

Condition 7 – Drainage Approach for Application No. 66142

Sustainable Urban Drainage System

Paving

Paving will be used to support a Sustainable Urban Drainage System (SUDS).

Any new driveway, parking area, or footpath will seek to use materials that supports water dispersal into the soil. The proposed new areas of paving shall use one or more of the following:

- Solid block concrete paving, i.e. where surface water goes through the joint gaps or voids in the solid paving via infiltration. Thickness of these individual blocks would be 50mm or 60mm. For example: <https://www.marshalls.co.uk/gardens-and-driveways/product/driveline-priora-permeable-block-paving> or <https://www.marshalls.co.uk/gardens-and-driveways/product/drivesett-tegula-priora-permeable-block-paving>.
- Porous cellular concrete paving, i.e. where the water drains through the holes in the paving surface. A product meeting this category would be Grassguard from Marshalls. See: <https://www.marshalls.co.uk/commercial/product/grassguard-paving>. These pavers are typically 100 mm thick and come in different sizes. A product like grassguard would have its pockets filled with fine soil or loam and grass seeded according to recommendations of manufacturer.
- Plastic cellular ground grids for supporting gravel or growth of grass. Example solutions include:

<https://skyplastics.co.uk/40mm-deep-ground-grid.html>

<https://www.ibran.co.uk/products/grass-parking-grids>

<https://www.soakaways.com/rainsmart-nero-pave-50mm-p-70001/>

Cellular sub-base materials would be to manufacturers recommendations. Typically these would be non-cement, at least 150 mm thick, and consist of free draining granular material. The bedding layer would consist of sharp sand or pea shingle. Any edge restraints, where used, would be bedded into concrete. The edges would be concrete block or steel edge restraints. An example supplier of steel edge restraints is Core Landscape Products, see: <https://www.corelp.co.uk/core-edge/>.

If there is an opportunity to use any existing cobbles or stones that might be discovered or excavated from the areas under the tarmac at the rear of the property then these materials may be recycled into the main permanent parking areas subject to consideration of SUDS requirements.

Drainage from Dwelling

Surface water drainage systems for storm and foul (sewer) water will be designed to function under gravity.

Soakaways

One soakaway is proposed for rainwater coming off the rear roof areas of the property. The soakaway will consist of a pit filled with hardcore or utilise a crate system such as that at:

<https://www.corelp.co.uk/core-water/> or

<https://skyplastics.co.uk/500x400x1000mm-40t-modular-water-storage-crate.html> or

<https://www.soakaways.com/rainsmart-ellipse-soakaway-crate-shallow-p-90003/>

Any crates would be wrapped in a Geotextile membrane prior to backfill occurring.

The soakaway will provide a volume of at least 1 cubic metre and be positioned at least 5 metres away from the nearest rear wall foundation, or road. It will be positioned at least 2.5m away from the property boundary.

Positioning constraints makes it impractical to put a soakaway at the front of the property.

Stormwater for the front of the property will feed into existing stormwater drains.

Water butt

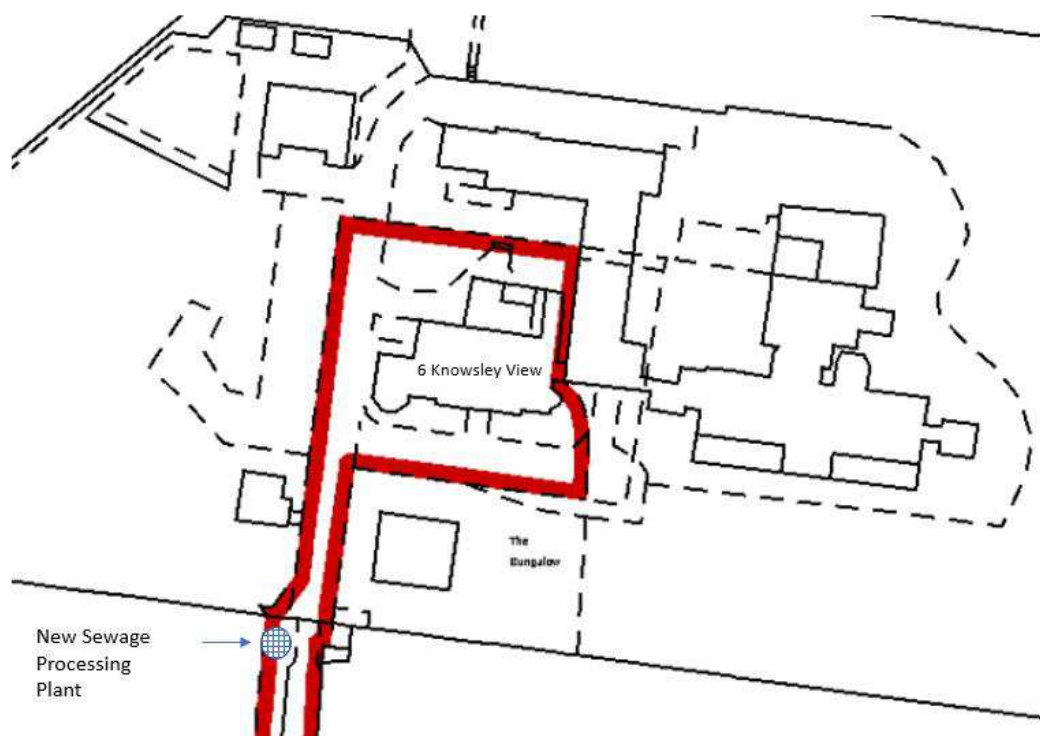
At least one water butt will be installed to take water from the guttering / downpipe of the rear wing roof. The water butt will have a minimum capacity of 200L.

Foul Water Drainage

Sewage Wastewater

Domestic sewage will be directed down the access way to a new Sewage Processing Plant located on the west side of the entry gate. This land is part of my property.

Liquid discharge from the sewage processing plant will be directed towards a soakaway or field drain. The approximate location of the Sewage Processing Plant is shown as a hatched circle in the diagram below.



Michael Moore 08/08/2022