrestrial Mammals	Local (Low)	No
Bats	Local (High)	Yes
Birds	Local (Moderate)	Yes
Amphibians & Reptiles	Local (Moderate)	Yes
Invertebrates	Local (Low)	No

5 Characteristics of the Proposed Development

The proposed development will occur on the site of ca. 4.5 hectares at Boyne Village Business Park, Athlumney within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath. The proposed development will consist of:

- The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:
  - a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and
  - a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.

- Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.

- Parking and loading facilities including:
  - 106 car parking spaces (including 5 accessible spaces and 1 set-down space);
  - 30 bicycle parking spaces;
  - 19 truck parking spaces;
  - c. 20 van parking spaces;
  - 10 truck loading bays; and
  - 12 van loading bays.

- Ancillary structures and services including:
  - an ESB substation;
  - a sprinkler pump room & asscoiated sprinkler tank;
  - water storage infrastructure;
  - surface water attenuation infrastructure; and
  - associated utility infrastructure.

Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works

Figure 5.1 below provides an indicative layout of the proposed business park.

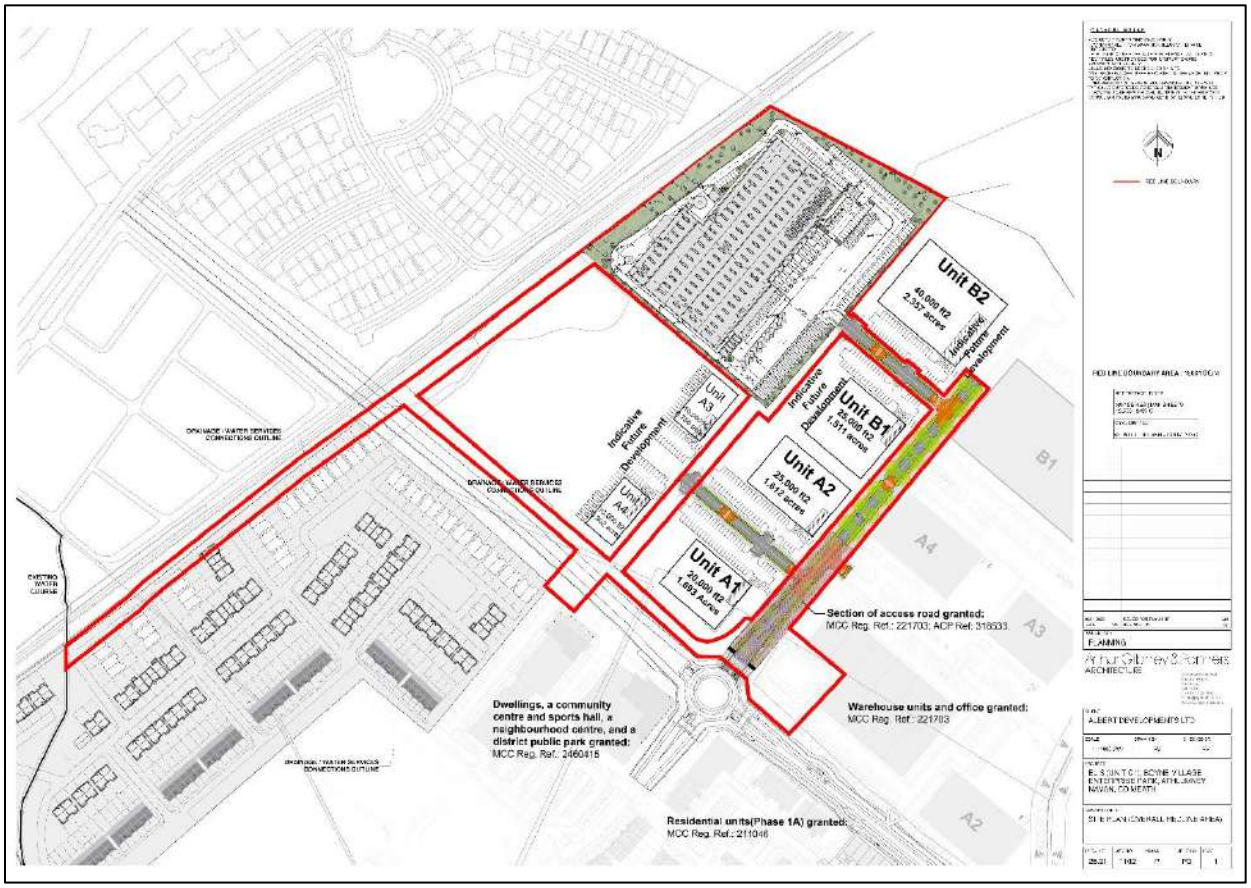


Figure 5.1: Proposed layout of the Business Park at Boyne Village, Athlumney, Navan, Co. Meath. (Cropped - Source: Arthur Gibney & Partners Architecture – Please refer to the full-scale drawing submitted as part of the planning application – Drawing No. 1102).

The proposed development is an industrial laundry processing and distribution facility warehouse including ancillary offices, storage, and staff amenities will see the conversion of improved agricultural grassland to buildings and artificial surfaces. The boundary hedgerows surrounding the application site will be retained where possible, and the planting of new native trees and woodland is proposed as part of the works. A 10m buffer zone will be implemented from the river to the westernmost boundary to ensure risk of a pollution event is minimised. The proposed development will not result in significant loss of ecological value.

Surface Water

The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. The Ferganstown and Ballymacon Stream flows through the MP12 lands and discharges to the River Boyne. The stream is approximately 450m from the southern boundary of the site at its closest point. All surface water on the proposed site which does not infiltrate into the ground is to be directed towards the stream.

The Sustainable Drainage Systems that could potentially be used on the site were assessed using the SuDS Selection Hierarchy The proposed Sustainable Drainage System includes the following elements:

- Wet/dry detentions basins / ponds
- Bio-retention areas including tree pits
- Permeable paving (including porous asphalt)
- Rainwater butts to be provided at all houses.

Surface water from the “Spine Road” from the associated roundabout will discharge to the existing detention basin adjacent to the LDR6 road. The capacity of the detention basin is to be increased to account for the additional storage requirements. Surface water from the new access road will be piped into an open ditch flowing west from the roundabout towards the railway line west of the development site.

Approximately 20% of the site area is to remain in an un-developed green-field state (soft landscaping). This area will not be connected to the drainage system. Rain falling onto the ground within this area will percolate into the ground and will not contribute to an increase in pre-development run-off. Two no. attenuation zones are proposed in the main body of the site in the northern extents of the site: Zone A and Zone B. Surface water attenuation measures include the installation of SC-740 Attenuation Chambers. The full mapping and details of the surface attenuation features are found in **Drawing No. 411-P1** and **Drawing No. 415-P1** which accompany this application.

Attenuated surface water from Zones A and B will discharge into the drainage channel west of the site. Existing field drains will be cleared of silt and vegetation to allow for re-grading works to provide a gradient of 1:400.

Roads will be drained using several methods including:

- Roads and footpaths will be drained using road gullies with underground drainage pipes to convey run-off to local attenuation systems or detention basins dispersed around the site which have been designed to encourage infiltration where possible.
- Parking spaces will be constructed using permeable paving. Water falling onto roads adjacent to these spaces will be directed towards the permeable paving to facilitate infiltration with excess water directed towards the piped drainage system.
- Gaps will be provided in kerbs at some locations to direct surface water into bio-retention systems / tree pits.

Flow control through the system will generally be achieved using hydro-brakes and orifice control devices in detention basins / ponds etc.

The proposed storm water drainage has been designed to satisfy the requirements of The Greater Dublin Strategic Drainage Study (GDSDS) and Section 16.3 of The Greater Dublin Regional Code of Practice of Drainage Works which requires that the following four criteria relating to drainage design are satisfied for all developments:

Criteria 1 – River Water Quality
Criteria 2 – River Regime Protection
Criteria 3 – Level of service (flooding) for the site
Criteria 4 – River Flood Protection

The four criteria are satisfied through the design of the proposed drainage network. The proposed drainage network will therefore not adversely affect the water quality, flow regime, natural hydrology or flood risk within the drainage channel or downstream waterbodies during the operational phase of the development. Details of the surface water drainage network and SuDS components are provided in the Hendrick Ryan Engineering Services Report.

Mitigation measures outlined in **Section 7** of this report will ensure that no significant adverse effects on water quality, flow regime, natural hydrology or flood risk within the drainage channel or downstream waterbodies will occur during the construction or operational phases of the development.

Wastewater

The wastewater drainage system for the proposed development is shown on Hendrick Ryan Drawing No. 2680/500 & 2680/501. A new sewer will be constructed between the Elis site and the proposed 750Φ gravity sewer south of the proposed LDR6 extension. This sewer has been sized to accommodate some future development between the Elis site and the LDR6.

Wastewater from the laundry facility will be treated on site prior to discharging through a private drain to the new 750Φ public sewer in the LDR6. The primary on-site treatment will include reducing water temperature, removing chemicals and adjusting pH levels to comply with discharge requirements prior to releasing water to the public sewer system.

An estimate of wastewater used by the proposed laundry facility is included in the Hendrick Ryan Engineering Services Report submitted as part of the application.

6 Ecological Impact Assessment

The information gathered as part of the desk study and field survey for this proposed application has been used to complete an Ecological Impact Assessment (EcIA). This EcIA has been undertaken following the latest guidelines set out by CIEEM (2018) and the EPA (2022).

The identification of potential effects and the assessment of their significance typically requires the identification of the type and magnitude of the effects. For example, will the effects be short term or long term, direct, indirect or cumulative and will they occur during construction or operation. This section will establish whether ecological effects of the proposed development in Navan are likely to occur and whether or not they are significant. These potential effects will be examined with respect to the ecological receptors identified in the previous section.

The emphasis in EcIA is on “significant” effects, rather than all ecological effects (CIEEM, 2018). For the purpose of EcIA, a “significant effect” is an effect that either supports or undermines biodiversity conservation objectives for important ecological features for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national / local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local.

A significant effect is an effect that if sufficiently important to require assessment and reporting so that the decision maker (i.e., Local Authority) is adequately informed of the environmental consequences of permitting the project. In broad terms, significant effects encompass effects on structures and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution) (CIEEM, 2018).

6.1 ‘Do Nothing’ Scenario

Should the proposed works not proceed, the site will remain in a similar state, with the majority of the site being dominated by common species of grasses, agricultural herbs, wetland vegetation and shrubbery. The lands may be subject to alternative development proposals if the proposed construction works do not go ahead.

6.2 Potential Effects upon Key Ecological Receptors (KERs)

A list of potential effects on local ecological receptors and KERs arising as a result of construction and operation of the proposed development are included in **Table 6.1** overleaf along with their predicted effect if unmitigated.

Table 6.1: Potential Effects on Key Ecological Receptors (KERs) Identified			
KER **Designated Sites**	**Construction Phase Effects**	**Operational Phase Effects**	**Unmitigated Effect**
River Boyne and River Blackwater SAC (002299)	**Habitat Loss/Fragmentation/Degradation** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Sediment-laden runoff from exposed ground or material stockpiles during rainfall events could also contribute to groundwater quality deterioration. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of the underlying groundwater body or the nearby Ferganstown and Ballymacon stream, which could adversely affect the habitat structure, composition and distribution of QI habitats within the River Boyne and River Blackwater SAC. **Wildlife Effects** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Sediment-laden runoff from exposed ground or material stockpiles during rainfall events could also contribute to groundwater quality deterioration. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of the underlying groundwater body or the nearby Ferganstown and Ballymacon stream, which could adversely affect aquatic species within the River Boyne and River Blackwater SAC by reducing the availability of prey for QI species and through direct toxic effects.	**Habitat Loss/Fragmentation/Degradation** The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. Proposed operational works are not expected to result in effects on habitats associated with this designated site. **Wildlife Effects** The site is located at a sufficient distance from the designated site for effects on wildlife to be considered unlikely. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. **Hydrological Effects** Robust measures for the management of surface water and wastewater during the operational phase are included as part of the proposed development. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. It is not foreseen that significant effects will occur during the operational phase. The proposed use of a well to supply water for the operational phase of the development could potentially impact the natural hydrology of the nearby River Boyne, and the aquatic habitats and fauna associated with the SAC. Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m3/day form an onsite well are potentially	**Construction Phase** **Quality:** Negative **Significance:** Significant **Likelihood:** Possible **Duration:** Short-term **Operational Phase** **Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Temporary

	Hydrological Effects In the absence of mitigation, there is potential for pollutant (silt, hydrocarbons, chemicals) discharges from the site reaching the nearby Ferganstown and Ballymacon stream and the underlying aquifer connected with the River Boyne and River Blackwater SAC. Effects on this receptor cannot be ruled out.	sustainable without impacting off site receptors. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test.	
River Boyne and River Blackwater SPA (004232)	**Habitat Loss/Fragmentation/Degradation** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Sediment-laden runoff from exposed ground or material stockpiles during rainfall events could also contribute to groundwater quality deterioration. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of the underlying groundwater body or the nearby Ferganstown and Ballymacon stream, which could adversely affect the habitat structure, composition and distribution of riverine habitats within the River Boyne and River Blackwater SPA. **Wildlife Effects** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Sediment-laden runoff from exposed ground or material stockpiles during rainfall events could also contribute to groundwater quality deterioration. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of the underlying groundwater body or the nearby Ferganstown and Ballymacon stream, which could adversely affect Kingfisher within the River Boyne and River Blackwater SPA by reducing the availability of prey for QI species.	**Habitat Loss/Fragmentation/Degradation** The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. Proposed operational works are not expected to result in effects on habitats associated with this designated site. **Wildlife Effects** The site is located at a sufficient distance from the designated site for effects on wildlife to be considered unlikely. **Hydrological Effects** Robust measures for the management of surface water and wastewater during the operational phase are included as part of the proposed development. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. It is not foreseen that significant effects will occur during the operational phase. The proposed use of a well to supply water for the operational phase of the development could potentially impact the natural hydrology of the nearby River Boyne, and the aquatic habitats and fauna associated with the SPA. Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m3/day form an onsite well are potentially sustainable without impacting off site receptors. This is subject to	**Construction Phase** **Quality:** Negative **Significance:** Significant **Likelihood:** Possible **Duration:** Short-term **Operational Phase** **Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Temporary

	Hydrological Effects In the absence of mitigation, there is potential for pollutant (silt, hydrocarbons, chemicals) discharges from the site reaching the nearby Ferganstown and Ballymacon stream and the underlying aquifer connected with the River Boyne and River Blackwater SPA. Effects on this receptor cannot be ruled out.	confirmation through investigation i.e. installation of a test well and completion of a pumping test.	
Boyne Woods pNHA (001592)	**Habitat Loss/Fragmentation/Degradation** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Sediment-laden runoff from exposed ground or material stockpiles during rainfall events could also contribute to groundwater quality deterioration. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of the underlying groundwater body or the nearby Ferganstown and Ballymacon stream, which could adversely affect the habitat structure, composition and distribution of habitats within the Boyne Woods pNHA. **Wildlife Effects** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance	**Habitat Loss/Fragmentation/Degradation** Proposed operational works are not expected to result in effects on habitats associated with this designated site. **Wildlife Effects** The site is located at a sufficient distance from the designated site for effects on wildlife to be considered unlikely. **Hydrological Effects** Robust measures for the management of surface water and wastewater during the operational phase are included as part of the proposed development. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. It is not foreseen that significant effects will occur during the operational phase.	**Construction Phase** **Quality:** Negative **Significance:** Significant **Likelihood:** Possible **Duration:** Short-term

	works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Sediment-laden runoff from exposed ground or material stockpiles during rainfall events could also contribute to groundwater quality deterioration. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of the underlying groundwater body or the nearby Ferganstown and Ballymacon stream, which could adversely affect the distribution of species within Boyne Woods pNHA. **Hydrological Effects** In the absence of mitigation, there is potential for pollutant (silt, hydrocarbons, chemicals) discharges from the site reaching the nearby Ferganstown and Ballymacon stream and the underlying aquifer connected with Boyne Woods pNHA. Effects on this receptor cannot be ruled out.		**Operational Phase** **Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Temporary
Habitats	**Construction Phase Effects**	**Operational Phase Effects**	**Unmitigated Effect**
WL1 - Hedgerow	**Habitat Loss/Fragmentation/Degradation** The majority of hedgerows around the site are to be retained as part of the development. Some sections of hedgerow in the southern and northern boundaries will be removed. A significant loss of this habitat is not anticipated. **Wildlife Effects** The trimming back and minor loss of this habitat will have slight adverse effects on local wildlife including foraging and commuting small mammals, bats and birds. **Hydrological Effects** Not applicable to this ecological feature.	**Habitat Loss/Fragmentation/Degradation** The majority of existing hedgerows are to be retained during the operational phase of the development. The planting of native trees and hedgerows, as per the Landscape Masterplan, will add ecological value to the site. **Wildlife Effects** Local wildlife, particularly commuting and foraging mammals and bats, and nesting and foraging birds will benefit from the additional planting of native trees as it will provide additional nesting and foraging capacity. These species will be subject to minor disturbances due to the increased vehicle and foot traffic associated with the residential and amenity areas.	**Construction Phase** **Quality:** Neutral **Significance:** Moderate **Likelihood:** Likely **Duration:** Short-term **Operational Phase** **Quality:**

		Hydrological Effects Not applicable to this ecological feature.	Neutral-Positive **Significance:** Moderate **Likelihood:** Likely **Duration:** Permanent
FW4 – Drainage Ditch	**Habitat Loss/Fragmentation/Degradation** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of surface water in the drainage ditch connecting to the nearby Ferganstown and Ballymacon stream and downstream River Boyne. A pollution event could adversely affect the habitat structure, composition and distribution of aquatic habitats in receptors downstream of the drainage ditch. **Wildlife Effects** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of surface water in the drainage ditch connecting to the nearby Ferganstown and Ballymacon stream and downstream River Boyne. A pollution event could adversely affect population abundance, distribution and health of aquatic species utilising the drainage channel such as macroinvertebrates, and aquatic species utilising receptors downstream of the drainage ditch such as River Lamprey.	**Habitat Loss/Fragmentation/Degradation** The operational phase will not result in further encroachment upon this habitat type. The ditch will be retained to manage stormwater runoff. Effective drainage measures are included in the proposed development. **Wildlife Effects** Local wildlife utilising the drainage ditch, such as Common Frog or macroinvertebrates, are unlikely to be significantly affected during the operational phase. **Hydrological Effects** Hydrological impacts during the operational phase are not expected as robust surface water management measures are proposed. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works.	**Construction Phase** **Quality:** Negative **Significance:** Significant **Likelihood:** Likely **Duration:** Short-term **Operational Phase** **Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-Term

	Hydrological Effects In the absence of mitigation, there is potential for pollutant (silt, hydrocarbons, chemicals) discharges from the site entering the drainage channel and reaching the nearby Ferganstown and Ballymacon stream. Such a pollution event could have significant effects on the water quality and hydrology of the downstream River Boyne. Effects on this receptor cannot be ruled out.		
FS1 – Reed and Large Sedge Swamps	**Habitat Loss/Fragmentation/Degradation** The section of wetland swamp in the west of the site is unlikely to be significantly impacted by the proposed works. This habitat will be retained, as per the Landscape Masterplan. **Wildlife Effects** Amphibian and water bird populations utilising the swamp and associated standing water will be subject to temporary disturbances primarily through noise and vibrations. **Hydrological Effects** In the absence of mitigation, there is potential for pollutant (silt, hydrocarbons, chemicals) discharges from the site entering the standing water associated with this habitat directly, or via the nearby drainage channel. Such a pollution event could have significant effects on the water quality and composition of wetland vegetation associated with this habitat. Effects on this receptor cannot be ruled out.	**Habitat Loss/Fragmentation/Degradation** The operational phase will not result in further encroachment upon this habitat type. **Wildlife Effects** Local wildlife utilising the swamp habitat, such as Common Frog or Moorhen, are unlikely to be significantly affected. **Hydrological Effects** Hydrological impacts during the operational phase are not expected as robust surface water management measures are proposed. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works.	**Construction Phase** **Quality:** Negative **Significance:** Not significant **Likelihood:** Likely **Duration:** Short-term **Operational Phase** **Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-Term

FW2 – Depositing / Lowland River	**Habitat Loss/Fragmentation/Degradation** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of surface water in the Ferganstown and Ballymacon stream and downstream River Boyne. A pollution event could adversely affect the habitat structure, composition and distribution of aquatic habitats in this river and downstream receptors. **Wildlife Effects** The most likely sources of pollutants during construction include disturbance of soils and sediments during excavation and clearance works, concrete pours, and hydrocarbon leaks or spills from machinery, pumps, or storage tanks. Such pollutants have the potential to alter water clarity, pH, and nutrient levels of surface water in the Ferganstown and Ballymacon stream and downstream River Boyne. A pollution event could adversely affect population abundance, distribution and health of aquatic species utilising the stream. Macroinvertebrates and aquatic species utilising receptors downstream, such as River Lamprey, could be negatively affected. **Hydrological Effects** In the absence of mitigation, there is potential for pollutant (silt, hydrocarbons, chemicals) discharges from the site entering the Ferganstown and Ballymacon stream. Such a pollution event could have significant effects on the water quality and hydrology of the stream and downstream River Boyne. Effects on this receptor cannot be ruled out.	**Habitat Loss/Fragmentation/Degradation** The operational phase will not result in further encroachment upon this habitat type. Effective drainage measures are included in the proposed development and will prevent negative impacts on this stream. **Wildlife Effects** Local wildlife utilising the stream, such as Common Frog or macroinvertebrates, are unlikely to be significantly affected. **Hydrological Effects** Hydrological impacts during the operational phase are not expected as robust surface water management measures are proposed. The proposed surface water system has been designed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works.	**Construction Phase** **Quality:** Negative **Significance:** Significant **Likelihood:** Likely **Duration:** Short-term **Operational Phase** **Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-Term

Fauna	Construction Phase Effects	Operational Phase Effects	Unmitigated Effect
Birds	**Habitat Loss/Fragmentation/Degradation** Hedgerows will be retained where possible and as such, habitat for birds should therefore not be significantly affected. Local bird populations will be subject to period disturbances during the construction stage. **Wildlife Effects** Construction works will result in temporary disturbances on local bird populations from emissions of noise, dust, light, and vibrations. **Hydrological Effects** Not applicable to this ecological feature.	**Habitat Loss/Fragmentation/Degradation** Hedgerows within the application site will be retained where possible. The improved grassland habitats will primarily be converted into buildings and artificial surfaces. The planting of native trees, woodland and wildflowers, as per the Landscape Masterplan, will result in a net positive ecological gain during the operational phase. **Wildlife Effects** Local bird populations using the site for commuting and foraging habitat will be subject to periodic disturbance from the increase in foot traffic, light, and noise upon completion. These effects are not considered significant. Local bird populations will benefit in the long term from the additional nesting and foraging capacity of the site via newly planted trees and woodland. **Hydrological Effects** Not applicable to this ecological feature.	**Construction Phase** **Quality:** Negative **Significance:** Moderate **Likelihood:** Likely **Duration:** Short-term **Operational Phase** **Quality:** Positive **Significance:** Slight **Likelihood:** Likely **Duration:** Permanent
Bats	**Habitat Loss/Fragmentation/Degradation** Hedgerows will be retained where possible and as such, commuting and foraging habitat for bats should therefore not be significantly affected. **Wildlife Effects**	**Habitat Loss/Fragmentation/Degradation** Significant loss of suitable habitat for bats is not expected as a result of the proposed development. Hedgerows will be retained, therefore, commuting and foraging habitat should not be significantly affected. **Wildlife Effects**	**Construction Phase** **Quality:** Negative **Significance:** Moderate **Likelihood:** Likely **Duration:**

	Construction works will result in temporary disturbances on local bat populations from emissions of noise, dust, light, and vibrations. **Hydrological Effects** Not applicable to this ecological feature.	Local bat populations using the site for commuting and foraging habitat will be subject to periodic disturbance from the increase in foot traffic, light, and noise upon completion. These effects are not considered significant. The proposed lighting design is in accordance with Bat Conservation Ireland Guidance on lighting. **Hydrological Effects** Not applicable to this ecological feature.	Short-term **Operational Phase** **Quality:** Negative **Significance:** Slight effects **Likelihood:** Likely **Duration:** Permanent
Amphibians & Reptiles	**Habitat Loss/Fragmentation/Degradation** The swamp habitat and drainage channel will be retained. There will be no significant loss of this habitat and will still serve as suitable habitat for local amphibian populations. The site does not contain any suitable basking spot features for reptiles to utilise. **Wildlife Effects** Construction works will result in temporary disturbances on local amphibians from emissions of noise, dust, light, and vibrations. Construction works in the vicinity of the swamp and ditch habitats shall occur outside of the amphibian breeding season to ensure no significant effects upon breeding individuals. **Hydrological Effects** The swamp habitat and drainage channel will be retained. There will be no significant loss of this habitat and will still serve as suitable habitat for local amphibian populations.	**Habitat Loss/Fragmentation/Degradation** Significant loss of suitable habitat for amphibians is not expected as a result of the proposed development. The swamp and drainage ditch habitats will be retained, therefore, breeding and foraging habitat should not be significantly affected. **Wildlife Effects** Local amphibian populations using the site for breeding and foraging habitat will be subject to periodic disturbance from the increase in foot traffic, light, and noise upon completion. These effects are not considered significant. **Hydrological Effects** Not applicable to this ecological feature.	**Construction Phase** **Quality:** Negative **Significance:** Moderate **Likelihood:** Likely **Duration:** Short-term **Operational Phase** **Quality:** Negative **Significance:** Slight effects **Likelihood:** Likely **Duration:**

			Permanent

7 Mitigation Measures

This section outlines mitigation measures to be implemented as part of the proposed development to prevent and minimise potential effects upon the KERs identified in **Section 4.4** and assessed in **Table 6.1**. These measures are based on established best practice and are designed to adequately protect the receiving environment during both construction and operational phases. Aside from the existing KERs identified on site, the underlying aquifer and nearby Ferganstown and Ballymacon stream could serve as potential pathways and receptors that may be subject to direct effects and facilitate downstream effects in the absence of mitigation on site. As such, mitigation measures for the protection of these features are also proposed.

Table 7.1 overleaf summarises the proposed mitigation measures to be implemented during the pre-construction, construction, and operational phases of the development.

Table 7.1: Proposed Mitigation Measures for the Protection of KERs and the Receiving Environment	
Pre-Construction Phase	**Mitigation Measures**
General Measures	• Site preparation and development must be confined to the redline boundary only and must adhere to the mitigation measures presented within this report and any other best practice/specialist reports published ahead of the proposed works. • Works areas should be kept to the minimum area required to carry out the proposed works and the area should be clearly demarcated in advance of the works commencing.
Roles & Responsibilities	• The appointment of a dedicated Ecological Clerk of Works is deemed surplus to the requirements of this project, unless determined otherwise by the Competent Authority. It is recommended that a member of site staff (Resident Engineer, or similar) assumes the role of Environmental Manager to oversee the implementation and monitoring of the mitigation measures proposed. A list of duties the Environmental Manager will be responsible for include: o Reviewing, implementing, and routine monitoring the mitigation measures contained within this report. o Keeping up to date with latest best practice and legislation and ensuring construction is carried out in line with such. o Attend site and stakeholder meetings as required. o Ensure method statements are prepared and implemented ahead of any works that pose a risk of environmental effects. o Organise/deliver environmental awareness training and toolbox talks ahead of works commencing. o Deal with environmental complaints and respond appropriately to any environmental incidents arising.
Training	• Site personnel will be appropriately skilled, qualified, trained, and be of sufficient experience to carry out the proposed works. • A site induction for all personnel will be arranged by the Contractor assigned to the project prior to works commencing. • Staff shall be briefed on the environmental and ecological sensitivities of the site, particularly regarding the site's location relative to the Ferganstown and Ballymacon stream and River Boyne and River Blackwater SAC and SPA. • Toolbox talks will be carried out to inform site personnel of the environmental/ecological sensitivities of the site.
Construction Phase	**Mitigation Measures**
Mitigation of Sediment & Dust Emissions	• Stockpile areas for sand and gravel should be kept to minimum size, well away from storm water drains/gullies/drainage ditches leading off-site. • Covers are to be provided over soil stockpiles when high wind and inclement weather are encountered, as required. • Silt fencing should be established to the west along the Ferganstown and Ballymacon stream to prevent downstream pollution. Silt fencing will be positioned to allow an appropriate working area and installed as per the manufacturer's guidelines. Condition of the fencing will be regularly inspected by the Environmental Manager and the fencing should be retained until all ground disturbance and silt-generating activities have ceased.

	• Excavation works will not be carried out during or following heavy rainfall (i.e., where there is a yellow weather warning in place, or 5mm of rainfall in a 1-hour period). • Direct dewatering of excavations into the drainage channels, swamp habitat and Ferganstown and Ballymacon stream will be strictly avoided. Where dewatering is deemed necessary, water will be pumped to a settlement tank or filtration system located >20m away from the local watercourses. Silt dewatering bags will be used if water is discharged to the drainage ditches or stream. • All works must align with the guidance set out in guidance documents titled: o Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors (C532), (CIRIA, 2001) o Guidelines for the Crossing of Watercourses During the Construction of National Road Schemes, National Roads Authority (NRA, 2008b). o Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters, Inland Fisheries Ireland (IFI, 2016). • Excavated material should be used responsibly within the boundary of the application site and any excess removed to a suitably licensed waste facility capable of recovering it. It should not be disposed of to any designated site. • Any excavated material arising from the construction process must not be disposed of within any designated site such as an NHA, SAC or SPA. It must be used responsibly within the boundary of the application site or disposed of in a licensed facility using a registered contractor. • Stockpiles of sand/spoil/gravel shall be damped down during extended periods of dry weather to minimise dust emissions from site.
Control of Harmful Substances	• **Chemicals (Paints, aerosols, adhesives, solvents, etc.)** o Chemicals will be stored in a secure, bunded storage container located well away from the local watercourses. The container will also house Safety Data Sheets (SDSs) for all of the chemicals contained within. • **Hydrocarbons (Fuels, oils, greases)** o Harmful materials such as fuels, oils, greases, paints and hydraulic fluids must be stored in bunded compounds well away from storm water drains and gullies leading off site. o Only appropriately trained site operatives are permitted to refuel plant and machinery on site where it is required. o Runoff from machine servicing and refuelling areas must be contained on site. o Fuel bowsers, if used on site, will be located in bunded areas which can cater for 110% of the primary vessel capacity. o Vehicles and machinery should be refuelled off site where possible. Should refuelling be required on site, a designated refuelling area will be established on site a sufficient distance from the Ferganstown and Ballymacon stream. Drip trays shall be used for refuelling large or immovable machinery. The use of plant nappies shall be used for portable machinery such as generators, pumps, etc. o Spill kits and hydrocarbon absorbent pads will be located throughout the site and adjacent to any designated refuelling bunds and will remain in place for the duration of works. Spill kit stations will be restocked appropriately through development. o Machinery and plant shall undergo routine inspection to ensure no leaks or faults. Any faults will be recorded and repaired appropriately. • **Concrete** o Where concrete is to be used, best practice in bulk-liquid concrete management must be employed on site addressing pouring and handling,

	secure shuttering, adequate curing times, etc. ○ Wash-down of concrete-contaminated equipment should be avoided on site where possible. If it cannot be avoided, then equipment shall be washed down into plastic-lined skips where the concrete will be stored for disposal to a registered facility licensed to accept it. All concrete waste will be managed in accordance with the corresponding waste legislation. ○ Runoff from concrete mixing areas must be contained on site. ○ Cement pours shall be scheduled for dry days.
Protection of Watercourses	• Measures for the **Mitigation of Sediment & Dust Emissions** and **Control of Harmful Substances** as outlined in this report shall be implemented in full to ensure the protection of local waterbodies. • No instream works are to take place without prior consultation with the Local Authority (Meath County Council), Inland Fisheries Ireland (IFI), National Parks and Wildlife Service (NPWS), Office of Public Works (OPW), and Uisce Éireann (UÉ). • Where wash-down of vehicles is required on site, it should be carried out >20m from the local watercourse. • A riparian buffer zone of 10m shall be implemented, where no works are permitted within 10m of rivers. A 10m wide riparian buffer strip shall be implemented along the Ferganstown and Ballymacon stream furthest west of the site, measured from the top of the bank either side of the stream.
Housekeeping & Tidiness	• A regular program of site tidying is recommended to ensure a safe and orderly site. • Food waste will be strictly controlled on site to prevent foraging from local wildlife including birds and vermin. • If required, vehicle wheels should be cleaned down prior to exiting from site.
Control of Invasive Species	• Vehicles will be required to undergo inspection prior to entry to site to ensure they are free from invasive species. Vehicles will be washed down prior to entry to site, as required. • Any soil imported to site shall be confirmed free of invasive species prior to utilisation on site. • Resilient and highly propagative invasive species such as Japanese Knotweed (*Reynoutria japonica*) have the potential to easily establish on site or traverse downstream via emission of rhizomes to the drainage channel, Ferganstown and Ballymacon stream or underlying aquifer. It is important that equipment is free of rhizomes before entering the site. • Should invasive species be encountered on site, the area should be clearly demarcated, and an Invasive Species Management Plan shall be prepared outlining methods to limit further spread on site and prevent translocation of invasive species beyond the site.
Mitigation of Noise & Vibration Emissions	• Ensure that each item of plant/equipment/machinery is in good working order and complies with noise limits quoted in the relevant European Commission Directive 2000/14/EC. • Plant and machinery should be fitted with appropriate mufflers or silencers of the type recommended by the manufacturer. • Only use machinery or equipment for the task it has been designed to carry out.

	• Locate movable noise-generating equipment away from noise-sensitive receptors. • Where practicable, mains-supplied or battery-powered equipment should be used to minimise the use of petrol/diesel powered equipment.
Mitigation of Light Emissions	• Temporary lighting associated with construction works will be located strategically to ensure illumination beyond the works area is minimised and controlled. • Lighting directed towards hedgerows and watercourses should be avoided where practicable. Column height of temporary lighting should be carefully chosen to minimise light spill beyond the works area. • Motion detecting lighting shall be implemented to prevent excessive lighting during periods where no construction works are taking place. • The separation distance between luminaries shall be maximised to prevent excessive light spill from the site while still achieving sufficient coverage of the works area. • Where feasible, works will be limited to daylight hours to minimise disturbances to bat commuting and foraging at dawn and dusk. • Lighting installations should be carried out in line with the lighting plan published for the proposed development which outlines measures to ensure neighbouring features such as hedgerows and water features are kept dark during the operational phase. • The position, orientation and height of the lighting fittings, the use of integrated shields, and the implementation of 2700K CCT with 0% upward light are sufficient to ensure the boundary hedgerows, drainage ditches and woodlands are kept dark and will not significantly affect local bat populations, while maintaining sufficient lux coverage of the site.
Habitat Protection	• It is an offence to cut, grub, burn or destroy any vegetation on uncultivated land under The Wildlife Amendment Act 2000 (S.46.1). The chopping of trees and removal of vegetation should be confined to those areas where it is deemed absolutely necessary to facilitate development of proposed structures on site. • Where vegetation removal is required, existing scrub, hedgerow, and treeline habitats within the site should be removed outside of the bird nesting season (1st March to 31st August). • Mitigation measures for the control of pollutant release, as outlined in this report, shall be implemented in full to ensure no negative impacts on aquatic habitats within the local drainage channel, underlying aquifer, Ferganstown and Ballymacon stream, River Boyne, and downstream of same. • Manual methods should be utilised as much as possible when removing vegetation from site. The use of herbicides should be avoided to prevent overspill into the local watercourse and aquifer.
Wildlife Protection	• Should tree felling be required to facilitate the works, it is recommended that felled trees and branches are left lying for several hours before further chopping or mulching to allow any bats within these features to emerge and disperse from the immediate area. • Mitigation measures for the control of pollutant release, as outlined in this report, shall be implemented in full to ensure no negative impacts on aquatic species within the Ferganstown and Ballymacon stream and downstream of same.

	• Construction works within 15m of the swamp and drainage ditch habitats at the site shall be restricted during the Common Frog and Smooth Newt breeding seasons (February – June) to prevent significant disturbances to breeding Frog and Newt that might occur in the wetland habitats. Construction works during this period should be confined to those areas where it is deemed absolutely necessary to facilitate development of proposed structures on site. • The use of pesticides/rodenticides on site should be avoided as best possible. Where it is deemed absolutely necessary, application should be in line with *Best Practice Requirements for Rodent Control and Safe Use of Rodenticides*, Campaign for Responsible Rodenticide Use (CRRU), (2020).
Operational Phase	**Mitigation Measures**
Mitigation of Sediment & Dust Emissions	• Areas of exposed soil remaining after development shall be reseeded or allowed to recolonise, where appropriate, to provide a natural barrier against silt runoff.
Control of Harmful Substances	• No specific measures for chemical control during the operational phase are proposed.
Protection of Watercourses	• Any proposed surface water drainage measures to be implemented as part of the works should be cognisant of Sustainable Drainage Systems (SuDS) design and implement measures for the control of the quality and quantity of surface water emissions from site.
Housekeeping & Tidiness	• All waste and litter must be kept clear from the drainage channel and swamp habitats. • No specific measures for housekeeping and tidiness during the operational phase are proposed beyond best practice litter control measures.
Control of Invasive Species	• No specific measures for the control of invasive species during the operational phase are proposed, provided the construction phase does not result in the translocation of invasive species to the site. • Biosecurity protocols will continue throughout the operational phase. Any future soil importation or site works must confirm materials and machinery are free of invasive plant propagules.
Mitigation of Noise & Vibration Emissions	• No specific measures for mitigating noise and vibration during the operational phase are proposed.
Mitigation of Light Emissions	• Proposed lighting should be in line with the measures outlined in *Bats & Lighting Guidance Notes for Planners, Engineers, Architects and Developers*, Bat Conservation Ireland (2010). • Design and maintain lighting systems to minimise light spill into adjacent natural habitats. Use of downward-pointing luminaires, shields, and appropriate colour temperatures (e.g., warmer spectrum lights where possible, not exceeding CCT of 3000K) to reduce sky glow and direct light intrusion. Avoid excessive illumination and the use of mercury or metal halide lamps.

	• All fittings have LED CCT 2700K and no tilt (0% uplight). • External luminaire integrated shields to the pole mounted fittings around the site perimeter. • Pole mounted fittings in the main yard are 8m tall and around the building perimeter are 6m tall. • No UV lights are proposed in the lighting design plan, with LED lights to be installed in all luminaries across the site. • Lighting along foraging and commuting features such as hedgerows and watercourses shall be kept to a minimum and directed away from these features where possible. Light spill is to be minimised through the use of shields, louvres and masking of luminaries. • Motion detecting lighting shall be implemented where possible to prevent excessive lighting during periods of reduced vehicle and foot traffic. • The separation distance between luminaries shall be maximised to prevent excessive light spill from the site while still achieving sufficient lux coverage of the works area. The submitted lighting design layout and report accompanying this application display the positions of luminaries throughout the site. • The separation distance between luminaries shall be maximised to prevent excessive light spill from the site while still achieving sufficient lux coverage of the works area. • The northeast and southwest hedgerows and drainage channels in the site shall be kept unlit where feasibly possible to ensure dark areas of these linear features are maintained.
Habitat Protection	• Mowing of any grassy verges should be carried out infrequently to allow areas of longer grass and wildflowers to persist. This will provide suitable habitat for local populations of small mammals and invertebrates. • Any planting proposed should utilise native species of trees and shrubs that are beneficial to local wildlife and suited to the local conditions. • Ensure any crossings (culverts/bridges/underpasses) remain clear, functional, and undergo routine maintenance to ensure they are free of blockages preventing access and proper working order. • Implement robust water quality management practices to prevent pollutants (e.g., de-icing salts, hydrocarbons from spills, sediment) from entering watercourses adjacent to or downstream of the roundabout.
Wildlife Protection	• Measures outlined above with regards to water quality, noise, lighting, and habitat protection will ensure adequate protection of local wildlife.

8 Residual Effects

According to Environmental Protection Agency guidelines, Residual Effect is described as "*the degree of environmental change that will occur after the proposed mitigation measures have taken place*". The mitigation strategy above recommends actions which can be taken to reduce or offset the scale, significance and duration of the effects on the surrounding hydrological and hydrogeological features.

8.1 Construction Phase

A summary of the predicted effects associated with the construction phase in terms of quality, significance, and duration, along with the resulting residual effects incorporating proposed mitigation measures are summarised in **Table 8.1.**

Table 8.1: Summary of Construction Phase Residual Effects

Ecological Receptor/Feature Designated Sites	Predicted Effect	Residual Effect
River Boyne and River Blackwater SAC	**Quality:** Negative **Significance:** Significant **Likelihood:** Possible **Duration:** Short-term	**Quality:** Negative **Significance:** Slight **Likelihood:** Unlikely **Duration:** Temporary
River Boyne and River Blackwater SPA	**Quality:** Negative **Significance:** Significant **Likelihood:** Possible **Duration:** Short-term	**Quality:** Negative **Significance:** Slight **Likelihood:** Unlikely **Duration:** Temporary
Boyne Woods pNHA	**Quality:** Negative **Significance:** Significant **Likelihood:** Possible **Duration:** Short-term	**Quality:** Negative **Significance:** Slight **Likelihood:** Unlikely **Duration:** Temporary
Habitats	**Predicted Effect**	**Residual Effect**
WL1 – Hedgerow	Quality: Negative Significance: Significant Likelihood: Likely Duration: Short-term	Quality: Negative Significance: Slight Likelihood: Unlikely Duration: Temporary
FW4 – Drainage Ditch	Quality: Neutral Significance: Moderate Likelihood: Likely Duration: Short-term	Quality: Neutral-Positive Significance: Moderate Likelihood: Likely Duration: Permanent
FS1 – Reed and Large Sedge Swamps	Quality: Negative Significance: Significant Likelihood: Likely Duration: Short-term	Quality: Negative Significance: Slight Likelihood: Unlikely Duration: Temporary
FW2 – Depositing / Lowland River	Quality: Negative Significance: Significant Likelihood: Likely Duration: Short-term	Quality: Negative Significance: Slight Likelihood: Unlikely Duration: Temporary

Fauna	Predicted Effect	Residual Effect
Birds	**Quality:** Negative **Significance:** Slight **Likelihood:** Likely **Duration:** Temporary	**Quality:** Negative **Significance:** Not Significant **Likelihood:** Likely **Duration:** Brief
Bats	**Quality:** Negative **Significance:** Slight **Likelihood:** Likely **Duration:** Temporary	**Quality:** Negative **Significance:** Not Significant **Likelihood:** Likely **Duration:** Brief
Amphibians & Reptiles	**Quality:** Negative **Significance:** Slight **Likelihood:** Likely **Duration:** Temporary	**Quality:** Negative **Significance:** Not Significant **Likelihood:** Likely **Duration:** Brief

8.2 Operational Phase

A summary of the predicted effects associated with the operational phase in terms of quality, significance, and duration, along with the resulting residual effects incorporating proposed mitigation measures are summarised in **Table 8.2**.

Table 8.2: Summary of Operational Phase Residual Effects Ecological Receptor/Feature Designated Sites	Predicted Effect	Residual Effect
River Boyne and River Blackwater SAC	**Quality:** Negative **Significance:** Imperceptible **Likelihood:** Unlikely **Duration:** Temporary	**Quality:** Neutral **Significance:** Imperceptible **Likelihood:** Unlikely **Duration:** Temporary
River Boyne and River Blackwater SPA	**Quality:** Negative **Significance:** Imperceptible **Likelihood:** Unlikely **Duration:** Temporary	**Quality:** Neutral **Significance:** Imperceptible **Likelihood:** Unlikely **Duration:** Temporary
Boyne Woods pNHA	**Quality:** Negative **Significance:** Imperceptible **Likelihood:** Unlikely **Duration:** Temporary	**Quality:** Neutral **Significance:** Imperceptible **Likelihood:** Unlikely **Duration:** Temporary
Habitats	**Predicted Effect**	**Residual Effect**
WL1 – Hedgerow	**Quality:** Negative **Significance:** Significant **Likelihood:** Likely **Duration:** Permanent	**Quality:** Positive **Significance:** Moderate **Likelihood:** Likely **Duration:** Long-term
FW4 – Drainage Ditch	**Quality:** Negative **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-Term	**Quality:** Neutral **Significance:** Moderate **Likelihood:** Likely **Duration:** Permanent
FS1 – Reed and Large Sedge Swamps	**Quality:** Negative **Significance:** Significant	**Quality:** Neutral **Significance:** Moderate

	Likelihood: Likely **Duration:** Long-Term	**Likelihood:** Likely **Duration:** Permanent
FW2 – Depositing / Lowland River	**Quality:** Negative **Significance:** Significant **Likelihood:** Likely **Duration:** Long-Term	**Quality:** Neutral **Significance:** Moderate **Likelihood:** Likely **Duration:** Permanent
Fauna	**Predicted Effect**	**Residual Effect**
Birds	**Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-term	**Quality:** Positive **Significance:** Slight **Likelihood:** Likely **Duration:** Long-term
Bats	**Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-term	**Quality:** Positive **Significance:** Slight **Likelihood:** Likely **Duration:** Long-term
Amphibians & Reptiles	**Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-term	**Quality:** Neutral **Significance:** Not Significant **Likelihood:** Likely **Duration:** Long-term

8.3 Potential In-Combination Effects

In-combination effects take into consideration the potential impacts to the surrounding environment arising from the proposed development in conjunction with additional developments in the local area that are anticipated to be carried out within a similar timeframe.

When considering developments granted planning within the vicinity of the site, **Table 8.3** summarises planning applications in the site vicinity within the last 5 years and provides a prediction of their potential in-combination effect with the proposed development. The predicted in-combination effect assumes the implementation of all relevant mitigation measures proposed within this report, i.e., it factors in the residual effect of the proposed development against any project identified to have the potential for in-combination effects. A number of planning applications have been granted permission within the vicinity of the proposed application site.

Table 8.3: Planning Applications in the Site Vicinity in the last 5 Years with Potential for In-Combination Effects

Application No.	Development Description	Location	Decision / Status	In-Combination Effect
2460415	a Large-Scale Residential Development - The (Phase 1B) development will consist of the construction of a mixed-use development comprising 322 no. dwellings, a Community Centre and Sports Hall, a Neighbourhood Centre, and a district public park as follows: A) 212 no. houses consisting of 177 no. 3-bedroom houses and 35 no. 4-bedroom	Within the townlands of 'Ferganstown, and Ballymacon' and 'Athlumney' Navan, Co. Meath	Permission granted (Conditional) 25/03/2025	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	houses (all houses 2-storeys except House Types F1, F2, F3 [corner], E1, E2, and E3 [corner] – (with variations to finishes); B) 26 no. duplex units comprising 13 no. 2-bedroom units and 13 no. 3-bedroom units (in 2 no. 3-storey blocks [with 8 no. duplex units abutting Apartment Block 2 in a 3-storey configuration]; C) 84 no. apartments across 3 no. apartment buildings (Block 2 [5-storeys] comprises 24 no. apartments consisting of 12 no. 1-bedroom apartments and 12 no. 2-bedroom apartments), Block 3 [5-storeys above neighbourhood centre – 6-storeys in total] comprising 36 no. apartments consisting of 14 no. 1- bedroom apartments and 22 no. 2-bedroom apartments and Block 4 [4-storeys above community centre – 5-storeys in total] comprising 24 no. apartments consisting of 9 no. 1-bedroom apartments and 15 no. 2-bedroom apartments (all apartments with balconies). D) Series of landscaped/Public Open Space areas of c.3.72 hectares including playground areas and a Public Park of c.1.65 ha of open space as well as additional communal open space for the apartments and duplex apartments; E) Provision of a c. 512 sq. m creche at ground floor of Block 2 as well as a 1,778 sq.m. Community Centre and Sports Hall (including a c.837 sqm sports hall [double height] ancillary changing rooms, 4 no. community rooms and ancillary administration/office space rooms/ESB Substation); F) Provision of a convenience anchor retail unit (net floor space 1,000 sq. m [GFA 1,390 sq. m.]), takeaway, c. 82 sq. m, café, c. 210 sq. m, pharmacy c. 88 sq. m and General Practice Surgery c. 232 sq. m) as well as ESB substation and bins, all accommodated within the ground floor level of the neighbourhood centre to the north-west of the site; G) 693 no. car parking spaces, 289 no. bicycle parking spaces throughout the development; H) Provision of a temporary foul water pumping station (and associated storage) located within the district public park to service the scheme; I) Provision of			

	surface water attenuation measures as well as all ancillary site development works (reprofiling of site and field drain diversions as required)			
2560539	Permission for a Large-Scale Residential Development - The proposed development will consist of 223no. residential dwellings (26no. 1 -bed, 50no. 2-bed, 138no. 3-bed and 9no. 4-bed) and a crèche. The mix of residential units consists of 155no. houses (18no. 2-bed, 128no. 3-bed, 9no. 4-bed) and 68no. apartments (26no. 1-bed, 32no. 2-bed, 10no. 3-bed). Apartments are three to four storey simplex/duplex own door apartments arranged in 5no. blocks. All housing is two storey in height. The crèche is a two storey standalone building (c.443sq.m) with allocated car parking and set down area. The proposed development includes all associated site development works including reprofiling of the site, works to an existing drainage ditch, the construction of a temporary foul water pumping station and rising main, public lighting, three ESB substations, bin and bicycle storage structures, car parking and landscaping of open space. The proposed development also provides for connections both vehicular and pedestrian to the residential development by Meath County Council known as Gort Na Glaise including the culverting part of an existing drainage ditch, removal of part of an existing hedge and existing boundary walls constructed within the Gort Na Glaise development. Provision is also made for future pedestrian/cycle connectivity to the west in keeping with Masterplan MP12. The development includes pedestrian/cycle connections onto the LRD6 and will provide a pedestrian crossing point on Old Road to the south of the application site. The development will be accessed by extending a spur off an existing roundabout junction on the new LRD 6 distributor road to the north of the application site. A portion of this spur road was previously permitted under P.A. Ref. 21-1046/ABP-312746-22. The proposed development also provides for an additional vehicular/pedestrian access	Athlumney Alexander Reid Ferganstown and Ballymacon , Navan, Co. Meath	Permission granted (Conditional) 15/10/2025	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	to connect to the main access road proposed as part of a development to the north / north-west of the application site under P.A. Ref. 24/60415 (currently on appeal to An Bord Pleanála ABP-322341-25). A footpath and cycle path will be constructed along the western side of the application site as part of this planning application to provide access to the new development. A natura impact statement (NIS) has been prepared in respect to the proposed development and will be submitted to the planning authority with the planning application. Significant further information/revised plans submitted on this application			
312746	Demolition of agricultural structures and construction of 98 houses. NIS submitted with application.	Within the townlands of Ferganstown, Ballymacon & Athlumney, Navan, Co. Meath	Permission granted with revised conditions 29/09/2023	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
211046	the development (Phase 1A) will consist of the demolition of existing agricultural structures (c. 530sqm) and the construction of 98 no. residential units comprising 41 no. houses (40 no. 3 bedroom and 1 no. 4 bedroom house - House Types A1,A2,B1,B2,C1,C2,D - 2 storeys; House Types F1, F2, F3, 3 storeys), facades of houses to have brick/render options in finish; 23 no. apartments (12 no. 1 bedroom apartments & 11 no. 2 bedroom apartments) in a 4 storey apartment building, along with adjoining 3 storey duplex element (block 1) comprising 10 no. duplex apartments (5 no. 2 bed apartments and 5 no. 3 bed duplex apartments) and 3 storey duplex building (block 2) fronting onto the recently constructed 'LDR6' Road comprising 24 no. duplex apartments (12 no. 2 bed apartments and 12 no. 3 bed duplex apartments), 151 no. car parking spaces & 46 no. bicycle spaces, open space and all associated infrastructure, foul and water supply (including a temporary pumping station) site development,	Within the townlands of Ferganstown Ballymacon & Athlumney , Navan , Co Meath	Permission granted (Conditional) 20/01/2022	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	attenuation and landscape works as well as roads to facilitate the development with vehicular and pedestrian access to be provided from the recently constructed LDR6 Road which connects to the R153 (Kentstown Road) to the south. A Natura Impact Statement will be submitted to the Planning Authority with the application. Significant further information/revised plans submitted on this application			
2460066	the development will consist of a new wastewater pumping station that discharges to the inlet pipework of the Navan WWTP via two new rising main sewerage pipes. The pumping station development also includes an underground 924m3 emergency storage tank with a further 427m3 provided within the pumping station inlet chamber, wet wells and upstream sewerage network. The pumping station compound includes underground valve, inlet, wet well and flow meter chambers; and above ground structures including a control panel kiosk, operator welfare unit kiosk, wet kiosk, ESB substation, surge vessels with stair access, overhead gantry crane; and other tanks, plant and equipment. The compound also contains set down space for an emergency electrical generator, site lighting and hard surfaced internal circulation space and will be enclosed by 2.4m high security fencing with vehicle access gates. The compound will be accessed by a fenced and gated temporary road from the LDR6 distributor road. Other water and sewerage infrastructure will include the provision of a gravity sewer and a watermain from the roundabout on the LDR6 distributor road to the proposed pumping station. The proposed development also includes for a trenchless crossing under the Navan to Drogheda rail line, all landscaping and reinstatement works and ancillary site development works. A Natura Impact Statement is included with the planning application. Significant further information/revised plans submitted on this application	Townlands of Ferganstown & Ballymacon and Athlumney , Navan, Co Meath	Permission granted (Conditional) 18/10/2024	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
221703	The development will consist of Phase 1 of the Boyne Village Enterprise Park, and	Ferganstown & Ballymacon and	Permission granted	**Quality:** Negative

	comprise construction of: 3 no. commercial high-bay warehouse units (each c. 15.81m in height) with ancillary office accommodation as follows: Unit A2 (approx. 2,570 sq. m. gross floor area including 254 sq. m. of reception/office/ancillary areas at ground and first floor levels), Unit A3 (approx. 2,058 sq. m. gross floor area including 200 sq. m. of reception/office/ancillary areas at ground and first floor levels) & Unit A4 (approx. 2,570 sq. m. gross floor area including 254 sq. m. of reception/office/ancillary areas at ground and first floor levels); New road and pedestrian access extending north from the existing LDR 6 distributor road, and a total of 73 No. car-parking spaces and 84 No. bicycle-parking spaces serving the three proposed units; Totem sign at the south-east corner of the site approx. 12.Sm tall providing c. 47.76 sq. m. of internally Illuminated signage; Relocation of existing overhead ESB power lines at the LDR 6 to new underground ducts and provision of new ESB sub-station and switch room accessed from new estate road; Road infrastructure works to the north-east side of the LDR 6 to include new cycle lane, footpath, bus stop lay-by etc.; Planting & landscaping, new boundary treatments; Waste storage units serving each unit. drainage & infrastructure (including temporary foul pumping station) and all other associated works to facilitate the proposed development. A Natura Impact Statement will be submitted to the planning authority with the application. Significant further information/revised plans submitted on this application	Athlumney , Navan, Co Meath	(Conditional) 31/10/2023	**Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
2460799	Amendments to previously granted permission by An Bord Pleanala ABP-312746-22 (Meath County Council reference 211046) for development within the townlands of Ferganstown, Ballymacon & Athlumney, Navan, Co. Meath. The alterations will consist of the following: • Adjustments to the ground floor levels and corresponding building heights as follows to generally reduce the massing of the building heights relative to the main road levels outside the side: o	With the townlands of Ferganstown and Ballymacon, and Athlumney, Navan, Co Meath	Permission granted (Conditional) 18/11/2024	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	Apartment building levels reduced by -700mm o Duplex Block 1 levels reduced by -400mm o Duplex Block 2, terrace ridges aligned and levels reduced by between -300mm to -1100mm o Duplex Block 3, terrace ridges aligned and levels reduced by up to -800mm o Housing Block 4 increased levels by +300mm o Housing Block 5 levels reduced by -50mm o Housing blocks 6 and 7 levels increased by 90mm and 160mm respectively. o Housing block 8 levels reduced by 150mm o Housing block 10 levels increased by 150mm o Housing blocks 12-15 ridges aligned and levels reduced by between -150mm to -1000mm o Housing blocks16 terrace ridges aligned and levels reduced by between -50mm to -1250mm • External communal bin store for duplex block 2 and 3 omitted • Individual apartment bin stores for duplex blocks 1, 2 and 3 added • Minor elevational changes to duplex blocks 1, 2 and 3: o First flight of entrance stair to corner apartment in block 1 changed from an internal stair to an external stair o Juliet balconies omitted on front elevations o Step in façade and break in eaves removed on rear elevations o General updates to window fenestration • 16 Additional car parking spaces to accommodate the provision of EV Charging Points			
2460550	The development will consist of single storey extensions to rear & side of detached two storey house, & all ancillary site works	No. 1, The Court, Glenveigh,Boyne Road, Ferganstown & Ballymacon Td.,, Navan, Co. Meath, C15CP4A	Permission granted (Conditional) 09/09/2024	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
221008	The proposed development will comprise; the demolition of an existing single storey dwelling (110 sqm) and associated outbuildings; the construction of 93 no. residential units (two storey houses and three storey apartment/duplex), comprising: 9 no. one-bed apartments, 16 no. two-bed apartments, 4 no. two bed duplex units, 4 no. 3-bed duplex units, 10 no. two-bed houses, 42 no. three-bed	Boyne Road, Athlumney (Td), Navan, Co. Meath	Permission granted (Conditional) 18/01/2023	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	houses and 8 no. four-bed houses; formation of 5,624 sqm of landscaped open space areas; 170 no. dedicated car parking spaces, 9 no. of which provide for the operational requirements of the associated 164 sqm creche facility; new primary vehicular and pedestrian access to the proposed development will be provided from a new access located on the Boyne Road and associated residential estate roads, with a secondary access via the L34003 local road with associated road widening and improvement works. The proposal includes all associated hard and soft landscaping, boundary treatments, footpaths and ancillary works above and below ground as includes flood compensatory works adjacent Mill Stream. The planning application is accompanied by a Natura Impact Statement (NIS). Significant further information/revised plans submitted on this application.			
2461138	for amendments to previously granted permission by An Bord Pleanala ABP-312746-22 (Meath County Council reference 211046) for development within the townlands of Ferganstown, Ballymacon & Athlumney, Navan, Co. Meath. Significant further information/revised plans submitted on this application The alterations will consist of the following: o Internal bicycle and bin store at ground floor of apartment block relocated externally within separate enclosures. o Existing space at ground floor for bicycle and bin store replaced with 1no. 1 bed apartment and plant room. o Alterations to façade to accommodate amendment from bin and bicycle store to apartment and plant room. o Alterations to select windows on south elevation for compliance with TGD Part B. o General updates to window fenestration.	With the townlands of Ferganstown and Ballymacon, and Athlumney, Navan, Co Meath	Permission granted (Conditional) 20/06/2025	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
2660120	The proposed development will consist of: i. The construction of 83 no. residential dwellings comprising 22 no. 3-bedroom, 2-storey semi-detached houses, 21 no. 3-	Within the townlands to 'Ferganstown and Ballymacon'	Permission granted (Conditional) 04/08/2026	**Quality:** Negative **Significance:**

	bedroom, 2-storey terraced houses, 20 no. 3-bedroom, 3-storey terraced houses, 6 no. 2-bedroom, 2-storey semi-detached houses and 14 no. 2-bedroom, 2-storey terraced houses; ii. Vehicular and pedestrian access via an extension of the existing internal road network from the permitted Boyne Village Phase 1B development to the east (approved under MCC Ref. 24/60415 and ACP Ref. 322341-25) including pedestrian crossings, footpaths and shared pedestrian/cycle routes along with minor amendments to provide connections, tie ins and for permeability to integrate with the interface of the permitted Phase 1B development; iii. Provision of c.0.2 hectares of Public Open Space including a Pocket Park and outdoor play provision, hard and soft landscaping (including public lighting & boundary treatment) along with the provision of c.4 hectares of Public Open Space to the north and west of the proposed residential development to provide for an All-Purpose Sports Pitch, a kickabout area, informal play area, meadow walk and native woodland areas; iv. Provision of 166 no. surface resident car parking spaces, internal road and shared surface networks; v. Surface water attenuation measures, connection to water supply, provision of foul drainage, landscaping and boundary treatment, infrastructural works and all associated site development works necessary to facilitate the development. A Natura Impact Statement has been prepared in respect of the proposed development and is submitted with this application.	and 'Athlumney', located generally to the north of the Old Road, north of Tubberclaire Meadows and southwest of the newly constructed 'LDR6' Road, Navan, Co. Meath		Not significant **Likelihood:** Unlikely **Duration:** Short-term
2661048	The development will consist of the construction of an estate road and access roads extending northwards from the section of road permitted under Meath County Council Reg. Ref. 22/1703 and ACP Ref. 318533-23 (currently under construction), connecting to Roundabout 3 of Local Distributor Road 6 (LDR6), to facilitate access to the Boyne Village Enterprise Lands. The development includes drainage and utility services infrastructure, landscaping, pedestrian	Boyne Village Business Park, Athlumney, within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath.	Further Information requested on 13/10/2026	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	and cycle facilities, road signs and markings, public lighting, modifications and enlargement (reduce base level by c. 200mm) and widening of the attenuation pond located within the south-eastern corner of the site, and all associated and ancillary site development works. A Natura Impact Statement will be submitted to the planning authority with the application.			

The lands to the southwest of the site have been zoned for New/proposed residential developments under the Meath County Development Plan. While there are no current or proposed projects for the land adjacent to the site, the zoning designation is considered evidence for reasonably foreseeable residential proposals adjacent to the site. This is further evidenced by the ongoing developments in the wider area contributing to the urban sprawl of Navan town, such as Large-scale Residential Development (Planning Ref: 2460415), Boyne Village Enterprise Park (Planning Ref: 221703) and the proposed development of an industrial laundry processing and distribution facility. The proposed storm water drainage for the proposed development has been designed to satisfy the requirements of The Greater Dublin Strategic Drainage Study (GDSDS) and Section 16.3 of The Greater Dublin Regional Code of Practice of Drainage Works.

Any plan or existing/proposed project that could potentially affect the screened in Natura 2000 sites in combination with the proposed development, must adhere to the overarching environmental protective policies and objectives of the relevant land use plan. These policies and objectives will ensure the protection of Natura 2000 sites and will include the requirement for any future project to undergo Screening for Appropriate Assessment and/or Appropriate Assessment.

9 Conclusions

Following a desktop review of the subject location, there are 2 no. Natura 2000 sites (SAC and SPA) with a strong source-pathway-receptor linkage with the proposed development: River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. A Natura Impact Statement (NIS) has been prepared and submitted as part of the planning application (**Document ref.: 252248-ORS-XX-XX-RP-EN-13d-004**). The NIS outlines the potential effects upon the designated sites and outlines mitigation measures to prevent such effects.

Visits to the site of the proposed development at Athlumney, Navan, Co. Meath was carried out on the 11th of November 2025. Data from the site visit was combined with desktop surveys to evaluate the importance of ecological features in the area of the proposed development, and to assess for ecological impacts with and without mitigation.

Adherence to measures proposed for the mitigation of noise and light will ensure the minimisation of disturbance to local ecological receptors. Mitigation and management of surface water and sediment runoff during development is imperative to ensure the protection of water quality of the underlying groundwater body, nearby Ferganstown and Ballymacon stream and sensitive downstream receptors.

The proposed development will not result in the loss of any protected habitats. The planting of native trees and wildflowers as part of the proposed works will allow local invertebrate and bird populations to persist in the habitats surrounding the proposed development. The habitats recorded on site did not display substantial evidence of protected species utilising the site for nesting or burrowing.

There were no signs of amphibian or reptile activity during the survey of the site, however the swamp habitat and nearby drainage ditch are suitable habitat for local amphibian populations. This habitat will be retained as part of the proposed development's Landscape Masterplan and long-term significant effects on local amphibian populations are not foreseen to arise.

9.1 Summary of Significant Effects

While negative effects on habitats and wildlife are anticipated as part of the proposed development, the implementation of the mitigation measures provided will ensure that significant, negative, long-term effects do not arise. With the implementation of the recommended measures the overall effects on the ecology of the surrounding area do not encroach beyond a local geographic scale.

Where a potential effect has been identified, mitigation measures have been provided which, if implemented, reduce the quality, significance and duration of the effect. The mitigation steps are presented in **Section 7** of this report.

10 References

CIEEM (2018) Good Practice Guidance for Habitats and Species. Chartered Institute of Ecology and Environmental Management (CIEEM).

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Department of Environment, Heritage and Local Government (2009) Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.

EPA (2022) Guidelines on the information to be contained in Environmental Impact Assessment Reports. Environmental Protection Agency (EPA).

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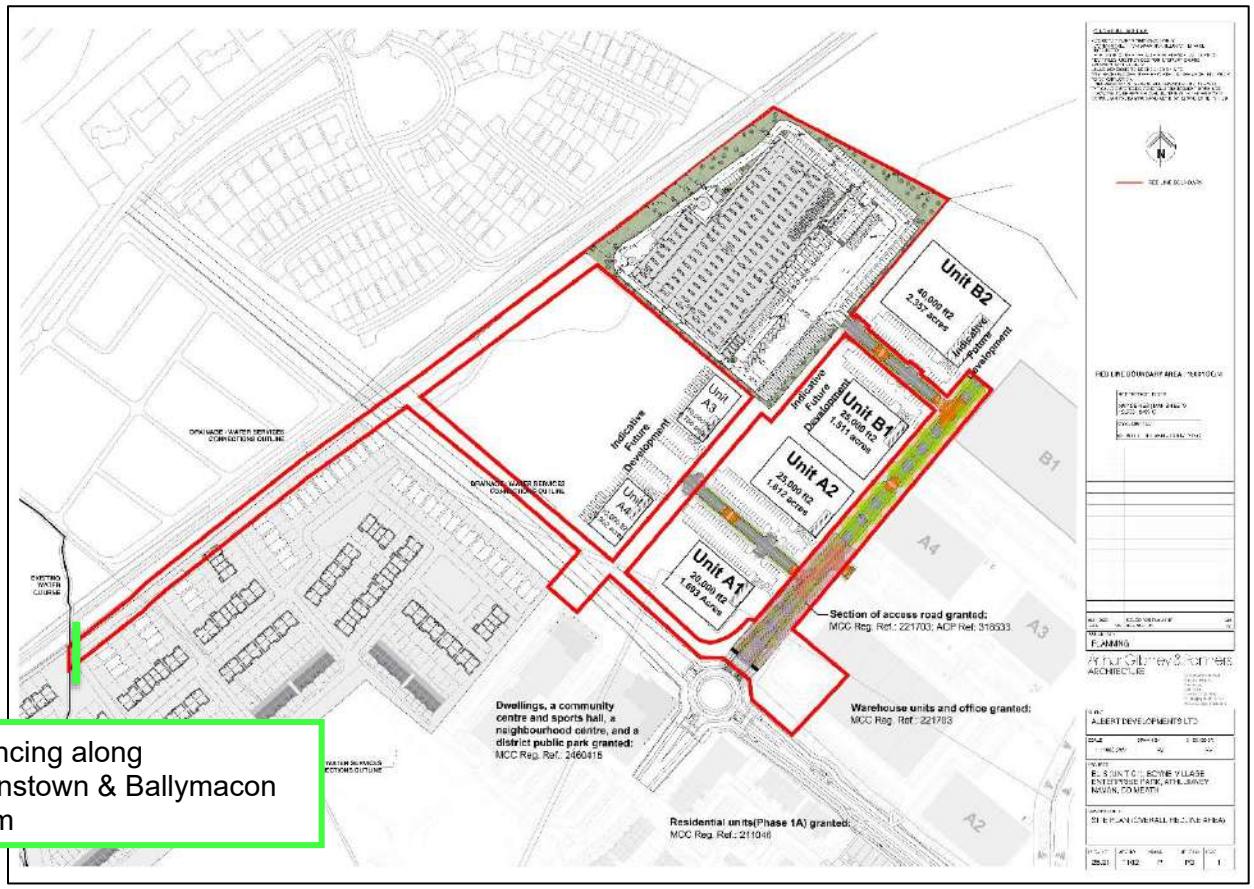
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NRA (2009) Guidelines for Assessment of Ecological Impacts of National Roads Schemes. National Roads Authority (NRA).

OPR (2021) Appropriate Assessment Screening for Development Management. Office of the Planning Regulator (OPR).

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016) Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

Appendix A – Silt Fencing Location



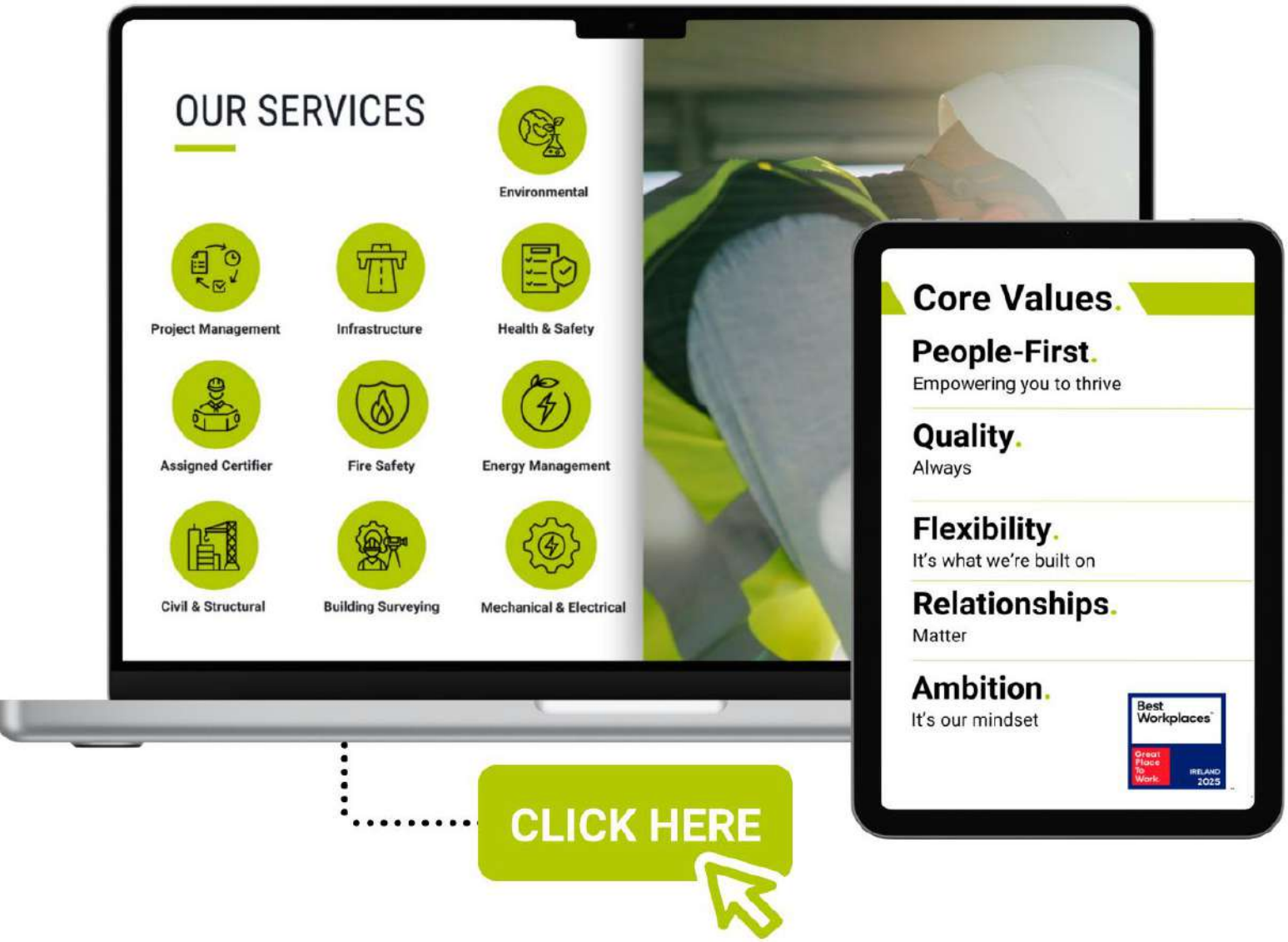
Silt fencing along Ferganstown & Ballymacon Stream

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Appendix 11: ORS Updated Natura Impact Assessment

2026

Response to An Coimisiún Pleanála,

ACP Ref: PL-502119-MH-26

Boyne Village Business Park, Navan, Co Meath.

Natura Impact Statement (NIS)

Response to An Coimisiún Pleanála, ACP Ref: PL-502119-MH-26
Boyne Village Business Park, Navan, Co. Meath

Natura Impact Statement (NIS)

Document Control Sheet

Client:	Albert Developments Limited
Document No:	252248-ORS-XX-XX-RP-EN-13d-004

Revision	Status	Author:	Reviewed by:	Approved By:	Issue Date
P01	DRAFT	KS	SB	RE	22/01/2026
P02	S2	KS	SB	RE	03/02/2026
P03	S2	JS	SB	RE	19/06/2026
P04	S2	JS	SB	RE	09/10/2026

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1 Introduction

1.1 Requirement for an Appropriate Assessment

ORS was appointed by *Albert Developments Ltd*. to provide the necessary information to allow the competent authority to conduct an Article 6 (3) Appropriate Assessment for the proposed development consisting of an industrial laundry processing and distribution facility warehouse including ancillary offices, storage, and staff amenities. The site is a 4.61 hectare site located at Boyne Village Business Park, in the townland of Athlumney, Navan, Co. Meath with associated services, access roads and car parking at the proposed site.

The purpose of this Appropriate Assessment is to determine the appropriateness of the proposed project, in the context of the conservation status of the designated ecological site or sites within the determined Zone of Influence of the proposed plan or project. In Ireland, an Appropriate Assessment takes the form of a Natura Impact Statement (NIS), which is a statement of the likely impacts of the plan or project on a Natura 2000 site, namely Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). The NIS examines the direct and indirect impacts that the plan or project might have on its own or in combination with other plans or projects on one or more Natura 2000 sites in view of the sites' conservation objectives. The details of this report are supported by an Ecological Impact Assessment (EcIA) completed by ORS Ecologists for this development (Document Reference No.: **252248-ORS-XX-XX-RP-EN-13d-005**).

1.2 The Aim of the Report

This Natura Impact Statement (NIS) has been prepared in accordance with the current guidance (DoEHLG, 2009, Revised February 2010), and it provides an assessment of the potential impacts of the development at Athlumney, Navan, Co. Meath, on sites designated under the Natura 2000 network.

The NIS provides the information required to establish whether or not a proposed development is likely to have a significant impact on certain Natura sites in the context of their conservation objectives and specifically on the habitats and species for which the Natura 2000 conservation sites have been designated.

This NIS has been updated in October 2026 to reflect the Further Information submitted to the Planning Authority as well as the detail provided in the response to the third-party appeal lodged to An Coimisiún Pleanála (***ACP Ref: PL-502119-MH-26***) against the grant of planning permission for the proposed development at Boyne Village Business Park, Athlumney/Ferganstown, Navan, Co. Meath.

1.3 Regulatory Context

The Birds Directive (Council Directive 2009/147/EC) recognises that certain species of birds should be subject to special conservation measures concerning their habitats. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive. SPAs are selected for bird species (listed in Annex I of the Birds Directive) that are regularly occurring populations of migratory bird species, species that are particularly threatened,

species vulnerable to specific changes in their habitat, and rare species. The SPAs are of international importance for these birds.

The EU Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.

Articles 6(3) and **6(4)** of this Directive also call for the undertaking of an Appropriate Assessment for plans and projects not directly connected with or necessary to the management of, but which are likely to have a significant effect on any European designated sites (i.e. SACs and SPAs). This is explained in greater detail in the following section.

The Water Framework Directive (WFD) (2000/60/EC), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003). The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2027 and that the status does not deteriorate in any waters.

1.4 Appropriate Assessment and the Habitats Directive

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and **6(4)** of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites. **Article 6(3)** establishes the requirement for Appropriate Assessment:

"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*"

Article 6(4) deals with the steps that should be taken when it is determined, as a result of appropriate assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

"*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the member states shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

1.5 The Appropriate Assessment Process

The aim of Appropriate Assessment is to assess the implications of a proposal in respect of a designated site's conservation objectives.

The requirement for Appropriate Assessment is transposed into Irish law by Part XAB of the Planning and Development Act 2010 (as amended). The 'Appropriate Assessment' itself is an assessment which must be carried out by the competent authority, which confirms whether the plan or project, in combination with other plans and projects, will have an adverse impact on the integrity of a European site.

Screening for Appropriate Assessment shall be carried out by the competent authority as set out in **Sections 177U (1)** and **(2)** of the Planning and Development Act 2000 (as amended) as follows:

Section 177U (1) states:

"*A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project, is likely to have a significant effect on the European site."*

Section 177U (2) states:

"A competent authority shall carry out a screening for appropriate assessment under subsection (1) before -

a) a Land use plan is made, including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

b) *consent for a proposed development is given."*

The competent authority shall determine that an Appropriate Assessment is not required if it can be excluded, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

Where the competent authority cannot exclude the potential for a significant effect on a European site, an Appropriate Assessment shall be deemed required.

Where an Appropriate Assessment is required, the conclusions of the Appropriate Assessment Report (Natura Impact Statement (NIS)) should enable the competent authority to ascertain whether the plan or proposed development would adversely affect the integrity of the European site. If adverse impacts on the integrity of a European site cannot be avoided, then mitigation measures should be applied during the appropriate assessment process to the point where no adverse impacts on the site remain. Under the terms of the Habitats Directive consent can only be granted for a project if, as a result of the appropriate assessment either (a) it is concluded that the integrity of any European sites will not be adversely affected, or (b) after mitigation, where adverse impacts cannot be excluded, there is shown to be an absence of alternative solutions, and there exists imperative reasons of overriding public interest for the project should go ahead.

Section 177(V) of the Planning and Development Act 2000 (as amended) outlines that the competent authority shall carry out the Appropriate Assessment, taking into account the Natura Impact Statement (amongst any other additional or supplemental information). A determination shall then be made by the competent authority in line with the requirements of Article 6(3) of the Habitats Directive as to whether the plan or proposed development would adversely affect the integrity of a European site, prior to consent being given.

2 Methodology

2.1 Legislation and Guidance

This NIS has been prepared with reference to the following:

- European Commission (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
- European Commission (2021). Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC.
- European Commission (2006). Nature and Biodiversity Cases: Ruling of the European Court of Justice.
- European Commission (2007). Clarification of the Concepts of: Alternative Solution, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.
- Department of Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management, OPR Practice Note PN01.

The EC Guidance sets out a number of principles as to how to approach decision-making during the process. The primary one is 'the precautionary principle', which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty.

When considering the precautionary principle, the emphasis for assessment should be on objectively demonstrating with supporting evidence that:

- There will be no significant effects on a Natura 2000 site.
- There will be no adverse effects on the integrity of a Natura 2000 site.
- There is an absence of alternatives to the project or plan that is likely to have an adverse effect on the integrity of a Natura 2000 site.
- There are compensation measures that maintain or enhance the overall coherence of the Natura 2000 network and its individual sites.

This translates into a four-stage process to assess the impacts, on a designated site or species, of a policy or proposal.

The EC Guidance states that "*each stage determines whether a further stage in the process is required*". Consequently, the Council may not need to proceed through all four stages in undertaking the Appropriate Assessment.

The four-stage process is:

Stage 1: Screening – The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans and considers whether or not these impacts are likely to be significant.

Stage 2: Appropriate Assessment – The consideration of the impact on the integrity of the Natura 2000 site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives.

Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts.

Stage 3: Assessment of Alternative Solutions – The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain – An assessment of the compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

The OPR Guidance states that "a European site will only be at risk from likely significant effects where the Source-Pathway-Receptor (S-P-R) link exists between the proposed development and the European site". Determining whether an S-P-R linkage exists between the proposed development and a European site requires identifying the three components of the S-P-R model:

Source: "identify characteristics of the proposed development such as the nature, size and location and the types of effects, such as direct emissions or loss of habitat".

Pathway: "identify the existence and characteristics of pathways, such as waterbodies or air, that could link European sites and their Qualifying Interests to the proposed development".

Receptor: "establish the location, nature and sensitivities of the qualifying species and habitats, the ecological conditions underpinning their survival and the conservation objectives specified to maintain or restore favourable conservation status".

In complying with the obligations set out in **Article 6(3)** and following the guidelines described above, this screening statement has been structured as a stage-by-stage approach as follows:

- Description of the proposed project.
- Identification of the Natura 2000 sites close to the proposed development.
- Identification and description of any individual and cumulative impacts on the Natura 2000 sites likely to result from the project.
- Identification of the Natura 2000 sites with an established S-P-R link with the proposed development.
- Assessment of the significance of the impacts identified above on on-site integrity. Exclusion of sites where it can be objectively concluded that there will be no significant effects.
- Description of proven mitigation measures.

2.2 Statement of Competency

Author

This Natura Impact Statement was carried out by Olivia Hamilton BSc (Hons), MSc. Olivia holds an honours degree in Environmental Science from the University of Galway and a master's degree in Conservation Behaviour from ATU Galway. Throughout her education, Olivia developed a strong foundation in environmental management, environmental impact assessment, and ecological survey techniques. She has applied this knowledge in a variety of

roles, including serving as the lead marine biologist aboard a research vessel, where she conducted and led marine mammal surveys.

Olivia has field experience in surveying bats, mammals, birds, habitats, plants, and invasive species. As a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM), she is well-versed in the latest ecological surveying methods, data collection practices, and scientific report writing. Her professional portfolio includes conducting Biodiversity Chapters for Environmental Impact Assessment Reports (EIARs), Environmental Impact Assessment Screening Reports, Flood Risk Assessments, as well as completing complex Appropriate Assessments (AA), Preliminary Ecological Appraisal Reports (PEARs), and Ecological Impact Assessments (EcIA) for a range of clients.

Co-Author

This Natura Impact Statement was co-authored by Jack Schaerer, BSc (Hons), MSc. Jack has an honours degree in Zoology from the University of Galway and a master's degree in Conservation Behaviour from ATU Galway. Over the course of his education, Jack gained knowledge and skills regarding ecology, animal behaviour, and wildlife conservation, as well as scientific report writing and survey techniques. Jack has particular expertise in ornithology, with experience carrying out a variety of bird surveys, including for protected species such as Hen Harrier, and is a member of Birdwatch Ireland. His experience with ORS saw him conduct a wider range of ecological fieldwork, namely habitat mapping, preliminary bat surveying, mammal surveying, and reptile and amphibian surveying, and has experience carrying out Ecological Impact Assessments and Appropriate Assessments. Jack also has experience carrying out Environmental reports such as Flood Risk Assessments and Soil and Groundwater Monitoring reports.

Co-Author

This Natura Impact Statement was co-authored by Killian Smith, BAgrSc. Killian has a bachelor's degree in Agricultural Science from University College Dublin specialising in Agri-Environmental Science. Killian has previous experience working in the Department of Agriculture developing agricultural landowner maps as part of the Remote Sensing Controls of Area-based Schemes and the Land Parcel Identification System (LPIS) Rebuild Project. In addition, Killian has professional experience as a Senior Media Analyst, where he led structured analysis of datasets to support decision-making for public and private sector clients.

His experience with ORS has provided the opportunity to work across the Environmental Compliance, Environmental Consultancy, and Ecology pillars, delivering a wide range of environmental and ecological services. This has included Phase-1 Environmental Site Assessments, Environmental Impact Assessment Screening Reports, Construction Environmental Management Plans, Appropriate Assessments, Preliminary Ecological Appraisal Reports (PEARs), and habitat assessment and classification.

Reviewer

This Natura Impact Statement was reviewed by was reviewed by Richard Edwards, BSc (Hons), PhD, FHEA, MRSB. Rich is a molecular ecologist with over 20 years' experience working on interdisciplinary projects. A former academic research leader in bioinformatics, genomics, molecular ecology and evolution, Rich is a creative problem solver across a broad range of biodiversity and ecological sciences. He specialises in identifying pragmatic solutions

that maximise mutual benefits. He has published over 80 peer-reviewed works, including papers in Nature Ecology and Evolution and Molecular Ecology, and over thirty bioinformatics tools. Rich joined the Environmental Services team at ORS in July 2025, bringing strengths in large-scale data analysis, automation, and scientific/technical writing. His experience at the forefront of applying genomic techniques to conservation and biodiversity challenges, including non-native invasive species, positions the ORS team to adapt rapidly to changes in technology relating to biodiversity management and biodiversity net gain legislation. Since joining ORS, Rich has focused on ecological survey reporting and assessing the ecological impacts of construction projects, particularly with respect to Appropriate Assessment Screening and Biodiversity Management Plans.

2.3 Desk Studies & Consultation

Information on the site and the area of the proposed development was studied prior to the completion of this statement. The following data sources were accessed in order to complete a thorough examination of potential impacts:

- National Parks and Wildlife Service - Aerial photographs and maps of designated sites, information on habitats and species within these sites and information on protected plant or animal species, conservation objectives, site synopses and standard data forms for relevant designated sites.
- NPWS Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities, 10 December 2009 (as revised 11 February 2010).
- Assessment of plans and projects significantly affecting Natura 2000 sites (2001).
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive (2018).
- NPWS (2013). The Status of Protected EU Habitats and Species in Ireland.
- Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Environmental Protection Agency (EPA)- Information pertaining to water quality, geology and licensed facilities within the area.
- Myplan.ie – Map-based information.
- National Biodiversity Data Centre (NBDC) – Information pertaining to protected plant and animal species within the study area.
- National Planning Application Database.
- Meath County Council.
- EPA Online Maps.
- Bing maps & Google Street View – High-quality aerials and street images.

2.4 Assessment Methodology

The proposed development was assessed to identify its potential ecological impacts, and from this, the Zone of Influence (ZoI) of the proposed development was defined. Based on the potential impacts and their ZoI, the Natura 2000 sites potentially at risk from direct, indirect or combined impacts were identified. The assessment considered all potential impact sources and pathways connecting the proposed development to Natura 2000 sites, in view of the conservation objectives supporting the favourable conservation condition of the site's Qualifying Interests (QIs) or Special Conservation Interests (SCIs).

The conservation objectives relating to each Natura 2000 site and its QIs/SCIs are cited generally for SACs as "*to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or Annex II species for which the SAC has been selected*", and for SPAs

"*to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*".

As defined in the Habitat Directive, the favourable conservation status of a habitat is achieved when:

- Its natural range and the area it covers within that range are stable or increasing.
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

The favourable conservation status of a species is achieved when:

- The population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Where site-specific conservation objectives (SSCOs) have been prepared for a European site, these include a series of specific attributes and targets against which effects on conservation condition, or integrity, can be measured. Where potential significant effects are identified, these SSCOs should be considered in detail.

2.5 Field Survey

A visit to the site of the proposed development at Athlumney, Navan, Co. Meath was carried out on the 11th of November 2025. Relevant field notes, species lists and photographs were taken.

3 Site Details

3.1 Description of Proposed Development

The proposed development will occur on the site of ca. 4.61 hectares at Boyne Village Business Park, Athlumney, within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath. The development consists of:

- The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:
  - a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and
  - a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.

- Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.

- Parking and loading facilities including:
  - 106 car parking spaces (including 5 accessible spaces and 1 set-down space);
  - 30 bicycle parking spaces;
  - 19 truck parking spaces;
  - c. 20 van parking spaces;
  - 10 truck loading bays; and
  - 12 van loading bays.

- Ancillary structures and services including:
  - an ESB substation;
  - a sprinkler pump room & asscoiated sprinkler tank;
  - water storage infrastructure;
  - surface water attenuation infrastructure; and
  - associated utility infrastructure.

- Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works.

An indicative site layout is presented in **Figure 3.1**.

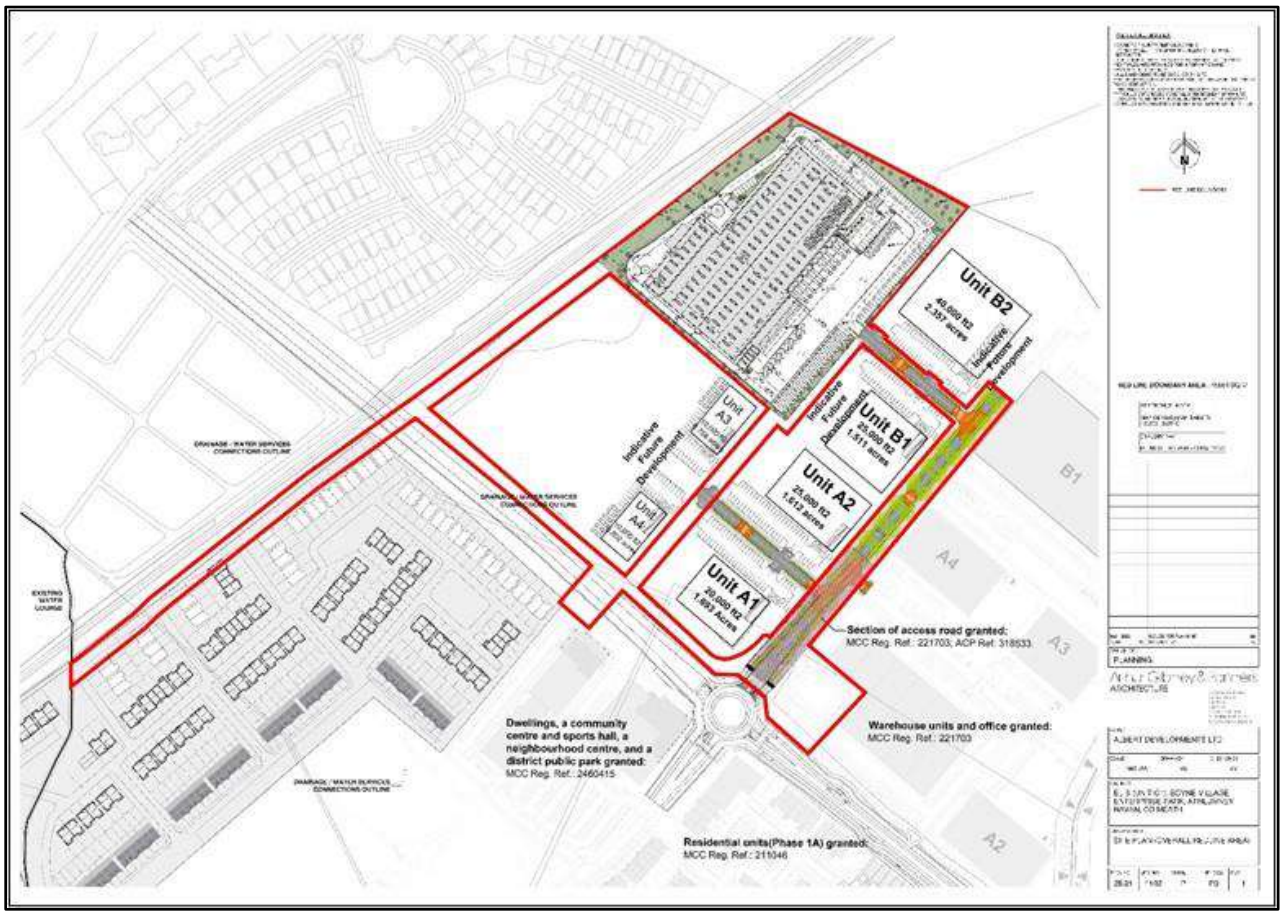


Figure 3.1: Proposed layout of the Business Park at Boyne Village, Athlumney, Navan, Co. Meath. (Cropped - Source: Arthur Gibney & Partners Architecture – Please refer to the full-scale drawing submitted as part of the planning application – Drawing No. 1102).

3.2 Site Location and Environs

The proposed development site is located *ca.* 1.5km east of Navan town centre, Co. Meath (ITM Coordinates: 688617, 768171).

The site is bounded to the east by extensive agricultural lands. Areas of housing estates and residential developments are located directly south of the site and continue south for *ca.* 2.5km reaching the outskirts of south Navan town. To the west the site is bounded by the fabric of Navan town and suburbs. Navan town comprises, densely grouped residential units with a number of housing estates as well as commercial units including Navan Town Shopping Centre. To the north the site is bound by a mix of agricultural and residential land uses. The Boyne River flows from west to east *ca.* 350m north of the proposed development. The site fronts the old Navan Railway line which is not operational for passenger service. There are plans to bring the line back into service for passengers as part of the NTA's Greater Dublin Area Transport Strategy. There is a new link road under construction which will traverse and ultimately service the proposed development. The road development links the Kentstown Road – Metges Road junction to the development via the Hodgett Road.

The nearest water feature to the proposed development site is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located on the western boundary of the application site.

An assessment of aerial imagery provided an overview of the land use and habitat types present in the vicinity of the subject site. According to these images, there is a mixture of land use in the surrounding landscape. The land use to the east and northeast of the site is predominately agricultural with field parcels demarcated by hedgerows and treelines with scattered agricultural and residential units. The land immediately east of the site is undergoing development. Lands to the south are dominated by extensive residential areas. A stream bounds the western site boundary with an agricultural land parcel beyond this. The River Boyne and River Blackwater converge in Navan town centre *ca.* 1.3km from the site boundary. The River Boyne then flows east and north away from the application site. A mixture of agricultural fields and residential areas lie between the site and the River Boyne to the north. Sections of riparian woodland are present along the banks of the Boyne. The River Boyne ultimately flows off the east Irish coast *ca.* 28km northeast of the application site.

An examination of the extent and quality of waterbodies in the vicinity of the proposed development is included in **Section 3.3.2**.

The site location map and overview of the land use and surrounding habitats is presented in **Figure 3.2**.



Figure 3.2: The proposed site boundary and surrounding landscape.

3.3 Environmental Considerations

3.3.1 Topography

A topographical survey was conducted across the entire site. The site is between ca. 51 m AOD and 45 m OD across the site, with a slight slope towards the southwestern edge of the site. This indicates a vertical difference from the highest point to the lowest point of ca. 6 m over a horizontal distance of ca. 300m, resulting in a slope of approximately 2.5%.

According to the FAO Slope Gradient Classes (2006), this places the site within the “gently sloping” category (Class 05). The highest and lowest points are located in the south-western corner of the site. Across the remainder of the area, ground levels generally range from approximately 51 m OD to 48 m OD, falling from south towards the northeast and northwest. The subject site is a greenfield site with its’ prior use as agricultural land.

3.3.2 Hydrology

The proposed site is located within the Boyne_140 Sub-Basin; Boyne Catchment; Boyne_SC_110 Subcatchment; Hydrometric Area 07.

The principle hydrological feature within the vicinity of the proposed works is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located *ca.* 290m west of the application site. The stream flows in a north direction and meets the River Boyne (EPA Code: 07B04) *ca*. 380m north of the site. The River Boyne flows into the Irish Sea *ca.* 28km northeast of the proposed development site.

The Water Framework Directive (WFD) runs in 6-year cycles with the most recent data being generated between 2016-2021. The Directive takes rivers, lakes, estuaries, groundwater and coastal waters into consideration and each waterbody can be awarded one of five statuses: High, Good, Moderate, Poor, and Bad. Additionally, waterbodies can be assigned a risk level (“At Risk”, “Not at Risk”, “Review”) which represents the risk of the waterbody of failing its WFD objectives by 2027. The WFD aims to achieve good status for all rivers, lakes and transitional and coastal waters in the EU. Achieving good ecological status for surface waters is critical to this.

According to the EPA maps, the Ferganstown and Ballymacon stream and River Boyne have a WFD status of ‘Moderate’ and the risk status is under review.

An overview of watercourses in the vicinity of the subject site is provided in **Figure 3.3**.



Figure 3.3: Watercourses in vicinity of the site.

Biological Q-Values

A summary of most recent Biological Q-ratings from the watercourses at points close to the site is provided in **Table 3.1**.

Table 3.1: Biological Q Values for River Boyne Watercourses (Source, EPA).

Station ID	Station Name	Result
RS07B011800	Slane Rd Br Navan	3-4 - Moderate (2024)
RS07B042010	d/s Broadboyne Br (RHS)	4 - Good (2024)

3.3.3 Geology & Hydrogeology

Teagasc soil mapping indicates the site is underlain primarily of till derived chiefly from limestone and is Carboniferous in age. It is deep well drained mineral and mainly basic. The site is underlain by the Lucan Formation which is described as dark limestone and shale.

According to GSI groundwater maps, the site overlays a 'Locally Important Aquifer – Bedrock which is Generally Moderately Productive'. This is described as an aquifer capable of supplying locally important water supplies. The groundwater vulnerability index at the site is classed as high.

3.4 Habitats and Species within the Application Site

Habitats

Habitats at the site were identified and classified according to 'A Guide to Habitats in Ireland' (Fossitt, 2000). Habitats were appraised and evaluated according to their occurrence as protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened, and endangered species. The condition and evaluation of the habitats recorded were classified in line with 'Best Practice Guidance for Habitat Survey and Mapping', The Heritage Council (2011).

A map of the habitats identified is included in **Figure 3.4**. **Table 3.2** provides an overview of the habitats recorded across the site and an ecological evaluation of the habitats recorded. Further information regarding the habitats located on site can be found in the accompanying EcIA (Document Reference No.: **252248-ORS-XX-XX-RP-EN-13d-005**).



Figure 3.4: Habitat classification of proposed site with indicative site boundary.

Table 3.2: Evaluation of Habitats within the Study Area				
Habitat Classification	**Description**	**Species Recorded**	**Condition**	**Evaluation**
GA1 – Improved Agricultural Grassland	The primary habitat type within the application site is improved grassland dominated by seeded monoculture grasses. Common agricultural herbs are also present.	Ryegrasses (*Lolium* spp.) (d), clovers (*Trifolium* spp.) (a), docks (*Rumex* spp) (o), plantains (*Plantago* spp.) (o), *Ranunculus* spp. (o).	Good	Local (Low)
 **Plate 1: GA1 Improved Agricultural Grassland.** Primary habitat type occurs within the northern and southern parcels. Photograph taken from northern parcel, facing north.				
WD1 - Hedgerow	Hedgerows border the northern and southern land parcels. Common native species are present throughout with occasional trees.	Hawthorn (*Crataegus monogyna*) (d), Buckthorn (*Rhamnus* agg.) (a), Blackthorn (*Prunus spinosa*) (a), Ivy (*Hedera* spp.) (a), Bramble (*Rubus fructicosus*) (a), Elderberry (*Sambucus* spp.) (a), Ash (*Fraxinus excelsior)* (f), willows (*Salix* spp.) (o)	Moderate	Local (High)



Plate 2: WD1 - Hedgerow. Hedgerows border the site and are composed of common and native species such as Hawthorn and Ash. Photograph facing northeast corner of the site.

FW4 – Drainage Ditch	A drainage channel runs adjacent to the western and eastern site boundary. The western channel joins the local watercourse, the Ferganstown and Ballymacon stream, southwest of the site. Common wetland vegetation is present in sections along the channel.	Water-cress (*Nasturtium officinale*) (o), Lesser Water-parsnip (*Berula erecta*) (o), Water Mint (*Mentha aquatica*) (o)	Good	Local (Moderate)



Plate 3: FW2 – Drainage Ditch. Adjacent to the western and eastern site boundary, photograph facing west.

FS1 – Reed and Large Sedge Swamps	A localised section of the site adjacent to the western site boundary is dominated by reeds and tall grasses. At the time of survey, there was a large area of standing water, however this is likely subject to fluctuation with seasonal variation in weather.	Unidentified tall grasses (d), Reed Sweet-grass (*Glyceria maxima*) (d), Tall Fescue (*Festuca arundinace*) (a), Great Fen-sedge (*Cladium mariscus*) (a), Yellow Iris (*Iris pseudacorus*) (f), Water Mint (*Mentha aquatica*) (o), Meadowsweet (*Filipendula ulmaria*) (o), Fool's Water-cress (*Apium nodiflorum*) (o)	Good	Local (High)



Plate 4: FS1 Reed and Large Sedge Swamp. A localised swamp area in the western extent of the site supports a number of wetland species and contains standing water. Photograph facing north.

GS2 – Dry Meadow and Grassy Verge	A localised area of grassy verge exists on the border between the swamp habitat and the agricultural grassland. Tall grasses and common agricultural species are present.	False Oat-grass (*Arrhenatherum elatius*) (a), Yorkshire-fog (*Holcus lanatus*) (a), Nettle (*Urtica dioica*) (a), clovers (*Trifolium* spp.) (f).	Good	Local (Low)



Plate 5: GS2 Dry Meadow and Grassy Verge. Grassy verge habitat exists in the transition from swamp habitat to agricultural grassland. Photograph facing south.

BL3 – Buildings and artificial surfaces	A small section of the site is comprised of artificial surfaces, where previous development works have taken place. A road and roundabout have been developed to service the application site.	N/A	Good	Local (Low)

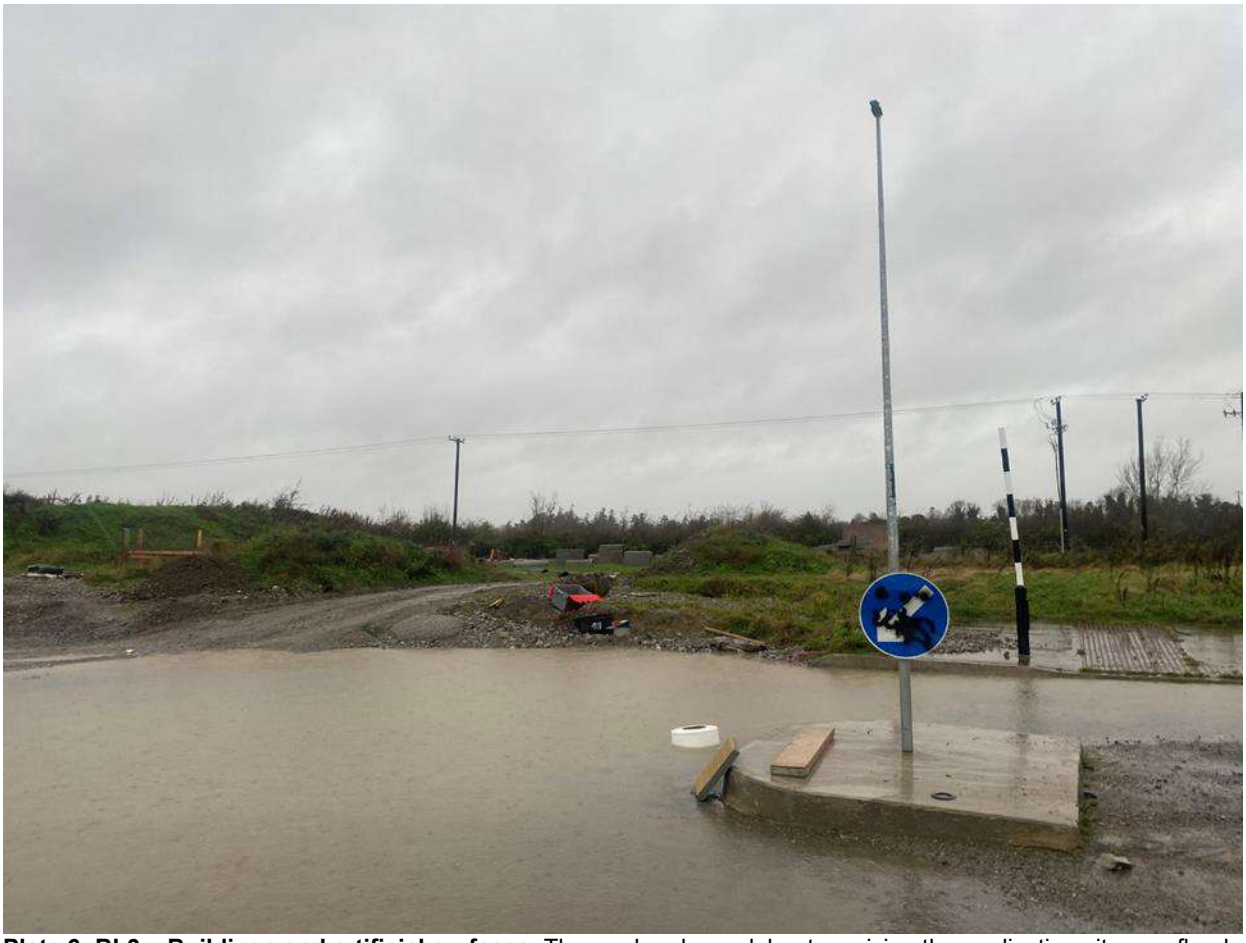


Plate 6: BL3 – Buildings and artificial surfaces. The road and roundabout servicing the application site was flooded at the time of survey in the winter. Photograph facing south.

ED2 – Spoil and Bare Ground	There are sections of the agricultural grasslands that have been disturbed by vehicular traffic and has resulted in exposed soils.	N/A	Poor	Local (Low)



Plate 7: ED2 Spoil and Bare Ground. Some areas of the agricultural grasslands have been disturbed and soil is exposed. Photograph facing northeast.

FW2 – Depositing / Lowland River	The local watercourse, the Ferganstown and Ballymacon stream, flows adjacent to the southwestern extent of the site boundary with a connection to the drainage channel along the western site boundary.	N/A	Good	Local (High)



Plate 8: FW2 Depositing / Lowland River. The local watercourse flows adjacent to the southwestern tip of the site boundary. Photograph facing south.

Species abundance and analysis of indicator species has been classified according to the DAFOR scale: d = dominant, a = abundant, f = frequent, o = occasional, r = rare.

Flora

No rare or protected flora species protected under the Flora Protection Order (2022), listed in Annex II and IV of the EU Habitats Directive (92/43/ECC), or listed in the Irish Red List were recorded during the survey. The current list of plant species protected by Section 21 of the Wildlife Act, 1976 is set out in the Flora (Protection) Order, 2022, which supersedes orders made in 1980, 1987, 1999 and 2015.

It is illegal to cut, uproot or damage the listed species in any way, or to offer them for sale. This prohibition extends to the taking or sale of seed. In addition, it is illegal to alter, damage or interfere in any way with their habitats. This protection applies wherever the plants are found and is not confined to sites designated for nature conservation.

Invasive Species

The invasive species survey aimed to identify and assess the extent of non-native species that may pose ecological risks. Invasive species require special consideration when trying to clear them for development.

No invasive species listed under the 'First Schedule' of the European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374/2024) were recorded during site walkover. Despite this, best practice measures for the control of invasive species are recommended in **Section 7** of this report. These measures will ensure that translocation of invasive species does not occur during development. This is imperative as the adjacent stream has the potential to spread invasives beyond the extent of the subject site in the absence of mitigation.

Birds

Bird surveying was carried out on an ad hoc basis – observing birds that either flew overhead or were observed perching, nesting, or foraging of the course of the site survey. Birds in the nearby vicinity of the site were also identified via birdcall identification. Bird species and the number of individuals was recorded along with their conservation status in Ireland. Care was taken to avoid double counting individuals.

Species identification and abundance data is presented in **Table 3.3** below along with the conservation status within Ireland. Surveyors were mindful of the zone of influence of the development scheme (i.e. the distance beyond the redline boundary that a scheme may still have an impact on breeding birds, either during construction or operation). Surrounding habitat (outside of the redline boundary) was also be surveyed to a reasonable distance – particularly land immediately surrounding the site itself, and any nearby potentially valuable habitat which is likely to be impacted by development/disturbance.

Table 3.3: Bird species and counts recorded on site.

Species	Count	Conservation Status
Rook (*Corvus frugilegus*)	3	Green
Robin (*Erithacus rubecula*)	1	Green
Jackdaw (*Coloeus monedula*)	2	Green
Magpie (*Pica pica*)	3	Green
Stonechat (*Saxicola rubicola*)	2	Green
Wood Pigeon (*Columba palumbus*)	4	Green
Wren (*Troglodytes troglodytes*)	2	Green
Goldfinch (*Carduelis carduelis*)	2	Green
Moorhen (*Gallinula chloropus*)	1	Green
Herring Gull (*Larus argentatus*)	3	Amber
Black-headed Gull (*Larus ridibundus*)	1	Amber
Yellowhammer (*Emberiza citrinella*)	1	Red

The majority of bird activity observed at the site were individuals passing over the site and the majority of species recorded are common and resident species such as corvids, Wood Pigeon (*Columba palumbus*) and common small passerines such as Robin (*Erithacus rubecula*) and Wren (*Troglodytes troglodytes*). One no. Moorhen (*Gallinula chloropus*) was recorded in the standing water associated with the swamp habitat. No other waterbird, wader or waterfowl species were recorded within or flying over the site.

Two no. amber-listed species were recorded during site walkover: Herring Gull (*Larus argentatus*) and Black-headed Gull (*Larus ridibundus*). Both of these gull species were not seen to utilise the site and were recorded flying over the site. One no. red-listed species was recorded: Yellowhammer (*Emberiza citrinella*). This individual was seen perched on a fence just outside the southern site boundary along with a male and female Stonechat (*Saxicola rubicola*). These passerines were also seen perched within the boundary hedgerow in the south of the site.

The boundary hedgerows throughout the application site could serve as suitable foraging and nesting habitat, particularly in areas where the hedgerow is thick and dense such as the northern boundary. The site is considered to be of high importance to local bird populations.

While extensive removal of boundary vegetation is not required as part of the proposed development, local bird populations will be subject to temporary disturbance during the process of construction and operation

Mammals

Survey techniques employed on this site investigation utilised direct observation methods, looking for tracks, footprints, and other signs such as scat and faeces. The mammal survey focused on identifying signs of mammal activity within the site boundary such as movement corridors, droppings, hair, dens or setts, and evidence of foraging.

There were no clear signs of mammal activity such as those mentioned above recorded during the site survey.

The boundary hedgerows could serve as important ecological corridors for mammal species that were not recorded during surveying such as Hedgehog (*Erinaceus europaeus*), Red Fox (*Vulpes* vulpes) and rodents. The site is considered to be of low - moderate suitability for local mammal populations to utilise effectively.

Preliminary Bat Roost Potential (BRP)

The trees located within the boundary hedgerows site were assessed from ground level for bat roost potential. There are no other suitable features, such as derelict structures, within the site that could support roosting bats. **Table 3.4** below describes habitat suitability criteria for bat roosts. The circumference of the trunks and branches of the trees observed did not appear to be substantial enough to support roosting bats. However, it should be noted that ivy coverage prevented a thorough examination of these features.

Table 3.4: Bat roost suitability descriptors

Suitability	Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.

Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

A summary of the classification of the roost features observed on site is included in **Table 3.5**. The bat roost suitability of the boundary hedgerows was considered negligible-to-low and does not warrant further survey with regards to bats. There are no other features within the application site that could potentially support roosting bats.

The network of hedgerows could serve important foraging and commuting habitat with regard to the surrounding landscape. The nearby Ferganstown and Ballymacon stream and River Boyne also serve as an important foraging and commuting corridor, as bats favour foraging over watercourses adjacent to extensively manage pastures lined with hedgerows and treelines. For these reasons, direct and indirect disturbance to the boundary hedgerows and local watercourses should be kept to a minimum. Mitigation measures for the prevention of disturbance are provided in **Section 5**.

Table 3.5: Preliminary Bat Roost Features

Photograph	Feature	Suitability	Comment
	Occasional immature trees are located throughout the network of hedgerows	Negligible-to-Low	Circumference of trunks associated with the trees are considered unsuitable for roosting bats. The trees are immature and do not have features such as cracks, crevices and holes that could support roosting bats. The hedgerows do provide foraging and commuting habitat for local bat populations. Further survey of this habitat in relation to bats is not considered necessary. Best practice mitigation measures for disturbance emissions should be adhered to.

Amphibians and Reptiles

The wet nature of the swamp habitat features pooling of surface waters, particularly in the

lowest point of the site adjacent to the western site boundary. These areas of swamp vegetation could potentially support Common Frog (*Rana temporaria*) and Smooth Newt (*Lissotriton vulgaris*) however the levels of pooling surface water are subject to temporal and climate variation. There were no Common Frogs or Smooth Newt recorded during site surveying. There are no features within the application site that could serve as basking spots for Common Lizard (*Zootoca vivipara*) such as boulders or other hardstanding surfaces. The site is considered to be of high importance for local amphibian populations and of low importance for reptile populations.

Invertebrates

The subject site is likely to support common invertebrate species as some wildflower species were noted during site surveying, notably in the understory vegetation of hedgerows. Weather conditions on the day were overcast which provided limited opportunity to observe active invertebrates on site. The drainage channel along the western boundary is potentially suitable for macroinvertebrates to inhabit, and the protection of water quality is important to maintain during development. Mitigation measures for the protection of water quality in the drainage channel and downstream watercourses are provided in **Section 5.**

Records of Rare, Protected, Invasive, and Notable Species

A desktop review of NBDC online records was carried out to assess whether the presence of any rare, threatened, or notable species records were available within the vicinity of the proposed site. The subject site lies within 2km grid squares N86Z. A summary of recorded species gathered from the NBDC database within the past 10 years is provided in **Table 3.6**.

Table 3.6: NBDC Species Records within Grid Square N86Z

Species Name	Record Count	Date of Last Record	Designation
Invasive Species			
Cherry Laurel (*Prunus laurocerasus*)	3	18/02/2024	Invasive Species: High Risk Invasive Species (2013 Report)
Himalayan Balsam (*Impatiens glandulifera*)	5	25/08/2023	Invasive Species: EU Invasive Alien Species Regulation No. 1143/2014, Regulation S.I. 477/2011 (Ireland), High Risk Invasive Species (2013 Report), Regulation S.I. 374/2024 (Ireland), Invasive Species: Detailed Risk Assessment >> High Risk
Three-cornered Garlic (*Allium triquetrum*)	5	01/04/2024	Invasive Species: Regulation S.I. 477/2011 (Ireland), Invasive Species: Detailed Risk Assessment, Invasive Species: Medium Risk Invasive Species (2013 Report), Regulation S.I. 374/2024 (Ireland), Invasive Species: Detailed Risk Assessment >> Moderate Risk

Birds			
Black-headed Gull (*Chroicocephalus ridibundus*)	6	03/01/2023	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Coot (*Fulica atra*)	2	06/01/2022	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section II Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Cormorant (*Phalacrocorax carbo*)	6	03/01/2025	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Great Spotted Woodpecker (*Dendrocopos major*)	2	17/02/2024	Protected Species: Wildlife Acts
Grey Wagtail (*Motacilla cinerea*)	7	03/03/2022	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Red List
House Martin (*Delichon urbicum*)	2	12/04/2024	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
House Sparrow (*Passer domesticus*)	2	02/09/2022	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Kingfisher (*Alcedo atthis*)	9	12/02/2021	Protected Species: Wildlife Acts, EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern - Amber List
Little Egret (*Egretta garzetta*)	10	25/11/2024	Protected Species: Wildlife Acts, EU Birds Directive >> Annex I Bird Species
Little Grebe (*Tachybaptus ruficollis*)	12	16/07/2025	Protected Species: Wildlife Acts
Mallard (*Anas platyrhynchos*)	35	02/05/2025	Protected Species: Wildlife Acts, EU Birds Directive >> Annex II, Section I >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern - Amber List
Mistle Thrush (*Turdus viscivorus*)	7	02/05/2025	Protected Species: Wildlife Acts
Mute Swan (*Cygnus olor*)	10	09/09/2025	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List

Pheasant (*Phasianus colchicus*)	5	01/04/2024	Protected Species: Wildlife Acts, EU Birds Directive >> Annex II, Section I Bird Species >> Annex III, Section I Bird Species
Robin (*Erithacus rubecula*)	17	18/06/2024	Protected Species: Wildlife Acts
Sand Martin (*Riparia riparia*)	3	23/05/2023	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Sparrowhawk (*Accipiter nisus*)	5	30/02/2021	Protected Species: Wildlife Acts
Starling (*Sturnus vulgaris*)	9	02/09/2022	Threatened Species: Birds of Conservation Concern - Amber List
Swallow (*Hirundo rustica*)	8	18/06/2024	Protected Species: Wildlife Acts, Threatened Species: Birds of Conservation Concern - Amber List
Mammals			
Daubenton's Bat (*Myotis daubentonii*)	91	20/09/2021	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Leisler's Bat (*Nyctalus leisleri*)	14	31/08/2022	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Natterer's Bat (*Myotis nattereri*)	2	31/08/2022	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	29	31/08/2022	Protected Species: EU Habitats Directive >> Annex IV, Protected Species: Wildlife Acts
Insects			
Red-tailed Bumblebee (*Bombus lapidarius*)	8	07/04/2025	Threatened Species: Near threatened
Narrow-bordered Five-spot Burnet (*Zygaena lonicerae*)	2	13/06/2023	Threatened Species: Vulnerable

3.5 European Sites Identified

In accordance with the guidelines issued by the Department of the Environment and Local Government, a list of European sites within the vicinity of the proposed development has been identified and described according to their site synopsis, qualifying interests and conservation objectives. In addition, any other sites further than this, but potentially within its zone of influence, were also considered. The zone of influence may be determined by an assessment of the connectivity between the application site and the designated areas by virtue of hydrological connectivity, atmospheric emissions, flight paths, ecological corridors, etc. The measurements used here are taken from the closest point along the proposed work area to the European site.

For significant effects to arise, there must be a potential impact facilitated by having a source, i.e., the proposed development and activities arising out of its construction or operation, a

receptor, i.e., the European site and its qualifying interests, and a subsequent pathway or connectivity between the source and receptor, e.g., a water course. The likelihood for significant effects on the European site will largely depend on the characteristics of the source (e.g., nature and scale of the construction works), the characteristics of the existing pathway and the characteristics of the receptor, e.g., the sensitivities of the qualifying interests (habitats or species) to changes in water quality.

An initial ZoI of 15km was set to identify the European Sites that could potentially be affected by the proposed development. After this initial assessment, only those Natura 2000 sites that have any reasonable Source-Pathway-Receptor (S-P-R) connectivity were considered further.

There are 2 no. European sites (1 SAC and 1 SPA) located within 15km of the proposed site. Both of these sites have an established S-P-R linkage with the proposed development. The European sites and their closest points to the proposed development site are summarised in **Table 3.7.**

Figure 3.5 below provides an overview of SACs and SPAs within a 15km radius of the proposed site, and **Figure 3.6** shows the S-P-R connectivity between the application site and the nearby European sites.

Table 3.7: A potential S-P-R pathway exists between the proposed development and the following European sites.

Site Name & Code	Distance & Direction from Site	Qualifying Interests (QIs)	Screened In/Out
River Boyne and River Blackwater SAC 002299	Located *ca*. 350m north of site	Alkaline fens [7230] Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0] River Lamprey (*Lampetra fluviatilis*) [1099] Salmon (*Salmo salar*) [1106] Otter (*Lutra lutra*) [1355]	**Screened In** Potential effects could arise. A Source-Pathway-Receptor linkage exists between the proposed development and this SAC. The principle hydrological feature within the vicinity of the proposed works is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located on the western boundary of the application site. The stream flows in a northern direction and meets this SAC *ca*. 350m north of the site. The construction works could give rise to sufficient levels of contaminants, such as concrete dust, silt, fuels or oils, that could give rise to a pollution event. In the event of heavy rainfall, contaminants and polluted runoff could feasibly migrate into the Ferganstown and Ballymacon stream and ultimately into the River Boyne and associated

			European sites. The QIs of this SAC are sensitive to changes in water quality and could be negatively affected by changes to water quality. A degradation in water quality could also reduce the availability and quality of aquatic species that are food sources for the QIs of this SAC. Effects to the food sources of these species could then adversely impact the local populations of the QIs in the SAC. The proposed use of a well to supply water for the operational phase of the development could potentially impact the natural hydrology of the nearby River Boyne, and the aquatic habitats and fauna associated with the SAC. An assessment on the sustainable supply of water from a well on-site is required to prevent significant effects arising from the operational phase of the development. With regards to the precautionary principle, significant effects cannot be ruled out.
River Boyne and River Blackwater SPA 004232	Located *ca*. 400m north of site	Kingfisher (*Alcedo atthis*) [A229]	**Screened In** Potential effects could arise. A Source-Pathway-Receptor linkage exists between the proposed development and this SPA. The principle hydrological feature within the vicinity of the proposed works is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located on the western boundary of the application site. The stream flows in a northern direction and meets this SPA *ca*. 400m north of the site. The construction works could give rise to sufficient levels of contaminants, such as concrete dust, silt, fuels or oils, that could give rise to a pollution event. In the

			event of heavy rainfall, contaminants and polluted runoff could feasibly migrate into the Ferganstown and Ballymacon stream and ultimately into the River Boyne and associated European sites. The QI of this SPA is sensitive to changes in water quality and could be negatively affected this. A degradation in water quality could also reduce the availability and quality of aquatic species that are food sources for this QI. Effects to the food sources of these species could then adversely impact the local populations of the QI in the SPA. The proposed use of a well to supply water for the operational phase of the development could potentially impact the natural hydrology of the nearby River Boyne, and the aquatic habitats and fauna within the river. An impact on fish species within the river as a result, could potentially impact the foraging capacity for Kingfisher within the SPA. An assessment on the sustainable supply of water from a well on-site is required to prevent significant effects arising from the operational phase of the development. With regards to the precautionary principle, significant effects cannot be ruled out.



Figure 3.5: European sites within 15km of the proposed development site.



Figure 4.4: European sites with a Source-Pathway-Receptor connection with the application site (Source: Google Satellite).

A full description of the sites can be accessed on the website of the National Parks and Wildlife Service (www.npws.ie), and the latest shapefiles of the European sites available on the NPWS online database (https://www.npws.ie/maps-and-data).

4 Appropriate Assessment

4.1 Identification of Potential Effects

The proposed development site is located at Athlumney, Navan, Co. Meath (ITM Coordinates: 688617, 768171) within the administrative jurisdiction of Meath County Council. The proposed development consists of an industrial laundry processing and distribution facility warehouse including ancillary offices, storage, and staff amenities. The nearest water feature to the proposed development site is the Ferganstown and Ballymacon stream located on the western site boundary.

Taking a conservative approach, in a worst-case scenario and in the absence of mitigation, an accidental pollution event of a sufficient magnitude during the construction or operational phases of development, either alone or in combination with other pollution sources, could potentially affect the surface or ground water quality in the screened in European sites to an extent that undermines the conservation objectives of its qualifying interests. A reduction in water quality in these European sites has the potential to affect the aquatic species and habitats, and natural conditions that are required to maintain the favourable conservation condition of the qualifying interests of the designated sites.

The following areas were examined in relation to potential impacts and subsequent effects from the proposed development on the European sites identified:

- Deterioration of surface or groundwater quality in designated areas arising from pollution from surface water run-off during site preparation, construction, and operation.
- Deterioration in air quality in designated areas arising from pollution during the construction and operation of the proposed development.
- Disturbance and displacement effects.
- Habitat loss and fragmentation.
- Habitat degradation resulting from the spread of invasive species.

4.2 Assessment of Effects

The main objective of this stage (Stage 2, Natura Impact Statement) in the Appropriate Assessment process is to determine whether the proposed development at Athlumney, Navan, Co. Meath (either alone or in combination with other plans, programmes and projects) will result in significant adverse impacts to the integrity of the nearby European sites with respect to the site's structures, species, functions, conservation objectives and targets. This stage also outlines the mitigation measures that should be taken in order to avoid any negative impacts of this application, should it receive consent.

In this section, the European sites that have been 'screened in' will be described in greater detail in terms of the site characteristics and conservation objectives.

4.2.1 Site Specific Conservation Objectives (SSCOs)

For the designated European site that was screened in, where Site Specific Conservation Objectives were available, these were reviewed in light of the proposed development and the potential impacts that might occur. These Site Specific Conservation Objectives (SSCOs) aim to define the favourable conservation conditions for the particular habitats or species at that

site. They outline certain attributes (e.g., distribution, population structure, water quality) for different species and habitats with targets, which define favourable conditions for a habitat or species at a particular site. The maintenance of habitats and species within the Natura 2000 sites at favourable conservation conditions will contribute to the overall maintenance of the favourable conservation status of those habitats and species at a national level. Where available, these SSCOs can be downloaded from the NPWS website. Any potential threats to the attributes and targets as defined in these SSCOs were assessed and, where necessary, mitigated. Where SSCOS were not available, then the SSCOs of other European sites with comparable QIs were referred to.

For each Qualifying Interest of the European sites, the specific conservation objective is either to maintain or restore the favourable conservation condition of that interest, by defining a list of attributes and targets which are indicative of the conservation status of that interest. For habitats, the main attributes include habitat area, habitat distribution, physical structure, vegetation structure, vegetation composition, woodland structure, and hydrological regime. The main target is to ensure that the habitats are stable or increasing in area and that the other attributes are maintained or restored. For Annex II species, the main attributes are population distribution, size, structure, habitat suitability and availability whilst the targets aim to ensure that the long-term population trends of the species are stable or increasing and that there is no significant decrease in the numbers or range of areas used by the species, other than that occurring from natural patterns of variation.

Table 4.1 outlines the conservation objectives of the relevant *Screened In* European sites and assesses the potential effects arising as a result of the proposed development.

Table 4.1: Potential Significant Effects on European Site Conservation Objectives			
Qualifying Interest	**Conservation Objectives**	**Potential Threat/Effect**	**Pathway**
River Boyne and River Blackwater SAC			
Alkaline fens [7230]	**To maintain the favourable conservation condition of Alkaline fens in River Boyne and River Blackwater SAC, which is defined by the following list of attributes and targets:** • Habitat area - Area stable or increasing, subject to natural processes • Habitat distribution - No decline, subject to natural processes • Ecosystem function: soil nutrients - Maintain soil pH and nutrient status within natural ranges • Ecosystem function: peat formation - Maintain active peat formation, where appropriate • Ecosystem function: hydrology – groundwater levels – Maintain, or where necessary restore, appropriate natural hydrological regimes necessary to support the natural structure and functioning of the habitat • Ecosystem function: hydrology - surface water flow - Maintain, or where necessary restore, as close as possible to natural or semi-natural, drainage conditions • Ecosystem function: water quality - Maintain appropriate water quality, particularly pH and nutrient levels, to support the natural structure and functioning of the habitat • Vegetation composition: community diversity - Maintain variety of vegetation communities, subject to natural processes • Vegetation composition: typical brown mosses - Maintain adequate cover of typical brown moss species • Vegetation composition: typical vascular plants - Maintain adequate cover of typical vascular plant species • Vegetation composition: native negative indicator species - Cover of native negative indicator species at insignificant levels • Vegetation composition: non-native species - Cover of non-native species less than 1%	Little is known of this habitat's distribution or its sub-types within this SAC. In the absence of mitigation measures, alteration of water quality and hydrological regime could have adverse effects on habitats and species associated with this QI. Mitigation measures for the protection of water quality during the construction phase are required.	Migration of contaminants to the Ferganstown and Ballymacon stream that flows into this SAC.

	• Vegetation composition: native trees and shrubs - Cover of scattered native trees and shrubs less than 10% • Vegetation composition: algal cover - Cover of algae less than 2% • Vegetation structure: vegetation height - At least 50% of the live leaves/flowering shoots are more than either 5cm or 15cm above ground surface depending on community type • Physical structure: disturbed bare ground - Cover of disturbed bare ground not more than 10% • Physical structure: tufa formations - Disturbed proportion of vegetation cover where tufa is present is less than 1% • Indicators of local distinctiveness - No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat; maintain features of local distinctiveness, subject to natural processes • Transitional areas between fen and adjacent habitats - Maintain adequate transitional areas to support/protect the alkaline fen ecosystem and the services it provides		
Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) [91E0]	**To restore the favourable conservation condition of Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)* in River Boyne and River Blackwater SAC, which is defined by the following list of attributes and targets:** • Habitat area - Area stable or increasing, subject to natural processes • Habitat distribution - No decline, subject to natural processes • Woodland size - Area stable or increasing. Where topographically possible, "large" woods at least 25ha in size and "small" woods at least 3ha in size • Woodland structure: cover and height - Total canopy cover at least 30%; median canopy height at least 7m; native shrub layer cover 10-75%; native herb/dwarf shrub layer cover at least 20% and height at least 20cm; bryophyte cover at least 4% • Woodland structure: community diversity and extent - Maintain diversity and extent of community types • Woodland structure: natural regeneration - Seedlings, saplings and pole age-classes of target species for 91E0 woodlands and other native tree	This QI habitat is located over 17km from the proposed development site. This distance is greater when considering the hydrological distance. It is highly unlikely that contaminants from a pollution event at the proposed site would reach this QI habitat due to the distance between them. Any contaminants entering the River Boyne from the proposed development would not create significant downstream effects at this	N/A

	species occur in adequate proportions to ensure survival of woodland canopy • Hydrological regime: flooding depth/height of water table - Appropriate hydrological regime necessary for maintenance of alluvial vegetation • Woodland structure: dead wood - At least 19 stems/ha of dead wood of at least 20cm diameter • Woodland structure: veteran trees - No decline • Woodland structure: indicators of local distinctiveness - No decline in distribution and, in the case of red listed and other rare or localised species, population size • Woodland structure: indicators of overgrazing - All five indicators of overgrazing absent • Vegetation composition: native tree cover - No decline. Native tree cover at least 90% of canopy; target species cover at least 50% of canopy • Vegetation composition: typical species - At least 1 target species for 91E0 woodlands present; at least 6 positive indicator species for 91E0 woodlands present • Vegetation composition: negative indicator species - Negative indicator species cover not greater than 10%; regeneration of negative indicator species absent • Vegetation composition: problematic native species - Cover of common nettle (*Urtica dioica*) less than 75%	habitat due to the dilution effect. Mitigation measures are not required for the protection of this QI habitat.	
River Lamprey (*Lampetra fluviatilis*) [1099]	**To restore the favourable conservation condition of River Lamprey (*Lampetra fluviatilis*) in River Boyne and River Blackwater SAC, which is defined by the following list of attributes and targets:** • Distribution - Restore access to all water courses down to first order streams • Distribution of larvae - Not less than 50% of sample sites with suitable habitat positive for larval brook/river lamprey • Population structure of larvae - At least three age/size classes of larval brook/river lamprey present • Larval lamprey density in fine sediment - Mean density of brook/river larval lamprey in sites with suitable habitat more than 5/m²	Changes in natural hydrology and water quality resulting from sediment or pollutant-laden runoff reaching the waterbody during the construction phase. Potential to adversely affect water quality and therefore, prey availability in the absence of mitigation. Mitigation measures for the	Migration of contaminants to the Ferganstown and Ballymacon stream that flows into this SAC.

	• Extent and distribution of spawning nursery habitat - No decline in extent and distribution of spawning and nursery beds	protection of water quality during the construction phase are required.	
Salmon (*Salmo salar*) [1106]	**To restore the favourable conservation condition of Atlantic Salmon (*Salmo salar*) in River Boyne and River Blackwater SAC, which is defined by the following list of attributes and targets:** • Distribution: extent of anadromy - 100% of river channels down to second order accessible from estuary • Adult spawning fish - Conservation limit (CL) for each system consistently exceeded • Salmon fry abundance - Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling • Out-migrating smolt abundance - No significant decline • Number and distribution of redds - No decline in number and distribution of spawning redds due to anthropogenic causes • Water quality - At least Q4 at all sites sampled by EPA	Changes in natural hydrology and water quality resulting from sediment or pollutant-laden runoff reaching the waterbody during the construction phase. Potential to adversely affect water quality and therefore, prey availability in the absence of mitigation. Mitigation measures for the protection of water quality during the construction phase are required.	Migration of contaminants to the Ferganstown and Ballymacon stream that flows into this SAC.
Otter (*Lutra lutra*) [1355]	**To maintain the favourable conservation condition of Otter (*Lutra lutra*) in River Boyne and River Blackwater SAC, which is defined by the following list of attributes and targets:** • Distribution - No significant decline • Extent of terrestrial habitat - No significant decline. Area mapped and calculated as 447.6ha along river banks/ lake shoreline/around ponds • Extent of freshwater (river) habitat - No significant decline. Length mapped and calculated as 263.3km • Extent of freshwater (lake) habitat - No significant decline. Area mapped and calculated as 31.6ha • Couching sites and holts - No significant decline • Fish biomass available - No significant decline • Barriers to connectivity - No significant increase	Changes in natural hydrology and water quality resulting from sediment or pollutant-laden runoff reaching the waterbody during the construction phase. Potential to adversely affect water quality and therefore, prey availability in the absence of mitigation. Mitigation measures for the protection of water quality during the construction phase are required.	Migration of contaminants to the Ferganstown and Ballymacon stream that flows into this SAC.

River Boyne and River Blackwater SPA			
Kingfisher (*Alcedo atthis*) [A229]	**To maintain the favourable conservation condition of Kingfisher in River Boyne and River Blackwater SPA, which is defined by the following list of attributes and targets:** • Population size - No significant decline in the long term • Productivity rate - Sufficient productivity to maintain the population trend as stable or increasing • Spatial distribution of territories - No significant loss of distribution in the long term, other than that occurring due to natural patterns of variation • Extent and quality of nesting banks and other suitable nesting features - Sufficient area of high quality nesting habitat to support the population target • Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable forage habitat and available forage biomass to support the population target • Water quality - Both biotic (i.e. Q-value) and abiotic indices reflect overall good-high quality status • Barriers to connectivity - No significant increase • Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Kingfisher	Changes in natural hydrology and water quality resulting from sediment or pollutant-laden runoff reaching the waterbody during the construction phase. Potential to adversely affect water quality and therefore, prey availability in the absence of mitigation. Mitigation measures for the protection of water quality during the construction phase are required.	Migration of contaminants to the Ferganstown and Ballymacon stream that flows into the River Boyne and this SPA.

The identification of potential impacts and the assessment of their significance typically requires the identification of the type and magnitude of the impacts. For example, will the impacts be short-term or long-term, direct, indirect or cumulative, and will they occur during construction or operation. This section will establish whether the potential impacts of the proposed development are likely to occur, and whether or not they are significant. These potential impacts will be examined with respect to the conservation objectives of the European sites identified.

The following potential future impacts on the screened in European sites will be considered in detail:

- Deterioration of surface or groundwater quality in designated areas arising from pollution from surface water run-off during site preparation, construction, and operation.
- Deterioration in air quality in designated areas arising from pollution during the construction and operation of the proposed development.
- Disturbance and displacement effects.
- Habitat loss and fragmentation.

4.2.2 Deterioration in Surface Water and Groundwater Quality

Site Preparation and Construction

Construction activities can generate concrete dust, sediments, oils, chemicals, and fuels that, if unmanaged, may run off into nearby streams, rivers, wetlands, or infiltrate into groundwater.

The principle hydrological feature within the vicinity of the proposed works is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located on the western boundary of the application site. The stream flows in a northern direction and flows into the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA.

Dust, particulate matter, or dry deposition of construction-related pollutants could affect the water quality of the Ferganstown and Ballymacon stream over time. The most likely sources of dust generation at this site include soil stripping, excavation activities, and concrete works. While less significant than direct runoff, this route can contribute to water pollution over time, especially through cumulative nutrient loading or pH alterations, potentially affecting aquatic ecology within the designated site.

A pollution incident of significant magnitude, such as contaminated surface water runoff during construction works, accidental oil or fuel spills or leaks, or heavy rainfall carrying silt, sediment, or other pollutants, could enter the watercourses. This has the potential to impact the aquatic species and habitats of the European sites that are sensitive to changes in water quality. A reduction in water quality could reduce the abundance and availability of food resources and habitat for the aquatic species of the European sites, and reduce the distribution, quality and abundance of the aquatic habitats associated with the designated sites outlined in **Section 3.5**.

Adverse effects to the food resources of the QIs could then impact the local QI populations designated within the European sites. Changes in water quality could affect the vegetative structure and distribution of the habitat QIs outlined in **Section 3.5**. A potential pollution event arising from the works, either alone or in combination with other water quality pressures, could give rise to significant effects to a degree that could compromise the conservation objectives of the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA.

Operation

Surface Water

The surface water drainage network will tie into the existing system of gullies and drainage channels associated with the ongoing developments to the northeast and east of the proposed development site. The drainage network discharges surface water into the drainage channel adjacent to the site boundary and outflows into the Ferganstown and Ballymacon stream. Attenuation basins are also proposed which will capture and treat excess surface water. Contaminated surface water runoff is not considered likely during the operational phase of the development, given the integrity of the existing drainage network remains robust. Significant effects on the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA are not considered likely during the operational phase.

Foul Water

Wastewater connections to the site are feasible subject to upgrades and extensions to the surrounding foul water network. Foul water will enter the surrounding network once connection is established and will be subject to treatment prior to discharge. It is not considered likely that significant effects on surface/groundwater quality will occur during operation as a result of foul water emissions from site. By extension, significant effects on the River Boyne and River Blackwater SAC and the River Boyne and River Blackwater SPA are not considered likely during the operational phase.

Groundwater

The proposed development is to operate as a commercial laundry with a proposed water usage of *ca.* 560 m³ per day, with a portion of that water usage deriving from the temporary /permanent water well on site. If an on-site well is to be part of the water supply to the proposed development, consideration must be given to the potential to impact off-site receptors, including other groundwater users in the vicinity of the site, flow to surface water courses or downstream ecological receptors. A significant abstraction from groundwater could impact the natural hydrology of the nearby River Boyne, and subsequently the aquatic habitats and fauna associated with the River Boyne and River Blackwater SAC and SPA.

Assuming the zone of contribution extends to the site area (25,000m2) and an effective rainfall of c300mm/yr this indicates a potential groundwater yield of c20.5m3/day. It should be noted however that this assumes a well is pumping 365 days a year 24 hours per day. It is more likely that the abstraction would occur at most for 12 hours per day and therefore a higher yield c42m3/day would be feasible and sustainable without impacting off-site receptors.

It is also likely that higher yields would be sustainable given the observed additional storage in the underlying gravels and enhanced permeability from fractures and fissures in the bedrock without impacting on offsite receptors.

Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m3/day form an onsite well are potentially sustainable without impacting off site receptors, including the identified European sites. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test. A well if used for water supply on the site would require registration with the EPA.

4.2.3 Deterioration in Air Quality in the SAC

Site Preparation and Construction

Dust, particulate matter, or dry deposition of construction-related pollutants could negatively affect the air quality in the vicinity of the European sites. The most likely sources of dust generation at this site include soil stripping and excavation to facilitate the works throughout the duration of the project. Dust can also be dispersed by excessive vehicular movement around the site during dry periods. A reduction in air quality at the site location is unlikely to affect the QIs of the European sites, given the characteristics and the diffuse occurrence of the QIs.

Operation

Excessive dust emissions from the site are not considered likely during the operational phase. Thus, significant effects on the screened in European sites as a result of diminished air quality are not considered likely during the operational phase of the development.

4.2.4 Disturbance and Displacement

Site Preparation and Construction

Potential effects associated with the construction phase consist of stormwater runoff in the event of heavy rainfall, which could migrate to the European sites and have downstream effects. In the absence of mitigation, runoff laden with silt and pollutants could disturb and displace QIs through the reduction of water quality and habitat smothering.

Operation

An increase in contaminated stormwater runoff is not likely to arise during the operational phase of the development. Significant disturbance/displacement effects during operation are not considered likely.

4.2.5 Habitat Loss and Fragmentation

Site Preparation and Construction

It is not considered likely that the proposed development will result in the loss or fragmentation of habitats within the European sites during construction.

Operation

It is not considered likely that the proposed development will result in the loss or fragmentation of habitats within the European sites during operation.

4.2.1 Habitat degradation as a Result of the Spread of Invasive Species

Site Preparation and Construction

Invasive species were not recorded during site surveying. Additional information is available in the accompanying EcIA (Document Reference No.: **252248-ORS-XX-XX-RP-EN-13d-005**). Habitat degradation as a result of spread of invasive species is not foreseen during site

preparation and construction. Best practice biosecurity methods should be adhered to in order to prevent introduction during this phase.

Operation

Invasive species were not recorded during site surveying. Additional information is available in the accompanying EcIA (Document Reference No.: **252248-ORS-XX-XX-RP-EN-13d-005**). Habitat degradation as a result of spread of invasive species is not foreseen during operation. Best practice biosecurity methods should be adhered to in order to prevent introduction during this phase.

4.2.2 Potential Cumulative Effects

This section of the NIS examines whether any other plans or projects have the potential to act cumulatively or in combination with the proposed development to adversely affect the integrity of the European sites identified.

Any plan or existing/proposed project, live applications, and projects that are not yet underway but are reasonably foreseeable, that could potentially affect the screened in European sites in combination with the proposed development, must adhere to the overarching environmental protective policies and objectives of the relevant land use plan. These policies and objectives will ensure the protection of European sites and will include the requirement for any future project to undergo Screening for Appropriate Assessment and/or Appropriate Assessment.

Meath County Development Plan 2021-2027

Planning policy at the local level is currently provided by the Meath County Development Plan 2021–2027. This plan contains a number of objectives and policies relevant to ecology, biodiversity, green infrastructure and nature conservation. **Table 4.2** below provides a summary of relevant policies relating to ecological protection and management.

Table 4.2: Meath County Development Plan 2021-2027 Policy Objectives

Policy No:	Biodiversity Policy Objectives
HER POL 27	To protect, conserve and enhance the County's biodiversity where appropriate.
HER POL 28	To integrate in the development management process the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate.
HER POL 29	To raise public awareness and understanding of the County's natural heritage and biodiversity.
HER POL 30	To promote increased public participation in biodiversity conservation by supporting and encouraging community-led initiatives.
HER POL 31	To ensure that the ecological impact of all development proposals on habitats and species are appropriately assessed by suitably qualified professional(s) in accordance with best practice guidelines – e.g. the preparation of an Ecological Impact Assessment (EcIA), Screening Statement for Appropriate Assessment, Environmental Impact Assessment, Natura Impact Statement (NIS), species surveys etc. (as appropriate).
HER OBJ 30	To implement, in partnership with the Department of Culture, Heritage and the Gaeltacht, relevant stakeholders and the community, the objectives and actions of Ireland's National

	Biodiversity Action Plan 2017 - 2021 which relate to the remit and functions of Meath County Council.
HER OBJ 31	To implement, in partnership with the Department of Culture, Heritage and the Gaeltacht, relevant stakeholders and the community, the objectives and actions of the County Meath Biodiversity Plan 2015-2020 and any revisions thereof.
HER OBJ 32	To actively support the implementation of the All Ireland Pollinator Plan 2021-2025 and any revisions thereof.
HER POL 32	To permit development on or adjacent to designated Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas, Statutory Nature Reserves or those proposed to be designated over the period of the Plan, only where the development has been subject to the outcome of the Appropriate Assessment process and has been carried out to the satisfaction of the Planning Authority, in consultation with National Parks and Wildlife.
HER POL 33	To have regard to the views and guidance of the National Parks and Wildlife Service in respect of proposed development where there is a possibility that such development may have an impact on a designated European or National site or a site proposed for such designation.
HER POL 34	To undertake appropriate surveys and collect data to provide an evidence-base to assist the Council in meeting its obligations under Article 6 of the Habitats Directives (92/43/EEC) as transposed into Irish Law, subject to available resources.
HER OBJ 33	To ensure an Appropriate Assessment in accordance with Article 6(3) and Article 6(4) of the Habitats Directives (92/43/EEC) and in accordance with the Department of Environment, Heritage and Local Government Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities, 2009 and relevant EPA and European Commission guidance documents, is carried out in respect of any plan or project not directly connected with or necessary for the management of the site but likely to have a significant effect on a Natura 2000 site(s), either individually or in-combination with other plans or projects, in view of the site's conservation objectives.
HER OBJ 34	To protect and conserve the conservation value of candidate Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas and proposed Natural Heritage Areas as identified by the Minister for the Department of Culture, Heritage and the Gaeltacht and any other sites that may be proposed for designation during the lifetime of this Plan in accordance with the provisions of the Habitats and Birds Directives and to permit development in or affecting same only in accordance with the provisions of those Directives as transposed into Irish Law.
HER POL 35	To ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites and to require an appropriate level of ecological assessment by suitably qualified professional(s) to accompany development proposals likely to impact on such areas or species.
HER POL 36	To consult with the National Parks and Wildlife Service and take account of their views and any licensing requirements, when undertaking, approving or authorising development which is likely to affect plant, animal or bird species protected by law.
HER OBJ 35	To ensure that development does not have a significant adverse impact, incapable of satisfactory avoidance or mitigation, on plant, animal or bird species protected by law.
HER POL 37	To encourage the retention of hedgerows and other distinctive boundary treatments in rural areas and prevent loss and fragmentation, where practically possible. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, mitigation by provision of the same type of boundary will be required.

HER POL 38	To promote and encourage planting of native hedgerow species in new developments and as part of the Council's own landscaping works.
HER POL 39	To recognise the archaeological importance of townland boundaries including hedgerows and promote their protection and retention.
HER POL 40	To protect and encourage the effective management of native and semi-natural woodlands, groups of trees and individual trees and to encourage the retention of mature trees and the use of tree surgery rather than felling, where possible, when undertaking, approving or authorising development.
HER POL 41	To protect trees the subject of Tree Preservation Orders (see Map 9.3), Champion and Heritage Trees identified on the Tree Register of Ireland and Heritage Tree Database when undertaking, approving, or authorising development.
HER POL 42	To promote the preservation of individual trees or groups of trees as identified on the Heritage Maps in Volume 2 and to manage these trees in line with arboricultural best practice.
HER OBJ 36	To promote awareness, understanding and best practice in the management of the County's woodland, tree and hedgerow resource.
HER OBJ 37	To continue to work in partnership with relevant stakeholders to develop and enhance Balrath Wood and to explore opportunities to develop additional sites under the Neighbour Wood Scheme.
HER OBJ 38	To review the Meath Tree, Woodland and Hedgerow Survey (2011), over the life of the Development Plan, as appropriate.
HER POL 43	To promote best practice in the control of invasive species in the carrying out its functions in association with relevant authorities including TII and the Department of Transport, Tourism and Sport.
HER POL 44	To require all development proposals to address the presence or absence of invasive alien species on proposed development sites and (if necessary) require applicants to prepare and submit an Invasive Species Management Plan where such a species exists to comply with the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.
HER POL 45	To ensure that peatland areas which are designated (or proposed for designation) as NHAs, SACs or SPAs are conserved for their ecological, climate regulation, archaeological, cultural and educational significance.
HER OBJ 39	To work in partnership with relevant stakeholders on a suitable peatland site(s) to demonstrate best practice in sustainable peatland conservation, management and restoration techniques and to promote their heritage and educational value subject to Ecological Impact Assessment and Appropriate Assessment Screening, as appropriate, having regard to local and residential amenities.
HER POL 47	To protect the ecological, recreational, educational, amenity and flood alleviation potential of navigational and non-navigational waterways within the County, towpaths and adjacent wetlands.
HER OBJ 40	To work in partnership with Waterways Ireland and relevant stakeholders to encourage best practice biodiversity management of canal and towpath habitats.
HER POL 48	To manage, enhance and protect the wetlands of the County having regard to the 'County Meath Wetland Survey 2010' and ensure that there is an appropriate level of assessment in relation to proposals which would involve draining, reclaiming or infilling of wetland habitats.
HER POL 49	To protect the character, visual, recreational, ecological and amenity value of the coast and provisions for public access, in assessing proposals for development.

HER POL 50	To ensure that the County's natural coastal defences, such as beaches, sand dunes, coastal wetlands and estuaries are not compromised by inappropriate works or development.
HER OBJ 41	To maintain the beaches along the coast to a high standard and develop their recreational potential as a seaside amenity, subject to appropriate environmental assessments and in co-operation with the relevant agencies, in order to bring them to a Blue Flag standard.
HER OBJ 42	To undertake conservation works in accordance with best practice on the coastal dune systems subject to ecological impact assessment and Appropriate Assessment, as appropriate.
HER OBJ 43	To implement, in partnership, with all relevant stakeholders the Laytown, Bettystown and Mornington Beach Management Plan.
HER OBJ 44	To maintain and enhance our natural coastal defences to increase resilience to climate change.
HER OBJ 45	To investigate how the County's natural coastal defences, can be enhanced to increase climate resilience of our coastal communities.
HER POL 51	To preserve and protect for the common good, existing public rights of way which give access to seashore, mountain, lakeshore, riverbank or other place of natural beauty or recreational utility.
HER OBJ 46	To seek to identify and protect over the lifetime of the Plan further existing rights of way which give access to seashore, mountain, lakeshore, riverbank or other place of natural beauty or recreational utility (accompanied by mapping showing public rights of way).
HER OBJ 47	To seek to negotiate access to lands using permissive access agreements, where appropriate and feasible, in order to provide public access to lands for public amenity purposes.
HER OBJ 48	To support the aims and objectives of the European Landscape Convention by implementing the relevant objectives and actions of the *National Landscape Strategy 2015-2025* and any revisions thereof.
HER POL 53	To discourage proposals necessitating the removal of extensive amount of trees, hedgerows and historic walls or other distinctive boundary treatments.
HER OBJ 59	To identify and map green infrastructure assets and sites of local biodiversity value over the lifetime of the Plan.
RUR DEV SO 9	To ensure that plans and projects associated with rural development will be subject to an Appropriate Assessment Screening and those plans or projects which could, either individually or in-combination with other plans and projects, have a significant effect on a Natura 2000 site (or sites) undergo a full Appropriate Assessment.
RD POL 6	To accommodate demand for permanent residential development as it arises subject to good practice in matters such as design, location and the protection of important landscapes and any environmentally sensitive areas.
RD OBJ 9	To promote the retention of field boundaries and mature trees and hedgerows to protect the rural character of the area.
RD POL 12	To facilitate the development of agriculture while ensuring that natural waters, wildlife habitats and conservation areas are protected from pollution.
RD POL 15	To encourage sustainable forestry development, which is planted, managed and harvested in accordance with the Forest Service Guidelines for Landscape, Forest Harvesting and Environmental, Archaeology, Biodiversity and Water Quality.

RD POL 16	To promote forestry development of appropriate scale and character whilst ensuring that the development does not have a negative visual impact on the countryside or cause pollution or degradation to wildlife habitats, natural waters or areas of ecological importance.
RD POL 19	To consider the preservation of any tree, trees or groups of trees or woodland of special amenity or environmental value by use of Tree Preservation Orders.
RD POL 20	To require the submission of landscape plans where appropriate to accompany planning applications for rural development prepared by competent professionals and to promote the use of native trees for boundary treatment and shelter belts.
RD POL 21	To ensure that projects associated with the extractive industry carry out screening for Appropriate Assessment in accordance with Article 6(3) of the E.C. Habitats Directive, where required.
RD POL 27	To ensure that development for aggregates / mineral extraction, processing and associated processes does not significantly impact in the following areas: i. Existing & Proposed Special Areas of Conservation (SACs); ii. Special Protection Areas (SPAs); iii. Natural Heritage Areas and Proposed Natural Heritage Areas; iv. Other areas of importance for the conservation of flora and fauna; v. Areas of significant archaeological potential; vi. In the vicinity of a recorded monument, and; Sensitive landscapes. World Heritage Sites.
RD POL 44	To ensure that new development meets the highest standards in terms of environmental protection.
RD POL 52	To ensure wastewater treatment plants discharging into the Boyne catchment or to coastal Natura 2000 sites are suitably maintained and upgraded in advance of any additional loadings beyond their capacity in order to protect water quality, as required.
INF OBJ 39	To support Ireland's renewable energy commitments outlined in national policy by facilitating the development and exploitation of renewable energy sources such as solar, wind, geothermal, hydro and bio-energy at suitable locations within the County where such development does not have a negative impact on the surrounding environment (including water quality), landscape, biodiversity or local amenities so as to provide for further residential and enterprise development within the county.
INF OBJ 48	To support Ireland's renewable energy commitments by promoting the use of district heating systems in urban residential and enterprise developments, where such developments will not negatively impact upon the surrounding landscape, environment, biodiversity or local amenities.
INF OBJ 22	To ensure flood relief measures are suitably designed to protect the conservation objectives of Natura 2000 sites, and to avoid direct or indirect impacts upon qualifying interests or Natura 2000 sites.
INF OBJ 23	To protect and enhance the County's floodplains, wetlands and coastal areas subject to flooding as "green infrastructure" which provide space for storage and conveyance of floodwater, and ensure that development does not impact on important wetland sites within river/stream catchments.
INF OBJ 30	To ensure the County's natural coastal defences, such as beaches, sand dunes, salt marshes and estuary lands, are protected and are not compromised by inappropriate works or forms of development.
INF OBJ 32	To Identify, prioritise and implement necessary coastal protection works subject to the availability of resources, whilst ensuring a high level of protection for natural habitats and

	features, and to ensure due regard is paid to visual and other environmental considerations in the design of any such coastal protection works. This will include the identification of coastal areas sensitive to climate change and consequent coastal erosion.
DM OBJ 11	Existing trees and hedgerows of biodiversity and/or amenity value shall be retained, where possible.
DM POL 9	To support the retention of field boundaries for their ecological/habitat significance, as demonstrated by a suitably qualified professional. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, mitigation by provision of the same boundary type will be required.
DM OBJ 32	To encourage the use of measures specifically designed to enhance wildlife in residential schemes such as gaps/holes, should be considered and incorporated into boundary treatments to allow for passage of all wildlife including hedgehogs, bat boxes and swift bricks/boxes.
DM OBJ 42	Infill development shall take account of the character of the area and where possible retain existing features such as building line, height, railings, trees, gateways etc.
DM OBJ 77	In the assessment of individual proposals, the Council will require the following to be submitted as part of any planning application: • Glint & Glare Assessment • Outline Construction Environmental Management Plan (CEMP) • Biodiversity Management Plan • Public Consultation details • Noise Assessment • Socio-Economic Assessment • EIA Screening • Ecology Assessment • Archaeology Assessment • Traffic & Transport Assessment • Landscape and Visual Assessment • Hydrology Appraisal/Flood Risk Assessment • Decommissioning/Restoration Plan
DM OBJ 88	To seek to facilitate the development of alternative energy sources where such proposals are consistent with landscape preservation, the protection of natural habitats, the protection of visual and residential amenities and Development Plan policy and the principles of proper planning and sustainable development.
DM POL 35	To ensure that land use policies take account of the need to maintain appropriate distances between future major accident hazard establishments and residential areas, areas of substantial public use and of particular natural sensitivity or interest.

County Meath Biodiversity Action Plan

At the time of writing, Meath County Council is developing a new Biodiversity Action Plan for the period 2025 - 2030. This plan will align with national biodiversity policy and the county's heritage strategy and is expected to set out key actions under themes such as protecting and enhancing ecological networks, monitoring and research, habitat restoration, and raising public awareness.

Future Plans / Other Projects

In-combination effects take into consideration the potential impacts to the surrounding environment arising from the proposed development in conjunction with additional

developments in the local area that are anticipated to be carried out within a similar timeframe. The National Planning Application Database planning map tool was used to identify any current or future projects which may potentially impact Natura 2000 sites when considered in combination with the proposed development.

When considering developments granted planning within the vicinity of the site, **Table 4.13** summarises planning applications in the site vicinity within the last 5 years and provides a prediction of their potential in-combination effect with the proposed development. The predicted in-combination effect assumes the implementation of all relevant mitigation measures proposed within this report, i.e., it factors in the residual effect of the proposed development against any project identified to have the potential for in-combination effects. A number of planning applications have been previously granted permission at the proposed application site.

Table 4.1: Planning Applications in the Site Vicinity in the last 5 Years with Potential for In-Combination Effects

Application No.	Development Description	Location	Decision / Status	In-Combination Effect
2460415	a Large-Scale Residential Development - The (Phase 1B) development will consist of the construction of a mixed-use development comprising 322 no. dwellings, a Community Centre and Sports Hall, a Neighbourhood Centre, and a district public park as follows: A) 212 no. houses consisting of 177 no. 3-bedroom houses and 35 no. 4-bedroom houses (all houses 2-storeys except House Types F1, F2, F3 [corner], E1, E2, and E3 [corner] – (with variations to finishes); B) 26 no. duplex units comprising 13 no. 2-bedroom units and 13 no. 3-bedroom units (in 2 no. 3-storey blocks [with 8 no. duplex units abutting Apartment Block 2 in a 3-storey configuration]; C) 84 no. apartments across 3 no. apartment buildings (Block 2 [5-storeys] comprises 24 no. apartments consisting of 12 no. 1-bedroom apartments and 12 no. 2-bedroom apartments), Block 3 [5-storeys above neighbourhood centre – 6-storeys in total] comprising 36 no. apartments consisting of 14 no. 1- bedroom apartments and 22 no. 2-bedroom apartments and Block 4 [4-storeys above community centre – 5-storeys in total] comprising 24 no. apartments consisting of 9 no. 1-bedroom apartments and 15 no. 2-bedroom apartments (all apartments with	Within the townlands of 'Ferganstown, and Ballymacon' and 'Athlumney' Navan, Co. Meath	Permission granted (Conditional) 25/03/2025	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	balconies). D) Series of landscaped/Public Open Space areas of c.3.72 hectares including playground areas and a Public Park of c.1.65 ha of open space as well as additional communal open space for the apartments and duplex apartments; E) Provision of a c. 512 sq. m creche at ground floor of Block 2 as well as a 1,778 sq.m. Community Centre and Sports Hall (including a c.837 sqm sports hall [double height] ancillary changing rooms, 4 no. community rooms and ancillary administration/office space rooms/ESB Substation); F) Provision of a convenience anchor retail unit (net floor space 1,000 sq. m [GFA 1,390 sq. m.]), takeaway, c. 82 sq. m, café, c. 210 sq. m, pharmacy c. 88 sq. m and General Practice Surgery c. 232 sq. m) as well as ESB substation and bins, all accommodated within the ground floor level of the neighbourhood centre to the north-west of the site; G) 693 no. car parking spaces, 289 no. bicycle parking spaces throughout the development; H) Provision of a temporary foul water pumping station (and associated storage) located within the district public park to service the scheme; I) Provision of surface water attenuation measures as well as all ancillary site development works (reprofiling of site and field drain diversions as required)			
2560539	Permission for a Large-Scale Residential Development - The proposed development will consist of 223no. residential dwellings (26no. 1 - bed, 50no. 2-bed, 138no. 3-bed and 9no. 4-bed) and a crèche. The mix of residential units consists of 155no. houses (18no. 2-bed, 128no. 3-bed, 9no. 4-bed) and 68no. apartments (26no. 1-bed, 32no. 2-bed, 10no. 3-bed). Apartments are three to four storey simplex/duplex own door apartments arranged in 5no. blocks. All housing is two storey in height. The crèche is a two storey standalone building (c.443sq.m) with allocated car parking and set down area. The proposed development includes all associated site development works	Athlumney Alexander Reid Ferganstown and Ballymacon, Navan, Co. Meath	Permission granted (Conditional) 15/10/2025	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	including reprofiling of the site, works to an existing drainage ditch, the construction of a temporary foul water pumping station and rising main, public lighting, three ESB substations, bin and bicycle storage structures, car parking and landscaping of open space. The proposed development also provides for connections both vehicular and pedestrian to the residential development by Meath County Council known as Gort Na Glaise including the culverting part of an existing drainage ditch, removal of part of an existing hedge and existing boundary walls constructed within the Gort Na Glaise development. Provision is also made for future pedestrian/cycle connectivity to the west in keeping with Masterplan MP12. The development includes pedestrian/cycle connections onto the LRD6 and will provide a pedestrian crossing point on Old Road to the south of the application site. The development will be accessed by extending a spur off an existing roundabout junction on the new LRD 6 distributor road to the north of the application site. A portion of this spur road was previously permitted under P.A. Ref. 21-1046/ABP-312746-22. The proposed development also provides for an additional vehicular/pedestrian access to connect to the main access road proposed as part of a development to the north / north-west of the application site under P.A. Ref. 24/60415 (currently on appeal to An Bord Pleanála ABP-322341-25). A footpath and cycle path will be constructed along the western side of the application site as part of this planning application to provide access to the new development. A natura impact statement (NIS) has been prepared in respect to the proposed development and will be submitted to the planning authority with the planning application. Significant further information/revised plans submitted on this application			
312746	Demolition of agricultural structures and construction of 98 houses. NIS submitted with application.	Within the townlands of Ferganstown,	Permission granted with revised	**Quality:** Negative **Significance:**

		Ballymacon & Athlumney, Navan, Co. Meath	conditions 29/09/2023	Not significant **Likelihood:** Unlikely **Duration:** Short-term
211046	the development (Phase 1A) will consist of the demolition of existing agricultural structures (c. 530sqm) and the construction of 98 no. residential units comprising 41 no. houses (40 no. 3 bedroom and 1 no. 4 bedroom house - House Types A1,A2,B1,B2,C1,C2,D - 2 storeys; House Types F1, F2, F3, 3 storeys), facades of houses to have brick/render options in finish; 23 no. apartments (12 no. 1 bedroom apartments & 11 no. 2 bedroom apartments) in a 4 storey apartment building, along with adjoining 3 storey duplex element (block 1) comprising 10 no. duplex apartments (5 no. 2 bed apartments and 5 no. 3 bed duplex apartments) and 3 storey duplex building (block 2) fronting onto the recently constructed 'LDR6' Road comprising 24 no. duplex apartments (12 no. 2 bed apartments and 12 no. 3 bed duplex apartments), 151 no. car parking spaces & 46 no. bicycle spaces, open space and all associated infrastructure, foul and water supply (including a temporary pumping station) site development, attenuation and landscape works as well as roads to facilitate the development with vehicular and pedestrian access to be provided from the recently constructed LDR6 Road which connects to the R153 (Kentstown Road) to the south. A Natura Impact Statement will be submitted to the Planning Authority with the application. Significant further information/revised plans submitted on this application	Within the townlands of Ferganstown Ballymacon & Athlumney , Navan , Co Meath	Permission granted (Conditional) 20/01/2022	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
2460066	the development will consist of a new wastewater pumping station that discharges to the inlet pipework of the Navan WWTP via two new rising main sewerage pipes. The pumping station development also includes an underground 924m3 emergency storage tank with a further 427m3 provided within the pumping station	Townlands of Ferganstown & Ballymacon and Athlumney, Navan, Co Meath	Permission granted (Conditional) 18/10/2024	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	inlet chamber, wet wells and upstream sewerage network. The pumping station compound includes underground valve, inlet, wet well and flow meter chambers; and above ground structures including a control panel kiosk, operator welfare unit kiosk, wet kiosk, ESB substation, surge vessels with stair access, overhead gantry crane; and other tanks, plant and equipment. The compound also contains set down space for an emergency electrical generator, site lighting and hard surfaced internal circulation space and will be enclosed by 2.4m high security fencing with vehicle access gates. The compound will be accessed by a fenced and gated temporary road from the LDR6 distributor road. Other water and sewerage infrastructure will include the provision of a gravity sewer and a watermain from the roundabout on the LDR6 distributor road to the proposed pumping station. The proposed development also includes for a trenchless crossing under the Navan to Drogheda rail line, all landscaping and reinstatement works and ancillary site development works. A Natura Impact Statement is included with the planning application. Significant further information/revised plans submitted on this application			
221703	The development will consist of Phase 1 of the Boyne Village Enterprise Park, and comprise construction of: 3 no. commercial high-bay warehouse units (each c. 15.81m in height) with ancillary office accommodation as follows: Unit A2 (approx. 2,570 sq. m. gross floor area including 254 sq. m. of reception/office/ancillary areas at ground and first floor levels), Unit A3 (approx. 2,058 sq. m. gross floor area including 200 sq. m. of reception/office/ancillary areas at ground and first floor levels) & Unit A4 (approx. 2,570 sq. m. gross floor area including 254 sq. m. of reception/office/ancillary areas at ground and first floor levels); New road and pedestrian access extending north from the existing LDR 6 distributor road, and a total of 73 No.	Ferganstown & Ballymacon and Athlumney , Navan, Co Meath	Permission granted (Conditional) 31/10/2023	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	car-parking spaces and 84 No. bicycle-parking spaces serving the three proposed units; Totem sign at the south-east corner of the site approx. 12.Sm tall providing c. 47.76 sq. m. of internally Illuminated signage; Relocation of existing overhead ESB power lines at the LDR 6 to new underground ducts and provision of new ESB sub-station and switch room accessed from new estate road; Road infrastructure works to the north-east side of the LDR 6 to include new cycle lane, footpath, bus stop lay-by etc.; Planting & landscaping, new boundary treatments; Waste storage units serving each unit. drainage & infrastructure (including temporary foul pumping station) and all other associated works to facilitate the proposed development. A Natura Impact Statement will be submitted to the planning authority with the application. Significant further information/revised plans submitted on this application.			
2460799	Amendments to previously granted permission by An Bord Pleanala ABP-312746-22 (Meath County Council reference 211046) for development within the townlands of Ferganstown, Ballymacon & Athlumney, Navan, Co. Meath. The alterations will consist of the following: • Adjustments to the ground floor levels and corresponding building heights as follows to generally reduce the massing of the building heights relative to the main road levels outside the side: o Apartment building levels reduced by -700mm o Duplex Block 1 levels reduced by -400mm o Duplex Block 2, terrace ridges aligned and levels reduced by between -300mm to -1100mm o Duplex Block 3, terrace ridges aligned and levels reduced by up to -800mm o Housing Block 4 increased levels by +300mm o Housing Block 5 levels reduced by -50mm o Housing blocks 6 and 7 levels increased by 90mm and 160mm respectively. o Housing block 8 levels reduced by 150mm o Housing block 10 levels increased by 150mm o Housing blocks 12-15 ridges aligned and levels reduced by between -	With the townlands of Ferganstown and Ballymacon, and Athlumney, Navan, Co Meath	Permission granted (Conditional) 18/11/2024	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	150mm to -1000mm o Housing blocks16 terrace ridges aligned and levels reduced by between -50mm to -1250mm • External communal bin store for duplex block 2 and 3 omitted • Individual apartment bin stores for duplex blocks 1, 2 and 3 added • Minor elevational changes to duplex blocks 1, 2 and 3: o First flight of entrance stair to corner apartment in block 1 changed from an internal stair to an external stair o Juliet balconies omitted on front elevations o Step in façade and break in eaves removed on rear elevations o General updates to window fenestration • 16 Additional car parking spaces to accommodate the provision of EV Charging Points			
2460550	The development will consist of single storey extensions to rear & side of detached two storey house, & all ancillary site works	No. 1, The Court, Glenveigh,Boyne Road, Ferganstown & Ballymacon Td.,, Navan, Co. Meath, C15CP4A	Permission granted (Conditional) 09/09/2024	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
221008	The proposed development will comprise; the demolition of an existing single storey dwelling (110 sqm) and associated outbuildings; the construction of 93 no. residential units (two storey houses and three storey apartment/duplex), comprising: 9 no. one-bed apartments, 16 no. two-bed apartments, 4 no. two bed duplex units, 4 no. 3-bed duplex units, 10 no. two-bed houses, 42 no. three-bed houses and 8 no. four-bed houses; formation of 5,624 sqm of landscaped open space areas; 170 no. dedicated car parking spaces, 9 no. of which provide for the operational requirements of the associated 164 sqm creche facility; new primary vehicular and pedestrian access to the proposed development will be provided from a new access located on the Boyne Road and associated residential estate roads, with a secondary access via the L34003 local road with associated road widening and improvement works. The proposal includes all associated hard and soft landscaping, boundary treatments,	Boyne Road, Athlumney (Td), Navan, Co. Meath	Permission granted (Conditional) 18/01/2023	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	footpaths and ancillary works above and below ground as includes flood compensatory works adjacent Mill Stream. The planning application is accompanied by a Natura Impact Statement (NIS). Significant further information/revised plans submitted on this application.			
2461138	for amendments to previously granted permission by An Bord Pleanala ABP-312746-22 (Meath County Council reference 211046) for development within the townlands of Ferganstown, Ballymacon & Athlumney, Navan, Co. Meath. Significant further information/revised plans submitted on this application The alterations will consist of the following: o Internal bicycle and bin store at ground floor of apartment block relocated externally within separate enclosures. o Existing space at ground floor for bicycle and bin store replaced with 1no. 1 bed apartment and plant room. o Alterations to façade to accommodate amendment from bin and bicycle store to apartment and plant room. o Alterations to select windows on south elevation for compliance with TGD Part B. o General updates to window fenestration.	With the townlands of Ferganstown and Ballymacon, and Athlumney, Navan, Co Meath	Permission granted (Conditional) 20/06/2025	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term
2660120	The proposed development will consist of: i. The construction of 83 no. residential dwellings comprising 22 no. 3-bedroom, 2-storey semi-detached houses, 21 no. 3-bedroom, 2-storey terraced houses, 20 no. 3-bedroom, 3-storey terraced houses, 6 no. 2-bedroom, 2-storey semi-detached houses and 14 no. 2-bedroom, 2-storey terraced houses; ii. Vehicular and pedestrian access via an extension of the existing internal road network from the permitted Boyne Village Phase 1B development to the east (approved under MCC Ref. 24/60415 and ACP Ref. 322341-25) including pedestrian crossings, footpaths and shared pedestrian/cycle routes along with minor amendments to provide connections, tie ins and for permeability to integrate with the interface of the permitted Phase 1B development; iii. Provision of c.0.2	Within the townlands to 'Ferganstown and Ballymacon' and 'Athlumney', located generally to the north of the Old Road, north of Tubberclaire Meadows and southwest of the newly constructed 'LDR6' Road, Navan, Co. Meath	Permission granted (Conditional) 04/08/2026	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

	hectares of Public Open Space including a Pocket Park and outdoor play provision, hard and soft landscaping (including public lighting & boundary treatment) along with the provision of c.4 hectares of Public Open Space to the north and west of the proposed residential development to provide for an All-Purpose Sports Pitch, a kickabout area, informal play area, meadow walk and native woodland areas; iv. Provision of 166 no. surface resident car parking spaces, internal road and shared surface networks; v. Surface water attenuation measures, connection to water supply, provision of foul drainage, landscaping and boundary treatment, infrastructural works and all associated site development works necessary to facilitate the development. A Natura Impact Statement has been prepared in respect of the proposed development and is submitted with this application.			
2661048	The development will consist of the construction of an estate road and access roads extending northwards from the section of road permitted under Meath County Council Reg. Ref. 22/1703 and ACP Ref. 318533-23 (currently under construction), connecting to Roundabout 3 of Local Distributor Road 6 (LDR6), to facilitate access to the Boyne Village Enterprise Lands. The development includes drainage and utility services infrastructure, landscaping, pedestrian and cycle facilities, road signs and markings, public lighting, modifications and enlargement (reduce base level by c. 200mm) and widening of the attenuation pond located within the south-eastern corner of the site, and all associated and ancillary site development works. A Natura Impact Statement will be submitted to the planning authority with the application.	Boyne Village Business Park, Athlumney, within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath.	Further Information requested on 13/10/2026	**Quality:** Negative **Significance:** Not significant **Likelihood:** Unlikely **Duration:** Short-term

The lands to the southwest of the site have been zoned for New/proposed residential developments under the Meath County Development Plan. While there are no current or proposed projects for the land adjacent to the site, the zoning designation is considered evidence for reasonably foreseeable residential proposals adjacent to the site. This is further

evidenced by the ongoing developments in the wider area contributing to the urban sprawl of Navan town, such as Large-scale Residential Development (Planning Ref: 2460415), Boyne Village Enterprise Park (Planning Ref: 221703) and the proposed development of an industrial laundry processing and distribution facility. The proposed storm water drainage for the proposed development has been designed to satisfy the requirements of The Greater Dublin Strategic Drainage Study (GDSDS) and Section 16.3 of The Greater Dublin Regional Code of Practice of Drainage Works.

Any plan or existing/proposed project that could potentially affect the screened in Natura 2000 sites in combination with the proposed development, must adhere to the overarching environmental protective policies and objectives of the relevant land use plan. These policies and objectives will ensure the protection of Natura 2000 sites and will include the requirement for any future project to undergo Screening for Appropriate Assessment and/or Appropriate Assessment.

5 Mitigation Measures

Section 4.2 of this report outlines the potential effects arising as a result of development works proceeding at the proposed site.

In order to reduce the likelihood and significance of potential effects upon the European sites identified, a series of mitigation measures is proposed to be implemented during development.

5.1 General Mitigation Measures

- The work areas must be kept to the minimum area required to carry out the proposed works, and the area should be clearly demarcated and cordoned off in advance of work commencement.
- Prior to the commencement of developments on site, the site engineer and the contractors should be made aware of the ecological sensitivity of the site and its surrounding habitats. They should also be notified of the proximity and connectivity of the site to Natura 2000 sites via the Ferganstown and Ballymacon stream. They must be made familiar with the mitigation measures outlined in this NIS, and if possible, a statement signed by them acknowledging these mitigation measures should be presented to the Local Authority along with the Notice of Commencement.
- It is vital that there is no deterioration in water quality in the screened in Natura 2000 sites. This will protect both habitats and species that are sensitive to pollution within the designated sites. Strict controls of erosion, sediment generation and other pollutants associated with the construction process should be implemented, including the provision of attenuation measures, silt traps or geotextile curtains to reduce and intercept sediment release into the local watercourse. Guidelines in the following best practice documents should be adhered to:

    - Construction Industry Research and Information Association (CIRIA) (2005) *Environmental Good Practice on Site (C692)*
    - Construction Industry Research and Information Association (2001) *Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532)*
    - Construction Industry Research and Information Association (2000) *Environmental Handbook for Building and Civil Engineering Projects (C512)*
    - Environmental Protection Agency (2015) *List of Waste and Determining if Waste is Hazardous or Non-Hazardous*
    - Environment Agency *et al*. (2015) Guidance on the Classification and Assessment of Waste, Technical Guidance WM3

5.2 Site Preparation and Construction

5.2.1 Protection of Surface and Groundwater

The main pollutants with the potential to impact water receptors are silt, fuel/oil, concrete and chemicals. The steps outlined below aim to eliminate contamination of the site's surface water runoff. The measures are advised with reference to the Inland Fisheries Board recommendations for the protection of adjacent water courses during the construction phase. They are also intended to contain groundwater contamination.

- Harmful materials such as fuels, oils, greases, paints and hydraulic fluids must be stored in

bunded compounds well away from storm water drains and gullies. Refuelling of machinery should be carried out using drip trays.

- Only appropriately trained site operatives permitted to refuel plant and machinery onsite.
- Regular inspections to be carried out on plant and machinery for leaks and general condition.
- All manholes and gullies will be covered with silt fencing material and sandbags to limit silt and chemical run-off into surface water.
- Runoff from machine service and concrete/grout mixing areas must not enter storm water drains, ditches leading off-site, and the Ferganstown and Ballymacon stream.
- Spill kits shall be available on site.
- No direct discharges to be made to waters where there is potential for cement/ residues/ oils/ chemicals in discharges.
- Stockpile areas for sands and gravel should be kept to a minimum size, well away from storm water drains, ditches leading off-site, and the Ferganstown and Ballymacon stream.
- Open excavations to be backfilled immediately following installation of services, etc.
- Earthworks and the movement of plants on soil surfaces will be avoided during periods of extensive rainfall to limit silt-laden runoff and damage to soil structure.
- Pre-cast concrete should be used wherever possible. When this is not possible, any works using cast-in-place (poured) concrete must be done in the dry and effectively isolated from any flowing water or drains for a sufficient period to ensure no leachate from the concrete.
- Where concrete is being poured on site, the following concrete / aggregate management measures should include:
  - Best practice in bulk-liquid concrete management must be employed on site, addressing pouring and handling, secure shuttering, adequate curing times etc.
  - Where concrete shuttering is used, measures should be put in place to prevent shutter failure and control storage, handling and disposal of shutter oils.
  - Ready mix concrete wagons and mixers should be washed off site to minimise emissions into any local watercourses.
  - Activities which result in the creation of cement dust should be controlled by dampening down the areas.
  - Raw and uncured waste concrete should be disposed of by removal from the site or by burial on the site in a location and manner which will not impact upon the local watercourses.
  - Scheduling cement pours for dry days.
- Silt fencing should be established along the western site boundary between the works area and the Ferganstown and Ballymacon stream. Silt fencing will be positioned to allow an appropriate working area and installed as per the manufacturer's guidelines. Condition of the fencing will be regularly inspected by the Environmental Manager and the fencing should be retained until all ground disturbance and silt-generating activities have ceased. The proposed location of silt fencing is provided in **Appendix A**.
- Mitigation measures for the control of pollutant release, as outlined in this report, shall be implemented in full to ensure no negative impacts on aquatic habitats within the local drainage channel, underlying aquifer, Ferganstown and Ballymacon stream, River Boyne, and downstream of same.
- Where wash-down of vehicles is required on site, it should be carried out >20m from the local watercourse.
- A riparian buffer zone of 10m shall be implemented, where no works are permitted within 10m of any watercourse. A 10m wide riparian buffer strip shall be implemented along the Ferganstown and Ballymacon stream at all times, measured from the top of the bank either side of the stream.
- All material and earth removed should be stockpiled within a bunded area or within a

geotextile barrier until required for use.
- Covers are to be provided over soil stockpiles when high wind and inclement weather are encountered, if required.
- No instream works are to take place without prior consultation with the Local Authority (Meath County Council), Inland Fisheries Ireland (IFI), National Parks and Wildlife Service (NPWS), Office of Public Works (OPW), and Uisce Éireann (UÉ).

5.2.2 Disturbance and Displacement Effects

The primary sources of disturbance during the construction will result from emissions of noise, dust and vibrations from the subject site. Thus, mitigation measures to prevent excessive emissions are proposed in line with best practice and are listed as follows:

Noise and Vibration

The Contractor will aim to restrict noise levels to the following levels:

- Daytime (7:00 to 19:00 hrs) – 65dB
- Evening (19:00 to 23:00 hrs) – 50dB
- Night-time (23:00 to 07:00 hrs) – 45dB (measured from nearest noise sensitive location).

To minimise noise from construction operations, no heavy construction equipment/ machinery (to include pneumatic drills, construction vehicles, generators, etc.) shall be operated on or adjacent to the construction site before 07:00 or after 19:00, Monday to Friday, and before 08:00 or after 14:00 on Saturdays. No activities shall take place in site on Sundays or Bank Holidays. No activity, which would reasonably be expected to cause annoyance to residents in the vicinity, shall take place on site between the hours of 19:00 and 07:00am.

The proposed development will be obliged to comply with BS 5228 "*Noise Control on Construction and open sites Part 1*". The contractor shall implement the following measures to eliminate or reduce noise levels where possible:

- Material and plant loading and unloading shall only take place during normal working hours.
- Ensure that each item of plant and equipment complies with the noise limits quoted in the relevant European Commission Directive 2000/14/EC.
- Fit all plant and equipment with appropriate mufflers or silencers of the type recommended by the manufacturer.
- Use all plant and equipment only for the tasks for which it has been designed.
- Locate movable plant away from noise sensitive receptors.
- Avoid use of diesel- or petrol-powered generators and use mains electricity or battery-powered equipment where practicable.
- Ensure written confirmation is received from Meath County Council Planning Department when applying for extensions to normal working hours. No out of hours work to be undertaken unless written permission to do so has been granted.
- In the event that excessive noise levels are deemed necessary, Meath County Council and local residents must be suitably notified in advance of said works.

Dust and Air Quality

- Soil will not be exposed until a replacement capping layer is almost ready to be placed. This is to ensure that soil is left exposed for the minimum amount of time possible.

- Throughout working hours, dust control procedures will be assessed as appropriate, subject to the prevailing meteorological conditions.
- Material stockpiles will be strategically placed to reduce wind exposure. Materials will be ordered on an ‘’as needed’’ basis to reduce excessive storage.
- The contractor will spray water on the surface of all roads in the vicinity of the site if required in order to minimise dust generation from the construction activities.
- Appropriate dust suppression will be employed to prevent fugitive emissions affecting those occupying neighbouring properties or pathways.
- Covers or dampening of soil and material stockpiles when high wind and dry weather are encountered, if required.
- All consignments containing material with the potential to cause air pollution being transported by skips, lorries, trucks or tippers shall be covered during transit on and off-site.
- No materials shall be burned on-site.

5.2.3 Habitat Loss and Fragmentation

The proposed development will not result in the direct land-take or degradation of habitats associated with the Natura 2000 sites. Indirect effects on aquatic habitats associated with the Natura 2000 sites could arise as a result of surface water emissions from the site, particularly in the event of heavy rainfall. Mitigation measures for the prevention of these indirect effects are provided in **Section 5.2.1** above.

5.2.4 Habitat Degradation Resulting from the Spread of Invasive Species

- Vehicles will be required to undergo inspection prior to entry to site to ensure they are free from invasive species. Vehicles will be washed down prior to entry to site, as required.
- Any soil imported to site shall be confirmed free of invasive species prior to utilisation on site.
- Resilient and highly propagative invasive species such as Japanese Knotweed (*Reynoutria japonica*) have the potential to easily establish on site or traverse downstream via emission of rhizomes to the Ferganstown and Ballymacon stream or underlying aquifer. It is important that equipment if free of rhizomes before entering the site.
- Should invasive species be encountered on site, the area should be clearly demarcated, and an Invasive Species Management Plan shall be prepared outlining methods to limit further spread on site and prevent translocation of invasive species beyond the site.

5.3 Operation

5.3.1 Protection of Surface and Groundwater

It is not considered likely that significant effects on surface/groundwater quality will occur during operation. The proposed storm water drainage has been designed to satisfy the requirements of The Greater Dublin Strategic Drainage Study (GDSDS) and Section 16.3 of The Greater Dublin Regional Code of Practice of Drainage Works which requires that the following four criteria relating to drainage design are satisfied for all developments:

Criteria 1 – River Water Quality
Criteria 2 – River Regime Protection
Criteria 3 – Level of service (flooding) for the site
Criteria 4 – River Flood Protection

The four criteria are satisfied through the design of the proposed drainage network. The proposed drainage network will therefore not adversely affect the water quality, flow regime, natural hydrology or flood risk within the drainage channel or downstream waterbodies during the operational phase of the development. Details of the surface water drainage network and SuDS components are provided in the Hendrick Ryan Engineering Services Report.

5.3.2 Disturbance and Displacement Effects

Measures to prevent excessive noise and light emissions emanating from the site during operation should be considered and are listed as follows:

- Restrict noisy activities (e.g. maintenance, landscape maintenance) to daytime hours (e.g., 8:00–18:00) to avoid disturbance to nocturnal or crepuscular species.
- Where feasible, all external lighting should be directed downwards and fully cut off to eliminate upward and horizontal light spill.
- Warm-colour temperature (e.g., <3000K) LED lighting, which is less disruptive to nocturnal wildlife is recommended. All fittings have LED CCT 2700K and no tilt (0% uplight).
- External luminaire integrated shields to the pole mounted fittings around the site perimeter.
- Pole mounted fittings in the main yard are 8m tall and around the building perimeter are 6m tall.
- No UV lights are proposed in the lighting design plan, with LED lights to be installed in all luminaries across the site.
- Lighting along foraging and commuting features such as hedgerows and watercourses shall be kept to a minimum and directed away from these features where possible. Light spill is to be minimised through the use of shields, louvres and masking of luminaries.
- Where feasible and safe to do so, install motion-activated lights and timers in communal or external areas to ensure lights are only on when necessary.
- Maintain unlit or low-light corridors on site to support wildlife movement and reduce skyglow.
- The separation distance between luminaries shall be maximised to prevent excessive light spill from the site while still achieving sufficient lux coverage of the works area. The submitted lighting design layout and report accompanying this application display the positions of luminaries throughout the site.
- Plant hedgerows or trees between light sources and near site boundaries to further screen light emissions.

5.3.3 Habitat Loss and Fragmentation

No habitat loss or fragmentation of the Natura 2000 sites is expected as a result of the operational phase of the development. No specific mitigation measures for this aspect are proposed.

5.3.4 Habitat Degradation Resulting from the Spread of Invasive Species

No specific measures for the control of invasive species during the operational phase are proposed, provided the construction phase does not result in the translocation of invasive species to the site. Biosecurity protocols will continue throughout the operational phase. Any future soil importation or site works must confirm materials and machinery are free of invasive plant propagules.

6 Conclusion

This NIS has been undertaken to evaluate the potential impacts of the proposed development with regard to the effects upon the conservation objectives and qualifying interests (including the habitats and species) of the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. It is considered that, following mitigation, the proposed project does not have the potential to significantly affect the conservation objectives of the aforementioned Natura 2000 sites, and will not adversely affect the integrity of the sites.

The qualifying interests of the sites and their potential to be affected by the potential development were listed in **Section 4**. It is considered that these potential impacts can be successfully mitigated. With the implementation of the mitigation measures, there will be no deterioration in water quality or impacts upon any designated habitat or any species dependent on the designated habitats. The attributes and targets which have been set out in order to maintain or restore the favourable conservation condition of these interests in the Natura 2000 sites will not be adversely affected.

Table 6.1 overleaf follows the integrity of the SAC / SPA checklist, which shows that the integrity of the site would not be affected by the proposed development when considering the application of the mitigation measures outlined in **Section 5,** as well as the adherence to good housekeeping and best practice construction and environmental management procedures.

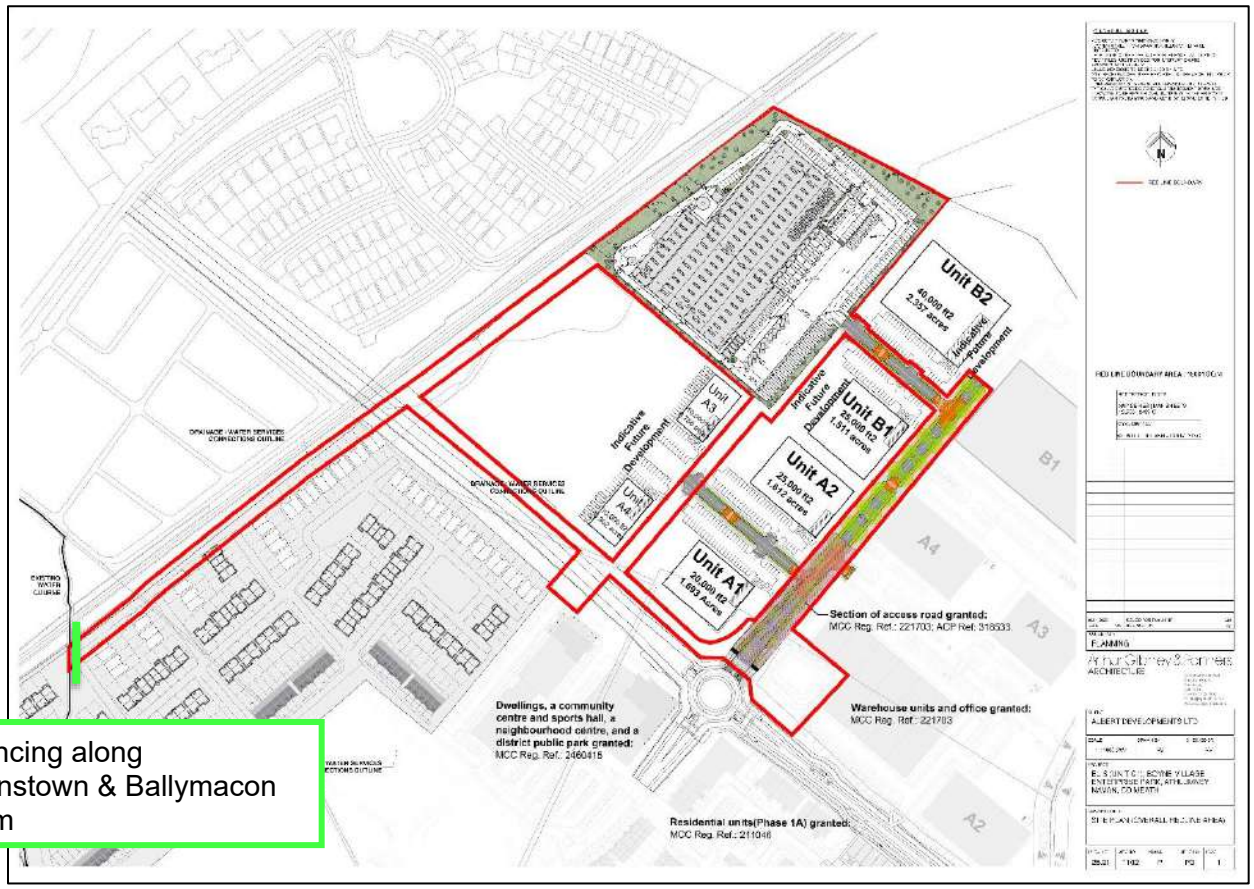
Table 6.1: Integrity of the SAC / SPA Checklist (From NPWS, Information Checklist for AA, Box 6, EC (2002)	
Conservation Objective: Does the project have the potential to:	**Yes / No**
Cause delays in progress towards achieving the conservation objectives of the site?	No
Interrupt progress towards achieving the conservation objectives of the site?	No
Disrupt those factors that help to maintain the favourable conditions of the site?	No
Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site?	No
Other Objectives: does the project have the potential to:	
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem?	No
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?	No
Interfere with predicted or expected natural changes to the site (such as water dynamics or chemical composition)?	No
Reduce the area of key habitats?	No
Reduce the population of key species?	No
Change the balance between key species?	No
Reduce diversity of the site?	No
Result in disturbance that could affect population size or density or the balance between key species?	No
Result in fragmentation?	No
Result in loss or reduction of key features (e.g. tree cover, tidal exposure, annual flooding, etc.)	No

Olivia Hamilton, BSc (Hons), MSc
Ecological Consultant

Jack Schaerer, BSc (Hons), MSc
Ecological Consultant

Killian Smith, BAgrSc
Environmental Consultant

Appendix A – Silt Fencing Location



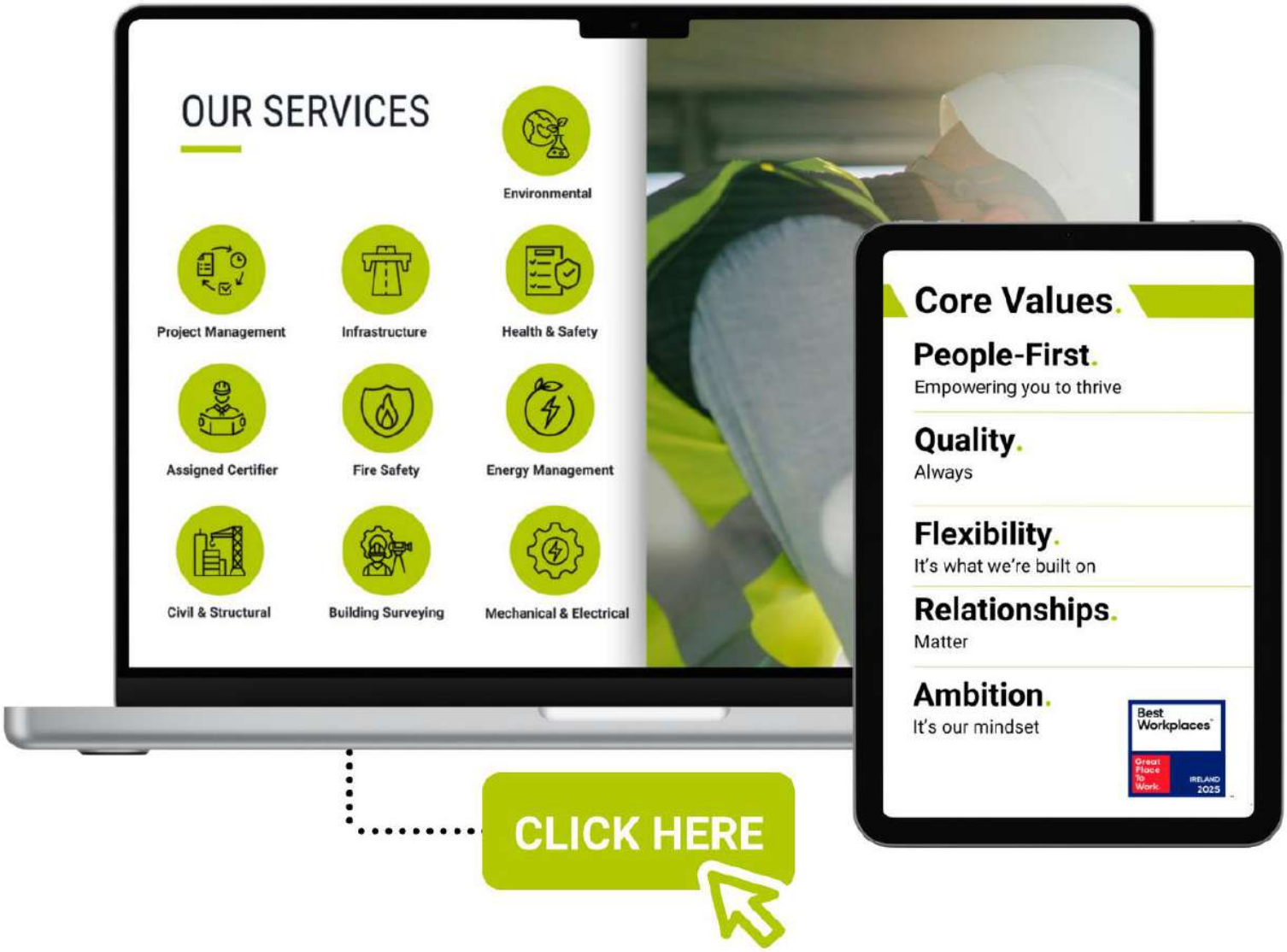
Silt fencing along Ferganstown & Ballymacon Stream

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Appendix 12: ORS Ecology Memorandum

Appendix 13: CSR Landscape Appeal Response

CSR
Land Planning & Design

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Ref: 22342_B/NC

Meath County Council,

Buvinda House, Dublin Road

Navan, Co. Meath

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09 Oktober 2026

RE: Industrial Development at Boyne Village Business Park, Athlumney, Co. Meath

Planning Reference : 2660226. Third Party Appeal (Case number: PL-502119-MH-26)

Response by Landscape Architect

On behalf of our client, Albert Developments Ltd., we hereby submit this response in respect of a Third Party Appeal by Stephen Flanagan for the above planning application.

Item 7.1 of the Third Party Appeal states:

7 Residential visual and lighting effects

*7.1 The Landscape and Visual Impact Assessment treats VP7 as a high-sensitivity residential receptor and reaches a conclusion of slight effects, adverse to neutral, relying substantially on existing vegetation. Revised verified views show the reduced building. [D23, *printed pages Nos. 49–50; PDF pp.49–50; D24, PDF pp.8–10] At site inspection, I ask the inspector to consider whether the viewpoint represents 12 The Court, its garden/curtilage and upper floor outlook, including seasonal screening and vegetation available at opening rather than only later growth. [D01, PDF p.1]*

CSR Response

VP7 is classified in the LVIA as a high-sensitivity viewpoint, as it is representative of views experienced by residents in the surrounding neighbourhood. The visual impact was assessed as being of low magnitude, with slight significance and a neutral effect in the long term.

VP7 is not from within the private curtilage of a house on this street; however it does represent views experienced by residents on the street or in their front gardens. For assessment purposes the view is orientated towards the site or development, however the residences along the street are not orientated in

this direction. VP7 is actually orientated along the street and therefore at right angles to residents looking out their windows from internal rooms. It offers a more open view of the site than would be experienced from within houses on the street.

For No 12 the Court which is mid-way along the street, there are no principal windows oriented towards the proposed development. Therefore, VP7 actually offers a worst case scenario than from this house.

An existing mature hedgerow to the north of the railway, as shown in Figure 7, screens most views towards the south/east. A further existing hedgerow, located south of the railway within the site and northwest of the proposed building, provides additional screening. Furthermore, additional planting is proposed to the northwest of the proposed building, as shown in Figure 3.

Therefore, we maintain the original assessment of low magnitude, slight significance and a neutral effect in the long term. The would be no additional effect on No 12 The Court. In fact the effect would be less.



VP7 - View from the Ct. Lane, within Glenveigh Estate (west of the Site)



VP7 - Proposed View (source: 3D Design Bureau)

Figure 1 – *Viewpoint 7: Existing and Proposed Views* (source: 3D Design Bureau). LVIA Report

Description	This view is from The Avenue within the Glenveigh residential neighbourhood. The neighbourhood is located to the south of Boyne Road and to the north of the railway line. Views to and from the neighbourhood are largely screened by dense, mature vegetation along the railway line. The fence and associated hedgerow define the foreground of this view.	
Sensitivity	High	
Visual Impacts and Effects		
Operational Phase	The existing hedgerow in the foreground remains the prominent element in this landscape, with the proposed development being barely visible through the vegetation. The proposed native hedgerow along the northern boundary of the site will further enhance this screening.	
	Magnitude of Change	Low
	Significance of Effects	Slight
	Quality	Adverse to Neutral
	Duration	Long term
Cumulative Effects	There would be no cumulative effect.	

Figure 2 – *Viewpoint 7: Assessment*. LVIA Report



Figure 3 – *Dunboyne Road, Maynooth Phase 1* Planning Application - Landscape Masterplan (March 2020)

We trust the above is satisfactory in relation to the Appeal.

Yours sincerely,

Nuno Costa, MILI
Senior Landscape Architect

Appendix 14: JSA Updated Environmental Impact Screening Report

JSA PLANNING

EIA SCREENING REPORT

In respect of lands at
Boyne Village Business Park, Athlumney, Navan, Co. Meath

Prepared on behalf of
Albert Developments Ltd.

October 2026

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DOCUMENT CONTROL SHEET

Client:	Albert Developments Ltd.
Project Title:	Boyne Village Business Park, Athlumney, Navan
JSA Reference:	25278
Document Title:	EIA Screening Report

Rev.	Status	Author(s)	Reviewed By	Approved By	Issue Date
DV1	**Draft**	MC	IL	IL	30-01-2026
F01	**FINAL**	MC/IL	RK	IL	14-10-2026

1.0 INTRODUCTION

This EIA Screening Report has been prepared by JSA Planning on behalf of Albert Developments Ltd., in respect of a proposed industrial warehouse development located on lands at Boyne Village Business Park, Athlumney, Navan, Co. Meath.

The report has been updated for the information of An Coimisiún Pleanála as part of a response to a third-party appeal against the Meath County Council notification of a decision to grant permission for Reg. Ref.: 26/60226 and specifically section 2.2 which seeks clarification and confirmation that the conclusions of the EIA Screening Report are based on the plans and particulars submitted to Meath County Council at further information stage, and section 2.6, which relates to EIA thresholds. Additional text has been included within this updated EIA Screening to address the points raised by the appellant.

The information to be provided by the applicant or developer for the purposes of an EIA screening determination for sub-threshold development for environmental impact assessment is set out in Schedule 7A of the Planning and Development Regulations, 2001, as amended by the 2018 Regulations (which mirrors Annex IIA of the EIA Directive). Paragraph 4 of Schedule 7A requires that: '*The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.'*

This report is supported and informed by the plans and particulars (and all reports) lodged with the application and at FI stage including *inter alia* Natura Impact Statement and Ecological Impact Assessment, prepared by ORS and the following:

- Infrastructure Design Report (HRA);
- Construction Environmental Management Plan (ORS);
- Resource & Waste Management Plan (ORS);
- Operational Waste Management Plan (ORS);
- Flood Risk Assessment prepared (JBA);
- Transport Statement (Trafficwise);
- Landscape Design Report (CSR);
- Natura Impact Statement (ORS);
- Ecological Impact Statement (ORS);
- Energy & Climate Change Report (ORS);
- Public Lighting Report (ORS);
- Tree Survey (CSR);
- Archaeological Impact Assessment (ACSU).

The purpose of this report is to provide information for the relevant competent authority to carry out the screening for Environmental Impact Assessment and will highlight any significant effects, if any, that may arise as a result of the Proposed Development during the Construction and Operational Phases.

The screening report has had regard to the available results of other assessments of the effects on the environment carried out pursuant to other European Legislation.

The various reports address a variety of environmental issues and assess the impact of the proposed development and demonstrate that subject to the various construction and design related mitigation measures recommended that the proposed development will not have a significant impact on the environment. This EIA Screening Report should therefore be read together with these other relevant reports.

1.1 EIA SCREENING STUDY TEAM AND GUARANTEE OF COMPETENCY AND INDEPENDENCE

This Environmental Impact Assessment Screening Statement was completed by JSA Planning (JSA) with the assistance of a project team led by JSA, which included the reports included with the application.

JSA confirm that the experts involved in the preparation of the reports and the EIA Screening Statement are fully qualified and competent in their respective fields. Furthermore, each expert has been made aware of and are vigilant to the possibility of cumulation of effects, for instance the potential for cumulative significant effects to arise from multiple non-significant effects and each of the experts should have been made aware of this prior to them undertaking the assessment and comprises objective input from an experienced team of consultants possessing the requisite knowledge of the latest and most appropriate scientific methodology and assessment procedures and by correct interpretation of data.

2.0 SITE LOCATION AND CONTEXT

The proposed development site extends to approximately 4.5 hectares. The application site is situated north to north-west of the LDR6 (LIHAF-funded) Farganstown Access Road and east of the former railway lands, occupying the north-west corner of the MP12 lands at Athlumney, Navan. The LDR6 connects southwards to the Kentstown Road. The subject lands are currently greenfield and are bordered to the north by predominantly agricultural lands with some dispersed residential properties, to the east by Boyne Village Business Park and undeveloped greenfield lands within the MP12 area and to the south by undeveloped lands located between the site and the LDR6. A number of residential developments have been permitted south of the LDR6, as detailed further below. To the west, the site adjoins the disused Navan railway line, beyond which lies existing residential development; this western boundary is defined by a mature hedgerow. The River Boyne is located approximately 350 metres north of the site.

Navan town centre lies roughly 2.5 kilometres to the west and provides a wide range of retail, commercial, community and civic services, including Navan Shopping Centre, restaurants, cafés, a cinema, banks, libraries and places of worship, as well as Our Lady's Hospital, Navan. Lands to the south and east of the LDR6 have been the subject of several planning applications, including permission for Phase 1 of the enterprise lands, comprising three commercial warehouse units and associated access infrastructure.

Figure 2.1: Aerial view of site location (Google Earth).



Access to the proposed development will be provided via the internal Estate Roads and Access Road B, extending north and then west from the LDR6 roundabout. Part 1 of the Estate Road has already been permitted under Phase 1 of the enterprise lands. A new link road connecting the Kentstown Road–Metges Road junction to the development area via Hodgett Road is currently under construction and will ultimately serve the wider lands. The site adjoins the former Navan railway line, which is currently non-operational for passenger services; however, the reinstatement of the Navan rail line is identified within the NTA's Greater Dublin Area Transport Strategy for future passenger use.

Figure 2.2 LIHAF Road Access from Kentstown Road



The (LDR6) Farganstown Access Road is one of the Government's 30 approved LIHAF projects under Rebuilding Ireland. LIHAF is designed to activate housing supply by putting in place enabling public infrastructure by unlocking lands to facilitate development.

3.0 PROJECT DESCRIPTION

We note that amendments were made to the proposed development in response the Meath County Council FI request dated 22nd April 2026. The response was lodged in June 2026 and Meath County Council subsequently granted permission on 21st August 2026.

For clarity, this EIA Screening Report is based on the description of the development as permitted by MCC, set out as follows:

The development consists of:

- *The construction of a two-storey industrial laundry processing and distribution facility (maximum parapet height of 12.895m above ground level) with a gross floor area of c. 10,514 sq.m, comprising:*
    - *a ground floor laundry processing and warehouse area of c. 9,000 sq.m; and*
    - *a mezzanine level of c. 1,514 sq.m incorporating ancillary office accommodation, storage and staff facilities, together with associated building signage.*

- *Vehicular access via Roundabout 3 on Local Distributor Road 6 and the existing/permitted road network serving Boyne Village Business Park.*

- *Parking and loading facilities including:*
    - *106 car parking spaces (including 5 accessible spaces and 1 set-down space);*
    - *30 bicycle parking spaces;*
    - *19 truck parking spaces;*
    - *c. 20 van parking spaces;*
    - *10 truck loading bays; and*
    - *12 van loading bays.*

- *Ancillary structures and services including:*
    - *an ESB substation;*
    - *a sprinkler pump room & asscoiated sprinkler tank;*
    - *water storage infrastructure;*
    - *surface water attenuation infrastructure; and*
    - *associated utility infrastructure.*

- *Site boundary treatments, landscaping, roads, footpaths, drainage infrastructure (including foul and surface water drainage works and attenuation measures), groundwater well, and all associated site development works.*

The planning authority deemed the changes to constitute 'significant' further information and the public were notified of same by way of notices dated 26th June 2026. We note no submissions registered with MCC in respect of the proposals as submitted at FI stage.

Figure 3.1: Proposed Layout (Source: AGP Architects)

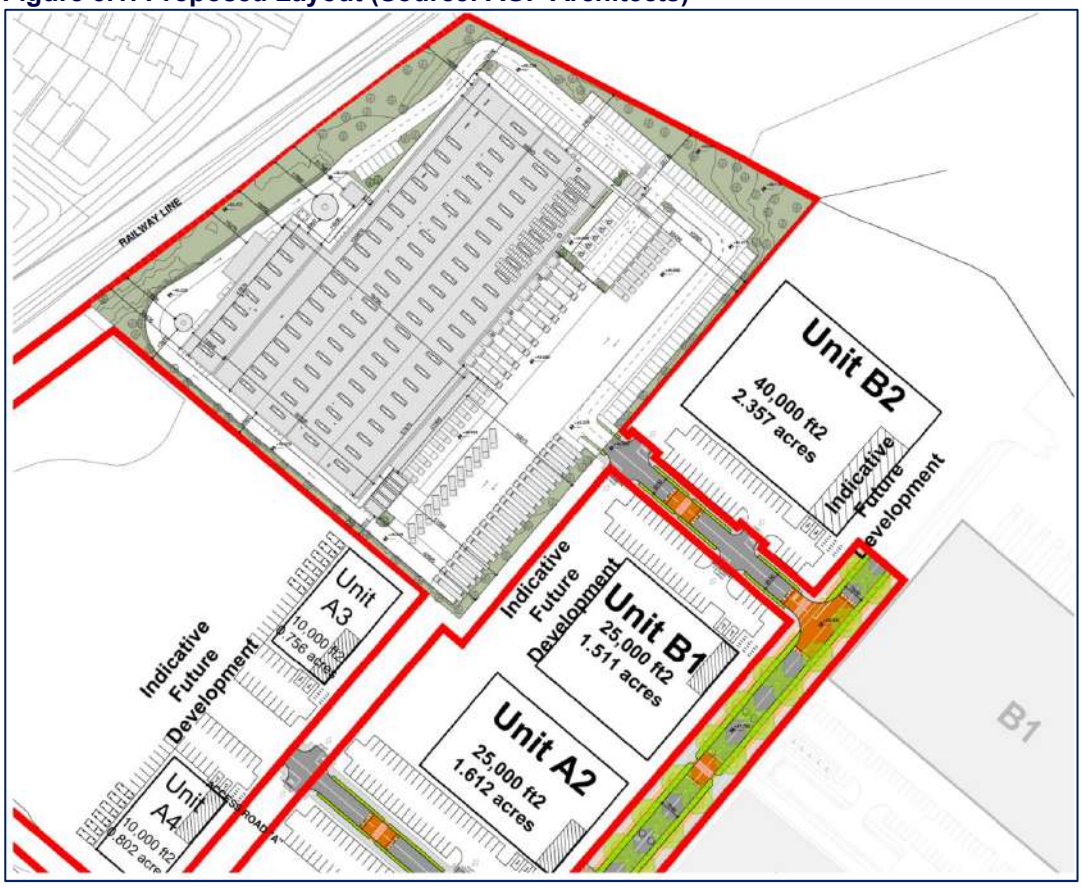
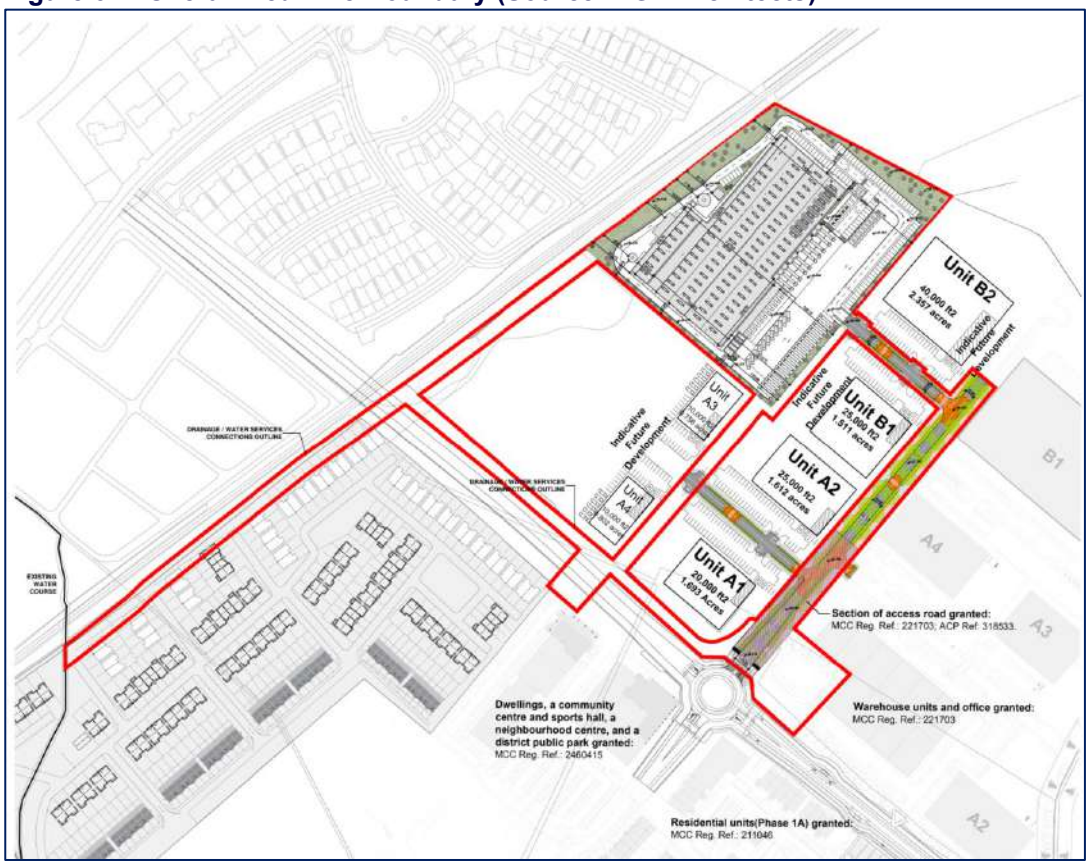


Figure 3.2: Overall Red Line Boundary (Source: AGP Architects)



3.1 DEMOLITION

There is no demolition of habitable or any other structures relating to the proposed development.

3.2 ACCESS

Vehicular access to the site will be via roundabout 3 at the Local Distributor Road 6 and the existing and permitted estate roads at Boyne Village Business Park estate roads. The proposal includes the extension of the permitted estate road north of roundabout 3, branching west to serving the development site.

3.3 SURFACE WATER DRAINAGE

3.3.1 EXISTING SURFACE WATER

As outlined in the Engineering Services Report. the existing site is currently undeveloped. All field drains and water courses within the area currently flow to the Millrace / Farganstown Stream which discharges to the River Boyne. The River Boyne will remain the eventual recipient of excess surface water.

3.3.2 SURFACE WATER DRAINAGE STRATEGY

The surface water drainage system for the proposed laundry development has been designed to collect, manage, and treat all storm-water run-off in a sustainable manner before it leaves the site. The Engineering Services Report confirms that the drainage design follows established standards, noting that it has been prepared *"in accordance with the Greater Dublin Regional Code of Practice for Drainage Works."* The system incorporates an integrated SuDS approach that ensures both water-quality protection and hydraulic control, aligning with the need to safeguard downstream ecological receptors for HRA purposes.

Storm-water collected from the roofs, paved areas, service yards, and roadways will be conveyed into a network of SuDS features that provide natural treatment and attenuation. The Report explains that the development site has been *"divided into two attenuation zones… Zone A at the rear of the building and Zone B at the front,"* each containing underground attenuation storage sized for the critical 1-in-100-year storm event plus 20% climate change allowance. It further confirms that *"the total attenuation storage volume required for the site… is 796m³,"* with the system designed to provide a minimum of 800 m³ to ensure robust capacity. Flow control devices, including hydro-brakes, will regulate outflows from each zone, resulting in a combined site discharge of *"15.2 l/s,"* equivalent to the pre-development greenfield run-off rate.

To ensure effective treatment of run-off, the drainage design incorporates a suite of SuDS measures such as permeable paving, bio-retention tree pits, infiltration-capable areas, and both wet and dry detention basins. Permeable paving is highlighted as providing *"both storage and treatment of the road runoff,"* while bio-retention and detention areas add further pollutant interception and flow attenuation. The Report also notes the installation of oil interceptors, stating that *"all run-off [is] to be treated by interceptor prior to discharge (4No. interceptors located on site)."* These measures ensure that run-off quality is consistently treated to a high standard, preventing the release of sediments, hydrocarbons, or other pollutants into the receiving water environment—an important factor in protecting the downstream Millrace and the River Boyne's designated habitats.

Following treatment and attenuation, surface water will be discharged in a controlled manner using existing hydrological pathways. As described in the Engineering Services Report, *"attenuated surface water… shall discharge to the Millrace along a trapezoidal open ditch running parallel to the railway,"* and *"all surface water on the proposed site which does not infiltrate into the ground is to be directed towards the Millrace."* The existing field drains will be cleared and regraded to

maintain stable conveyance, ensuring that surface water continues to flow towards the Millrace and ultimately to the River Boyne without altering natural drainage patterns or increasing downstream flood risk. By maintaining greenfield-equivalent discharge rates and incorporating multi-stage SuDS treatment, the strategy ensures that the development will not lead to any deterioration in hydrological or ecological conditions downstream, supporting the conclusion that no significant effects on European sites are likely to arise.

3.4 FOUL DRAINAGE

Foul drainage for the proposed industrial laundry development will be managed through a new dedicated foul sewer network designed to integrate with the wider public system provided as part of recent infrastructure upgrades in the Athlumney area. The Engineering Services Report confirms that the lands are now serviced by significant wastewater infrastructure investment, with a new Uisce Éireann wastewater pumping station currently under construction and *"the completion of the 750Φ gravity sewer from Roundabout 3 to the pump station and the construction of new rising mains from the pump station to the existing treatment plant at Farganstown."* These works will ensure that foul flows from the development are accommodated within an upgraded and future-proofed network.

A dedicated foul drainage system will be constructed to convey wastewater from the proposed laundry building and associated facilities to the newly extended 750 mm public gravity sewer. As set out in the Report, *"a new sewer will be constructed between the Elis site and the proposed 750Φ gravity sewer south of the proposed LDR6 extension,"* with capacity included to facilitate some future development in the area. Foul water generated by the laundry facility will undergo on-site pre-treatment prior to discharge, with measures in place to ensure that temperature, chemical composition, and pH levels meet the required standards. The Engineering Services Report notes that, *"wastewater from the laundry facility will be treated on site prior to discharging… to the new 750Φ public sewer in the LDR6,"* ensuring that flows entering the public system are compliant with licensing requirements and protective of downstream infrastructure.

The upgraded public wastewater network has been designed to support phased development throughout the Boyne Village Business Park and wider Athlumney lands, and the Engineering Services Report confirms that *"Uisce Eireann has issued a Confirmation of Feasibility for the proposed development",* subject to upgrades planned by UE.

With on-site pre-treatment, new foul drainage infrastructure, and connection to an enhanced public wastewater network, the proposed development will not result in significant wastewater-related impacts. The system has been designed to ensure compliance with Uisce Éireann standards and to avoid any deterioration in water quality or the functioning of downstream wastewater treatment facilities. The foul drainage arrangements are therefore appropriate and do not give rise to likely significant effects requiring further assessment under the EIA Directive.

3.5 WATER SUPPLY AND DISTRIBUTION

Potable water supply for the proposed industrial laundry development will be provided through connection to the newly installed public watermains serving the Athlumney and Boyne Village Business Park lands. The Engineering Services Report confirms that substantial upgrades to the local water network have recently been completed, ensuring that adequate capacity is available to meet the needs of the development. It notes that *"new 150Φ & 200Φ watermains will be installed in the new Spine Road which runs north-east from Roundabout 3,"* and that the proposed laundry facility *"will be fed from the 200Φ watermain along a new access road."*

The public water supply network in this area was expanded as part of the Local Distributor Road (LDR6) works, with *"public infrastructure including 180Φ & 500Φ watermains installed"* between the Kentstown Road and Roundabout 3. Further reinforcement was completed with the extension

of these mains from Roundabout 3 to the Boyne Road, creating a fully serviced development corridor capable of supporting commercial and industrial uses.

The projected water demand of the laundry facility has been assessed as part of the engineering design, and Uisce Éireann has confirmed that sufficient potable water capacity exists within the system. As stated in the Report, *"Uisce Eireann has issued a Confirmation of Feasibility for the proposed development",* subject to planning UE upgrades. We note that in accordance with Uisce Éireann feasibility letter, the applicant *has "considered adding water conservation practices and infrastructure where possible"*. In this respect, the proposals submitted at FI stage included a potential location for a groundwater well in the northeast corner of the site as set out in submitted AGP Architects drawing no. AR-1104_P3-A-02. We note that as set out in the Hendrick Ryan Associates FI response, this *"option will be subject to further assessment, including hydrogeological investigations, and will be dependent upon demonstrating an adequate and sustainable yield together with water quality suitable for the intended use. The outcome of these investigations will inform the final water supply strategy for the development".* MCC included condition 9 attached to the decision to grant requiring hydrogeological investigations in respect of the groundwater well, with water conservation measures required as part of the development.

These measures and the use of any groundwater well (subject to future investigations) would supplement the water supply to the proposed development and reduce overall reliance on the public network, therefore mitigating further any potential environmental effects arising from the proposed strategy. As part of the appeal submission, a Groundwater Supply Desk Study Feasibility Assessment has been prepared by ORS in respect of a potential groundwater well. The report concludes that *"Subject to confirmatory testing and based on the available data ORS considers that yields of between 40-60m3/day from an onsite well are potentially sustainable without impacting offsite receptors. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test".* Ultimately, the installation of the well will be subject to the agreement of MCC following required comprehensive investigations, therefore mitigating any potential environmental effects on sensitive receptors.

Water distribution within the site will follow standard industrial layout principles, with provision for firefighting, potable supply, and process water. The scheme incorporates water storage tanks and pumping infrastructure associated with fire suppression systems, including *"external water storage tank"* and sprinkler-related apparatus. These internal systems are designed to operate independently of the public supply, ensuring no undue pressure fluctuations or service demands on the wider network.

Overall, the proposed water supply and distribution arrangements are robust, fully compatible with existing service infrastructure, and will not give rise to significant environmental effects. The confirmation of available capacity, combined with the design of an efficient on-site distribution network, ensures that water supply needs can be met without adverse impacts on material assets, human health, or the surrounding environment.

4.0 EIA SCREENING PROCESS/METHODOLOGY

4.1 LEGISLATION & GUIDANCE

This Environmental Impact Assessment (EIA) Screening exercise has been guided by *inter alia* the following documents:

- Planning and Development Act 2000 (as amended);
- Planning and Development Regulations 2001 (as amended);
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018;
- Directive 2011/92/EU;

- Directive 2014/52/EU;
- Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licensing Systems – Key Issues Consultation Paper (2017; DoHPCLG);
- European Commission guidance documents on the implementation of the EIA Directive (Directive 2011/92/EU as amended by 2014/52/EU):
- Environmental Impact Assessment of Projects: Guidance on Screening (European Commission, 2017)
- Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022);
- Environmental Impact Assessment – Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (2018; DoECLG);
- Guidance for Consent Authorities regarding Sub-threshold Development (2003; DoEHLG).
- Environmental Impact Assessment Screening, OPR Practice Note PN02 (Office of the Planning Regulator, 2021);
- Advice Notes for preparing an Environmental Impact Statement (draft) (EPA 2015).

Using the above documentation, it has been possible to carry out an EIA Screening using the best available guidance while operating within the applicable legislation. It is noted that the relevant provisions of Directive 2014/52/EU (EIA Directive) have been transposed into Irish Legislation through the Planning & Development Act 2000, as amended, and the Planning and Development Regulations 2001, as amended.

The requirement of Article 4(4) of the EIA Directive (information to be provided by the developer as set out in Annex IIA of the Directive) is consistent with the information indicated under Schedule 7A of the Planning Regulations 2001. Annex III information is provided in Schedule 7 of the Planning and Development Regulations 2001. The methodology employed in this screening exercise is in accordance with the EIA Guidelines published in August 2018 by the DoHPLG and the contents of Schedule 7 and 7A of the Planning and Development Regulations 2001, as amended most recently by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 ("*the 2018 Regulations*"). The screening report has had regard to the available results of other assessments of the effects on the environment carried out pursuant to other European Legislation.

The 2003 EIA Guidance for Consent Authorities regarding Sub-threshold Development (which are referenced in the current draft EPA Guidelines) state that: "*3.4 In the light of the approach adopted by Ireland (i) in setting mandatory thresholds for each of the Annex II project classes and (ii) in setting these thresholds at substantially lower levels than comparable Annex I thresholds in the Directive, the need for sub-threshold EIA should be fairly limited in Ireland."*

4.2 EIA THRESHOLDS

4.2.1 MANDATORY EIA

Schedule 5 of the Planning and Development Regulations 2001 (as amended) sets out the thresholds for which if a project exceeds, must be subject to an Environmental Impact Assessment.

Part 2 of Schedule 5 lists the following that may be relevant to the proposal:

8. Textile, leather, wood and paper industries
(b) Plants for the pre-treatment (operations such as washing, bleaching, mercerisation or dyeing of fibres or textiles), where the treatment capacity would exceed 10 tonnes per day.

With reference to the above, the proposed development does not comprise the industrial pre-treatment process (fibre preparation, yarn manufacturing, or cloth production) required to ensure that textile material is ready for subsequent dyeing and finishing processes. The proposal relates to a laundry facility and therefore is not required to undertake a mandatory EIA.

'10. Infrastructure projects –
(a) Industrial estate development projects, where the area would exceed 15 hectares
(b)
(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere;
(In this paragraph, 'business district' means a district within a city or town in which the predominant land use is retail or commercial use).'

4.2.2 CONCLUSIONS ON MANDATORY EIA REQUIREMENT

The proposal (at 4.5 hectares) does not exceed 15 hectares and therefore the threshold for industrial development under 10(a) would not apply. Furthermore, the proposed development is not located within a "*business district*" as defined under section 10(b)(iv) and is sub-threshold for the relevant 10-hectare category. Furthermore, as the total area of the project relates to c.4.5 hectares of the overall site, it is significantly less than the 20-hectare threshold for an area outside a built-up area and accordingly a mandatory EIA is not required.

"15. Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development, but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7."

Although the proposed development does not exceed any mandatory EIA thresholds under Schedule 5, Part 2 of the Planning and Development Regulations, the provisions of Paragraph 15 have been considered. The development is of a type listed within Part 2 (Paragrpah 10(b)) and therefore requires sub-threshold screening. Having regard to the criteria in Schedule 7, including the characteristics of the project, the characteristics of the site, and the nature and scale of potential impacts, it is considered that the proposed industrial laundry processing and distribution facility is not likely to give rise to significant effects on the environment. Accordingly, a full Environmental Impact Assessment is not required.

The criteria as set out in Schedule 7 has been incorporated into this EIA Screening Report. This EIA Screening concludes that the Proposed Development will not be likely to have significant effects on the environment as detailed in this screening.

4.2.3 SUB-THRESHOLD DEVELOPMENT

4.2.4 SUB THRESHOLD PROJECTS REQUIRING EIAR

Section 172 of the Planning and Development Act 2000 (as amended) requires that an Environmental Impact Assessment Report (EIAR) must accompany an application for permission for any development of a class set out in Schedule 5 of the Planning and Development Regulations 2001 (as amended) where such development equals or exceeds the applicable limit, quantity or threshold prescribed for that class. As outlined above, while the proposed industrial laundry processing and distribution facility falls within Class 10 of Schedule 5, it does not exceed any mandatory EIA threshold, and therefore an EIAR is not automatically required in this case.

Under the Regulations, sub-threshold development is defined as development listed in Part 2 of Schedule 5 which does not meet or exceed the corresponding threshold for mandatory EIA. The proposed development—comprising a two-storey industrial laundry processing and distribution facility with a gross floor area of c. 10,514 sq.m within Boyne Village Business Park—is therefore considered sub-threshold for the purposes of EIA and is subject to screening.

Schedule 7A of the Planning and Development Regulations 2001 (as amended by the 2018 EIA Regulations) specifies the information required to be submitted by an applicant when screening sub-threshold development for EIA. This includes:

1. A description of the proposed development, including:
    a. the physical characteristics of the entire development; and
    b. the location of the development, with particular regard to the environmental sensitivity of the receiving environment.
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
3. A description of any likely significant effects of the proposed development on the environment arising from:
    a. expected residues and emissions and the production of waste; and
    b. the use of natural resources, particularly soil, land, water and biodiversity.
4. A requirement that the above information be compiled having regard, where relevant, to the criteria set out in Schedule 7 of the Regulations.

Schedule 7 provides the criteria for determining whether development of a type listed in Part 2 of Schedule 5 should be subject to EIA. These criteria are grouped under three overarching themes:

- Characteristics of the proposed development,
- Location of the proposed development, and
- Types and characteristics of potential impacts.

The following sections of this report (Sections 5.3–5.5) present the information required under Schedule 7A in respect of the proposed industrial laundry processing and distribution facility at Boyne Village Business Park. This assessment has been prepared with reference to, and incorporates, the relevant criteria set out in Schedule 7 for the purposes of screening sub-threshold development for EIA.

5.0 EIA SCREENING STATEMENT

5.1 INTRODUCTION

This report provides for a response to the criteria set out in Schedule 7 and a summary of the information relating to Schedule 7A (to be provided by the applicant) of the Planning and Development Regulations, 2001, (as amended). The technical reports prepared by the various disciplines underpins the detail provided in this document under the relevant headings and have informed the summary provided.

5.2 SCHEDULE 7 CRITERIA AND SCHEDULE 7A SCREENING INFORMATION

The following sections provide the information as required by Schedule 7A and Schedule 7 for the purposes of screening sub-threshold development for environmental impact assessment.

5.3 DESCRIPTION OF THE PROPOSED DEVELOPMENT/CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

This section provides information on the description of the proposed development (Schedule 7A) and Characteristics of the Proposed Development (Schedule 7).

Schedule 7A Screening Paragraph 1
"1. A description of the proposed development, including in particular:"
(a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works
(b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.

Schedule 7 Screening Paragraph 1
1. The characteristics of proposed development, in particular—
(a) the size and design of the whole of the proposed development,
(b) cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,
(c) the nature of any associated demolition works,
(d) the use of natural resources, in particular land, soil, water and biodiversity,
(e) the production of waste,
(f) pollution and nuisances,
(g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and
(h) the risks to human health (for example, due to water contamination or air pollution).

5.3.1 SCHEDULE 7A PARAGRAPH 1(A) – DESCRIPTION OF THE PROPOSED DEVELOPMENT & SCHEDULE 7 SCREENING FOR PARAGRAPH 1(A) SIZE AND DESIGN OF PROPOSED DEVELOPMENT

The Schedule 7A Screening for Paragraph 1(a) is as follows:

Schedule 7A Screening
"1. A description of the proposed development, including in particular:"
(a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works

The Schedule 7 Screening for Paragraph 1(a) is as follows:

Schedule 7 Screening
1. The characteristics of proposed development, in particular—
(a) the size and design of the whole of the proposed development,

The proposed development consists of the construction of a two-storey industrial laundry and distribution facility with a total gross floor area of approximately 10,514 sq.m, together with associated service yards, parking areas, drainage infrastructure, internal roads, ancillary structures, and landscaping. The development is located within Boyne Village Business Park, which is zoned and planned for employment-related uses under the Meath County Development Plan 2021–2027. The proposal is consistent with the emerging industrial character of the business park and aligns with the strategic intention to accommodate enterprise and employment-related activities at this location.

The scale and height of the proposed building (maximum c. 15.5m above ground level) have been designed to respond appropriately to the industrial context of the surrounding area. The massing, layout, and architectural form are typical of modern industrial and logistics facilities, and the design makes efficient use of the site while ensuring that visual impacts are limited within the established business park environment.

The development therefore provides an industrial laundry and distribution facility along with its associated ancillary elements, such as staff parking, truck loading bays, internal road connections, utility structures, and landscaped areas. The size and design of the proposed development are not likely to give rise to significant environmental effects, as the building typology and operational characteristics are consistent with the nature of development already present and anticipated within the business park.

There is no aspect of the proposed design or layout that inconsistent with the permitted and emerging pattern of industrial and enterprise development in the M12 area. The proposed development is consistent with the site's E1/E3 zoning in the Meath CDP 2021-2027 (as varied). The proposal does not introduce any features that could be considered out of character or that would intensify impacts beyond what is typical for such a location.

The footprint and scale of the facility are appropriate to a zoned and serviced industrial site, and the development represents the efficient use of lands that are already connected to the local road network, including the Local Distributor Road 6, and internal estate roads within the business park. The proposal is not of a scale that would be considered abnormal or unexpected at this location, and no significant negative construction- or operation-related impacts are anticipated.

It is not envisaged that the development will require significant excavation, infilling, or recontouring, given the relatively level site and the nature of the proposed building and yard layout. As such, the size and design of the proposed development are not likely to cause significant effects on the environment, in accordance with the criteria under Schedule 7.

5.3.2 SCHEDULE 7 SCREENING FOR PARAGRAPH 1(B)-(H)

Schedule 7 Screening Paragraph 1. ***The characteristics of proposed development, in particular***
(b) cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,

The proposed facility is located within Boyne Village Business Park, an expanding employment area with permitted warehousing development to the southeast alongside estate roads. Development within the business park is planned, serviced, and managed to support this type of industrial activity in accordance with the site's development plan zoning objective and the requirements of the MP12 masterplan for the area.

The proposed development, when considered cumulatively with existing and permitted developments within the business park, is not likely to give rise to significant negative cumulative environmental effects. The subject site forms part of a wider zoned and serviced industrial land bank, and its development for an industrial warehouse use is entirely consistent with the intended land-use pattern. There are no identified projects within the immediate vicinity that would, in cumulation with the proposed facility, result in significant or adverse cumulative environmental impacts. The proposal comprises the second proposed development within the E1/E3 zoned lands within the MP12 area.

Cumulative impacts are defined in the European Commission Guidelines for the Assessment of Indirect and Cumulative Impacts and Impact Interactions (1999) as impacts that arise from incremental changes combined with other past, present or reasonably foreseeable actions. In this case, any potential cumulative effects with other existing or permitted developments are expected to be minor, indirect and well within the environmental capacity of the business park and surrounding transport and drainage infrastructure.

A permitted warehouse development (MCC Reg. Ref.: 221703) is located on Phase 1 lands at Boyne Village Business Park to the southeast on a c. 4 hectare site. This development is compatible in scale and nature with the proposed industrial laundry facility and consistent with the objectives of the E1/E3 zoning objective for the lands and the MP12 masterplan. No project has been identified that would significantly, compound, or intensify the impacts arising from the proposed development.

The business park is served by recently completed strategic infrastructure, including Local Distributor Road 6, internal estate roads, and upgraded drainage systems. These infrastructure elements have been designed to accommodate cumulative industrial and commercial development and therefore significantly reduce the risk of cumulative impacts relating to traffic, noise, drainage, or utilities.

The proposed development is not dependent on, nor does it functionally form part of, any separate industrial or commercial project within the area. It is a stand-alone industrial warehouse facility capable of operating independently within the serviced business park and includes all required infrastructure within the site's red line boundary. As such, it does not trigger any linked or phased cumulative effects with other developments.

It is also noted that permitted development at Phase 1 of Boyne Village Business Park was subject to EIA Screening (as required), including the implementation of mitigation measures. EIA was screened out by the Planning Authority in respect of the permitted development. Mitigation measures included ensure that the operational environment of the business park remains controlled and appropriate for additional industrial uses such as the proposed facility.

Within the vicinity the recent relevant planning history comprises Phase 1B (MCC Reg. Ref. 24/60415 & ACP Ref. 322341-25) granted permission for the development of 322 no. dwellings, open space and all associated infrastructure and site development works. The EIAR relating to Phase 1B and conditions attached by the Board included specific mitigation to ensure that the likely significant impacts on the environment were reduced and minimised.

Meath County Council Reg. Ref.: 2660120; ACP Ref: PL-501989-MH-26 for 83 no. dwelling at Phase 1D to the south of the LDR 3 is current subject to appeal, following a notification of a decision to grant by the planning authority issued on 28th August 2026.

Meath County Council Reg. Ref. 2661048. On the 20/08/2026 an application was lodged for the construction of an estate road and access roads extending northwards from the section of road permitted under Meath County Council Reg. Ref. 22/1703 and ACP Ref. 318533-23 (currently under construction), connecting to Roundabout 3 of Local Distributor Road 6 (LDR6), to facilitate access to the Boyne Village Enterprise Lands. Further Information was requested on the 13th of October 2026.

It is noted that elsewhere in the vicinity, under MCC Ref. 21/1046 / ACP 312746-22 that permission was granted for the demolition of existing agricultural structures and construction of 98 no. residential units. It is noted that conditions attached to the grant of permission included specific mitigation to ensure that the likely significant impacts on the environment were reduced and minimised.

Uisce Eireann applied for planning permission (MCC Ref. 2460066) for development comprising inter alia, a new wastewater pumping station that discharges to the inlet pipework of the Navan WWTP via two new rising main sewerage pipes. The pumping station development also includes an underground 924m3 emergency storage tank with a further 427m3 provided within the pumping station inlet chamber, wet wells and upstream sewerage network. A final grant of permission was issued on the 28th of November 2024.

On the 19th of April 2022 An Bord Pleanála (311673-21) upheld the decision of Meath County Council (Reg. Ref. 21/21) and granted permission for the construction of 95 no. residential units over two, three and four-storeys in 2, 3 & 4 bed (terrace, semi-detached, townhouse and duplex) formats, comprising: 13 no, two-bed duplex units, 71 no. three-bed units.

On the 21st of July 2021, An Bord Pleanála granted permission for an 84-no. unit development, to the south of the subject site (adjacent to the LDR6) (ABP Ref. JP17.309332).

On the 18th of January 2023, Meath County Council issued a Notification of a Decision to Grant Permission for development comprising the demolition of an existing single storey dwelling (110 sqm) and associated outbuildings; the construction of 93 no. residential units (two storey houses and three storey apartment/duplex) (MCC Ref. 221008 / ABP 315806-23).

To the southeast of the proposed development, under Planning Reg. Ref. 2560539 (ACP LH17.323854) following the withdrawal of an appeal, permission was granted for a large-scale residential development - the proposed development will consist of 223 no. residential dwellings at Ballymacon, Navan, Co. Meath.

The developments listed above have been assessed both individually and collectively and it has been determined there will be no likely significant impact provided the mitigation measures set out in the associated documents are implemented. Given that it has been determined there will be no significant impacts from this Proposed Development with the implementation of the proposed measures, it can be concluded that the combined impact will not be significant on the environment.

The development in cumulation with other existing, proposed and/or approved developments is not likely to cause significant effects on the environment.

Accordingly, having regard to:

- the nature and scale of the proposed development,
- the character and capacity of the business park,
- the availability of supporting infrastructure, and
- the absence of nearby projects that would generate significant in-combination effects,

it is considered that the proposed development, in cumulation with other existing or permitted developments, is not likely to cause significant effects on the environment.

Schedule 7 Screening Paragraph 1: ***The characteristics of proposed development, in particular*** *(c) the nature of any associated demolition works,*

There are no demolition works proposed.

Schedule 7 Screening Paragraph 1: The characteristics of proposed development, in particular (d) the use of natural resources, in particular land, soil, water and biodiversity,

The proposed development comprises a two-storey industrial laundry and distribution facility within an established and serviced business park. The nature and scale of the development are such that it will not result in a significant use of natural resources or cause significant environmental effects.

The project involves the development of a previously undeveloped site of c. 4.5 hectares within Boyne Village Business Park, zoned for employment and industrial-related uses. The land take associated with the proposal is consistent with this zoning objective and does not represent an unusual or excessive use of land relative to typical industrial development.

The works will involve standard excavation and preparation for foundations, roads, service connections and drainage infrastructure. No significant or extensive soil removal, infilling, or recontouring is anticipated. The use of land and soil will therefore be within normal and expected limits for an industrial facility of this type. This is confirmed by the accompanying Resource Waste Management Plan prepared by ORS enclosed with this submission.

Water use during the construction phase will be limited and intermittent, primarily for dust suppression and general construction activities. During operation, the nature of the laundry use is that water usage will be significant as water will be used as part of the laundry processing activities; however, this water usage will be controlled, metered and discharged to the public wastewater system, to which the site will be fully connected, as set out in the HRA Engineering Services Report (which also includes a COF from Uisce Eireann). The development may require up to 35 cubic metres of water per hour of operation and c. 25.75 litres/second. Peak foul water is c. 32.47 L/s as outlined in the HRA Engineering Services Report. The Uisce Éireann confirmation of feasibility letter notes foul and water connections can be facilitated subject to planned upgrades by UÉ.

The facility will operate within the parameters of existing municipal water supply and wastewater treatment infrastructure. There is no expectation of excessive or unsustainable water consumption, and water demand will not be of a magnitude that would give rise to significant environmental impact.

The main resource use during construction will consist of standard construction materials (steel, concrete, aggregates, insulation, cladding, and internal fit-out materials). These materials are typical for industrial buildings and will be used in quantities proportionate to the scale of a modern

warehouse/processing facility. No unusual or high-intensity natural resource consumption is expected, which is typical for such an operation.

Operational resource use will also include electricity and heat required for machinery and laundry equipment. The heating of water and, more significantly, drying garments account for high energy usage. These demands are typical of industrial laundry operations and are not considered significant in the context of the facility's size or location within a zoned and serviced business park. There is some element of displacement between a centralised commercial operation and individual operators. A facility such as is proposed would be more efficient compared to a series of smaller facilities, so the actual impact may not be as significant.

The site comprises managed grassland within an existing business park environment and does not contain habitats or species of ecological sensitivity as confirmed by the Ecological Impact Assessment prepared by ORS, enclosed. The development will not require the removal of notable vegetation or impact any protected habitats. Landscaping is included as part of the proposal, which will contribute to maintaining site biodiversity at an appropriate level for an industrial setting. Please refer to accompanying Landscape Plan and Design Report prepared by CSR for further information.

Construction waste generated on site will be segregated where practical and managed in accordance with standard construction best practice as set out in the accompanying Resource Waste Management Plan prepared by ORS. Waste will be removed by an authorised waste contractor to appropriately licensed facilities. Operational waste will also be managed via established commercial collection systems as set out in the accompanying Operational Waste Management Plan as prepared by ORS. No significant or unusual waste streams are anticipated.

Considering:

- the industrial zoning and serviced nature of the site,
- the typical construction and operational resource requirements,
- the availability of public water, wastewater, and energy infrastructure, and
- the absence of sensitive habitats or species,

the use of natural resources associated with the proposed development is not likely to cause significant effects on the environment.
Accordingly, the proposed development does not require an Environmental Impact Assessment on the basis of Schedule 7(1)(d) considerations.

Schedule 7 Screening Paragraph 1*The characteristics of proposed development, in particular* *(e) the production of waste,*

There will be some waste materials produced in the construction of the proposed scheme. Waste will be disposed of in a responsible manner using licensed waste disposal facilities and contractors. The scale of the waste production in conjunction with the use of licensed waste disposal facilities and contractors does not cause concern for likely significant effects on the environment.

All works carried out as part of the Proposed Development will comply with all Statutory Legislation including the Waste Management Act & Local Government (Water Pollution) Acts, and the contractor will co-operate in full with the Environmental Section of the Local Authority.

There will be some additional waste produced during construction; however, this will be minimised. A Resource Waste Management Plan and an Operational Waste Management Plan (prepared by ORS) is included with the planning application. During operation, the proposed development will give rise to general non-hazardous and hazardous waste (e.g. Residue from laundry process) as

well as including paper and cardboard, plastic, metals, commensurate with the nature of the use for the laundry and office element of the operations.

A CEMP has been developed by ORS. Any waste (including inert waste) removed from the Site will only be taken to facilities which hold either a valid Waste Facility Permit issued by the Local Authority.

According to the CEMP waste materials generated will be segregated on-site, where it is practical. Where the on-site segregation of certain waste types is not practical, off-site segregation will be carried out. All waste will be documented prior to leaving the site.

MCC will also be consulted, as required, throughout the excavation and construction phases in order to ensure that all available waste reduction, reuse and recycling opportunities are identified and utilised and that compliant waste management practices are carried out.

The accompanying Resource and Waste Management Plan prepared by ORS details the methodologies employed for the control, management, monitoring and disposal of waste from the site.

The Resource and Waste Management Plan also sets out the measures used during the operational phase of the development to maximise the quantity of waste recycled, by providing sufficient waste recycling infrastructure, waste reduction initiatives and waste collection and waste management information to the residents of the development.

Wastes include solids, consisting mainly of sludges from on-site wastewater treatment. The majority of process wastes would be classified as hazardous. Monitoring of influent and effluent from the wastewater and an early warning of any difficulties in the waste water treatment plant, or unusual loads is recommended to be included in the operational waste management plan.

All operational waste will be collected by appropriately authorised waste collection contractors. Due to the use of licensed waste collection/waste disposal facilities, it is not predicted that the production of waste will cause any likely significant effects on the environment. If required, the Applicant will accept a condition to provide a detailed Operational Waste Management Plan (OWMP) and Resource Waste Management Plan (RWMP) as part of any grant of permission in respect of the Proposed Development for both the office element and the laundry element of the operations.

Schedule 7 Screening Paragraph 1 ***The characteristics of proposed development, in particular*** *(f) pollution and nuisances,*

The construction phase of the proposed industrial laundry facility has the potential to be a minor, short-term source of pollution in relation to noise, dust, vibration, traffic movements, and surface-water run-off. Localised dust and noise may arise during site preparation, earthworks and general construction activity; however, these impacts will be managed by ensuring that construction activities are undertaken within standard permitted working hours and by implementing established construction-phase mitigation measures such as dust suppression, appropriate equipment selection, and good construction management practices. The CEMP prepared by ORS provides robust mitigation measures to ensure that impacts are reduced and avoided. There will likely be potential for localised dust and noise produced during the demolition and construction phases. This will be managed by ensuring construction work largely operates within the approved hours of construction.

Any nuisance impacts during the construction phase will be intermittent, temporary and confined to the immediate site area. Dust and noise will be controlled through best-practice measures

including water-based dust suppression, covering of stockpiles, minimising drop heights during material handling, and the maintenance of modern plant and machinery. These measures will ensure that any construction-related nuisances are adequately minimised and will not give rise to significant environmental effects.

Mitigation measures will also be applied to ensure that pollution and nuisances arising from construction activities are prevented where possible and otherwise reduced to acceptable levels. These include standard controls for noise, vibration and dust consistent with recognised guidance such as BS 5228 for noise and vibration control on construction sites. Vibration levels will be kept below accepted thresholds through appropriate construction methodologies and equipment management.

During operation, the proposed industrial laundry facility may give rise to emissions associated with vehicular movements, heating systems and processing equipment. These emissions will be typical of an industrial building of this scale and intended use. Heating and building services systems will comprise modern, efficient appliances designed to minimise emissions such as nitrogen oxides and carbon monoxide, and the resulting air quality impacts are expected to be negligible. Noise arising from delivery vehicles, loading bay activities and internal operations will be contained within an industrial setting and managed through building design, layout and operational practices.

In terms of drainage, the site will be fully serviced and connected to the existing foul and surface water systems serving Boyne Village Business Park. The drainage network has been designed to accommodate the intended scale of development, with the Engineering Services Report confirming that *"a new sewer will be constructed between the Elis site and the proposed 750Φ gravity sewer,"* and that *"wastewater from the laundry facility will be treated on site prior to discharging… to the new 750Φ public sewer in the LDR6."*

This on-site treatment process—*"including reducing water temperature, removing chemicals and adjusting pH levels to comply with discharge requirements"*—ensures that foul water entering the public system meets the necessary standards. The public foul network itself has been developed specifically to serve future industrial and commercial uses in the area, and the report notes that *"Uisce Eireann has issued a Confirmation of Feasibility for the proposed development," confirming available capacity. The surface water system is likewise designed to prevent pollution, with attenuation, infiltration-based SuDS where feasible, and controlled discharges. Measures such as oil interceptors and attenuation zones ensure that "all run-off [is] treated by interceptor prior to discharge."*

Overall, these integrated foul and surface water arrangements ensure that the proposed development will not overload existing infrastructure, and no significant risk to water quality is anticipated.

Noise, vibration and air emissions during both construction and operation will be controlled through adherence to good-practice environmental management, statutory regulations and industry standards, as set out in the accompanying CEMP. These measures will ensure that the proposed development will not result in significant effects on human health or the environment from pollution or nuisance.

It is therefore concluded that the proposed development will not give rise to pollution or nuisances of a scale or nature likely to cause significant environmental effects, and appropriate site management during both construction and operation will further reduce the likelihood of such impacts occurring.

Schedule 7 Screening Paragraph 1 ***The characteristics of proposed development, in particular*** *(g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge,*

The characteristics of proposed development, in particular (g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge.

The potential for the construction or operational phase of the proposed development to result in any major accidents and/or disasters is considered to be low. This conclusion is based on the nature of the proposed industrial laundry use, the absence of hazardous processes or materials that would pose a significant environmental risk, and the requirement to comply with all standard health and safety procedures throughout construction and operation. The site will remain secured at all times, and construction activities will be managed and controlled using industry-standard best practice and will operate within normal daytime working hours, further reducing risk.

It is therefore anticipated that the risk of accidents and/or disasters associated with the proposed development will be insignificant due to the nature of the facility, proper site management, and full adherence to health and safety protocols during both construction and operation.

The types of risks that could arise generally relate to standard construction practices; however, such risks are normal, well understood, and effectively managed through compliance with statutory construction safety requirements. The operational phase will involve the use of typical industrial laundry equipment and related services, none of which pose a high risk of major industrial accidents or significant environmental harm. The development will not involve the storage or use of large quantities of hazardous materials, and the site is not located within proximity to any Seveso-classified establishments.

With respect to climate-related risks, the majority of the site is located within Flood Zone C, meaning it has a low probability of flooding. The design of the surface water drainage system incorporates allowances for climate change in accordance with current best-practice guidance, ensuring that increased rainfall intensity and storm events can be safely managed on site. The proposed attenuation and drainage measures will mitigate the risk of flooding or surface water exceedance affecting the development or surrounding areas. A Flood Risk Assessment prepared by JBA Consulting accompanies the application.

In summary, based on the characteristics of the proposed industrial development, the absence of high-risk materials or processes, the site's low flood risk classification, and the implementation of recognised construction and operational safety measures, the risk of major accidents or disasters is considered to be very low and not likely to give rise to significant environmental effects.

Schedule 7 Screening Paragraph 1 ***The characteristics of proposed development, in particular*** *(h) the risks to human health (for example, due to water contamination or air pollution).*

The risks to human health are addressed further below under land, soil, water air and climate. There is no impact on air pollution expected from the development outside of the potential dust impact during construction, and therefore the risk to human health is considered negligible in this regard. Standard mitigation measures will be employed as set out in the enclosed CEMP. In terms of potential water contamination, interceptors will prevent pollutants or sediments from discharging into water courses. Wastewater will be connected to the existing foul sewer to the south of the site and therefore water contamination leading to a risk to human health will not occur.

A strategy for controlling all substances and all work processes that may generate hazardous substances will be/is outlined within the CEMP and appropriate control measures will be put in place should hazardous waste or contaminated soil be identified. Best practice mitigation measures are proposed for the Construction Phase of the Proposed Development.

During the Construction and Operational Phases, due to best management practices, good housekeeping, and adherence to all health and safety procedures, it is not foreseen that there will be any negative impacts to human health.

5.4 LOCATION OF THE PROPOSED DEVELOPMENT

5.4.1 SCHEDULE 7A SCREENING PARAGRAPH 1 (B) – DESCRIPTION OF THE PROPOSED DEVELOPMENT

Schedule 7A Screening Paragraph 1 (b)
1. A description of the proposed development, including in particular—
(b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.

The project site of c. 4.5 hectares is located within the administrative area of Meath County Council and forms part of Boyne Village Business Park, Athlumney, within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath. The lands are zoned E1/E3 in the Meath CDP 2021-2027 (as varied) for commercial and industrial uses and planned for industrial, employment and enterprise uses. The proposed development comprises the second phase of Boyne Village Business Park. As such, the proposed industrial laundry processing and distribution facility represents an appropriate and compatible form of development for this location.

The subject lands are currently greenfield, fully serviced and located to the north of the Local Distributor Road 6 and existing internal estate roads within the business park. The area to the north of the LDR 6 is greenfield in nature, with no designated environmental sensitivities or features that would be significantly affected by an industrial building of this nature and scale. Further to the north is the Boyne Valley SPA. Permitted warehouse uses are located to the southeast, with large-scale residential developments granted to the south of the LDR 6.

The site primarily comprises managed grassland within a planned business park landscape. There are no designated ecological sites, protected habitats, or recorded monuments within or immediately adjoining the lands as confirmed by the accompanying EcIA, prepared by ORS. Boundary vegetation is limited and consists mostly of grassed areas and planted business-park landscaping, none of which is sensitive or of high ecological value. The proposed development does not encroach upon any protected landscapes, conservation areas, or notable heritage features.

The scale of the proposed two-storey industrial facility will sit comfortably within the permitted and emerging business park context. The development will be connected to existing foul drainage and water supply serving the business park, all of which are designed to meet current environmental standards.

The proposal incorporates a comprehensive SuDS strategy, with surface water managed through a series of treatment and attenuation features before being released to the receiving environment. As outlined in the HRA Engineering Services Report, the system has been designed so that *"attenuated surface water… shall discharge to the Millrace along a trapezoidal open ditch,"* utilising existing field drainage routes that *"flow to the Millrace / Farganstown Stream."* These measures ensure that runoff is treated and controlled prior to entering the water environment, with the report confirming that *"surface water on the site… will be directed towards the Millrace,"* following SuDS-based treatment. The approach provides both water-quality protection and hydraulic control, consistent with best practice in sustainable drainage design.

Subject to the implementation of appropriate mitigation measures during construction and operation, it is considered that the proposed development would not result in adverse effects on the environmental sensitivity of the surrounding area. The location, context and zoning of the site ensure that the project is compatible with its setting, and the use of established utilities and drainage infrastructure ensures that environmental risks are limited and appropriately managed.

5.4.2 SCHEDULE 7 PARAGRAPH 2 – LOCATION OF PROPOSED DEVELOPMENT (A)-(C)

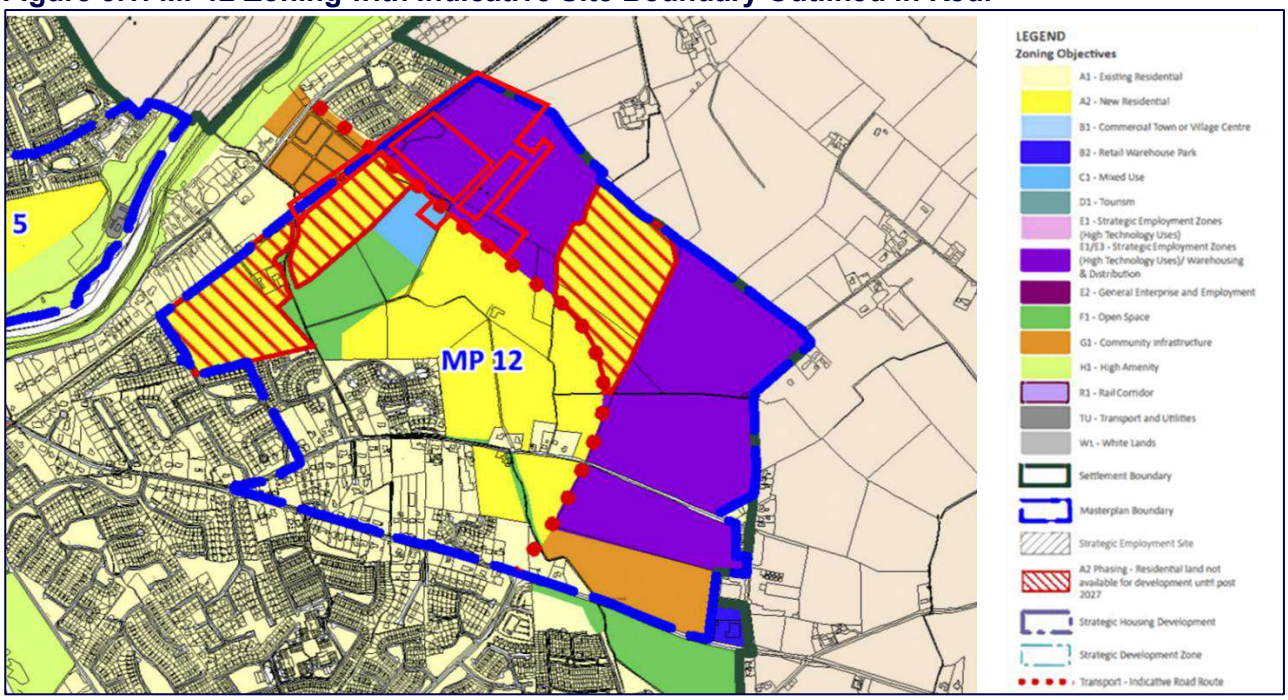
Schedule 7 – Paragraph 2. Location of Proposed Development
The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—

Schedule 7 – Paragraph 2. Location of Proposed Development
(a) the existing and approved land use,

The subject site comprises approximately 4.5 ha of greenfield lands within the MP12 area at Athlumney. The site is currently unused agricultural grassland, with surrounding lands also predominantly undeveloped, save for permitted employment and residential developments to the south and west. The existing land use therefore has no established built form, no sensitive receptors within the development footprint, and no conflicting authorized uses.

The Meath County Development Plan 2021–2027 designates the lands E1 / E3 Strategic Employment Zones / Warehousing & Distribution, explicitly permitting logistics, warehousing, distribution and associated industrial facilities requiring access to the strategic road network. The proposed industrial laundry and warehousing facility is fully consistent with this zoning, as well as with the Athlumney/Farganstown MP12 Masterplan, which identifies these lands for the creation of a modern strategic employment area.

Figure 5.1: MP12 Zoning with Indicative Site Boundary Outlined in Red.



Recent permissions within the MP12 lands—including Phase 1 commercial warehouse units and residential development to the south—demonstrate an emerging pattern of planned development in accordance with the Masterplan and zoning objectives. The proposed development aligns with this established planning framework, forming part of the phased delivery of employment lands envisaged by the Planning Authority.

Given the wholly compatible land-use zoning, the greenfield nature of the site, and the absence of existing environmental sensitivities or incompatible neighbouring uses, no significant negative impacts relating to land-use conflict are anticipated. The proposal represents an appropriate and policy-aligned use of the site and does not give rise to any likely significant environmental sensitivity concerns under Schedule 7 Paragraph 2(a).

Schedule 7 – Paragraph 2. Location of Proposed Development
(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,

Having regard to the nature of the receiving environment, the Proposed Development will not give rise to any likely significant negative effects in relation to the abundance, availability, quality or regenerative capacity of natural resources in the area.

The site comprises approximately 4.5 hectares of improved agricultural grassland with associated hedgerows, drainage ditches, a small area of reed and large sedge swamp and some disturbed ground, all of which are habitats of low to moderate local ecological value. No Annex I habitats or protected flora species occur within the site, and no invasive species listed under S.I. 374/2024 were recorded.

The use of natural resources during construction will be limited, with all construction materials imported, and all demolition or excavation waste removed off-site to licensed facilities in accordance with the CEMP. Opportunities for reuse and recycling of materials will be incorporated to reduce the requirement for new resources. The land take involved is relatively small, and the site is zoned, serviced, representing an efficient use of land.

Hydrologically, the nearest watercourse is the Ferganstown and Ballymacon Stream, which flows northwards to the River Boyne. Mitigation measures relating to the management of surface water, silt, dust, fuels and concrete during construction will ensure that no significant effects on water quality arise.

The Ecological Impact Assessment and Natura Impact Statement, prepared by ORS both conclude that, with the successful implementation of mitigation measures, no significant ecological impacts are likely during construction or operation, and in the medium to long term the biodiversity value of the site is expected to improve due to the retention of existing boundary vegetation and new native planting as confirmed in the Landscape Design Report prepared by CSR.

The Proposed Development will therefore not result in any significant loss of soil, land, water or biodiversity resources, and will not adversely affect the regenerative capacity of natural resources within or around the site. Biodiversity is expected to be enhanced by the proposed development.

Schedule 7 – Paragraph 2. Location of Proposed Development
(c) the absorption capacity of the natural environment, paying particular attention to the following areas:

The proposed development site comprises approximately 4.5 hectares of zoned and serviced employment lands within Boyne Village Business Park, an area that has undergone phased commercial and industrial development and now forms part of an established suburban environment. The lands themselves do not contain any designated habitats or environmentally sensitive features, and while a drainage ditch and a localised wetland area occur along the western boundary, these are of local ecological value and do not constrain the absorption capacity of the site. The wider setting includes a mix of agricultural land, residential areas and the permitted warehouse development, all of which demonstrate that the landscape has already accommodated significant development without undue environmental pressure.

The ground conditions consist of mineral soils over limestone-derived tills, underlain by bedrock forming part of a locally important aquifer with generally high groundwater vulnerability in places due to shallow subsoils. The proposed development incorporates full attenuation and surface water treatment measures, robust bunding for hazardous substances, and a foul drainage system connecting to the existing network, ensuring that any potential interaction with soil, groundwater or surface water receptors is effectively managed.

We note that the proposed development includes potential provision of a groundwater well incorporated into the scheme in response to a request of Uisce Éireann encouraging the use of water conservation measures in the development and to supplement water supply, mitigating reliance on the public network. Condition 9(i) of the MCC decision to grant requires that the use of any such well is subject to hydrogeological investigations and will be dependent upon demonstrating an adequate and sustainable yield together with water quality suitable for the intended use. The applicant is agreeable to this condition and has progressed with initial groundwater assessments undertaken by ORS and enclosed. This concludes that a modest yield is achievable and *"potentially sustainable without impacting offsite receptors. This is subject to confirmation through investigation i.e. installation of a test well and completion of a pumping test",* as required by MCC condition. Ultimately, the installation of the well will be subject to the agreement of MCC following required comprehensive investigations, therefore mitigating any potential environmental effects on sensitive receptors.

Given the serviced nature of the lands, the absence of sensitive environmental features within the site, and the capacity of the receiving environment to assimilate a development of this nature and scale without adverse effects, it is concluded that the natural environment has a high capacity to absorb the proposed scheme and that no significant environmental effects are likely to arise.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(i)
wetlands, riparian areas, river mouths;

According to the EPA maps, the Ferganstown and Ballymacon stream and River Boyne have a WFD status of 'Moderate' and the risk status is under review.

The proposed site is located within the Boyne_140 Sub-Basin; Boyne Catchment; Boyne_SC_110 Sub catchment; Hydrometric Area 07.

The principal hydrological feature within the vicinity of the proposed works is the Ferganstown and Ballymacon stream (EPA Code: 07F17) located at the southwest boundary of the application site. The stream flows in a north direction and meets the River Boyne (EPA Code: 07B04) ca. 640m north of the site. The River Boyne flows into the Irish Sea ca. 30km northeast of the proposed development site. The Water Framework Directive (WFD) runs in 6-year cycles with the most recent data being generated between 2016-2021. The Directive takes rivers, lakes, estuaries, groundwater and coastal waters into consideration and each waterbody can be awarded one of five statuses: High, Good, Moderate, Poor, and Bad. Additionally, waterbodies can be assigned a risk level ("At Risk", "Not at Risk", "Review") which represents the risk of the waterbody of failing its WFD objectives by 2027.

Surface water management and SuDS techniques for the Proposed Development are designed to comply with the Greater Dublin Strategic Drainage Study (GDSDS) policies and guidelines and the requirements of Meath County Council. Thus, water quality will not be impacted negatively by the proposed development.

Therefore, it is not anticipated that there will be adverse impacts in any watercourses in the vicinity of the Proposed Development due to adherence to appropriate control measures.

The site forms part of a zoned and serviced employment area that has been prepared for development and does not function as part of any wetland or riparian system. Surface water generated within the site will be fully managed through an integrated SuDS network providing attenuation, treatment and controlled discharge, ensuring that any runoff leaving the site is appropriately regulated and does not give rise to changes in downstream water quality or hydrological regimes. In this respect, no adverse impacts are anticipated on any such receptors in the vicinity of the Proposed Development.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(ii)
coastal zones and the marine environment;

The proposed development is not located within a coastal zone or marine environment. Therefore, it is predicted that the Construction or Operational Phases of the Proposed Development will not have any impacts on a coastal zone or marine environment.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(iii)
mountain and forest areas;

The proposed development is located within Boyne Village Business Park and is not situated within, adjacent to or connected to any mountain ranges or forested landscapes, nor does it contain or border any upland, wooded or semi-natural forest habitats. The surrounding environment consists primarily of agricultural lands, residential areas and partially developed business park infrastructure, all of which are characteristic of low-lying terrain in this part of Navan and do not include features associated with mountainous or forested ecosystems. The construction and operational phases of the development will therefore have no interaction with, or pathway to affect, any mountain or forest areas, and the nature and location of the project ensure that no impacts on such environments will arise.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(iv)
(iv) nature reserves and parks;

The proposed development is located within Boyne Village Business Park and is not situated within, adjacent to, or connected to any nature reserves or parks. The surrounding landscape comprises agricultural land, residential areas and the partially developed Boyne Village Business Park, none of which form part of any designated nature reserve or protected parkland. The nearest protected site is Boyne Woods pNHA, located approximately 2.8 km to the northeast, well beyond the zone of any direct impact, and the site contains no ecological features or hydrological connections that would create a pathway for effects on this or any other designated area. As a result, there is no pathway through which either construction activities or the operational phase of the development could give rise to effects on nature reserves or parks, and no impacts on such areas are anticipated.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(v)
areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;

The proposed development is not located within or immediately adjacent to any areas classified or protected under national or European legislation, and no Natural Heritage Areas occur within the site boundary. The nearest protected site is Boyne Woods pNHA, located approximately 2.8 km to the northeast, well beyond the zone of any direct impact, and the site contains no ecological features or hydrological connections that would create a pathway for effects on this or any other designated area.

The lands also lie outside any European site, although there are two relevant Natura 2000 sites located within the wider 15 km radius: the River Boyne and River Blackwater SAC and the River

Boyne and River Blackwater SPA, both situated approximately 350–400 m north of the proposed development. These designated sites are connected to the wider catchment via the Ferganstown and Ballymacon Stream.The enclosed NIS confirms that with standard construction-phase pollution controls, surface water treatment, attenuation and strict management of fuels, concrete and sediments, no significant effects on water quality or qualifying interests are likely to occur, and the project will not adversely affect the integrity of any European site. Given the separation distance to the nearest national and European designations, the absence of any direct land-take or habitat loss within protected areas, and the presence of effective mitigation measures within the construction and operational drainage design, there is no likelihood for significant effects on Natura 2000 sites, NHAs, pNHAs or any other protected areas, and no impacts on such designated sites are anticipated.

The Natura Impact Statement concludes that the proposed development will not adversely affect the integrity of the nearby European sites once the identified mitigation measures are fully implemented. Although there is a hydrological pathway between the site and the River Boyne and River Blackwater SAC and SPA, the assessment determines that any potential risks—such as pollution of surface water, disturbance during construction, or indirect impacts on protected habitats and species—can be effectively managed. With mitigation in place, no significant effects on water quality, habitats, or qualifying interests are expected during either construction or operation. The development will therefore not interfere with the conservation objectives of the designated sites, nor will it alter their ecological structure, function, or long-term viability.

To achieve this outcome, a comprehensive suite of mitigation measures is specified. These include strict controls on surface water and groundwater protection during construction, such as the use of silt fencing, appropriate storage and handling of fuels and chemicals, prevention of runoff from concrete works, and adherence to best-practice guidance for erosion and sediment control. Measures are also detailed to minimise noise, dust, light spill, and general disturbance, ensuring that both terrestrial and aquatic species are protected. Biosecurity procedures are outlined to prevent the introduction or spread of invasive species, including machinery inspection, soil controls, and contingency planning should any invasive plants be found. During the operational phase, the site's design incorporates attenuation and drainage systems that prevent contaminated runoff from entering watercourses, and lighting and noise controls that reduce ecological disturbance.

Overall, the NIS concludes that, provided all mitigation measures are implemented as described, the development will not adversely affect the integrity of any Natura 2000 site. The project can proceed without risk to protected habitats or species, and without undermining the conservation objectives of the SAC or SPA.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(vi)
areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;

The proposed development is not located within an area identified as failing to meet EU-established environmental quality standards, nor does it fall within any zone where such failures have been recorded in relation to air, water, soil or ecological condition.

All works will take place on serviced employment lands within Boyne Village Business Park, where surface water and foul drainage infrastructure can be fully managed in accordance with the established network and regulatory requirements. The project design incorporates comprehensive surface water attenuation, treatment and controlled discharge, preventing any unregulated emissions to the Ferganstown and Ballymacon Stream or downstream receptors, with the NIS confirming that no significant effects on water quality are likely provided standard construction and operational phase controls are implemented. No direct discharges to groundwater or surface water will occur during the construction phase, and all fuels, concrete and hazardous substances will be

subject to strict onsite management and bunding, as outlined in the EclA, ensuring that pollution pathways are effectively removed.

Wastewater from the laundry facility will be treated on site prior to discharging through a private drain to the new 750Φ public sewer in the LDR6. The primary on-site treatment will include reducing water temperature, removing chemicals and adjusting pH levels to comply with discharge requirements prior to releasing water to the public sewer system.

Construction personnel will be trained in the implementation of environmental controls and emergency procedures, and best-practice measures for sediment, dust and pollutant management will be applied throughout the works. These controls ensure compliance with national water pollution legislation and prevent any risk of the development contributing to exceedances of environmental quality standards. Given the nature of the site, the existing drainage infrastructure, and the pollution-prevention measures incorporated into both construction methodology and operational design, the project shall not give rise to a failure to meet EU environmental quality standards, and no such effects are anticipated during either the construction or operational phases of the Proposed Development.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(vii)
(vii) densely populated areas;

The site is zoned *"E1 Strategic Employment Zones & E3 Warehousing and Distribution"* land within the Athlumney MP12 masterplan area, and the proposed use is compatible with the existing Development Plan for the area and uses in the vicinity.

It is deemed unlikely this Proposed Development will have any negative impacts on densely populated areas during both Construction and Operational Phases.

It is considered that there will be no likely significant impacts on the environment with regard to the geographic location of densely populated areas. The proposed development with contribute to the creation of a 'live-work' community within the wider MP12 masterplan lands as set out in the Meath CDP 2021-2027.

Schedule 7 – Paragraph 2. Location of Proposed Development (c)(viii)
(viii) landscapes and sites of historical, cultural or archaeological significance.

The proposed development site does not contain any features of historical, cultural, architectural or archaeological significance. As confirmed in the Archaeological Impact Assessment (ACSU, 2026), the lands contain no Recorded Monuments, no Protected Structures, and no entries in the National Inventory of Architectural Heritage. The nearest recorded monument is an unclassified barrow (ME025-029) located approximately 240 m northwest of the site; this mound was destroyed in 1976 and only an inhumation was recovered. Two further recorded monuments—a cist (ME025-028) and the remains of a post-medieval enclosure (ME025-053)—are also located in the wider area but lie outside the site boundary and will not be physically affected.

The AIA confirms that the site comprises portions of previously undeveloped agricultural land with no visible archaeological features. Previous investigations in the wider Athlumney/Ferganstown area have identified isolated burnt mound-type activity and pits, demonstrating general archaeological potential in the landscape; however, no features were identified within the subject site during earlier geophysical survey and test trenching. As the site consists of undisturbed greenfield land, there remains a potential for unrecorded sub-surface archaeology, and further pre-construction assessment and mitigation under licence will be undertaken. Any archaeological material identified can be preserved in situ where feasible or preserved by record, in consultation with the National Monuments Service.

The site is not located within an Architectural Conservation Area, nor does it contain protected views or prospects as identified in the Meath County Development Plan 2021-2027 (as varied). The surrounding landscape is a developing business-park setting with no designated historic or scenic landscape constraints. The proposed industrial building will not impact the character or setting of any protected structures, all of which are located over 0.6 km away and visually and physically separated by modern development, topography and vegetation.

Given the absence of designated heritage features within the site, the distance to the nearest archaeological and architectural assets, and the provision of standard archaeological mitigation, no significant adverse effects on landscapes or sites of historical, cultural or archaeological significance are anticipated as a result of the proposed development.

5.5 SCHEDULE 7A PARAGRAPH 2. A DESCRIPTION OF THE ASPECTS OF THE ENVIRONMENT LIKELY TO BE SIGNIFICANTLY AFFECTED BY THE PROPOSED DEVELOPMENT, SCHEDULE 7A PARAGRAPH 3. (A) LIKELY SIGNIFICANT EFFECTS & SCHEDULE 7 – PARAGRAPH 3. "TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS"

This section is intended to provide a clear statement on the possible effects on the environment, if any. This section will consider the potential impacts of the proposed development under the environmental topics prescribed by Directive 2014/52/EU. This approach will assist in providing a comprehensive description of the aspects of the environment likely to be significantly affected by the proposed development that have not previously been identified.

Both Schedule 7A Paragraph 2. and Schedule 7 Paragraph 3 require a description of the potential impacts of the proposed development on the environment.

In Schedule 7 Paragraph 3 reference must be made to "*the likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account"* the characteristics of the impacts, which are addressed further below.

However, beforehand, it is necessary to consider the effects on the factors referred to above. Under Section 171A of the Planning and Development Act 2000, as amended, the effects of the proposed development on the following factors needs to be evaluated in an *"environmental impact assessment":*

i. population and human health;
ii. biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive;
iii. land, soil, water, air and climate;
iv. material assets, cultural heritage and the landscape;
v. the interaction between the factors mentioned in clauses (I) to (IV)

The likely significant effects in this EIA screening report are, unless otherwise indicated in a particular Chapter, described using the terminology in Table 3.4 in the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, EPA, May 2022 (the EPA Guidelines 2022), which are presented in the Table below. The consistent application of terminology throughout the EIA screening facilitates the assessment of the proposed development on the receiving environment.

Table 5.1: Description of Effects

Quality of Effects	Definition

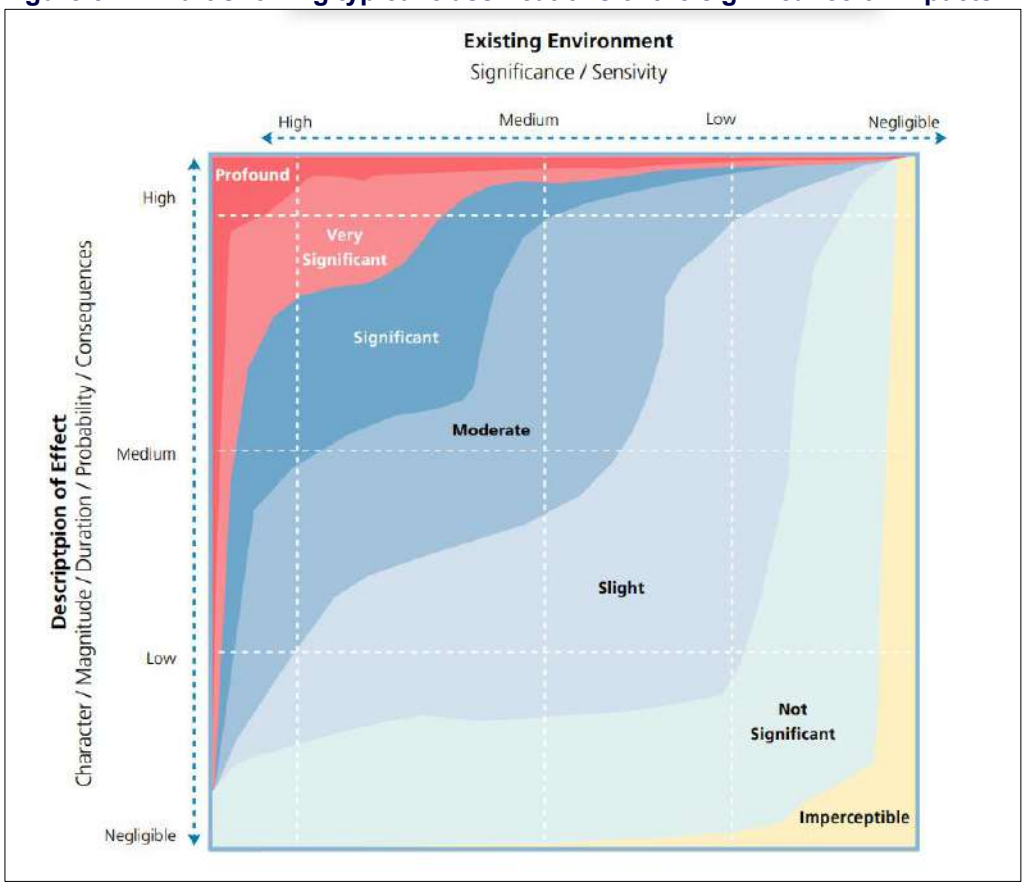
Negative /Adverse Effects	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance).
Neutral	No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
Positive	A change which improves the quality of the environment (for example, by increasing species diversity, or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
Significance of Effects on the Receiving Environment	**Description of Potential Effects**
Imperceptible	An effect capable of measurement but without significant consequences.
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences.
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
Significant	An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment.
Very Significant	An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
Profound	An effect which obliterates sensitive characteristics.
Extent and Context of Effects	**Describing the Extent and Context of Effects**
Extent	Describe the size of the area, the number of sites and the proportion of a population affected by an effect.
Context	Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Probability of Effects	**Describing the Probability of Effects**
Likely Effects	The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
Unlikely Effects	The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Duration of Impact	**Definition**
Momentary	Effects lasting from seconds to minutes
Brief	Effects lasting less than a day
Temporary	Effects lasting one year or less
Short-term	Effects lasting one to seven years
Medium-term	Effects lasting seven to fifteen years
Long-term	Effects lasting fifteen to sixty years
Permanent	Effects lasting over sixty years
Reversible	Effects that can be undone, for example through remediation or restoration
Frequency of Effects	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).
Types of Effect	**Describing the Types of Effects**

Indirect Effects (a.k.a. Secondary Effects)	Effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
Cumulative Effects	The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects
'Do-Nothing Effects'	The environment as it would be in the future should the subject project not be carried out.
`Worst case' Effects	The effects arising from a project in the case where mitigation measures substantially fail.
Indeterminable Effects	When the full consequences of a change in the environment cannot be described
Irreversible Effects	When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
Residual Effects	The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
Synergistic Effects	Where the resultant effect is of greater significance than the sum of its constituents (e.g. combination of SOx and NOx to produce smog).

Source: Table 3.4 EPA Guidelines 2022

The diagram below shows how comparison of the character of the predicted impact to the sensitivity of the receiving environment can determine the significance of the impact.

Figure 5.2: Chart showing typical classifications of the significance of impacts



Source: Figure 3.4 of EPA Guidelines 2022

Accordingly, this section of our report sets out the likely impacts of the development on each of the aspects of the environment likely to be affected by the proposed development referred to under paragraph section 171A (b)(i)(I) to (V),

The Schedule 7 information and 7A criteria in this section are as follows:

Schedule 7A Paragraph 2. A description of the aspects of the environment likely to be significantly affected by the proposed development.

Schedule 7A 3. ***A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from***
(a) the expected residues and emissions and the production of waste, where relevant, and
(b) the use of natural resources, in particular soil, land, water and biodiversity.

Schedule 7 - 3. "Types and characteristics of potential impacts":
The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—
(a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
(b) the nature of the impact,
(c) the transboundary nature of the impact,
(d) the intensity and complexity of the impact,
(e) the probability of the impact,
(f) the expected onset, duration, frequency and reversibility of the impact,
(g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and
(h) the possibility of effectively reducing the impact.

5.5.1 POPULATION & HUMAN HEALTH

The effects on population and human health will be short term and are not likely to be at such a significance that would warrant the completion of a sub threshold EIAR. European Commission guidance relating to the implementation of the 2014 Directive, in reference to Human Health, states, '*Human health is a very broad factor that would be highly project dependent. The notion of human health should be considered in the context of other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arsing from major hazards associated with the project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study*.[1]'

There may be possible short-term nuisances to human beings from noise, dust and pollution during construction and from construction related traffic and construction activity. However, these are not likely to be at such a quantity or of such a significance that would warrant the completion of a sub threshold EIAR. Noise and dust or pollution will be subject to standard mitigation measures as per typical construction projects. The construction works include ground preparation works, development of site infrastructure, construction of buildings and hardstanding areas and landscaping of the site including open soft landscaped areas. The likely impact of the construction phase will be short-term, not significant and neutral. A Construction Environmental Management

[1] Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report, European Commission, 2017 http:/ec.europa.eu/environment/eia/ria-support.htm

Plan (prepared by ORS) is included with application, which will be developed by the contractor and agreed with the Local Authority, and which will mitigate potential impacts. These measures are contained in Appendix 2 of this EIA Screening Report.

There will be a short-term increase on construction employment during the construction period and a long-term increase in operational employment upon operation, resulting in a moderate, positive, long-term impact.

Following implementation of the mitigation measures, it is considered that the residues and emissions arising from the proposed development are not considered likely to have significant effects on population and human health during either the construction or operational phase.

Therefore, on examination of the above, it is concluded that the Proposed Development is not likely to have any significant adverse impact on population and human health.

5.5.2 BIODIVERSITY (WITH PARTICULAR ATTENTION TO SPECIES AND HABITATS PROTECTED UNDER THE HABITATS DIRECTIVE AND BIRDS DIRECTIVE

The biodiversity impacts of the proposed development have been assessed in detail through the EcIA, NIS and Landscape Design Statement. Baseline surveys confirm that the site comprises *"improved agricultural grassland dominated by seeded monoculture grasses"* with hedgerows, drainage ditches and a small reed and sedge swamp, all of which are *of "local (low to moderate) ecological value"* and support "no rare or protected flora species…listed in Annex II and IV of the EU Habitats Directive". *"No invasive species…listed under S.I. 374/2024 were recorded"* on site. Faunal activity is limited, with the EcIA *noting "the majority of bird activity observed…were individuals passing over the site",* and only one red-listed Yellowhammer recorded. Bat roost potential is "negligible-to-low" and no protected mammals or amphibians were recorded.

A hydrological linkage exists via the Ferganstown and Ballymacon Stream, but the NIS confirms that *"in view of best scientific knowledge…there is no possibility of significant effects on any Natura 2000 site",* and that Stage 2 AA is not required. This conclusion is supported by robust mitigation measures including "mitigation measures for the protection of water quality during the construction phase" such as silt-control, bunded fuel storage and controlled concrete handling.

The Landscape Design Statement confirms that *"existing features…are retained where possible and reinforced through additional planting to enhance biodiversity corridors",* including new native hedgerows, woodland pockets, wildflower areas and street trees.

Both the EcIA and NIS conclude that *"no significant ecological impacts are anticipated during construction or operation" and that "in the medium to long term the biodiversity value of the site is expected to improve".* The NIS finalises that the development *"will not adversely affect the integrity of the European sites".*

Wastewater from the laundry facility will be treated on site prior to discharging through a private drain to the new 750Φ public sewer in the LDR6. The primary on-site treatment will include reducing water temperature, removing chemicals and adjusting pH levels to comply with discharge requirements prior to releasing water to the public sewer system.

The proposed development will result in neutral,slight, long-term effects on biodiversity, with any construction-phase disturbances being temporary, slight, and fully reversible. Following mitigation, residual effects are not significant, and no adverse ecological impacts are likely.

Accordingly, no likely significant effects on biodiversity will occur, and the development does not trigger the need for a sub-threshold EIAR.

The proposed development will result in neutral, imperceptible, long-term effects on biodiversity, with any construction-phase disturbances being temporary, slight, and fully reversible. Following mitigation, residual effects are not significant, and no adverse ecological impacts are likely.

5.5.3 LAND AND SOILS

The development will result in the permanent change of approximately 4.5 hectares of greenfield land within Boyne Village Business Park from improved agricultural grassland to an industrial use, but this land take is not considered significant in the context of its zoning, its previous agricultural use, and its location within an area already undergoing phased development. Ground conditions comprise well-drained limestone-derived tills underlain by moderately productive limestone and shale bedrock, with groundwater vulnerability classed as high, meaning that careful construction-phase controls are required to protect the underlying hydrogeological environment.

All excavated material unsuitable for reuse will be exported to appropriately licensed facilities, while topsoil and subsoil will be reused on site for landscaping, in accordance with the waste and resource management provisions set out in the CEMP. Potential impacts to land, soils, geology and hydrogeology during construction will be effectively limited through the implementation of stringent pollution-prevention measures, including bunded fuel storage, controlled refuelling areas, silt fencing, sediment controls, and restrictions on concrete handling and washout, all of which are detailed in the CEMP and designed to prevent accidental releases to ground or surface water. With these measures in place, the EcIA confirms that no significant long-term adverse effects on soils or the geological environment will occur and that any construction-phase effects will be short-term, localised and fully mitigated.

No operational impacts on land, soil or hydrogeology are predicted, as the completed development will incorporate a fully designed surface water drainage and attenuation system that prevents uncontrolled infiltration or runoff, ensuring continued protection of the receiving environment.

Given the nature of the development, the controls embedded within the CEMP and EcIA, and the limited sensitivity of the receiving environment, the project will not have any significant effects on land or soils during either the construction or operational phases, and the level of impact is not of a magnitude that would warrant the preparation of a sub-threshold EIAR.

In conclusion the development will lead to neutral, slight, permanent effects arising from land-take, with construction-phase impacts on soils being temporary, reversible, and not significant. With mitigation, the probability of adverse effects is unlikely, and no residual significant effects are anticipated.

5.5.4 WATER/HYDROGEOLOGY

The proposed development will not give rise to significant impacts on water, hydrology or hydrogeology, as the site lies within a serviced and controlled environment, and the receiving water environment has a high capacity to assimilate the limited risk presented by a development of this nature. The nearest surface water features are the Ferganstown and Ballymacon Stream and the River Boyne, located approximately 290 m and 380 m respectively from the site, both of which hold a Water Framework Directive status of “Moderate,” with no surface watercourses traversing the development lands and no requirement for any instream works.

The EcIA and NIS confirm that while a hydrological pathway exists between the development and these downstream receptors, the implementation of stringent construction-phase controls will ensure that no adverse effects on water quality can occur, including for the River Boyne and River Blackwater SAC and SPA. The CEMP sets out extensive measures to prevent contamination of groundwater or surface water, including bunded storage of fuels and chemicals, controlled refuelling areas, sediment and silt control, protection of drains and gullies, strict concrete-handling protocols, and restrictions on earthworks during periods of heavy rainfall, all of which minimise the

potential for accidental releases affecting the underlying “High” vulnerability aquifer or adjacent drainage features. Surface water from the completed development will be fully attenuated prior to release, with flows managed through the site’s SuDS network to ensure controlled and treated discharge. As described in the Engineering Services Report, the system has been designed so that *“surface water is attenuated within each zone prior to discharging to a field drain which flows to the Millrace / Farganstown Stream,”* with final outflow regulated to *“15.2 l/s.”*

This approach ensures that runoff is properly managed and treated before leaving the site, consistent with the report’s confirmation that *“attenuated surface water… shall discharge to the Millrace along a trapezoidal open ditch.”* Together, these measures ensure that drainage from the development is carefully controlled, thereby preventing any deterioration in downstream hydrological or ecological conditions.

The CEMP further identifies the site as low risk for significant nuisance emissions and includes measures to protect ecological receptors dependent on water quality, including induction training, monitoring and emergency spill response procedures. As the development does not cross any watercourse, does not require instream works, and incorporates a drainage strategy designed to avoid uncontrolled infiltration or runoff, no operational impacts on surface water, groundwater or hydrogeological conditions are predicted.

The JBA Flood Risk Assessment confirms that the site is not prone to flooding and that the development will not increase flood risk either upstream or downstream. Taking all available assessments and embedded mitigation into account, the potential impacts on water, hydrology and hydrogeology during construction will be short-term and fully mitigated, residual impacts will be imperceptible, and no significant impacts will arise that would warrant the preparation of a sub-threshold EIAR.

The Site-Specific Flood Risk Assessment (JBA Consulting) concluded that:

This FRA has been completed in accordance with The Planning System and Flood Risk Management Guidelines (2009) and their associated Technical Appendices as well as Meath County Council INF POL 14, INF POL 15, INF OBJ 29 and INF OBJ 38. The assessment confirms that:
• The site is predominantly in Flood Zone C and therefore suitable for development.
• The proposed development will not be at risk of flooding during the design flood events.
• The proposed development will not increase flood risk elsewhere
• The design incorporates appropriate mitigation measures and climate change allowances in line with national best practice.
In conclusion, the proposed development is appropriate for its intended use, compliant with planning policy and consistent with the principles of sustainable flood risk management.

In conclusion with embedded mitigation, effects on water and hydrogeology will be neutral, imperceptible, and short-term during construction, and neutral, slight and permanent during operation. Adverse effects are unlikely, and no significant or cumulative impacts remain after mitigation.

5.5.5 AIR QUALITY & CLIMATE

The construction phase of the proposed development has the potential to give rise to short-term, localised dust emissions associated with ground preparation, excavation and vehicle movements; however, the CEMP sets out an extensive suite of dust and air-quality controls, including regular damping of haul routes, covering of stockpiles, use of dust-suppression sprays, wheel washing, speed limits on internal roads, covering of vehicles transporting loose materials and continuous monitoring of dust-generating activities, ensuring that emissions remain within acceptable levels

and do not result in nuisance or deterioration of local air quality. Additional mitigation measures include strict controls on engine idling, the use of well-maintained plant, adherence to specified working hours and good onsite housekeeping, all of which minimise the release of particulate matter and exhaust emissions during construction.

Noise and vibration controls further contribute to the protection of sensitive receptors during this phase. Any dust or particulate emissions that arise will be highly localised and temporary and will cease once construction activities conclude. The CEMP identifies the site as low-risk for air-quality impacts and provides clear procedures for responding to complaints, monitoring atmospheric conditions and adjusting mitigation to suit weather patterns, thereby ensuring effective management throughout the works. During the operational phase, the completed development will consist of modern, energy-efficient industrial buildings designed to meet current standards of thermal performance, thereby minimising long-term emissions and reducing overall energy demand.

Road traffic will remain the primary source of greenhouse gas emissions associated with the development; however, these emissions are minor in the context of national contributions and are not significant enough to have any measurable effect on climate or Ireland's greenhouse gas obligations. As confirmed by the accompanying Transport Statement, the proposed use is of lower intensity in terms of vehicular movements in comparison to a typical commercial storage and distribution warehouse, with the laundry warehouse reliant on a modest fleet of rigid lorries and vans as opposed to HGVs. This mitigates the potential for impacts on the air quality at the location.

The EcIA and NIS confirm that there is no potential for significant impacts on designated ecological receptors arising from air-quality or climate-related pressures, either alone or in combination with other developments. The cumulative air-quality and climate impacts associated with nearby permitted developments, including the residential development under construction to the south, are also assessed as negligible due to the temporary nature of construction emissions and the implementation of robust best-practice measures across all sites.

Overall, with the implementation of the air-quality, dust and emissions controls contained within the CEMP, the proposed development will not adversely affect national air-quality standards, will not give rise to significant greenhouse gas emissions, and will not result in any negative impacts on climate, and the level of effect is not of a magnitude that would warrant a sub-threshold EIAR.

Air and climate effects will be neutral, slight, temporary and fully reversible, with operational impacts assessed as neutral and not significant. The probability of adverse effects is unlikely, and no long-term or residual significant effects will occur.

5.5.6 NOISE & VIBRATION

The following codes and regulations will be followed during the Construction Phase:

- BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites, Part 1 and Part 2
- Safety, Health and Welfare at Work (General Application) Regulations 2007 to 2016, Part 5 Noise and Vibration
- Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations

Noise and vibration associated with the proposed development will arise primarily during the construction phase from excavation, vehicle movements, material handling and general construction activity; however, the CEMP sets out comprehensive controls to ensure these effects remain temporary, localised and within permissible limits, including adherence to the noise thresholds of 55 dB during daytime, 50 dB in the evening and 45 dB at night, compliance with BS

5228-1:2009+A1:2014, strict working-hour restrictions, use of acoustic hoarding, maintenance of all plant and machinery, and the positioning of mobile equipment away from sensitive receptors.

Additional best-practice measures include ensuring all vehicles and plant are fitted with appropriate silencers, shutting down intermittently used machinery when idle, enclosing particularly noisy equipment where required, and notifying the local authority and residents in advance of any activity with potential to exceed normal construction noise levels.

The EcIA confirms that the site is not associated with any noise-sensitive ecological receptors that would be significantly affected by construction activity, and the NIS identifies no potential for significant disturbance to qualifying interests of nearby European sites once mitigation is in place. Construction vibration is not expected to give rise to structural effects, and typical vibration levels from works of this nature are unlikely to cause cosmetic damage to buildings at distances greater than 50 m. Operational noise impacts will be negligible, as the development will function within an established business park, with activities occurring within modern, enclosed industrial buildings designed to appropriate acoustic performance standards.

The CEMP further provides for ongoing monitoring, a clear complaints procedure, and responsive mitigation should unforeseen noise issues arise. With these measures in place, both construction and operational noise and vibration impacts will be minor, short-term where applicable, and will not give rise to any significant adverse effects on the receiving environment, nor to any effects that would warrant the preparation of a sub-threshold EIAR.

Construction-related noise and vibration will be slight, temporary, and reversible, with effects assessed as not significant and unlikely once mitigation is applied. Operational noise impacts will be neutral and imperceptible, with no residual significant effects.

5.5.7 LANDSCAPE

The proposed development is located within an evolving suburban and employment landscape at Boyne Village Business Park, forming part of the wider MP12 lands at Athlumney. The site sits at the fringe of the Navan urban area and is described as lying where *"the west side of the site can be described as 'developed' and the east side… rural in character"*. It does not lie within or immediately adjacent to any designated scenic routes, protected views or valued landscape designations, and the baseline setting comprises agricultural fields, hedgerows, emerging housing areas and new commercial development.

The topography is gently rolling, with *"the highest point of the site… on the north-east boundary"* and land that *"slopes gently… towards the west and southwest"*. Vegetation is limited and consists mainly of hedgerows and small pockets of trees, with surveys noting that *"the majority of the site is agricultural and is largely clear of existing trees"*. Boundary hedgerows along the northern and western edges are the principal existing landscape features, and the wider area is assessed as having a mixed urban-edge character with a *"Medium"* level of landscape sensitivity.

Construction activities will result in temporary landscape and visual effects, including site clearance, ground works, stockpiling, hoarding and the presence of construction plant. These changes represent a short-term alteration from an agricultural setting to an active construction environment. The construction phase is described as involving *"extensive change of the landscape from agricultural lands to a construction site"*, with works that are *"visually adverse in nature"* but temporary and reversible. Construction hoarding and netting will reduce visibility of the works from nearby properties and roads.

Once operational, the completed industrial facility will be read as part of a planned employment expansion area within the MP12 lands. Policy context identifies this location as suitable for industrial and enterprise uses, and the site is expressly supported for such development. The LVIA

prepared by CSR notes that there is *"a significant body of policy that is supportive of major landscape change at this location to form a new industrial site"* and that the area is *"under rapid transition"* as Navan expands eastwards. While the development introduces a new industrial building, its scale and form are described as *"not necessarily substantially uncharacteristic in the context"* of the surrounding emerging built environment.

A comprehensive landscape design strategy ensures integration within the receiving environment. The Landscape Design Statement explains that the approach is based on *"strengthening the site boundaries to provide structure, enclosure and ecological connectivity"*. Existing hedgerows and trees are retained where possible and supplemented with new native planting designed to soften built elements and enhance habitat corridors. New woodland pockets, street trees, natural regeneration areas, native hedgerows and wildflower meadows form part of a layered green infrastructure network. These measures are expected to *"reduce the visual mass of the buildings, soften and partially screen the development over time"*, ensuring that the facility merges into its evolving context.

Verified viewpoints prepared for the application demonstrate that visual effects range from slight to imperceptible across the study area. In several locations the development is barely visible or not visible due to intervening vegetation, particularly the mature hedgerows and trees along the railway line. Where the building is visible, it appears through gaps in vegetation and is assessed as not prominent, with effects typically described as *"adverse in the short term, improving to neutral in the long term"*. Over time, new planting will further reduce visibility as it matures.

Overall, the completed development will be consistent with the planned character of the MP12 employment lands and the transitional urban-edge setting of Athlumney. The LVIA concludes that *"the new landscape structure will evolve to integrate the new industrial site as part of a wider extension of Navan's urban area"*. Given the zoning context, modest building height, intervening vegetation and the comprehensive landscape strategy, the development will not give rise to significant landscape or visual effects, individually or cumulatively, and does not approach a threshold that would warrant an EIAR.

Landscape and visual effects are therefore expected to be temporary and slight during construction, and neutral and not significant during operation, with long-term integration achieved through the proposed planting and boundary treatments.

5.5.8 MATERIAL ASSETS

The site constitutes a zoned and serviced landholding within Boyne Village Business Park and its use for the proposed industrial facility represents an appropriate and planned utilisation of this material asset, fully consistent with its designated development objectives. The development will occupy approximately 4.5 hectares of greenfield land, and while construction will require the use of natural resources such as aggregates, concrete, steel and other building materials, the RWMP confirms that quantities will be controlled through measures such as ordering materials on an as-needed basis, employing off-site prefabrication where possible, minimising oversupply and facilitating reuse or recycling of surplus materials in accordance with circular-economy principles.

Waste generated during construction—including soils, stones, mixed C&D waste, metals, wood, plastics and minor volumes of hazardous materials—will be segregated, stored securely within the designated compound and transferred only to licensed waste facilities or authorised collectors, with detailed record-keeping maintained through the RWMP Waste Register to ensure full traceability and compliance with statutory obligations.

The CEMP provides further management measures to prevent environmental harm, including strict controls on handling, storage and disposal of materials, prohibition of on-site burning or burial of waste, bunded chemical and fuel storage, and the use of sealed containers for construction-related chemicals, all of which prevent impacts on soil, groundwater and nearby watercourses during

construction. As the development does not require significant earthworks, with existing ground levels broadly aligning with finished floor levels, excavated soils will be reused on site where possible and removed to appropriately licensed facilities where reuse is not feasible, thereby minimising waste arisings and transport requirements.

The CEMP also establishes procedures for site induction, toolbox talks, and continuous monitoring of environmental risks, ensuring that the handling of all materials throughout the construction phase avoids adverse impacts on human health, road users, or the surrounding environment. Given the nature of the project, the modest scale of natural resource use, the embedded waste-minimisation, recycling and pollution-prevention measures in both the CEMP and RWMP, and the compliant management of construction and operational waste streams through licensed facilities, the proposed development will not give rise to significant environmental effects relating to the use of material assets or natural resources and does not warrant the preparation of a sub-threshold EIAR.

Effects on material assets (including traffic, waste & utilities) will be neutral, not significant, long-term and unlikely to give rise to significant environmental effects. Construction impacts are temporary, with no residual significant effects predicted.

5.5.8.1 Material Assets Traffic

A traffic assessment prepared by Trafficwise confirms that the scheme can be accommodated within the capacity of the established Masterplan 12 road network, noting that *"the receiving road network… was expressly designed"* to serve the quantum of development anticipated in the Masterplan assessments. Vehicle movements associated with the linen rental and laundry facility differ materially from a typical warehouse, with operational trips occurring outside peak periods. Delivery vehicles *"commonly depart… early in the morning, often between 04:00 and 07:00 hours… resulting in a significant proportion of outbound vehicle movements occurring outside of network peak commuter periods"*, while return journeys are *"spread throughout the late morning and afternoon"*. Staff arrivals are similarly staggered, with shift patterns commencing between *"05:00 and 06:00… 08:00 and 09:00… and a late or evening shift"*, ensuring that employee traffic does not coincide with commuter peaks. As a result, the traffic profile is flatter and more controlled than a conventional warehouse, with fewer articulated HGVs and the majority of movements undertaken by rigid trucks and vans.

The Traffic Statement concludes that the development will generate *"lesser traffic demands"* than the commercial warehousing previously modelled and will not give rise to adverse impacts on the local or strategic network.

5.5.8.2 Material Assets Waste

The proposed development will generate construction and operational waste streams typical of a large industrial project, but the Resource & Waste Management Plan (RWMP) sets out a comprehensive strategy to ensure that waste is minimised, segregated, reused and recycled wherever possible, in accordance with national circular-economy policy and the requirements of Meath County Council. The RWMP confirms that construction waste will include soils, stones, mixed C&D waste, metals, wood, plastics, concrete and minor volumes of hazardous materials, all of which will be segregated on site within a designated compound, stored securely and removed only by permitted waste collectors to licensed recovery or disposal facilities, with full traceability maintained through the Waste Register and statutory record-keeping procedures. The plan targets high levels of reuse and recycling, consistent with national performance of 85% reuse, recovery and recycling of construction waste in 2021, and outlines best-practice measures such as ordering materials on an as-needed basis, using prefabricated components where feasible, employing take-back schemes for packaging and pallets, and reusing excavated soils on site where possible, all of which reduce the use of virgin materials and minimise waste generation.

During operation, the development will generate routine domestic-type waste associated with staff activity, offices and ancillary uses, all of which will be managed by permitted waste contractors in line with the RWMP, with no unusual material resource demands or waste streams expected.

Wastewater from the laundry facility will be treated on site prior to discharging through a private drain to the new 750Φ public sewer in the LDR6. The primary on-site treatment will include reducing water temperature, removing chemicals and adjusting pH levels to comply with discharge requirements prior to releasing water to the public sewer system.

The CEMP complements this by establishing stringent controls on the handling, storage and disposal of waste and hazardous substances, prohibiting on-site burning or burial of materials, ensuring bunded storage for fuels and chemicals, and implementing strict procedures for spill prevention and response, thereby protecting soil, groundwater and surface water during construction. Operational waste will be limited to routine office and staff-related waste streams, which will be managed by licensed operators in accordance with the RWMP, and the facility will not generate any unusual waste types or volumes that could give rise to significant environmental effects. Natural resource use during both construction and operation is modest and limited to conventional construction materials and normal utility demands, with the RWMP and CEMP confirming that resource consumption will not be of a scale that could adversely affect the environment.

With the embedded mitigation measures, segregation systems, licensed waste pathways and continuous auditing procedures set out in the RWMP, supported by the environmental controls in the CEMP, EcIA and NIS, there is no potential for significant environmental effects arising from waste generation or the use of material resources, and the proposed development does not require the preparation of a sub-threshold EIAR.

5.5.8.3 Material Assets Utilities

The overall volume of foul water requiring treatment and disposal will increase as a result of the proposed development. The Engineering Services Report confirms that the site will connect to new foul infrastructure designed to accommodate future development, noting that *"wastewater from the laundry facility will be treated on site prior to discharging… to the new 750Φ public sewer in the LDR6."*

Similarly, the volume of potable water required to serve the facility will increase once operational. Water demand will be facilitated by newly installed mains, with the report stating that *"new 150Φ & 200Φ watermains will be installed in the new Spine Road… [and] the proposed development will be fed from the 200Φ watermain."* The development will be constructed in phases, and utility infrastructure has been designed to support this phased approach.

The adequacy of public utilities has been confirmed, with the Engineering Services Report noting that *"Uisce Eireann has issued a Confirmation of Feasibility for the proposed development,"* demonstrating that the site is fully serviced and that capacity exists to accommodate the development.

It is estimated by HRA that the proposal will require some 35 cubic metres of water per hour of operation and c. 25.75 litres/second. Peak foul water is c. 32.47 L/s as outlined in the HRA Engineering Services Report.

Irish Water have confirmed that the development can be facilitated and a COF is included.

5.5.9 ARCHAEOLOGY, ARCHITECTURE AND CULTURAL HERITAGE

5.5.9.1 Archaeology

As outlined in the archaeological information reviewed as part of this application, the proposed development site at Boyne Village Business Park, within the townlands of Ferganstown and Ballymacon, Navan, Co. Meath, contains no Recorded Monuments and does not lie within a Zone of Archaeological Potential. The surrounding landscape includes known archaeological sites; however, none are located within the development footprint.

Previous archaeological investigations undertaken across the wider business park lands recorded modern disturbance and no significant archaeological features within the area of the current proposed development. Geophysical survey and archaeological trenching carried out for adjoining lands identified only modern anomalies and did not reveal archaeological material of significance.

Based on this baseline, no areas of confirmed archaeological activity lie within the footprint of the proposed industrial laundry facility. However, given that pockets of undisturbed ground may remain, the potential for isolated archaeological features to survive cannot be fully excluded.

Groundworks associated with the development—including foundation excavations, service installation, and topsoil removal—may lead to the disturbance of any previously undetected archaeological deposits. While preservation in situ is the preferred option for archaeological remains, the absence of identified features within the site means no avoidance measures are currently required.

It is recommended that all site stripping and excavation works be subject to archaeological monitoring by a suitably qualified, licensed archaeologist. Should any archaeological features or deposits be uncovered, works in the affected area must cease, and the National Monuments Service shall be consulted. Appropriate mitigation, such as preservation in situ or preservation by record, will be agreed as necessary.

With this monitoring regime in place, any potential impact will be appropriately mitigated, and no significant adverse effects on the archaeological resource are anticipated.

5.5.9.2 Architectural Heritage

The development site is located within an established business park and contains no Protected Structures, Architectural Conservation Areas, or buildings of architectural or industrial heritage significance. Historic mapping indicates the area was formerly agricultural land, and no architecturally significant features are present.

Existing boundary vegetation will be retained where feasible, with only minor interventions required for access. The scale and design of the proposed industrial building are consistent with existing business park development and will not impact any architectural heritage assets or settings.

Accordingly, the proposed development will not give rise to significant architectural heritage effects and does not warrant preparation of a sub-threshold EIAR on cultural heritage grounds.

Archaeological and architectural heritage effects will be neutral, imperceptible, and unlikely, with any potential impacts during groundworks being temporary, reversible, and not significant once monitoring is in place.

5.5.10 THE INTER-RELATIONSHIP BETWEEN THE ABOVE FACTORS

The environmental assessments undertaken for the proposed industrial laundry development have identified only minor impacts across the relevant environmental factors. None of these, whether individually or cumulatively, are considered likely to give rise to significant effects.

Throughout the assessment process, the project team and relevant specialists collaborated to ensure that any potential interactions between environmental topics were fully considered. No interactions were identified that would elevate any minor impacts to a level of significance. Standard construction and operational controls will further ensure that such effects remain negligible.

The proposed development is located within a business park location, and the interaction between human activity, landscape, archaeology, and built environment is expected to remain limited and not significant during either construction or operation. No pathways for indirect, secondary, or cumulative effects were identified that would result in environmental impacts of concern.

Overall, the inter-relationship between environmental factors has been assessed as be neutral, imperceptible, and not significant, with no cumulative or synergistic effects likely.

5.5.11 VULNERABILITY OF THE PROJECT TO RISKS OF MAJOR ACCIDENTS AND/ OR DISASTERS

The Flood Risk Assessment confirms that the proposed development site lies almost entirely within Flood Zone C and is therefore at low risk of flooding. No flooding has been recorded on the lands, and historic flood events in the wider area occurred at locations remote from the site and along lower-lying sections of the Boyne and Millrace. Hydraulic modelling undertaken as part of the FRA shows that the Boyne and its tributary do not pose a fluvial flood risk to the site, with only a small area on the western fringe falling within Flood Zone A/B and this area not forming part of the developable footprint. Predictive modelling completed for the assessment demonstrates that *"the majority of the site is located within Flood Zone C…with only the western fringe of the site located in Flood Zone A/B,"* and this fringe area *"is not proposed for development.*

Other flood sources were assessed and found not to present significant risk: coastal flooding is not relevant given the inland location; groundwater flooding risk is low; and while the rail embankment to the northwest may cause localised surface-water ponding, this will be addressed through the site's stormwater design. Appropriate mitigation is incorporated, with Finished Floor Levels set above the 1% AEP climate-change scenario plus 300 mm freeboard, and above the culvert-blockage scenario. Access and egress remain fully available during all modelled events.

The FRA also confirms that even under a severe culvert-blockage scenario, flood levels remain well below the proposed finished floor levels, ensuring the development is protected under residual-risk conditions. The proposed use is classed as 'less vulnerable' and is fully appropriate in Flood Zone C. Accordingly, the development will not be at risk of flooding, will not increase flood risk elsewhere, and does not give rise to any likely significant effects that would require an EIAR.

The project is expected to result in neutral, imperceptible, long-term impacts related to major accidents or disasters, with significant effects being unlikely due to low site vulnerability and embedded mitigation.

5.5.12 SCHEDULE 7 PARAGRAPH 3 (A)-(H)

The preceding sections above and the associated reports (including plans and particulars) submitted with the application material provides detail on the likely significant effects on the environment taking into account the following:

Schedule 7 - 3. "Types and characteristics of potential impacts":
(a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),

The magnitude and spatial extent of potential effects are outlined in Sections 5.3 and 5.4 of this Screening Report. The proposed development occupies a site of c. 4.5 ha within Boyne Village Business Park, Athlumney, Navan, Co. Meath. The site comprises improved agricultural grassland, hedgerows, and areas of drainage channels, none of which are designated habitats of ecological importance.

The scale, height (c. 15.5 m), and footprint (c. 10,514 sq.m GFA) of the proposed industrial laundry facility are in keeping with the emerging business park context and are therefore not anticipated to generate significant spatial or visual impacts beyond the immediate area. Construction impacts such as noise, dust and traffic movements will be localised, short-term, and effectively mitigated using standard construction practices.

During both construction and operation, the extent of any impacts on the surrounding population is limited, given the commercial location of the site and separation from residential areas to the south. No effects of notable scale on nearby populations are predicted. The proposed development will provide up to c. 200 jobs for the local population of Navan and contribute to the creation of a 'live-work' community at Athlumney in accordance with the objectives of the Meath CDP 2021-2027 (as varied).

Schedule 7 - 3. "Types and characteristics of potential impacts":
(b) the nature of the impact,

Potential impacts relate primarily to temporary construction disturbance (noise, dust, traffic), minor loss of low-value grassland habitat, and hydrological risks during construction. Ecological appraisal confirms the site supports common, low-sensitivity habitats with no protected flora recorded and no invasive species under Schedule 1 detected on site. Boundary hedgerows and drainage channels are of local ecological value and will largely be retained.

Schedule 7 - 3. "Types and characteristics of potential impacts":
(c) the transboundary nature of the impact,

The potential impacts are limited in scale and typical of a commercial development on zoned employment lands. Construction impacts will comprise short-term noise, dust, traffic and ground disturbance, all of which will be managed through standard construction-phase controls.

Ecologically, impacts are minor and relate to the loss of improved grassland and limited hedgerow sections of low ecological value. No protected plant species or invasive species of concern were recorded, and boundary hedgerows and drainage ditches of local value will largely be retained and enhanced through new native planting.

Hydrological impacts during construction are temporary and relate to potential silt or hydrocarbon runoff, which will be mitigated through established best-practice erosion and pollution-control measures. The operational SuDS and attenuation system ensures low and controlled long-term hydrological effects.

Landscape and visual impacts are characteristic of development within an emerging business park and are limited, localised and not significant once operational planting establishes.
Overall, the nature of impacts is straightforward, low-intensity and readily mitigated. No significant or complex environmental effects are expected.

Schedule 7 - 3. "Types and characteristics of potential impacts":
(d) the intensity and complexity of the impact,

No transboundary impacts will arise. All construction-phase and operational effects will be confined to the immediate site and surrounding local area. The lands are not located near any national, regional or administrative boundary, and there are no pathways by which environmental effects could extend beyond the State. The geographical extent and population potentially affected is limited, and no significant transboundary environmental effects are likely.

Schedule 7 - 3. "Types and characteristics of potential impacts":
(e) the probability of the impact,

It is likely that the minor impact of noise and pollution during the construction phase will occur; however, construction works in an urban environment are entirely normal and working hours will be limited generally to hours set by condition or as otherwise agreed. All works carried out will be done so in accordance with approved management plans. In summary, some level of construction impacts is highly probable, but these will be mitigated by the CEMP.

Schedule 7 - 3. "Types and characteristics of potential impacts":
(f) the expected onset, duration, frequency and reversibility of the impact,

It is anticipated that the construction phase will commence within approximately 6 months of planning approval and complete c. late 2028. The construction phasewill be short-medium term, over a period of c. 20-24 months and restricted by planning conditions in terms of the hours of operation.

The frequency of impacts will vary throughout the construction phase; with impacts considered to be not significant. No permanent negative impacts are anticipated as a result of the construction phase of the project. No significant negative impacts are likely.

Operational impacts will be long-term but low in intensity and consistent with existing industrial uses. No irreversible environmental effects are anticipated.

Schedule 7 - 3. "Types and characteristics of potential impacts":
(g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,

The potential for cumulative environmental effects has been considered with reference to other existing, permitted and proposed developments within the wider Athlumney / Boyne Village / MP12 lands. The subject site sits within an area undergoing phased, plan-led development under the Meath County Development Plan 2021–2027 and the Athlumney / Farganstown MP12 Masterplan, where cumulative environmental considerations have already been addressed at strategic level through SEA and AA processes.

In addition to the permitted enterprise development within Boyne Village Business Park (Phase 1 – MCC Reg. Ref. 22/1703), a number of significant residential permissions lie south of the LDR6 and form part of the cumulative development context. These include:

- ABP Ref. 309332 – permission granted (21 July 2021) for 84 no. residential units immediately south of the LDR6;

- LRD Phase 2B (MCC Ref. 24/60415 / ABP Ref. 322341-25) – permission for 322 no. units east of the subject lands;
- MCC Ref. 21/1046 / ABP 312746-22 – permission for 98 no. residential units following demolition of agricultural buildings;
- MCC Ref. 221008 / ABP 315806-23 – permission for 93 no. residential units;
- MCC Reg. Ref. 21/21 / ABP 311673-21 – permission for 95 no. residential units;
- MCC Reg. Ref. 211046 / ABP 314402-23 – 98 no. units (Phase 1A), now being implemented;
- Reg. Ref. 2560539 (ACP LH17.323854) – permission for 223 no. residential units at Ballymacon;
- MCC Reg. Ref. 2660120 / ACP PL-501989-MH-26 – permission for 83 no. residential units at Phase 1D south of the proposed development currently subject to appeal.
- Meath County Council Reg. Ref. 2661048- construction of an estate road and access roads (at time of writing at FIR).

When considered collectively, these developments represent the planned build-out of the MP12 lands and adjoining zoned residential areas. Their cumulative impacts—particularly in relation to traffic, surface water, foul drainage, noise, air quality and ecological sensitivities—have been subject to detailed assessment at application stage and further addressed through consent conditions.

Critically, the Natura Impact Statement for this project confirms that any potential effects on the European sites (River Boyne & River Blackwater SAC/SPA) are fully mitigated and will not act in-combination with other permitted developments to give rise to significant effects. The EcIA similarly concludes that the habitats affected are of local value, that no protected habitats will be removed, and that the proposed development will not contribute meaningfully to cumulative habitat loss within the MP12 lands.

Given the separation distances, the controlled nature of construction activities, the availability of significant capacity in the upgraded road and drainage networks (including the new LDR6 infrastructure), and the implementation of mitigation measures contained in the Construction Environmental Management Plan, no significant cumulative environmental effects are predicted. The proposed development fits within the anticipated scale of employment-based development in the business park, and its operational profile does not introduce emissions, noise or traffic movements of a magnitude that could combine with nearby residential permissions to create significant environmental interactions.

Accordingly, when assessed in combination with existing and permitted development in the Athlumney area—including the approved residential schemes south of the LDR6 and ABP Ref. 309332— the proposed development does not give rise to any likely significant cumulative effects that would trigger the requirement for a sub-threshold EIAR under Schedule 7 of the Planning and Development Regulations.

Schedule 7 - 3. "Types and characteristics of potential impacts":
(h) the possibility of effectively reducing the impact.

There are three established strategies for impact mitigation — avoidance, reduction and remedy. The efficacy of each is directly dependent on the stage in the design process at which environmental considerations are taken into account (i.e. impact avoidance can only be considered at the earliest stage, while remedy may be the only option available to fully designed projects).

Appropriate mitigation measures will be undertaken in order to reduce likely significant effects on the environment arising from the proposed development, as set out in the documents included with the application and as contained in Appendix 2 of this EIA Screening Report.

Any mitigation measures to manage noise, dust and/or pollution during the construction phase will be based on standard best practice, recognised construction guidelines and applicable environmental policies. A Construction Environmental Management Plan accompanies the planning application and provides for measures including dust suppression, sediment and surface-water controls, pollution-prevention protocols, and the management of construction traffic. The construction phase will be conducted in accordance with a range of best-practice mitigation measures to reduce the generation of dust and emissions from construction activities, plant and heavy vehicles. All mitigation measures shall be incorporated into the Construction Phase Environmental Management Plan.

During the operational phase, the development will comprise modern, energy-efficient and well-insulated industrial and office buildings, designed to minimise energy consumption and emissions. As confirmed in the ecological and Natura impact assessments, there is no impact on air pollution expected from the development outside of minor localised dust associated with routine traffic movements, and therefore the risk to human health is considered negligible in this regard. Standard operational-phase controls, including appropriate surface-water management, waste management procedures and environmental best practice, will be employed.

Overall, it is considered that the impacts associated with the proposed development can be effectively reduced through the proposed suite of avoidance, reduction and management measures, and no residual significant environmental impacts are likely to arise.

Having regard to the magnitude, nature, extent, probability, duration, and reversibility of potential effects, all predicted environmental effects are neutral, not significant, and unlikely to give rise to significant environmental impacts.

5.6 SCHEDULE 7A PARAGRAPH 4. THE COMPILATION OF THE INFORMATION AT PARAGRAPHS 1 TO 3 SHALL TAKE INTO ACCOUNT, WHERE RELEVANT, THE CRITERIA SET OUT IN SCHEDULE 7.

The compilation of the information at paragraphs 1 to 3 in Sections 5.3-5.5 of this EIA Screening document has taken into account, where relevant, the criteria set out in Schedule 7.

6.0 EIA SCREENING SUMMARY/CONCLUSIONS

The Proposed Development has been assessed in accordance with the screening criteria set out in Annex III of the European Union '*EIA Directive'* and in accordance with the national legislation transposing same, including the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended).

The proposed development would not adversely impact on the existing environment. The proposed development is located on lands that are suitably zoned for industrial warehouse development and these zoned lands have undergone Strategic Environment Assessment (SEA) as part of the county development plan process.

Based on the assessment carried out in the appropriate sections of this Screening Report, it can be concluded that the proposed development will not have significant effects on the environment during both the Construction and Operational Phases.

Having regard to:

(a) the nature and scale of the proposed development, including amendments at further information, which is below the threshold in respect of Paragraph 10 (a) and 10 (b)(iv) of Part 2 of Schedule 5 of the Planning and Development Regulations 2001, as amended,
(c) The existing use on the site and pattern of development in surrounding area;

(d) The availability of mains water and wastewater services to serve the proposed development;
(e) The guidance set out in the "*Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development*," issued by the Department of the Environment, Heritage and Local Government (2003),
(f) The criteria set out in Schedule 7 of the Planning and Development Regulations 2001 (as amended), and
(g) The features and measures proposed by the applicant envisaged to avoid or prevent what might otherwise be significant effects on the environment, including measures identified in the reports included with the particulars, (including the Outline CEMP, EclA, RWMP, OWMP, Transport Statement/MMP and Appendix 2 of this report) it is considered that the proposed development would not be likely to have significant effects on the environment and that the preparation and submission of an environmental impact assessment report is not therefore required.

It is concluded that, by reason of the nature, scale and location of the subject site, there is no real likelihood of significant effects on the environment arising from the proposed development and an Environmental Impact Assessment Report (EIAR) is not required.

APPENDIX 1: ARTICLE 103(1A)

EU Legislation	Nature of the assessment completed	Conclusion of the assessment
Directive 92/43/EEC, The Habitats Directive	Natura Impact Statement (ORS) Ecological Impact Assessment (ORS) Landscape Design Statement (CSR) Arboricultural Assessment (CSR)	The NIS concludes that *no likelihood of significant effects* on any European Site arises, and the project *will not adversely affect the integrity* of the River Boyne & River Blackwater SAC/SPA. The EcIA confirms *no significant ecological impacts*, with *long-term biodiversity enhancement*.
Directive 2000/60/EC, EU Water Framework Directive	Natura Impact Statement , CEMP (ORS) Drainage Strategy / Engineering Report FRA (JBA)	No significant impact on surface or groundwater bodies once construction-phase controls and SuDS measures are implemented.
Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (SEA Directive)	Meath County Development Plan 2021–2027 SEA & Athlumney MP12 Masterplan SEA	The site zoning and the receiving environment have been assessed through SEA at plan-level. No new significant environmental effects arise.
Directive 2002/49/EC on the assessment and management of environmental noise	CEMP (ORS) Noise Mitigation Measures	No significant impact once proposed control measures are implemented.
Directive 2008/50/EC on ambient air quality and cleaner air for Europe	CEMP (ORS) Air Quality & Dust Controls	No significant impact once proposed control measures are implemented.
Directive 2007/60/EC on the assessment and management of flood risks	Flood Risk Assessment (JBA Consulting)	No significant impact once proposed control measures are implemented.
Other relevant provision of EU law	**Nature of the assessment completed**	**Conclusion of the assessment**
Bern and Bonn Convention & Ramsar Convention.	EcIA + NIS (ORS) CEMP (ORS)	No significant impact once proposed control measures are implemented.
Directive 2006/21/EC on the management of waste from extractive industries	Not relevant	N/A
Directive (EU) 2018/850 on the landfill of waste	RWMP and OWMP	No significant impact once proposed control measures are implemented.
Directive 2008/98/EC on waste and repealing certain Directives as amended by Directive 2018/851/EU	RWMP and OWMP	No significant impact once proposed control measures are implemented.

Directive 2010/75/EU on industrial emissions	Not relevant	No effect; IED not triggered.
Regulation (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register	Not relevant	N/A
Directive 2000/14/EC on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for use outdoors	CEMP noise controls + compliant plant	No significant noise impact once mitigation is implemented.
Directive 2012/27/EU on energy efficiency	Energy & Climate Report (ORS)	No significant impacts; building designed as modern energy-efficient industrial facility.
Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the EU	Not relevant	N/A
Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013	Energy & Climate Report (ORS)	No notable greenhouse gas impact; emissions minimal and compliant with national policy. A
Regulation (EU) 2018/841 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU (Text with EEA relevance) Text with EEA relevance	Not relevant	N/A
Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources	Energy & Climate Report (ORS)	No significant impact; development supports efficient energy use.
Regulation (EU) No 517/2014 on fluorinated greenhouse gases	Not relevant	N/A
Directive 2012/18/EU on the control of major accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC	Not relevant	N/A

This Statement, prepared in accordance with Article 103(1A)(a) of the Planning and Development Regulations 2001 (as amended), confirms that all relevant assessments of the

effects of the Proposed Development on the environment, carried out pursuant to applicable European legislation, have been reviewed and taken into account.
The Appropriate Assessment process has established that, notwithstanding the proximity of the Proposed Development to the River Boyne and River Blackwater SAC and SPA, the project will not give rise to any likely significant effects on Natura 2000 sites, and will not adversely affect the integrity of any European site.

Having regard to the outcomes of the Natura Impact Statement, Ecological Impact Assessment, Flood Risk Assessment, CEMP, RWMP/OWMP, Transport Statement, Landscape Assessment, and all other accompanying technical reports, together with the findings of this EIA Screening, it is concluded—based on best scientific knowledge and in accordance with the criteria set out in Schedule 7—that the Proposed Development is not likely to have significant adverse effects on the environment.

Accordingly, the preparation of a mandatory Environmental Impact Assessment Report (EIAR) **is not required** for the Proposed Development.

APPENDIX 2: SCHEDULE 7 – PARAGRAPH 3. "TYPES AND CHARACTERISTICS OF POTENTIAL IMPACTS": (H) THE POSSIBILITY OF EFFECTIVELY REDUCING THE IMPACT. MITIGATION MEASURES

The NIS submitted with this application sets out the following mitigation measures:

General Mitigation Measures

The work areas must be kept to the minimum area **required** to carry out the proposed works, and the area should be clearly demarcated and cordoned off in advance of work commencement.

- Prior to the commencement of works on site, the site engineer and contractors should be made aware of the ecological sensitivity of the site and its surrounding habitats. They should also be notified of the proximity and connectivity of the site to Natura 2000 sites via the Ferganstown and Ballymacon stream. They must be made familiar with the mitigation measures outlined in this NIS, and, if possible, a statement signed by them acknowledging these mitigation measures should be presented to the Local Authority along with the Notice of Commencement.
- It is vital that there is no deterioration in water quality in the screened-in Natura 2000 sites. This will protect both habitats and species that are sensitive to pollution within the designated sites. Strict controls of erosion, sediment generation and other pollutants associated with the construction process should be implemented, including the provision of attenuation measures, silt traps or geotextile curtains to reduce and intercept sediment release into the local watercourse.
- Guidelines in the following best-practice documents should be adhered to:
    - CIRIA (2005) *Environmental Good Practice on Site* (C692)
    - CIRIA (2001) *Control of Water Pollution from Construction Sites* (C532)
    - CIRIA (2000) *Environmental Handbook for Building and Civil Engineering Projects* (C512)
    - EPA (2015) *List of Waste and Determining if Waste is Hazardous or Non-Hazardous*
    - Environment Agency et al. (2015) *Guidance on the Classification and Assessment of Waste, Technical Guidance WM3*

Protection of Surface and Groundwater

The main pollutants with the potential to impact water receptors are silt, fuel/oil, concrete and chemicals. The steps outlined below aim to eliminate contamination of the site's surface water runoff and contain potential groundwater contamination. Measures include:

- Harmful materials such as fuels, oils, greases, paints and hydraulic fluids must be stored in bunded compounds well away from storm water drains and gullies. Refuelling of machinery should be carried out using drip trays.
- Only appropriately trained site operatives are permitted to refuel plant and machinery on site.
- Regular inspections must be carried out on plant and machinery for leaks and general condition.
- All manholes and gullies must be covered with silt-fencing material and sandbags to limit silt and chemical run-off into surface water.
- Runoff from machine servicing and concrete/grout mixing areas must not enter storm water drains, ditches leading off-site, or the Ferganstown and Ballymacon stream.
- Spill kits shall be available on site.
- No direct discharges are to be made to waters where there is potential for cement residues, oils or chemicals.
- Stockpile areas for sands and gravel should be kept to a minimum size and located well away from storm water drains, ditches leading off-site, and the Ferganstown and Ballymacon stream.

- Open excavations must be backfilled immediately following installation of services.
- Earthworks and the movement of plant on soil surfaces must be avoided during periods of extensive rainfall to limit silt-laden runoff and damage to soil structure.
- Pre-cast concrete should be used wherever possible. Where cast-in-place concrete is required, it must be placed in dry conditions and effectively isolated from flowing water or drains for a sufficient period to ensure no leachate enters the system.

Concrete/aggregate management:

- Best practice must be used for bulk-liquid concrete management, including pouring, handling, shuttering and curing.
- Shuttering must be secure to prevent failure and contain shutter oils.
- Ready-mix concrete wagons and mixers should be washed off-site to minimise emissions to watercourses.
- Activities producing cement dust must be controlled by dampening.
- Raw or uncured waste concrete must be removed from site or buried in a location and manner that prevents watercourse contamination.
- Cement pours should be scheduled for dry days.

Silt control:

- Silt fencing must be installed along the western site boundary between the works area and the Ferganstown and Ballymacon stream.
- Fencing must be installed according to manufacturer guidelines, regularly inspected by the Environmental Manager, and retained until all ground disturbance and silt-generating activities have ceased.
- All material and earth removed should be stockpiled within a bunded area or within a geotextile barrier until required for use.
- Soil stockpiles must be covered during high winds or inclement weather if required.
- No instream works should be carried out without prior consultation with the relevant authorities.

Disturbance and Displacement Effects

During construction, disturbance will primarily arise from noise, dust and vibrations.
Mitigation includes:

Noise and Vibration

The contractor will aim to restrict noise levels as follows:

- Daytime (07:00–19:00): 65 dB
- Evening (19:00–23:00): 50 dB
- Night (23:00–07:00): 45 dB (measured at the nearest sensitive receptor)

Additional measures:

- No heavy machinery operated outside permitted hours.
- No works on Sundays or Bank Holidays.
- Comply with BS 5228 *Noise Control on Construction and Open Sites*.
- Load/unload materials only during normal working hours.
- Ensure plant/equipment complies with relevant noise limits.
- Fit plant/equipment with silencers.
- Use equipment only for its intended purpose.
- Locate movable plant away from noise-sensitive receptors.
- Use mains or battery-powered equipment where possible instead of diesel/petrol generators.
- Obtain written approval for any extension of working hours.
- Notify residents and the Local Authority in advance of any unavoidable high-noise activities.

Dust and Air Quality

- Avoid exposing soil until reinstatement layers are ready.

- Assess dust-control procedures continually during working hours.
- Place stockpiles strategically to reduce wind exposure.
- Use water sprays on internal roads to suppress dust.
- Apply dust suppression to protect adjacent properties and paths.
- Cover/dampen stockpiles during windy dry conditions.
- Cover all loads during transport.
- No burning of materials on site.

Habitat Loss and Fragmentation

- The development will not result in direct land-take or degradation of Natura 2000 habitats.
- Potential indirect effects on aquatic habitats from surface-water emissions will be prevented through the surface-water and silt-control measures described above.

Invasive Species Control

- Vehicles must undergo inspection prior to entering the site to ensure they are free of invasive species; washing may be required.
- Any soil imported to the site must be confirmed free of invasive species.
- Equipment must be free of rhizomes or plant fragments, particularly species such as Japanese knotweed.
- If invasive species are encountered, the area must be demarcated and an Invasive Species Management Plan prepared to prevent further spread or translocation.

Operational Phase Mitigation

Protection of Surface and Groundwater

- Significant effects on surface or groundwater quality during operation are not expected.
- No operational impacts to Natura 2000 sites are predicted.

Disturbance and Displacement During Operation

- Restrict noisy operational activities (e.g., maintenance) to daytime hours (e.g., 08:00–18:00).
- Direct external lighting downwards with full cut-off to prevent spill.
- Use warm-colour LEDs (<3000K).
- Use motion sensors/timers for external lighting where feasible.
- Maintain unlit or low-light corridors to support wildlife movement and reduce skyglow.
- Plant hedgerows or trees to screen light sources at boundaries.

Habitat Loss and Fragmentation

- No habitat loss or fragmentation of Natura 2000 sites will occur during operation.

Invasive Species (Operational)

- No new measures are required during operation provided construction-phase measures prevent introduction.
- Biosecurity protocols must continue for all future soil imports or site works.

The EcIA submitted with this application sets out the following mitigation measures:

Pre-Construction Phase Mitigation Measures
General Measures

- Site preparation and development must be confined to the redline boundary only.
- All works must adhere to the mitigation measures presented in the report and in any other best-practice or specialist reports issued for the project.
- Working areas must be kept to the minimum required and clearly demarcated prior to works commencing.

Roles & Responsibilities

- A dedicated Ecological Clerk of Works is not required unless directed by the Competent Authority.
- A member of site staff (e.g. Resident Engineer) should act as **Environmental Manager** and will be responsible for:
    - Reviewing, implementing and routinely monitoring all mitigation measures.
    - Staying updated on best practice and legislation to ensure construction is compliant.
    - Attending site and stakeholder meetings as needed.
    - Ensuring method statements are prepared for any works with potential environmental effects.
    - Delivering environmental awareness training and toolbox talks before works begin.
    - Managing environmental complaints and responding to environmental incidents.

Training

- All site personnel must be appropriately skilled, qualified and experienced.
- The Contractor must provide a full site induction to all workers before construction begins.
- Staff must be briefed on the environmental and ecological sensitivities of the site, including its hydrological linkage to the Ferganstown & Ballymacon stream and the River Boyne and River Blackwater SAC/SPA.
- Toolbox talks must be delivered to ensure site personnel understand ecological sensitivities.

Construction Phase Mitigation Measures
Mitigation of Sediment & Dust Emissions

- Keep stockpile areas for sand and gravel to a minimum and locate them away from stormwater drains, gullies and drainage ditches.
- Provide covers for soil stockpiles during high winds or bad weather.
- Install silt fencing along the west and southwest of the site, between works areas and the western drainage channel/Ferganstown & Ballymacon stream.
- Inspect silt fencing regularly and retain it until all ground disturbance and silt-generating works are complete.
- Avoid excavation works during or after heavy rainfall (yellow warning or >5 mm rainfall in 1 hour).
- Follow best practice guidance including:
    - CIRIA C532 – *Control of Water Pollution from Construction Sites*
    - NRA (2008b) – *Guidelines for the Crossing of Watercourses*
    - IFI (2016) – *Protection of Fisheries During Construction Works*
- Reuse excavated material responsibly on site or dispose of excess material at a licensed facility.
- No excavated material is to be disposed of within designated sites (NHA, SAC, SPA).
- Dampen stockpiles during extended dry weather to reduce dust emissions.

Control of Harmful Substances

Chemicals (paints, aerosols, adhesives, solvents)

- Store chemicals in secure bunded containers away from watercourses.
- Maintain Safety Data Sheets (SDS) for all chemicals on-site.

Hydrocarbons (fuels, oils, greases)

- Store all hydrocarbons in fully bunded areas away from stormwater drains and gullies.
- Only trained operatives may refuel plant/machinery.
- Contain all runoff from servicing and refuelling areas.
- Fuel bowsers must be stored in bunds with 110% vessel capacity.
- Refuel vehicles/machinery off-site where possible.
- If onsite refuelling is needed, designate a refuelling zone safely distant from the stream.
- Use drip trays for large machinery and plant nappies for portable equipment.
- Provide spill kits and hydrocarbon-absorbent materials at refuelling and storage areas.
- Inspect machinery routinely and repair leaks immediately.

Concrete

- Employ best practice for concrete management, including careful pouring, secure shuttering and proper curing.
- Avoid onsite wash-down of concrete-contaminated equipment. If unavoidable, wash equipment into lined skips for disposal at a licensed facility.
- Keep runoff from concrete mixing areas contained on site.
- Schedule cement pours for dry conditions.

Protection of Watercourses

- Fully implement all sediment, dust and harmful substance controls described above.
- No instream works may occur without consultation with Meath County Council, IFI, NPWS, OPW and Uisce Éireann.
- Conduct any vehicle wash-down more than 20 m from the watercourse.

Housekeeping & Tidiness

- Maintain a regular programme of site tidying to ensure a safe and orderly construction environment.
- Strictly control food waste to avoid attracting wildlife such as birds and vermin.
- Clean vehicle wheels before exiting site when required.

Control of Invasive Species

- Inspect vehicles before site entry to ensure they are free of invasive species. Wash down where necessary.
- Confirm imported soils are free of invasive plant material.
- Ensure equipment is free of invasive rhizomes, especially Japanese knotweed.
- If invasive species are found, demarcate the area and prepare an Invasive Species Management Plan to prevent spread or translocation.

Mitigation of Noise & Vibration Emissions

- Ensure all plant/equipment complies with the noise limits of Directive 2000/14/EC.
- Fit all machinery with the manufacturer-recommended mufflers or silencers.
- Use machinery only for its intended purpose.
- Position noise-generating equipment away from noise-sensitive receptors.
- Use mains-powered or battery-powered equipment where feasible to reduce engine noise.

Mitigation of Light Emissions

- Strategically position temporary lighting to minimise illumination beyond the works area.
- Avoid directing lighting towards hedgerows and watercourses where possible.
- Choose lighting column heights that minimise spill.
- Limit works to daylight hours when feasible to avoid disruption to commuting/foraging bats.

Habitat Protection

- It is an offence to cut, grub, burn or destroy vegetation on uncultivated land during restricted periods under the Wildlife Amendment Act.
- Only remove vegetation where absolutely necessary for development.
- Conduct vegetation removal outside the bird-nesting season (1 March–31 August).
- Avoid herbicide use near watercourses; use manual removal methods where possible.
- Implement all pollutant-control measures to avoid impacts on aquatic habitats, the local drainage channel, aquifer and downstream rivers.

Wildlife Protection

- If tree felling is required, leave felled trees and branches on the ground for several hours before processing to allow any bats to vacate.
- Implement pollutant-control measures to protect aquatic species in the local stream.
- Avoid use of pesticides/rodenticides; if unavoidable, apply in accordance with CRRU best-practice guidance.

Operational Phase Mitigation Measures

Mitigation of Sediment & Dust Emissions

- Reseed or allow natural regeneration of exposed soils to prevent silt mobilisation.

Control of Harmful Substances

- No specific chemical control measures are required during operation.

Protection of Watercourses

- Operational surface water drainage must follow SuDS principles and ensure proper control of water quality and quantity.

Housekeeping & Tidiness

- Keep all waste and litter away from drainage channels and swamp habitats.
- No additional measures required beyond standard best-practice litter control.

Control of Invasive Species

- No new invasive species controls are required, provided construction-phase measures were effective.
- Continue biosecurity during any future soil importation or works to ensure materials and machinery are free of invasive propagules.

Mitigation of Noise & Vibration Emissions

- No specific operational noise/vibration mitigation measures are required.

Mitigation of Light Emissions

- Lighting design should follow bat-sensitive lighting guidance.
- Use downward-directed luminaires, shielding and warm-colour temperatures to minimise spill and skyglow.
- Avoid excessive illumination.

Habitat Protection

- Maintain grassy verges with infrequent mowing to allow longer grass and wildflowers to develop.
- Use only native tree and shrub species in landscaping.
- Keep river crossings, culverts and drains clear and functioning.
- Prevent pollutants such as de-icing salts, hydrocarbons and sediments from entering watercourses.

Wildlife Protection

- The combined measures for water quality, noise, lighting and habitat management will provide ongoing protection for local wildlife.

Working Hours

Construction hours will follow standard best-practice:
07:00–18:00 Monday–Friday, 08:00–15:00 Saturday, no works on Sundays or Public Holidays, unless otherwise required by Meath County Council.

Out-of-hours works will only occur where essential (e.g., utility tie-ins) and will require prior agreement with the local authority.

Traffic and Transportation

Construction traffic will access the site using the existing and permitted Boyne Village Business Park estate roads, reached via Roundabout 3 on Local Distributor Road 6, which is the designated vehicular access point for the proposed development. This ensures construction vehicles remain within the established commercial road network and avoid unnecessary interaction with residential areas. A Construction Traffic Management Plan will be prepared before works commence, setting out routing, delivery scheduling, site access protocol and coordination with other business park operations. Construction vehicle movements are expected to be temporary and moderate, typical of a commercial project of this scale. During the construction period, measures will be put in place to ensure pedestrian and cyclist safety, including clear temporary signage, controlled access points and appropriate separation between construction plant and public circulation routes.

Soils and Geology

Excavation and ground preparation works will be undertaken in a controlled and phased manner to minimise exposure of soils and reduce the potential for erosion or sediment mobilisation. Topsoil removal will be limited to active working areas and stockpiled in stable locations away from watercourses. Subsoil excavation will similarly be phased, and disturbed ground will be stabilised promptly through backfilling or surfacing. Where practicable, excavated material will be reused on site as fill, reducing the requirement for off-site transport. Any material unsuitable for reuse will be transported to authorised waste facilities. These measures, combined with the planned surface water management strategy, will effectively reduce geological and soil-related impacts.

Water - Hydrogeology

The site drains to the Ferganstown and Ballymacon Stream, which flows northwards to the River Boyne and River Blackwater SAC/SPA. Because of this established hydrological connection, construction-phase runoff management is critical. All surface water from exposed soil and excavated areas will be directed to temporary settlement areas or attenuation ponds for treatment before controlled discharge. Protective buffer zones will be maintained along the drainage channels to prevent accidental disturbance. Refuelling, equipment maintenance and storage of oils or chemicals will take place within designated bunded areas to prevent pollution. Concrete washout will not be undertaken on site, and pumped concrete activities will be monitored to eliminate uncontrolled discharges. These measures align with those recommended in the NIS to ensure that no contaminants can enter the drainage system or reach the designated Natura 2000 sites downstream.

Biodiversity

The EcIA identified habitats on site including improved grassland, hedgerows, drainage ditches and a localised reed/sedge swamp, with no protected plant species and no invasive species detected. Hedgerows and wetland features will be retained where feasible and protected during construction using exclusion fencing. Any required vegetation removal will be timed to avoid the nesting bird season (March–August), unless surveys by a qualified

ecologist confirm no nesting activity. Construction lighting will be directional and minimised to avoid unnecessary disturbance to nocturnal species such as bats, particularly in areas adjacent to hedgerows and the drainage corridor. In addition, water protection measures set out in the NIS will prevent any deterioration in water quality that could affect qualifying interests of the nearby European sites, including Salmon, Lamprey, Otter and Kingfisher.

Waste Management

Waste generated during the construction phase will be managed in accordance with the Operational Waste Management Plan, which outlines appropriate segregation, storage and disposal procedures. Waste materials will be separated into recyclable and non-recyclable streams, with all handling undertaken in designated areas within the construction compound. Hazardous waste, including oils or chemicals, will be stored in bunded containers and removed by licensed waste contractors to authorised facilities. Full records of all waste movements will be kept in compliance with legislative requirements. Opportunities for on-site reuse of materials will be taken wherever practical to reduce overall waste volumes.

Noise and Vibration

Noise-generating activities will be managed using best-practice measures including properly maintained machinery, acoustic covers on equipment where applicable, and reduced engine idling. Construction activities likely to generate higher noise levels will be restricted to standard working hours. The contractor will implement measures consistent with BS 5228 to ensure noise and vibration effects remain within acceptable limits for nearby sensitive receptors, primarily residential areas south of the site. Where necessary, noise monitoring may be undertaken during critical phases of the works.

Air, Dust and Climate Factors

Dust emissions during construction will be managed through a combination of site watering during dry weather, cleaning of hard-surfaced roads, minimising drop heights for material handling and covering stockpiles where needed. Vehicle access points will be checked to ensure no dust-generating debris is carried off site. In periods of very high winds, dust-intensive activities may be paused. Complaints procedures and monitoring measures will be in place to ensure any air quality issues are addressed promptly.

Archaeology and Cultural Heritage

There are no recorded monuments within the site and previous archaeological assessments in the wider business park did not reveal significant findings. However, given the presence of pockets of previously undisturbed ground, all topsoil stripping in such areas will be archaeologically monitored. Should any features of archaeological potential be discovered, works will stop in that area and a licensed archaeologist will advise on appropriate mitigation—either preservation in situ or preservation by record—subject to consultation with the National Monuments Service.

Site Compound Facilities and Parking

A construction compound will be established within the development site and positioned to avoid ecologically sensitive wetland areas. The compound will include secure welfare facilities, potable water supply, waste segregation areas and designated parking for staff and plant. Foul effluent from the compound will be tankered to a licensed facility until a connection to the public foul sewer is available. The compound will be enclosed with secure fencing and will operate under controlled access.

Landscape and Visual Mitigation

Temporary fencing or hoarding will be erected to reduce visual exposure to construction activities. Existing hedgerows will be retained where feasible and new planting will be introduced as part of the landscape strategy, reinforcing the site boundary and contributing to long-term visual integration of the development within the business park setting. Post-construction landscape maintenance will ensure successful establishment of planting.

Summary

The mitigation measures set out above are tailored directly to the confirmed environmental pathways and sensitivities identified for the proposed industrial laundry development. Through application of best-practice construction management, hydrological protection, biodiversity safeguards, controlled waste handling, noise and dust mitigation and archaeological oversight where needed, the potential impacts of the development can be effectively reduced to non-significant levels. These measures collectively ensure that the proposed project will not give rise to likely significant environmental effects.