

Drainage Maintenance & Management Manual

6 Units, Reef Way, Hailsham, East Sussex

Client

Persimmon Homes South East
Scholars House, 60 College Road,
Maidstone, Kent, ME15 6SJ
Ref: 7290/2.3H
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Consulting Engineers

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Index

1	Introduction	2
2	Existing and Proposed Site	2
3	Maintenance Schedule	3
4	Drains, Manholes, Gullies, Silt Traps	4
5	Cellular Storage	6
6	Control Chambers, Flow Controls	6
7	Recommendation for Water Quality	6
8	Contamination or Dilution of Spillage	7

Schedule of Appendices

A	Site Drainage Plan
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Issue	Issue date	Compiled	Checked
Planning Issue	23 March 2021	DS	NS

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Checked by: Neil Stevenson MCIHT

1 Introduction

- 1.1 This report has been prepared for Persimmon Homes South East in relation to the Apartments Development land at Burfield Valley, Hailsham, East Sussex. No responsibility is accepted to any third party for all or part of this study in connection with this or any other development.
- 1.2 GTA Civils & Transport Limited was appointed by the client to provide a Drainage Maintenance & Management Manual as requested by Natural England in order to achieve Planning Approval at said site.

2 Existing and Proposed Site

- 2.1 Existing: the pre-development site is an undeveloped greenfield site, west of Battle Road, Hailsham.
- 2.2 Proposal: construction of 6 new dwellings comprising 4 No. detached and 2 No. semi-detached dwellings with associated parking and landscaping, together with drainage within a wider development, under construction.
- 2.3 Drainage design: a site drainage drawing for the development, by GTA Civils Ltd, is contained in Appendix A. This drawing incorporates a number of Sustainable Urban Drainage Systems (SUDS), the maintenance requirements of which are explained in this report.

3 Maintenance Schedule

- 3.1 The following sections detail the main drainage items used within the scheme and details the maintenance requirements for each item.
- 3.2 As this is a small development, the Maintenance Company will be responsible for maintaining the drainage system as per the schedule and details below.
- 3.3 The access road and highway drainage shall be maintained by the Management Company responsible for site on completion.
- 3.4 It is acknowledged that Natural England have stated within their consultation response that a specialist management company needs to be in place at first occupation to ensure the SuDS is managed in perpetuity, with step-in rights for the Local Authority in the event of failure of the management company.
- 3.5 However, the proposed development for 6 residential units must be viewed in its correct context and as part of a much larger implemented development. The 6 units forms part of a previously approved master-planned development for the erection of a mixed-use development comprising up to 170 dwellings, 55 extra care units, an education establishment, up to 4000sqm of office space, health centre, library and open space. Due to non-residential aspects of the aforementioned master-planned development not coming forward, the separate parallel 35 units are proposed in their place. The 6 No units subject to this application together with the parallel 35 unit scheme will connect into an existing approved private and fully operational SuDs system which has an existing management company in place.
- 3.6 The proposed development will not have a stand-alone SuDs system, separate to the management of the existing drainage system, but will be managed as part of the wider site. On this basis, step-in rights for the Local Planning Authority are not considered appropriate given the existing and fully operational management system already in place.

4 Drains, Manholes, Gullies, Silt Traps

- 4.1 Regular inspection and maintenance is required to ensure the effective long-term operation of private drains, manholes, gullies & silt traps.
- 4.2 Prior to construction: a CCTV survey to be carried out on all existing drainage systems (not being demolished as part of the scheme or previously constructed as part of the wider development) and any downstream receiving systems, prior to connection with adopted sewers.
- 4.3 Post Completion: a CCTV survey to be carried out on all new and retained existing drainage systems and any downstream receiving systems, prior to connection with adopted sewers.
- 4.4 The report will be used to prove the integrity of the as-built drainage system prior to issue of practical completion certificate and will be handed over to the Client & Management Company for future reference.
- 4.5 Ongoing maintenance responsibility for all sewers, manholes, gullies, storage structure and control chambers will be for the Management Company. Operation and maintenance requirements for all sewers, manholes and gullies are described in the following table.

Schedule	Action	Frequency
Regular Maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	6 Monthly intervals.
	Common yard & car park & other hard standing areas to be swept clear of debris, to prevent possibility of blockages to the receiving drainage systems.	Weekly.
	Debris removal from gullies & silt pits (where may cause risks to performance).	6 Monthly intervals, after autumn leaf fall, or as required based on specific observations.
	Lift and inspect receiving manholes to check for any blockages.	Monthly.

Remedial Actions	Repair any damaged gully gratings or silt trap covers.	As required.
	Replace / fix any loose channel drain covers.	As required.
Monitoring	Carry out full CCTV survey to confirm ongoing integrity of all drains. Inspect all gullies and silt traps & drainage channels during the survey.	10-yearly intervals.

- 4.6 Where appropriate refer also to specialist drainage manufacturer's information and maintenance requirements.
- 4.1 In all instances, inspection and cleaning should be carried out only by a specialist contractor and in accordance with the guidelines given in 'Safe Working in Sewers and at Sewage Works' published by National Joint Health and Safety Committee for the Water Services.

5 Attenuation Cellular Storage Tanks

- 5.1 Make: Polypipe 'Polystorm' or similar approved system
- 5.2 Inspection Frequency: Annually
- 5.3 Product Function: Rainwater storage.
- 5.4 Maintenance Requirements: Carry out periodic removal of particulate material from connecting drainage and outlets in accordance with Polypipe Technical Data to ensure the crates do not become blocked and ineffective.

6 Control Chambers & Flow Controls

- 6.1 Inspection Frequency: Monthly during the first 2 years of occupation, annually thereafter.
- 6.2 Function: Allow silt to settle out of runoff prior to discharge to outfall drainage system.
- 6.3 Maintenance Requirements: The sumps within the catchpits should be emptied of silt on each inspection. Check hydrobrake orifices are clear and retention tank door is closed. Check function of retention tank door and oil if necessary.

7 Recommendation for Water Quality

- 7.1 As 3.6 above, the system forms part of a wider development and will be managed as part of the wider site. The development includes trapped road and yard gullies & channel drains and control chambers used throughout the system prior to drainage to the ponds and offsite include sumps to facilitate the removal of silts and contaminants.

8 Contamination or Dilution of Spillage

- 8.1 In the event of a spillage it is the responsibility of the resident to clear up any spillage before it enters the drainage system. The primary method of dealing with any spillage of hydrocarbons should be using sand to soak up the leak and prevent any hydrocarbons entering the drainage system. Once sand has been contaminated it should not be washed into the drainage system but disposed of by a Licensed Contractor.
- 8.2 Environment Agency – Emergency Contact Number:

In the event of a spillage the Environment Agency should be contacted to notify the event and seek advice. The Environment Agency Incident Hotline is 0800 80 70 60 (Freephone 24hrs).

- End of Report -

Appendix A

Site Drainage Plan



GENERAL NOTES

- The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non-intrusive observations, record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. Any discrepancies shall be notified to gta prior to works commencing.
- Tender or billing drawings shall not be used for construction or the ordering of materials.
- Do not scale. All dimensions and levels to be site confirmed.
- This drawing shall be read in conjunction with all relevant architects, consultants drawings and specifications, together with HBS plan requirements.
- Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gta.
- All drawings specifications and recommendations made by gta are subject to Local Authority and other relevant Statutory Authorities approval. Any works or services made above due to the client proceeding prior to these approvals is considered wholly at the Clients risk. gta hold no responsibility for resulting abortive works or costs.

GENERAL NOTES

- BEFORE CONNECTIONS ARE MADE TO EXISTING DRAINAGE, ITS LEVEL IS TO BE CHECKED AND CONFIRMED AGAINST LEVELS SHOWN ON THIS DRAWING AND THIS OFFICE INFORMED OF ANY SIGNIFICANT DIFFERENCE.
- ALL SEWERS WITH LESS THAN 1.2m OF COVER WHEN LAID BENEATH THE ROADS, OR 0.9m OF COVER IN OTHER AREAS, SHALL BE PROTECTED WITH CONCRETE IN ACCORDANCE WITH EITHER OF THE DETAILS SHOWN ON THE STANDARD DRAWING PROVIDED.
- THE MINIMUM SIZE OF PIPE CONNECTING GULLIES TO THE DRAINAGE SYSTEM SHALL BE 150mm DIA. LAID AT A MINIMUM GRADIENT OF 1 IN 80.
- IN ORDER TO MAINTAIN THE SATISFACTORY FUNCTIONING OF THE DRAINAGE SYSTEM, ALL ROAD GULLIES ARE TO BE "TRAPPED".
- ALL NON ADOPTABLE LATERALS BENEATH THE HIGHWAY SHALL BE BACKFILLED WITH LEAN MIX CONCRETE UNLESS OTHERWISE AGREED WITH THE HIGHWAYS ENGINEER.
- THE DESIGN IS SUCH THAT WATER FROM PRIVATE AREAS DOES NOT SHED TO ADOPTABLE AREAS AND VICA VERSA.
- ALL PRIVATE SEWERS ARE TO BE 100mm DIA. UNLESS OTHERWISE STATED. THE PRIVATE DRAINAGE DESIGN ON THE PLAN HAS BEEN BASED ON THE PRINCIPLES OF A UPVC SYSTEM. IT CAN BE ADAPTED TO SUIT A STONWARE SYSTEM BUT REFERENCE SHOULD BE MADE TO THIS OFFICE BEFORE AMENDMENTS ARE MADE.
- ALL PRIVATE DRAINAGE TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS APPROVED DOCUMENT "H" BRITISH STANDARD 8301, AND TO THE SATISFACTION OF THE BUILDING CONTROL SECTION.
- MANHOLES SITUATED WITHIN AREAS ACCESSIBLE TO MOTOR VEHICLES ARE TO BE FITTED WITH SUITABLE STRENGTH COVERS AND FRAMES.
- WHERE DRAINS PASS THROUGH FOUNDATIONS, A FLEXIBLE JOINT SHOULD BE PROVIDED WITHIN 150mm OF THE FACE OF THE STRUCTURE. WHERE TYPE 2 MANHOLES ARE EMPLOYED OR CONCRETE SURROUND IS ADDED TO OTHER MANHOLES, A ROCKER PIPE OF MAX 600mm IN LENGTH SHALL BE PROVIDED EITHER SIDE OF THE MANHOLE, LAID AT A SLIGHTLY STEEPER GRADIENT TO ALLOW FOR SETTLEMENT.
- STUB STACKS FITTED WITH AIR ADMITTANCE VALVES MAY BE USED INSTEAD OF SOIL AND VENT PIPES, SUBJECT TO THE ARCHITECTS APPROVAL (EXCEPT WHERE THE DRAINAGE CONNECTION EXCEEDS 10m BEFORE CONNECTING WITH ANOTHER VENTILATED DRAIN OR INSPECTION CHAMBER OR MANHOLE). HEAD OF DRAIN VENT PIPES MUST NOT BE FITTED WITH AIR ADMITTANCE VALVES.
- SHALLOW PRIVATE DRAINS MAY REQUIRE PROTECTION USING CONCRETE SURROUND OR PAVING SLABS BRIDGING THE TRENCH SUBJECT TO THE BUILDING INSPECTOR'S REQUIREMENTS.
- APPROPRIATE MEASURES (TO BE AGREED WITH THE BUILDING CONTROL SECTION, ARE TO BE TAKEN TO DISCOURAGE RODENT ENTRY INTO THE PROPERTIES.
- WHERE DRAIN RUNS PASS CLOSE TO BUILDINGS OR THEIR INVERT LEVELS ARE BELOW FOUNDATION LEVEL, THEN THE TRENCHES ARE TO BE BACKFILLED IN ACCORDANCE WITH THE STANDARD DETAIL PROVIDED.
- REFERENCE SHOULD BE MADE TO THE STRUCTURAL ENGINEERS DETAILS FOR ALL ASPECTS OF FOUNDATION DESIGN AND CONSTRUCTION.
- BEFORE DETERMINING THE AMOUNT OF FACE BRICKWORK TO EACH UNIT, CONSIDERATION MUST BE GIVEN TO THE PROPOSED FINISHED GROUND LEVELS IN THE VICINITY OF THE PROPERTY. THE LEVELS SHOWN ON THIS DRAWING HAVE BEEN DESIGNED UPON THE PARAMETERS SET DOWN IN THE APPROVED DOCUMENT "M" OF THE BUILDING REGULATIONS 2000 (2004 EDITION).
- THE CONTRACTOR IS TO KEEP A RECORD OF ANY VARIATIONS MADE ON SITE, INCLUDING THE RELOCATION OF SEWERS OR DRAINS, SO THAT AN AS CONSTRUCTED DRAWING CAN BE PREPARED UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS ON SITE.
- IT IS THE SUBCONTRACTORS RESPONSIBILITY TO ENSURE COMPLIANCE WITH CURRENT BUILDING REGULATIONS AND CODES OF PRACTICE.

KEY

- Existing Foul Drainage
- Existing Storm Drainage
- Private Storm Drainage
- Private Foul Drainage
- Adoptable Road Gully
- Private Foul Manhole
- Private Storm Manhole
- Foul Plastic Reduced Cover IC
- Storm Plastic Reduced Cover IC
- Foul Plastic Inspection Chamber - D202.6
- Storm Plastic Inspection Chamber - D202.6
- 300mm - Storm Water Access Chamber
- Storm Water Rodding Point
- Soil and Vent Pipe
- Bin Store Wash-Down Gully
- Rain Water Pipe
- Private Road Gully
- Dropped Kerb Crossing Point
- Direction of Fall
- Modular Storage Tank

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Status	PRELIMINARY			
Client	PERSIMMON Together, we make a home			
Project	LAND AT BURFIELD VALLEY HAILSHAM, EAST SUSSEX			
Title	DRAINAGE PLAN - 6 HOUSES, REEF WAY -			
Date	MARCH 2021	Scale @ A1	1:200	
Base Layout Ref.	CAD File ref.			
Clients Ref.	Project Ref. 7290			
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