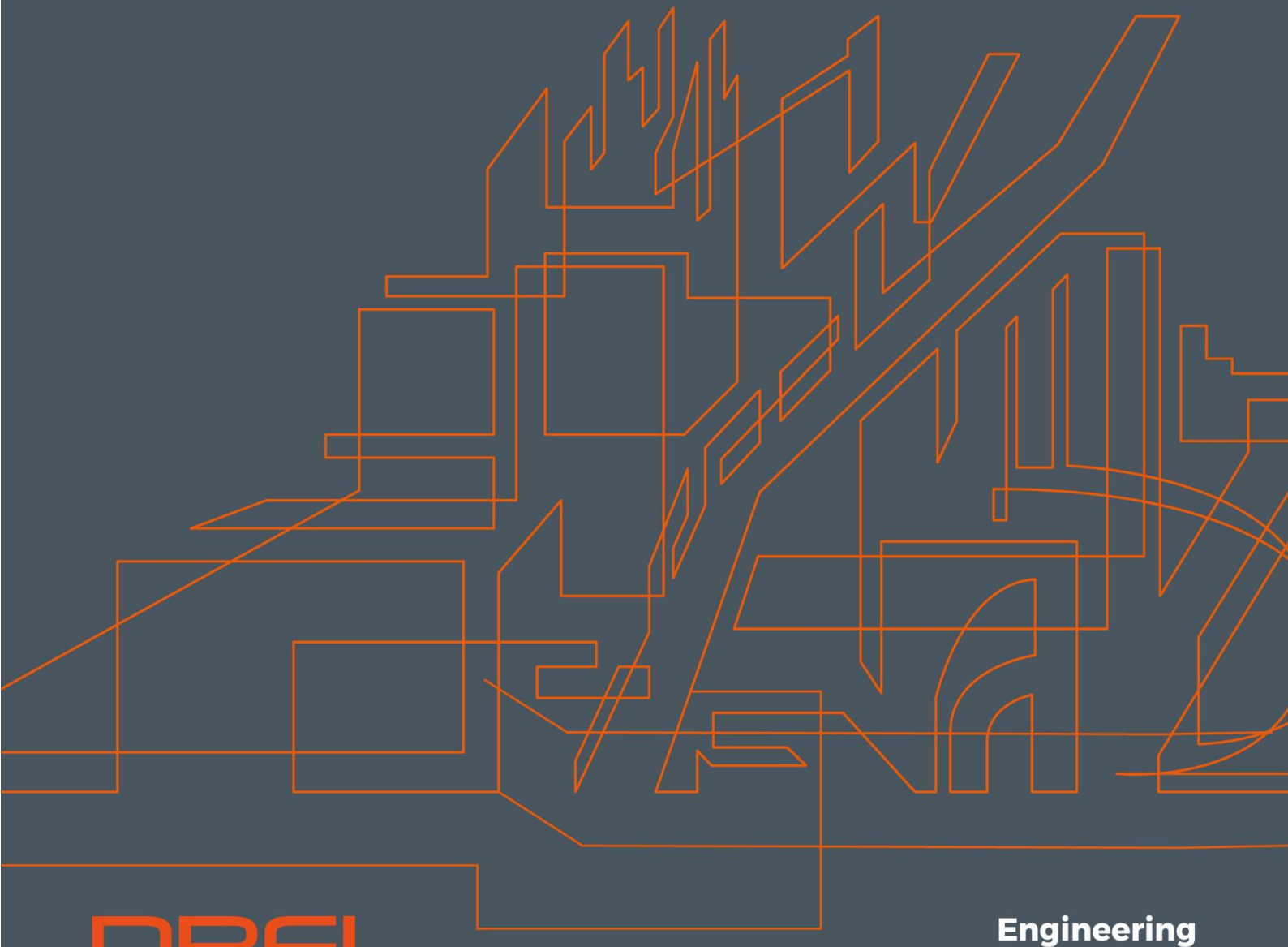
Kishoge Part 10 Application

Site 3 - Preliminary Construction & Environmental Management Plan

KSG3-DBFL-XX-XX-RP-C-0002

May 2025



DBFL CONSULTING ENGINEERS

Engineering Sustainable Futures

Project Title:	**Kishoge Part 10 Application**		
Document Title:	**Site 3 - Preliminary Construction & Environmental Management Plan**		
File Ref:	**KSG3-DBFL-XX-XX-RP-C-0002**		
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Status	Rev.	Date	Description	Prepared	Reviewed	Approved
P1	0	24/02/25	Draft Planning Issue	Darren Richardson	Dieter Bester	John Carr
P3	0	21/03/25	Issued for Planning	Darren Richardson	Dieter Bester	John Carr
P3	1	12/05/25	Issued for Planning	Darren Richardson	Dieter Bester	John Carr

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Figures

1 INTRODUCTION

1.1 Background

This PCEMP has been prepared by DBFL Consulting Engineers in support of the planning application for the Site 3 development within the Kishoge Part 10 Application. The proposed development is part of the Clonburris Strategic Development Zone (SDZ) within the administrative area of South Dublin County Council (SDCC).

The project is currently at planning stage and as such, input from the contractor has not been incorporated into the plan. On appointment of a contractor, this preliminary document will be issued to them to be further developed into their final construction management plan for the project. The final construction management plan would be submitted by the contractor, to be agreed with the planning authority prior to commencement of the development.

The outline plan seeks to demonstrate how works can be delivered in a logical, sensible and safe sequence, with the incorporation of specific measures to mitigate the potential impact on people and the surrounding environment, particularly the residential areas adjacent to the site.

Nothing stated in this document shall supersede or be taken to replace the terms of the Contract or the detailed design description issued with the Contract tender or the conditions of planning. Similarly, the issues covered within this document may be amended or added to by the main contractor or in accordance with their specific works proposals, sequencing and procedures.

When read by the contractor, this document should be read carefully in conjunction with all drawings, specifications and survey information provided.

Any consequences that result through failure to implement measures in this construction plan, or inadequate development of this plan by the contractor are the responsibility of the contractor and not DBFL.

1.2 Site Location

The overall Clonburris SDZ lands, of approximately 280 Ha, are located to the west of Dublin City Centre and the M50, between the N4 and N7 national primary routes. The Kildare/Cork railway line bisects the lands centrally and the Grand Canal forms the southern boundary.

The subject site for this planning application is situated in the northern area of the SDZ lands, to the north of the Kildare/Cork railway and directly west of Grange Castle Road (R136).

The site will be accessed from the existing Adamstown Avenue which runs from northeast to southwest through the proposed site. The future Clonburris Northern Link Street (NLS) which links Ninth Lock Road and Adamstown Avenue will also provide access to the southeast of the site. See Figure 1.1 below.

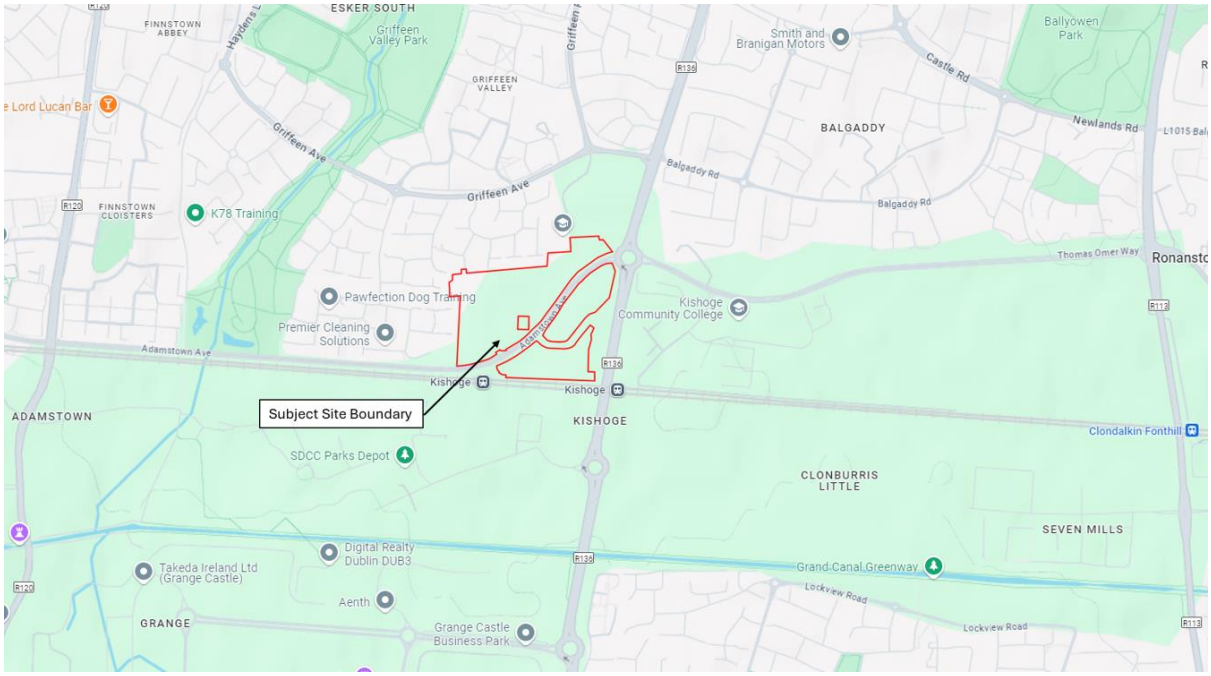

Figure 1.1 Kishoge Site 3 Location

The subject site lies within Kishoge North-West, sub-sectors KNW-S1, KNW-S2, KNW-S3, and within Kishoge Urban Centre, KUC-S1 at the southeast of the site boundary as shown in Figure 1.2 below. Collectively, these sub-sectors are known as Development Area 7 and Development Area 6 respectively, as per the Clonburris SDZ planning scheme.

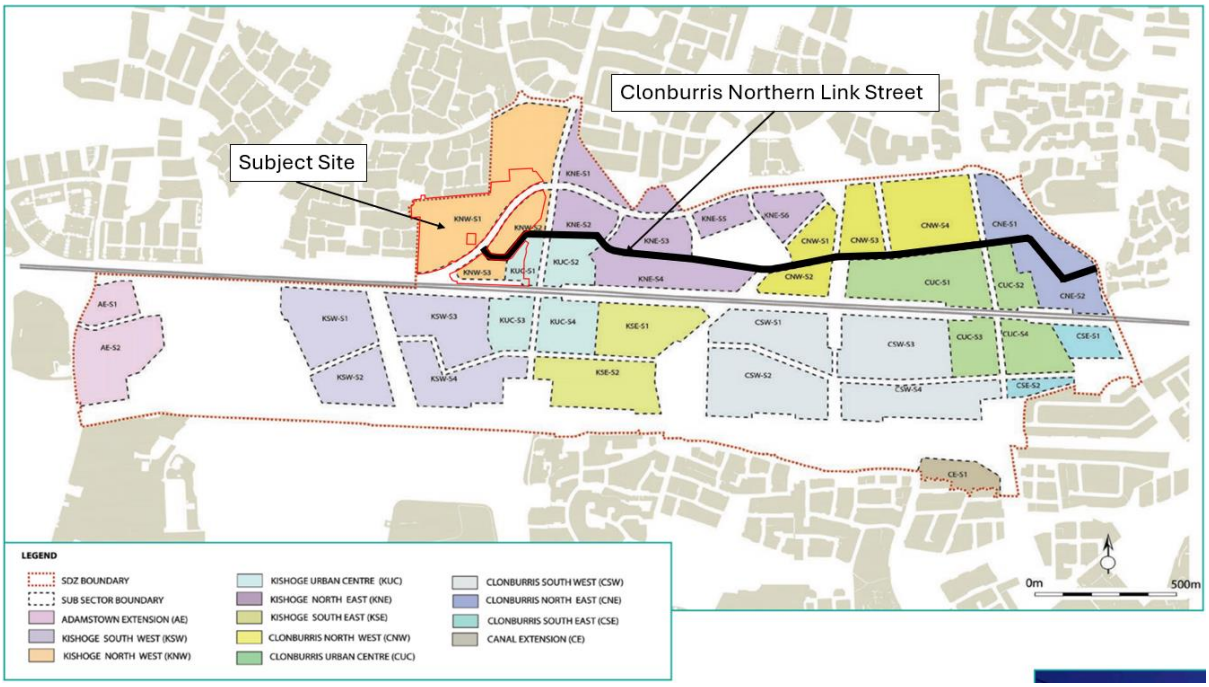

Figure 1.2 Clonburris SDZ (Site 3 boundary indicative)

The proposed site will benefit from trunk infrastructure proposed as part of the Clonburris Infrastructure Stage 2 works for which planning has been approved under planning reference SDZ24A/0033W. The Clonburris Northern Link Street (NLS) and associated works include trunk road, drainage, watermain and utility infrastructure to serve the Clonburris SDZ lands to the north of the Kildare/Cork Railway Line, which include the subject site. The proposed site will also benefit from upgrades to the existing Adamstown Avenue.

1.3 Proposed Development

The proposed development comprises 580no. residential units in a mix of house, apartment, duplex and triplex units comprising 1-bedroom, 2-bedroom and 3-bedroom typologies; 2-storey childcare facility; All associated and ancillary site development and infrastructural works including surface level car parking, bicycle parking, hard and soft landscaping and boundary treatment works, including public, communal and private open space, public lighting, bin stores and foul and water services. Vehicular access to the site will be from Adamstown Avenue and the Northern Link Street, proposed under concurrent application Reg. Ref. SDZ24A/0033W.

2 CONSTRUCTION PROGRAMMING & PHASING

2.1 Phasing

The project is currently at planning stage and subject to approval and detailed design. It is estimated that planning permission may be received in the fourth quarter of 2025. The development would have an estimated site program of 40 months depending on construction phasing.

The construction works will be phased. An indicative construction phasing plan is shown in Figure 2.1 below.

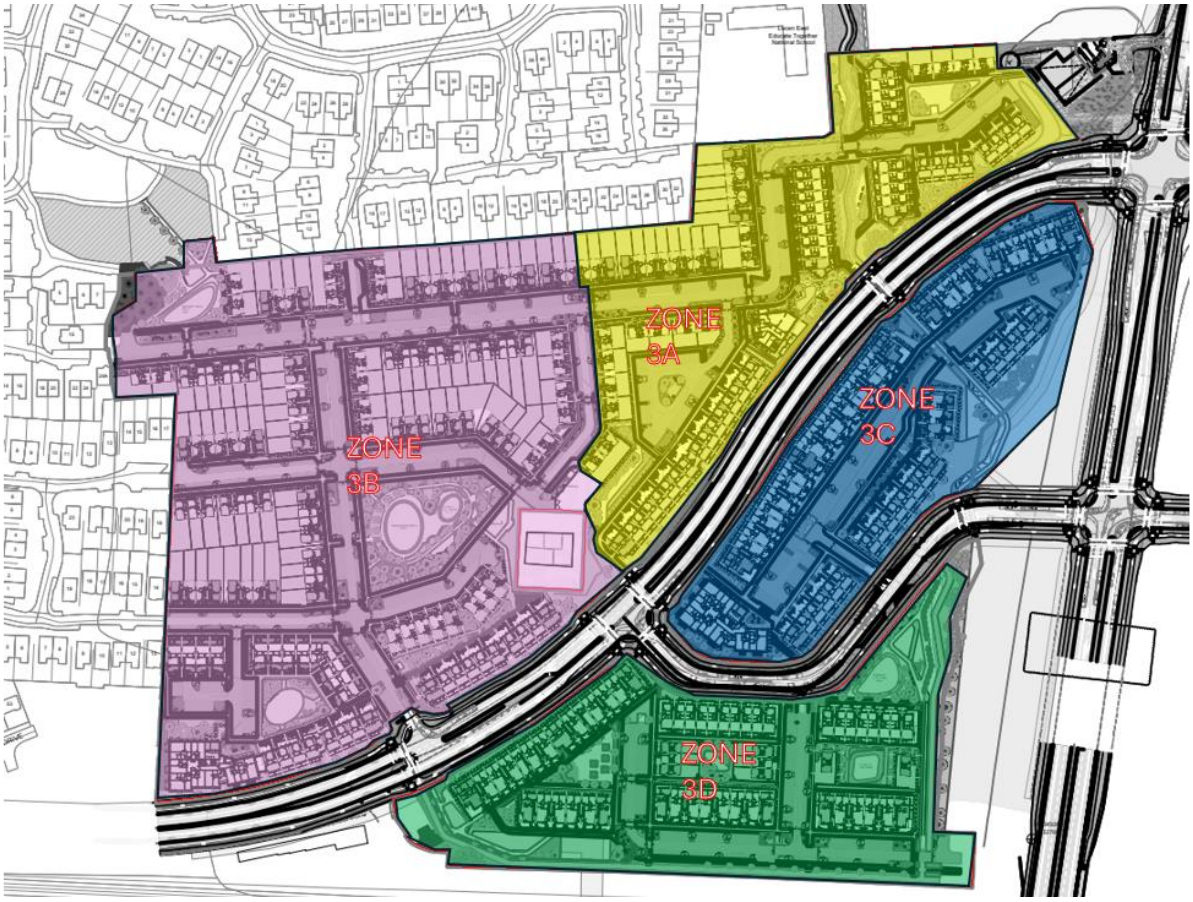

Figure 2.1 Indicative Phasing Plan

2.2 Co-ordination & Interactions

The proposed development is intended to be constructed in parallel with the Clonburris Northern Link Street (NLS) works and Adamstown Avenue upgrade works. Therefore, interactions will be required between the developments throughout the works.

In order to manage interactions between the proposed site and the NLS works, a Project Liaison Group will be established. This group will have regular meetings to ensure a co-ordinated approach to design interfaces, works programmes and environmental management activities for both sides. The group will consist of the Construction Project Manager for both sites and both sites' PSCS, PDSP and key design staff as required.

As part of the northern Clonburris SDZ planning scheme, the infrastructure and services of the proposed development are to connect into those provided by the Clonburris NLS works. Co-ordination is required between the developments to ensure that a programme detailing an accurate sequence of works for each infrastructure and services element of the NLS is established. The following elements need to be co-ordinated prior to commencement of the works:

- Works programmes – Activities which may impact the adjoining site will be co-ordinated. For example, where road construction works or service installation affect access along Adamstown Avenue or the NLS to the residential development, the works shall be phased so that alternative access routes are maintained via secondary site access routes. Likewise, key residential development phases such as bulk material import/export shall be co-ordinated with NLS so that arrangements can be made to maintain this traffic through the NLS site.
- Site Levels – Permanent access to the proposed development is to be via the Clonburris NLS and Adamstown Avenue. All road, footpath and floor levels are to be finalised and co-ordinated with the NLS levels prior to construction of the internal roads network.
- Attenuation/Surface Water Drainage – Stormwater run-off generated on the proposed site is to be collected and discharged to the network within the NLS. The surface water network constructed as part of the NLS needs to complete prior to final connection from the proposed development. All drainage works for the proposed development to be carried out in accordance with the Clonburris "Surface Water Management Plan".
- Foul Sewer – The foul sewers constructed as part of the NLS to be complete prior to final connection from the proposed development. All connections and discharge points to be approved by Irish Water.
- Water Supply – All watermains within the Clonburris NLS to be complete prior to final connection from the proposed development. All connections and discharge points to be approved by Irish Water.

2.3 Site Access

The primary access to the site will be from Adamstown Avenue where existing stubbed access points have been formed (Figure 2.2 and Figure 2.3).

Access points will be provided from the proposed Clonburris NLS to the southeast of the site.

See Figure 2.4 below for proposed access plan.

Figure 2.2 Access location from Adamstown Avenue (access to NW of site)

Figure 2.3 Access location from Adamstown Avenue (access to SW of site)

Figure 2.4 Kishoge Site 3 proposed access

2.4 Site Compound Facilities & Parking

The exact location of the construction compound is to be confirmed in advance of commencement of the works.

The construction compound may be relocated during the course of the works.

- The construction compound will include adequate welfare facilities such as washrooms, drying rooms, canteen and first aid room as well as foul drainage and potable water supply.
- The proposed construction compound is to be located in an area with easy access to the NLS and access route shown in Figure 2.4.
- Contractor is to liaise with the NLS construction team to ensure that access to and from the compound has minimal impact on the Adamstown Avenue and Clonburris NLS works.
- Foul drainage discharge from the construction compound will be transported off site to a licensed facility until a connection to the public foul drainage network has been established.
- The construction compound's potable water supply shall be protected from contamination by any construction activities or materials.
- The construction compound will be enclosed by a security fence.
- Access to the compound will be security controlled and all site visitors will be required to sign in on arrival and sign out on departure.
- A permeable hardstand area will be provided for staff car parking.
- A separate permeable hardstand area will be provided for construction machinery and plant.
- The construction compound will include a designated construction material recycling area.
- Way finding signage will be provided to direct staff, visitors and deliveries as required.
- All construction materials, debris, temporary hardstands etc in the vicinity of the site compound will be removed off-site on completion of the works.
- Site security will be provided by way of a monitored infrastructure system such as site lighting and CCTV cameras, when deemed necessary.

2.5 Working Hours

For the duration of the proposed infrastructure works, the maximum working hours shall be 07:00 to 19:00 Monday to Friday (excluding bank holidays) and 09:00 to 13:00 Saturdays, subject to any additional restrictions that may be imposed.

No working will be allowed on Sundays and Public Holidays.

Subject to the agreement of the local authority, out of hours working may be required for water main connections, foul drainage connections etc.

3 TRAFFIC & TRANSPORTATION

A construction stage Traffic Management Plan (TMP) will be prepared for the works by the main contractor. The principal objective of the TMP is to ensure that the impacts of all building activities generated during the construction of the proposed development upon both the public (off-site) and internal (on-site) workers' environments, are fully considered and proactively managed / programmed, respecting key stakeholders and thereby ensuring that both the public's and construction workers' safety is maintained at all times, disruptions minimised, and works undertaken within a controlled hazard free / minimised environment. The TMP shall be prepared in accordance with the principles outlined above and shall comply at all times with the requirements of:

- Department of Transport Traffic Signs Manual 2010 – Chapter 8 Temporary Traffic Measures and Signs for Roadworks.
- Department of Transport Guidance for the Control and Management of Traffic at Road Works (2010).
- Any additional requirements detailed in the Design Manual for Roads and Bridges (DMRB) & Design Manual for Urban Roads & Streets (DMURS).

In general, the impact of the construction period will be temporary in nature and less significant than the operational stage of the proposed development (HGV vehicle movements not expected to exceed 5 vehicles per hour during the busiest period of construction works).

Construction Traffic will consist of the following categories:

- Private vehicles owned and driven by site staff and management.
- Construction vehicles e.g. excavation plant, dump trucks.
- Materials delivery vehicles involved in site development works (including trucks for delivery of imported fill to site).

On-site employees will generally arrive before 08:00, thus avoiding morning peak hour traffic. These employees will generally depart after 16:00.

Excavated material will be reused as part of the site development works (e.g. use as non-structural fill under green areas) in order to minimise truck movements to and from the site.

4 SOILS & GEOLOGY

Site development works will include the stripping of topsoil, excavation of subsoil layers (and importation of fill). These activities have the potential to expose the soils and geological environment to pollution.

The contractor shall obtain approval of their proposed erosion and sediment control measures from South Dublin County Council's Environment Section prior to commencing works on site.

The following sections outline the measures to be implemented in order to mitigate against such risks.

4.1 Stripping of Topsoil

- Stripping of topsoil will be carried out in a controlled and carefully managed way and coordinated with the proposed staging for the development.
- At any given time, the extent of topsoil strip (and consequent exposure of subsoil) will be limited to the vicinity of active area works.
- Topsoil stockpiles will be protected for the duration of the works and not located in areas where sediment laden runoff may enter existing surface water drains.
- Topsoil stockpiles will also be located as not to necessitate double handling. Stockpile locations should be located so that they can be maintained separate from those used by the NLS works.
- The contractor shall co-ordinate the transport of soils to and from the site with the NLS works to limit traffic flow through the NLS works.

4.2 Excavation of Subsoil Layers

- The duration that subsoil layers are exposed to the effects of weather will be minimised.
- Disturbed subsoil layers will be stabilised as soon as practicable (e.g. backfill of service trenches, construction of road capping layers, construction of building foundations and completion of landscaping).
- Stockpiles of excavated subsoil material will be protected for the duration of the works, stockpiles of subsoil material will be located separately from topsoil stockpiles.
- Subsoil stockpiles will also be located so as not to necessitate double handling. Stockpile locations should be located so that they can be maintained separate from those used by the Clonburris Stage 2 works.

- The PCEMP for Clonburris Stage 2 works indicates that temporary soil storage for the NLS & Adamstown Avenue will be in the locations identified in Figure 4.1 below. The phasing of soil storage and transport shall be agreed between both the subject site's and NLS site's contractors as per Section 2.2.

Figure 4.1 Temporary Soil Storage Locations for Clonburris Infrastructure (Stage 2)

4.3 Excavation of Rock

- Where bedrock is encountered in excavations, it will be crushed, screened and tested for use within the designed works to reduce the volume of material required to leave site.
- Rock will typically be excavated using rock breakers or blasting where adequate separation distance can be achieved to existing properties. Rock breaking procedures to be agreed with South Dublin County Council prior to commencement.
- The duration that bedrock is exposed to the effects of weather shall be minimised. Disturbed bedrock layers shall be backfilled as soon as practicable (e.g. backfill of service trenches, construction of road capping layers, construction of foundations and completion of landscaping).
- Excavated rock stockpiles will also be located so as not to necessitate doubling handling.

4.4 Weather Conditions

- Typical seasonal weather variations will also be considered when planning the stripping of topsoil and excavations with an objective of minimising soil erosion.

5 WATER – HYDROLOGY & HYDROGEOLOGY

The following measures are to be implemented during the construction phase to mitigate risks to the water and hydrogeological environment.

5.1 Erosion & Sediment Control

- Measures shall be implemented to capture and treat sediment laden surface water runoff (e.g. sediment retention ponds, surface water inlet protection, fencing and signage around specific exclusion zones and earth bunding adjacent to open drainage ditches) prior to discharge of surface water at a controlled rate.
- Groundwater pumped from excavations shall be directed to on-site settlement ponds.
- Discharge from any vehicle wheel wash areas shall be directed to on-site settlement ponds.
- On-site settlement ponds shall include geotextile liners and riprapped inlets and outlets to prevent scour and erosion.
- Weather conditions and seasonal weather variations shall be considered when planning the stripping of topsoil and excavations, with an objective of minimising soil erosion.
- The duration that bedrock layers are exposed to the effects of weather shall be minimised by backfilling excavations as soon as practicable after construction of the drainage and pumping station.

5.2 Accidental Spills & Leaks

- In order to mitigate against spillages contaminating underlying soils and geology, all oils, fuels, paints and other chemicals shall be stored in a secure bunded hardstand area.
- Refuelling and servicing of construction machinery shall take place in a designated hardstand area which is also remote from any surface water inlets (when not possible to carry out such activities off site).
- An Emergency Response Plan detailing the procedures to be undertaken in the event of the spillage of chemical, fuel or hazardous wastes will be prepared prior to construction.
- Pouring of concrete, including the wash down and wash out of concrete from delivery vehicles shall be controlled in an appropriate facility to prevent contamination.
- Regular samples shall be taken from soils affected by earthworks which shall be analysed for contamination.

5.3 Concrete

- Concrete batching will take place off site, wash down and wash out of concrete trucks will take place off site and any excess concrete is not to be disposed of on site.
- Pumped concrete will be monitored to ensure there is no accidental discharge.
- Mixer washings are not to be discharged into surface water drains.

5.4 Wheel Wash Areas

- Discharge from any vehicle wheel wash areas is to be directed to on-site settlement ponds, debris and sediment captured by vehicle wheel washes are to be disposed off-site at a licensed facility.

6 ECOLOGY

The following measures are to be implemented during the construction phase in order to mitigate risks to flora and fauna:

- Ensure that pre-construction surveys are conducted for protected flora and fauna.
- Ensure that rare and protected flora are relocated to a suitable safeguarded area (i.e. the safeguarded northern riparian zone of the Kilmahuddrick Stream in Site 4).
- Ensure that protected fauna are checked, recorded and safeguarded appropriately prior to any site clearance. Clearance to be conducted in a time outside of breeding, nesting and hibernation seasons, or, where this cannot be observed, a check for active nests or hibernating fauna.
- Ensure that invasive species (e.g. Japanese Knotweed) are treated appropriately and removed prior to site clearance to limit spreading.
- Ensure the relocation of essential soils along with the relocation of rare and protected flora in order to minimise the likelihood of relocation failure and ensure optimal reestablishment of these species within their new habitat.
- Ensure the relocation of the existing dry meadow and grassy verge habitat to the areas of the landscape plan designated for 'meadow grass' and 'grassy 'habitat'.
- Ensure the integration of small sections of the existing hedgerow and treelines, along with the topsoil, to the planned 'double staggered native hedgerow' within the landscape plan.

The contractor shall also refer to the particular detailed mitigation measures for ecology as set out in chapter 6 of the EIAR for the development.

7 WASTE MANAGEMENT

The following measures are to be implemented during the construction phase in order to reduce the amount of waste produced, manage the wastes generated responsibly and handle waste in such a manner as to minimise the effect on the environment:

- Spill kits shall be located within the site compound with clearly labelled instructions on how they shall be used to clean up fuel/oil spills.
- All vehicle and plant oils and liquid construction materials shall be stored in secure impermeable storage units.
- All diesel-powered generators shall be inspected on at least a weekly basis by a delegate of the project manager to ensure it is not leaking diesel or oils.
- All empty containers containing residual quantities of oils, greases and hydrocarbon-based liquids shall be stored in a dedicated, clearly labelled impermeable container.
- Storage of waste materials shall be located so that they can be maintained separate from those used by the NLS & Adamstown Avenue works.
- The contractor shall also refer to the mitigation measures for waste as set out in the EIAR for the development.
- Building materials should be chosen with an aim to 'design out waste'.
- On-site segregation of non-hazardous waste materials into appropriate categories.
- On-site segregation of hazardous waste materials into appropriate categories.
- All wastes segregated at source where possible.
- All waste material will be stored in skips or other suitable receptacles in a designated area of the site.
- Left over materials (e.g. timber off-cuts) shall be re-used on site where possible.
- All waste leaving the site will be recycled, recovered or reused where possible.
- All waste leaving the site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.
- It will be the responsibility of the Resource and Waste Manager (RWM) to ensure that a written record of all quantities and natures of wastes exported off-site is maintained on-site in a Waste File at the Project office.
- It is the responsibility of the RWM that all contracted waste haulage drivers hold an appropriate Waste Collection Permit for the transport of waste loads and that all waste materials are delivered to an appropriately licensed or permitted waste facility in compliance with the following relevant Regulations:

- Waste Management (Collection Permit) Regulations 2007 (SI No.820 of 2007).
- Waste Management (Collection Permit) Amendment Regulations 2016 (SI No.247 of 2016).
- Waste Management (Collection Permit) Amendment No. 2 Regulations 2023 (SI No.104 of 2023).
- Waste Management (Facility Permit and Registration) Regulations S.I.821 of 2007 and the Waste Facility Permit under the Waste Management (Facility Permit and Registration) (Amendment) Regulations S.I.250 of 2019.
- Waste Management Act 1996 (Revised 1st July 2023).

- Prior to the commencement of the project, the RWM shall identify a permitted Waste Contractor(s) who shall be engaged to collect and dispose of all inert and hazardous wastes arising from the project works.

8 NOISE & VIBRATION

During the works the contractor shall comply with the requirements of BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014 (Code of Practice for Noise and Vibration Control on Construction and Open Sites) as well as Safety, Health and Welfare at Work (General Application) Regulations 2007, Part 5 Noise and Vibration.

In particular, the following practices are to be implemented during the construction phase:

- Limiting the hours during which site activities that are likely to create high levels of noise and vibration are permitted.
- Erection of a barrier along site boundary (e.g. Standard 2.4m high construction hoarding) to remove direct line of sight between noise source and receiver when construction works are being carried out in proximity to noise sensitive receivers.
- The Contractor shall co-ordinate with the NLS & Adamstown Avenue works to ensure that noise mitigation methods implemented do not obstruct the works.
- Establishing channels of communication between the contractor, local authority residents and contractors involved with the NLS & Adamstown Avenue works.
- Appointing a site representative responsible for matters relating to noise.
- A noise and vibration monitoring specialist will be appointed to periodically carry out independent monitoring of noise and vibration during random intervals and at sensitive locations for comparison with limits and background levels.
- Selection of plant with low inherent potential for generation of noise.
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints and implementation of noise reduction measures such as acoustic enclosures.
- Avoid unnecessary revving of engines and switch off plant when idle.
- All vehicles and mechanical plant used for the purpose of the Works shall be fitted with effective exhaust silencers and shall be maintained in good and efficient working order. In addition, all diesel engine powered plant shall be fitted with effective air intake silencers.
- All ancillary pneumatic percussive tools shall be fitted with mufflers or silences of the type recommended by the manufacturers, and where commercially available, dampened tools and accessories shall be used.

Noise Limits

Noise Limits to be applied for the duration of construction works are as set out in the National Roads Authority (NRA) Guidelines for Treatment of Noise and Vibration in National Roads Schemes

(summarised below in Figure 8.1) and BS 5228-1:2009+A1:2014 (Code of Practice for Noise Control on Construction and Open Sites).

Days & Times	$L_{Aeq\ (1hr)}$ dB	$L_{pA(max)slow}$ dB
Monday to Friday 07:00 to 19:00hrs	70	80[2]
Monday to Friday 19:00 to 22:00hrs	60[2]	65[2]
Saturday 08:00 to 16:30hrs	65	75
Sundays and Bank Holidays 08:00 to 16:30hrs	60[2]	65[2]

Figure 8.1 NRA Guidelines for Maximum Permissible Noise Levels at the Façade of Dwellings During Construction

BS 5228 applies a noise limit of 70 dBA between 07:00 am and 19:00 pm outside the nearest window of the occupied room closest to the site boundary in suburban areas away from main road traffic and industrial noise.

For the duration of construction works, a daytime noise limit (07:00 am to 19:00 pm) of 70 dBA shall apply (in accordance with the requirements of BS 5228 and generally in agreement with the NRA guidelines).

Vibration Limits

Vibration Limits to be applied for the duration of construction works are as set out in BS 5228-2:2009+A1:2014 (Code of Practice for Vibration Control on Construction and Open Sites) and BS 7385: 1993 (Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration). Allowable vibration during the construction phase is summarised below in Figure 8.2.

Days & Times	$L_{Aeq\ (1hr)}$ dB	$L_{pA(max)slow}$ dB
Monday to Friday 07:00 to 19:00hrs	70	80[2]
Monday to Friday 19:00 to 22:00hrs	60[2]	65[2]
Saturday 08:00 to 16:30hrs	65	75
Sundays and Bank Holidays 08:00 to 16:30hrs	60[2]	65[2]

Figure 8.2 NRA Guidelines for Allowable Vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration

9 AIR QUALITY & CLIMATE

The primary air quality impact during the construction phase relates to nuisance dust emissions.

The following dust suppression practices are to be implemented during the construction phase:

- The Contractor shall prepare a dust minimisation plan which shall be communicated to all site staff.
- Establishing channels of communication between the contractor, local authority residents and contractors involved with the NLS & Adamstown Avenue work.
- Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic.
- Any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions.
- Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly (on any un-surfaced site road, this will be 20 kph and on hard surfaced roads as site management dictates).
- Vehicles delivering material with dust potential (soil, aggregates, imported fill etc.) will be enclosed or covered with tarpaulin at all times to restrict the escape of dust.
- Public roads outside the site will be inspected on a daily basis for cleanliness and cleaned as necessary.
- Debris, sediment, grit etc. captured by road sweeping vehicles is to be disposed off-site at a licensed facility.
- Vehicles exiting the site shall make use of a wheel wash facility where appropriate prior to entering onto public roads.
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.
- During movement of materials both on and off-site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.

10 LANDSCAPE & VISUAL IMPACT ASSESSMENT

Proposed construction phase mitigation measures are summarised below:

- Site hoarding will be erected to restrict views of the construction activity e.g. standard 2.4m high construction hoarding.
- Site hoarding to be co-ordinated with NLS and Adamstown Avenue works.
- Establishment of tree protection measures as required (no-dig construction zones, tree protection fencing and existing hedgerow retention). Any trees which are not to be taken down shall remain undisturbed and undamaged.
- Tree protection fences if required are to be constructed in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'.
- A 'Construction Exclusion Zone' notice shall be placed on tree protection fencing at regular intervals.
- Tree Protection Zones are not to be used for car parking, storage of plant, equipment or materials.
- A post construction re-assessment of any retained trees shall be carried out.

11 ARCHAEOLOGICAL, ARCHITECTURAL & CULTURAL HERITAGE

It is recommended that monitoring of ground disturbances associated with the proposed development be carried out in accordance with the direction of the project Archaeologist.

Full provision should be made for the resolution of any archaeological features / deposits that may be discovered, should that be deemed the most appropriate manner in which to proceed.

The contractor shall also refer to particular mitigation measures as set out in the EIAR for the development.

12 MATERIAL ASSETS: SITE SERVICES

Existing Underground Services

- The locations of all existing underground services are to be confirmed by the contractor prior to commencing any works on site.
- In particular, the presence of a high-pressure Gas Main adjacent west of the site is noted. All works in the vicinity of the gas main by agreement with Gas Networks Ireland.

Existing Overhead Services

- Existing overhead ESB lines are located in the vicinity of the site.
- For works in the vicinity of existing overhead electrical lines, refer to ESB's Code of Practice for Avoiding Danger from Overhead Electrical Lines.

Clonburris NLS Underground Services

- The contractor shall co-ordinate the construction of the underground services of the proposed development with those constructed as part of the Clonburris Northern Link Street (NLS) & Adamstown Avenue prior to final connection.

ENVIRONMENT ISO 14001:2015 NSAI Certified

HEALTH & SAFETY ISO 45001:2018 NSAI Certified

QUALITY I.S. EN ISO 9001:2015 NSAI Certified

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