BAYNHAM MEIKLE

Consulting Civil and Structural Engineers

20th February 2024

13508 – Havant Phase 2: - Engineers Response to planning condition 25

Application Summary: -

Reference: APP/22/00172

Condition 25 requires the following:

Prior to the commencement of each phase of development, full details of all proposed drainage and its location relevant to that phase shall be submitted to and approved in writing by the Local Planning Authority (in consultation with National Highways). Each phase of development shall thereafter be undertaken in strict accordance with the approved details of each phase of development hereby permitted and retained in accordance with the agreed specification. No surface water shall be permitted to run off from the proposed development onto the Strategic Road Network or into any drainage system connected upstream of the Strategic Road Network. No drainage connections from any part of the development hereby permitted may be made to any Strategic Road Network Drainage system.

Phase 2 Considerations

There is an existing 450mm dia private storm sewer is located to the north of the proposed car parking area to unit 6 running west to east that carries surface water from the link road and another 150mm dia storm sewer located along the eastern boundary of the development running south that caters for the surface water from the existing access road situated east of the proposed development's boundary line.

The proposed drainage strategy will utilise the existing private on-site drainage to discharge surface water via a flow control for Phase 2. The exceedance plan produced shows surface water flowing towards low points on site where it will be picked up by channel drains and gullies and directed towards the proposed drainage network.

The proposed drainage strategy plan, ref 13508_121 can be found appended to this note.

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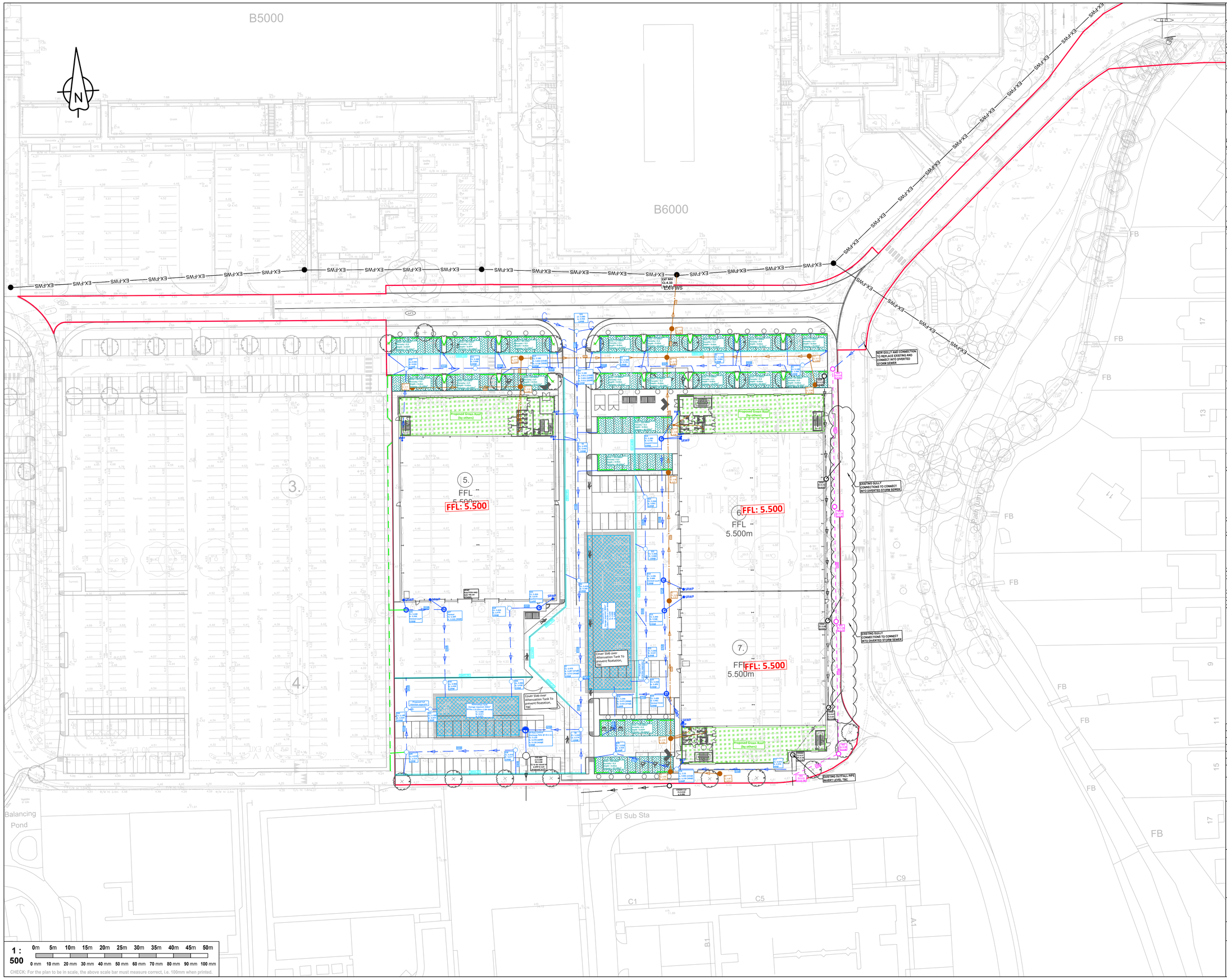

1 : 500 — 0m 5m 10m 15m 20m 25m 30m 35m 40m 45m 50m — 0 mm 10 mm 20 mm 30 mm 40 mm 50 mm 60 mm 70 mm 80 mm 90 mm 100 mm

CHECK: For the plan to be in scale, the above scale bar must measure correct, i.e. 100mm when printed.

Notes

A1

1. Topographical Survey carried out by **Greenhatch**, Drawing No.:
   - **38869_T - Topographical Survey Plan** (Dated **Jan 2023**).
2. Proposed Site Layout taken from **PRC**, Drawing No.:
   - **11629_PL004 - Proposed Site Plan** (Dated **JAN 2024**).
3. Do not scale from this drawing. All dimensions must be checked & verified on-site. If in doubt ask.
4. The Contractor is to check & verify all dimensions & levels before any work is started on-site.
5. Existing site survey works have been carried out by others & no guarantee can be given by Baynham Meikle for their accuracy.
6. Any discrepancies noted on-site are to be reported to Baynham Meikle immediately.
7. This drawing is to be read in conjunction with all relevant Architects', Engineers' and other Specialists' drawings & specifications.
8. For existing ground conditions, refer to Site Investigation reports.
9. The drainage installation is to be compliant with Building Regs. (Part H).
10. All adoptable drainage works shall comply with "Water UK - Design and Construction Guide".
11. The following pipe strengths shall be adopted (unless noted otherwise):
    - Pipes up to and including 150mm Ø to be PVC-U to BS-EN 1329, or Clayware to BS-EN 295 Class 160.
    - Pipes 150mm Ø up to and including 225mm Ø to be Clayware to BS-EN 295 Class 160.
    - Pipes 300mm Ø to be Clay to BS-EN 295 Class 160 or Concrete to BS 5911 Class M.
    - Pipes over 300mm Ø to be Concrete to BS 5911 Class M.
9. All pipe runs to be laid with flexible joints.
10. All pipes entering and exiting manholes are to be connected to pipe soffits level unless noted otherwise.
11. Pipe Bedding and surround to be as follows:

Location:	Cover to Soffit:		Pipe Bedding:
	Clay / Conc	Flexible	
Roads.	>1.2m	>0.9m	Class S
	<1.2m	<0.9m	Class Z
Hard and Soft Landscaping.	>0.6m		Class S
	<0.6m		Class Z

12. The following Conc. mixes are to be used (in accordance with BS 8500):

Location:	Mix Reference:
Concrete Surround to Pipes	ST4
Concrete Base and Surround to Manholes	ST4

13. All precast-concrete products (i.e. pipes, manhole rings, etc.) shall be of suitable Concrete mix to cater for Class 2 Sulphates.
14. Pre-formed channels are to be used in manholes where applicable.
15. Granolithic Concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the Specification.
16. All connections to be turned in direction of flow using pipe bends.
17. Manhole covers and frames to be Ductile Iron Medium Duty grade B125 rectangular to BS-EN 124 positions outside vehicular-trafficked areas, and Heavy Duty grade D400 in vehicular-trafficked areas.
18. Manhole covers and frames to be Ductile Iron Medium Duty grade A15 covers in Soft Landscaping.
19. First flexible joint in pipes adjacent to a manhole shall be a maximum of 600mm from inside face of manhole, connecting to rocker pipe.
20. The length of Rocker Pipe is as follows:

Pipe Diameter:	Length of Rocker Pipe:
150mm - 600mm	600mm
675mm - 750mm	1000mm
825mm & Over	1250mm

21. Manholes with outgoing pipes greater than 600mm Ø shall be fitted with guard bars, safety chains or other safety devices.
22. The Principle Contractor shall be responsible for checking the existing line and invert levels of any connection points for both the Foul and Surface Water systems, prior to undertaking installation of any new drainage works. Any deviation to the levels and positions indicated on the drawing should be brought to the attention of the Engineer.
23. All invert levels specified are outgoing (except Backdrop connections).
24. All Foul connections to be 150mm Ø laid at a minimum gradient of 1/40 unless noted otherwise, Surface Water pipe sizes are as indicated.
25. Foul pipes to be externally vented (SVP) at head of run.
26. For location of internal SVP, SS, etc., refer to Architect's latest layouts.
27. Internal Foul drainage connections / positions and setting-out information to be confirmed by the M&E Consultant / Architect.

Rev	Date	Description	By	Chkd
P03	20/03/2024	Updated To Suit Latest Site Layout	R.B.	A.B.
T02	08/03/2024	Updated To Suit Latest Site Layout	R.B.	A.B.
T01	23/02/2024	Tender Issue	R.B.	A.B.
P02	05/12/2023	Planning Issue	R.B.	A.B.
P01	17/11/2023	For Information	R.B.	A.B.

Revision Schedule

Drawing Status

For Planning

Project Title

Langstone Technology Park
Phase 2
Havant

Drawing Title

Proposed Drainage Plan

Drawing Number: **13508_121**

Revision: **P03**

BM Ref	Scale @ A1	Drawn by	Checked by	Project Eng
13508	1 : 500	R.B.	A.B.	G.L.

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