New Horizons Academy Trust
Healthy Heart Hall
Manual for Maintenance and Management of Soakaway

Contents:

1. Introduction
2. Product Information
3. Maintenance Schedule
4. School Statement on Maintenance and Replacement if Necessary

1. Introduction

Condition 10 of approval to application AWDM/0930/22 states:

> *The building shall not be brought into use until full details of the maintenance and management of the verified surface water drainage system is set out in a site-specific maintenance manual and submitted to, and approved in writing, by the Local Planning Authority. The manual is to include details of financial management and arrangements for the replacement of major components at the end of the manufacturer's recommended design life. Upon completed construction and verification of the surface water drainage system, the owner or management company shall strictly adhere to and implement the recommendations contained within the manual.*

Practical Completion of the project occurred on 2nd June 2023. A separate document prepared by the consulting engineer will be issued to verify that the soakaway was constructed in accordance with the design as submitted as part discharge of condition 9. As built drawing is included as Appendix 1.

This document provides information of materials used in the construction of the soakaway (section 2) and outlines the requirements for regular maintenance previously identified in the engineer's design report and a statement of commitment by New Horizons Academy Trust to carry out maintenance inspection and financially plan for eventual replacement.

2. Product Information

There are two principal products used in the construction of the soakaway.

- Plastic crates (Polypipe Polystorm-R Modular Cell)
- Terram T1500 membrane

Documentation issued by the respective manufacturers is included in Appendix 2. From those documents the plastic crates have a life expectancy of 60 years and the Terram 1500 has a life expectancy of 100 years.

Conditional on unsatisfactory condition upon inspection, the school should therefore allow for replacement of the soakaway in 60 years (2083).

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3. Maintenance Schedule

Drainage Maintenance was included in the final section of the report submitted under Condition 9. This is included in Appendix 3.

Evidence of failure of the soakaway would become evident by the backing up of the surface water drainage system with surface water collecting at gullies and rainwater pipe to drainage joints leaking. It is anticipated that regular visual monitoring of these will be ongoing.

Specifically, the report includes the following in relation to the soakaway:

Cellular Soakaway

As set out in the CIRIA SuDs Manual there are additional maintenance procedures and measures which can be implemented for certain items. The list below is not an exhaustive list and any manufacturer specific maintenance requirements should be added to the list below to the list below. In the case of this site it would be related to the Cellular Soakaway. Please see below an extract from the SuD's Manual listing these additional measures:

TABLE 13.1 Operation and maintenance requirements for soakaways

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	Annually
	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	As required, based on inspections
Remedial actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will require reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring	Annually

(NB The soakaway is located under the school playing field and is therefore not at risk of damage from roots. However, the school should ensure that should planting ever be carried out, this is not done in the location of the soakaway. Should any tree planting be carried out, this section of the maintenance must be carried out.)

The school should carry out CCTV inspections and excavate locally to inspect the condition of the Terram on a 10 year cycle (June 2033 until June 2073).

In 2083, detailed inspection and assessment of the soakaway should be carried out by a specialist drainage engineer to assess whether the soakaway expected life can be extended. (To prolong life and avoid waste).

4. School Statement

This document has been prepared in consultation with the school. They acknowledge the requirements of this document and have included its recommendations in their maintenance plan. The cost of construction of the soakaway was £13,434 (at Q3 of 2022). The school will budget for an average increase in build cost of 4.24% per annum based on the average of 4 sources of building price indices. On year 60 this would amount to approximately £132,000.

Appendix 4 is a written statement from New Horizons Academy Trust recognising this maintenance manual and confirms that it will carry out maintenance with appropriate annual budgetary allowance. It also commits to the cost of replacement of the soakaway at such time as it is failing to perform in accordance with the design.

APPENDIX 1

As-built Drawing

COLOURED DRAWING
REQUEST A COLOURED COPY IF THIS STAMP IS NOT RED

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:

1. Unknown services/depths within work zone. Contractor to undertake necessary precautions and investigation prior to excavating.
2. Existing Overhead Power and Telecoms Cables. Contractor is to prepare a method statement to ensure operatives are familiar and competent with the dangers of working near overhead cable.
3. The works will involve the movement of plant and machinery within a school playground. There is a risk of potential conflict between plant/machinery and the school personnel / children. Contractor to undertake necessary precautions and ensure suitable traffic management is in place prior to commencement.
4. Working in live sewers. Contractor to ensure operatives are familiar and competent with the dangers of working in live sewers.
5. Excavations within existing tree root zones. Contractor is to seek advice from an Arboriculturalist and work to the methodology and requirements set out in the Arboriculturalist's report.
6. Deep excavations associated with the drainage installation of soakaways & manholes. Contractor is to ensure suitable temporary works are in place to ensure the safety of operatives and the public (where necessary). Contractor to ensure operatives are familiar and competent with the dangers of working in deep excavations.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

DRAWING LEGEND

SURFACE WATER DRAINAGE		FOUL WATER DRAINAGE	
	EXISTING SURFACE WATER DRAINAGE		EXISTING FOUL WATER SEWER
	PROPOSED SURFACE WATER DRAINAGE		PROPOSED FOUL WATER DRAINAGE
SW# CL ##.## IL ##.## (450/600Ø/CP)	TYPE 3 INSPECTION CHAMBER (Max 3m depth to invert, CP denotes Catchpit) Chambers deeper than 1.2m to be non-entry.		PROPOSED FOUL WATER PUMPED MAIN (Size to be confirmed by Manufacturer)
RE IL ##.##	RODDING EYE	Pump Station CL ##.## IL ##.## (####Ø)	PUMPING CHAMBER (See specialist details for size and other information)
	CELLULAR SOAKAWAY (Vented)	MISC	
Vent	CELLULAR STORAGE TANK VENT (To be positioned in non-trafficed location)	FFL ##.###	PROPOSED BUILDING FINISHED FLOOR LEVEL
Channel	CHANNEL DRAIN (100mm wide, Heelguard grating, trapped gully outlet) TD - Threshold Drain	##.##	PROPOSED SPOT LEVEL
		##.##	EXISTING SPOT LEVEL
		1:80	GRADIENT OF FALL

AS BUILT

Ex.FWMH
CL 5.37
IL 4.94
(Measured onsite)

From the site visit this manhole was measured at only 0.4m deep.

FW
Packaged Pump Station
TT Pumps 'Venus' Dual Pump (or similar)
Encased in a minimum of 300mm thick concrete.
CL 5.300
Incoming IL 4.950
Base Level 3.000 (Based on 2.3m Dp unit)
Volume of storage below incoming IL would equate to 1.53m³ (1530 litres).
Therefore, at 10litres per toilet flush this would equate to 153 flushes for the 24hr storage period.
Estimated usage for this single toilet would only be in the region of 30-50 flushes per day. Therefore way below the avaliable storage.
(1000Ø)

PUMPED MAIN

Final position of Pumped Main to be adjusted onsite by Contractor as to co-ordinate with existing drainage / services.

Level difference of approx. 800mm between proposed / existing levels.
If existing seating area is removed, area is to be graded (1 in 3 max).
If existing seating area is to remain a retaining wall would be required.
Client / Architect to confirm final arrangement.

RWP indiacted as 150mm diameter on Architectural Layout.
Below ground pipework to be to a minimum of 150mm to connect RWP's.

NOTE:
SERVICE ROUTES INDICATIVELY SHOWN.
FOR FINAL LAYOUT AND DESIGN INFORMATION PLEASE REFER TO DELTA GREENS DRAWINGS AND INFORMATION

Tie in with existing levels

Existing Wall shortened to allow for proposed layout.

Level difference between existing Concrete Hardstanding / Proposed path levels to be reviewed onsite. If nesscary a HB2 kerb to be installed along hardstanding edge.

Existing Concrete Hardstanding to remain

FW
CL 6.300
IL 5.200
(450Ø)

100Ø 8.58m 1:24

1:40 (Min.)

RB
IL 5.350

FFL 6.300

RE
CL 5.700
IL 5.200

SW
CL 6.250
IL 5.100
(450Ø/CP)

2.001 - 150Ø 9.96m 1:80

1.000 - 150Ø 9.37m 1:94

TD

RE
IL 5.700

1.000 - 150Ø 12.08m 1:81
ACO Hexdrain
(B125)

SW
CL 6.350
IL 5.500
(450Ø/CP)

1.001 - 150Ø 10.61m 1:35

IL 5.000

IL 5.200

Soakaway to be postioned a minimum of 10m away from existing / proposed buildings. Proposed Soakaway to be positioned a minimum of 10m away from existing soakaway

CELLULAR SOAKAWAY
Wavin Aquacell 'CORE-R' or similar
3.0m (w) x 16.5m (l) x 1.2m (dp)
Base Level - 4.40
(Min. cover 0.6m)
(Vehicle Loading - Pedestrian / Grass Cutting Only)

EXISTING SOAKAWAY FOR PREVIOUS SCHOOL EXTENSION.
Soakaway Size - 5m (w)x 20m(l) x 2m(dp)
Top Level - 4.50
Base Level - 2.50

NOTE:
SERVICE ROUTES INDICATIVELY SHOWN.
FOR FINAL LAYOUT AND DESIGN INFORMATION PLEASE REFER TO DELTA GREENS DRAWINGS AND INFORMATION

1:125 @ A1
1:250 @ A3
0 2 4 6 8 10 12 m

Notes: A1

1. This drawing is to be read in conjunction with all other WGC drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
2. WGC accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. Do not scale, work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. WGC logos and company information must be removed from copies if information is re-used.
7. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.
8. The main contractor is responsible for dealing with all occurrences of ground water during the construction period.
9. The contractor must comply with all current legislation relating to health & safety.
10. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any WGC drawings, the manufacturers instructions must be used.
11. All Earthworks in accordance with the Specification for Highway Works.

DRAINAGE NOTES:

1. All drainage works to be constructed in strict accordance with specification of the Local Authority, Building Regulations, Sewers for Adoption, BS8301 & BSEN.752-1.
2. For location and setting out of building drainage points refer to architects drawings.
3. All pipe runs near buildings to comply with the Building Regulations 2002 part h1. Where a pipe is within 1m of a foundation the trench shall be filled with class gen3 concrete up to the lowest level of the foundation. Where the trench is further than 1m from the foundation, the trench shall be filled with class gen3 concrete to a level below the lowest level for the foundation equal to the distance from the foundation less 150mm. In both cases the pipe shall be bedded and surrounded in 150mm thick class GEN3 concrete.
4. Where pipes, external to the structures, have a depth to soffit from ground level of less than 450mm they shall have a class GEN3 concrete encasement (150mm thick).
5. Where a pipe, under a carriageway, has a depth of cover of less than 1.2m the pipe shall be laid in a concrete bed and surround.
6. In any circumstances where pipes are bedded and surrounded in concrete flexible joints should be provided. compressible boards (fibreboard or polystyrene) shall be provided at a maximum of 8m centres (coinciding with pipe joints). the boards shall be pre-cut to pipe diameter and to a height and width equal to the concrete cross section. a board thickness of 18mm for pipes up to 450mm nominal diameter and 36mm for pipes over 450mm nominal diameter.
7. All private building drainage shall be constructed in strict accordance with BS EN.752-1. unless otherwise specified building drainage shall be 100mm diameter and shall be laid at a minimum gradient of (<1l/s = 1 in 40/>1l/s = 1 in 80) for foul drains and 1 in 80 for surface water drains. all building drains shall be laid in conjunction with 'non adoptive bedding details' (class d, n or b) unless otherwise specified.
8. All pipes, bends and junction for private building drainage shall be UPVC conforming to BS4660 and BS5481 as appropriate and shall be laid in accordance with the manufacturer's specification. All pipes, bends and junction materials for adoptable drainage shall be vitrified clay, extra strength or super strength to BSEN295, with flexible joints and kitemark certified
9. All back inlet gullies to be roddable or connected to inspection chambers.
10. All gully connections other than at manholes to be 'y' junctions.
11. All road gully connections to be 150mm diameter.
12. All stub stacks to be fitted with air admittance valves where branch drain exceeds 12m except at the head of the run. Soil vent pipes located at the head of a run to terminate to fresh air.
13. All connections to be soffit to soffit unless otherwise noted.
14. All concrete and concrete products to be in accordance with BRE 363 for sulphates.
15. The locations of all svps and rwps shall be cross referenced against the architects drawings during setting out.
16. Before connections are made to existing public sewers an application under 106 must be made to relevant sewerage undertaker.
17. The precise depth and location and size of existing pipes or manholes where connections or diversion are proposed must be confirmed and reported to the engineer at the earliest opportunity.
18. Where inspection covers are located in areas of block paving or paving slabs they shall be fitted with recessed covers and infilled with the adjacent material.
19. Existing drains - any existing drains to be abandoned to be decommissioned in view of building regulations by either building out, infilled or sealed.

Rev	Date	Revisons	Drwn	Chk

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Client:
Seaside Primary School

Project:
New Sports Hall
Seaside Primary School, Lancing

Drawing Title:
Drainage and Levels Layout

Scale:	Date:	Drawn:	Checked:
1:125	MAY 22	LG	GW

Drawing No: WG1275/201 Rev: AB

APPENDIX 2

Product Information

Polystorm-R Modular Cell

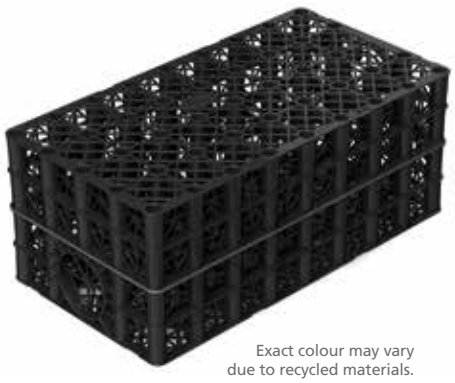
Data Sheet

PRODUCT INFORMATION **P1** **ISSUE 4 - SEPT 2017**

Product code: PSM1A

The Polystorm-R modular cell is ideally suited for loaded applications at greater depths, such as housing, commercial and infrastructure projects and has a compressive strength of up to 61 tonnes/m². It offers all the proven performance of the Polystorm cell, with the added benefits of being manufactured from over 90% recycled material content.

Wherever performance criteria and standards allow, we will always maximise the sustainability of our products by using post consumer plastics in their manufacture. By sourcing and carefully controlling the quality of the recycled material we use our precision injection moulding. Therefore we are able to guarantee consistent quality in our recycled plastic, giving you the confidence and the performance levels you expect from the market leader.



Exact colour may vary due to recycled materials.

Key Benefits

- Made from specially selected and controlled recycled materials
- Environmentally friendly, sustainable solution
- Has undergone stringent testing to ensure product performance
- Compressive strength of 61 tonnes/m²
- Ideal for retention, attenuation and infiltration applications with a suitable geomembrane or geotextile
- BBA approved
- Allow flexibility of shape - ideal for shallow excavation systems, narrow strips or use in restricted areas
- Can be used as part of a value engineered hybrid system with Polystorm, Polystorm Lite and Polystorm Xtra
- Integrated inlet and outlet
- 3D flow throughout the structure
- 95% void ratio
- Light weight yet robust - excellent Health and Safety and installation benefits
- 60 years creep limited life expectancy

Technical Support

Detailed guidance and assistance is available.
For further information, please contact our Technical Team on **+44 (0) 1509 615100** or email **civils@polypipe.com**

BBA BRITISH BOARD OF AGREMENT
CERTIFICATE No. 06/4297

ELEMENT	VALUE
PHYSICAL PROPERTIES	
Length	1m
Width	0.5m
Depth	0.4m
Total volume	0.2m³
Unit weight	9kg (approx)
Unit storage volume	0.19m³ (190 litres)
Void ratio	95%
SHORT TERM COMPRESSIVE STRENGTH	
Vertical	610 kN/m² **
Lateral	63 kN/m² **
SHORT TERM DEFLECTION	
Short-term vertical deflection	60 kN/m² per mm
LONG TERM DEFLECTION	
Estimated long term vertical deflection (creep)	0.2798 Ln (design life in hrs) +0.485 [Based on an applied test load = 162 kN/m²] Creep data limit 60 years
Estimated long term lateral deflection (creep)	1.0192 Ln (design life in hrs) -3.864 [Based on an applied test load = 30.8 kN/m²] Creep data limit 60 years

Note: Polystorm-R is ideal for use in trafficked and pedestrian applications subject to a structural design check and suitable installation conditions

* Each unit includes 4 Clips and 2 Shear Connectors.

** Compressive strength at yield, maximum recommended value for design purposes.

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Polypipe

Polystorm-R Modular Cell

Data Sheet

RECOMMENDED MAXIMUM DEPTH OF INSTALLATION (to cell invert) [m]

TYPICAL SOIL TYPE	TYPICAL ANGLE OF SHEAR RESISTANCE	SOIL WEIGHT kN/m³	WITHOUT GROUNDWATER (below base of cells) NORMAL CASE		WITH GROUNDWATER AT 1M BELOW GROUND LEVEL AND UNITS WRAPPED IN GEOMEMBRANE	
			Pedestrian	Trafficked (cars) <3000kg GVW	Pedestrian	Trafficked (cars) <3000kg GVW
Stiff over consolidated clay e.g. London clay	24	20.0	2.2	1.9	1.8	1.6
Normally consolidated silty sandy clay e.g. alluvium, made ground	26	19.0	2.4	2.2	1.9	1.7
Loose sand and gravel	30	18.0	3.0	2.7	2.0	1.9
Medium dense sand and gravel	33	19.0	3.2	2.9	2.0	1.9
Dense sand and gravel	38	20.0	3.7	3.5	2.1	2.0

Note:
1) Stated depths based on the calculation methodology detailed within CIRIA C680 (2008)
2) Assuming water density = 10.0kN/m³
3) Assumed ultimate limit state (ULS) partial factor of safety applied to: Material = 2.75 Lateral pressure = 1.35

Durability

The polymer material used in the manufacture of the Polystorm-R unit has an adequate resistance to attack from the type and quantities of chemicals that may be expected to naturally occur in uncontaminated soils and rainwater runoff. When installed in accordance with our recommendations, it is expected that the Polystorm-R unit will have a design life in excess of 60 years*. The installer of a proposed geocellular structure should ensure that an appropriate design check has been undertaken, in accordance with the recommended methodology and factors of safety given in CIRIA C680 (2008), Structural Design of Modular Geocellular Drainage Tanks, prior to the commencement of construction activities.

* Derived from long term extrapolated creep testing

Notes

1. Unless stated, all values are nominal and may vary within normal production tolerances.
2. The characteristic unit parameters stated have been based on Polypipe BBA certificate N° 06/4297, sheet 3.
3. Polypipe reserve the right to change product specifications without prior notice.
4. This document is uncontrolled and updates will not be issued automatically.

RECOMMENDED MINIMUM COVER LEVELS [m]

LIVE LOAD CONDITIONS	PEDESTRIAN	LIGHT TRAFFICKED	
		Car park with vehicle mass <GVW	
Minimum cover depth required (m)	0.50	<3000kg 0.50	<9000kg 0.65

Note
1) Stated depths based on the calculation methodology detailed within CIRIA C680 (2008)
2) Assumed serviceability limit state (SLS) partial factor of safety applied to: Material = 1.5 Live load = 1.0 Dead load = 1.0
3) Shallower minimum burial depths may be applicable subject to an assessment of the specific site conditions. For further details please consult our Technical Team on 01509 615100.

All descriptions and illustrations in this publication are intended for guidance only and shall not constitute a 'sale by description'. All dimensions given are nominal and Polypipe may modify and change the information, products and specifications from time to time for a variety of reasons, without prior notice. The information in this publication is provided 'as is' on September 2017. Updates will not be issued automatically. This information is not intended to have any legal effect, whether by way of advice, representation or warranty (express or implied). We accept no liability whatsoever (to the extent permitted by law) if you place any reliance on this publication you must do so at your own risk. All rights reserved. Copyright in this publication belongs to Polypipe and all such copyright may not be used, sold, copied or reproduced in whole or part in any manner in any media to any person without prior consent. Polypipe is a registered trademark of Polypipe. All Polypipe products are protected by Design Right under CDPA 1988. Copyright © 2016 Polypipe. All rights reserved.

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Polypipe

TERRAM
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CE

Berry

0338
DECLARATION OF PERFORMANCE

No: 0338-CPR-0074-2018

T1500

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Harmonised technical specification	Intended uses
EN 13249: 2016 Geotextiles for roads and other trafficked areas	f/f+S
EN 13250: 2016 Geotextiles for railways	f/f+S
EN 13251: 2016 Geotextiles for earthworks, foundations and retaining structures	f/f+S
EN 13252: 2016 Geotextiles for drainage systems	f/f+S
EN 13253: 2016 Geotextiles for erosion control works	f/f+S
EN 13254: 2016 Geotextiles for reservoirs and dams	f/f+S
EN 13255: 2016 Geotextiles for canals	f/f+S
EN 13257: 2016 Geotextiles for solid waste disposal	f/f+S
EN 13265: 2016 Geotextiles for liquid waste containment	f

Essential characteristics		Performance
Tensile Strength	EN ISO 10319	MD 12.5kN/m (-1.25kNm) CMD 12.5kN/m (-1.25kN/m)
Tensile Elongation	EN ISO 10319	MD 60% (± 20%) CMD 60% (± 20%)
Dynamic Perforation	EN ISO 13433	32mm (+6mm)
Resistance to static puncture	EN ISO 12236	2.25kN (-0.225kN)
Opening size	EN ISO 12956	65µm (± 20µm)
Water Permeability	EN ISO 11058	65.10^{-3}m/s (-20.10^{-3}m/s)
Dangerous Substances		Less than required by national regulations within EU member states

Durability

To be covered within 1 month after installation
Predicted to be durable for 100 years in natural soils with 4 ≤ pH ≤ 9 and soil temperatures ≤25ºC on the basis of the results of test method EN ISO 13438 Procedure A for 112 days

System: 2+
In case of the declaration of performance concerning a construction product covered by a harmonised standard: Notified factory production control certification body No. 0338 BTTG performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control and issued the certificate of the factory production control.

Authorised Representative:

Mia Browning—Quality and Compliance Manager

APPENDIX 3

Maintenance Schedule Section of Engineer's Submission under Condition 9

DRAINAGE MAINTENANCE SCHEDULE			
Job Title	**Seaside Primary School SPORTS HALL**	**Job No**	**WG1275**
		Date	June 2022
Prepared	LG	***Checked***	GW

Introduction

This statement details the drainage maintenance requirements for the proposed surface and foul water systems at the development above. A copy of this statement should be provided to the party responsible for maintaining the drainage system and should also be included within the Maintenance Manuals for the development.

The maintenance detailed in this document must be undertaken throughout the lifetime of the development. Failure to undertake this maintenance may result in the drainage system not operating as designed, increasing the risk of flooding.

Drawings detailing the design of the drainage system are referenced WG1275/201 (attached within Appendices of this document).

Brief Description of the Surface Water Drainage System

The below ground surface water drainage system for the new sports hall comprises a traditional piped system, draining by gravity to a cellular soakaway located in the schools playing fields to the East of the new building.

The system operates entirely by gravity and this system does not rely on moving parts to remain operational.

The surface water drainage for the building will not be offered for adoption to the statutory sewerage undertaker.

Brief Description of the Foul Water Drainage System

The below ground foul water drainage system comprises of a traditional piped system, draining by gravity to a packaged pumping station to the North of the new sports hall.

The packaged pumping station is private and the responsibility of the school.

The foul water drainage for the development will not be offered for adoption to the statutory undertaker.

Responsibility for Maintenance

Seaside Primary School –

All drainage associated with the new sports hall building is private and will remain the responsibility of Seaside Primary School.

If drainage either foul or surface water for the new building experiences issues, the school's maintenance team should be contacted to carry out the necessary maintenance or repairs, in the first instance.

Maintenance Requirements

Whilst the drainage system has been designed to operate with as little maintenance as possible, there are key operations that must regularly be undertaken to ensure that it remains in optimal condition, most of which are general housekeeping tasks that should be undertaken for any drainage system, but with additional attention to the catchpits upstream of the soakaway. These operations are summarised below together with recommended frequencies:

- Periodic desilting of catchpits, gully sumps and channel drains. These should be emptied at least as follows (but with an annual inspection and additional cleansing if required): On completion of drainage works, Year 1, Year 3, then every 5 years.
- Periodic jetting or rodding of pipework as required to clear blockages.
- Gratings on any gullies and channel drains to be kept clear of debris.
- Any manufacturer specific requirements for maintenance should be added to the periodic maintenance.

Cellular Soakaway

As set out in the CIRIA SuDs Manual there are additional maintenance procedures and measures which can be implemented for certain items. The list below is not an exhaustive list and any manufacturer specific maintenance requirements should be added to the list below to the list below. In the case of this site it would be related to the Cellular Soakaway. Please see below an extract from the SuD's Manual listing these additional measures:

TABLE 13.1 Operation and maintenance requirements for soakaways

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	Annually
	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	As required, based on inspections
Remedial actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will require rcconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring	Annually

Foul Water Pump Station

The foul pump station will require additional maintenance measures to ensure it operates as designed. Failure it carrying out this maintenance, could increase the risk of flooding. The list below is not an exhaustive list and any manufacturer specific maintenance requirements should be added to the list below to the list below. The additional measures are as follow:

- The pump station should be service as a minimum annually with all electrical equipment inspected and tested, in accordance with manufacturers recommendations.
- The manufacturers recommendations for additional maintenance measures should also be added to any periodic maintenance.
- The sludge retained should be monitored at least every 3 months and desludged as necessary, with the maximum time between desludging of 12 months, or more frequently if manufacturers recommendations require.
- The desludging should be carried out by a licenced operator, who can dispose of the waste in a correct manner.

Remedial/Repair Actions

Significant storm events may cause significant damage to the drainage system. As such it may be necessary to inspect and carry out essential recovery works to return the feature to full working order.

Accidental Spillages

It is not envisaged that any materials are to be stored onsite once the development is completed, which could cause major spills and potential pollution issues within the drainage system. If this situation alters in the future a specialist will be required to be contacted to confirm if any upgrades to the existing system are required.

Future Alterations to the Development

Any future alterations to the drainage system should be confirmed by a specialist, as it could adversely affect the operation of the system.

APPENDIX 4

New Horizons Academy Trust Statement

New Horizons
Academy Trust

Board of Trustees
New Horizons Academy Trust
Freshbrook Road
Lancing
BN15 8DL

19th June 2023

Healthy Hearts Hall

RE: Maintenance Manual & Management of Soakaway

Please accept this as confirmation that New Horizons Academy Trust recognises this maintenance manual and will carry out the maintenance, together with a financial management plan for said maintenance, and the eventual soakaway replacement. This will be carried out as follows:

- Annual visual inspections and maintenance of rainwater goods, surface drains and manholes will be inspected and maintained by the school caretaker. Any remedial works will be absorbed in annual school budgets.
- Specialist inspections (CCTV and assessment by a drainage consultant/civil engineer) will be absorbed in annual maintenance budget of the relevant years as appropriate, and
- Eventual replacement cost will be dealt with at the predicted replacement time, or (for instance) funds will be allocated in the preceding 5 years.

Libby Christie
Trust Secretary