

**PROPOSED HOUSING DEVELOPMENT AT
MOURNE VIEW, SKERRIES, CO. DUBLIN**
**CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN AND RESOURCE AND
WASTE MANAGEMENT PLAN**

BSM

Est.
1968

**Brady Shipman
Martin**

**Built.
Environment.**

Environmental
Assessment
**Built
Environment**

Client:

Fingal County Council

Date:

18 October 2023



DOCUMENT CONTROL SHEET

6970_RPEIA02_Construction Environmental Management Plan and Resource and Waste Management Plan

Project No. 6970
Client: Fingal County Council
Project Name: Proposed Residential Development at Mourne View, Skerries, Co. Dublin
Report Name: Construction Environmental Management Plan and Resource and Waste Management Plan
Document No. RPEIA02
Issue No. 02
Date: 18/10/2023

This document has been issued and amended as follows:

Issue	Status	Date	Prepared	Checked
01	Draft	02 Oct 2023	NK	MH
02	For Issue	18 Oct 2023	NK	MH



CONTENTS

1	Introduction	1
2	Description of Proposed Development	1
2.1	Proposed Development Site	1
2.2	Proposed Development Overview	2
3	Methodology	5
4	Construction Programme	6
4.1	Construction Sequence	6
4.1.1	Site Enabling Works	6
4.1.2	Sub-structure and Superstructure Works.....	6
4.1.3	Infrastructure Works.....	7
4.1.4	Construction Phasing & Duration.....	7
4.1.5	Construction Materials	7
4.1.6	Earthworks.....	7
4.1.7	Hazardous Substances	7
5	Construction Management and Controls	8
5.1	Project Roles and Responsibilities	8
5.2	Construction Traffic.....	8
5.2.1	Road Cleaning.....	9
5.3	Site Compound.....	9
5.4	Working Hours.....	10
5.5	Public Health and Site Safety.....	10
5.6	Emergency Responses	10
6	Environmental Management and Controls	11
6.1	Population and Human Health	11
6.2	Biodiversity	11
6.3	Land, Soils, Hydrology, Air & Climate.....	12
6.4	Noise and Vibration	14
6.5	Material Assets, Cultural Heritage and Landscape and Visual	15
6.6	Risk Management.....	16
7	Waste Management	17
7.1	Resource and Waste Management Plan (RWMP)	17
7.1.1	Non-hazardous waste	17
7.1.2	Contaminated Soil.....	17
7.1.3	Hazardous substances	18
7.1.4	Invasive Plant Species	18
7.1.5	Demolition Waste	19
7.1.6	Construction Waste Generation.....	19
7.2	Operational Waste Management Plan	19
8	Environmental Management Procedures	20
8.1	Construction / Environmental Manager	20

8.2	Training.....	21
8.3	Control of Records.....	22
9	Conclusion	22
10	References.....	23

1 Introduction

Fingal County Council (FCC) proposes to construct a residential development comprising of 14no. dwellings and associated infrastructure at Mourne View, Skerries, Co. Dublin ('the proposed development').

This document comprises a Construction Environmental Management Plan (CEMP) and Resource Waste Management Plan (RWMP) for the proposed social housing development at Mourne View. It sets out the proposed development works and the environmental measures to be implemented during the construction works in order to prevent, manage, minimise or mitigate any environmental impacts that may arise as a result of the proposed development.

This document is to be read in conjunction with the following documents:

- Environmental Impact Assessment (EIA) Screening Report (Brady Shipman Martin, 2023);
- Appropriate Assessment (AA) Screening Report (Brady Shipman Martin, 2023);
- Architectural Report (Fingal County Council, 2023);
- Engineering Report (McMahon Associates, 2023);
- Ground Investigation Report (Causeway Geotech, 2023).

The CEMP/RWMP will be a working document and will be finalised by the Contractor following appointment and prior to commencing works on site. However, all of the content provided in the CEMP/RWMP will be implemented in full by the Contractor and its finalisation by the Contractor will not affect the robustness and adequacy of the information presented.

The CEMP/RWMP is a live document, and the Contractor will ensure that it remains up to date for the duration of the construction period. The CEMP/RWMP may need to be altered during the lifecycle of the construction period to take account of monitoring results, legislative changes, outcomes of public consultations etc. Additional appendices may be added to the CEMP/RWMP to accommodate monitoring results, permits etc.

2 Description of Proposed Development

2.1 Proposed Development Site

The proposed development site (refer to **Figure 2.1** below) is located at Mourne View in Skerries. This is a greenfield site and comprises of 'Site A' and 'Site B'. Site A is bounded by open space to the east, south and west and by existing residential development of Mourne View to the north. Site B is bound by open space to the south and the existing residential development of Mourne View to the north and west and *Realt na Mara* National School to the east. The Skerries Community College is c. 360m to the south-east.

The topography of Site A is steep with levels rising from north-east to south-west c. 4.2m, rising at a gradient of c. 1:18. The topography of Site B is also steep with levels rising from north-west to south-east c. 4.2m, rising at a gradient of c. 1:19.

The site is greenfield and comprises of area of public open space. As per the *Fingal Development Plan 2023-2029*, the proposed site is zoned as RS-Residential – 'Provide for residential development and protect and improve residential amenity'.

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

Site A measures 0.31 hectares, contains 5no. dwellings and represents a density of 16.1 dwellings/hectare. Site B measures 0.38 hectares, contains 9 no. dwellings and represents a density of 23.7 dwellings/hectare.

Figure 2.1 Location of the proposed development at Mourne View, Skerries



2.2 Proposed Development Overview

The proposed development will consist of the construction of 14no. dwellings and associated infrastructure, as follows.

- A total of 14no. dwellings representing a density of 19.2 dwellings/hectare for Site A and 25.7 dwellings/hectare for Site B
- A mix of one storey and two storey dwelling types
- New carriageways designed to the standards as set out in Design Manual for Urban Roads and Streets (DMURS 2013)
- On street parking for 8no. and in curtilage parking for 1-2 no. vehicles
- Parking for bicycles in the back gardens of the dwellings
- Associated site development works including foul drainage, surface water, mains water, gas and telecommunications connections
- The site will be serviced by Irish Water, ESB, EIR, GNI, VM utilities which are all available
- Public lighting to pavements adjacent to and within the site will be designed and installed to the standards of the Public Lighting Section in Fingal County Council Operations Department
- Private open space is provided to all dwellings in the form of back gardens
- A 1.9-2.9m deep privacy strip between the public footpaths and the external walls of the dwellings which form part of the SuDS strategy

Proposed Residential Development at Mourné View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

- Space standards within dwellings and provision of private amenity space meet the requirements stated in Fingal Development 2023-2029, Quality Housing for Sustainable Communities; and Sustainable Residential Development in Urban Areas, Guidelines for Planning Authorities (DEHLG, 2009) and Design Manual for Quality Housing (DoHLGH, 2022).

For further information refer to the Engineering Report (2023) prepared by McMahon Associates and Architectural Report (2023) and associated drawings prepared by Fingal County Council and submitted as part of the application.

Refer to **Figure 2.2** below for proposed site layout.

3 Methodology

This CEMP/RWMP sets out the procedures, standards, work practices and management responsibilities to address potential environmental effects that may arise from construction of the proposed residential development. The CEMP/RWMP will comply with the requirements of the relevant authorities/environmental bodies.

Throughout the lifecycle of any construction project, environmental management procedures are required to ensure that all appropriate legislation, policy and construction best practice are complied with, and the environmental effects of a development are minimised within best practicable means. The environmental legislation, policy and best practice guidance contained within this CEMP/RWMP are applicable at the time of writing. However, it is acknowledged that these can be subject to change. As such, the Contractor will be responsible for complying with current legal, policy and best practice guidance requirements applicable to their scope of works through the design and during construction of the proposed development.

Such legislation, includes, but is not restricted, to:

- Planning and Development Act, 2000 (as amended);
- Planning and Development Regulations 2001 (as amended);
- The Birds Directive: Council Directive of 2 April 1979 on the conservation of wild birds (79/409/EEC) (as amended);
- The Habitats Directive: Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora;
- The European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended);
- Water Framework Directive (WFD): Directive 2000/60/EC of the European Parliament and Council establishing a framework for Community Action in the field of water policy (as amended);
- European Communities Environmental Objectives (Surface Waters) Regulations, 2009, (as amended);
- Waste Framework Directive: Council Directive 2008/98/EC of 19 November 2008 on waste and repealing certain Directives (as amended).

This document has been prepared in accordance with relevant best practice guidance and includes, but not limited to:

- C741- Environmental Good Practice on Site Guide (4th Edition) (CIRIA, 2015);
- C532- Control of Water Pollution from Construction Sites (CIRIA, 2001);
- C733- Asbestos in Soil and Made Ground: a Guide to Understanding and Managing Risks (CIRIA,2014);
- BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites - Noise;
- BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites - Vibration;
- BS 7385: 1993 Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration;
- BS 8233:2014 Guidance on sound insulation and noise reduction for buildings;
- Guidance on Soil and Stone By-products in the context of article 27 of the European Communities (Waste Directive) Regulations 2011, Version 3 (EPA 2019);

- By-Product Guidance Note, A Guide to by-products and submitting a by-product notification under Article 27 of the European Communities (Waste Directive) Regulations 2011 (S.I. No. 126 of 2011) (EPA, 2020);
- Waste Classification, List of Waste and Determining if Waste is Hazardous or Non-hazardous (EPA 2018); and
- Best Practice Guidelines for the preparation of resource and waste management plans for the construction and demolition projects (EPA, 2021);
- Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013);
- Requirements for the Protection of Fisheries Habitat during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016); and
- Framework and Principles for the Protection of the Archaeological Heritage (Department of Arts, Heritage, Gaeltacht and the Islands, 1999).

4 Construction Programme

4.1 Construction Sequence

The construction phase of the proposed development will include the following elements:

- Site enabling works (pre-construction surveys, site establishment, site clearance);
- Sub-structure and superstructure works (excavations for local foundations and drainage);
- Infrastructure works (construction of proposed buildings, fitouts, landscaping and finishes).

Standard best practice site management protocols, including good housekeeping and efficient materials management, will be implemented.

4.1.1 Site Enabling Works

It is envisaged that the site enabling works will include (but not necessarily be limited to) the following:

- Securing of site boundary and erecting of fencing or hoarding as required;
- Service terminations and positive identification of any services on the site by the utility providers;
- Provision of temporary power, lighting and water services;
- Set up of site accommodation and welfare facilities;
- Tree removal;
- Identification of watercourses (including drains) in the vicinity of the site and measures to be put in place to minimise contamination of same;
- Excavation and reuse of soil / subsoil on site.

4.1.2 Sub-structure and Superstructure Works

It is envisaged that the sub-structure and superstructure works will include (but not necessarily be limited to) the following:

- Excavation of foundations;
- Excavate, lay and test underground drainage;
- Coordinate and install all incoming services;
- Construction of floor slabs;
- Construction of superstructures and roofs;

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

- Fit out of the residential units will use traditional fit out techniques and finishing trades;
- Gardens and public open space areas will be landscaped and planted in accordance with the landscaping proposals for the scheme to be agreed with Fingal County Councils Parks Department at detailed design stage.

4.1.3 Infrastructure Works

The site infrastructure works include the provision of the permanent entrance to the site and the permanent connection of all the utilities and services required for the site, including the foul outfall sewer and haul roads for the site.

All works are to be carried out in accordance with Irish Waters Code of Practice for Water and Wastewater and the contractor is to liaise with Uisce Éireann for the duration of the construction phase.

Engagement with the service and utility providers will be entered into early in the design stage to allow for adequate planning of utility infrastructure. Provision of the permanent infrastructure to the site will be carried out as early as possible in the programmed works to incorporate the temporary site requirements with the permanent requirements.

It is the intention of the Fingal County Council to minimise disruption of existing services and public roads and pathways in the providing of services to the site, this will be done in consultation with the service providers.

4.1.4 Construction Phasing & Duration

The envisaged duration of the construction phase is 15 months.

4.1.5 Construction Materials

The overall materiality for the proposed development will include standard construction material for any residential scheme (concrete, timber, stone etc).

4.1.6 Earthworks

The site of the proposed development is predominantly greenfield in nature. In order to facilitate the construction of the proposed development, soil stripping, earthworks and the storage and handling of excavated material will be required.

In order to minimise the volume of material being exported off-site, excavated material will be reused on-site (e.g. as fill material) where feasible. However, it is envisaged that a certain volume of excavated subsoil will be unsuitable for on-site re-use and will need to be disposed of at an appropriately licenced landfill facility. Indicative earthworks figures are as follows:

- Volume of earthworks – excavated soil / subsoil: 2,200m³ for Site A and 2,500 m³ for Site B;
- Given the topography of both sites nearly all material would be disposed off site with no material retained for infill. Some topsoil may be retained for overlaying onto back gardens, open space etc.

4.1.7 Hazardous Substances

During the construction phase, hazardous substances typical of construction sites of this nature and scale will be present on-site, including concrete / cementitious materials, oils, fuels, paints and other chemicals. Hydrocarbons, solvents and other such hazardous substances will be stored in secure, bunded hardstanding areas. Re-fuelling and servicing of construction plant and machinery will only be

permitted at suitably located, designated hardstanding areas. Spill kits will be present on-site at all times.

5 Construction Management and Controls

5.1 Project Roles and Responsibilities

Fingal County Council is the **Employer** and will appoint project managers to oversee construction of the project.

The Employer, or their appointed representative will be responsible for maintaining and updating the CEMP/RWMP throughout the life of the project. The **Project Manager** will be responsible for the overall implementation of the CEMP/RWMP. They will ensure that all reporting and monitoring requirements are met, and will also ensure that adequate resources are made available to ensure the Plan is successfully implemented. The Project Manager will ensure that all site personnel comply with the CEMP/RWMP.

The Project Manager will act on behalf of the Employer/Client, with responsibility for managing construction of the proposed development within the agreed environmental constraints in conjunction with all other necessary management processes.

The Foreman employed by the Main Contractor, as well as appropriate personnel from each sub-contractor will be assigned responsibility for ensuring that all relevant elements of the CEMP/RWMP are undertaken as required.

5.2 Construction Traffic

All traffic for required works will enter the site via a temporary construction access off Balbriggan Road and Mourne View to the north-east of Site B. Refer to **Figure 5.1** below for indicative construction traffic flow.

A Construction Traffic Management Plan (CTMP) will be prepared for the works. The principal objective of the CTMP will be to ensure that the impacts of all building activities generated during the construction phase upon the public (offsite), visitors to the subject site (on-site) and internal (on-site) workers environments, are fully considered and proactively managed/programmed thereby ensuring that safety is maintained at all times, disruption is minimised and undertaken within a controlled hazard free/minimised environment. During the general excavation of the foundations there will be additional HGV movements from the site. Monitoring measures will be adopted during the entire programme of construction activities on-site.

The CTMP will reflect the requirements of:

- Chapter 8 of the Department of the Environment Traffic Signs Manual (2010), current edition;
- Guidance for the Control and Management of Traffic at Road Works (June 2010) prepared by the Local Government Management Services Board (Department of Transport);
- Any additional requirements detailed in the Design Manual for Roads and Bridges & Design Manual for Urban Roads & Streets (DMURS).

Traffic volumes are not anticipated to be significant. Warning signage will be provided for pedestrians and other road users on all approaches in accordance with Chapter 8 of the Traffic Signs Manual and the Contractor's Traffic Management Plan.

5.2.1 Road Cleaning

Provision will be made for the cleaning by road sweeper etc. of all access routes to and from the site during the course of the works. Road cleaning shall be undertaken as required during the completion of the works. All road sweeping vacuum vehicles will be emptied off site at a suitably licensed facility. The gate man will be responsible for managing the cleanliness of the road.

Figure 5.1 Indicative construction compound and construction traffic access for the proposed works at Mourne View, Skerries, Co. Dublin



5.3 Site Compound

It is envisaged that one construction site compound will be required for the purposes of the proposed development. Refer to **Figure 5.1** for indicative site compound location.

The construction compound will be engineered with appropriate services and will be hoarded or fenced off for security purposes. The compound will be used as the primary location for the storage of materials, plant, and equipment, and worker welfare facilities. The construction compound will contain facilities for construction personnel and waste segregation area. Temporary toilets and wash facilities will be provided for construction workers. These facilities may require periodic waste pumping and waste offsite haulage, which will be carried out by an authorised sanitary waste contractor. Car parking will be provided for construction workers.

An access control facility will be provided to restrict compound access to site personnel and authorised visitors only.

Materials to be stored on site will be stored in a safe manner and will minimise the risk of any negative environmental effects and will be managed on a 'just-in-time' basis. All fuel storage areas will be bunded

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

in the compound and will be clearly marked. A dedicated fuel filling point will be set up on site with all plant brought to this point for filling.

Appropriate lighting will be provided as necessary at the construction compound. All lighting will be installed to minimise light spillage from the site and will be temporary, i.e. confined to use during construction only.

5.4 Working Hours

Envisaged working hours are as follows:

- Monday – Friday: 08:00 – 19:00;
- Saturday: 08:00 – 13:00;
- Weekends / Bank Holidays: No works.

Works outside of these hours will be subject to prior agreement with Fingal County Council.

5.5 Public Health and Site Safety

The appointed Contractor will be required to ensure all Health & Safety requirements are met and that the site is operated in a safe manner at all times.

All construction staff and operatives will be inducted into the security, health and safety and logistic requirements on site prior to commencing work. All contractors will be required to progress their works with reasonable skill, care and diligence and to proactively manage the works in a manner most likely to ensure the safety, health and welfare of those carrying out construction works, all other persons accessing the subject site and interacting stakeholders.

Contractors will also have to ensure that, as a minimum, all aspects of their works and project facilities comply with legislation, good industry practice and all necessary consents.

The requirements of the *Safety, Health and Welfare at Work Act 2005 (as amended)*, the *Safety, Health and Welfare at Work (Construction) Regulations, 2006 (as amended)* and other relevant Irish and EU safety legislation will be complied with at all times.

As required by the Regulations, a Health and Safety Plan will be formulated which will address health and safety issues from the design stages through to completion of the construction and maintenance phases. This plan will be reviewed and updated as required, as the development progresses.

5.6 Emergency Responses

The Contractor will maintain an emergency response action plan which will cover all foreseeable risks, i.e. fire, spill, flood, etc. The response plan will be developed in accordance with the site emergency plan. Appropriate site personnel will be trained as first aiders and fire marshals. In addition, appropriate staff will be trained in environmental issues and spill response procedures.

Equipment and vehicles will be locked, have keys removed and be stored securely in the works area.

6 Environmental Management and Controls

To ensure the CEMP remains fit for purpose, it will be maintained as a live document. The appointed contractor will be responsible for updating the CEMP, as required; e.g. to reflect the publication of relevant new or revised guidelines and / or new statutory requirements.

This section details on the general construction management measures to be undertaken during the construction phase of the proposed development. These include:

6.1 Population and Human Health

- A Community Liaison Officer (CLO) will be appointed by the contractor for the duration of the construction phase. They will be responsible for keeping the local community and businesses informed of the timing and duration of potentially disruptive works, and for receiving and addressing concerns of local residents and businesses in relation to the proposed works.
- A Dust Management Plan shall be prepared by the appointed contractor in agreement with Fingal County Council, and implemented during the proposed works. Measures will be included in relation to dust suppression, good housekeeping, and proper storage and handling of materials.
- Measures in relation to selection of quiet plant, noise control at source, screening, hours of work, adherence to noise limits, community liaison, monitoring and vibration control shall be undertaken.
- Measures in relation to dust and dirt control measures, noise assessment and control measures, routes to be used by vehicles, working hours of the site, details of construction traffic forecasts, times when vehicle movements and deliveries will be made to the site, facilities for loading and unloading, facilities for parking cars and other vehicles shall be implemented. It requires the implementation of a Construction Traffic Management Plan, to be prepared by the appointed contractor during pre-construction phase in agreement with Fingal County Council.
- Measures in relation to management of water supply, wastewater, surface water, gas, ESB supply and telecommunications shall be implemented during the construction phase.

6.2 Biodiversity

- No designated conservation areas will be impacted in any way by the proposed development and no mitigation measures are required in this regard. Refer to the AA Screening Report that accompanies the planning application for full details in relation to European designated sites.
- The proposed planting schedule shall not contain any invasive species and none will be introduced, either deliberately or inadvertently, to the proposed development site. Appropriate biosecurity measures will be implemented during the construction phase of the proposed development.
- There will be no impacts on breeding birds, badgers or other large mammals. Regardless, a pre-construction check of the trees will be made – to ensure they remain unused by nesting birds.
- It is proposed to install a number of bat and bird boxes both throughout the proposed development site. The reason for the installation of bat boxes is not to provide replacement roosts; rather, it is to augment the overall ecological value of the site. This will contribute to maximising the ecological value of the proposed development.
- To that end a number of bat and bird boxes will be erected, with advice from a qualified Ecologist, in appropriate areas (within unlit areas away from traffic and likely disturbance within the site, no less than 3m above the ground in uncluttered areas, facing in a southerly direction).

- Bats are sensitive to light at night, and the lighting design will ensure that the proposed development will not result in impacts on bats that do commute / forage in or near the proposed development site. The lighting design for the proposed development includes the following measures:
 - Where human safety permits it, dark corridors and dark areas will be incorporated into the open space and landscape design for the proposed development;
 - All luminaires shall lack UV elements when manufactured and shall be LED;
 - A warm white spectrum shall be adopted to reduce blue light component;
 - Luminaires shall feature peak wavelengths higher than 550 nm;

6.3 Land, Soils, Hydrology, Air & Climate

- Topsoil and subsoil will need to be excavated to facilitate the proposed development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.
- During earthworks and excavation works care will be taken to ensure that exposed soil surfaces are stable to minimise erosion.
- Silt reduction measures on site will include a combination of silt fencing and settlement measures (silt traps, silt sacks and settlement tanks/ponds).
- Any hard surface site roads will be swept to remove mud and aggregate materials from their surface while any unsurfaced roads shall be restricted to essential site traffic only.
- A power washing facility or wheel cleaning facility will be installed near to the site exit for use by vehicles exiting the site when appropriate.
- The temporary storage of soil will be carefully managed. Stockpiles will be tightly compacted to reduce runoff and graded to aid in runoff collection.
- Construction materials, including aggregates etc. will be stored a minimum of 20-meter buffer distance from any surface water bodies and surface water drainage points.
- Aggregate materials such as sands and gravels will be stored in clearly marked receptacles within a secure compound area to prevent contamination.
- Movement of material will be minimised to reduce the degradation of soil structure and generation of dust.
- Excavations will remain open for as little time as possible before the placement of fill. This will help to minimise the potential for water ingress into excavations.
- Weather conditions will be considered when planning construction activities to minimise the risk of run-off from the site.
- All fill and aggregate for the proposed development will be sourced from reputable suppliers per the project Contract and Procurement Procedures.
- Where feasible all ready-mixed concrete will be brought to site by truck. A suitable risk assessment for wet concreting will be completed prior to works being carried out which will include measures to prevent discharge of alkaline wastewaters or contaminated storm water to the underlying subsoil.
- No wash-down or wash-out of ready-mix concrete vehicles during the construction works will be carried out at the site within 10 meters of an existing surface water drainage point. Washouts will only be allowed to take place in designated areas with an impervious surface where all wash water

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

is contained and removed from site by road tanker or discharged to foul sewer submit to agreement with Uisce Éireann / Fingal County Council.

- The construction contractor will be required to implement emergency response procedures, and these will be in line with industry guidance. All personnel working on the Site will be suitably trained in the implementation of the procedures.
- The following mitigation measures will be implemented during the construction phase to prevent any spillages to ground of fuels and other construction chemicals and prevent any spillages resulting to surface water and groundwater systems:
 - Designation of bunded refuelling areas on the Site;
 - Provision of spill kit facilities across the Site;
- Where mobile fuel bowsers are used, the following measures will be taken:
 - Any flexible pipe, tap or valve will be fitted with a lock and will be secured when not in use;
 - The pump or valve will be fitted with a lock and will be secured when not in use;
 - All bowsers to carry a spill kit and operatives must have spill response training;
 - Portable generators or similar fuel containing equipment will be placed on suitable drip trays.
- In the case of drummed fuel or other potentially polluting substances which may be used during the construction phase, the following measures will be adopted:
 - Secure storage of all containers that contain potential polluting substances in a dedicated internally bunded chemical storage cabinet unit or inside a concrete bunded area;
 - Oil and fuel storage tanks shall be stored in designated areas, and these areas shall be stored within temporary bunded areas, doubled skinned tanks or bunded containers to a volume of 110% of the capacity of the largest tank/container. Drainage from the bunded areas shall be diverted for collection and safe disposal.
 - Clear labelling of containers so that appropriate remedial measures can be taken in the event of a spillage;
 - All drums to be quality approved and manufactured to a recognised standard;
 - Drums will be loaded and unloaded by competent and trained personnel using appropriate equipment.
- Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles will take place in a designated area or within the construction compound (or where possible off the site). An adequate supply of spill kits and hydrocarbon adsorbent packs will be stored on the site. Guidelines such as *“Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors”* (CIRIA 532, 2001) will be complied with.
- During construction phase the following monitoring measures will be implemented:
 - Regular inspection of surface water run-off and sediments controls (e.g., silt traps);
 - Soil sampling to confirm disposal options for excavated soils in order to avoid contaminated run-off; and
 - Regular inspection of construction / mitigation measures (e.g., concrete pouring, refuelling, etc).
- All excavated materials will be visually assessed by suitably qualified persons for signs of possible contamination such as staining or strong odours. Should any unusual staining or odour be noticed, samples of this soil will be analysed for the presence of potential contaminants to ensure that

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

historical pollution of the soil has not occurred. Should it be determined that any of the soil excavated is contaminated, this will be segregated and appropriately disposed of by a suitably permitted/licensed waste disposal contractor.

- Surface water discharge from the site will be managed and controlled for the duration of the construction works until the permanently attenuated surface water drainage system of the proposed site is complete. A temporary drainage system shall be established prior to the commencement of the initial infrastructure construction works to collect and discharge any treated construction water during construction.
- Foul wastewater discharge from the site will be managed and controlled for the duration of the construction works. Prior to connection to sewer, site welfare facilities will be established to provide sanitary facilities for construction workers on site. The main contractor will ensure that sufficient facilities are available at all times to accommodate the number of employees on site and are disposed of by a licenced contractor.
- The main contractor will be responsible for the preparation, coordination and implementation of the Dust Management Plan.
- During dry and windy periods, and when there is a likelihood of dust nuisance, watering shall be conducted to ensure moisture content of materials being moved is high enough to increase the stability of the soil and thus suppress dust.
- Drop heights from conveyors, loading shovels, hoppers and other loading equipment will be minimised, if necessary fine water sprays should be employed.
- In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust would be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.
- Monitoring of construction dust deposition along the site boundary to nearby sensitive receptors during the construction phase of the proposed development is recommended to ensure mitigation measures are working satisfactorily. This can be carried out using the Bergerhoff method in accordance with the requirements of the German Standard VDI 2119. The Bergerhoff Gauge consists of a collecting vessel and a stand with a protecting gauge. The collecting vessel is secured to the stand with the opening of the collecting vessel located approximately 2m above ground level. The TA Luft limit value is 350 mg/m²/day during the monitoring period of 30 days (+/- 2 days).

6.4 Noise and Vibration

- The appointed contractor will be required to take specific noise abatement measures to the extent required and comply with the recommendations of BS 5228–1 (BSI 2014a) and S.I. No. 241/2006 - European Communities (Noise Emissions by Equipment for Use Outdoors) (Amendment) Regulations 2006.
- BS 5228–1 includes guidance on several aspects of construction site practices, which include, but are not limited to:
 - Selection of quiet plant;
 - Control of noise sources;
 - Screening;
 - Hours of work;
 - Liaison with the public; and
 - Monitoring.

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

- The contractor will put in place the most appropriate noise control measures depending on the level of noise reduction required during specific phases of work.
- The potential for any item of plant to result in exceedance of construction noise thresholds will be assessed prior to the item being brought onto the site. The least noisy item of plant will be selected wherever practicable (e.g. plant items with sound attenuation incorporated).
- The appointed contractor will evaluate the choice of excavation, breaking or other working method taking into account various ground conditions and site constraints. Where alternative lower noise generating equipment are available that will provide equivalent results, these will be selected to control noise within the relevant thresholds, where it is practicable to do so.
- Screening is an effective method of reducing construction noise limits at a receiver location and can be used successfully as an additional measure to other forms of noise control. The effectiveness of a noise screen will depend on the height and length of the screen, its mass, and its position relative to both the source and receiver.
- Erection of localised demountable enclosures or screens will be used around piling rigs, breakers or drill bits, as required, when in operation in proximity to noise sensitive locations with the potential to exceed the construction noise thresholds.
- The contractor will establish clear forms of communication that will involve the appointed contractor to noise sensitive locations in proximity to the works, so that residents or building occupants are aware of the likely duration of activities likely to generate noise or vibration that are potentially significant.

6.5 Material Assets, Cultural Heritage and Landscape and Visual

- In order to minimise the volume of material being exported off-site, excavated material will be reused on-site (e.g. as fill material) where feasible.
- Construction compounds will not be located within the root protection area of trees or hedgerows to be retained and will be enclosed by solid hoarding. The compound areas will be fully decommissioned and reinstated at the end of the construction phase.
- The construction site will be fully enclosed and secured. Construction traffic accessing the site will follow agreed routes and public roads will be maintained in a clean and safe manner.
- Should any archaeological items be discovered during construction works, they will be reported to the National Museum of Ireland and the National Monuments Service of the DHLGH who will determine the nature and extent of any archaeological work to be carried out on site.
- Truck wheel washes will be installed at construction entrances and any specific recommendations with regard to construction traffic management made by Fingal County Council will be adhered to.
- A detailed Construction Traffic Management Plan (CTMP) will also be prepared by the main contractor prior to the construction stage. The documents, which will be prepared in coordination and agreement with the Local Authority, will outline site logistics and indicate the following:
 - Site access location;
 - Site boundary lines;
 - Tower crane locations;
 - Vehicle entry and exit routes to/from the site;
 - Diversion of pedestrian and cycling routes;
 - Location of loading and unloading areas;
 - Location of site offices and welfare facilities;

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

- Location of material storage areas;
- Banksmen locations.
- The management of waste during the construction phase will be monitored by the Contactor's appointed Resource Manager to ensure compliance with the relevant waste management legislation and local authority requirements, including maintenance of waste documentation.
- The precise locations of all existing on-site services (underground and overhead) will be confirmed prior to the commencement of works.
- The precise routing of electricity, gas and telecommunications infrastructure on the site are to be agreed with ESB, GNI and Eir / Virgin Media, respectively, prior to the commencement of on-site works.
- All reasonable precautions shall be taken to avoid unplanned disruptions to any services / utilities during the proposed works.
- Consultation with the relevant services providers shall be undertaken in advance of works. This will ensure all works are carried out to the relevant standards and ensure safe working practices are implemented.
- There will be an interface established between the contractor and the relevant utilities service providers / authorities during the construction phase of the proposed development. This interface will be managed in order to ensure a smooth construction schedule with no / minimal disruption to the local community.
- In planning and executing the proposed works, regard shall be had to the Gas Networks Ireland *Guidelines for Designers and Builders – Industrial and Commercial (Non-Domestic) Sites (2018)*, the Health & Safety Authority (HSA) *Code of Practice for Avoiding Danger from Underground Services (2016)*, and the ESB Networks & Health and Safety Authority *Code of Practice for Avoiding Danger from Overhead Electricity Lines (2019)*.
- **Construction Traffic Management Plan (CTMP)**- Prior to works commencing on-site, a Construction Traffic Management Plan will be prepared by the appointed contractor in accordance with the following guidance documents:
 - Department of Transport's Traffic Signs Manual (2010), Chapter 8: Temporary Traffic Measures and Signs for Roadworks;
 - Department of Transport's Guidance for the Control and Management of Traffic at Roads Works – 2nd Edition (2010); and
 - Any additional requirements detailed in the Design Manual for Roads and Bridges (DMRB) & Design Manual for Urban Roads & Streets (DMURS).
- **Resource & Waste Management Plan (RWMP)**- Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP in agreement with FCC, detailing specific measures to minimise waste generation and resource consumption, and provide details of the proposed waste contractors and destinations of each waste stream. The Contractor will be required to fully implement the RWMP throughout the duration of the proposed construction phase.

6.6 Risk Management

The measures listed in the sections below will be implemented and the site will be managed, however, there remains a low risk of unexpected instances such as accidental/emergency spills of hazardous substances (oils, hydraulic fluids, concrete/cement etc.), any malfunction of environmental protection

system, etc. that may result in environmental pollution and health and safety concerns. Any incidents will be reported to the Project / Site Manager and Site Environmental Manager. Each incident will be recorded with detailed specifics such as location of the incident, date and time, scale, nature, remediation actions, name of personnel noting the incident and any other relevant information. Works in the vicinity of the incident must be stopped until the incident is resolved and remediated. The Project Manager or the Site Environmental Manager will ensure, where required that the incident details are communicated to the relevant regulatory authorities.

7 Waste Management

7.1 Resource and Waste Management Plan (RWMP)

The design of the proposed development has regard to the '*Best practise guidelines for the preparation of resource and waste management plans for construction and demolition projects (EPA, 2021)*'. The approaches applied to the RWMP are based on international principles of optimising resources and reducing waste on construction projects through:

- Prevention;
- Reuse;
- Recycling;
- Green Procurement Principles;
- Off-site Construction;
- Materials Optimisations;
- Flexibility and Deconstruction.

7.1.1 Non-hazardous waste

The proposed construction works will require excavation of soils and stones. Approximately, 2,200m³ of soil will be excavated from Site A and 2,500 m³ from Site B. Given the topography of both sites nearly all material would be disposed off site with no material retained for infill. Some topsoil may be retained for overlaying onto back gardens, open space etc.

Excavated material that is deemed unsuitable for reuse on site or is in excess will be removed offsite. This material will be transported off site for appropriate reuse, recovery, recycling and/or disposal.

During the construction phase there may be a surplus of building materials, such as timber off-cuts, broken concrete blocks, cladding, plastics, metals and tiles generated. There may also be excess concrete during construction which will need to be disposed of. Plastic and cardboard waste from packaging and supply of materials will also be generated. The contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised. Waste will also be generated from construction workers e.g. organic / food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided on site during the construction phase. Waste printer / toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

7.1.2 Contaminated Soil

The Waste Classification Report (Causeway Geotech, 2023, Appendix J) noted that the material tested as part of the works could be classified as non-hazardous material. Following waste classification, a

Proposed Residential Development at Mourn View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

Waste Acceptance Criteria (WAC) of the samples was completed. The soil sampling results indicated that soils from the site are suitable for disposal as inert waste to an appropriate licensed facility. Any potential contamination identified during site development works by visual or olfactory means shall be further investigated, including further laboratory testing and appropriate health and safety, waste disposal and remediation measures adopted. The waste will then be sent to appropriate licensed facility for disposal.

If any potentially contaminated material is encountered or any material is to be removed from site, it will be segregated from clean / inert material, tested and classified as either non-hazardous or hazardous in accordance with the EPA publication entitled 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous' 15 using the HazWasteOnline™ tool (or similar approved classification method). The material will then be classified as clean, inert, non-hazardous or hazardous in accordance with the EC Council Decision 2003/33/EC 16, which establishes the criteria for the acceptance of waste at landfills.

In the event that Asbestos Containing Materials (ACMs) are found within the excavated material, the removal will only be carried out by a suitably permitted waste contractor, in accordance with S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010. All asbestos will be taken to a suitably licensed or permitted facility. Due to the nature of the site being green field it is not envisaged that ACM will be encountered onsite. Asbestos fibres were not detected during the ground investigation survey.

7.1.3 Hazardous substances

During the construction phase, hazardous substances typical of construction sites of this nature and scale will be present on-site, including concrete / cementitious materials, oils, fuels, paints and other chemicals. Hydrocarbons, solvents and other such hazardous substances will be stored in secure, bunded hardstanding areas. Re-fuelling and servicing of construction plant and machinery will only be permitted at suitably located, designated hardstanding areas. Spill kits will be present on-site at all times.

7.1.4 Invasive Plant Species

No species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 are present at the site of the proposed development. This does not rule out the possibility that invasive alien plant species could become established at the site before the construction phase; or that invasive alien species could be introduced to the site, or dispersed within the site, or from the site to other areas during the proposed works.

The contractor will be responsible for ensuring that a pre-construction survey for invasive alien plant species is carried out of the entire site by a suitably qualified ecologist prior to the commencement of on-site works. At a minimum, this survey shall identify any species listed in the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) but should also aim to identify any other invasive alien plant species that may pose a risk of significant ecological impacts.

Where invasive alien plant species are identified on the site or in the immediate vicinity, appropriate and proportionate management measures shall be set out by a suitably qualified ecologist. In the first instance, the approach in respect of invasive alien plant species identified on the site should be to avoid insofar as possible the disturbance of vegetation or soil (e.g. mowing, hedge cutting, vegetation

Proposed Residential Development at Mourn View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

clearance, excavation, footfall and plant movements) in affected areas, allowing an appropriate buffer area. Exclusion zones may be established with fencing and signage to this effect.

Where physical or chemical control measures are recommended, a corresponding risk assessment should be undertaken, taking into account the relative costs and benefits in relation to ecology, human health, economic costs, etc., of the management options under consideration. Any physical or chemical control works to be undertaken shall be fully compliant with the relevant legislative provisions, in accordance with the National Roads Authority Guidelines on the Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads (2010) and carried out by suitably qualified personnel with all appropriate safety precautions and environmental protection measures in place.

The transportation and disposal of invasive alien plant species material is a very high risk activity in terms of the risk of introduction and dispersal and, where required, shall be carried out by suitably qualified personnel in accordance with all applicable legislation and (where relevant) under licence from the National Parks and Wildlife Service.

Where physical or chemical control measures are implemented, periodic monitoring will be undertaken during the appropriate survey period, as recommended by the project ecologist or the specialist who undertook the control efforts in question, to determine whether the efforts have been successful. Where required, follow-up control efforts will be implemented.

7.1.5 Demolition Waste

The proposed development site is greenfield and there are no demolition waste associated with the proposed development.

7.1.6 Construction Waste Generation

Waste materials generated will be segregated on-site, where it is practical. Where the on-site segregation of certain wastes types is not practical, off-site segregation will be carried out. There will be skips and receptacles provided to facilitate segregation at source, where feasible. All waste receptacles leaving the site will be covered or enclosed. The appointed waste contractor will collect and transfer the wastes as receptacles are filled. There are numerous waste contractors in the Fingal region that provide this service.

All waste arisings will be handled by an approved waste contractor holding a current waste collection permit. All waste arisings requiring disposal off-site will be reused, recycled, recovered or disposed of at a facility holding the appropriate registration, permit or licence, as required. Written records will be maintained by the contractor(s), detailing the waste arising throughout the construction phase, the classification of each waste type, waste collection permits for all waste contractors who collect waste from the site and Certificate of Registration (COR) / permit / licence for the receiving waste facility for all waste removed off-site for appropriate reuse, recycling, recovery and / or disposal.

Dedicated bunded storage containers will be provided for hazardous wastes which may arise, such as batteries, paints, oils, chemicals, if required.

7.2 Operational Waste Management Plan

The Operator / Facilities Management of the site during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery at the site of the proposed development.

In addition, the following mitigation measures will be implemented:

- The Operator / Facilities Management will ensure on-site segregation of all waste materials into appropriate categories, including (but not limited to):
 - Organic waste;
 - Dry Mixed Recyclables;
 - Mixed Non-Recyclable Waste;
 - Glass;
 - Waste electrical and electronic equipment (WEEE);
 - Batteries (non-hazardous and hazardous);
 - Cooking oil;
 - Light bulbs;
 - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.);
 - Furniture (and from time to time other bulky waste); and
 - Abandoned bicycles.
- The Operator / Facilities Management will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials;
- The Operator / Facilities Management will ensure that all waste collected from the site of the proposed development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available;
- The Operator / Facilities Management will ensure that all waste leaving the site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities;
- There are community recycling facilities available near the Skerries South Beach that is c. 1km east (linear distance) from the proposed site, which can be used by the residents during the operational phase.

8 Environmental Management Procedures

8.1 Construction / Environmental Manager

The Construction / Environmental Manager appointed by the Contractor will oversee the development of the CEMP and RWMP and the implementation of recommended mitigation measures, planning conditions and other environmental protection measures as required. The Construction / Environmental Manager will act as the regulatory interface on environmental matters by reporting to and liaising with local authority for the relevant jurisdiction and other statutory bodies as required.

The Construction / Environmental Manager will act as the point of contact for all environmental matters for the Contractor and will be responsible for review and authorisation of all method statements and environmental plans for the proposed development. The Construction / Environmental Manager will be responsible for updating the CEMP and RWMP and maintaining all environmental records relating to the works. The CEMP will detail the general tasks and communication lines for reporting procedures for all potential environmental risks, hazards or incidents which may relate to, but not be limited to, biodiversity, water quality, soil quality, dust, noise and vibration or archaeology.

The duties and responsibilities of Construction / Environmental Manager will include:

Proposed Residential Development at Mourne View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

- Updating the CEMP and RWMP and supporting environmental documentation and review/approval of Contractor method statements;
- Undertake inspections and reviews to ensure the works are carried out in compliance with the CEMP and RWMP and monitor the implementation of the CEMP and RWMP, particularly all proposed/required Environmental Monitoring;
- Ensure construction works and activities have minimal impact/disturbance to local landowners and the local community;
- Ensure construction works and activities have minimal impact on the Natural Environment;
- Be aware of the relevant legislation, codes of practice, guidance notes and good environmental working practice relevant to their work;
- Ensure compliance through audits and management site visits;
- Ensure timely notification of any environmental incidents to the relevant regulatory authorities;
- Adopt a sustainable approach to construction such as sustainable sources for materials supply where possible;
- Provide adequate environmental training and awareness for all project personnel;
- Using recycled materials if possible, e.g. excavated stone, clay and peat material;
- Avoidance of any pollution incident or near miss as a result of working around or close to existing watercourses and having emergency measures in place;
- Avoidance of vandalism;
- Keeping all watercourses free from obstruction and debris;
- Keep impact of construction to a minimum on the local environment, watercourses and wildlife;
- Correct fuel storage and refuelling procedures to be followed;
- Good waste management and house-keeping to be implemented;
- Air and noise pollution prevention to be implemented;
- Monitoring of the works and any adverse effects that it may have on the environment;
- Construction methods and designs will be altered where it is found there is an adverse effect on the environment;
- Comply with all relevant water quality legislation; and
- Ensure a properly designed, constructed and maintained drainage system appropriate to the requirements of the site is kept in place at all times.

8.2 Training

The Contractor will ensure that an Environmental Training and Awareness Programme is established and that all personnel and subcontractors receive adequate training prior to the commencement of the construction phase. It will be ensured that all personnel are aware of their individual environmental responsibilities and environmental constraints to specific jobs. No person will work on site without first receiving environmental induction.

The environmental performance at the construction site will be on the agenda of all project management meetings. Elements of the CEMP and RWMP, such as objectives, targets and the effectiveness of environmental procedures will be discussed at these meetings. All site monitoring results will be evaluated by the Environmental Manager. Key findings along with any mitigation measures as required will be clearly communicated to the project team.

All site personnel will receive Environmental Induction that will be integrated into the general site induction on a case-by-case basis for each member of staff employed on-site depending on their

Proposed Residential Development at Mourn View, Skerries, Co. Dublin

Construction Environmental Management Plan and Resource and Waste Management Plan

assigned roles and responsibilities on site. This will ensure that personnel are familiar with the environmental aspects and impacts associated with their activities, that appropriate procedures are in place to control these impacts and that they fully understand the consequences of departure from agreed procedures.

Toolbox talks would be held by the Construction / Environmental Manager at the commencement of new activities. The aims of the toolbox talks are to identify the specific proposed work activities that are scheduled work activities and associated environmental issues. In addition, the necessary work method statements and sub plans would be identified and discussed. Toolbox talks will reflect the type of works being undertaken and the environmental impacts that may result from these activities e.g. training on water pollution prevention before works near watercourses. Training to be given will include the contents of this CEMP and RWMP incorporating the following as appropriate:

- Protected species / habitats;
- Environmental incidents;
- Water pollution prevention;
- Spill control and spill kits;
- Dust and air quality;
- Erosion and sediment control; and
- Storage and use of petrol, diesel, and oils.

Site meetings would be held on a regular basis involving all site personnel. The objectives of the site meetings is to discuss the coming weeks proposed activities and identify the relevant work method statements and sub-plans that will be relevant. Additionally, any non-compliance identified would also be discussed with the aim to reduce the potential of the same non-compliance reoccurring.

8.3 Control of Records

Environmental records, including waste management records, will be maintained in accordance with respective company procedures and legal requirements. This will in turn ensure effective monitoring and implementation of the CEMP and RWMP.

Any complaint related to the site will be dealt with by the Project Manager. The source of the complaint will be investigated and remediated. All complaints must be recorded including details of the complaint and corrective action.

Routine inspections of construction activities will be carried out on a daily basis by the Contractors Construction/Environmental Manager to ensure all necessary measures to avoid or mitigate environmental impact, relevant to the construction activities are being implemented.

9 Conclusion

This CEMP and RWMP outlines the management procedures for the proposed development to prevent any environmental impacts and to respond to any potential environmental risks from construction activities on-site.

The CEMP and RWMP will be a working document and will be finalised by the Contractor following appointment and prior to commencing works on site. However, all of the content provided in the CEMP and RWMP will be implemented in full by the Contractor and finalised by the Contractor.

10 References

BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites - Noise;

BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites - Vibration;

BS 7385: 1993 Evaluation and measurement for vibration in buildings Part 2: Guide to damage levels from ground borne vibration;

BS 8233:2014 Guidance on sound insulation and noise reduction for buildings;

By-Product Guidance Note, A Guide to by-products and submitting a by-product notification under Article 27 of the European Communities (Waste Directive) Regulations 2011 (S.I. No. 126 of 2011) (EPA, 2020);

Best Practice Guidelines for the preparation of resource and waste management plans for the construction and demolition projects (EPA, 2021);

C741- Environmental Good Practice on Site Guide (4th Edition) (CIRIA, 2015);

C532- Control of Water Pollution from Construction Sites (CIRIA, 2001);

C733- Asbestos in Soil and Made Ground: a Guide to Understanding and Managing Risks (CIRIA, 2014);

Framework and Principles for the Protection of the Archaeological Heritage (Department of Arts, Heritage, Gaeltacht and the Islands, 1999).

Guidance on Soil and Stone By-products in the context of article 27 of the European Communities (Waste Directive) Regulations 2011, Version 3 (EPA 2019);

Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).

National Roads Authority (2010). Guidelines on the Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads.

Requirements for the Protection of Fisheries Habitat during Construction Works in and Adjacent to Waters (Inland Fisheries Ireland, 2016); and

Waste Classification, List of Waste and Determining if Waste is Hazardous or Non-hazardous, (EPA 2018).



Brady Shipman Martin

DUBLIN

Mountpleasant Business Centre
Mountpleasant Avenue Upper
Ranelagh
Dublin 6

CORK

Penrose Wharf Business Centre
Penrose Wharf
Cork

Limerick

11 The Crescent Limerick

+353 1 208 1900

mail@bradyshipmanmartin.com

www.bradyshipmanmartin.com

