

2.8 Utilities Assessment/Strategy

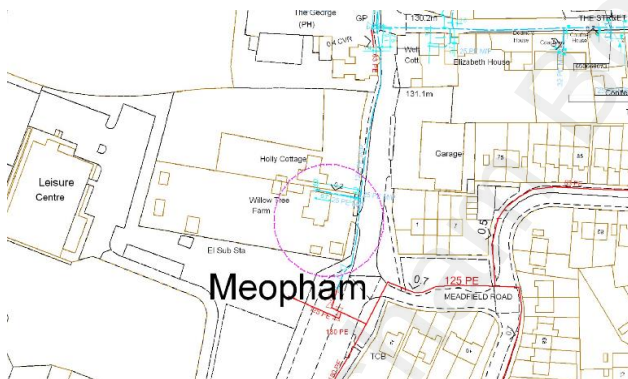
30th August 2021

1 Utilities Assessment



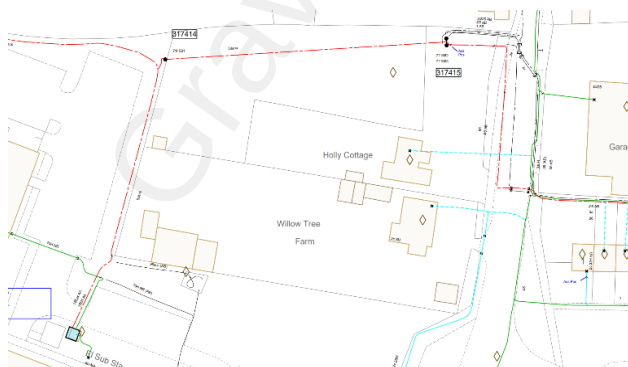
Both Willow Tree Farm and Holly Cottage are currently connected to all existing services, namely, gas, electricity, water, foul drainage, and telecoms. Surface water drainage discharges to on-site soakaways. New, and additional connections will be required from the mains supplies which all exist in Wrotham Road. Connections for Willow Tree Farm will be retained, with minor adjustments only, and if required when detail design and opening-up works are undertaken

1.1 Gas



The existing supply to Willow Tree Farm will remain, as there is no need for this supply to be replaced currently. Gas supplies will **not** be provided for the proposed new dwellings, as heating, hot water and cooking, will all be provided by electricity (whether it be mains, solar panels, or storage battery provided)

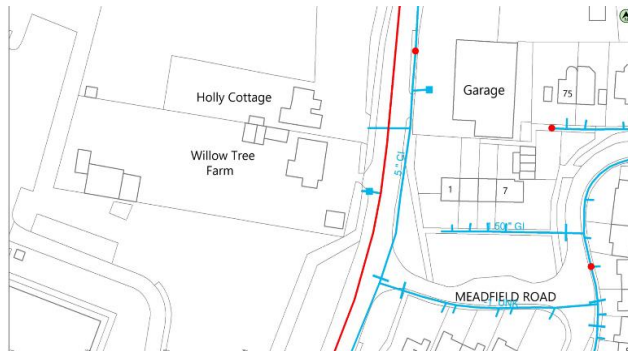
1.2 Electricity



New supplies to all new dwellings will be required from the electrical infrastructure which runs along Wrotham Road, adjacent to the site. The new dwellings will all be fitted with circa 16no 300watt solar panels, generating some 4.8kWh of electricity to each dwelling. Battery storage will be fitted in each dwelling, allowing both the capability of "stored" electricity being used when sunshine reduces, and power to be returned to the National Grid ("Grid Trading") when circumstances suit - "smart" energy controls will be employed to manage this process. Supplies to the dwellings will be "oversized" to permit EV charging in the not too distant future, without the

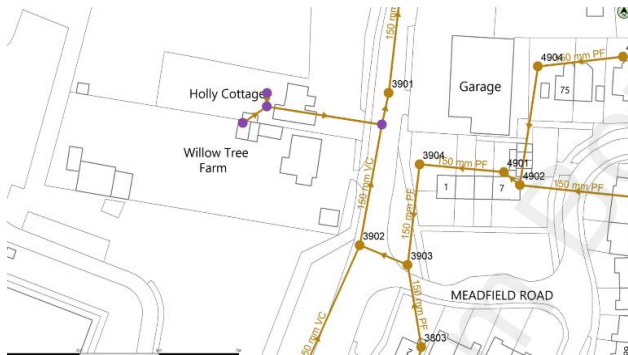
need to upgrade incoming supplies. Air source heat pumps are proposed, to provide further sustainable energy for each dwelling. Heating within the houses will be integrated into the building fabric, as will heat recovery ventilation systems, all to current "Passivhaus" standards.

1.3 Water



New supplies (and new "smart" meters) to all new dwellings, will be required from the water main, which runs along Wrotham Road, adjacent to the site.

1.4 Foul Drainage



A gravity foul drainage run follows the contours of Wrotham Road, and the current dwellings are connected into this. The new dwellings will either be connected through an existing connection, or a new connection, if required - detail design remains to be completed, and approved, but site levels and preliminary designs indicate this is a feasible solution.

1.5 Surface Water Drainage

All rainwater falling on roofs, paths, and roads, within the site boundaries, will be captured and discharged into purpose built soakaways within the site, thus ensuring retention of as much rainwater as practicable on site. Detail designs remain to be completed.

1.6 Telecommunications

It is anticipated that Fibre Optic cables will be run in a new network of suitable underground ducts within the site to all the new dwellings, capable of delivering "ultra-fast" services. There are projects throughout west Kent currently which are upgrading this service to domestic users, and it is anticipated this will be available when these dwellings are constructed. There exists a relatively new telecoms pole to the front of the existing Holly Cottage, but this may need to be upgraded when more fibre connections are required.

2 Utilities Strategy

2.1



The housing layout is wrapped round a central cul-de-sac road, and it is along this road that all services will run in, and out to all the existing utilities in Wrotham Road. A "services zone" will run in the access road, and will accommodate all the services as required. All new properties will be served via this route, and foul drainage will benefit from the natural lie of the land, and discharge through gravity

2.2



The proposed access road runs on the line of the "to-be-demolished" Holly Cottage, and its garden to the rear. There are no major trees of any significance along this route, and it is not anticipated there are significant archaeological remains, either along the line of the road, or elsewhere in the site. However, as the site sits within an Area of Archaeological Potential, then a pre-commencement commitment will be considered, if required

Above ground electricity cables running east-west to the north of the site can be re-routed by the network infrastructure provider