

Harriet Sanders
Local Planning Authority
North Herts District Council
Council Offices
Gernon Road
Letchworth
Hertfordshire
SG6 3JF

Lead Local Flood Authority
Post Point CHN 215
Hertfordshire County Council
County Hall, Pegs Lane
HERTFORD SG13 8DN

Contact Katherine Ashworth
Email FRMConsultations@hertfordshire.gov.uk

Date 14 April 2023

Dear Harriet

RE: 23/00407/FP – Node Court, Drivers End, Codicote, Hitchin, Hertfordshire, SG4 8TR

Thank you for your consultation on the above site, received on 10 March 2023 for the conversion of Node Court to 8no. dwellings. Conversion of Midden building to residential and the erection of 6no. terraced dwelling-houses and 2no. detached dwelling houses as development to facilitate the restoration of Node Court together with associated car parking, landscaping, boundary treatment and ancillary works. We have reviewed the application as submitted and wish to make the following comments.

Information has been prepared and submitted in support of the application for the proposed reconstruction and conversion of the existing derelict structures. While the applicant has indicated that there is no additional impermeable area of the buildings for Node Court and the Midden building, there are several landscaping changes proposed such as car parking and hardstanding spaces. The LLFA states the proposed development is required to discharge at the greenfield runoff rate and that an increase in this rate will only be considered should sufficient technical evidence be provided. This is in accordance S3 of the Non-statutory Technical Standards for Sustainable Drainage systems.

However, the majority of the existing hard surfaces on site are tarmac which is currently not positively drained. We understand the pond to the north of the site would be the sites natural outfall due to topography however, there is no surveyed outfall from this. Therefore, proposals are likely to impact the flood risk and drainage. However, the site currently has extensive fire damage throughout the building so any existing drainage has largely fallen into disrepair. We note that infiltration testing has not been undertaken to BRE Digest 365 standards and the SuDS strategy relies largely on infiltration. Therefore, the suitability of the ground conditions cannot be determined. We understand the applicant is proposing to divide the works into three parts with the works planned to run concurrently.

We **object** to this planning application in the absence of an acceptable Flood Risk Assessment (FRA), Drainage Strategy and supporting information relating to:

- Local flood risk to the development
- Impacts from the development adversely effects flood risk elsewhere
- The development not complying with NPPF, PPG or local policies
 - Policy NE8: Sustainable Drainage Systems, North Herts Local Plan 2011

Reason

To prevent flooding in accordance with National Planning Policy Framework paragraph 167, 169 and 174 by ensuring the satisfactory management of local flood risk, surface water flow paths, storage and disposal of surface water from the site in a range of rainfall events and ensuring the SuDS proposed operates as designed for the lifetime of the development.

In summary the main issues are:

- Lack of BRE Digest Infiltration testing.
- Lack of detailed drainage drawing/plan in conjunction with drainage modelling calculations.
- Lack of appropriate management and treatment of surface water.
- Lack of Pre and post development greenfield runoff rates and volumes.
- Lack of detailed drainage calculations using FEH2022 rainfall parameters.
- Lack of Exceedance plan.
- Lack of construction phase surface water management plan.

We will consider reviewing this objection if the following issues are adequately addressed.

1. The applicant shall provide a drainage strategy in accordance with the NPPF, NPPG, the local plan and HCC SuDS policies and guidance.
2. We require the applicant to assess whether the development is at risk of flooding from any existing or future source This shall be provided through the submission of a Flood Risk Assessment as the proposals are for more than 10 dwellings and in Flood Zone 1.
3. The applicant shall provide information on how the site currently drains through evidence of calculations of existing surface water storage volumes and flow rates. We require the pre-development greenfield runoff rates and volumes calculated using of the latest FEH method rather than the currently applied IDF method. Currently the estimation of existing peak greenfield runoff rate is unclear. All greenfield runoff rates should be limited to the equivalent of 100% Annual Exceedance Probability (AEP) (1 in 1 year) and the 1% AEP (1 in 100 year) if a complex control and associated long term storage is provided.
4. We understand the pond to the north of the site would be the sites natural outfall however, we require information to demonstrate whether the pond is connected into the wider drainage network. Discharge to the pond will not be acceptable if

connectively cannot be demonstrated to the wider surface water drainage network.

5. The applicant is proposing to discharge surface water via infiltration through pervious surfaces, rainwater planters (rain garden / bio retention) and soakaways. However, the applicant states the infiltration rates are expected to be low from the site geology. The LLFA will require evidence of ground conditions / underlying geology and permeability testing including BRE Digest 365 infiltration tests. We require evidence that seasonally high ground water levels are 1m below the base of the infiltration structure (SuDS Manual Chapter 4).
6. Commentary has been provided which justifies the SuDS selection including technical evidence. However, it is unclear exactly what SuDS features are being implemented as part of the proposed drainage design. The drainage drawing does not provide sufficient detail for a full planning application. We are pleased to see the use of rainwater harvesting. Additionally, an assessment of the water quality treatment in accordance with the approaches given in The SuDS Manual (C753). Further information is also required on the amenity and biodiversity associated with the proposed sustainable drainage system has not been provided along with treatment.
7. The drainage drawing/plan provided is not sufficient. We require a full detailed drainage plan including location of SuDS measures, pipe runs and discharge points, informal flooding (no flooding to occur below and including the 1 in 30 year rainfall return period). Plans should provide location of all SuDS, pipes or conveyance networks and discharge location. Plan should be annotated with the same labels as the drainage modelling. We need to know if an access track is required to ensure features can be maintained e.g. ponds (near 2 entrance houses). The plan must include locations, depth and extent of flooding at 1 in 100 plus climate change event.
8. We require detailed drainage calculations for all rainfall return periods up to and including the 1% AEP plus climate change event (including the 3.3% AEP plus climate change event), limited to pre-development greenfield runoff rates and volumes. The calculations shall use FEH 2022 and not FSR rainfall (as currently used in section 5.4) and modelled through Microdrainage, Causeway Flow or equivalent method. We note an urban creep value of 1 has been used in calculations in Section 5.4 however, we require a permeable and impermeable areas shown on a plan to show how this is increased for urban creep. Half drain down times for any infiltration storage features shall be within 24 hours or designed to store the 1% AEP plus climate change event followed by the 3.33% AEP year event.

At present, no details have been provided regarding the drainage of the roads on site, including the access road. As such, it is not clear how runoff generated on the roads will be captured, treated and attenuated. The applicant should provide clarification of how all roads on site are to be drained, including the access road. All road and parking runoff must receive robust water treatment prior to discharge to ensure the maintenance of water quality. Please note that we will not accept treatment from solely petrol interceptors for road runoff, and treatment using SuDS should be provided. Full technical justification should be provided should an alternative approach be presented.

9. We require details of how the development will provide resilience to vulnerable areas, residential buildings. Depths and flow paths of all sources of flooding (e.g. from the drainage scheme or overland surface water flooding flow routes) and the expected return period at the site shall be provided. A minimum of 300mm must be provided between the design flood event and the finished floor level. A minimum of 150mm is required above external ground levels that are sloping away from vulnerable areas such as doorways and air vents. Finished ground levels and finished floor levels shall be added to the drawing to aid review.
10. We require a drawing to be prepared and submitted showing the exceedance flood flow routes in the event of the drainage system being exceeded in the 1% AEP event plus climate change event). The LLFA require the exceedance flood flow route plan to include finished ground levels and finished floor levels.
11. We require a drainage statement to include a list of sustainable drainage treatment stages to ensure there is no detrimental impact to any local watercourses/ ground water for water quality and ecological purposes in accordance with the Water Framework Directive. We will not accept the use of propriety products. We require commentary on the Simple Index Approach (CIRIA SuDS Manual Chapter 26) with any links to biodiversity net gain proposals.
12. Section 6 of the SuDS Strategy Report (ref 181022) does not detail all SuDS features proposed. Therefore, we require documentation of a management and maintenance plan for the proposed SuDS features. In addition to who will be adopting these features for the lifetime of the development.
13. We require a construction management plan for how surface water runoff will be managed during construction, including any temporary measures required to prevent increase of flooding or pollution of the water environment.

Informative to the LPA

For further advice on what we expect to be contained within the FRA to support a planning application, please refer to our Developers Guide and Checklist on our surface water drainage webpage <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/surface-water-drainage/surface-water-drainage.aspx> this link also includes HCC's policies on SuDS in Hertfordshire.

Erection of flow control structures or any culverting of an ordinary watercourse requires consent from the appropriate authority, which in this instance is Hertfordshire Lead Local Flood Authority and the Local Council (if they have specific land drainage bylaws). It is advised to discuss proposals for any works at an early stage of proposals.

In December 2022 it was announced FEH rainfall data has been updated to account for additional long term rainfall statistics and new data. As a consequence, the rainfall statistics used for surface water modelling and drainage design has changed. In some areas there is a reduction in comparison to FEH2013 and some places an increase (see [FEH22 - User Guide \(hydrosolutions.co.uk\)](https://www.hydrosolutions.co.uk/FEH22-User-Guide)). Any new planning applications that have not already commissioned an FRA or drainage strategy to be completed, should use the most up to date FEH22 data. Other planning applications using FEH2013 rainfall, will be

accepted in the transition period up to 1 April 2023. This includes those applications that are currently at and advanced stage or have already been submitted to the Local Planning Authority. For the avoidance of doubt the use of FSR and FEH1999 data has been superseded by FEH 2013 and 2022 and therefore, use in rainfall simulations are not accepted.

Please note if, you the Local Planning Authority review the application and decide to grant planning permission, you should notify the us, the Lead Local Flood Authority, by email at FRMConsultations@hertfordshire.gov.uk.

Yours sincerely

Katherine

Katherine Ashworth
SuDS and Watercourses Support Officer
Environment & Transport and Sustainable Growth

Annex

The following documents have been reviewed, which have been submitted to support the application;

- Conceptual SuDS Strategy Report prepared by Innervision Design Ltd, ref 181022, dated 14 February 2023.
- Site Landscape Plan prepared by DCCLA, dwg no. LP/NCDELCH/020, dated January 2022.
- Design, Access and Planning Statement, prepared by Briffa Phillips Architects, no ref, dated January 2023.
- Existing Site Plan and Block Plan prepared by Briffa Phillips, dwg no. 201, dated 12 October 2018.
- Topographical Survey prepared by Terrain Surveys Ltd, dwg no. TS17-456B\1, dated November 2017.
- Proposed Site Plan prepared by Briffa Phillips, dwg no. 217, dated 12 October 2018.