

Planning Application Technical Response

Site:	Land at Birchwood
LPA Reference:	25/01014/FP
Date Assessed:	6 June 2025

FULL APPLICATION	Related Policy or Standard	Applicant Action Required	LLFA Specific Comment
All sources of flooding considered?	NPPF Paragraph 170, 181 PPG Paragraph 051 SDNSTS S10 <i>Policy NE8: Sustainable drainage systems (Reducing flood risk)</i>	Provide updated information within an amended FRA on; ☐ Fluvial flooding from the ordinary watercourse	The site is falling under Flood zone 1 from rivers and sea hence at a Very Low risk of flooding from Fluvial flooding.
		☒ Surface water flow path originating offsite	Objection: As per the EA flood map, the site is in a High risk that there is 3.33% of chance of flooding from each year from surface water flooding with flood depth ranging from 200mm to 600mm. Most of the flooding observed in the southern part of the site.
		☐ Groundwater flooding	As EA long term flood map the groundwater flooding is highly unlikely.
		☐ Rainwater surcharged sewer flooding	Limited information provided on Rainwater surcharged sewer flooding identified in the provided FRA.
		☐ Historic flood information	Limited information provided on Historical flood information in the FRA.
Mitigation not appropriate	NPPF Paragraph 170, 176, and 181 PPG Paragraph 004, 023, 037, 041, 042, 043 and 044	☐ Address concerns that there is not sufficient room within the development boundary to address flood risk mitigation and also achieved the suggested density of the development.	The identified surface water flood risk would be managed by providing appropriate SuDS features.
		☐ Use sequential approach with the following hierarchy. I. how can the development first avoid the risk of flooding II. how will it be mitigated (with evidence)	There is no flow path present therefore; all the site runoff or existing flooding will be managed by SuDS features. The existing flood risk will be mitigated by the SuDS features.

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	<i>Policy NE8: Sustainable drainage systems (Reducing flood risk)</i>	III. how will flood resistance and resilience be employed	Not required, as the site is in a Flood zone 1.
		☐ The proposal increases the risk of flooding to existing infrastructure, dwellings or property. Mitigation should be reassessed to show how flood risk can be reduced overall.	NA, the proposal is a betterment to the existing condition, since the SuDS features provided will be taking care of the runoff generated from the proposal.
		☐ Provide information on safe access and egress to show how the development will be safe for its lifetime. This may include assessment of how proposals will not increase the number of people living and working in areas of flood risk and if there is any additional burden placed on the emergency services. An emergency plan may also form part of this assessment (see www.adeptnet.org.uk).	The access from Old Charlton Road is not at risk from surface water flood risk and is in flood zone 1. Therefore, the access to the site is available for the lifetime of the development.
Long term sustainability of the development	NPPF Paragraph 176 and 181 PPG Paragraph 004, 036, 061, 068 and 069 <i>Policy NE8: Sustainable drainage systems (Reducing flood risk)</i>	☐ Provide site specific ordinary watercourse or surface water flow path hydrological and hydraulic modelling.	NA, no watercourses present
		☐ Demonstrate that any residual risk is managed with appropriate flood resistance and resilience measures.	The site is in Flood Zone 1 and the surface water flood risk and residual risk will be managed by SuDS. Passes the sequential test and exception test. Therefore, the resistance and resilience measures are not required.
		☒ Include evidence of appropriate freeboard to finished floor levels from the design flood level.	Objection: The applicant must note that the finished floor levels of the buildings and entrances are at minimum 150mm above the design flood level.

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		☐ Include appropriate climate change allowance on modelling scenarios for assessment of the lifetime of the development (including the 3.33% AEP design flood event).	A 35% of climate change allowance has been considered for 3.33% AEP modelling scenario. Which is acceptable.
		☐ Use up to date FEH2013 or 2022 rainfall data for all design flood events.	FEH22 rainfall data has been used.
		☐ Identification is required of those structures which require consent for works on an ordinary watercourse (from the LLFA), this extends to works required within 8m from the top of the bank (see HCC LLFA website).	NA, no watercourses present.
How does the site currently drain?	NPPF Paragraph 182 PPG Paragraph 059 SDNSTS S1, S2, S3, S4, S5, S6 <i>Policy NE8: Sustainable drainage systems (Reducing flood risk)</i>	☐ Evidence required on ground conditions / BRE365 or similar infiltration testing / dissolution potential / seasonally high groundwater levels.	Infiltration is not proposed.
		☐ Greenfield runoff rates and volumes are missing or need to be recalculated (incorrect input parameters).	Greenfield runoff rates are provided.
		☐ Pre-development brownfield runoff rates are missing or need to be recalculated (incorrect input parameters).	Runoff rates are provided.
		☐ Drawing required to show where existing drainage network and outfall/s are, plus confirmation if will they be retained or removed.	Informative: Anglian water asset map has been provided. The existing utility survey data shows there are existing networks. There is no information has been provided whether they are removed or retained.
		☐ Drainage survey required to provide evidence of existing discharge rate and condition (may include detailed asset or CCTV survey and estimation of discharge from an existing pipe diameter/slope).	Not required at this stage.

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Where will the site drain to?	NPPF Paragraph 182 PPG Paragraph 055, 056, 059, 060, 061, 062 and 063 SDNSTS S12, 13 and S14 <i>Policy NE8: Sustainable drainage systems (Reducing flood risk)</i>	Drainage location hierarchy has not been followed, further information is required on;	Informative: Limited information provided on rainwater reuse. Applicant must demonstrate as why it can't be included.
		☐ Evidence why rainwater reuse can't be included.	
		☐ Source control and interception has not been provided by the provision of vegetated SuDS.	NA, no vegetated and above ground SuDS are proposed.
		☐ Infiltration proposals – re Groundwater Source Protection Zone I restrictions (only clean roof water in a sealed system may be discharged).	Infiltration is not proposed
		☐ Surface watercourse – does it connect to the wider network and is there permission and there are agreed access locations for proposed outfalls with the riparian owner?	NA
		☒ Surface water sewer – no in principle agreement from owner of the asset.	Objection: No evidence has been provided on consent from the Anglian Water. The consent letter must involve discharge of the site surface water into their asset.
		☐ Combined sewer – no in principle agreement from owner of the asset.	Not discharging to combined sewer.
		☐ In principle objection - proposing to connect surface water runoff to foul sewer.	No connection to foul water.
		☐ Detailed justification required why the application cannot be drained via gravity and a pump is required.	It is via gravity
		☐ Full impact assessment of failure of a pumped system and emergency procedures to store 24 hours of water is required.	Pumping is not proposed

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		☐ Justification is required as to why a deep bore infiltration feature has been proposed prior to shallow infiltration or connection to a surface watercourse.	No infiltration is proposed.
Are the 4 pillars of SuDS provided and are they multifunctional?	NPPF Paragraph 182 PPG Paragraph 036, 055, 056, 059, 060, 061, 062 and 063 <i>Policy NE9: Water quality and environment & Policy SP12: Green infrastructure, biodiversity and landscape</i>	☐ The application must provide water quantity benefits in open and above ground SuDS.	NA, no vegetated and above ground SuDS are proposed.
		☒ The application must provide water quality benefits. Appropriate water quality assessment is absent / incorrect.	Objection: Water quality benefits must be provided based on CIRIA SuDS guideline.
		☐ Additional water quality treatment using surface SuDS is required due to the sensitivity of the discharge location (including groundwater, designated surface watercourses or deep infiltration features).	Not required
		☒ The application must provide biodiversity benefits or demonstrate why this is not achievable (lack of space will not be accepted).	Objection: Biodiversity benefits have not been demonstrated.
		☐ The application must provide amenity benefits or demonstrate why this is not achievable (lack of space will not be accepted).	Proposal involves community areas.
How will the site drain without adversely effecting flood risk elsewhere?	NPPF Paragraph 181, 182 SDNSTS S2, S3, S4, S5, S6 <i>Policy NE8: Sustainable drainage systems (Reducing flood risk)</i>	☐ The most precautionary infiltration rate should be used in the design of the attenuation feature.	Infiltration is not proposed.
		☐ Infiltration rates are shown to be favourable and should be used in the drainage design (where appropriate).	Infiltration is not proposed.
		☐ Infiltration storage drainage design should be recalculated to either only discharge through the sides of the structure or apply the appropriate factor of safety.	Infiltration is not proposed.

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		☐ Infiltration drainage storage has half drain down time greater than 24 hours and an alternative design or mitigation is required.	Infiltration is not proposed.
		☐ The post development 100% AEP (or 1 in 1 year) rainfall event runoff rate should also be controlled to the equivalent pre-development rate.	Not required
		☐ Proposed discharge rates and volumes are greater than greenfield with no justification.	Proposed discharge rates are within greenfield.
		☐ Proposed discharge rates include future allowances for climate change and / or urban creep. These must be removed, and all calculations resubmitted.	Provided.
		☐ Require justification and supporting calculations for brownfield % betterment and why this can't be closer to the predevelopment greenfield scenario.	The proposal has a betterment of >91% achieved from an existing condition.
		☐ Proposed discharged rates would increase flood risk elsewhere and need to be re-assessed.	Proposed discharge is at Qbar.
		☐ A minimum runoff rate between 1 to 2 l/s/ha should be applied in groundwater dominated areas if infiltration cannot be undertaken.	Discharging at greenfield runoff rates.
		☐ How will the development not increase the volume of runoff as only pre and post calculations of greenfield runoff rate have been provided?	Greenfield runoff rates are provided
		☐ A complex control for runoff rate with long term storage provided, is required, if the drainage proposal is not limiting runoff to QBAR or 2 l/s/ha.	Discharging at Qbar, complex control and long-term storage has been provided.

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		☐ Include appropriate climate change allowance for the lifetime of the development (including 3.33% AEP design) for drainage modelling storage volumes.	An appropriate climate change allowance of 35% is considered for the 3.33% AEP.
		☐ Drainage modelling calculations should be resubmitted and demonstrate how 10% urban creep has been included in the volume of SuDS storage required.	Not required
		☐ Use up to date FEH2013 or FEH2022 rainfall parameters in any drainage modelling scenarios.	FEH2022 rainfall data has been used.
Location of SuDS		☐ Layout and/or drainage layout drawings need to show all the drainage features (storage and conveyance), with labels the same as those in the submitted supporting calculations.	Provided
		☐ Drawings need to show the detailed design (not preliminary issue).	The drawings have been provided.
		☐ Drawings of cross sections and long sections of all the network and structures such as ponds, basins and swales need to be supplied.	NA
What is the impact of flood risk on the development?	NPPF Paragraph 182	Updated supporting calculations required to show;	
	SDNSTS S7, S8, S9, S10 and S11	☐ revised modelling calculations to use a CV value of 1.	CV value of 1.0 used.
	<i>Policy NE8: Sustainable drainage systems</i>	☐ 50% AEP rainfall event does not surcharge in the drainage network if it is to be adopted by a responsible authority.	50% AEP event do not flood the drainage system.

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	<i>(Reducing flood risk)</i>	☐ 3.33% AEP rainfall event plus climate change does not flood outside the drainage network which is designed to hold water.	3.33% AEP plus climate change event do not flood the drainage network.
		☐ 1% AEP rainfall event plus climate change does not leave the application boundary or flood any part of a building, utility plant susceptible to water (e.g. pumping station or substation) within the development boundary.	1% AEP plus climate change event scenario resulted not overflowing the drainage network.
		☐ the appropriate climate change allowance must be updated.	NA
		Additional information is required showing; ☐ above ground flooding (extent, depth and velocity) at the 1% AEP rainfall event plus climate change must be provided on a drawing with proposed external ground levels and proposed finished floor levels of buildings.	. The drainage network do not overflow in 1% AEP plus climate change event.
		☐ above ground flooding (extent and depth) at the 1% AEP rainfall event plus climate change should be designed to be held in the least vulnerable areas of the site e.g. open space.	The drainage network do not overflow in 1% AEP plus climate change event.
		Flood resistance and resilience must be shown to be included in the design. ☐ A minimum of 300mm must be provided between any design flood event and the finished ground floor level. ☒ A minimum of 150mm above external ground levels and show that they are sloping away from vulnerable areas such as doorways.	Objection: The applicant must note that the finished floor level is 150mm above the design flood level.

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		☒ Exceedance of the design 1% AEP rainfall event plus climate change (or failure of the drainage network) must be shown on a drawing, minimising impacts to people and property. This drawing will include proposed external ground levels, finished floor levels and any designed slopes on impermeable surfaces such as highways or car parks.	Objection: An exceedance flow route must be provided under 1% AEP plus climate change scenario. It must be shown on a drawing including proposed external ground levels, finished floor levels.
		☐ ½ drain down times need to be submitted and show that they are within 24 hours (or within 48 hours for features that are lined e.g. lined tanks or lined basins).	Provided
		☐ Any drainage network showing storage features with ½ drain down time greater than the 24 hours (or 48 hours for lined structures) must be redesigned to show how it can meet this standard or be increased in size to accommodate a subsequent storm event of 3.33% AEP flood event plus climate change allowance.	Provided
		☐ The drainage calculations must be shown to include a surcharged outfall to a watercourse or culverted watercourse or watercourse within a sewer. This surcharge level must be the 1% AEP flood event of the receiving watercourse if known or bank full if not already hydraulically modelled.	NA
How will the drainage and watercourse features be managed and maintained?	NPPF Paragraph 182 PPG Paragraph 055, 057 and 058 SDNSTS S10, S11, S12, S13 and S14	☐ High level assessment of the maintenance of any SuDS features and structures and who will be adopting these features for the lifetime of the development.	Included

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		☐ Appropriate easements (to the adopting authority standard) to SuDS features should be shown on a drawing, this will be a minimum of 3m.	Not required.
		☐ Vehicular access route and off-road parking needs to be provided to ponds, basins and swales.	Not required.
		☐ Provide an easement of a minimum of 3 m from the top bank of any watercourse is required for maintenance. This should be on both banks, but justification should be provided if access is proposed from only one side of the bank or is less than 3m (e.g. 2.5 times the width of any plant likely to be used (from the top of bank with maintenance plant parallel to the watercourse)).	NA, no watercourse present.
		☐ Due to the likely long duration build out time (including phased development proposals), supporting drainage calculations and drawings are required to show a timeline of how temporary measures will be put in place to protect the water environment and any newly built SuDS features. This will include any temporary water quality and water quantity flow control devices required.	Informative: The applicant has not confirmed whether it is a phased development.
		☐ As it is a phased development, a surface water management and construction phasing plan is required. This must show how each phase can be provided independently (in terms of surface water drainage) and how any infrastructure which is relies on will be constructed prior to any housing or commercial development.	Informative: The applicant has not confirmed whether it is a phased development.

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		☒ A high-level assessment of how water quantity and water quality will be managed during the construction phase is required. Identifying high level assumptions such as need to discharge to a sewer or watercourse with appropriate pollution measures.	Objection: The applicant must provide high level assessment of how water quantity and water quality will be managed during the construction phase.
Other		☐ Bespoke advice	