

17. SERVICES

17.1 Introduction

17.1.1 WSP Development Limited has been appointed by CALA Homes to investigate and appraise the availability of services to serve a proposed mix-use development of approximately 2,000 dwellings, a primary school and a Local Centre incorporating retail, small-scale business units and community uses on land at Barton Farm.

17.1.2 The site is bounded by the B3420 Andover Road to the west, Well House Lane to the north, the Winchester/Micheldever railway to the east and the residential properties off Park Road to the south.

17.1.3 Primary access to the site is proposed from two locations along the B3420 Andover Road, and a secondary access from Well House Lane.

17.1.4 Preliminary letters of enquiry were sent to seven service companies and statutory authorities requesting information on the location of existing services; the need for diversionary measures; capacities of existing networks to supply development; all related broad-brush costs.

17.1.5 The advice given in this Chapter is based on information supplied by the various companies.

17.1.6 Consultations have been carried out with:

- Environment Agency
- Southern Water – Water Supply
- Scottish and Southern Energy – Electricity
- National Grid – Gas
- BT – Telecommunication
- Cable and Wireless – Telecommunication
- ntl – Telecommunication
- Health and Safety Executive
- BPA – Pipelines Agency

17.1.7 In addition to the above consultations Scottish and Southern Energy Utility Solutions (SSEUS) was requested in March 2009 to review the supply of gas, water and electricity to the site.

17.2 Site Description

17.2.1 Utilities will be provided to serve housing development in accordance with Winchester City Council's Local Plan, and guidance on services provision from the Local Authority.

17.2.2 The Winchester District Local Plan states one objective of its strategy in paragraph 2.8 as:

"... to enable the provision of infrastructure and facilities to catch up with past levels of growth, by gradually reducing the rate and level of development and promoting the improvement of services".

17.2.3 The likely sources of service provision have been assessed and where necessary, upgrading is to take place in order to meet the demands of the new development. This will ensure that sufficient capacity can be achieved for Winchester City (North) without detriment to the level of utility service provision to existing development.

17.2.4 Planning Policy Guidance Note 3: Housing, (PPG3) of The Department of the Environment, Transport and the Regions (DETR) states at paragraph 31 as a criterion for potential and suitability for development as:

“... the capacity of existing and potential infrastructure, including public transport, water and sewerage, other utilities and social infrastructure (such as schools and hospitals) to absorb further development and the cost of adding further infrastructure”.

17.2.5 In accordance with PPG3, development at Barton Farm is programmed to utilise spare capacities in all public utilities before triggering the need for off-site reinforcement. It is accepted that off-site reinforcement will be required to serve the whole development and plans are in place to provide new required capacity to the infrastructure in a way that will support future development beyond that at Barton Farm.

17.2.6 In line with the Winchester District Local Plan which states at paragraph 8.3

“The Plan’s strategy for the provision of facilities and services aims to ... ensure that adequate infrastructure is available to accommodate new development”.

and Policy H5 of the Hampshire County Structure Plan 1996–2011 (Review):

“... land will be allocated in local plans for housing development ... provided that: (ii) either by itself or cumulatively with other existing or proposed development in the vicinity, does not: (b) overload or require extensive improvements to social, community or basic infrastructure; ...”.

17.3 Baseline Conditions

17.3.1 An indicative composite layout of existing services can be seen at Figure 17.1.

Foul Drainage

17.3.2 There is foul drainage fronting the site in Andover Road. The site is in close proximity to the Harestock Sewage Treatment Works.

17.3.3 For a detailed Foul Drainage Statement, see Chapter 15.

Surface Water Drainage

17.3.4 There are no existing surface water sewers in the vicinity of the site.

17.3.5 For a detailed Surface Water Drainage Statement see Chapter 15.

17.3.6 The Environment Agency (EA) flood mapping shows that the southern portion of the site is susceptible to flooding (see Figure 15.1). Detailed consideration of flood and drainage issues is given in Chapter 15.

Water Supply

17.3.7 Southern Water (SW) record plans show a 4” CI main running along the western boundary of the site from Park Road to Stoney Lane in Andover Road, and then a 5” CI main continuing along the western boundary from Stoney Lane to beyond Well House Lane to the north.

17.3.8 SW record plans show a 12” PVC main and a 6” CI main running in Park Road, south of the site.

17.3.9 It is likely that the existing mains in Andover Road will require diverting where appropriate to accommodate site access.

17.3.10 Preliminary capacity checks from Southern Water indicated that sufficient capacity exists in the overall distribution network, but that the 5” main in Andover Road cannot pass sufficient flow. The existing 12” PVC main in Park Road is not available for supply connection. A 21” main further to the south, adjacent to Larkhills School, is the most likely source of supply to the site.

17.3.11 SSEUS re-assessed the water supply to the site in 2009 and confirmed the point of connection for water supply is the 12" main in Park Road.

Electricity

17.3.12 Scottish and Southern Energy (S&SE) low voltage (LV) record plans show cables running from the Park Road substation along Park Road and also along both sides of Andover Road, to the old dairy. From the old dairy the LV cable continues along the western side of Andover Road in a northerly direction.

17.3.13 S&SE high voltage (HV) record plans show 11kV cables running from the Park Road substation along Park Road, and also along the Barton Farm side of Andover Road to the Andover Road substation.

17.3.14 S&SE HV record plans show 11kV overhead cables crossing the site from the Halls Farm substation opposite the old dairy in Andover Road, in a north-easterly direction. Within the site, and from this cable, another 11kV cable leads to Well House Farm on the northern boundary of the development site. These cables will need to be diverted.

17.3.15 S&SE record plans show electricity substations of interest to the development site in the locations below. SSEUS assessed that these substations would require re-location within the site.

- Foresters Park – to the north of the site, and east of the railway.
- Park Road – in Andover Road, just north of Park Road intersection.
- Halls Farm – in Andover Road, opposite the old dairy.
- Andover Road – on northern boundary of secondary school, off Andover Road.
- Rockingham – just south of Halls Farm, and west of Andover Road.

Gas

17.3.16 National Grid record plans show a 4" cast iron (CI) main running along the southern side of Park Road, south of the development site.

17.3.17 National Grid record plans show a 5"/6" CI main running along the western side of Andover Road.

17.3.18 The nearest medium pressure (MP) main is approximately 1,000m north of the site in Andover Road. A second MP main can be found approximately 1km west of the site and a third MP main approximately 1km from the site on the eastern side of the railway. The latter connection routes are not likely to be viable.

17.3.19 SSEUS re-assessed the gas supply to the site in 2009 and confirmed the point of connection for the gas supply is the MP main in Andover Road. A gas governor will be required on site near the boundary to facilitate the installation of low pressure infrastructure around the site.

17.3.20 No diversionary works are anticipated to existing National Grid plant.

Telecommunications

17.3.21 BT plans show plant in Park Road (southern side), and on both sides of Andover Road along the entire western boundary of the development site.

17.3.22 BT plant is also shown in Well House Lane from Andover Road to the railway.

17.3.23 Ordnance Survey plans show a Telephone Exchange in Harestock Road, off Andover Road at the north west corner of the development site.

17.3.24 BT has indicated that diversionary works will be required.

17.3.25 It is not envisaged that there will be any network supply constraints to serving the development site.

17.3.26 T-Mobile operates two telecommunication masts within the development site. The masts are situated close to the railway line on the eastern boundary, just south of Well House Lane. See Figure 17.1.

17.3.27 Neither Cable and Wireless plant nor NTL plant is affected.

Health and Safety Executive

17.3.28 In response to our enquiry for hazardous plant and buildings, the Health and Safety Executive (HSE) has indicated that it is not aware of any constraints to development within this site.

Pipelines

17.3.29 The British Pipeline Agency web site 'Linesearch' shows there are no pipelines within the area.

17.4 Identification and Evaluation of Key Impacts (Construction, Operational)

17.4.1 The provision of infrastructure and its associated works has insignificant to no impact of an environmental nature. Apart from possible minor temporary disruption to normal traffic flows and pedestrian routes, and unsightly works during construction, there are no long-term impacts envisaged.

17.4.2 The Environment Agency (EA) has provided information stating that the site is not within any groundwater source protection zones. Consequently, there is no danger of contamination or pollution of groundwater by services required for the site.

Water Supply

17.4.3 It is likely that the existing mains in Andover Road will require diverting where possible to accommodate site access. This may need to be completed before major works on site begin in order to alleviate loading from site construction vehicles.

17.4.4 Preliminary capacity checks from Southern Water indicate that sufficient capacity exists in the overall distribution network, but that the 5" main in Andover Road cannot pass sufficient flow. The existing 12" PVC main in Park Road is the likely connection point for the water supply.

17.4.5 Southern Water has proposed that a new 315mm diameter distribution main will connect to the 21" main adjacent to Larkhills School, to the south of the site. A pumping station will be required to boost the pressure from the 21" main.

17.4.6 Southern Water is investigating possible alternative supplies to the site, which will result in a reduced need for off-site reinforcement. This could absolve the need for a pumping station.

17.4.7 Minor disruption to traffic flows in Andover Road for short periods of time will result. Works are subject to the normal notice periods according to the local policy and NRSWA (1991).

Electricity

17.4.8 Scottish and Southern Energy (S&SE) has indicated that high voltage (11kV) overhead cables crossing the development site will need to be diverted. Diversion can take place in one of two ways; the overhead cables can be relocated vertically, and become buried with minor alteration to their existing route to accommodate the proposed layout; or, the cables can be re-routed entirely, and to suit the proposed layout. A decision will be taken at the detailed design stage as to which option is more appropriate. Neither option will have any significant or minor impact on the environment but vertical relocation will have the positive affect of removing aesthetically unsightly overhead cables from the view of residents and visitors.

17.4.9 This is in accordance with Proposal FS.4 (iii) of the Winchester District Local Plan which states:

“... where possible, all cables and pipelines are placed underground, having regard to any archaeological or ecological constraints”.

17.4.10 S&SE has confirmed that that significant reinforcement to its HV network is required and that reinforcement is likely to include upgrades to internal equipment at the Harestock primary substation as well as a new HV (high voltage) ring circuit to and from the site. Upgrades are to be undertaken by S&SE. Upgrades to the primary substation, approximately 2.5km from the site, will be unnoticed. Minor disruption to traffic flows for short periods of time will result from having to lay a new HV ring circuit. No residual impact is expected from off-site reinforcement works.

17.4.11 S&SE requires that substations along the edges of the site be relocated to within the site boundary. This is necessary to off-set the need for new substations. The consequential benefits of relocating substations apply to environmental and financial needs.

17.4.12 S&SE has indicated that at least nine new substations (typically 5m x 6m in size) are required within the site at technically suitable positions.

17.4.13 It is proposed that the development would be supplied from the 11kV cables adjacent to the site after significant reinforcement to their high voltage (HV) network has been completed.

Gas

17.4.14 No diversionary works are anticipated to existing National Grid plant.

17.4.15 WSP estimates the annual gas consumption of the new development to be of the order of 50,000,000 kWh based on the land use distribution shown in Table 4.1 (see Chapter 4: Proposed Development). It should be noted that other methods of estimating energy consumption would produce differing results. National Grid has stated that off-site reinforcement will be required to accommodate this additional demand. Such reinforcement will take place away from the development site and will be unnoticed.

17.4.16 It is proposed that a connection to serve the development is made at the medium pressure (MP) main in Andover Road, to the north of the site. Here, an extension to the existing mains network is required.

17.4.17 Minor disruption to traffic flows in Andover Road for short periods of time will result. Works are subject to the normal notice periods according to the local policy and NRSWA, 1991.

Telecommunication

17.4.18 BT has indicated that diversionary works to its existing plant are required. This may need to be completed before major works begin on site.

17.4.19 Minor disruption to traffic flows in Andover Road for short periods of time will result. Works are subject to the normal notice periods according to the local policy and NRSWA, 1991.

17.4.20 T-Mobile masts described in 17.39 above will remain on site until 2006.

17.5 Enhancement and Mitigation Proposals

17.5.1 The impact of service provision is largely insignificant.

17.5.2 Contractors carrying out infrastructure work are confined to existing service corridors with established access routes which are usually public highways.

17.5.3 Where access to existing infrastructure is required for relocation purposes where plant is away from public through routes, mitigation is not seen to be necessary as the timescale of any disruption is short and the impact of reconstruction is low, if not nil.

17.6 Residual Effects and Mitigation

17.6.1 The provision of utilities infrastructure will bring a higher capacity of service to Barton Farm where services are currently at capacity or absent, without having any damaging affect on the environment.

17.6.2 No negative residual impact can be identified for providing services discussed under this Chapter.

17.6.3 When brought into use, the development will consume ongoing quantities of fuels, electricity and water.

17.6.4 No abnormal amounts or types of materials are required for providing the required utilities upgrades.

17.7 Summary

17.7.1 Minor upgrading and off-site reinforcement is required to utility services, while extension or diversion of existing plant is required to others.

17.7.2 Off-site reinforcement will be largely invisible and, where reconstruction is required, works will be of a temporary nature with no residual affects.

17.7.3 While the provision of services described under this Chapter will bring overall infrastructure improvement to Barton Farm, there will be insignificant negative environmental impact. Positive impact will include the improvement of the utilities infrastructure capacity to a level to absorb future development and the re-routing of overhead cables currently running through the site.