Utility Report for Planning Submission

Project name	Client	Date	Issued by
John Street	Grainger Residential Ltd.	28 May 2025	AECOM

Revision No.
01

1. Introduction

John Street development is a Build to Rent (BtR) residential and mixed-use scheme in the centre of Cardiff. It consists of 2 tower blocks, 28 storeys and 18 storeys high respectively, with a link building of 6 storey in between. Within the new building there will be a ground floor commercial unit to be let out by the landlord and a number of resident's amenity spaces including reception, gym, co-working space, lounge and bookable private function spaces on the upper floors. The development will also feature public accessible landscape in the front, a private garden on the ground floor, and a private roof top garden above the link block. In addition to the new building, the developer has agreed long term lease for 5no. Arches within the adjacent railway bridge, where two of them will be sublet out as commercial units and the other three will be used for resident's amenity space and cycle store.

This report provides an overview of the existing and proposed utility services within the development which include:

- Electrics – existing and new
- Communications – existing and new
- Mains Water – existing and new

There is no existing gas line within the site development boundary and the new development will be a full electric building.

For underground drainage services, refer to Civil's engineer's report.

2. Existing Utility Services

2.1 General

Underground Ground Penetrating Radar survey has been carried out within the site boundary, The existing underground utility services can be identified from the survey drawing issued by Gwalia in December 2023. – refer to Appendix A for a pdf copy of the survey drawing.

For any existing utility services that require disconnections or diversions, refer to Appendix B for proposed disconnection and diversion works.

2.2 Electrics

There are several existing National Grid Electricity Distribution's LV cables within the site boundary.

Where the cables are serving the existing arches under the railway bridge, they shall be retained to resupply the first 2 aches that are to be converted into commercial units. Where the remaining 3 arches are to be used for the new development's amenity space and bicycle stores, the existing LV cables and meter shall be disconnected and stripped out by National Grid.

Where there are cables currently serving the temporary site office and previously serving the old street lamp posts (now disconnected), they shall be eventually discounted and removed as part of the enabling work for the new development.

2.3 Communications

There is an existing BT Openreach duct passing through the site in north-south orientation. Initial contact has been made with asset owner BT Openreach and it is proposed that this existing communication duct will require diversion. Given the outline of the proposed building. The proposed diversion route will follow around the railway bridge and the west face of the building block A and route back to reconnect the BT distribution chambers on John Street.

2.4 Mains Water

There is an existing mains water supply cutting across the site in north-south orientation to serve the existing arches as well as to serve beyond the railway bridge. With the proposed building outline, this existing water main will require diversion. The proposed diversion will be routed around block B east of the site to re-connect back in front of the railway bridge as indicated on the disconnection and diversion layout drawing in Appendix B.

3. Proposed Utility Services

3.1 General

All proposed new utility services are summarised within the following individual sub sections as well as indicated on the proposed incoming utility services drawing in Appendix C.

3.2 Electrics

Main building

The local National Grid 11kV network will be modified to bring a pair of 11kV incoming supply cables to the site in a ring arrangement by– an Independent Distribution Network Operator (IDNO), terminating within two IDNO's substation rooms located in the development. Each substation room will accommodate an 800 kVA 11/0.4kV transformer, resulting in a total of two 800 kVA transformers serving Block A, the Link Building, and Block B.

The Budget Estimate provided by the IDNO (Ref – UKP13475) confirms that the supply shall be taken from a HV Point of Connection (PoC) located on Bute Street, with no requirement of upstream reinforcement. This indicates that the existing network infrastructure at this location has sufficient capacity to accommodate the proposed connection.

In addition, a standby generator will be provided to support secondary power supplies for life safety and fire-fighting equipment required within the development. The generator will be installed in a dedicated generator room.

Commercial unit block A

A new dedicated three-phase incoming electrical supply from National Grid Electricity Distribution (NGED) will be brought in to serve the Commercial Unit within Block A.

Arches

Arches 1 and 2, the existing electrical supply from National Grid Electricity Distribution (NGED), along with the existing three-phase cut-outs, will be re-used to serve the Commercial Units.

For Arches 3, 4, and 5, a new electrical supply will be provided from the Landlord's switchboard, located within the building's switch room, to serve the Amenity and Cycle Stores.

EV charging

No electric vehicle (EV) charging infrastructure is proposed as part of this development.

3.3 Communications

Incoming fibre connections from Glide and BT for broadband internet VoIP and TV/Satellite services will be brought into the building and terminated within the Main Equipment Room (MER) located on Ground floor, utilising nearby BT and Glide network infrastructure to provide new fibre services to the development.

For the commercial spaces, underground cable duct sleeves around the perimeter of the spaces will be in place to allow future tenants to choose their own preferred fibre providers.

3.4 Mains Water

Separate new incoming mains water supplies will be brought into the following locations of the site:

- Water tank room to supply the flats, landlord supplies and wet riser plantroom.
- Sprinkler tank room to supply the associated fire suppression system(s).
- Commercial unit.
- Amenity spaces.

The existing incoming water supplies for arches to be retained and reused and are subject to the diversion works of the existing water main that currently crosses the site.

The new incoming water supply is subject to an infrastructure hydraulic assessment by the utility company, the process has been started and will continue to be progressed throughout the design period.

4. Appendix A – Existing Underground Utility Survey Drawing

5. Appendix B – Existing Utility Services Proposed Disconnection and Diversion Drawing

6. Appendix C – Proposed Incoming Utility Services Drawing