



S278-FC01 - Hydrobrake Flow Control Chamber  
Restricting flows to a 30% betterment of the existing brownfield run-off rate (20.4l/s) = 14.3 l/s  
Refer to Hydro-International design details - SHE-0176-1430-0600-1430

Proposed Swale SWL01  
Volume below 14.80 level = 54m<sup>3</sup>  
Depth = 0.9m - Varying 1:2 - 1:3 sides  
IL at south end: 14.800  
IL at north end: 14.000  
Area of Base = 95m<sup>2</sup>

Existing gullies located within existing catchment replaced with new gullies and conveyed into S278 highway network.

Existing drainage south east of widening works to be connected to Laverock Rd drainage via S5-S6-S7 piped connection.

- Notes:
- Do not scale from this drawing. All dimensions in m unless specified otherwise.
  - This drawing is to be read in conjunction with all other Architectural information.
  - The specification in all respects shall be in accordance with the current Vale of Glamorgan Council Specification and Construction publications in force in the county at the time of construction.
  - All drainage to be constructed in line with Building Regulations Part H, Sewers for Adoption 7th Edition & SAB requirements.
  - Proposed connections to sewers subject to VOGC & DCWW approval.
  - In areas loaded by vehicles, where cover to sewers exceeds 1.2m, Type S surround is to be used. Where cover is less than 1.2m, Type Z surround is to be used.
  - Surface water pipe material to be twin wall HDPE pipework in accordance with BS-EN 13476-1 and to achieve the HAPAS specification issued by the BBA.
  - All jointing in accordance with manufacturer's technical advice & specification.
  - All trafficked covers and gratings to be D400 load classification, with B125 for non-trafficked areas.
  - Hydrock SI report RP-GE-0003 indicates infiltration was not possible due to high ground water levels and collapsed excavations. Groundwater levels vary across the site at around 0.5m - 1.5m depths. Buoyancy calculations checks may be required on below ground attenuation and chambers.
  - Brownfield runoff for the existing road calculated to be 20.4 l/s. Discharge rate for the proposed S278 works restricted to 30% betterment of the brownfield rate, 14.28 l/s.
  - Attenuation sized to attenuate for all storm events up to and including 100 year + 40% climate change.

- Legend
- Proposed Surface Water Drainage
  - Hydrobrake chamber
  - Road Gully
  - ACO Swale/Rain Garden Inlet

Rev	Date	Description	By	Apvd
P2	22.09.22	Swale updated, footpath removed	MS	GS
P1	29.08.22	ISSUED FOR ISG REVIEW	WS	MS

PROJECT:  
YSGOL Y DERI

TITLE:  
SECTION 278 DRAINAGE LAYOUT

CLIENT:  
ISG

SCALE@A1:  
1:250

PROJECT REF:  
22112  
DRAWING No: YYDE-JUB-XX-XX-DR-C-00560 P2  
REV:

Revision Referencing  
P = Preliminary A = Approval T = Tender C = Construction

