SURFACE WATER DRAINAGE TECHNICAL NOTE

FOR 2 PLOT RESIDENTIAL DEVELOPMENT

LAND EAST OF FOREST WAY, HOLBEACH, LINCOLNSHIRE, PE12 7FE

DOCUMENT REF: SW26-261-TN-01

DATE: JULY 2026

1.0 Introduction:

The following document has been prepared in relation to the proposed surface water drainage scheme to demonstrate the intended timetable for implementation of the system and outline how the system will be managed and maintained for the lifetime of the development.

The proposed development includes 2 single story dwellings which are to be constructed on land East of Forest Way, Holbeach, as shown on the figure below:

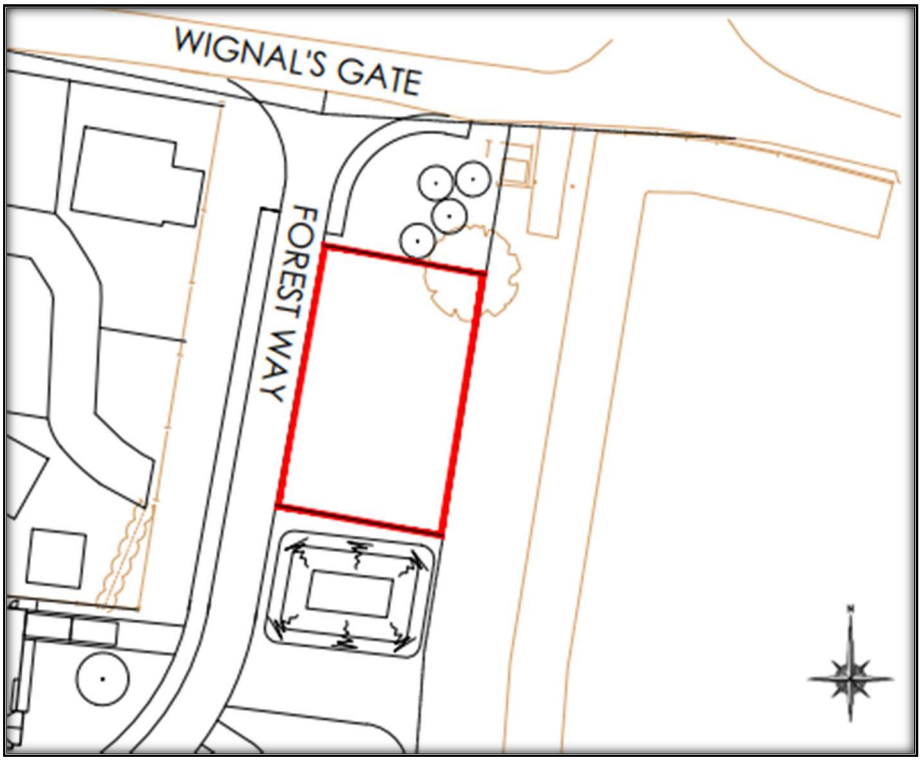


Figure 1: Site Location

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The proposed dwellings are accessed from the existing public highway as shown on the figure below:

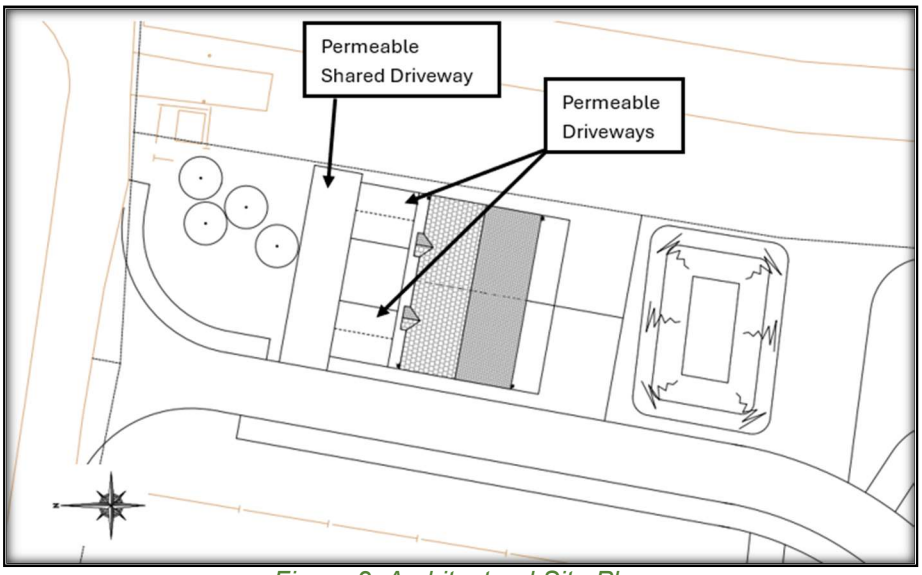


Figure 2: Architectural Site Plan

The permeable driveways are to be of a block paver construction.

A proposed surface water drainage design has been prepared by Apple Engineering, drawing reference 26114-102, extracted below:

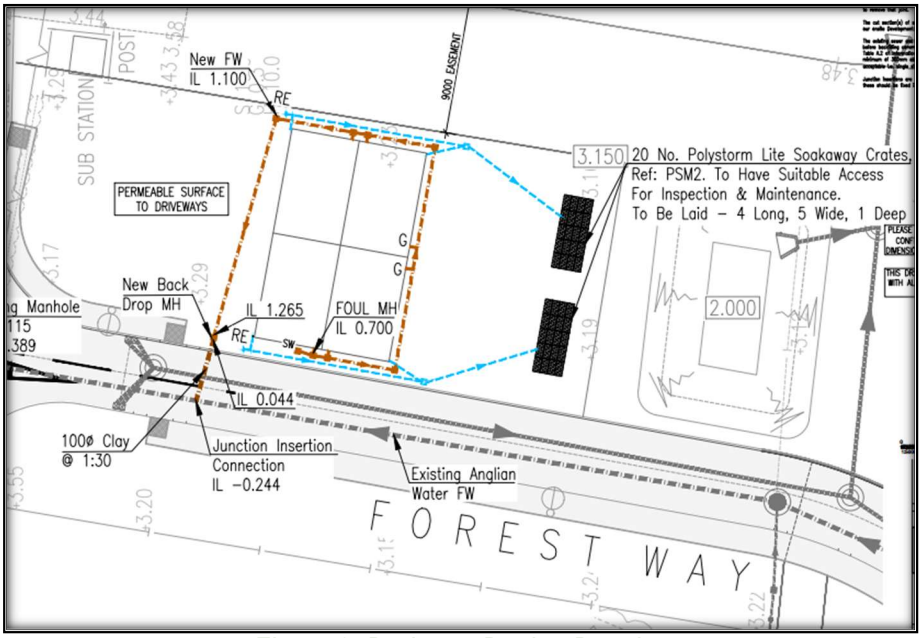


Figure 3: Drainage Design Drawing

The infiltration-based surface water drainage system has been designed based on an infiltration rate of 2.03×10^{-6}m/s following testing undertaken by SRC Ltd. for the adjacent residential development site, during March 2018.

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2.0 Timetable for Implementation:

The surface water drainage scheme proposed by Apple Engineering will be implemented in the following manner:

- The stone sub-base beneath the permeable shared driveway and the individual driveways will be utilised as a clean working platform to gain access to the site.
- The stone sub-base should not be trafficked excessively during the construction phase, as this will over compact the sub-base and compromise the hydraulic performance.
- Should the stone sub-base beneath the permeable shared driveway and the individual driveways become contaminated with soil/silt during the construction phase, a minimum of 100mm stone depth should be scraped to remove the contamination.
- The final driveway surface, i.e. block pavers and bedding layer, will not be installed until the dwellings are watertight and the heavy trades are off site.
- The surface water pipes and inspection chambers will be installed at a similar time to the foundations and sub-structure masonry.
- The soakaways located in the rear gardens will be installed prior to the roofs being tiled.

3.0 Management and Maintenance Plan:

The proposed site is to remain entirely private and will be the responsibility of the homeowners.

3.1 Dwelling Roof Water:

The dwelling roof water is to be collected via gutters and downpipes which discharge to an underground drainage system local to each plot. The underground drainage system comprises of inspection chambers and pipes which discharge into the soakaway located in the rear gardens.

The system should be inspected and maintained at yearly intervals, or if signs of poor performance are noticed during heavy rainfall, in order to ensure that all components continue to perform effectively.

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3.2 Driveways:

The driveways are to be constructed of permeable block paving, and are to have a voided stone sub-base to attenuate the rainfall event, prior to infiltration to ground. These are designed hydraulically for a 1:100 year plus climate change rainfall event.

These areas are required to be in good working order to function as intended and prevent run-off onto the public highway. They should generally be maintained in accordance with The SuDS Manual C753:

Operation and maintenance requirements for pervious pavements

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Figure 4: Permeable Paving Maintenance Requirements (The SuDS Manual C753)

4.0 Conclusion:

In conclusion, the above outlines the timetable for implementation of the drainage system and ensures that surface water run-off will be safely managed during the construction phase and ensures that the systems are not compromised by construction activities.

The management and maintenance requirements are also discussed and should be given to the future homeowners to ensure that the surface water systems are maintained adequately. The permeable driveways and underground surface water systems and soakaways are to remain the sole responsibility of the future homeowners. There are no arrangements for the systems to be adopted by any public authority or statutory body.

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