



## Flood & Water Management Act 2010

### Schedule 3 Sustainable Drainage

#### Pre-Application Advice on SuDS on new developments, with reference to The Sustainable Drainage Regulations 2018.

1. Overview	
SAB Reference	YM2024SAB226 - Maes Mona, Amlwch
Project / Site Name	Maes Mona, Amlwch
Description of proposed development	Construction of 40 no. dwellings with associated access roads, car parking and gardens across 2 phases.

2. Compliance with Statutory Standards
Standard S1 – Surface water runoff destination
<p><b>Phase 1</b></p> <p>The applicant proposes to discharge to a watercourse on the south-western boundary of the site. Infiltration techniques have been discounted following provision of infiltration testing.</p> <p>The discharge method is acceptable in principle subject to:</p> <ul style="list-style-type: none"><li>• Provision of the Geo-Environmental Site Investigation report to evidence the infiltration testing.</li><li>• Providing further information on the watercourse south-west of the site, including:<ul style="list-style-type: none"><li>○ The size of the culvert beneath the football field (is it sufficient to accommodate the proposed flows from the development?). Evidence should also be provided to show that the watercourse (including the culvert) is in suitable condition to accommodate flows from the development.</li><li>○ Where does the culverted watercourse drain beyond the football ground? Evidence should be provided to show that there is connectivity from the watercourse on site to the wider river network.</li></ul></li></ul>



## Phase 2

The applicant proposes to discharge surface water to a highway drain in Maes Mona. The highway drain is identified as 150mm in diameter. A survey of the highway drain has been undertaken, however the eventual discharge point of the highway drain is not known.

A connection to the highway drain can be considered, however would only be acceptable subject to:

- Provision of evidence that the highway drain is of sufficient capacity to accommodate the proposed flows from the development (together with the flows from the catchment it currently serves). If the drain is not of sufficient capacity, the applicant will either need to; reduce the proposed discharge rate; undertake upgrade works to increase the size of the highway drain; or, investigate an alternative discharge method.
- Further survey to determine the ultimate connection point of the highway drain i.e. to confirm that it eventually discharges to a watercourse.
- Provision of the Geo-Environmental Site Investigation report to evidence the infiltration testing.

## Standard S2 – Surface water runoff hydraulic control

The applicant proposes to restrict runoff to the greenfield runoff rates utilising a variable flow control method. The drainage system has been designed to accommodate the 1 in 100 year plus 30% CC event (with an allowance for urban creep). The design storm event is considered acceptable.

### Phase 1

A varied discharge rate of 5.4 l/s (1 in 1 year), 5.6 l/s (1 in 30 year) and 6.1 l/s (1 in 100 year) is proposed.

Please see further comments on the greenfield runoff within the email.

### Phase 2

A varied discharge rate of 5.4 l/s (1 in 1 year), 7 l/s (1 in 30 year) and 7.9 l/s (1 in 100 year) is proposed.

Please see further comments on the greenfield runoff within the email.

Attenuation storage for Phase 2 will be provided in the form of below ground geo-cellular storage and an offline detention basin. The applicant should clarify whether the below ground geo-cellular storage (shown in Figure 1) is located beneath public open space, or within private property



gardens. Shared attenuation storage features will not be acceptable beneath private property gardens.

**Figure 1 – Phase 2 Below Ground Storage.**



For both development phases, justification should be provided as to why below ground attenuation storage is proposed as opposed to providing the whole balance of attenuation storage within above ground SuDS features.

#### Standard S3 – Water Quality

##### Phase 1

Surface water treatment proposals including permeable surfaced driveways, raingardens and a detention basin (to which all flows will pass through) are considered acceptable.

##### Phase 2

Raingardens (serving property roofs) and permeable surfaced driveways are considered to provide sufficient treatment to the respective land uses they serve. It is noted that the proposed detention basin is an offline storage feature, meaning it would not receive inflow during low flow events. As such, during low flow events, runoff from the access road would not receive surface water treatment (other than from typical gully silt traps). The applicant will need to demonstrate that runoff from the access road receives an appropriate level of treatment.

#### Standard S4 – Amenity

The proposed raingardens, permeable paved driveways and detention basins will provide amenity value. Where possible, the applicant should give preference to above ground SuDS features (which provide amenity value) for attenuation storage, rather than below ground geo-cellular storage.



Standard S5 - Biodiversity

The proposed raingardens and detention basins will provide biodiversity value. Where possible, the applicant should give preference to above ground SuDS features (which provide biodiversity value) for attenuation storage, rather than below ground geo-cellular storage.

Standard S6 – Design of drainage for construction, operation and maintenance.

All shared drainage systems should be placed in easily accessible locations for maintenance i.e. not in private property gardens. Full maintenance details should be provided with the full SAB application.