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BLACKGLEN
BLACKGLEN RD, SANDYFORD, DUBLIN 18
SITE SERVICES REPORT

PROJECT NO. K455

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1 INTRODUCTION

Included within this report is an overview of the mechanical and electrical site utilities that are proposed for the Blackglen Road development.

Blackglen Road is a new development located on Blackglen Road, Dublin 18. The development shall consist of a new residential scheme comprising 360 no. residential units, associated resident amenity facilities and a childcare facility in the form of 9 no. new apartment buildings (A1 – C3) as follows:

- Block A1 (4 storeys) comprising 18 no. apartments (3 no. 1 bed units and 15 no. 2 bed units); a crèche facility of approx. 401 sq. m with associated outdoor play space of approx. 20 sq. m; and resident amenity facilities of approx. 30 sq. m.
- Block A2 (3-4 storeys) comprising 24 no. apartments (2 no. 1 bed units and 22 no. 2 bed units) and resident amenity facilities of approx. 390m².
- Blocks B1 and B2 (2-6 storeys) comprising 69 no. apartments (30 no. 1 bed units, 34 no. 2 bed units, 5 no. 3 bed units).
- Blocks B3 and B4 (2-6 storeys) comprising 62 no. apartments (30 no. 1 bed units, 27 no. 2 bed units and 5 no. 3 bed units).
- Blocks C1, C2 and C3 (3-6 storeys) comprising 187 no. apartments (58 no. 1 bed units, 126 no. 2 bed units and 3 no. 3 bed units); and resident amenity facilities of approx. 187.5 sq. m.

Each residential unit is afforded with associated private open space in the form of a terrace/balcony.

Total Open space (approx. 22,033 sq. m) is proposed in the form of public open space (approx. 17,025 sq. m), and residential communal open space (approx. 5,008 sq. m).

Podium level / basement level areas are proposed adjacent to / below Blocks A2, B1, B2, B3, B4, C1, C2 and C3 (approx. 12,733 sq. m GFA). A total of 419 no. car parking spaces (319 no. at podium/basement level and 100 no. at surface level); to include 80 no. electric power points and 26 no. accessible parking spaces); and 970 no. bicycle spaces (740 no. long term and 230 no. short term), and 19 no. Motorcycle spaces are proposed. 10 no. car spaces for creche use are proposed at surface level.

Vehicular/pedestrian and cyclist access to the development will be provided via Blackglen Road to tie in with the Blackglen Road Improvement Scheme. A second access is also proposed via Woodside Road for emergency vehicles, pedestrian and cyclist access only.

The proposal also provides for Bin Storage areas and 4 No. ESN sub-stations to supply the development. 3 no. sub-stations shall be integrated within the building structures of Blocks B and Blocks C. In addition, one Sub-station shall be classed as a unit sub-station mounted externally on a dedicated plinth.

2 SITE LOCATION

The proposed development site is located east of the junction between Blackglen Road and Woodside Road. It is bounded to the north by Blackglen Road and South by Woodside Road. It is also bounded to the West and East by existing houses and park grounds.

The site entrance is via Blackglen Road as shown in Figure 1.

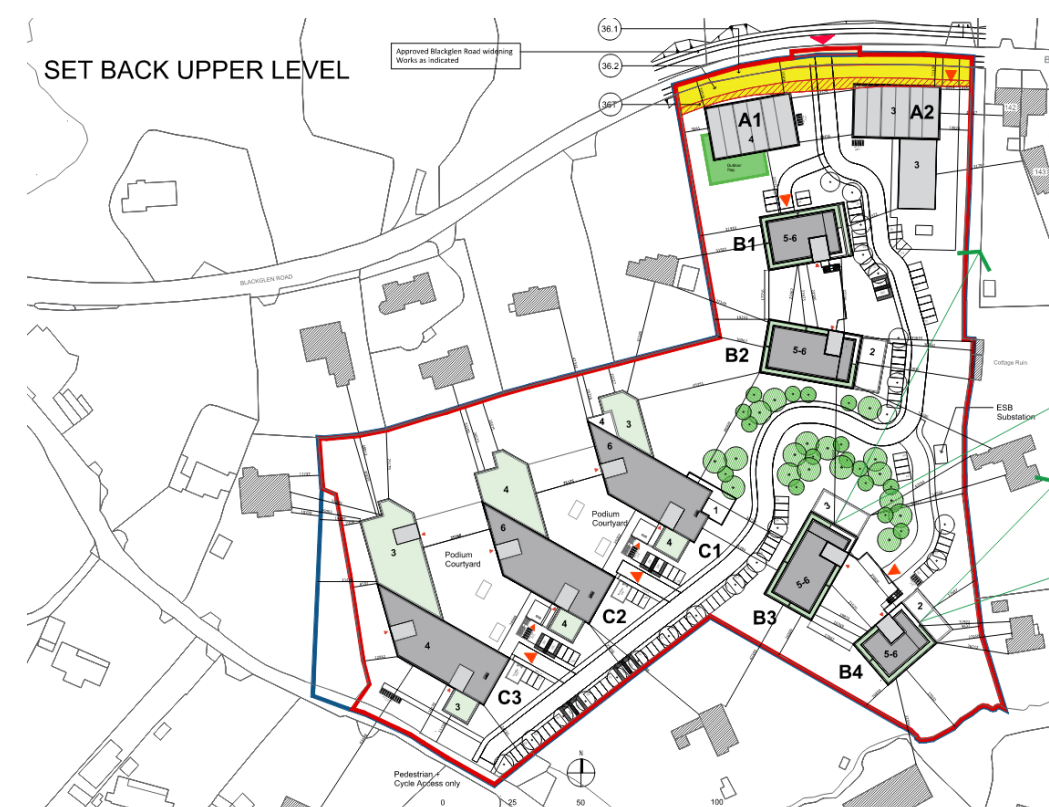


Figure 1 - Proposed Site

3 SITE INVESTIGATIONS

It is understood that preliminary site investigations have to be carried out and information from utility providers indicates the presence of below-ground services. A ground-penetrating radar (GPR) survey needs to be undertaken for the site to determine the exact position and depth of services. Upon receipt of the results from the GPR survey, the site services drawing will be updated as required, identifying services that need to be relocated or stripped out to facilitate the construction.

4 UTILITIES

4.1 General

Site utilities traverse the site and wider the area to serve the existing buildings. These services comprise and are not limited to the following:

- Electrical MV supply;
- Electrical LV supply;
- Telecoms;
- Site Lighting
- Mains water;

Record drawings of existing services on the site are being sought as part of the design process to allow the planning of diversions and installation of new connections.

Below ground foul and surface water drainage is not considered here and is covered separately under the Civil Engineering site reports and drawings.

4.2 ESN Electrical Supply

It is proposed to provide 4 No. ESN substations to supply the development. 3 no. sub-stations shall be integrated within the building structures of Blocks B and Blocks C. Of these 2 no. Sub-stations shall serve Block C1, C2 & C3, and one Sub-station shall serve Blocks A1, A2, B1 & B2. In addition, one Sub-station shall be classed as a unit sub-station mounted externally on a dedicated plinth serving B3/B4.

The Sub-stations have been sized based on the following assumptions:

- Blocks A1/A2/B1/B2 – 723KVA – Served by a Single Sub-station
 - 111 Units @ 3.5KVA P.U.
 - EV Charging 63No. @ 50KVA
 - Childcare @ 35KVA
 - Landlord @ 190KVA
 - 4No. Cores @ 15KVA ea.
- Blocks B3/B4 – 510KVA – Served by a Unit Sub-station
 - 62 Units @ 3.5KVA P.U.
 - EV Charging 76No. @ 70KVA
 - Landlord @ 190KVA
 - 2No. Cores @ 15KVA ea.
- Blocks C1/C2/C3 – 1.0MVA
 - 187 Units @ 3.5KVA P.U. – Served by 2No. Single Sub-stations
 - EV Charging 178No. @ 160KVA
 - Landlord @ 235KVA
 - 6No. Cores @ 15KVA ea.



Figure 2 - ESB Substation Locations

The ESB networks CT meter for the creche shall be located in the meter room of Block B01.

The meters for the apartments will be located in a dedicated room for each respective Block and shall be compliant with the ESB Code of Practice.

4.3 Telecoms

The design will include new underground cable ducts to bring new communications cables from the public roadway to each building.

Landlord building life safety and security systems will be monitored remotely where required, using communication cables installed for the landlord during the commissioning of the building.

Eir & Virgin media services will be brought onto the site to serve the development. Services are to run to a dedicated comms room within the dedicated areas for distribution to the apartments. An application shall be made to the service providers at a further stage.

Communication service providers will have access to a comms room to terminate incoming cables and install their active communications equipment.

4.4 Site Lighting

External lighting will be provided to the surface car parks and pedestrian areas in accordance with CIBSE Lighting guidelines. External lighting will incorporate timed and daylight control. External lighting will be compatible with security CCTV where installed.

The external lighting project involves:

- A drawing showing the luminaire's position according to the most recent landscape project and a Schedule containing the information about the light fittings in the project.
- A technical lighting report that will be generated by a specialized outdoor lighting calculation software for this occasion that will show the number of fittings, a luminaire schedule & the results of the calculation per area.

4.5 Mains Water

There is an existing Irish Water mains water infrastructure (by others) adjacent to the site along Blackglan Road, which shall be upgraded to suit the new connection. A new 200mmØ PE supply will be brought to serve the site from the northern boundary. It will serve the entire development, entering directly to the basements of all blocks to feed the communal cold water storage plant room and sprinkler tanks. Refer to Civils design drawing.

The commercial units (creche and amenity areas) will be served independently from the residential development. Each commercial unit will be provided with an independent water supply connection (25mmØ), with meters as per IW standards and Code of Practice. Meters will be located within the public footpath in front of each unit. Refer to Figure 3.

Further detail is contained within the OCSC Civils report and drawings. The new mains will be planned and installed in accordance with the current edition of the Irish water Code of Practice.

Fire hydrants will be required as per Fire Cert. Water supply to the fire hydrants, please refer to the Civils' drawings and specifications. Fire hydrants do not form part of M&E specifications as they are external to the building.

Also please refer to O'Connor Sutton Cronin M&E Site Services drawing Ref. K455-OCSC-XX-XX-SK-ME-0003.

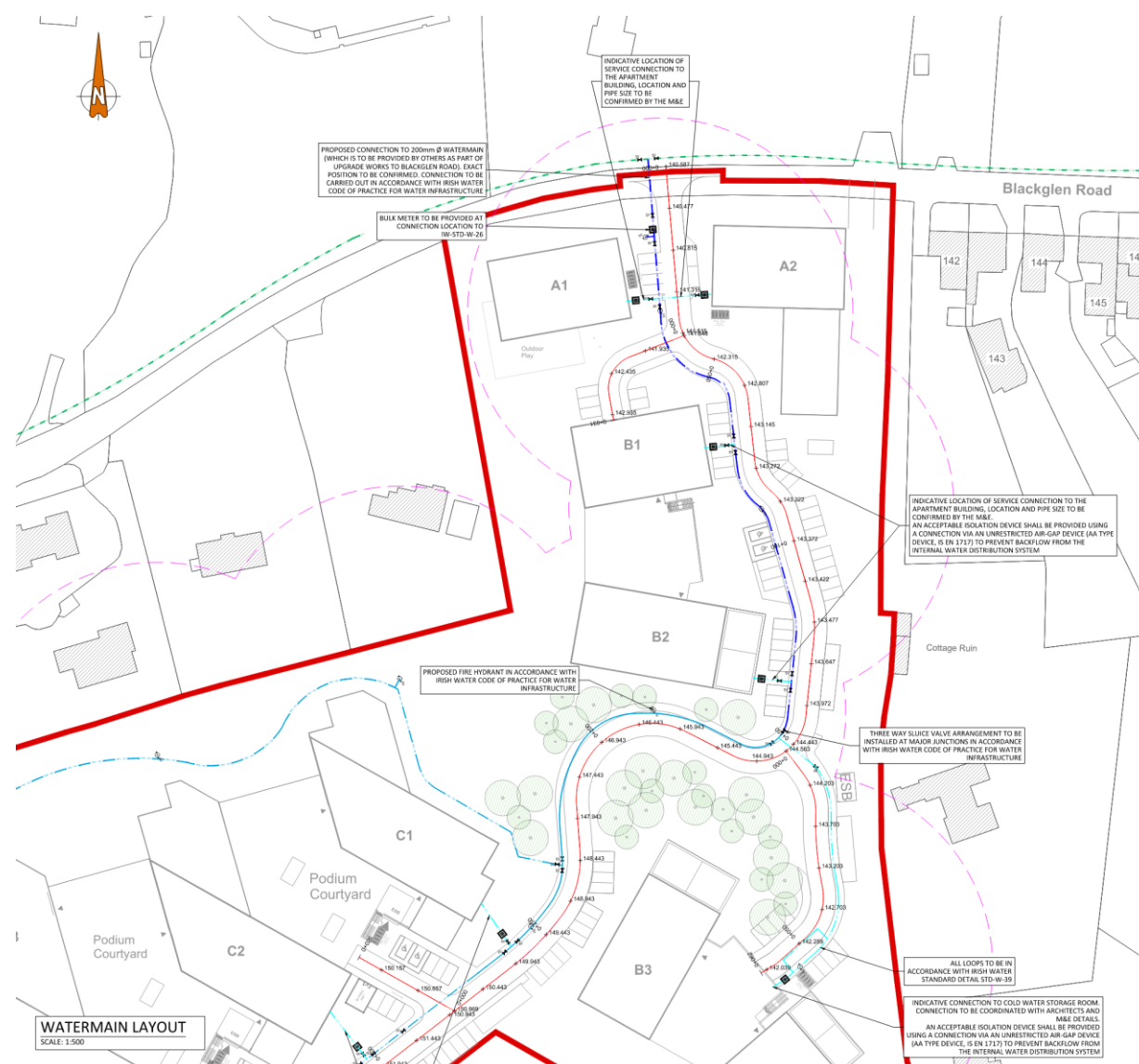


Figure 3 Irish Water existing site infrastructure (Source: Irish Water).