

Application address Twycross Zoological Park Burton Road Norton Juxta Twycross Atherstone Leicestershire CV9 3PX		Planning ref.	23/00948/FUL
		Our ref.	2023/0948/04/F
Description Development of new animal enclosures and associated infrastructure, new lecture theatre, education block, education facilities, sub stations and associated residential block and lodges, new access from Orton Hill, new car park, landscaping and other associated works (following the demolition of some existing buildings).		Consultation date	02/11/2023
		Response date	23/11/2023
Planning officer Sullivan Archer		Reviewing officer	Will Barber
Application type Full		Extension requested	☐
Refer to standing advice ☐	Conditions ☒	Further consultation required ☐	Concerns ☐

Consultation checklist

No.	Description	Check
1	Location plan	☒
2	Proposed layout plan	☒
3	Evidence that the site can be drained	☐
4	Topographic and ground investigation details	☐
5	The total impermeable area pre and post development	☒
6	All potential flood risk sources have been identified and assessed	☒
7	Existing and proposed peak discharge rates	☒
8	Consideration of sustainable drainage systems	☒
9	Attenuation volume calculations	☒
10	Consideration of the maintenance and management of all drainage elements	☒

LLFA Key Observations and Advice

Leicestershire County Council as Lead Local Flood Authority (LLFA) notes that the 2.21ha part greenfield (85%), part brownfield (15%) site is located within Flood Zone 1 being at low risk of fluvial flooding and a low risk of surface water flooding. The proposals seek to discharge at 10 l/s via cellular storage to an on-site watercourse, with permeable paving and full retention separator

for car parking. A small area of the car park is proposed to discharge by infiltration via permeable paving.

The flood risk assessment recommends further drainage survey to identify any live drainage entering the site (2.3.5), and ditch networks (2.4.3), including the proposed outfall (6.3.17). This should be completed to inform the detailed surface water drainage scheme.

Leicestershire County Council as Lead Local Flood Authority (LLFA) advises the Local Planning Authority (LPA) that the proposals are considered acceptable to the LLFA and we advise the following planning conditions be attached to any permission granted.

Advised Conditions

1. No development approved by this planning permission shall take place until such time as a surface water drainage scheme has been submitted to, and approved in writing by the Local Planning Authority. The development must be carried out in accordance with these approved details and completed prior to first occupation.

Reason: To prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site.

2. No development approved by this planning permission shall take place until such time as details in relation to the management of surface water on site during construction of the development has been submitted to, and approved in writing by the Local Planning Authority. The construction of the development must be carried out in accordance with these approved details.

Reason: To prevent an increase in flood risk, maintain the existing surface water runoff quality, and to prevent damage to the final surface water management systems through the entire development construction phase.

3. No use of the development approved by this planning permission shall take place until such time as details in relation to the long-term maintenance of the surface water drainage system within the development have been submitted to and approved in writing by the Local Planning Authority. The surface water drainage system shall then be maintained in accordance with these approved details in perpetuity.

Reason: To establish a suitable maintenance regime that may be monitored over time; that will ensure the long-term performance, both in terms of flood risk and water quality, of the surface water drainage system (including sustainable drainage systems) within the proposed development.

4. No development approved by this planning permission shall take place until such time as infiltration testing has been carried out (or suitable evidence to preclude testing) to confirm or otherwise, the suitability of the site for the use of infiltration as a drainage element, has been submitted to and approved in writing by the Local Planning Authority.

Reason: To demonstrate that the site is suitable (or otherwise) for the use of infiltration techniques as part of the drainage strategy.

Respective Condition Notes

1. The scheme shall include the utilisation of holding sustainable drainage techniques with the incorporation of sufficient treatment trains to maintain or improve the existing water quality; the limitation of surface water run-off to equivalent greenfield rates; the ability to accommodate surface water run-off on-site up to the critical 1 in 100 year return period event plus an appropriate allowance for climate change, based upon the submission of drainage calculations.

Full details for the drainage proposal should be supplied including, but not limited to; construction details, cross sections, long sections, headwall details, pipe protection details (e.g. trash screens), and full modelled scenarios for event durations up to the 24 hour (or longer where required) for the 1 in 1 year, 1 in 30 year and 1 in 100 year plus climate change return periods with results ideally showing critical details only for each return period.

2. Details should demonstrate how surface water will be managed on site to prevent an increase in flood risk during the various construction stages of development from initial site works through to completion. This shall include temporary attenuation, additional treatment, controls, maintenance and protection. Details regarding the protection of any proposed infiltration areas should also be provided.
3. Details of the surface water Maintenance Plan should include for routine maintenance, remedial actions and monitoring of the separate elements of the surface water drainage system.
4. The results of infiltration testing should conform to BRE Digest 365 Soakaway Design. The LLFA would accept the proposal of an alternative drainage strategy that could be used should infiltration results support an alternative approach. Where infiltration is deemed viable, proposed infiltration structures must be designed in accordance with CIRIA C753 "The SuDS Manual" or any superseding version of this guidance.

Advice to the Local Planning Authority

1. Standing Advice – National Planning Policy Framework

When determining planning applications, the local planning authority should ensure flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where informed by a site specific Flood Risk Assessment (FRA) confirming it will not put the users of the development at risk. Where an FRA is applicable this should be undertaken in accordance with the requirements of the National Planning Policy Framework and accompanying Planning Practice Guidance.

2. Standing Advice – Consent

Where there are any works proposed as part of an application which are likely to affect flows in an ordinary watercourse or ditch, the applicant will require consent under Section 23 of the Land Drainage Act 1991. This is in addition to any planning permission that may be granted. Guidance on this process and a sample application form can be found via the following website: <http://www.leicestershire.gov.uk/flood-risk-management>

Applicants are advised to refer to Leicestershire County Council's culverting policy contained within the Local Flood Risk Management Strategy Appendix document, available at the above

link. No development should take place within 5 metres of any watercourse or ditch without first contacting the County Council for advice.

This consent does not consider local watercourse bylaws. It is the responsibility of the applicant to check if the local borough or district council has their own bylaws which the proposals will also need to consider.

3. Standing Advice – Maintenance

Note that it is the responsibility of the Local Planning Authority under the DEFRA/DCLG legislation (April 2015) to ensure that a system to facilitate the future maintenance of SuDS features can be managed and maintained in perpetuity before commencement of the works.

4. Standing Advice – Ground floor levels

For developments in Flood Zone 2 or in 1:100 year Updated Flood Map for Surface Water outline, ground floor levels to be set at a minimum of whichever is higher;

- 300mm above the general ground level of the site OR
- 600mm above the Flood Zone 2 water level.
- Basement rooms to have unimpeded access internally to an upper level

In order to deliver safe development we advise that single storey buildings or ground floor subdivisions with no access to higher floors, should have access to a refuge set above the 1 in 1000 annual probability (0.1%) in any year flood level including an allowance for climate change.

5. Standing Advice – Greenfield Development Runoff

For greenfield sites, the peak runoff rate from the development to any drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event should never exceed the peak greenfield runoff rate for the same event.

The runoff volume from the development in the 1 in 100 year, 6 hour rainfall event should not exceed the greenfield runoff volume for the same event. Where an increase in discharge volume is unavoidable, the proposals should discharge at QBar or provide alternative mitigation in line with CIRIA C753.

6. Standing Advice – Brownfield Development Runoff

For brownfield sites, the peak runoff rate from the development to any drain, sewer or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event must seek to discharge at greenfield runoff rate from the development for the same rainfall event. Where this is clearly demonstrated to not be reasonably practicable, discharge should be restricted as close to greenfield rates as reasonably practicable, but should never exceed the rate of discharge from the site prior to redevelopment.

The runoff volume from the development in the 1 in 100 year, 6 hour rainfall event should be constrained to a value as close as is reasonably practicable to the greenfield runoff volume for the same event, but should not exceed the runoff volume from the development site prior to redevelopment for that event. Where an increase in discharge volume is unavoidable, the proposals should discharge at QBar or provide alternative mitigation in line with CIRIA C753.

7. Standing Advice – Drainage and waste disposal

Where a drainage or waste disposal system is to be constructed or altered that is not proposed to be adopted by either the WASC (Water and Sewerage Company) or the County Council as

highway authority then the system should be constructed in accordance with Part H of Building Regulations 2010.

8. Standing Advice – Overland flow routes

Overland flow routes as shown on the 'extent of flooding from surface water' maps should be considered such that buildings are not placed directly at risk of surface water flooding. Such flow routes should be utilised for roads and green infrastructure.

9. Standing Advice – Ditches

Where a drainage ditch adjoins or flows through a development, provision should be made such that the ditch can be made throughout the life of the development. The ownership and responsibility for maintenance of the ditch should also be clearly identified and conveyed to the relevant parties.

10. Standing Advice – External surfaces

To prevent an increase in the discharge rate or volume due to development of external surfaces, permeable surface material should be utilised where possible, without an impermeable lining unless required to prevent mobilisation of contaminants or groundwater flooding.

Additional information and guidance is available here:

<https://www.leicestershire.gov.uk/environment-and-planning/flooding-and-drainage/>

Note: Response provided by the Lead Local Flood Authority under the delegated authority of the Director of Environment and Transport.