ODYSSEY

DEVELOPING JOURNEYS

NEW BARN SCHOOL, HORSHAM

PHASE 1 DRAINAGE VERIFICATION REPORT

NEW BARN SCHOOL, HORSHAM

PHASE 1 DRAINAGE VERIFICATION REPORT
SITE INSPECTION REPORT

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DOCUMENT CONTROL SHEET

Project Name New Barn School, Horsham

Project No. 20-370

Rev	Issue Purpose	Author	Checked	Reviewed	Approved	Date
-	First Issue	HM	LP	NM	GG	01/11/24
A	Updated following Site Visit	HM	CR	GG	GG	09/05/25

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1.0 INTRODUCTORY NOTE

1.1 Preamble

1.1.1 Odyssey have been commissioned by Lytle Associates to undertake and prepare a drainage verification report to assist with the discharge of planning condition 11 pursuant to the planning application DC/21/2350 in relation to Phase 1 of the New Barn School development. The development comprises an expansion to the school, including teaching buildings, car parking and associated infrastructure. Condition 11 states:

"No part of the development hereby permitted shall be occupied until a verification report demonstrating that the SuDS drainage system has been constructed in accordance with the approved design drawings has been submitted to and approved by the Local Planning Authority. The development shall be maintained in accordance with the approved report".

1.1.2 Due to the progress of the project, it is not possible to provide one verification report for the whole site prior to the first occupation. As a result, this report forms one of several which will be completed and issued on a phased basis, in keeping with the ongoing construction programme.

1.1.3 The approved drainage drawing is provided in **Appendix A.**

1.2 Limitations

1.2.1 At the time of inspection, the majority of the site was under construction, including half of the attenuation tank beneath the sports pitch which is yet to be constructed and therefore was not inspected.

1.2.2 Inspected manholes and sustainable drainage systems (SuDS) features are highlighted and shown on the drainage drawing presented in **Appendix B.**

1.2.3 This inspection consisted of areas which were publicly accessible at the time of visiting. Any areas which could not be accessed or inspected are assumed to have been constructed in accordance with the relevant plans, given the status of the inspected areas.

2.0 INSPECTION DETAILS

2.1 Inspection 1

Inspection Date: 1st October 2024

Engineer: Luke Phillips BSc (Hons) IEng MICE

Assistant: Harrison Morgan EngTech MICE

Arrival Time: 10:30

Departure Time: 11:30

Weather: Overcast and/or raining

2.2 Inspection 2

Inspection Date: 15th April 2025

Engineer: Chris Redshaw MEng (Hons) MICE

Assistant: Harrison Morgan EngTech MICE

Arrival Time: 10:30

Departure Time: 11:30

Weather: Overcast and/or raining

3.0 WORKS INSPECTED

3.1 Adoptable Drainage

3.1.1 The connection to the foul water sewer appeared to have been built to the design specification. The connection to the surface water sewer appeared to have been built to the design specification.

3.2 Private Drainage

3.2.1 The inspected private surface and foul water networks appeared to have been installed in line with the design drawings. The workmanship appeared to be of an acceptable standard with nothing raised which would appear to impact on the performance of the installation when compared to the design details.

3.2.2 At the time of the site visit, the attenuation crate had been installed and backfilled, so was unavailable for inspection. Subsequent to the site visit, photos have been received showing the installation stages of the attenuation crate. The photos appear to show the crate installed as per the design specification.

3.2.3 The vortex flow control proposed within manhole FCC2 was not installed during inspection 1, however following inspection 2 it has been installed as per the design, photos of this are included in **Appendix C**.

3.3 Car Park Drainage

3.3.1 A linear drainage feature has been installed within the proposed car park location in accordance with the detailed design drawings. The car park would be fully developed as part of Phase 2. The linear drainage feature was found to have been installed to an acceptable standard.

3.3.2 The photographs from the site visit are presented in **Appendix C.**

4.0 MAINTENANCE RESPONSIBILITIES

4.1 Private Drainage

4.1.1 It is understood the maintenance of the on-site foul and surface water system would be the responsibility of the school as the network is within the grounds. All maintenance, management, and replacement would be undertaken in line with their maintenance and management regime.

5.0 SAFETY ISSUES

5.1.1 No safety issues were observed on site.

6.0 SITE INSTRUCTIONS

6.1.1 No site instructions were discussed or issued onsite during this site visit.

7.0 CERTIFICATES SEEN, RECEIVED, OR APPROVED ON SITE

7.1.1 No certificates were received or discussed onsite during this site visit.

8.0 AS BUILT VARIATIONS

8.1.1 It was advised that the attenuation crate had been rotated 90 degrees to fit within the constraints of the site. The installed dimensions of 28 x 7.2 metres (m) would provide the equivalent volume of the design proposals, and therefore it is suggested this would still function as per the approved design. The associated manholes have been relocated to suit, which is acceptable. Surface water manhole S2 had been relocated further to the north-east to suit the build sequencing, however this would still function as designed.

9.0 CONCLUSION

9.1.1 In conclusion, the drainage components inspected and detailed within the report are deemed to have been installed as per the approved engineering drawings, and to a suitable standard of workmanship. Completed buildings have a drainage network installed to serve them which should operate as designed, with some items still to be installed prior to occupation and completion.

Appendix A

Approved Drainage Strategy

A1 | 1:250

ATTENUATION TANK 1 - DESIGN BY OTHERS FOLLOWING ODYSSEY'S PRELIMINARY DRAINAGE STRATEGY - DRAWING NUMBER 20-370-004

FALL

FALL

ATTENUATION TANK 1

ATTENUATED SW DISCHARGE POINT DESIGN BY OTHERS

FCC1 - FLOW CONTROL CHAMBER VORTEX CONTROL DEVICE MAX FLOW RATE 2.2l/s

FCC1 MH.CL.TBC IL.49.260

225Ø @ 1:150

FCC2 - FLOW CONTROL CHAMBER VORTEX CONTROL DEVICE MAX FLOW RATE 2.6l/s

S10 S9 S8 S7 S6 S5 S4 S3 S2 S1

S5 MH.CL.50.300 IL.48.324

S4 MH.CL.50.600 IL.48.138

300Ø @ 1:200

450Ø @ 1:200

S3 MH.CL.50.600 IL.48.093

S5A MH.CL.50.300 IL.48.346

BACKDROP TBC levels and landscaping

S6A CATCH PIT

ATTENUATION TANK 2 WITH 95% VOIDS 800mm EFFECTIVE DEPTH 0.8m COVER DEPTH 200m² PLAN AREA

FCC2 MH.CL.50.000 IL.48.353

VENT

S11A CATCH PIT

S31 CATCH PIT MH.CL.49.990 IL.49.048

S11

S16

160Ø @ 1:100

F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F3

S15 S14 S13 S12

225Ø @ 1:150

New Secondary Teaching Block

Fencing to match existing

Gate

ACCESS ROAD

SILT TRAP

CONNECTION TO EXISTING CAR PARK DRAIN

EXISTING CAR PARK DRAINAGE TO BE RETAINED AND REDIRECTED TO NEW SILT TRAP / MH S5A

S32 CATCH PIT MH.CL.50.090 IL.49.570 (TBC)

New brick pavers

Existing finish retained

Existing Car Parking Spaces (11) Existing finish retained

Existing Car Parking Spaces (14) Existing brick pavers retained

Drop Off Zone / Visitor Parking Existing brick pavers retained

Existing Access road Tarmac

Ramp up

Drop Off Tarmac

Shared space paving

Site Entrance (relocated)

S2 MH.CL.50.150 IL.47.868

450Ø @ 1:200

450Ø @ 1:150

450Ø @ 1:65

S1 MH.CL.50.000 IL.47.696

EX.S1 MH.CL.49.609 IL.47.509

SWCP CL.49.609 dp.21.539 IL.47.539

EXISTING 450Ø SW SEWER

Exist Junior School

Exist Primary Teaching Block

Exist Music and Art Block

Exist Sports Hall

External Play Area

Small animals/ vegetable garden

Additional Outdoor Play Space Natural Grass 45 x 33m pitch suitable for U7 and U9 football pitch)

1:50 gradient across line of play

1:80 gradient in this area

FINAL DESIGN DETAIL TO BE PROVIDED BY SPECIALIST INSTALLER

TO DRAINAGE BASIN

EX.S2 F2 MH.CL.50.00 IL.48.430

EX.S3 IL.48.955 (FROM CCTV INFO)

S33 S34

S23 S24 S25 S22 S26 S27 S28 S29 S30 S31

CATCH PIT S22

CATCH PIT S26

S17 CATCH PIT

ATTENUATION TANK 3 WITH 95% VOIDS 400mm EFFECTIVE DEPTH 1.2m COVER DEPTH 90m² PLAN AREA

VORTEX CONTROL DEVICE MAX FLOW RATE 1l/s FCC3

F20 F19 F18 F17 F16 F15 F14 F21

S20 S19 S18 S21

MH.CL.49.900 IL.48.065

F1

MH MISSED FROM TOPO SURVEY EXACT LOCATION TBC

160Ø @ 1:55

EX F1 EX.MH.CL.49.400 (ASSUMED) EX.IL.47.890 (EXTRAPOLATED) FROM CCTV INFO)

PUBLIC FOOTPATH

MH MISSED FROM TOPO SURVEY EXACT LOCATION TBC

TO EXISTING SEWAGE TREATMENT PLANT

MH MISSED FROM TOPO SURVEY EXACT LOCATION TBC

TO EXISTING SEWAGE TREATMENT PLANT

NOTES:

All dimensions must be checked on site and not scaled from this drawing.

Existing drainage detailed on this drawing is taken from previous survey information provided by others. The Contractor is to verify the layouts and levels suggested to both foul and surface water drainage systems before commencing work - Any discrepancies to be reported to ADC for attention.

SW Gullies subject to final verification on site. All cover levels subject to final landscaping detail and all surface water branch connections where not specified to be 110mm diameter at 1 in 60 gradient.

All works to be carried out in accordance with "The Building Regulations 2010" Approved Document Part H 2015 Edition

Assumed footpaths drain to flower beds

All Surface Water Gulleys to be roddable

LEGEND:

- Proposed foul drainage run
- Proposed rain / surface water drainage run
- Existing rainwater drainage run (Assumed)
- Existing foul drainage run (Assumed)
- Existing foul drainage run (CCTV Confirmed)

Date	No.	Revision	Initial
04/05/23	A	CCTV INFO ADDED	CW
11/05/23	B	SITE PLAN UPDATED	CW
12/05/23	C	SW ALTERATIONS	CW
18/05/23	D	AMENDMENTS TO CLIENTS COMMENTS	CW
27/10/23	E	ATTENUATION ADDED	CW
08/12/23	F	ATTENUATION REVISED	CW
14/12/23	G	ATTENUATION REVISED	CW
30/01/24	H	ATTENUATION REVISED FLOOR PLANS AMENDED	CW

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Drawing Title
Proposed Foul & Surface Water Drainage Strategy

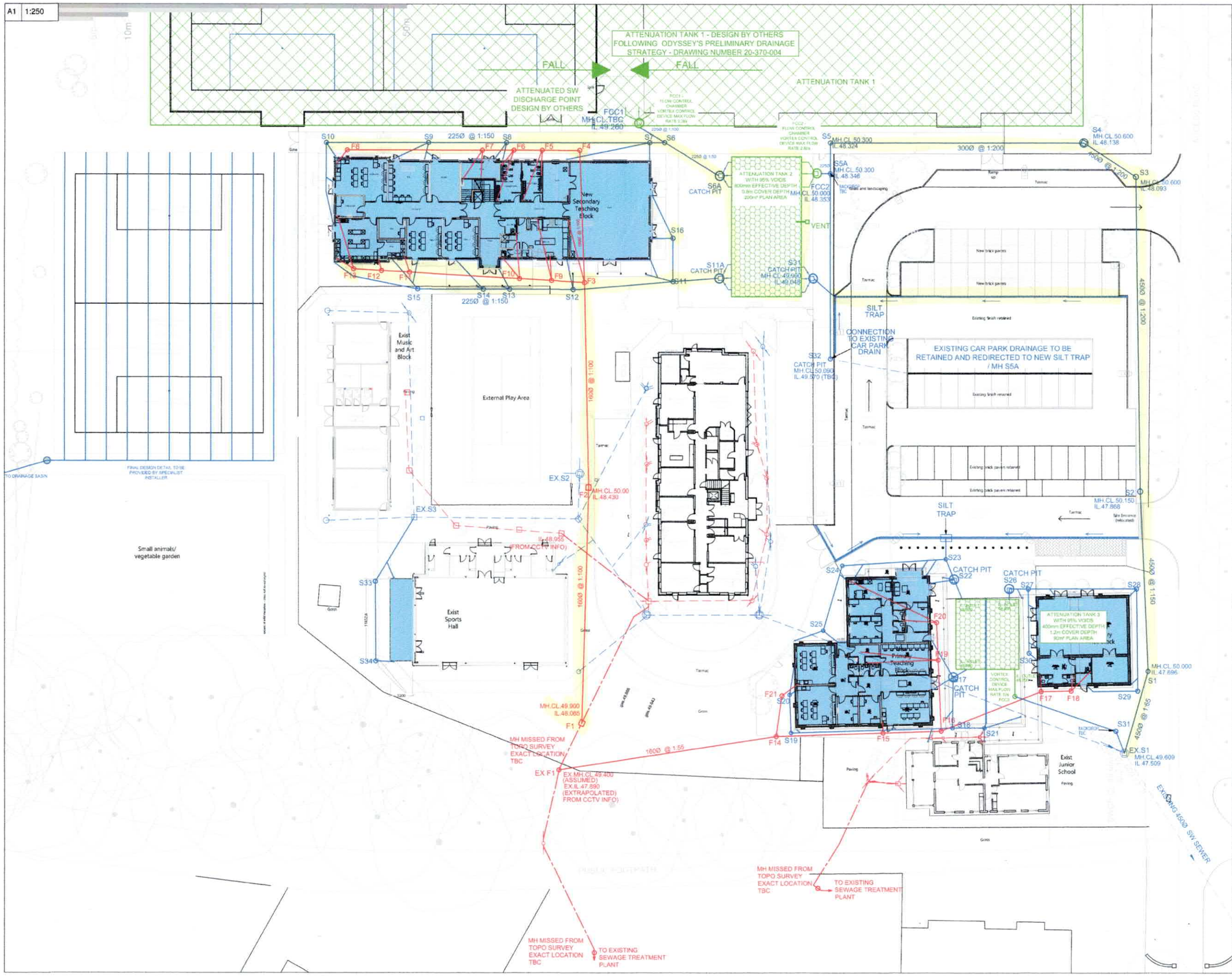
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Scale	1:250	Paper Size	A1
Date	March 2023	Drawn by	CW
Drg. No.	230101/03	Rev.	H

APPENDIX B

Drainage Works Inspected

A1 1:250



NOTES:

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08/12/23	F	ATTENUATION REVISED	CW
14/12/23	G	ATTENUATION REVISED	CW
30/01/24	H	ATTENUATION REVISED FLOOR PLANS AMENDED	CW

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Drawing Title
Proposed Foul & Surface Water Drainage Strategy

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Scale	1:250	Paper Size	A1
Date	March 2023	Drawn by	CW
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APPENDIX C

Site Visit Photographs















MAKE A REAL FUSS
OVER MUM






Pull
26

ptimum
Optimum