



**Outline Construction & Environmental
Management Plan**

Rev 2 (Planning)

**Waterford City & County Council.
3 & 4 George's St, Waterford.**



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Document History

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Rev 2 (Planning)

Executive Summary

This outline Construction Environmental Management Plan (CEMP) has been developed to detail the commitments and mitigation measures to be implemented by Waterford City & County Council and appointed contractors for the construction of a proposed development at 3 & 4 George's St, Waterford.

The purpose of the CEMP is to provide details of the project including phasing, sensitive receptors and details on how the proposed project is intending to use a comprehensive and integrated approach to protecting the site and its surrounds. The CEMP also details the specific requirements that need to be addressed during project stages and includes the related roles and responsibilities of individuals involved in the project. Following the measures outlined in the CEMP, no significant effects are foreseen from the proposed development project.

1.0 Introduction

In conjunction with the multi-disciplinary Design Team, Frank Fox & Associates were commissioned, to input and coordinate an outline Construction Environmental Management Plan (CEMP), to accompany a planning application for the redevelopment of No. 3&4 Great George's St, Waterford and encompasses a public realm upgrade at Jenkin's Lane. The Construction Management Plan defines the limitations within which a person or persons can carry out development works that affect the existing nature of public roads, footpaths and the surrounding environment for a duration of time.

This Outline Construction Management plan identifies an indicative sequence of the works from the initial enabling works through to construction completion. It is noted that this can only be considered an outline plan, and the final Construction Management Plan would be agreed with the Local Authority (by the appointed Contractor) prior to construction commencing.

The purpose of the CEMP is to provide details of the project, sensitive receptors and how the proposed project is intending to use a comprehensive and integrated approach to protecting the surrounding environs. The following CEMP outlines the potential impacts of the development, details the sensitive receptors, environmental controls and the mitigation measures that will be implemented to minimize impacts.

The CEMP also details the specific requirements that need to be addressed during project stages and includes the related roles and responsibilities of individuals involved in the project.

This CEMP is subject to planning permission being granted for the development as per the drawings submitted. The CEMP is a live document subject to change based on the following:

1. Comments from An Bord Pleanála.
2. Final planning permission granted and conditions.
3. Compliance requirements of Waterford City & County Council.
4. Concerns raised by residents affected by the works.

The final CEMP prepared for the development will be submitted prior to commencement of the relevant phase on site and will be subject to periodic review as part of the management of the construction process.

2.0 Project Description

Project Outline & Site Context

The site is located on the south side on Great George's St, Waterford and encompasses a public realm up grade at Jenkin's Lane to the rear of the site. The site is bound by a mixture of commercial sites, see attached Site Location Plan (Fig. 2.1). Waterford City & County Council intends to apply for a Part 8 permission for a proposed office & public realm redevelopment at the site.

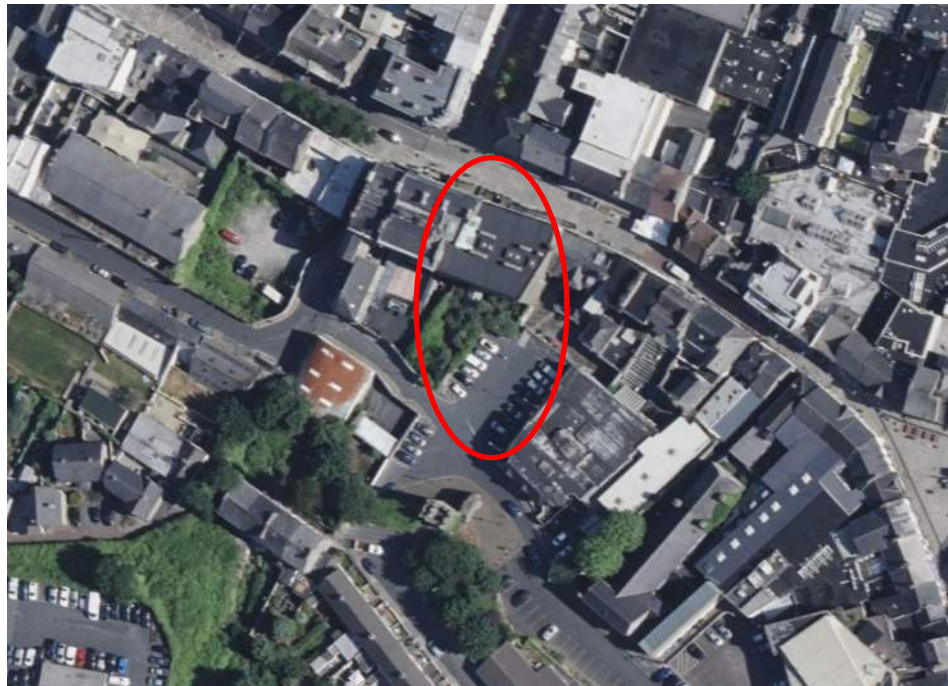


Fig. 2.1 Site Location Proposed Development



Fig. 2.2 Proposed Site Plan

Drainage

Foul Sewer

There is currently an existing combined drainage system from No. 3&4 Great George's St. to the public combined network on Great George's St. It is proposed to maintain this drainage into the existing gravity system to the north on Great George's St.

FFA have engaged with Waterford City & County Council Sanitary Services & Irish Water, issued a pre-connection enquiry application.

A connection agreement will be sought from Irish Water subject to planning permission granted and the Local Authority informed of agreement for same prior to commencement of works on site.

Surface Water

Currently the storm drainage from Jenkin's Lane discharges to the existing combined public network onsite. It is proposed to maintain the existing gravity system and adapt the gullies and Aco's accordingly.

Surface Water Management Plan (downstream impacts)

A set of mitigation measures will be implemented in relation to drainage from the site during construction. This commences with site clearance right through to the completion of the project.

Appropriate monitoring of groundwater levels during site works will be undertaken. Sufficient onsite cleaning of vehicles prior to leaving the site and on nearby roads will be carried out, particularly during groundworks.

The Site Manager will be responsible for the pollution prevention program and will ensure checks are carried out to ensure compliance. A record of these checks will be maintained. The site compound will include a dedicated bund for the storage of dangerous substances including fuels, oils etc. Refueling of vehicles/machinery will only be carried out within the bunded area. The site compound will clearly display emergency contact details for the Waterford City & County Council and the Environmental Protection Agency in the event of a pollution incident or environmental emergency. Adequate spill kits will be available in the event of a spill of oil or other hazardous substance.

Dewatering of excavations will be necessary if groundwater levels are high due to high rainfall at enabling works stage. Appropriate monitoring of groundwater levels during site works will be undertaken. Standard construction phase filtering of surface water for suspended solids will be carried out and no contaminated runoff will leave the site.

Concrete trucks, cement mixers or drums/bins are only permitted to wash out in designated wash out areas within the main works area and not near the driveway entrance.

Spill containment equipment will be available for use in the event of an emergency. The spill containment equipment will be replenished if used and shall be checked on a scheduled basis.

All site personnel will be trained in the importance of good environmental practices including reporting to the site manager when pollution, or the potential for pollution, is suspected. All persons working on-site will receive work specific induction in relation to surface water management and run off controls.

3.0 Proposed Construction Methods & Traffic Management

Site Access

The site is currently accessed from both Great George's St. & Jenkin's Lane. The site is enclosed by a series of masonry walls and fencing.

It is proposed to use the existing access point from Jenkin's Lane for construction traffic & haulage to mitigate construction traffic through the shared surface on Great George's St. Subject to planning, a fully detailed traffic management plan will be developed by the main contractor in consultation with the local Municipal District office.

Compounds & Haulage Routes

It is proposed to form the main contractor's compound in Jenkin's Lane. There is no requirement for construction traffic to park on the public road when delivering to the onsite compounds, therefore not affecting public traffic movement. The Contractor must submit a Construction Traffic Management plan to the Local Authority for approval. Haulage vehicle movements will be fully coordinated to comply with the requirements of the layout and requirements herein.

A Construction Waste Management Plan (CWMP) for the proposed site will be prepared by the contractor prior to commencement on site and provide information necessary to ensure that the management of construction waste at the site is undertaken in accordance with current legal and industry standards. It should be noted that there are two distinct elements in the phasing.

- A) Ancillary site works, inclusive of landscaping, public realm & drainage.
- B) Development & refurbishment of existing houses at No. 3&4 Great George's St.

The CWMP report outlines the following:

Non-Hazardous Waste

There will be topsoil, subsoil and rock excavated to facilitate construction of the new building's foundations, access road construction, installation of services and site levelling.

The removal and reuse/recycling/recovery/disposal of surplus material that is deemed to be a waste, will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended).

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 oversupply of materials will also be generated. Waste will also be generated from construction workers e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminum cans, tins, and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite 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.

Potentially Hazardous Waste

Contaminated Soil

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

Fuel/Oils

As fuels and oils are classed as hazardous materials, any on-site storage of fuel/oil, all storage tanks and all draw-off points will be bunded (or stored in double-skinned tanks) and located in a dedicated, secure area of the site. Provided that these requirements are adhered to and site crew are trained in the appropriate refueling techniques, it is not expected that there will be any fuel/oil wastage at the site.

Other known Hazardous Substances

Paints, glues, adhesives, and other known hazardous substances will be stored in designated areas. They will generally be present in small volumes only and associated waste volumes generated will be kept to a minimum. Wastes will be stored in appropriate receptacles pending collection by an authorized waste contractor. In addition, WEEE (containing hazardous components), printer toner/cartridges, batteries (Lead, Ni-Cd or Mercury) and/or fluorescent tubes and other mercury containing waste may be generated during C&D activities. These wastes (if encountered) will be stored in appropriate receptacles in designated areas of the site pending collection by an authorized waste contractor.

If hazardous soil, or historically deposited hazardous waste is encountered during the work, the contractor must notify the Local Authority, Environmental Enforcement Section, and provide a Hazardous/Contaminated Soil Management Plan. To include estimated tonnages, description of location, any relevant mitigation, destination for authorized disposal/treatment, in addition to information on the authorized waste collectors.

4.0 Analysis of the Potential Impacts

Introduction

The project will involve re-profiling, excavations, construction and landscaping elements.

Direct Impacts

Construction

There are no natural water courses on site therefore no direct impacts to same.

Operation

Once developed, the site would be seen as a stable ecological environment.

Indirect Impacts

Appropriate measures should be taken to prevent the movement of silt laden surface water run-off and dust into adjacent habitats. Mitigation measures need to be in place including a wheel wash, roads sweeping and silt fencing with geotextile & berm to ensure silt does not enter the drainage network from construction activities, particularly during demolition, reprofiling and enabling works.

5.0 Environmental Issues & Site Management

Site Supervision

A suitably qualified person will be appointed by the Client to ensure the effective operation and maintenance of environmental controls during the construction process.

Working Hours

The hours of construction activity will be limited to avoid unsociable hours where possible. Construction operations shall generally be restricted to between 07:00 hours and 19:00 hours Monday to Saturday. However, to ensure that optimal use is made of fair-weather windows, or at critical periods within the programme, it could occasionally be necessary to work out with these hours. Any such out of hours working would be agreed in advance with the local authority.

Excavation & Site Maintenance

Excavated subsoil material will be removed, either to a designated material storage area or stockpiled close to the excavation and used as backfill material for landscaping. Excess material shall be removed from the site to reduce the risk of sediment runoff or pollutants.

Surfaces will be capped as soon as is practical to cover exposed subsoils.

Any overland flows on site will be intercepted and attenuated on site during earthworks.

Harmful Materials

Any diesel or fuel oil stored on site will be bunded. The design and installation of fuel tanks will be in accordance with best practice guidelines (e.g. BPGCS005 Oil Storage Guidelines).

Mobile bowsers, tanks and drums will be stored in secure, impermeable storage areas.

Harmful materials shall be stored on site for use in connection with the construction works only. These materials shall be stored in a controlled manner. Where on-site fueling facilities are used there shall be a bunded filling area using a double bunded steel tank at a minimum.

Fuel containers will be stored within a secondary containment system e.g. bund for static tanks or a drip tray for mobile stores. Ancillary equipment such as hoses and pipes will be contained within the bund and taps, nozzles or valves will be fitted with a lock system.

Fuel and oil stores including tanks and drums will be regularly inspected for leaks and signs of damage.

An emergency spill kit with absorbers etc. is to be kept on site in the event of an accidental spill.

Procedures and contingency plans will be set up on-site to deal with emergency accidents or spills.

Construction Procedures

The Contractor shall continuously monitor dust & dirt over the variation of weather and material disposal to ensure the limits are not breached throughout the project. It is proposed to use a spray cannon machine in order to contain dust on site.

Washout of concrete trucks is not to take place on the site, only washout of concrete chutes will be permitted to lined ponds/skips and wash water removed off site.

Concrete pours shall not be carried out during periods of high or constant precipitation. The daily forecast shall be reviewed before scheduling concrete pours.

Site Sanitation

Portaloos and/ or containerized toilets and welfare units will be used to provide toilet facilities for site personnel. Sanitary waste will be removed from site via a licensed waste disposal contractor.

All other wastes associated with the construction of the development will be managed and removed from site by approved/licensed operators as standard, in line with construction and domestic waste management regulations.

Noise

The site area is currently used for commercial purposes and noise in excess or regular levels is not envisaged. The Contractor shall implement measures to eliminate where possible and reduce noise levels where not. The proposed development shall comply with BS 5228 "Noise Control on Construction and open sites Part 1: Code of practice for basic information and procedures for noise control" (or such further limits as imposed by the local authority).

Dust

Dust from the works shall be kept to a minimum possible. To reduce dust a plentiful supply of clean water shall be used to dampen the site. The Contractor shall take all necessary precautions to prevent anything emanating from or associated with the Works from being deposited on areas outside the Contractors site areas. Dust Monitors to be placed in consultation with the local authority.

The Contractors Construction Management Plan is to include, but not limited to, the following items.

Temporary Signage

The Contractor is required to provide appropriate signage which must conform to Traffic Signs Manual for Temporary Traffic Measures and Signs for Roadworks, Department of Transport 2019.

Temporary Road Markings

The Construction Management Plan shall include proposals for any proposed Temporary Road Markings. These markings must conform to Traffic Signs Manual for Temporary Traffic Measures and Signs for Roadworks, Department of Transport 2019.

Temporary Road Closure

There are no proposals to introduce temporary road closures. Any proposals should conform to the Traffic Signs Manual for Temporary Traffic Measures and Signs for Roadworks, Department of Transport 2019. Any road closure can only be operated under agreement with the Local Authority.

Arrangements for Local Access, Pedestrian and Cyclist Access

There are no proposals to alter the existing local access to the surrounding areas. Covered footways, if required, shall be built in accordance with Traffic Management Guidelines.

Proposed Lighting Arrangements

There are no proposals to alter the existing lighting arrangements in the area. Any proposals to alter existing lighting arrangements can only be carried out under agreement with the Local Authority.

Proposed Use of Flag Men

The use of Flag Men/Banks Men is to be incorporated into the Construction Management Plan to direct vehicles accessing/egressing and shall be agreed with the Local Authority as part of the Contractors construction management plan.

Proposed Use of Barriers

The use of barriers is to be referred to in the Traffic Management Plan and the details of which are laid out in accordance with Chapter 8 of the Traffic Signs manual.

Monitoring

Pre-construction surveys will be carried out in relation to the presence of invasive species. Following site clearance monitoring will primarily deal with ensuring petrochemicals and silt do not enter the public areas. Ongoing monitoring will be required to ensure that the project is in compliance with noise, dust or runoff emissions.

Conclusions

This CEMP has been submitted to show the developer's commitment to Environmental Management of the proposed project. This CEMP has outlined the environmental principles that will be adopted to ensure that potential environmental impacts and health and safety issues associated with the construction processes are effectively managed, minimized and / or eliminated. The plan details the roles and responsibilities of the applicant, the site manager, project manager and site workers and how these controls are to be implemented. The CEMP will require regular monitoring throughout the construction period to ensure potential risks are adequately managed throughout the construction works.