



Technical note

From	Craddys	To	Wiltshire Council (C/o AtkinsRealis)
Date	20th August 2026	Ref	13906w0004 rev A
Subject	Summary response to drainage comments reference PL/2026/01361 dated 13/07/2026		

The following technical note has been prepared for the purpose of summarising Craddys response to Wiltshire Council's comments on the Drainage Strategy in WC's (AtkinsRealis) capacity as LLFA. This technical note is to be read in conjunction with the Flood Risk Assessment and Drainage Strategy reference 13906w0001e.

No.	LLFA comment	Response
1	It is appreciated that the applicant has proposed two potential drainage strategy options. The LLFA supports the applicant's pursuit of an infiltration-based drainage strategy to demonstrate adherence to the surface water drainage hierarchy in principle. However, further information is required to demonstrate that this approach is feasible and can be implemented effectively.	Noted. The design of disposal option B has been progressed following the meeting of 06/08.
2	The LLFA notes that intrusive ground investigation works were undertaken at the site in April 2026, with no groundwater recorded within the monitored standpipes during the investigation period. However, the Exploration Hole Location Plan prepared by Groundtech Consulting identifies a total of 17 borehole locations across the site, whereas the summary table presented in Section 4.2 of the Flood Risk Assessment only provides groundwater information for six boreholes. Groundwater monitoring data has not been provided for the boreholes undertaken across the site. In the absence of groundwater level records, it would normally indicate that groundwater was not encountered during the site investigation. The applicant should therefore provide clear confirmation as to whether this is the case, to ensure that groundwater conditions and the potential risk of groundwater flooding can be appropriately assessed.	The investigations at the site comprised 18 boreholes in total. The six boreholes highlighted were those fitted with ground water / gas monitoring equipment. During the investigations no groundwater was encountered in any of the 18 x boreholes. Please find attached the logs for all 18 boreholes to confirm this situation.
3	The applicant has provided historical infiltration test results undertaken on 02/07/2025. However, it is noted that the testing was carried out during the summer period and is not considered fully BRE 365 compliant, as the soakaway tests were not allowed sufficient time to drain below 25% of the effective test depth (the infiltration results have been extrapolated).	Noted, further infiltration testing will be undertaken in February 2027. The design of disposal option B has been progressed in the meantime.





	Consequently, the reliability of the derived infiltration rates remains uncertain.	
4	In addition, no evidence has been provided to confirm that Wessex Water has agreed in principle to accept surface water discharge into the existing public sewer network. Given the uncertainty regarding the viability of infiltration and the lack of confirmation from Wessex Water, the LLFA cannot be satisfied that either Drainage Option A or Drainage Option B represents a feasible surface water drainage solution, in its current state. Therefore, the ultimate means of surface water disposal has not been adequately demonstrated.	Wessex Water have agreed a storm point of connection in principle. Wessex Water have also agreed to a foul connection on Corn Croft Lane rather than the connection to a sewer in London Road as previously proposed.
5	The applicant has proposed the use of permeable paving within parking areas to provide interception storage in accordance with Standard 2 of the Non-Statutory Technical Standards for SuDS. However, no supporting calculations or evidence have been provided to demonstrate how the proposed permeable paving delivers the required interception storage. The applicant should therefore provide the relevant calculations and supporting details to justify the proposed approach.	Drainage Strategy Option A is compliant with Standard 2. For Drainage Strategy Option B please refer to the drawing 13906-0053 Catchment Areas. This shows that 1) The car park will be constructed in lined permeable block paving which does not drain any additional area which is therefore providing interception storage and so compliant. 2) The footway will be constructed in permeable asphalt which does not drain any additional area and so compliant. 3) The roof area will drain to a managed rainwater harvesting tank which is therefore providing interception storage and so is compliant.
6	The comparison table of pre-development runoff rates identifies a significant discrepancy between the calculated greenfield runoff rates, with the FEH method estimating a 1 in 100-year runoff rate of 6.2 l/s compared to 136.4 l/s using the Modified Rational Method (MRM). No explanation has been provided to justify the considerable difference between these estimates.	The MRM represents peak discharge and the calculation includes underlying engineering assumptions which almost always yield significantly higher peak runoff rates than a greenfield calculation. The MRM calculation used was $Q = 2.78 \times C \times 50 \text{ (mm/hr)} \times \text{area (Ha)}$ Where: 2.78 is a conversion factor to address the rainfall being in mm/hr C is C_v (volumetric coefficient) + C_r (Routing coefficient) which was given a value of 1. Constant rainfall intensity of 50mm/hr.





		For this site, our proposed discharge rate is less than the 1 in 1 year greenfield rate. So the MRM rate calculated is irrelevant as it not being used to justify a higher post-development rate.
7	The applicant should review the calculations and provide a revised comparison table that clearly distinguishes between: • Greenfield runoff rates; • Existing brownfield runoff rates; and • Proposed controlled discharge rates. Furthermore, the proposed controlled discharge rate appears unchanged from the previously submitted drainage strategy. The Council's requirements are that the post-development surface water discharge rate should be restricted to as close as reasonably practicable to the greenfield runoff rate for the 1 in 1 year rainfall event or alternatively achieve a minimum 30% reduction compared to the existing brownfield runoff rate for the same event.	We have revised the table in our latest FRA (see section 8.5.2) to clearly distinguish between the various rates. Option B discharge rate off site is now limited to 1 litre / second in accordance with Wessex Water requirements. So this is less than the greenfield 1 in 1 year rate and therefore in accordance with Wiltshire Council's Drainage and Betterment Strategy
8	The LLFA acknowledges that the applicant has provided hydraulic modelling outputs for the proposed soakaways and attenuation features. However, hydraulic calculations for the full proposed drainage network have not yet been provided.	Full hydraulic InfoDrainage calculations for Option B are now provided.
9	The applicant should provide a complete set of hydraulic calculations for the proposed drainage system, prepared in accordance with the submitted drainage layout. The model should include all proposed pipes, manholes, and SuDS features, with pipe and manhole references clearly matching those shown on the drainage drawings.	As above.
10	In addition, a clearly labelled drainage layout plan should be provided showing the full pipe network, flow routes, manhole references, discharge points, and all proposed SuDS components to enable the LLFA to undertake a comprehensive review of the proposed drainage strategy.	Detailed and labelled drainage layout plans reference 13906-0051 and 13906-0052 are provided.
	Based on the information submitted within the Flood Risk Assessment, the requirement for further groundwater flood risk assessment can be removed. However, the FRA does not satisfactorily address the remaining drainage concerns and information requirements. Therefore, the LLFA recommends maintaining a holding objection until the outstanding matters have been resolved.	Noted. We understand from this that we no longer need to undertake winter ground water monitoring.



**'Recommended conditions'**

1	Updated and clearly labelled drainage layout plan for both options A and B showing the pipe networks and any attenuation/ SuDS features. The plan should show all pipe & node numbers referred to within the drainage calculations.	Please see comment in item 10 above.
2	Evidence should be provided to demonstrate that infiltration testing has been undertaken in accordance with BRE 365 and confirms that infiltration is a feasible means of surface water disposal. The number and location of trial pits should be appropriate to the scale of the development and positioned in the proposed locations, or close to the proposed locations, of future soakaways.	Please see comments in items 2 & 3 above.
3	Evidence that the correct clearances have been adhered to. Based on CIRIA C574 guidance the appropriate clearance depends on geological conditions. However, 5m is the minimum for any ground condition	The parking bays are 5m long so the soakaway is located at least 5m from the store however, dimensions have been added to drawing 13906-0050.
4	Consent for any outfalls from the proposed drainage systems into a public sewer or other drainage system not owned by the applicant. Given that the existing Wessex Water surface water sewer in the area is reported to surcharge during the 1 in 1 year rainfall event, confirmation from Wessex Water is essential to demonstrate the viability and deliverability of the proposed Option B drainage strategy.	Please see comment in item 4 above.
5	It is noted the applicant has proposed permeable paving and tree pits that will contribute to interception storage at the site. To demonstrate adherence to Standard 2, the applicant must provide calculations that provide evidence the first 5mm of rainfall for the majority of rainfall events will be managed by these interception features & will not generate runoff.	Please see comment in item 5 above.
6	The applicant has not adequately demonstrated why rainwater harvesting cannot be incorporated within the proposed drainage strategy. The fact that rainwater harvesting alone may not achieve the full volume control requirements does not justify its exclusion. In accordance with Standard 1 of National Standards for SuDS, rainwater harvesting shall be considered.	Actively managed rainwater harvesting now being utilised for the Aldi store.
7	Evidence that the proposed drainage design provides a sufficient level of water treatment.	Simple Index Approach spreadsheets have been provided for each proposed catchment.
8	Tabulated comparison of pre-development greenfield rates, existing brownfield rates, and proposed post-development discharge rates. For more information refer to Wiltshire Council's betterment policy update which can be found here. The comparison table shall	This is now provided within the FRA/DS at section 8.5.2. The key points are that the 1 in 1 year greenfield rate is 1.6 litres / second and the proposed discharge rate for Option B is 1 litre / second.





	clearly present the Greenfield, Brownfield, and proposed controlled discharge rates for each relevant rainfall event (including the 1 in 1 year and 1 in 100 years plus climate change events, where applicable), to enable a clear comparison between existing and proposed site runoff rates	Therefore the post development discharge rate is less than the 1 in 1 year greenfield rate.
9	The applicant shall provide the complete proposed surface water network analysis. All manholes, pipes, and drainage features within the model outputs shall be clearly annotated and use reference numbers that match those shown on the proposed drainage layout plan, allowing the hydraulic calculations and drainage drawings to be cross-referenced and reviewed. The surface water drainage strategy should demonstrate that: - The 1 in 30-year rainfall event is contained within the drainage system without causing flooding to any part of the site. - The 1 in 100 years plus climate change rainfall event does not cause flooding to any building (including a basement) or utility plant. - The site has been designed to ensure that flows in excess of the 1 in 100 year rainfall event are managed in exceedance routes that minimise the risks to people and property.	Please see comment in item 8 above. The drainage calculations show no flooding during all storm durations up to and including the 1 in 100 year rainfall event including climate change allowance.
10	It is noted that the applicant has provided an exceedance flow routing plan; however, further details are required in order to demonstrate adherence to National Standard 3. The submitted plan indicates that the proposed drive-through building may be at risk of flooding during exceedance events, and low points along the north-western site boundary could result in ponding and increase flood risk to adjacent third-party land. Furthermore, it is unclear how exceedance flows will be conveyed in a controlled manner to the receiving ditch adjacent to Horton Road. As the ditch begins further east of the site, exceedance flows may travel along Horton Road before being intercepted. The applicant shall demonstrate that exceedance flows can be safely managed without increasing flood risk to Horton Road or surrounding land. Where surface water ponding is proposed within designated hardstanding areas as part of the exceedance flow strategy, these areas shall be clearly identified on the relevant drawings using appropriate hatching. Details of the maximum predicted depth of standing water shall be provided.	An updated post-development overland flows sketch has been included in appendix J. A kerb line to the east of the Drive Through unit will assist in containing flows on site for collection and mitigate flow off site. The proposed drainage system has been sized to contain storm events up to and including the 1 in 100 year plus climate change allowance. So the exceedance flows would only occur in events in excess of this or in the unlikely event of drainage system blockage or failure. The existing site falls in a southerly direction towards Horton Road and although there is a bund along much of the southern boundary, any water would currently flow in an easterly direction along the toe of the bund and find its way to Horton Road at the bund's easterly extent. The existing site does not benefit from a positive drainage system. A clear benefit from the proposed scheme is





		the provision the purpose designed proposed drainage system which will reduce the likelihood of overland flows reaching Horton Road. Similarly, the general fall of the land is being maintained post-development such that where water could potentially flow towards third party land there will be an improvement on the pre-development scenario due to the introduction of the purpose designed drainage system.
11	Evidence that the finished floor levels are above the maximum predicted 100-year flood level or if no flooding is predicted, at 150 mm height above the SW drainage cover levels.	The FFL of the Drive-Through unit will be set as high as practical and above existing and external ground levels.

Technical note prepared by:

Claire Pitchers

