



TECHNICAL NOTE

Date: 16th September 2025

File Ref: CEB/CC/P25-3473/02TN Rev A

Project: Cowards Lane, Codicote

Subject: Response to Lead Local Flood Authority Comments for the Proposed Development at Cowards Lane, Codicote

1.0 INTRODUCTION

- 1.1 This Technical Note provides a formal response to the Lead Local Flood Authority (LLFA) queries via their Technical Response document on the 29th August 2025 which was undertaken by WSP.
- 1.2 The Technical Response document provides details regarding flooding and drainage concerns for the proposed development at the Land on The South Side of Cowards Lane, Codicote, Hertfordshire (Application No. 25/01766/OP).

2.0 RESPONSE TO COMMENTS

Comment One – Finished Floor Levels

LLFA Comment:

“The main body of text (Section 6.5) states that finished floor levels will be situated 75mm – 150mm above the external ground levels. We would need further indication as to why finished floor levels cannot be set at 150 mm above external ground levels or 300 mm above the maximum design water level.”

- 2.1 The LLFA have inaccurately applied the Environment Agency standing advice for new developments. The Site has been shown to not be at risk of flooding (which the LLFA have confirmed in their Technical Response) and therefore the development is not required to follow the Environment Agency standing advice on finished floor levels because the Site is not at risk of flooding.
- 2.2 There is no national requirement for new developments to raise finished floor levels, except when there is a risk of flooding.
- 2.3 The development has followed advice on finished floor levels from CIRIA Designing for Urban Exceedance which states finished floor levels or threshold levels should be set at 75-150 mm above the surrounding ground level to prevent in the ingress of any unforeseen flooding event.
- 2.4 As such, the proposed development is going beyond their required responsibility by raising the threshold and finished floor levels to comply with CIRIA, which is not a statutory authority but a not-for-profit company which produces reports to improve the resilience and performance of new buildings.

Comment Two – BRE 365

LLFA Comment:

"Further testing is required for shallow infiltration. The testing, at present, is not BRE365 standard."

And

"Further testing is required for shallow infiltration. The testing, at present, is not BRE365 standard."

- 2.5 BRE 365 testing has been undertaken at the Site and was appended to the submitted FRA and SuDS Report. This was undertaken by CK Rail Consulting and Geotechnical.
- 2.6 The BRE 365 results are titled "1 Day Infiltration Assessment – Worksheet" and were appended to the submitted FRA and SuDS report. The test procedure complies to BRE 365. The BRE 365 testing failed due to impermeable superficial deposits on the Site, which prevent the water percolating in sufficient time.
- 2.7 Tests were undertaken for the suitability of deep bore soakaways, due to a permeable bedrock below the impermeable superficial deposits. This resulted in a suitable discharge rate for deep bore soakaways.

Comment Three – Discharge Connection

LLFA Comment:

"Online mapping shows a watercourse directly to the south of the site. Further information is required as to why this cannot be used instead of deep bore infiltration"

And

"Detailed justification needs to be provided that no other feasible options could be used as alternative (i.e. shallow infiltration / connection to watercourse/ sewer)."

And

"Outfall is not clear on the drainage layout plan"

- 2.8 As part of the SuDS Assessment, we must show a viable surface water discharge connection in accordance with the drainage discharge hierarchy within the red line boundary. The submitted FRA and SuDS Report has a dedicated section on the discharge hierarchy (sections 5.1 to 5.5) explaining the justification for discharge via a deep bore soakaway.
- 2.9 The Site does not have access to a watercourse within the red line boundary or within their ownership outside of the red line. This is acknowledged in the comments from the LLFA on page 7 of their Technical Responses which states *"No watercourse within the RLB."*
- 2.10 Shallow soakaway testing (BRE 365) failed to produce satisfactory results for the implementation of soakaways. This was due to the impermeable superficial deposits on the Site. The ground investigation and testing were appended to the submitted FRA and SuDS report. However, suitable rates were found for deep bore soakaway.
- 2.11 Discharge via deep bore soakaway comes above a sewered connection in the drainage hierarchy because it falls within infiltration methods, and for that reason a sewered connection is not suitable because a more suitable discharge location is available.
- 2.12 Moreover, there is no surface water sewer in Cowards Lane. The nearest surface water sewer is on the High Street, which is approximately 350 m away.
- 2.13 The use of a sewered solution would mean pumping to reach the surface water sewer. A pumped solution for SuDS is inherently unsustainable and should be avoided at all costs. Pumped solutions should only be utilised if all other options are exhausted. The FRA and SuDS report has demonstrated the viability of deep bore soakaway on the Site meaning there is an alternative solution to a pumped sewered connection.

- 2.14 The LLFA should be aware that there is a precedence of deep bore soakaways being accepted in Codicote. The nearby developments off Oak Drive discharge surface water via deep bore soakaways (Reference 18/02722/FP (Ashill/Taylor Wimpey) – Appeal Reference 3273701).
- 2.15 The submitted FRA and SuDS report included a plan drawing of the proposed SuDS measures (in the appendix within plans). This clearly identifies the outfall of the SuDS network, as two deep bore soakaways.

Comment Four – SuDS Hierarchy

LLFA Comment:

“Further information is required on above ground SuDS (i.e. why are rain gardens not viable ‘due to site layout’ and swales). Spatial constraints is not a valid reason)”

- 2.16 As mentioned in the submitted FRA and SUDS report, the design has ignored any storage which could be holding surface water which does not have an automatic drawn down i.e. could be full at the time of the storm event. This is summarised in point 5.8 of the submitted FRA and SuDS report.
- 2.17 The proposed development will look to include additional SuDS devices such as water butts, rain gardens and tree pits in the public realm spaces during the detailed drainage design. As the planning application is for outline planning, this level of detail is not required to be submitted. We are only required to demonstrate that there is a suitable solution to store and discharge surface water in the design event.
- 2.18 If the LLFA wish to review the detailed drainage design for the development to ensure these SuDS measures are incorporated, we would be happy to accept an adequately worded condition on the matter.

Comment Five – Simple Index Approach

LLFA Comment:

“Simple index approach has not been included for water quality.”

- 2.19 Section 5.25 to 5.28 of the submitted FRA and SuDS report is dedicated to Surface Water Quality. This includes the application of the Simple Index Approach.
- 2.20 We request the LLFA review our submitted report and provide more information on the reasons, if required, on why the Simple Index Approach has not been undertaken to their standards.

Comment Six – Four Pillars of SuDS

LLFA Comment:

"Further information is required for biodiversity."

And

"Further information is required for amenity."

- 2.21 Section 5.30 to 5.32 of the submitted FRA and SUDS report is dedicated to the Four Pillars of SuDS.
- 2.22 The proposals include a permanent water feature, which increases biodiversity on the Site by the form of an aquatic pond life and water plants.
- 2.23 Further details on biodiversity is addressed in the following supporting reports;
- Ecological Impact Assessment (EclA) (Clarkson & Woods, July 2025);
 - Biodiversity Net Gain Statement (Clarkson & Woods, July 2025);
 - Statutory Biodiversity Metric (Clarkson & Woods, July 2025); and
 - Landscape and Visual Green Belt Appraisal (LVGBA) (EDP, July 2025).
- 2.24 The SuDS proposals provide amenity in the form of open space and a permanent pond. It has been well documented that access to open green space with water features increases wellbeing. Residents and the public would be able to access this area.

Comment Seven – Discharge Rates

- 2.25 The LLFA have raised objection to several items within their Technical Response check list regarding discharge rates and infiltration parameters. The check list is reflective of BRE 365 standards for traditional soakaways such as the calculations must only use discharge through the sides of the soakaway, adequate half drain times, and suitable storage volumes.
- 2.26 The LLFA have applied these parameters wholeheartedly without due consideration that we are proposing deep bore soakaways which are not governed by BRE 365 and the design work for these devices is entirely different.
- 2.27 Likewise, there has been objections to the lack of flow control and the discharge rate off the development. For infiltration solution, flow controls are not required and there is no discharge rate off the development unlike with a drainage solution which discharges to a waterbody or sewer.
- 2.28 The design of the deep bore soakaways has followed current industry standards for the design of these SuDS features with suitable upstream storage.

- 2.29 We urge the LLFA to reconsider this part of their assessment, in respect of the design work we have presented.

Comment Eight – Detailed SuDS Features

LLFA Comment:

“Easement is not clearly three metres on the south side. We would need sufficient easement.”

and

“Vehicular access has not been provided for the basin on site.”

- 2.30 The LLFA have also stated in their covering letter, that no drainage runs were provided with the submitted documents. This is incorrect, the proposed SuDS Strategy drawing includes the supporting surface water drainage network. We urge the LLFA to re-review their assessment of this matter.
- 2.31 The SuDS drawing included the required easements and vehicle access. We note that the key was missing for this information. The bold blue line is the top of basin which includes the 300 mm required freeboard, and the green line is the tie into the surrounding landscape. The tie-in has been designed with a 1:4 slope as per industry standards (and gentler slope than The SuDS Manual). A revised SuDS drawing has been attached to this document.
- 2.32 From the top of the attenuation basin (bold blue line) there is sufficient easement around the attenuation basin for maintenance to occur.

Comment Nine – Construction of the Development

LLFA Comment:

“A high-level assessment of how water quantity and water quality will be managed during the construction phase is required. Identifying high level assumptions of a construction management plan, such as the need to discharge to a sewer or watercourse with appropriate pollution measures.”

- 2.33 It is not a requirement of this stage of planning to provide a water quantity and water quality plan for construction phases.
- 2.34 If the LLFA require to us to evidence on how surface water will be managed during construction, we welcome a condition on this topic.

3.0 SUMMARY

- 3.1 This technical note responds to the LLFA comments from the 29th August 2025 for the proposed development off Coward's Lane in Codicote.
- 3.2 Should outline planning permission be granted, Create concludes that the matters raised in this Technical Note can be addressed through the use of standard pre-commencement planning conditions.
- 3.3 We hope the provided information in this technical note is sufficient to remove the objections raised or have conditions regarding detailed drainage design work.

Written by: Claire Burroughs MSc DIC, MEng (Hons), MCIWEM

Approved by: Graham Sinclair, MSc DIC, BSc (Hons), C.WEM, MCIWEM

Enclosures:

Updated SuDS Drawing – 3473-CCE-XX-XX-DR-D-0001

ENCLOSURES



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KEY

PROPOSED SURFACE WATER SEWER	
EXCEEDANCE FLOW ROUTE	
APPLICATION SITE REDLINE BOUNDARY	
TANKED PERMEABLE PAVING	
PROPOSED TOP OF BASIN	
ESTIMATED LEVELS TIE IN AT 1:4	

BASIN:
CL: 93.20 mAOD
IL: 91.00 mAOD
DEPTH: 1.20 m
AREA: 860 m²

SuDS

CATCHPIT

DEEP BH
SOAKAWAY 1

DEEP BH
SOAKAWAY 2

LEAP

Ponds

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W:\2.0 NEW PROJECTS\2025\3473 - COWARDS LANE, CODICOTE\3.0 CIVILS\3473-CCE-XX-XX-DR-D-0001 - OUTLINE SURFACE WATER DRAINAGE STRATEGY

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P02	16.09.25	KEY UPDATED	JE	CB
P01	10.07.25	INITIAL ISSUE	JE	CB
REV	DATE	DESCRIPTION	DRAWN	CHECKED

CLIENT
HAWRIDGE STRATEGIC LAND

PROJECT
LAND OFF COWARDS LANE
COLDICOTE

DRAWING TITLE
PRELIMINARY SURFACE WATER DRAINAGE STRATEGY

DATE	DESIGNED	DRAWN	CHECKED	SCALE(S)
10/07/25	JE	JE	GS	NTS

Independent, multidisciplinary engineering and environmental consultants

createce.co.uk 01603 877 010

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DRAWING STATUS						STATUS	CREATE PROJECT NUMBER
INFORMATION						S0	P25-3473
PROJ	ORG	ZONE	LEVEL	TYPE	ROLE	NUMBER	REVISION
3473	CCE	XX	XX	DR	D	0001	P01