

# ALTEMAR

Marine & Environmental Consultancy

## Outline Construction Environmental Management Plan (CEMP) for the proposed development of a proposed development at 2-4 Dublin Street in Balbriggan



5<sup>th</sup> January 2022

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**On behalf of:** Fingal County Council

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## Executive Summary

Fingal County Council (Economic, Enterprise, Tourism & Cultural Development Department) propose to carry out development at 2-4 Dublin Street in Balbriggan, a site of 570 m<sup>2</sup> / 0.057 ha approx. which includes No. 2 Dublin Street (Protected Structure 0058). The site also includes the laneway connecting the rear of the site to St George's Square. The site sits within the Balbriggan Town Core Architectural Conservation Area.

This outline Construction Environmental Management Plan (CEMP) has been developed to detail the commitments and mitigation measures to be implemented by Fingal County Council and its appointed contractors during the redevelopment works. This CEMP is being submitted in tandem, and should be read in conjunction, with the AA Screening and Bat Assessment prepared by Altemar. It should also be noted that an ecological assessment of the site is contained within the CEMP.

The purpose of the CEMP is also to provide details of the proposed project, proposals for noise reduction, proposals for dust reduction and details on how the proposed project is intending to use a comprehensive and integrated approach to protect sensitive environmental receptors including the aquatic environments (riparian and estuarine) downstream of the proposed works.

This CEMP also outlines the potential impacts of the development, details the sensitive receptors, environmental controls, and the mitigation measures that will be implemented to minimise any potential impacts. The CEMP also details the specific requirements that need to be addressed during project stages and also includes the related roles and responsibilities of individuals involved in the project.

# 1. Introduction

## ***Outline of CEMP***

Altemar Ltd. has been commissioned by Fingal County Council (Economic, Enterprise, Tourism & Cultural Development Department) to prepare an outline Construction Environmental Management Plan (CEMP) for the development on a site at 2-4 Dublin Street in Balbriggan, a site of 570 m<sup>2</sup> / 0.057 ha approx. which includes No. 2 Dublin Street (Protected Structure 0058). The site also includes the laneway connecting the rear of the site to St George's Square. The site sits within the Balbriggan Town Core Architectural Conservation Area.

The purpose of the CEMP is also to provide details of the proposed project, proposals for noise reduction, proposals for dust reduction and details on how the proposed project is intending to use a comprehensive and integrated approach to protect sensitive environmental receptors including the aquatic environments (riparian and estuarine) downstream of the proposed works.

This CEMP also outlines the potential impacts of the development, details the sensitive receptors, environmental controls, and the mitigation measures that will be implemented to minimise any potential impacts. The CEMP also details the specific requirements that need to be addressed during project stages and also includes the related roles and responsibilities of individuals involved in the project.

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

1. final permission granted and conditions
2. compliance requirements of Fingal County Council
3. requirements by other bodies including Inland Fisheries Ireland and the National Parks and Wildlife Service
4. concerns raised by residents potentially 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. Project Description

### ***Description of the Proposed Project***

Fingal County Council (Economic, Enterprise, Tourism & Cultural Development Department) propose to carry out development at 2-4 Dublin Street in Balbriggan, a site of 570 m<sup>2</sup> / 0.057 ha approx. which includes No. 2 Dublin Street (Protected Structure 0058). The site also includes the laneway connecting the rear of the site to St George's Square. The site sits within the Balbriggan Town Core Architectural Conservation Area.

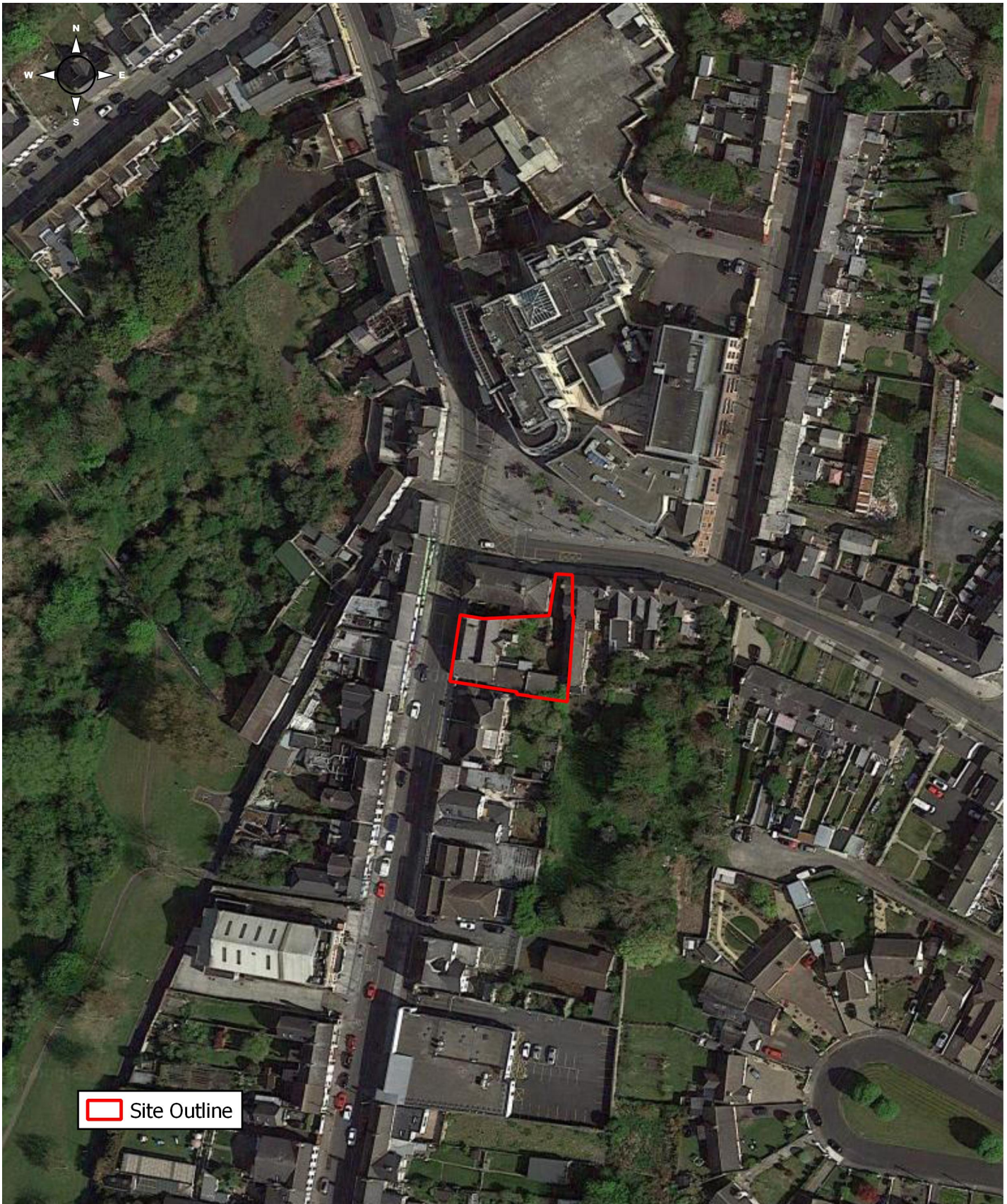
The proposed development includes:

- (i) Change of use of No. 2 Dublin Street from Residential to Commercial use.
- (ii) Refurbishment of No. 2 Dublin Street (Protected Structure RPS 0058) as workspaces, in line with best conservation practices.
- (iii) Demolition of the adjoining modern lean-to retail unit at No. 4 Dublin Street.
- (iv) Construction of a new single storey building (276 sqm) at No. 4 Dublin Street and to the rear of No. 2 Dublin Street for use as workspaces and Creative Hub, to include a Workshop Space, Multimedia Room, Office, Classroom Space, Toilets, Multi-functional gallery space and an external courtyard.
- (v) Upgrade of laneway surfacing to the rear of the site adjacent to Balbriggan Courthouse opening onto George's Square including provision of cycle parking.
- (vi) All associated site development works, services, piped infrastructure and ducting, changes in level, site landscaping and all associated site development and excavation works above and below ground.

Note that parking provision for the development is proposed by designation of vehicular parking spaces, licensed to Fingal County Council in the nearby Bracken Court Hotel carpark.

The proposed site outline, location, site plan (existing and proposed), and elevations are demonstrated in Figures 1-5.





0 50 100 150 m

Project: Dublin Street  
 Location: 2-4 Dublin St, Balbriggan, Co. Dublin.  
 Date: 01 December 2022  
 Drawn By: Bryan Deegan (Altamar)

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**Figure 1.** Proposed site outline and location





Site Outline

0 10 20 30 40 m

Project: Dublin Street  
Location: 2-4 Dublin St, Balbriggan, Co. Dublin.  
Date: 01 December 2022  
Drawn By: Bryan Deegan (Altamar)

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Figure 2. Proposed site outline



**LEGEND & GENERAL INFORMATION**

DRAWINGS TO BE READ IN CONJUNCTION WITH STRUCTURAL ENGINEERS DETAILS AND SPECIFICATIONS

- ✦ GROUND / FLOOR LEVEL INDICATOR
- SECTION LINE INDICATOR
- ▒ EXISTING STRUCTURE
- NEW CONSTRUCTION / MAKE GOOD
- ▨ DEMOLITIONS / ALTERATIONS
- ▽ R.L.S. LEVEL INDICATOR
- ⊕ WINDOW NUMBER
- ⊕ DOOR NUMBER
- ⊕ ROOFLIGHT NUMBER
- SITE BOUNDARY LINE

TOTAL SITE AREA: 570 SQ.M (0.057 Ha)





REVISIONS	STATUS		DRAWN	CHECKED
A	13/09/2022	FI	FOR INFORMATION	COF PM
B	28/09/2022	FI	FOR INFORMATION	COF PM
C	07/11/2022	FI	FOR INFORMATION	COF PM
D	22/11/2022	FI	FOR INFORMATION	COF PM

PROJECT: DUBLIN STREET, BALBRIGGAN  
 DRAWING: SITE LAYOUT MAP  
 JOB NO.: 2129 CLIENT: FINGAL COUNTY COUNCIL  
 DATE: SEP'22 SCALE: 1:200 (A3); 1:100 (A1)  
 PAUL KEOGH ARCHITECTS, CATHEDRAL COURT, NEW ST., DUBLIN 8.  
 TEL NO: 01 6791551 FAX NO: 01 6793476 E-MAIL: info@pka.ie  
**DRAWING NO.: 2129 / SK / 901 / D**  
NOTIFY ARCHITECT OF ANY DISCREPANCIES - CHECK DIMENSIONS ON SITE - DO NOT SCALE USE FIGURED DIMENSIONS ONLY - COPYRIGHT RESERVED - PAUL KEOGH ARCHITECTS ©



Figure 3. Site layout map





Figure 4. Site location map

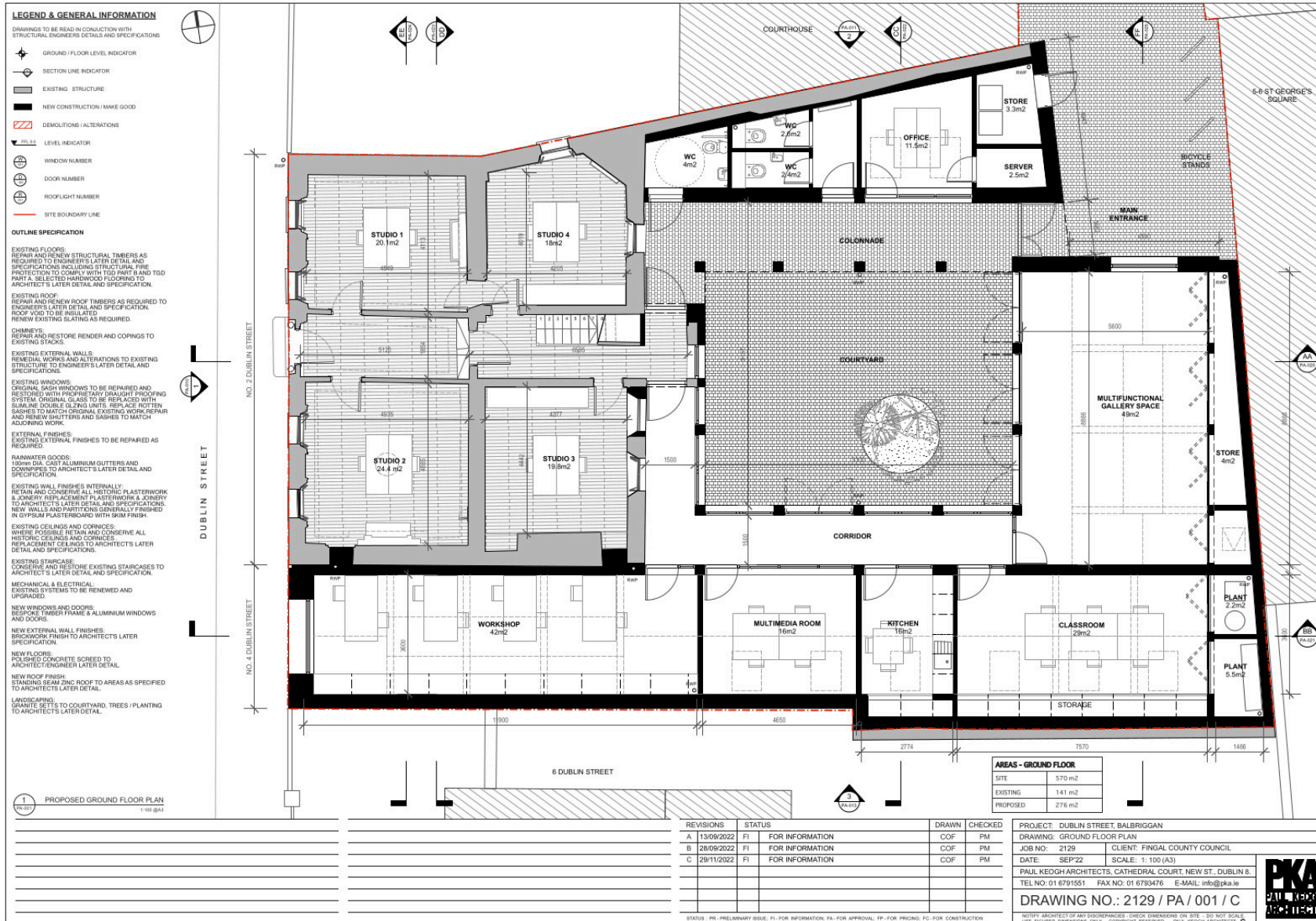


Figure 5. Proposed site plan





**Figure 6.** Existing Internal Courtyard and laneway access (left)





**Figure 7.** Existing Internal Courtyard and rear of buildings on Dublin Street. (Vacant shop (Top right) & Recently re-slatted roof (bottom right))



## Drainage

The storm water and foul water generated onsite during the construction and operational phases on site will enter the combined existing sewer system at St. Georges Square and flow east to Barnageeragh Wastewater Treatment Plant. Where it will be treated before being discharged into the Irish Sea. This WwTP is located approximately 4.1 km from the proposed site.

The Irish Water Report from 2020 on Barnageeragh WwTP stated that this plant's capacity will not be exceeded in the next three years and the Organic Capacity (PE) remaining is 27501. The proposed development will comply with the remaining capacities in this WwTP.



**Figure 9. Barnageeragh WwTP and discharge (Proposed site – Red Circle)**

The proposed drainage layout is demonstrated in Figure 8.

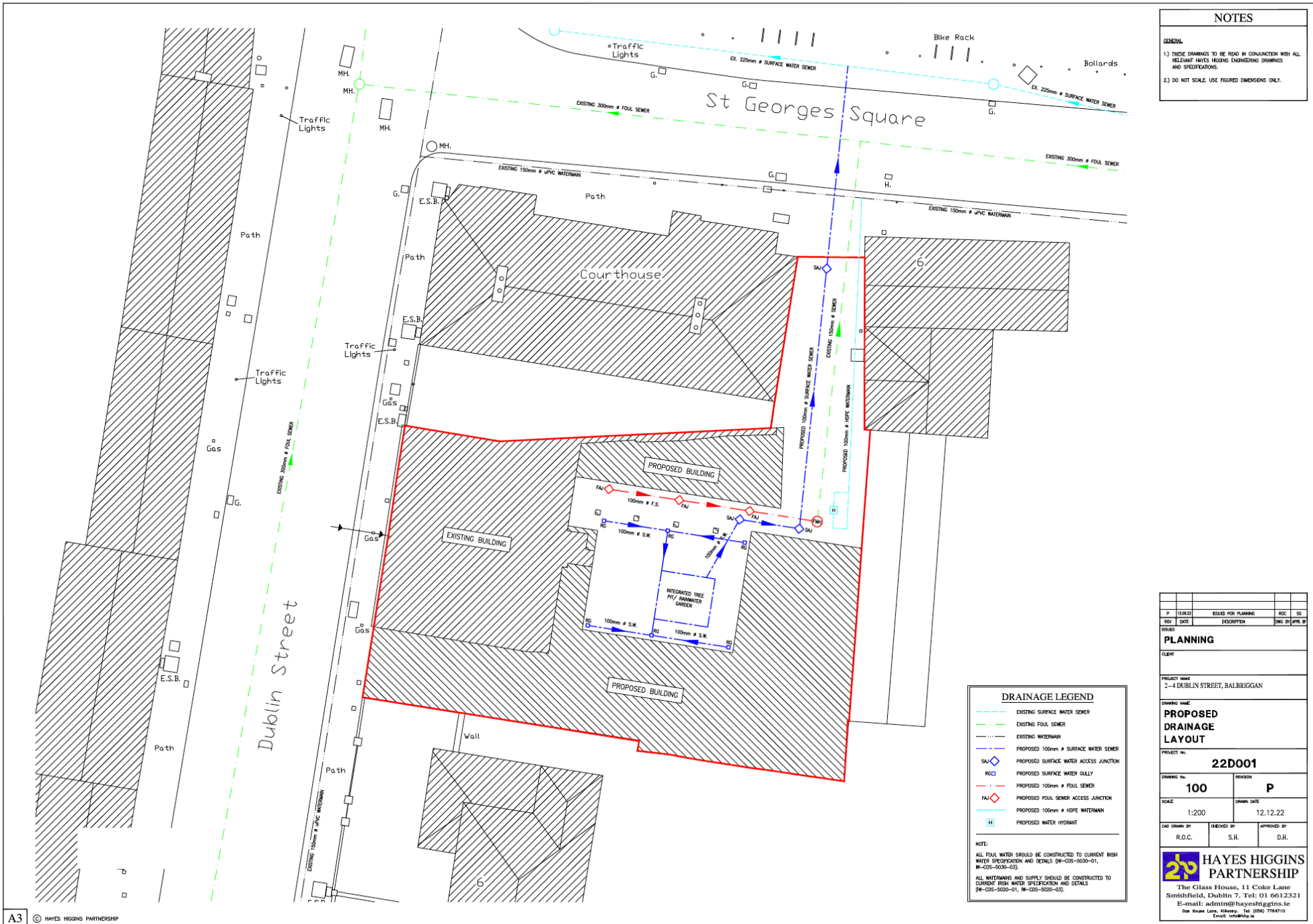


Figure 8. Proposed site drainage



## **Proposed Construction Methods**

A Planning Stage Preliminary Construction Management Plan (OCMP) has been prepared by Hayes Higgins Partnership at the request of our client Paul Keogh Architects & Fingal County Council. As outlined in the OCMP the following will be carried out:

### **Pre-Construction Activities**

*'The main contractor will establish site set up, appropriate signing, hoarding, security fencing and welfare facilities. Space within the site boundary is restricted but is adequate to establish adequately sized welfare facilities, material storage, site office and meeting room. Temporary connection to water, drainage and electricity is available to facilitate site works.*

*The appointed contractor will provide perimeter hoarding around the site to prevent unauthorised access from the public areas.*

*The existing stone wall boundary on the eastern end of the boundary with number 6 Dublin Road will be maintained, a new boundary wall is required on the western end, hoarding is required in this area. To prevent unauthorised access.*

*The existing stone wall boundary between no 2 Dublin Street and the Courthouse must be maintained.*

*The hoarding will be well maintained and may contain site graphics portraying project information.*

*Access to site will be controlled and monitored outside of site working hours.*

*The historic structures and features of no. 2 Dublin Street and adjoining Balbriggan Courthouse which are Protected Structures must be protected to ensure no damage during the redevelopment project.'*

### **Outline Traffic Management Plan**

*'This Outline Traffic Management Plan, (OTMP) is designed to facilitate access to the site by plant, machinery, and work vehicles during collections/deliveries; and to minimise traffic impacts of construction to local residents in the vicinity of the site.*

*The main contractor will be required to ensure the elements of this outline OTMP shall be incorporated into the final TMP. The contractor shall also agree and implement monitoring measures to confirm the effectiveness of the mitigation measures outlined in the OTMP. The final TMP shall address the following issues (including all aspects identified in this outline TMP):*

- *Site Access & Egress;*
- *Traffic Management Signage;*
- *Routing of Construction Traffic / Road Closures;*
- *Timings of Material Deliveries to Site;*
- *Dublin Street Hoarding Licence*
- *Road Cleaning;*
- *Enforcement of Construction Traffic Management Plan;*
- *Details of Working Hours and Days;*
- *Details of Emergency Plan;*
- *Communication;*
- *Construction Methodologies;*
- *Particular Construction Impacts*

*Construction vehicles will fall into 2 no. categories, heavy and light vehicles. Heavy vehicles will consist of HGV's involved in the removal of material off-site and for the delivery of concrete and other large construction materials. Light vehicles include cars and tradespeople's vans.*

*Construction Traffic will enter the work area from the laneway off St Georges Square*

*Strong lines of communication with hauliers, strict delivery schedules and just-in-time delivery methods will be*

*in operation to ensure no more than one vehicle will visit the site at any one time and no deliveries are to take place on Thursday's due to Court Sitings.*

*The main contractor is required to ensure that the provision of adequate guarding and lighting appropriate to the circumstances. Traffic signs should be placed in advance of the works area on both sides to ensure adequate warning to the general public and maintained when necessary, they should be operated as reasonably required for the safe guidance or direction of the public with regard to the needs of people with disabilities. The main contractor will comply with Regulation 97 of the Safety, Health and Welfare at Work (Construction) Regulations 2013.*

*Estimates of vehicle movements per day for both categories will be minimal but will be outlined in detail upon appointment of a contractor for the project.*

*Deliveries of materials to site will be planned and programmed to ensure that the materials are only delivered when required by adopting a 'just in time', lean construction management approach. There will be periods where multiple vehicle deliveries will be required, e.g., site fill material under roads, buildings and landscape areas, pre-cast concrete and large concrete pours. These will be planned well in advance and no queuing of vehicles allowed on the public road at the entrance to the site.*

*All off-loading of material will take place within the site, remote from the public road and access via the laneway. Bulk deliveries to take place outside of peak traffic hours within a six-day week as to minimise impact on the existing road network. Sign Management: Signs are to comply with statutory requirements on public roads. Other construction sites may be carrying out construction activity at the same time as the subject site. It is therefore imperative that directions to each site are distinctly identifiable.*

*Adherence to posted / legal speed limits will be emphasised to all contractors and subcontractors during induction training.*

*Drivers of construction vehicles / HGVs will be advised that vehicular movements in locations, such as local community areas, shall be restricted to 50 km/h. Special speed limits of 30 km/h shall be implemented for construction traffic in sensitive areas such as school locations. Such recommended speed limits will only apply to construction traffic and shall not apply to general traffic.*

*Road sweeping operations to remove any project related dirt and material deposited on the road network by construction / delivery vehicles will be utilised as required. All material collected will be disposed to a licensed waste facility.*

*A regular program of site tidying will be established to ensure a safe and orderly site and mud spillages on roads and footpaths outside the site will be cleaned regularly and will not be allowed to accumulate.*

*The traffic management plan will be enforced by both the Competent Contractor and the Design Team.*

*All project staff and material suppliers will be informed of the measures proposed by the TMP during site induction and will be required to adhere to the final TMP. As outlined above, the contractor shall agree and implement monitoring measures to confirm the effectiveness of the TMP.*

*Deliveries of materials to site will generally be between the hours of 07:00 and 18:00 Monday to Wednesday and Friday, and 08:00 to 14:00 on Saturdays. No deliveries will be scheduled for Thursday, Sundays or Bank Holidays.*

*The main contractor shall ensure that unobstructed access is provided to all emergency vehicles along all routes and site accesses. The contractor shall provide to the local authorities and emergency services, contact details of the contractor's personnel responsible for construction traffic management.*

*The contractor shall also ensure that the local community is informed of any proposed traffic management measures in advance of their implementation.'*

## **Site Working Hours**

*'Construction operations on site will generally be 07:00 to 18:00 Monday to Friday and 08:00 to 14:00 on Saturdays subject to the Part 8 approval. However, it may be necessary for some construction operations to be undertaken outside these times, for example, service diversions and connections, craning, etc.*

*Deliveries of materials to site will generally be between the hours of 08:00 – 19:00 Monday to Wednesday and Friday, and 08:00 to 14:00 on Saturdays. There may be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times. No material deliveries through laneway on Thursdays during Court Sitings.'*

## Ecological Assessment of the Site

A site visit was carried out by Bryan Deegan (MCIEEM) on the 7<sup>th</sup> December 2022. An internal and external inspection of buildings was carried out. This included the courtyard area of the site. It should be noted that the survey was carried out outside the optimal survey period for flora and bat assessments. However, it should be noted that the site is within a built urban environment and has in the recent past undergone construction works (re-roofing) and site clearance. Based upon an examination of historical satellite imagery (Google Earth Pro) the courtyard within the site was partially cleared in 2013 and fully cleared to bare earth between April 2020 and February 2021. As a result, the majority of species on site are opportunistic species and those related to urban environments.

The primary habitat on site consists of Built Land (BL3<sup>1</sup>). This consists of the main buildings on Dublin Street and the outbuildings to the rear. As outlined in the accompanying bat assessment '*No bats were noted roosting on site. There was no evidence of bats within the buildings on site. No trees of bat roosting potential are noted on site. The proposed re-development will change the local environment as demolition works are proposed and new structures are to be erected.*' However, as the survey was carried out in suboptimal season additional mitigation is required.

The courtyard to the rear of the site consists of Recolonising Bare Ground (ED3<sup>1</sup>)(Plate 1). As stated previously this area has undergone recent site clearance. However, despite this clearance several sycamore (*Acer pseudoplatanus*) saplings were noted. Species on site included bramble (*Rubus fruticosus* agg.), clover (*Trifolium* spp.), docks (*Rumex* spp.), thistles (*Cirsium arvense* & *C. vulgare*), rosebay willowherb (*Chamaenerion angustifolium*), plantains (*Plantago* spp.), dandelion (*Taraxacum* spp.), hoary willowherb (*Epilobium parviflorum*), pineappleweed (*Matricaria discoidea*), daisy (*Bellis perennis*), creeping buttercup (*Ranunculus repens*), silverweed (*Potentilla anserina*), common nettle (*Urtica dioica*), common poppy (*Papaver rhoeas*), common nettle (*Urtica dioica*), colt's-foot (*Tussilago farfara*), herb-robert (*Geranium robertianum*), butterfly-bush (*Buddleja davidii*), St. Johns Wort (*Hypericum* sp.) and red valerian (*Centranthus ruber*), Ivy (*Hedera helix*), Cleavers (*Galium aparine*), sun spurge (*Euphorbia helioscopia*), nasturtium (*Tropaeolum majus*), and fuchsia (*Fuchsia magellanica*). No rare or protected species were noted on site. No invasive species that are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477 of 2011) which makes it an offence under Regulation 49 to plant, disperse, allow or cause to grow these plants., were noted on site. No mammals of conservation importance were noted on site.



Plate 1. Courtyard

<sup>1</sup> Fossitt (2000)

## Sensitive Receptors

The sensitive receptors in the vicinity of the proposed development are summarised and the potential impact/mitigation are seen in Table 1. Satellite imagery of the site is seen in Figure 1.

**Table 1.** Sensitive Receptors and Potential Impact.

Sensitive Receptor	Location / Potential Impact
<p>Watercourses</p> <p>Marine Environment</p>	<p>Matt/Bracken River</p> <p>There are no designated sites with a direct hydrological pathway downstream of the proposed works.</p> <p>Balbriggan Harbour and the Irish Sea are downstream of the proposed works and would be sensitive to downstream impacts from silt and pollution.</p>
<p>Residents</p>	<p>In proximity of the proposed development</p> <p>As seen in Figure 1 the proposed development is proximal to residential areas that would be sensitive to noise, dust and lighting impacts. Mitigation measures should be put in place to avoid impacting the residents proximal to the proposed development during the construction phase of the project.</p>
<p>Terrestrial Fauna and flora</p>	<p><i>Plant Species</i></p> <p>No rare or plant species of conservation value were noted during the field assessment. Records of rare and threatened species from NBDC and NPWS were examined. No rare or threatened plant species were recorded within the proposed development site.</p> <p><i>Fauna</i></p> <p>No mammal of conservation importance was noted on site. Records of rare and threatened species from NBDC were examined. No rare or threatened terrestrial faunal species were recorded within the proposed site. However, it should be noted that small salmonids were observed within the watercourse.</p> <p><i>Bats</i></p> <p>No bats were noted roosting on site. There was no evidence of bats within the buildings on site. No trees of bat roosting potential are noted on site. The proposed re-development will change the local environment as demolition works are proposed and new structures are to be erected.</p> <p>Prior to works a pre demolition inspection for bats will be carried out to assess if bats have inhabited the derelict building since this surveys was carried out and prior to the demolition.</p> <p><i>Amphibians</i></p> <p>The common frog (<i>Rana temporaria</i>) was not observed on site.</p> <p><i>Birds</i></p> <p>Herring gulls were noted in the vicinity of the site. Herring gull were not nesting on site. However, prior to works in the vicinity of roofs within bird nesting season (March-August) a pre-construction assessment needs to be carried out.</p>



### 3. Analysis of the Potential Impacts

#### **Potential Construction Impacts**

The overall development of the site is likely to have direct negative impacts upon the existing habitats, fauna and flora. Direct negative effects will be manifested in terms of the removal of the site's internal habitats. The removal of these habitats will result in a loss of species of low biodiversity importance. There is the potential for contaminants and pollutants to enter the Bracken/Matt River via road surface water drainage. However, all drainage from the site itself goes to a combined sewer

#### **Designated Conservation sites within 15km**

The nearest European site (River Nanny Estuary and Shore SPA) is 5.1 km from the proposed development site. The river Matt flows east into the Irish Sea 105m to the north of the proposed site. The River Nanny Estuary and Shore SPA is located 5.1km up the coast from the proposed site and it is, therefore, unlikely that any pollutants or chemicals from the site, that potentially enters the watercourse would impact on the conservation objectives or features of interest of this European site. The storm water and foul water generated onsite during the construction and operational phases on site will enter the combined existing sewer system at St. Georges Square and flow east to Barnageeragh Wastewater Treatment Plant, which is operating within capacity and is compliant. Effluent will be treated under licence before being discharged into the Irish Sea. The effluent from Barnageeragh WwTP will be discharged into the Irish Sea 2.9 km from the Skerries Islands SPA, however, in the absence of mitigation, any chemicals or pollutants which may have been generated onsite will be diluted or dispersed within the marine environment. There are, therefore, two weak indirect hydrological pathways to the River Nanny Estuary and Shore SPA and the Skerries Islands SPA.

Potential Impacts in the absence of mitigation: Negligible / International / Neutral Impact / Not significant / Long-term. Mitigation is not required.

#### **Biodiversity**

##### ***Terrestrial mammalian species***

No protected terrestrial mammals were noted on site. Loss of habitat and habitat fragmentation may affect some common mammalian species.

Potential Impacts in the absence of mitigation: Low adverse / site / Negative Impact / Not significant / short term. Due to the enclosed nature of the site no mitigation is required.

##### ***Flora***

No protected flora or invasive species were noted on site. Site clearance will remove the flora species on site.

Potential Impacts in the absence of mitigation: Low adverse / site / Negative Impact / Not Significant / Short term.

##### ***Bat Fauna***

No evidence of bats was noted on site. However, the buildings that have been designated for redevelopment within the proposed development are of bat roosting potential.

Potential Impacts in the absence of mitigation: Minor adverse / site / Negative Impact / Not significant / short term. Mitigation is needed in the form of a pre-construction inspection and compliance with a bat derogation licence, if required, following the pre-construction inspection.

##### ***Aquatic Biodiversity***

Silt and pollution could potentially impact on downstream biodiversity. Standard construction and operation measures will be followed to ensure the protection of the water quality of this river and marine environment. Mitigation measures are required in relation to preventing downstream impacts from impacts via road surface water drainage.

Potential Impacts in the absence of mitigation: Moderate adverse / county/ Negative Impact / Slight Effects / short term. Mitigation is required

##### ***Bird Fauna***

Herring Gull (*Larus argentatus*) were noted in the vicinity of the works but no nesting birds were noted on site.

Potential Impacts in the absence of mitigation: Low adverse / Local / Negative Impact / Not significant / short term. Mitigation is required in the form of an inspection if works on the roof are proposed during the bird nesting season.

## **Potential Operational Impacts**

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

### **Designated Conservation sites within 15km**

There are no designated sites located directly downstream of the works.

Potential Impacts in the absence of mitigation: Negligible / International / Neutral Impact / Not significant / Long-term. No mitigation is required.

### **Biodiversity**

#### ***Terrestrial mammalian species***

No protected terrestrial mammals were noted in the vicinity of proposed works.

Potential Impacts in the absence of mitigation: Low adverse / local/ Negative Impact / Not significant / long term. No mitigation is required.

#### ***Flora***

No protected flora or invasive species were noted on site.

Potential Impacts in the absence of mitigation: Neutral / site / Not significant / long-term. No mitigation is required.

#### ***Bat Fauna***

The proposed development will change the local environment as structures are to be redeveloped and some of the existing vegetation will be removed.

Potential Impacts in the absence of mitigation: Low adverse / International / Negative Impact / Not significant / long term. No mitigation is required.

#### ***Aquatic Biodiversity***

All measures will be in place in relation to surface water discharges. All drainage goes to a combined sewer.

Potential Impacts in the absence of mitigation: minor beneficial / local / Positive Impact / Not significant / long term. No mitigation is required.

#### ***Bird Fauna***

No potential impact is foreseen on birds during the operation.

Potential Impacts in the absence of mitigation: Neutral / site / Not significant / long term.

## **4. Mitigation Measures & Monitoring**

Standard construction and operational controls will be incorporated into the proposed development project to minimise the potential negative impacts on the ecology within the Zone of Influence (Zoi) including the Bracken River, downstream biodiversity, and local biodiversity within / proximate to the subject site are outlined in Table 5.

**Table 5. Mitigation Measures.**

Sensitive Receptors	Potential Impacts	Designed-in Mitigation
<p><b>The Bracken/Matt River</b></p> <p><b>Marine Environment</b></p>	<ul style="list-style-type: none"> <li>• Habitat degradation</li> <li>• Dust deposition</li> <li>• Pollution</li> <li>• Silt ingress from site runoff</li> <li>• Downstream impacts</li> <li>• Negative impacts on aquatic fauna</li> </ul>	<p><b>Construction Phase Mitigation</b></p> <ul style="list-style-type: none"> <li>• Local watercourses (The Bracken River) and road drains will be protected from dust, silt and surface water throughout the works.</li> <li>• No discharges containing silt or pollutants will be to the the drainage or road drainage networks.</li> <li>• Sufficient onsite cleaning of vehicles prior to leaving the site and on nearby roads, will be carried out, particularly during groundworks.</li> <li>• The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained.</li> <li>• The site will include a dedicated bund for the storage of dangerous substances including fuels, oils etc.</li> <li>• Spill containment equipment shall be available for use in the event of an emergency and spillage during refuelling of machinery if required. The spill containment equipment shall be replenished if used and shall be checked on a scheduled basis.</li> <li>• Environmental risks due to construction of the proposed development do potentially exist, particularly in relation runoff from sloping site, road drains that could lead to the watercourse. 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.</li> <li>• All oils, fuels and other hazardous liquid materials shall be clearly labelled and stored in an upright position in an enclosed bunded area within the proposed development site compound. The capacity of the bunded area shall conform with EPA Guidelines – hold 110% of the contents or 110% of the largest container whichever is greater. Smaller quantities of fuel may be carried/stored in clearly labelled metal Jeri cans. Green for diesel and red for petrol and mixes. The Jeri cans shall be in good condition and have secure lockable lids. The Jeri cans shall be stored in a drip tray when not in use.</li> <li>• Drip trays will be turned upside down if not in use to prevent the collection of rainwater;</li> <li>• Waters collected in drip trays will be assessed prior to discharge. If classified as contaminated, they shall be disposed by a permitted waste contractor in accordance with current waste management legal and regulatory requirements;</li> <li>• Plant and equipment to be used during works, will be in good working order, fit for purpose, regularly serviced/maintained and have no evidence of leaks or drips;</li> <li>• No plant used shall cause a public nuisance due to fumes, noise, and leakage or by causing an obstruction;</li> <li>• Re-fuelling of machinery, plant or equipment will be carried out in the site compound as per the appointed Construction Contractor re-fuelling controls;</li> <li>• The appointed Construction Contractor EERP will be implemented in the event of a material spillage;</li> <li>• No entry of solids to the associated stream or drainage network during the connection of pipework to the public water system.</li> </ul>



**Table 5. Mitigation Measures.**

Sensitive Receptors	Potential Impacts	Designed-in Mitigation
		<p><b>Noise and Vibration</b></p> <ul style="list-style-type: none"> <li>• All site staff shall be briefed on noise mitigation measures and the application of best practicable means to be employed to control noise.</li> <li>• All staff should be briefed on the complaint’s procedure, the mitigation requirement and their responsibilities to register and escalate complaints received.</li> <li>• Where required good quality site hoarding is to be erected to maximise the reduction in noise levels.</li> <li>• Contact details of the contractor and site manager shall be displayed to the public, together with the permitted operating hours.</li> <li>• Material and plant loading and unloading shall only take place during normal working hours.</li> <li>• Ensure that each item of plant and equipment complies with the noise limits quoted in the relevant European Commission Directive 2000/14/EC.</li> <li>• Fit all plant and equipment with appropriate mufflers or silencers of the type recommended by the manufacturer.</li> <li>• Use all plant and equipment only for the tasks for which it has been designed.</li> <li>• Locate movable plant away from noise sensitive receptors.</li> <li>• Ensure at least 4 days’ notice is given to Fingal County Council Planning Department when applying for extensions to normal working hours. No out of hours work to be undertaken unless permission to do so has been granted.</li> </ul> <p><b>Dust and Air Quality</b></p> <ul style="list-style-type: none"> <li>• Material stockpiles will be strategically placed to reduce wind exposure. Materials will be ordered on an “as needed” basis to reduce excessive storage.</li> <li>• Appropriate dust suppression will be employed to prevent fugitive emissions affecting those occupying neighbouring properties or pathways if required.</li> <li>• Restrict vehicle speeds to 15 kmph as high vehicle speeds cause dust to rise.</li> <li>• Covers are to be provided over soil stockpiles when high wind and dry weather are encountered if required.</li> <li>• All consignments containing material with the potential to cause air pollution being transported by skips, lorries, trucks or tippers shall be covered during transit on and off site.</li> <li>• No materials shall be burned on-site.</li> </ul> <p><b>Waste Minimisation</b></p> <ul style="list-style-type: none"> <li>• Materials to be ordered on an “as needed” basis to prevent oversupply and material build up on site.</li> <li>• Appropriate storage facilities should be provided to ensure materials are correctly handled and stored on site thus reducing damage to materials.</li> <li>• Material ordering shall coincide with the programme of works to reduce the need to store materials on site.</li> <li>• Sub-contractors will be responsible for the management of their wastes.</li> </ul> <p><b>Management of Construction/Demolition Waste</b></p> <ul style="list-style-type: none"> <li>• It is proposed to establish a dedicated and secure area on site for the setting down of bins / skips to facilitate waste storage prior to disposal.</li> </ul>

**Table 5. Mitigation Measures.**

Sensitive Receptors	Potential Impacts	Designed-in Mitigation
		<ul style="list-style-type: none"> <li>• The site manager on behalf of the construction contractor will ensure that all staff are made aware of their responsibility in relation to waste management on site. The Competent Contractor shall inform staff by means of clear signage and verbal instruction of housekeeping and waste segregation practices.</li> <li>• It will be the responsibility of the Competent Contractor to ensure that a written record of all quantities and nature of waste removed off site are maintained on site in a waste file to be kept at the project office.</li> <li>• It is the responsibility of the Competent Contractor or nominated person that all contracted waste hauliers employed at the site hold an appropriate waste collection permit for the waste streams which will be generated and that all waste materials are disposed of at an appropriately licensed or permitted waste facility.</li> <li>• The Competent Contractor nominated person is also responsible for ensuring that all waste materials are disposed of at an appropriately licensed or permitted waste facility.</li> <li>• It is proposed that materials will be collected and stored in separate, clearly labelled skips, within a predefined waste storage area on site and that these materials will be collected by a permitted waste contractor and disposed of at an appropriately licensed/permited waste facility.</li> <li>• Prior to the commencement of the project the Competent Contractor will instruct an appropriately permitted waste contractor to collect the waste and ensure that the waste contractor and licensed/permited waste facility hold relevant waste permits and licenses.</li> <li>• All waste soils shall be classified as inert, non-hazardous or hazardous in accordance with the EPA’s Waste Classification Guidance – List of Waste &amp; Determining if Waste is Hazardous or Non-Hazardous prior to being exported off site. This is to ensure that the waste material is transferred by an appropriately permitted waste collection permit holder and brought to an appropriately permitted or licensed waste facility</li> </ul>
<b>Birds (National Protection)</b>	<ul style="list-style-type: none"> <li>• Removal nesting habitat and nests.</li> <li>• Death/injury to birds.</li> </ul>	<ul style="list-style-type: none"> <li>• Nesting birds will be protected on site if present. “Relevant guidelines and legislation (Section 40 of the Wildlife Acts, 1976 to 2012) will be carried out (Brid nesting season is from March 1<sup>st</sup> -August 31<sup>st</sup>) in relation to works including roof works. Should this not be possible, a pre-works check by a qualified ecologist should be undertaken to ensure nesting birds are absent.</li> </ul>
<b>Bats (International Protection)</b>	<ul style="list-style-type: none"> <li>• Removal roosting/foraging habitat.</li> <li>• Lighting Impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Pre Construction building inspection for bats.</li> <li>• Compliance with conditions of the bat derogation licence if required</li> </ul>
<b>Residents</b>	<ul style="list-style-type: none"> <li>• Disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Measures outlined in the CEMP will be followed.</li> <li>• During construction compliance with National legislative requirements in relation to noise and dust will be in place.</li> </ul>

## 5. Environmental Management Plan

### **'Background**

*Due to this development being in close proximity to residential units this section outlines suitable measures to minimise nuisance noise, water and dust emissions to minimise any impact of the proposed development on surround receptors*

### **Noise and Vibration**

**The Contractor will be required to restrict noise levels at Site Boundary to the following levels:**

- *Daytime (07:00 to 19:00 hrs) – 55dB*
- *Evening (19:00 to 23:00 hrs) – 50dB*
- *Night-time (23:00 to 08:00 hrs) – 45dB (measured from nearest noise sensitive location)*

*To minimize noise from construction operations, no heavy construction equipment/ machinery (to include pneumatic drills, construction vehicles, generators, etc) shall be operated on or adjacent to the construction site before 08.00 or after 19.00, Monday to Friday, and before 08.00 or after 14.00 on Saturdays. No activities shall take place on site on Sundays or Bank Holidays. No activity, which would reasonably be expected to cause annoyance to residents in the vicinity, shall take place on site between the hours of 19.00 and 08.00. No deliveries of materials, plant or machinery shall take place before 08.00 in the morning or after 19.00 in the evening.*

*The proposed development will be obliged to comply with BS 5228 “Noise Control on Construction and Open Sites Part 1”. The appointed contractor shall implement the following measures to eliminate or reduce noise levels where possible:*

- *All site staff shall be briefed on noise mitigation measures and the application of best practicable means to be employed to control noise.*
- *All staff should be briefed on the complaint’s procedure, the mitigation requirement and their responsibilities to register and escalate complaints received.*
- *Where required good quality site hoarding is to be erected to maximise the reduction in noise levels.*
- *Contact details of the contractor and site manager shall be displayed to the public, together with the permitted operating hours.*
- *Material and plant loading and unloading shall only take place during normal working hours.*
- *Ensure that each item of plant and equipment complies with the noise limits quoted in the relevant European Commission Directive 2000/14/EC.*
- *Fit all plant and equipment with appropriate mufflers or silencers of the type recommended by the manufacturer.*
- *Use all plant and equipment only for the tasks for which it has been designed.*
- *Locate movable plant away from noise sensitive receptors.*
- *Ensure at least 4 days’ notice is given to Fingal County Council Planning Department when applying for extensions to normal working hours. No out of hours work to be undertaken unless permission to do so has been granted.*

### **Dust and Air Quality**

*Dust prevention measures will be put in place for any particulate pollution. The extent of dust generation under construction activities being carried out is dependent on environmental factors such as rainfall, wind speed and wind direction. The most likely sources of dust generation at this site include demolition, and the sawing of concrete throughout the duration of the project.*

*Control Measures are outlined as follows:*

- *Material stockpiles will be strategically placed to reduce wind exposure. Materials will be ordered on an “as needed” basis to reduce excessive storage.*
- *Appropriate dust suppression will be employed to prevent fugitive emissions affecting those occupying neighbouring properties or pathways if required.*
- *Restrict vehicle speeds to 15 kmph as high vehicle speeds cause dust to rise.*
- *Covers are to be provided over soil stockpiles when high wind and dry weather are encountered if required.*
- *All consignments containing material with the potential to cause air pollution being transported by skips, lorries, trucks or tippers shall be covered during transit on and off site.*
- *No materials shall be burned on-site.*



### **Surface Water and Groundwater Protection**

*The main pollutants with the potential to impact water receptors are silt, fuel/oil, concrete and chemicals. There are a number of steps outlined below to eliminate contamination of site surface water runoff into :*

- *Monitoring of potential impacts to the sewer system will be carried out for the duration of the construction programme to ensure there is no impact from site activities.*
- *The contractor will implement a pollution prevention programme and will ensure daily checks are carried out to ensure compliance.*
- *An appropriate Environmental Emergency Response Plan will be put in place for the duration of the construction programme.*
- *Harmful materials such as fuels, oils, greases, paints and hydraulic fluids must be stored in bunded compounds well away from drains and gullies.*
- *Refuelling of machinery should be carried out using drip trays. The site compound should include a dedicated bund for the storage of dangerous substances including fuels oils, solvents etc.*
- *Runoff from machine service and concrete mixing areas must not enter storm water drains and gullies leading off-site.*
- *Stockpile areas for sands and gravel should be kept to minimum size, well away from storm water drains and gullies leading off-site.*
- *Open excavations to be backfilled immediately following installation of services/foundations etc.'*

### **Adverse Effects likely to occur from the project (post mitigation)**

Standard construction mitigation measures are proposed. These would ensure that water entering the road surface water drainage network and the Bracken River is clean and uncontaminated and that works on site are carried out in a responsible manner.

With the successful implementation of standard mitigation measures to limit surface water impacts on the watercourses, biodiversity mitigation/supervision, no significant impacts are foreseen from the construction or operation of the proposed project on terrestrial or aquatic ecology. Residual impacts of the proposed project will be localised to the immediate vicinity of the proposed works and would be deemed to be minor adverse/not significant and short term.

The construction and operational mitigation proposed for the development satisfactorily addresses the mitigation of potential impacts on terrestrial biodiversity, aquatic biodiversity, bats and residents proximate to the site, through the application of the standard construction phase controls as outlined above. In particular, mitigation measures to ensure compliance with Water Pollution Acts and prevent silt and pollution entering the Bracken River will satisfactorily address the potential impacts on downstream biodiversity. No significant adverse impacts on designated conservation sites are likely in the absence of mitigation measures outlined above.

## 6. Site Information

### Roles and Responsibilities

The roles and responsibilities of the personnel involved in the construction works are outlined in Table 4. However, it will be necessary that all personnel involved in the project are responsible for ensuring the requirements of the CEMP are followed.

**Table 4.** Roles and responsibilities of the personnel involved in the development project

<b>Role</b>	<b>Roles and responsibilities</b>
<b>Applicant</b>	Fingal County Council will have overall responsibility for the compliance with the CEMP. They will appoint staff and contractors to deliver the various elements of the development and oversee works carried out on site.
<b>Contractor</b>	Contractors will be hired to carry out all works on site. Works carried out will be overseen by Fingal County Council and on a day to day basis by the site manager. All contractors on site are required to comply with all elements of the CEMP.
<b>Site Manager</b>	The Site Manager will be responsible for the day to day management of the site including compliance of all personnel with the CEMP, in addition to Health and Safety, Environmental and Quality elements. The Site Manager is responsible for ensuring that all people on-site are provided with relevant information concerning environmental protection. The Site Manager will be responsible for overseeing any environmental monitoring programmes, carrying out site environmental inspections and audits as necessary, and will co-ordinate the environmental monitoring programme. All records of incidents and environmental issues will be collated and maintained by the site manager. The Site Manager will also be responsible for reviewing all risk assessment method statements and ensuring an appropriate programme of tool box talks are developed and effectively communicated. The site manager will be responsible for overall waste management issues arising from the project. These would include: Implementation and monitoring of waste minimisation, segregation and safe disposal measures, Dissemination of waste reduction, and waste management procedures to all relevant personnel on site.
<b>Monitoring</b>	Noise and Dust specialists will be appointed to oversee mitigation measures on site.
<b>All Staff and Subcontractors</b>	All staff and subcontractors have the responsibility to comply with the CEMP including environmental procedures on site to minimise environmental impacts, avoid pollution on-site, including noise and dust, and to respond quickly and effectively to an incident to avoid or limit environmental impacts. All incidents must be reported to the Site Manager immediately.

In addition the following has been outlined in the OCMP:

### Implementation

*The Competent Contractor will have the overall responsibility of ensuring the measures outlined in the Project CMP are adhered to for the duration of the construction phase. The primary responsibilities of the Construction Project Manager are as follows:*

- *Promotion of awareness of environmental issues associated with each project phase.*
- *Ensure adherence with all environmental, Waste and traffic management standards listed in the Project CMP.*
- *Facilitate environmental audits and site visits.*
- *Monitor the impact of construction traffic on local traffic conditions*
- *Awareness and implementation of relevant legislation, codes of practice, guidance notes as stated in the CMP.*
- *Conduct regular site inspections to facilitate the timely identification of environmental risks or incidents.*
- *Ensure all construction activities are carried out with minimal risk to the environment.*
- *Report environmental incidents in a timely manner to the Design Team and the relevant authorities.*

*Environmental Induction*

## ***Environmental Complaints and Incidents***

The site manager will develop and implement an appropriate queries / complaints procedure. Records will include full details of the concerns expressed and ensure that a formal assessment is commenced of the reported concern. The site manager will also discuss complaints with Fingal County Council and oversee an initial response to the person who has submitted the complaint/concern confirming its receipt.

An investigation to assess the issue of concern will be carried out and decisions made to see what corrective and/or preventive action, or further investigation is necessary. With overall responsibility for complaints, the site manager will respond within a reasonable timescale and maintain records of all correspondence. If significant corrective action and external stakeholder involvement is required, the site manager / project manager will oversee all elements of the process.

Complaints that may be received will be logged, assessed and appropriate action taken as soon as practical. The construction company will be actively seeking liaison with all parties throughout the construction periods. It will be critical to the success of the project that key issues are properly addressed from the outset to create a good working relationship and an integrated team approach to resolving potential issues before they arise. In the event of spillages or other incident, steps will be taken to prevent environmental pollution, for example through protection of drains by use of drain covers or booms, use absorbent granules following and oil / chemical spill, and turning off equipment or other sources of noise or dust. Once the situation has been rectified, full details about the incident and remedial actions undertaken will be provided to the corporation and relevant authorities and recorded in the site environmental register.

## ***Waste Management***

This section of the CEMP sets out a basic structure for a Site Waste Management Plan and how the construction company will best use them to improve and manage our operations at all stages of site activity. Fingal County Council is committed to maintain the highest environmental standards.

### ***Background***

*The Waste Management Plan (WMP) will address the following points;*

- *Analysis of waste arisings / material surpluses*
- *Waste management of excavated soil*
- *Specific waste management objectives for the project including the potential to re-use existing on site materials for further use.*
- *Methods proposed for prevention, reuse and recycling*
- *Waste handling, storage & disposal procedures*
- *Waste auditing*
- *Record keeping*

### ***Policy and Legislation***

*The principles and objectives to deliver sustainable waste management for this project have been incorporated in the preparation of this management plan and are based on the following strategic objectives:*

- *Environmental Protection Agency Act 1992*
- *Waste Management Acts 1996 to 2005*
- *Waste Management (Collection Permit) Regulations 2007 (SI No. 820 of 2007)*
- *Waste Management (Collection Permit) Amendment Regulations 2008 (SI No. 87 of 2008), as amended.*
- *The Waste Framework Directive (Directive 2008/98/EC)*
- *Department of the Environment, Heritage and Local Government – Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects – July 2006*
- *In reference to the above legislation the below hierarchy has been adapted for this site:*
- *Reduction of the amount of waste generated by the construction process.*
- *Segregation of waste will be implemented during the construction phase of the development to enable easy re-use and recycling, wherever possible.*
- *Recycle waste material where feasible, including the use of excess excavations as fill material, recycling of various waste fractions such as metals, packaging etc.*

### **Waste Minimisation**

*The Competent Contractor shall take primary responsibility for the minimisation and prevention of waste generation. The following initiatives should be implemented to assist in this task;*

- Materials to be ordered on an “as needed” basis to prevent oversupply and material build up on site.*
- Appropriate storage facilities should be provided to ensure materials are correctly handled and stored on site thus reducing damage to materials.*
- Material ordering shall coincide with the programme of works to reduce the need to store materials on site.*
- Sub-contractors will be responsible for the management of their wastes.*

### **Ongoing Review of WMP**

*It is proposed that a review of waste management practices will form part of regular site inspection audits to be conducted by the construction contractor. This information should be forwarded to the Competent Contractor to assist in determining the best methods for waste minimisation, reduction, re-use, recycling and disposal as the works progress.*

### **Management of Construction / Demolition Waste Disposal**

*It is proposed to establish a dedicated and secure area on site for the setting down of bins / skips to facilitate waste storage prior to disposal.*

*The site manager on behalf of the construction contractor will ensure that all staff are made aware of their responsibility in relation to waste management on site. The Competent Contractor shall inform staff by means of clear signage and verbal instruction of housekeeping and waste segregation practices.*

*It will be the responsibility of the Competent Contractor to ensure that a written record of all quantities and nature of waste removed off site are maintained on site in a waste file to be kept at the project office. It is the responsibility of the Competent Contractor or nominated person that all contracted waste hauliers employed at the site hold an appropriate waste collection permit for the waste streams which will be generated and that all waste materials are disposed of at an appropriately licensed or permitted waste facility.*

*The Competent Contractor nominated person is also responsible for ensuring that all waste materials are disposed of at an appropriately licensed or permitted waste facility.*

*Typical waste materials anticipated to be generated throughout the course of the project are classified under Section 17 – Construction and Demolition Wastes – of the List of Waste (LoW) as detailed in Table 7.1, below.*

*It is proposed that materials will be collected and stored in separate, clearly labelled skips, within a predefined waste storage area on site and that these materials will be collected by a permitted waste contractor and disposed of at an appropriately licensed/permitted waste facility.*

*Prior to the commencement of the project the Competent Contractor will instruct an appropriately permitted waste contractor to collect the waste and ensure that the waste contractor and licensed/permitted waste facility hold relevant waste permits and licenses. All waste soils shall be classified as inert, non-hazardous or hazardous in accordance with the EPA’s Waste Classification Guidance – List of Waste & Determining if Waste is Hazardous or Non-Hazardous prior to being exported off site. This is to ensure that the waste material is transferred by an appropriately permitted waste collection permit holder and brought to an appropriately permitted or licensed waste facility.*

### **Invasive Species**

No invasive species that could impact on the movement of soil on or off site were noted.

## **7. Conclusions**

This CEMP has been submitted to show Fingal County Council’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, minimised 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 updating and monitoring throughout the construction period to ensure potential risks are adequately managed throughout the construction works.