
Land at North West Bicester

Technical Note 2: Response to LLFA Drainage Comments

18th March 2022

1 Introduction

- 1.1 This technical note has been produced to form a comprehensive response to the drainage comments received from the LLFA on 14th January 2022 for the application Land at North West Bicester, Oxfordshire.
- 1.2 The received commentary is shown below in *italics* with the Brookbanks response shown as **blue**.

2 Oxfordshire County Council

- 2.1 Comments were received from the planning officer (Kabier Salam) on the 14th January 2022.
- 2.2 *Thanks for providing the documents. These have all been reviewed, there are outstanding drawings and documents that needs to submitted.*
- 2.3 *The FRA explains the surface water drainage strategy however a surface water drainage drawing is required to demonstrate the surface water strategy. Proposed SuDS features and drainage infrastructure needs to be shown indicatively. Outfall locations to be shown, storage details of proposed SuDS features and infiltration rates if applicable.*
- 2.4 A drainage strategy plan (10663-DR-01 D) has been provided as Appendix A of the Flood Risk Assessment (FRA). Drainage Strategy 10663-DR-01 E, have been appended to this note. This strategy plan includes clearer catchments areas and exceedance routes. The split between impermeable catchment area and impermeable area with urban creep has also been provided on the new plan.
- 2.5 The proposed strategy for the site includes individual catchment swales and detention basins, all of which discharge into one of the onsite watercourses.
- 2.6 On the drainage plan, the fourteen catchments have been coloured coded and each basin has its own blue information box. Within this box provides the area of the catchment, designed discharge rate, area of basin, m², and the volume required, m³.
- 2.7 The yellow circle on the plan indicative a suggested outfall location for each of the basins.
- 2.8 *The catchment areas have been broken down in the FRA, however a Catchment plan is required to highlight the extent of the areas. Stating the total impermeable area and the impermeable area including urban creep.*
- 2.9 Illustrated on drainage strategy plan (10663-DR-01 E), are the fourteen colour coded catchment areas across

the site.

2.10 The black information boxes on the DR plan states:

- the catchment area,
- impermeable area,
- impermeable area with urban creep,
- the existing 100-year runoff rate.

2.11 *Surface water exceedance flow plans required to demonstrate how the site is draining to ensure all surface water is being picked up by the proposed drainage infrastructure.*

2.12 Plan 10663-DR-01 E, illustrates a series of swales adjacent to the edge of the catchment parcels which will convey surface water from that parcel into the associated catchment detention basin.

2.13 Exceedance flow routes are also illustrated for the basins that are not directly adjacent to one of the onsite watercourses.

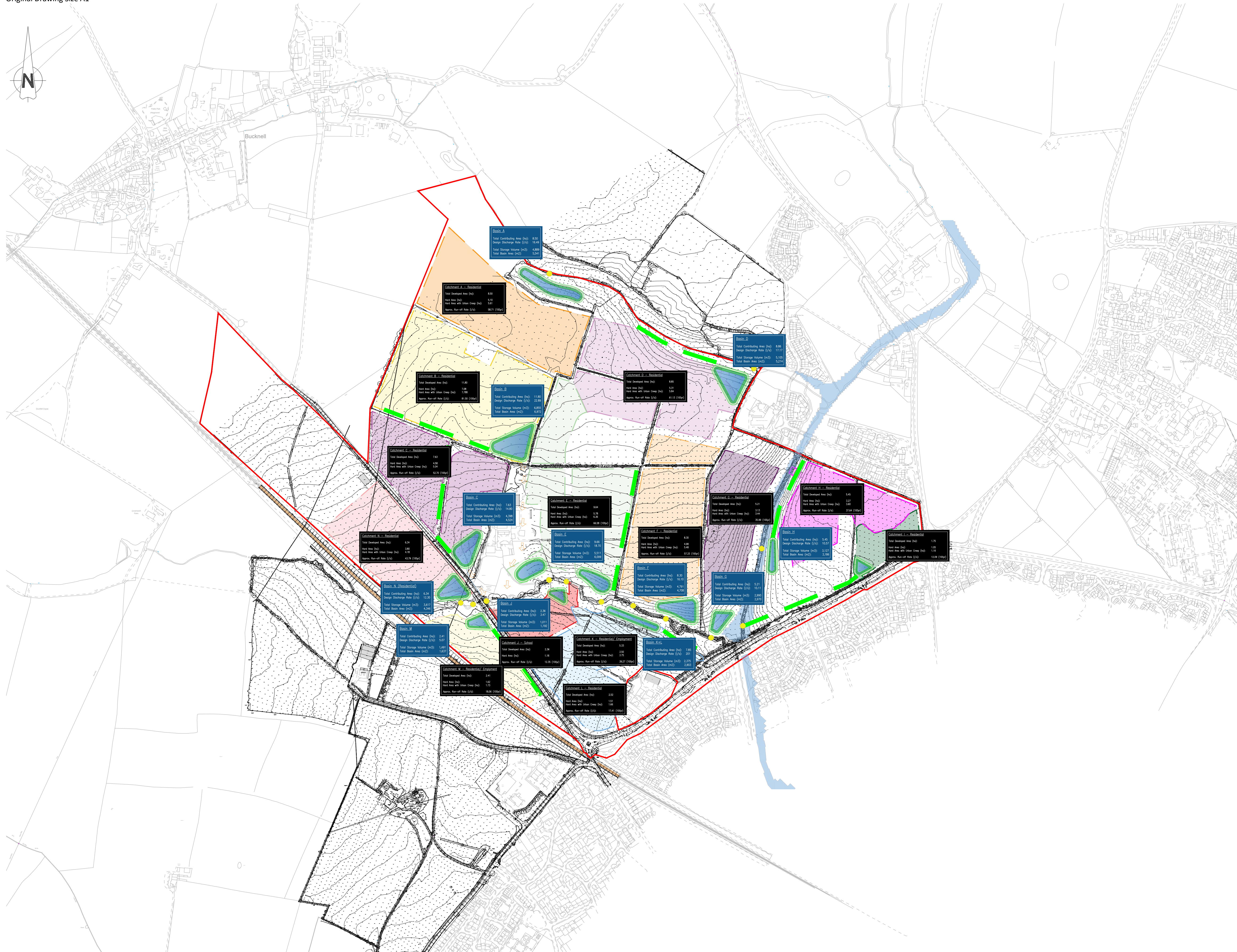
2.14 *WinDES calculations and modelling of the proposed SuDS features to confirm capacity for the 1:100-year storm event plus 40 CC.*

2.15 The WinDES calculations for the 1 in 1 year, 1 in 30 year and the 1 in 100 year plus 40% climate change storm event (for every basin) have been provided as Appendix B of the FRA.

2.16 *The FRA makes reference to an infiltration report however this has not been provided. If discharging surface water via infiltration, infiltration testing needs to be conducted according to BRE 365.*

2.17 GEG's infiltration report and testing results (dated April 2021) has been provided as Appendix C of the FRA.

Appendix A – Drainage Strategy Plan



Construction Design and Management (CDM)
Key Residual Risks
 Contractors entering the site should gain permission from the relevant land owners and/or principle contractor working on site at the time of entry. Contractors shall be responsible for carrying out their own risk assessments and for liaising with the relevant services companies and authorities. Listed below are Site Specific key risks associated with the project.
 1) Overhead and underground services
 2) Street Lighting Cables
 3) Working adjacent to water courses and flood plain
 4) Soft ground conditions
 5) Working adjacent to live highways and railway line
 6) Unchartered services
 7) Existing buildings with potential asbestos hazards

- NOTES:**
- Do not scale from this drawing.
 - All dimensions are in metres unless otherwise stated.
 - Brookbanks Consulting Ltd has prepared this drawing for the sole use of the client. The drawing may not be relied upon by any other party without the express agreement of the client and Brookbanks Consulting Ltd. Where any data supplied by the client or from other sources has been used, it has been assumed that the information is correct. No responsibility can be accepted by Brookbanks Consulting Ltd for inaccuracies in the data supplied by any other party. The drawing has been produced based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.
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- KEY:**
- Site Boundary
 - Illustrative SuDS Location
 - Swales
 - Piped Outfall
 - Outfall Locations
 - Exceedance Route for Basins not adjacent to Watercourse

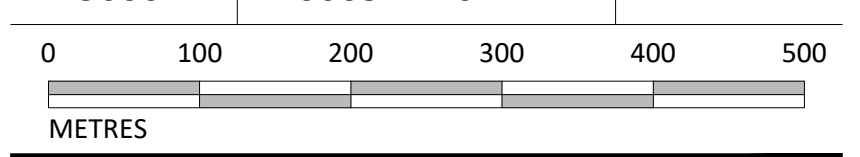
E	Coloured Catchment and Exceedance Route	KM	LW	LW	22.03.22
D	First Issue	KM	DN	DN	21.10.21
-	First Issue	KM	DN	DN	19.03.21

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 Land at North West Bicester

Indicative SuDS Layout

Status	Status Date
Draft	OCT 2021
Drawn	Checked
Drawn	Date
KM	DN
Scale	Number
1:5000	10663-DR-01
	Rev
	E



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