date: **23 February 2024**
ref: **24005**
client: **Mr J Walls**

BPS

Drainage Strategy Statement

project: **Proposed Dwelling**
site address: **94 Brighton Road, Lancing, BN15 8LW**

Drainage Assessment

Brownfield Site

96m² = Site area

Surface Water Drainage

Pre-Development

36m²	=	Estimate of open space (greenfield/permeable)
60m²	=	Estimate of Development site impermeable area discharging via private drains into Public Sewer
60m²	=	Estimate of additional impermeable area discharging via the private drains into the Public Sewer.

Estimate storm flows from impermeable areas discharging unrestricted: -

6.6 l/s	=	100 year return period
5.3 l/s	=	30-year return period
2.0 l/s	=	2-year return period

Proposals

The development surface water discharge hierarchy, infiltration must be considered as the Tier 1 option.

Based on trial hole findings, infiltration has been discounted as a suitable means of surfer water discharge due to groundwater levels recorded 375mm below ground.

The proposed surface water drainage has been considered so that the peak run-off post-development is no greater than the corresponding pre-development scenario up to a 1 in 100-year event, applied to positivity-drained areas only during all rainfall events, including a climate change allowance increase of 45%.

A Cv of 1.0 (100%) shall be considered for designing drainage for the impermeable area (assuming no runoff loss from impermeable surfaces) and 0% for permeable areas, following Sewers for Adoption 7th Edition recommendations.

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By the current SUD's Guidance Manuel 2015 (report C753), to prevent the risk of blockages and clogging, a proposed minimum 30mm diameter flow control restriction has been adopted, assuming a removable filter screen is provided to flow control advice.

Post-Development

36m² = Estimate of open space (greenfield/permeable)

60m² = Estimate of Development site impermeable area discharging via private drains into Public Sewer

60m² = Estimate of additional existing impervious area discharging via the private drains via private drains into Public Sewer.

Flow control chambers with overflows have been considered to restrict storm discharge rates from the site and allow bypass of the device in extreme events.

Estimate storm flows from impermeable areas discharging: -

3.5 l/s = 100-year return period + 45% change allowance

2.7 l/s = 30-year return period

1.6 l/s = 2-year return period

Estimated additional attenuation to be provided: -

2m³ = Approximate underground storage provided to accommodate storm safely flows without flooding on or off-site, including a 100-year + 45% climate change storm return period.

The risk of flooding on and off the site will be reduced post-development, which means the proposed development can be accommodated.

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