Project Number
17246

Title: Topic Note#05 – Utilities

Date: 26/03/2018

1.0 Introduction

1.1 The site at Land South of Northampton Road, Bromham which is located is located approximately 1.3 km (as the crow flies) west of the centre of the village of Bromham, comprises two fields, the larger of the two fields has been used for the growing of crops while the smaller is grassland.

1.2 The site topography is generally gently undulating, the survey shows that there is a steep and steady fall in gradient across the site, from the north-west to the south-east corner of the site, with a total difference in levels of approximately 19m.

1.3 There is also a steeper drop in level to a low point in the north western corner. The A428 sits approximately 4-5m below site level to the west, with an earth bank leading from the site boundary down to the A road.

2.0 Baseline Conditions

2.1 UK Power Networks (UKPN) operate and maintain the existing low and high voltage network supplying the area of Bromham, Bedfordshire.

2.2 Within the proposed site boundary an existing overhead 11kv high voltage cable runs through the site and the UKPN network also runs through the existing residential areas north and east of the site. An existing substation, feeding the high and low voltage network is located at the junction between Northampton Road and Chestnut Avenue.

2.3 The existing local gas supply network and apparatus is owned and maintained by Cadent Gas Ltd. While there is no gas apparatus located within the proposed site, there is an existing medium pressure gas main running along Northampton Road between Grange Lane and Stagsden Road. This feeds a series of low pressure gas mains which spur off and run throughout the surrounding residential areas to the east and south-east of the site.

2.4 British Telecom (BT) own and maintain the existing communication network infrastructure in the area. While there is no existing BT apparatus located within the proposed site, BT has underground apparatus located immediately to the north of the site on Northampton Road. This network continues within Northampton Road to the east, providing a supply to the existing residential dwellings in the surrounding area.

2.5 The existing mains water supply network is owned and maintained by Anglian Water. While Anglian Water does not have any infrastructure located within the proposed site boundaries, to the north and east of the site an existing potable water network runs within the local road network providing a supply to the existing residential areas.

3.0 Key Opportunities and Constraints

3.1 UKPN have confirmed that the existing infrastructure within the area is capable of supplying the proposed development without the requirement for any network reinforcement work. A new substation would however be required to serve the site, and this could connect into the HV network that runs through the site.

3.2 Cadent Gas have confirmed that the nearest main, which is 350m from the proposed site, does not have the capacity to serve the proposed developments.

3.3 BT Openreach have confirmed that the new developments can be provided with Fibre to the premises (FTTP) technology, with estimated speeds of up to 1Gbps. Openreach will deploy FTTP, free of charge, to all new housing developments of 30 or more homes.

3.4 It is proposed that the proposed development will be served by utilising a new connection to the existing Anglian Water mains network located to the north of the site within Northampton Road. Anglian Water confirmed that there is insufficient capacity in the current network to supply the proposed development.

4.0 Necessary Mitigation and Enhancements

4.1 While UKPN have confirmed that the electricity network can supply the proposed site, the existing above ground HV electrical network passing through the site would impact on developable land as an easement would be required against it.

4.2 Thus, the existing HV network will require diversion and it is proposed the existing overhead lines be diverted underground in order that the proposed development is maximised.

4.3 As set out above, Cadent Gas have confirmed that the existing network does not have sufficient capacity to accommodate the proposed developments and the developer is currently in discussions with Cadent Gas to determine the extent of mitigation and reinforcement required to enable the network to accommodate the proposed development.

4.4 While the scale and extent of the reinforcement to the gas network is yet to be determined, the typical methods used to reinforce the gas networks are well understood and would not provide any significant challenges.

4.5 Anglian Water have confirmed that the existing water supply network does not have capacity to serve the proposed development. However, Anglian Water have identified that through a reinforcement to the existing water main on Oakley Road that this will enable the proposed sites to be served.

5.0 Summary

5.1 The site is well placed to be served by electricity, gas, telecoms and potable water with networks either passing through or nearby the site.

5.2 Points of connection have been identified, however in the case of gas and potable water the existing network will need reinforcement to enable supply – discussions are ongoing with the gas supplier to determine the extent of reinforcement required, however the reinforcement to the potable water network has been identified.

5.3 In the case of the electricity network, a new substation would be required to serve the site and the existing HV network that currently crosses the site will require diversion underground so as not to sterilise the development.

5.4 Thus, development at Land South of Northampton Road can be served by the required utilities and would therefore be acceptable.