



Henley Road, Caversham M&E Utilities Report

Prepared for HenleyRoad Ltd

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Rev. 01

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Document Origin

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Executive Summary

This utilities report has been prepared by Clancy Consulting Ltd on behalf of Henleyroad Ltd to provide a summary of the incoming M&E infrastructure at the Henley Road, Caversham double block care home.

This report has been compiled, following a desktop analysis, including calculations, for the incoming Utility services requirements of the 2 blocks.

Note that the drawings do not indicate any space allowance for domestic cold water storage or natural gas metering.

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1.0 M&E Utilities

1.1 Electricity

Analysis of the electricity consumption has been sub-categorized as follows:

- Lighting (Internal & External)
- Small & Fixed Power
- Mechanical Equipment

Watts/m² figures have been allocated for each of the sub-categories and are as follows:

- Lighting – 8W/m²
- Small & Fixed Power – 30W/m²
- Mechanical Equipment – 20W/m²

Total wattage per m² is 58W.

Also factored into the calculations are lifts and electric vehicle charging.

Considering the area in m² of each block, this gives maximum demand figures of:

- Block A – 216 kVA TPN or 312A TPN
- Block B – 157 kVA TPN or 227A TPN

The DNO for Caversham is Scottish & Southern Energy (SSE). It is likely that a new dedicated electricity substation will be needed, however, only SSE can confirm this. From the likely substation, SSE will install below ground cables into each of the 2 No. blocks. These cables will terminate at a dedicated SSE fused cut-out unit within a switchroom.

Dependent upon the metering strategy for the building, one of the following strategies will be adopted:

- Multiple individual tenant and landlord shipper meters will be installed within a gnd floor switchroom.
- A single shipper meter for each block will be installed within the gnd floor switchroom. This single meter would be responsible for billing all electricity used in one single lump sum.

1.2 Information & Communications Technology (ICT)

Application to be made to BT Newsites for new broadband connections to Block A and Block B.

BT then issues a new connections strategy drawing and costs.

The strategy drawing details routes of new incoming ducts to be laid, positions of new below ground chambers and the incoming position within each block. Incoming position within each block to be inside the plantroom. BT fibre cable to terminate at a BT distribution point in each plantroom.

New ducts are 'free issue'. Contractor to excavate all associated trenches on site, lay ordered 'free issue' ducts, then reinstate ground. BT to excavate all associated trenches off site, lay ducts and reinstate ground.

During the construction period, only new chambers and ducts are to be installed, with all apartment tenants and the landlord being responsible for the procurement of their chosen service providers as and when they take up occupancy.

Dedicated connections will be required for lift emergency voice communication, intruder alarm system autodialler and fire alarm system autodialler.

1.3 Drainage

The new rainwater and foul drainage is to connect to existing Thames Water utility systems.

1.4 Incoming Water

Building A

- 42 Wash hand basins
- 42 W/C flushing
- 37 Baths c/w shower
- 38 Sinks 15mm
- 37 Dishwashers (Domestic)
- 37 Washing machines (Domestic)
- 2 Hose Taps

Building B

- 28 Wash hand basins
- 28 W/C flushing
- 23 Baths c/w shower
- 24 Sinks 15mm
- 23 Dishwashers (Domestic) (Allowance)
- 23 Washing machines (Domestic) (Allowance)
- 2 Hose Taps

Storage – For each building:

Either 90 L per person per day with a maximum of 8 hours tank turnover, or:

As required by BS 9251 or as above, whichever is greater, should sprinklers be provided.

Multiple pump boosting set. With UPS back-up or diesel pump should sprinklers be provided.

Note, at this stage, there does not seem to be any spatial allowance for the water storage tanks.

Configuration of the incoming water supply to Thames Water requirements. New hydrants to be provided as part of the new incoming water system unless existing are within 90m of building entrances/dry riser entrances.

1.5 Natural Gas

The pipework will be sized by the specialist Gas Safe Engineer to ensure the maximum pressure drop between the authority meter and the further outlet does not exceed 1 mbar. System is based on individual boilers within each domicile and communal space, and electric hobs and ovens. No allowance has been made for catering kitchens.

No space allocation for the gas meters has been provided on the drawings. It is assumed that the gas meters will be provided within multi-meter kiosks on the perimeter of the building at ground level, and run in vertical copper pipework up the building exterior into each individual apartment. Alternatively, internal meter positions and ventilated routes will be required.

Building A

The required incoming gas supply for the building will be 1,163 kW.

Building B

The required incoming gas supply for the building will be 886 kW.