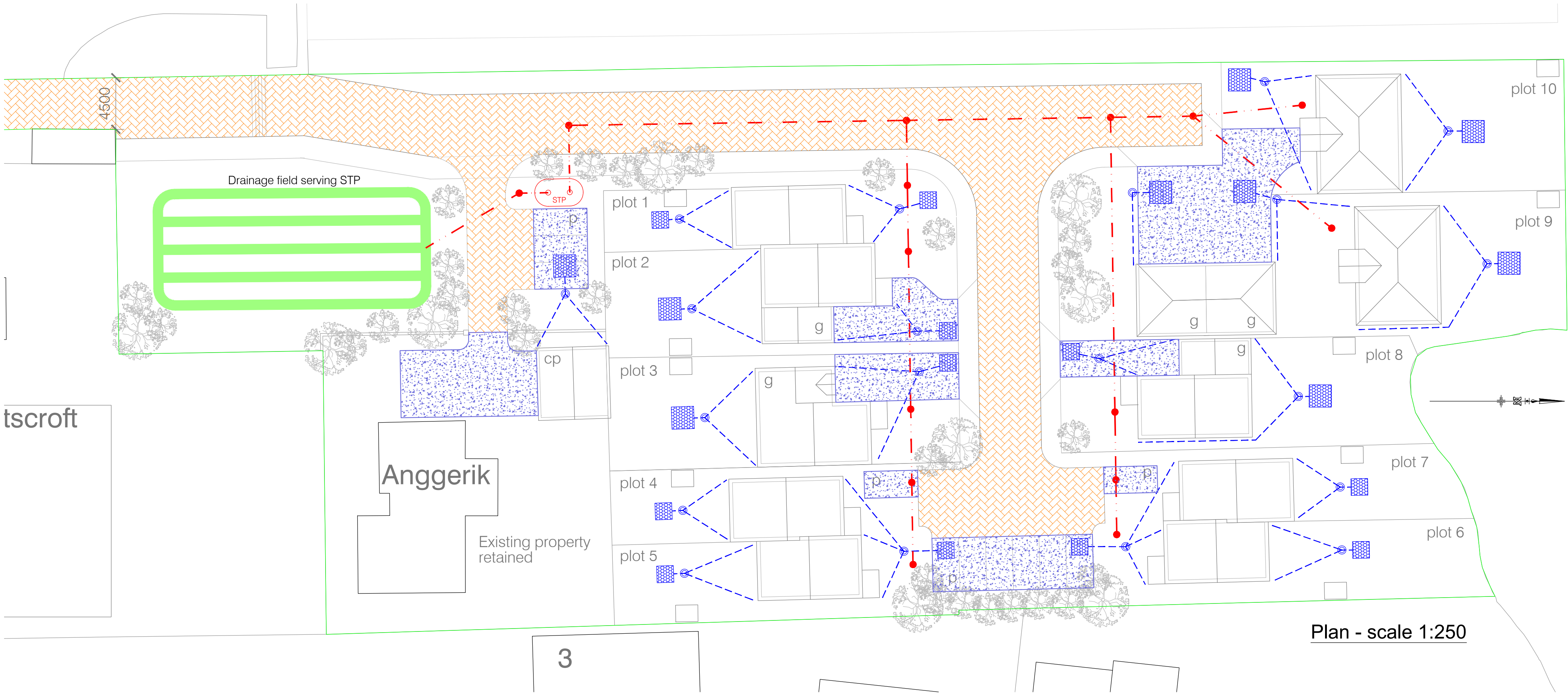




Key

Proposed foul water drainage

Proposed surface water drainage

450 dia surface water inspection chamber

450 dia foul water inspection chamber

Permeable concrete block paving

Permeable surface to drives and parking places

Geocellular soakaway with silt trap IC

Sewage Treatment Plant complying with BS EN 12566 and with relevant Environmental Permit to be obtained

Surface Water Drainage Design Notes

The British Geological Survey records indicate the site to be underlain by River Terrace Deposits of sand, silt and clay bordering on Raised Beach deposits of sand and gravel as well as Raised Marine Deposits of clay, silt, sand and gravel. Our own investigations revealed around 250mm of topsoil over silty sands and compact sandy silts becoming more sandy with depth with some sub-angular flints. Chalk was encountered at 1m to 1.5m below ground level, soft and weathered but becoming more blocky with depth. No groundwater was encountered.

The drainage design is based on percolation tests carried out to BRE365 in four separate test holes in October 2016. An average soil infiltration rate of 5.827x10⁻⁶ m/s was obtained at depths ranging from 900 to 1655mm below ground level.

Geocellular soakaways are proposed for draining all roof areas. These will mainly be 2mx2mx0.8m deep units. Permeable concrete block paving is proposed for the main access road through the site. Private drives and parking areas are also envisaged to be permeable although some tarmac areas could be incorporated draining to geocellular soakaways additional to those shown.

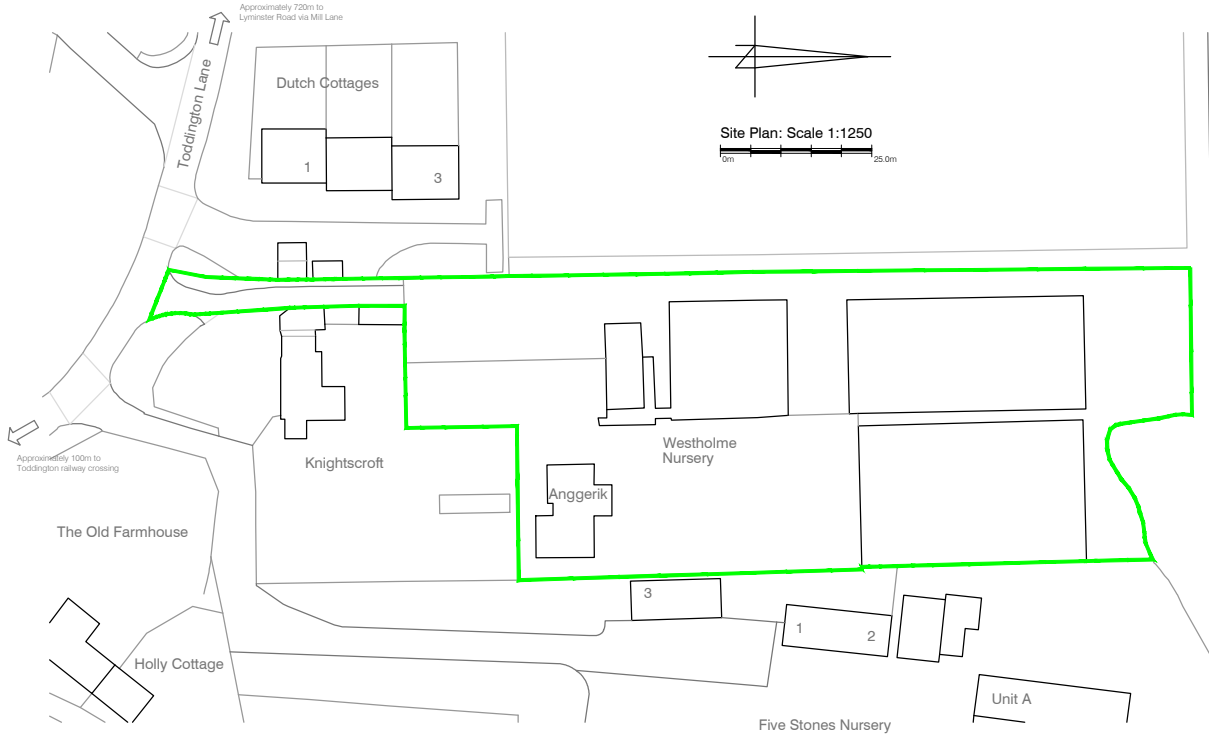
Foul Water Drainage Design Notes

There is currently no public foul water sewer within an accessible distance form the site and a private sewage treatment plant is proposed. This is to be located a minimum of 7m from habitable buildings. It should be suitable for up to 38 persons and conform to BS EN 12566. The plant will need to drain to a subsoil irrigation system (drainage field) and an environmental permit will be required from the Environment Agency.

Soakage tests carried out to PPG 4 in the area of the proposed drainage field revealed more favourable ground conditions for soakage than elsewhere on the site and an average rate of 15 seconds was obtained at 900mm deep in the silty sands. A drainage field comprising 128m of perforated pipes will be required as shown, located a minimum of 10m from habitable buildings (subject to confirmation from the local authority).

It is recommended that further extensive soakage testing is carried out in due course to confirm the soakage rate to be used for detailed design.

The foul drainage system has been designed such that should adopted foul water sewers become available in Toddington Lane in the future, then a connection could be made without too much difficulty and the sewage treatment plant abandoned.



Rev.	Description	App.	Chk.	Dm.	Date
A	Layout amended for 10 dwellings	PC	RTFC	30.10.16	
-	Original	PC	RTFC	24.10.16	

Notes

Client
Mr & Mrs R. Gould

Project
Westholme Nursery Toddington Lane Littlehampton West Sussex

Drawing Title
Drainage Layout

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Scale As shown	At original A2
Drawing Number 1696/D1.1	Revision A