

Utility Report

Rosemount

Malahide Road,

Northern Cross,

Dublin 17

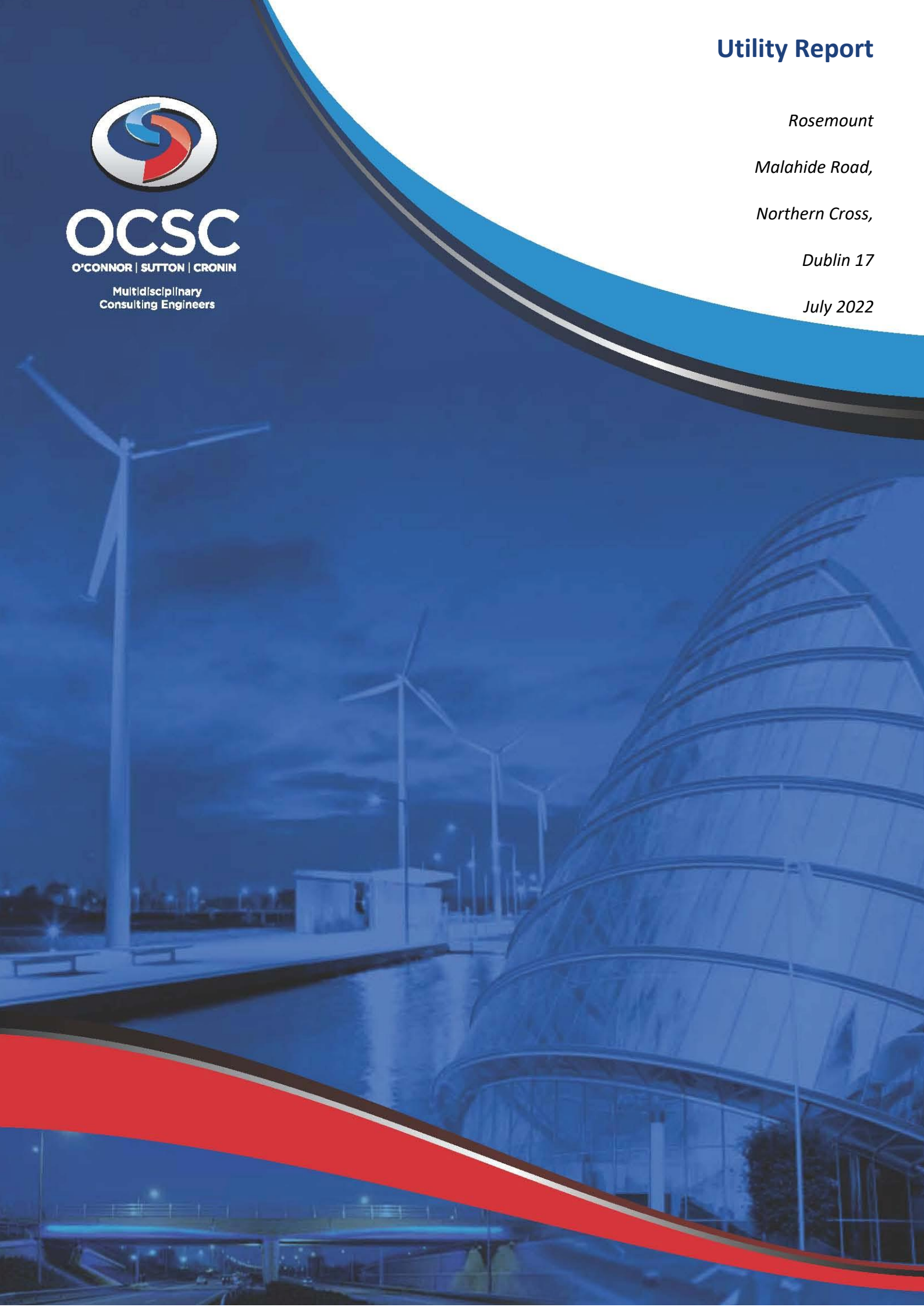
July 2022



OCSC

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Multidisciplinary
Consulting Engineers



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DOCUMENT CONTROL & HISTORY

Rev.	Status	Authors	Checked	Authorised	Issue Date
P02	For Planning	BOB	MH	MH	29.07.22
P01	For Planning	BOB	MH	MH	15.12.21

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INTRODUCTION

Development Description

We, Walls Construction Ltd. intend to apply to An Bord Pleanála for permission for a strategic housing development on lands at Rosemount House, Northern Cross, Malahide Road, Dublin 17, on a site of c. 0.6462 ha. The subject site is bound by Mayne River Avenue to the west and south, a site to the north in use as a building compound for the construction of the permitted development to the east (ABP Ref.: 307887-20).

The proposal comprises the demolition of an existing 3 storey office building and the construction of a mixed-use development in a single block (up to 9 storeys over basement) including 176 no. apartments, office and café use.

The proposed development shall consist of:

- Demolition of existing c. 3,315 sq.m, 3 storey office building on site and existing ancillary facilities and the construction of a single mixed-use block (Block A) of up to 9 storeys (over basement), consisting of a 4-sided structure based around a central courtyard area.
- c. 1,060 sq.m. of office space at ground floor level with own door access and associated infrastructure including staff kitchen, meeting rooms and designated car parking (7 spaces) at basement level.
- A café unit of c. 143.7 sq.m at ground floor level with own door access to the south and east, accessed via proposed public open space.
- 176 no. residential units from 1st to 8th floor level comprising 72 no. 1 bed units (41%), 57 no. 2 bed units (32%) and 47 no. 3 bed units (27%) [each with private amenity space in the form of balcony or terrace], with separate access to the proposed commercial uses at ground floor level.
- c. 1,846 sq. m. of communal open space at ground floor, first floor podium, 4th floor and 7th floor level, and public open space of c. 1,577 sq.m. at ground floor level, including a public courtyard area located to the southeast of the proposed block.
- Resident amenity and support services are proposed at ground floor level to include a cinema room, post room, games room, co-working spaces, gym and concierge services.
- 134 no. car parking spaces, 7 of which are accessible, and 6 no. motorcycle parking spaces, located at basement level and accessed by a vehicular ramp via Mayne River Avenue to the west (with a vehicular set down areas fronting Mayne River Avenue), in addition to 2 no. car club spaces at the southern boundary.
- 424 no. bicycle parking spaces, 416 of which at ground floor and at surface level and 8 no. spaces at basement level.
- All associated vehicular and pedestrian access routes (including links to the adjoining site to the north), external communal play facilities, E.S.B substation, Meter rooms, foul and surface water drainage, hard and soft landscaping, lighting, plant at basement level, bin

stores, PV panels and green roof, telecommunications infrastructure all associated and ancillary site works.

The application contains a statement setting out how the proposal will be consistent with the objectives of the relevant development plan and local area plan. The application contains a statement indicating why permission should be granted for the proposed development, having regard to a consideration specified in section 37(2)(b) of the Planning and Development Act, 2000, as amended, notwithstanding that the proposed development materially contravenes a relevant development plan or local area plan other than in relation to the zoning of the land.

UTILITIES

This section provides; a description of the project (in connection with foul, potable water, gas, electricity and telecommunications); the baseline for utilities for the project site; and a statement of the likely significant impacts associated with both the construction and operation phases of the development. A 'do nothing' scenario has also been considered. Mitigation measures are proposed in the form of avoidance, prevention, reduction, offsetting, and reinstatement or remedial measures and recommendations for monitoring are included where appropriate. Predicted residual effects are described. This section on utilities has been prepared by O'Connor Sutton Cronin (OCSC).

STUDY METHODOLOGY

Approach

The assessment of material assets is a desk-based exercise, to identify properties, utilities and resources that may be affected by the proposed scheme and consultation with Local Authorities and the relevant utility providers.

An initial assessment was carried out which; defined the project in terms of location, type and scale; established the baseline conditions; established the type of utilities available; established the activities associated with the project and; initial assessment and impact determination. This assessment identified any likely Source-Pathway-Receptor linkages relating to the site and the proposed development.

The information sources were utilised to establish the baseline conditions for the site and all available information was compiled.

Assumptions and Limitations

The description of existing conditions is based on the available desk study and on current available public service records information. Given the site history and site activities it is not envisaged that any significant existing services exist within the project site.

EXISTING RECEIVING ENVIRONMENT (BASELINE SITUATION)

Sourcing Baseline Information

Foul & Potable Water

Records within the vicinity of the site for foul and potable water have been provided by Irish Water.

The methodology used to calculate the foul water discharge rates will be based on the recommendations in Irish Water Irish Water Code of Practice for Wastewater Infrastructure and EPA Wastewater Treatment Manual, For Small Communities.

The methodology used to calculate the water demand will be based on the Irish Water average rate recommendation for domestic consumption in accordance Irish Water Code of Practice for Water Infrastructure.

Surface Water

Existing surface water infrastructure has been received from Dublin City Council (DCC) records. The calculation of the surface water attenuation volumes is based on the ability to provide for up to 100 year return period in accordance with the Greater Dublin Strategic Drainage Study.

Gas

Existing gas network records have been received from Gas Networks Ireland (GNI) for the local grid network. All proposals for gas will be in line with specific GNI rules and regulations.

Electricity

The existing electrical supply for the local area has been provided by the Electric Supply Board (ESB). The proposed works to connect to the existing cable infrastructure and supply within the site to be in accordance with ESB guidance and regulations. The estimated electrical loading for the completed development will be in accordance with ESB Code of Practise.

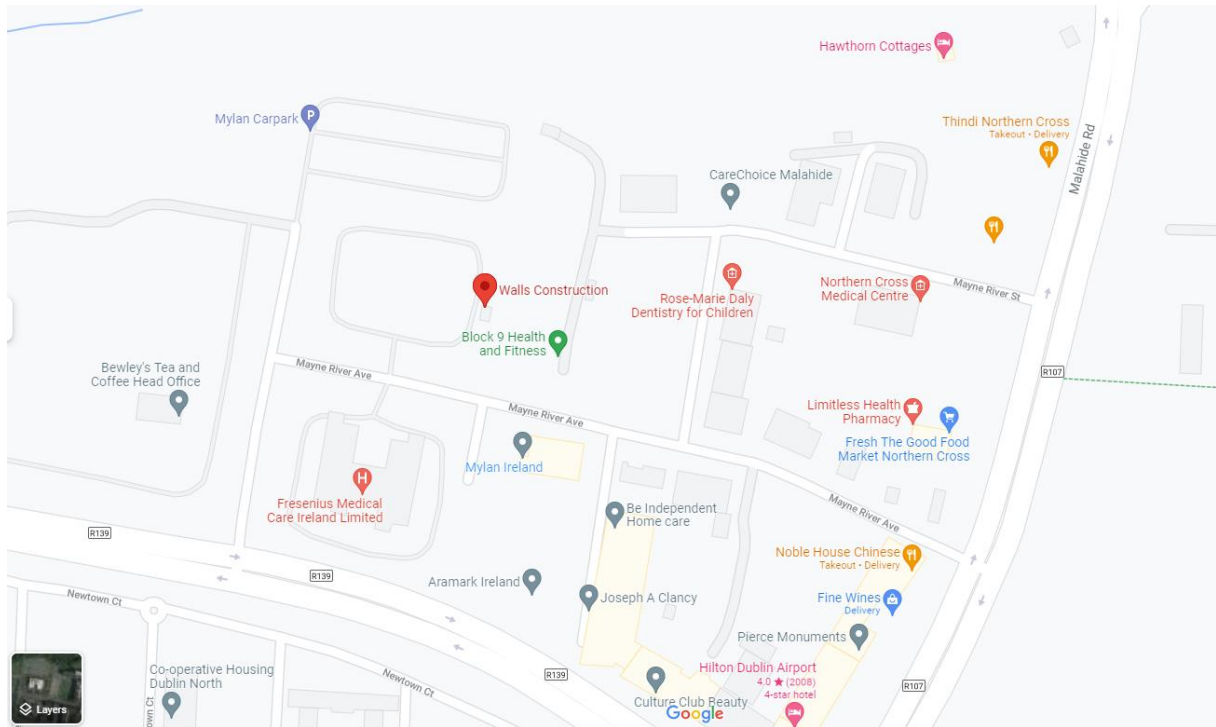
Telecommunications

Telecom records have been requested from Eir, BT, Vodaphone, Aurora and Virgin. Existing records adjacent the site have been received from Eir for the area adjacent the site.

Topography and Setting

The existing site access to the site is on Maine River Avenue. Access to the surrounding buildings will remain unaltered by the proposed development.

The existing site is currently a commercial area. As such there are existing services connections associated with the existing site area.



Receiving Environment

There is a number of existing utilises to be taken into consideration for proposed connection to the development. It would be considered to be normal to encounter infrastructure during development works within an urban environments and the crossing of this infrastructure will be managed in the normal way during the design and construction of the development.

Potable Water Infrastructure

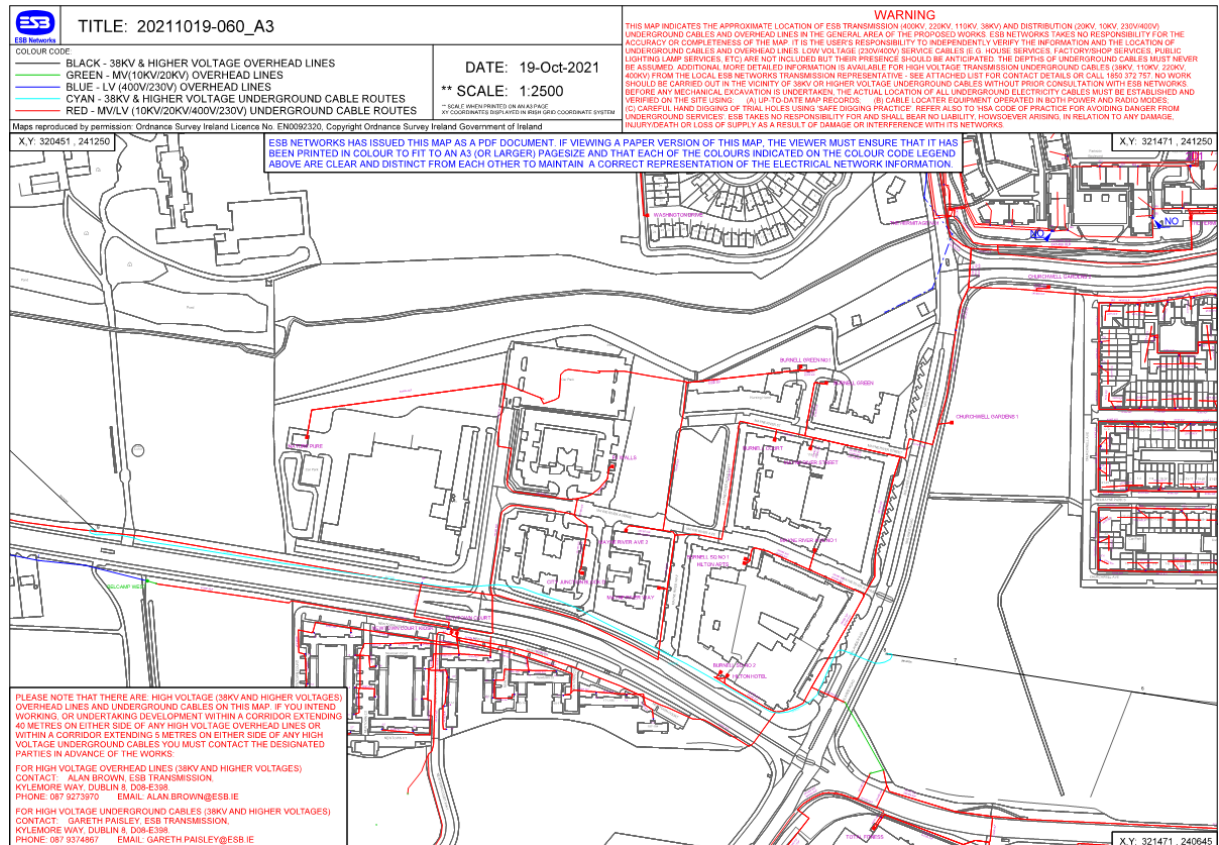
Foul Water Infrastructure

Surface Water Instructure

Gas Network Infrastructure

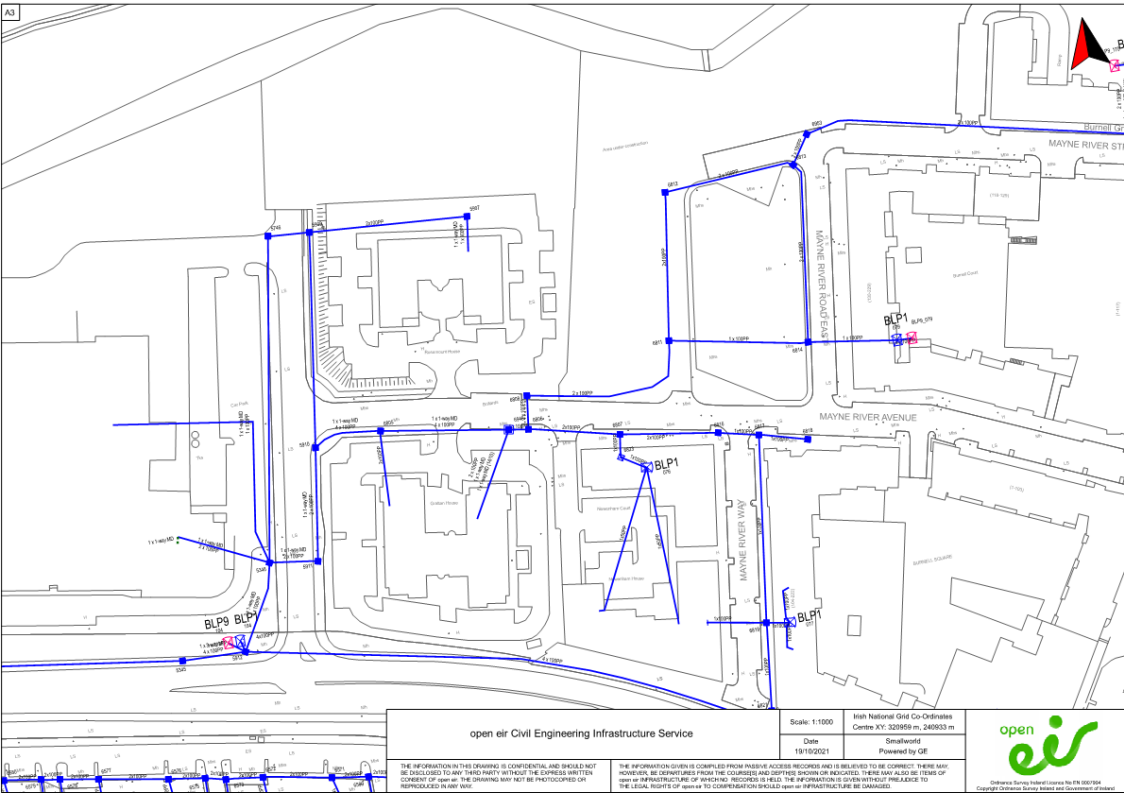
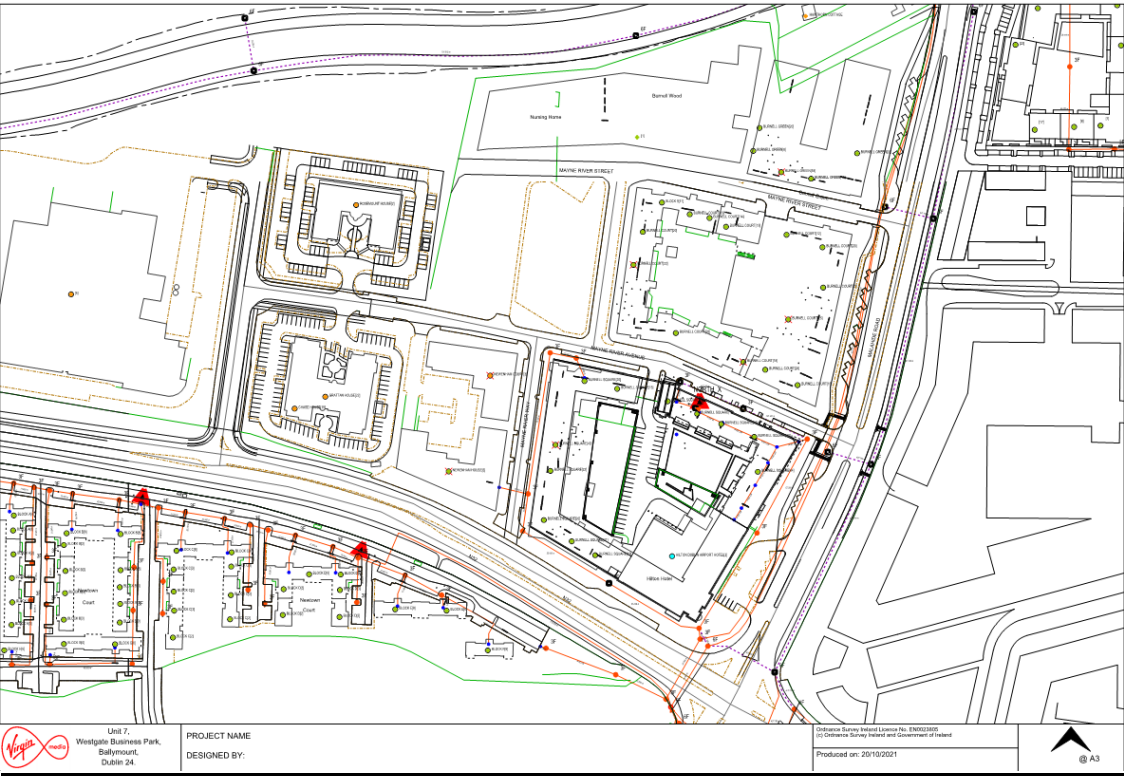
Electrical Network Instructure

There is existing ESB network along Donnybrook Road as shown below. There is existing connections from the main infrastructure network to the existing businesses and houses. As services run around the total area of the site there will only be a co-ordination with other service providers to be concerned with.



Telecommunication Infrastructure

There is existing telecoms along Maine River Avenue for Virgin and Eir and as shown below.



Data and Survey

The gathering of data has been take place with the relevant utilities provider to determine exact location, depth and specifics of underground cables and pipelines. The data necessary to carry out the assessment comprises of;

- Existing services information was obtained from Irish Water records, DCC Drainage Records, Gas Network Ireland (GNI), ESB, Eir, and Virgin.

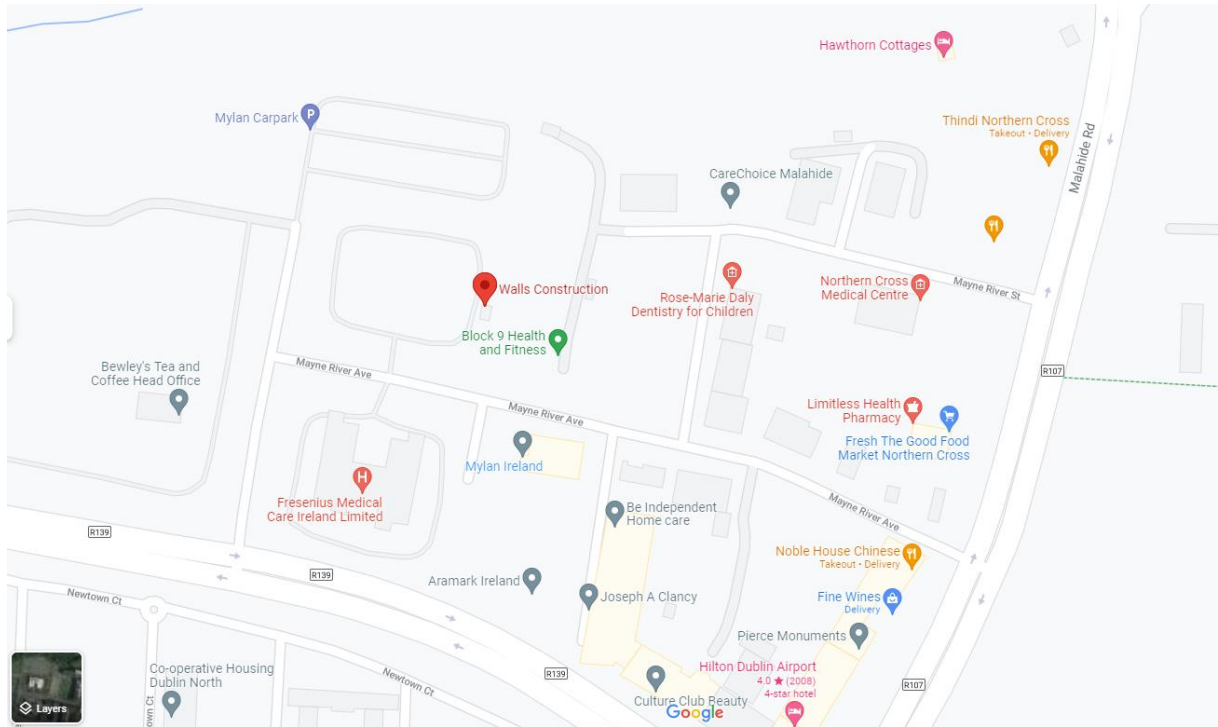
Consultation will take place prior to excavation with the relevant utilities to determine exact location, depth and specifics of underground cables and pipelines.

The source of knowledge will be based on the following guidelines:

- Dublin City Council Local Authority Requirements (with liaison with technical departments);
- BS EN 752 – Drainage Outside Buildings;
- The Building Regulations – Technical Guidance Document Part ‘H’;
- Recommendations for Site Development works for housing Areas, Dept. of Environment, 1998;
- Greater Dublin Strategic Drainage Study (GDSDS);
- BS EN 12056-2:2000 Gravity drainage systems inside buildings;
- EPA Wastewater Treatment Manual, For Small Communities;
- Irish Water Code of Practice for Water Infrastructure;
- Irish Water Code of Practice for Wastewater Infrastructure.

CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

The application site, the subject of this report, comprises lands used for commercial developments along Mayne River Avenue.



The Existing service centre will remain in situ at its current operation and is satisfied that development of the lands will not adversely affect future operations.

The development will consist of the construction of a multi storey commercial unit. The proposed development also includes for the demolition of an existing commercial building to facilitate the construction of the development.

During the construction and operation phase the installation of new utilities, upgrade and replacement existing services may be required to service the proposed development. These are described below:

Potable Water Infrastructure

Foul Water Infrastructure

Surface Water Instructure

Gas Network Infrastructure

Electrical Network Infrastructure

A new connection is proposed by means of a new ESB substation connecting to the existing ESB network on Mayne River Avenue. When the project commences OCSC will then engage fully with ESN to make appropriate applications and agree location and detail for the proposed substations and overall distribution.

Telecommunication Infrastructure

A connection will be made via proposed ducting and chambers along the main road into the development. There will be a connection via a chamber at Mayne River Avenue. A fully ducted telecommunication network is planned to be provided to the development. Ducting will be taken from for new connection of telecommunication providers outside the development into the comms room situated in the proposed development. This will allow for the provision of telecommunication services which can be included in all units.

POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT

Construction Phase

There are a number of elements associated with both the construction of the proposed development which have the potential to impact on the environment with respect to utilities and infrastructure. The activities associated with the project which have the potential for impact are;

Potable Water Infrastructure

A temporary water supply will be required to supply water for construction activities. The water demand is considered to be slight, negative and short term impact.

Foul Water Infrastructure

The contractor activities have the potential to generate foul effluent waste from the site from sanitary facilities provided for staff.

Gas Network Infrastructure

There is no gas supply required during the construction phase of the development and therefore no impacts.

Electrical Network Infrastructure

There is power requirements during the construction phase for temporary lighting and construction activities. The power demand is considered to be slight, negative and short term impact.

Some local diversions may be required to supply temporary power to the site for the construction works. This is envisaged to be a slight, negative and short term impact.

Telecommunication Infrastructure

Some local diversions may be required in the upgrade works of the controlled pedestrian crossing and new proposed ducting works. This is envisaged to be a slight, negative and short term impact.

Operational Phase

There are a number of elements associated with the operation of the proposed development which have the potential to impact on the environment with respect to utilities. The activities associated with the project which have the potential for impact are as follows;

The proposed development will not give rise to any likely significant long term impacts. There are effects on utilities which could potentially occur due to the proposed development namely:

Potable Water Infrastructure

There will be an increase in the demand from the existing network. The increase in demand is considered to be slight, negative and long term impact.

Foul Water Infrastructure

There will be an increase in the effluent flows from the development to the existing sewer. The increase in flows are considered to be slight, negative and long term impact.

Gas Network Infrastructure

There will be an increase in the gas demand from existing resources. The increase in demand is considered to be slight, negative and long term impact.

Electrical Network Infrastructure

Additional power will be required for the grid for the proposed developments. The increase in demand is considered to be slight, negative and long term impact.

Telecommunication Infrastructure

The increased demand on existing telecommunications infrastructure is considered to be imperceptible.

As outlined above, the operational phase of the project has few activities which would constitute a risk to the material assets of utilities.

Potential Cumulative Impacts

The cumulative impacts takes into account the combined effects of the proposed development and other proposed projects in the surrounding area. Cumulative impacts occur as a result of actions taking place in the same area and within the same timeframe as the proposed development.

There will be an increase in the demand of existing utilities for the. This has been taken into account and the max. foul discharge to the public foul sewer and ESB loading.

“Do Nothing” Impact

In the ‘Do Nothing’ scenario the site would not be developed there will be no impact on any of the major utilities or infrastructure nearby.

Worst Case Scenario

The worst case scenario would result if the design of the utility or infrastructure did not take account of the identified utilities and or take account of construction methodology resulting in a worst case scenario with significant, negative and short-term impact i.e. Accidental pollution of the existing water mains.

Construction Phase

Management Plans including method statements shall be developed for excavations in proximity to underground utility cables and pipelines. The Contractor will establish and implement measures to ensure that no interruptions to existing utilities occur throughout the project construction phase unless agreed in advance with the relevant service provider and or Local Authority.

Operational Phase

There is no operation measures necessary due to the measures already incorporated into the design as outline above.

Alternative Designs Considered

There have been no other alternative designs considered for utilises as all proposed designs are constrained by existing infrastructure and to be implemented as directed by local service providers and the local authority in accordance with best practise.

RESIDUAL IMPACTS

The potential for the development to impact or interrupt utility supply has been assessed. All utility services near the development have been identified and include potable water, foul water, surface water, gas, electricity and telecoms.

The proposed locations and routes of services which cross existing infrastructure have been assessed at high level during a desktop study. Discussions are continuing with all asset owners and their requirements have been identified which have been incorporated into the design and therefore, the potential for interruption is limited.

There is no apparent risk to human health, due to changes in utilities, resulting from this project. The proposed development will provide an overall positive impact to the community in area.

It is considered that once the mitigation measures discussed above are employed, the potential for residual impacts on this aspect of the environment is negligible.

MONITORING

In advance of work starting on site the works Contractor will author a Construction Methodology document taking into account their approach and any additional requirements of the Design Team or Planning Regulator. The Contractor will also prepare a Construction Management Plan and Environmental Plan. The Construction Management Plan sets out the overarching vision of how the construction of the project will be management in a safe and organised manner by the Contractor with the oversight of the Developer. The CMP is a living document and it will go through a number of iterations before works commence and during the works. It will set out requirements and standards which must be met during the construction stage and will include the relevant mitigation measures outlined in the EIAR and any subsequent conditions relevant to the project. The Construction Management Plan and the Construction and Demolition Waste Management Plan are included in the main submission. Monitoring shall be carried out as specified in any Discharge Licence associated with the construction phase of the project.

REINSTATMENT

Construction Phase

It is not perceived that there will be any significant negative impacts in the event of the proposed development being discontinued.

Operational Phase

It is not perceived that there will be any significant negative impacts in the event of the proposed development being discontinued.

INTERACTIONS

Construction Phase

The likely effect of the proposed development during the construction phase will be additional connections and infrastructure to existing utilities which will not have any long-term adverse is not projected to give rise to any likely significant long-term impacts to the level of service of existing utilities and public infrastructure.

Operational Phase

The proposed development, when assessed cumulatively with the proposed is not projected to give rise to any likely significant long-term impacts to the level of service of existing utilities and public infrastructure.

The completion of the proposed development will result in an increased in demand on existing utilities and public infrastructure.

DIFFICULTIES ENCOUNTERED IN COMPILING

It is envisaged that no notable difficulties will be encountered with regard to the potential utility or infrastructure impacts of the proposed development as the site is in a well serviced area.