

**Land at Foxlydiate Lane,  
Webheath, Redditch**

**Brief Report on the Availability of  
Services and Site Constraints**

**PHASE 1**

*Discovery*

14th May 2013

## **1.0 INTRODUCTION**

- 1.1 Heyford Developments Limited controls a parcel of land to the west/south-west of Redditch that covers a total area of 140.3Ha (347.5acres). The land has potential to be developed for residential and community uses over a number of years and phases. The first phase extends to an area of 41.9Ha (103.5acres) and is bounded to the north-east by the A448 Bromsgrove Highway and the rear of properties fronting Birchfield Road, to the south-east by Foxlydiate Lane, to the south-west by Cur Lane and to the north-west by pasture/arable farmland.
- 1.2 Redditch Borough Council has a requirement to provide 7,000 additional dwellings in the period up to 2030 and has identified a number of locations that each has potential to accommodate a significant proportion of the required total number of dwellings. Up to 3,000 dwellings may need to be located on land beyond the boundaries of Redditch Borough Council and within the boundaries of Bromsgrove District Council. Both councils have recognised the land at Foxlydiate Lane, Webheath as being worthy of consideration for development.
- 1.3 Meetings have taken place between Heyford Developments Limited, Redditch Borough Council and Bromsgrove District Council regarding the feasibility of developing the Foxlydiate Lane site to accommodate approximately 2,800 dwellings and associated community facilities.
- 1.4 This report details the preliminary investigations carried out to establish the location of existing services and the provision of new services to the development and any physical constraints to development of the site occasioned by existing services.

## **2.0 ELECTRICITY SERVICES**

- 2.1 The site is crossed, north to south, by a line of overhead power cables carrying electricity at a voltage of 66kV. Western Power Distribution Limited has confirmed that the cables can be diverted into an underground route through the development. Should it prove viable to divert the cables underground, the cable routes would follow proposed footpaths, verges, open spaces and public areas.

- 2.2 At each end of any diverted cables the line would revert to an overhead situation. This would necessitate the erection of termination poles and stays. Early indications are that these poles and stays would not create an undue constraint to development.
- 2.3 The site is crossed, north-west to south-east, by a line of overhead power cables carrying electricity at a voltage of 11kV. Throughout its length, three lateral lines run to pole-mounted, step-down transformers. Western Power Distribution Limited has confirmed that the cables can be diverted into underground routes through the development. The cable routes would follow proposed footpaths, verges, open spaces and public areas.
- 2.4 In a number of instances, at each end of the diverted cables the line will revert to an overhead situation. This will necessitate the erection of termination poles and stays. Early indications are that these poles and stays will not create an undue constraint to development.
- 2.5 The diverted 11kV cables through the site will form the basis of the development's HV power network and will loop into a number of new, local substations. Western Power Distribution Limited has indicated that their existing network has capacity to serve between 200/300 new dwellings without any undue alterations or off-site reinforcements.
- 2.6 Future electricity supplies may involve reinforcement works to the Redditch primary substation but Western Power Distribution Limited has stated that it cannot consider this in detail until firmer details on the likely rate of increased demand is known and an assessment made of the overall demand at the time of requirement. Western Power Distribution Limited does not consider that there would be any significant constraint to future development due to lack of power supplies.

### **3.0 WATER SERVICES**

- 3.1 Legal searches and reference to the Environment Agency website have identified the presence of a water abstraction borehole adjacent to Cur Lane in the extreme

southern portion of the site. A further borehole is indicated as existing within the curtilage of a Severn Trent Water Limited's pumping station situated on the opposite side of Cur Lane to the site. Whilst not indicated on the Environment Agency website, Ordnance Survey mapping of the area indicates yet a further borehole some 200m along Cur Lane in a north-westerly direction; confirmation that this borehole is an abstraction borehole operated by Severn Trent Water Limited is awaited.

- 3.2 Some areas of the southern portion of the site are within the Inner and Outer Source Protection Zones (Zones 1 and 2) associated with the boreholes. Construction method statements will be necessary for works within these zones but it is not anticipated that the boreholes will create a significant constraint to development. To the contrary, removal of agricultural land and the associated use of fertilizers close to a water abstraction borehole could be considered beneficial.
- 3.3 Preliminary enquiries of Severn Trent Services Limited have identified a water main crossing the southern portion of the site from north-east to south-west. The main is 450mm diameter and sits within a ten metre wide easement. It is anticipated to be a substantial supply main serving the Redditch area and diversion is not considered to be a viable option.
- 3.4 In respect of the total potential development, an application has been submitted to Severn Trent Water Limited for an area-wide modelling exercise to establish the likely reinforcement works necessary to serve the development. Irrespective of the outcome of the modelling exercise, it is probable that reinforcement works will be carried out on a phased basis linked to the phasing of the residential development.
- 3.5 Confirmation of the availability of supplies to serve the first phase of the development is awaited from Severn Trent Water Limited. It is felt unlikely that a service will be taken from the 450mm diameter main through the site and, consequently, it is assumed that reinforcement of the local network may be necessary; as is invariably the case with edge of town developments.

- 3.6 A network of new mains will be positioned within the footpaths, verges, open spaces and public areas to distribute water and provide fire hydrants throughout the first phase of the development.

#### **4.0 GAS SERVICES**

- 4.1 Legal searches and preliminary enquiries of National Grid Gas plc have not identified any gas mains within the phase one site.
- 4.2 Fulcrum Utility Services Limited has been contacted to seek confirmation of the availability of supplies to serve the development and, pending a response, it is assumed that reinforcement of the local network may be necessary.
- 4.3 Provided network reinforcement can be provided economically, a network of new mains will be positioned within the footpaths, verges, open spaces and public areas to serve the development.

#### **5.0 COMMUNICATIONS**

- 5.1 The site is clear of overhead and underground cables operated by British Telecom.
- 5.2 A variety of overhead and underground communication cables exist within Birchfield Road, Foxlydiate Lane and Cur Lane. Where appropriate, these will be extended into the development and a network of new ducts will be positioned within the footpaths, verges, open spaces and public areas to serve the development.
- 5.3 Enquiries are in hand to establish the availability of high speed broadband in the area.

#### **6.0 FOUL WATER DRAINAGE**

- 6.1 Severn Trent Water Limited's records indicate that the site is clear of adopted sewers and, with the exception of those drains serving existing premises within the development site, no records of third party private drains have been uncovered.

- 6.2 Foul water flows from Redditch are directed to either Redditch Priest Bridge or Redditch Sprenal waste water treatment works. In recent consultations on another planning application the Environment Agency has stated *'We would refer to your Council's emerging Water Cycle Strategy (WCS) undertaken by MWH Ltd. We acknowledge the findings of the study, which have identified that adequate permit (discharge requirements under Severn Trent Water's Environmental Permit) headroom capacity, would be available at both Redditch Priest Bridge and Redditch Sprenal sewage treatment works (STW) to take the additional flow from the proposed development. However, infrastructure constraints were identified in the WCS for sewerage and treatment capacity at both of the STW. This will need to be considered and addressed by the developer and Severn Trent Water. Your Council may seek clarification on the route/connection they intend the foul drainage to take and a detailed assessment (including modelling) to ensure that there would be no deterioration in water quality as a result of the proposed development, in line with the requirements of the Water Framework Directive (WFD). Any assessment should include storm overflow performance. Under the WFD, there should be no deterioration in the performance of any storm overflows receiving the increased flow.'*
- 6.3 In recent consultations on another planning application, Severn Trent Water Limited has stated *'Under the Water Industry Act (1991), developers have a right to connect foul and surface water flows from new developments to public sewers. The Act places a general duty on sewerage undertakers, including Severn Trent Water, to provide the additional capacity that may be required to accommodate additional flows and loads arising from new domestic development. This relates to both sewerage infrastructure (including sewers and pumping stations) and sewage treatment works. As a business, Severn Trent Water is specifically funded to discharge these legal obligations through our charging mechanism, overseen by Ofwat. Whilst capacity improvements will be funded by Severn Trent Water we have a duty to minimise the impact on our customers' bills. We do not want to delay new development, but we also need to avoid potential abortive expenditure associated with speculative development. Through working with Local Authorities and developers, we aim to provide capacity within a reasonable timeframe.'*

- 6.4 Acknowledging that the proposed development of the land at Foxlydiat Lane, Webheath would produce foul flows in addition to those referred to in the above consultations, contact has been instigated with Severn Trent Water Limited's Asset Creation Engineers with a view to establishing an acceptable waste water disposal and treatment strategy for the development. Severn Trent Water Limited's Asset Creation Engineers intend modelling the likely flows from the potential development, integrating these flows with the current and known future flows and, thus, proceeding to arrive at a foul water disposal scheme.
- 6.5 Discussions with Severn Trent Water Limited have suggested that the preferred, long term solution is likely to comprise a new or improved trunk sewer to Priest Bridge STW, with improvements/expansion of the STW to cater for the increased flow. In the shorter term, it is probable that the preferred solution for phase one will be for foul water to be collected at one or a number of pumping stations and pumped to the head of the existing gravity sewer in Windsor Road – this sewer running through to the Spenal STW. Subject to the flows involved, foul water may initially be pumped to either the Foxlydiat or Webheath pumping stations. Irrespective of the flows involved, some improvement works are required to the Windsor Road sewer to reduce potential surcharging.
- 6.6 Severn Trent Water Limited are carrying out a developer-funded modelling exercise to identify the likely future flows, to investigate the timing/phasing of future demand and to determine the best means of providing foul drainage facilities to cater for any new development.
- 6.7 The contours of the first phase development site suggest that foul water disposal will be via on-site gravity sewers to a new pumping station, located in the lower, southern part of the site, near to Cur Lane, with a new pumping main to either the Foxlydiat or Webheath pumping stations. Where possible, the new main gravity sewers constructed within the phase one site will be sized to accept the future discharge from phase three.

## **7.0 SURFACE WATER DISPOSAL**

- 7.1 By reference to the Environment Agency's website, little if any of the development site is at risk from surface water flooding. A preliminary flood risk screening report prepared by Argyll Environmental identifies parts of the site as being susceptible to ground water flooding, albeit it also identifies a similar susceptibility for the whole of Webheath and there is no documentary evidence to support such an assessment.
- 7.2 The development site gains benefits from the existence of a number of water courses close to the southern and south-western boundaries of the site. These water courses comprise not only ecological and environmental assets to the development but also a means of surface water disposal – subject to all necessary attenuation requirements.
- 8.3 The total development site has been the subject of a Preliminary Flood Risk Assessment, prepared by Weetwood, dated May 2013 and referenced 2367/FRA\_v1.1, all in accordance with legislative requirements.

## **8.0 CONCLUSIONS**

- 8.1 The development site is crossed by a number of overhead and underground services. It would be both feasible and viable to relocate the overhead services into underground cables/ducts. Diversion of the existing underground service is not considered viable and its route should be suitably incorporated into the development layout with its necessary easement/wayleave corridor.
- 8.2 Early indications are that all principle services and drainage provisions can be made available to serve this phase of the development.