

Existing Foul/Surface Sewer/Drain to be retained

Existing Foul/Surface Sewer/Drain to be abandoned

Channel Drain

Formpave Fin Drain

Road Gully

Yard Gully

Rodding Eye

Formpave Distribution Box

Foul Sewer/Drain

Soil and Vent Pipe / Gully Connection

Air Admittance Valve (durgo) / Stub Stack

FW Type 4 Inspection Chamber (1900 min)

FW Type 3 Inspection Chamber (4500 min)

FW Type 1/2 Manhole

Vertical/Ramped Backdrop

Surface Water Sewer/Drain
Rainwater Pipe
SW Type 4 Inspection Chamber (190Ø min)
SW Type 3 Inspection Chamber (450Ø min)

SW Type 1/2 Manhole

Back Inlet Gully

Finished Floor Level

Trench Soakaway

Porous Block Paving - Formpave Infiltration system
with level formation and DBM construction surface
Refer to Formpave Drawings for formation levels/conditions

NOTE THE FOLLOWING:

Southern Water Agreements

- 1. Section 106 Foul Sewer Connection**
 - 1.1. SW Ref S406: xxx dated xxx
 - 1.2. Direct connection to FWS - FW4
- 2. Formpave Design - Blanket Soakaways**
 - 2.1. Refer to Design & Details dated xxx
 - 2.2. Dwg Ref: xxx

1. SW Drainage Design

	Proposed	
1.1.1.	All SW runoff to be discharged to Trench/Blanket Soakaways using Formpave Porous Paving (Infiltration system) with min 450mm up gravel sub base, level formation and 80mm DBM temp construction surface	
1.1.2.	Sub Base to have min 35% voids ratio - Test certificates to be submitted to ABMHC & LLFALPA for approval to verify material and voids ratio	
1.2.1.	Refer to Formpave Porous Paving	
1.3.1.	SIR = $5.0 \times 10^{-4} \text{ m/s} = 0.018 \text{ m/hr}$ - Used as Design value	
1.3.1.1.	Lowest SIR recorded at site = $7.0 \times 10^{-4} \text{ m/s} = 0.025 \text{ m/hr}$	
1.1.4.	Drained Areas	
1.1.4.1.	SATI = $2380 \text{mm} = 2164 \text{m}^2 \times 100 \text{ Urban Creep}$	
1.1.4.1.1.	(Roof Area = 977m^2 , Paving = 1167m^2)	
1.1.5.	Design to cater for 100yr SRP + 0.0% GC allowance, FOS = 5	
1.1.6.	Confirmation of winter ground water - table levels required	
1.1.6.1.	Highest GWL taken as 49.28m - AIP with LPA	

2. FW Drainage Design

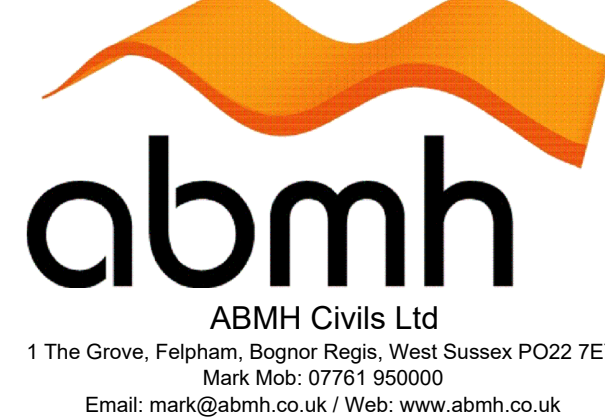
2.1.1. Peak FW Flow 8No Dwellings = 0.37 l/s Peak FW Flow (SFA)

1. This drawing is to be read in conjunction with drawing Nos: FG2009/10/1-25.
2. Existing onsite drainage is shown on drawing FG2009/10/1-25.
3. All adopted drainage and connections to the sewer system are to be constructed in accordance with the Sewers for Adoption 67th Edition or as stipulated in the Southern Water Addendum:
4. Connections to the adopted drainage system are subject to the approval of Southern Water the Drainage Authority. Diverted, diverted, build close to sewer services, and new sewers are subject to SW approval. All other drainage is to remain private.
5. All pipes and fittings to be adopted, or connecting to adopted drains, and/or situated under highway to be vitrified clay (min 40kN/m) to BS EN 295 & B865 (WGS only), or Concrete pipes to BS EN 1916 & BS5911 Part 1, or Thermoplastic Structured wall sewer pipes to BS EN 14343 and WGS 4.25-4.1 (class B1) or Ductile Iron to BS EN 5980, and be capable of withstanding 4000 PSI jetting pressure.
6. Cover levels shown are approximate. Covers and frames shall be set to finished ground levels and falls:
7. All drainage to be constructed to BS EN 752-1:1999 and subject to the approval of Building Control LPA and the Environment Agency.
8. Gully and channel drain positions are liable to amendment when the design levels have been determined:
9. All downpipes to new dwellings are to be sealed, i.e. connected directly to the stormwater drain. All downpipes to existing dwelling are to be connected to trapped gullies. Access points to be provided 1m above ground level for external RWPs and 1m above AFD for internal RWPs.
10. All below ground concrete to conform with AEGE site Guideline 14/14-1 refer to Geotechnical Investigation
11. A/cro channel drain to be K400G with grade G250 Gullies: 14/14-1 refer to Geotechnical Investigation
12. Where adjacent to kerb or within pedestrian areas: Elsewhere A/cro channel drain to be Drain 400 Glass F. All channel drain outlets have to have oil traps
13. The Contractor should construct works in accordance with the Local Authority specification for the works they are to undertake:
14. Road gully/Channel outlet pipes are to be 150mm dia: with concrete surround and flexible joints; all other pipe materials and pipes are to be 100mm dia:
 - FW min gradient -1 in 40 (100/150) dia NO/GS connected
 - FW min gradient -1 in 40 (100/150) dia min 1WV connected
 - FW min gradient -1 in 150 (150/150) dia min 5WGS
 - SW min gradient -1 in 100 (100/150) dia
15. If any sub soil drainage systems are uncovered during the Works contact the Engineer for instructions. Generally such systems are affected are to be diverted around new Works and connected into the surface water drainage system. Pipe diameters and gradients are to be maintained:
16. Before commencing construction the Contractor must check the invert levels of existing sewers to which connections are made. In addition the Contractor must locate and determine invert levels of the existing sewers to which connections are proposed. Additional surplushole connections are to be agreed with the relevant adopting authority. Any discrepancies are to be notified to the Engineer immediately, prior to construction.
17. Road reinstatements are to be to the Highway Authority.
18. No private areas are to drain onto adoptable areas and vice versa:
19. All redundant drainage to be abandoned once the

SUBJECT TO THE APPROVAL OF:
LPA - Planning Conditions
BUILDING CONTROL/NHBC
SW - S106 FWS connection

Subject to confirmation of the following:
Proposed Layout
GF FFL No 34 & 36 Carlton Ave
Extended topo info
Foundations
SW S106 connections
Agreement of winter Ground water levels with LPA

-	Issued For BUDGET/APPROVAL ONLY	30/06/2024
REV	DESCRIPTION	DATE



PROJECT DEVELOPEMENT TO REAR OF
34-44 CARLTON AVENUE
BOGNOR REGIS, W SUSSEX
PO21 3LR

DRAFT
SURFACE WATER
DRAINAGE LAYOUT
SHEET 1 OF 2

Prj No.	FC2891/02	REV	-
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