

Summary of technical reports

Strategic site 3: Land North of A46

November 2024

This note provides a summary of the technical work that has been carried out to date in relation to Strategic Site 3: Land North of the A46 Bypass, Thurcaston allocated under Policy SL04 of the emerging Leicester Local Plan 2020-2036.

The site is about 33 ha and has been proposed to be allocated for 420 homes that incorporates green infrastructure, open spaces and sustainable drainage systems amongst other infrastructure.

In May 2023, the Council received an initial pre-application enquiry on behalf of Parker Strategic Land. The pre-planning application was supported by an indicative masterplan (ref. n1980_005H) for approximately 525 dwellings, a local convenience store, elderly accommodation, new vehicular and pedestrian access, public open space, drainage, and other associated works.

It was also supported by the following technical reports:

- Design Statement prepared by nineteen47 – May 2023
- Transport Technical Note (Transport Assessment Pre-application Scoping Note) prepared by RPS – 7 December 2022
- Transport Technical Note (Transport Assessment Pre-application Scoping Note) prepared by RPS - 18 April 2023
- Transport Scoping Report - 4 April 2024
- Preliminary Ecological Appraisal (March 2023) and ecological surveys, including:
 - Preliminary Bat Roost Assessment – March 2023
 - Bat Activity Surveys – March 2023
 - Badger Survey – March 2023
 - Reptile Survey – March 2023
 - Breeding Bird Survey – March 2023
 - Winter Bird Survey – March 2023
- Biodiversity Metric Assessment – April 2023
- Arboricultural Impact Assessment prepared by Middlemarch – 9 May 2023
- Landscape and Visual Appraisal prepared by FPCR - April 2023
- Heritage Impact Assessment prepared by Marrons - April 2023
- Hydraulic Modelling Report prepared by BWB – December 2022
- Engineering Pre-Application Technical Note prepared by BWB – March 2023

The above reports informed the preparation of the indicative masterplan. A summary of the conclusions of each of the above reports is outlined below.

Transport Scoping Reports and Technical notes

A number of Transport Scoping notes have been prepared to support pre-application discussions with Leicestershire County Council (LCC), Leicester City Council (LCityC) and National Highways (NH) since December 2022. The latest Scoping Report (dated 4 April 2024) has been updated to take on board all comments received from these statutory bodies in response to earlier scoping notes.

The April 2024 Scoping Report sets out the proposed contents and methodology of the forthcoming Transport Assessment and Travel Plan Reports, with a view to undertaking the preparation of the documents on an agreed basis with the relevant highway authorities.

It also provides details of two proposed access points for the proposed development including:

- Access 1 – Three-arm roundabout on Anstey Lane. Visibility splays of 2.4m x 120m and 2.4m x 215m can be achieved in a northerly and southerly direction respectively.
- Access 2 – Simple priority junction with ghost island right turn lane on Ashton Green Road. Visibility splays of 2.4m x 77m and 2.4m x 91m can be achieved in a northerly and southerly direction respectively.

The Design Statement prepared by nineteen47 provides further information in relation to the location and accessibility of the site via sustainable transport modes.

Summary and recommendations

A full Transport Assessment and Travel Plan will be required to assess the impact of the development on the local Network in support of an application. Where appropriate, suitable mitigation will be secured via a S106 legal agreement as part of the planning application process.

The Council has reviewed the Transport Technical Notes scoping report and Design Statement and accepts its findings and recommendations. It will be necessary to include a reference in the Strategic policy SL04, to require a transport assessment and travel plan to be undertaken to support a planning application.

Ecology and Biodiversity

A Preliminary Ecological Appraisal (PEA) was prepared by Middlemarch Environmental in March 2024.

Section 5 of the PEA outlines the findings of the desk study undertaken to determine the presence of any designated nature conservation sites and protected species in proximity to the site. This included a search for:

- European statutory nature conservation sites in the UK (now referred to as the ‘National Site Network’) within a 5 km radius of the site (extended to 10 km for any statutory site designated for bats);
- UK statutory sites within a 2 km radius; and,
- Non-statutory sites and protected/notable habitats and species records within a 1 km radius.

A preliminary impact assessment of the construction and operational activities of the proposed development submitted as part of the pre-application enquiry is contained in Section 6 of the PEA. A summary of the findings is outlined below.

Findings

Nature Conservation Sites

UK Statutory Sites

Bradgate Park and Cropston Reservoir SSSI is located approximately 1.5 km away from the proposed development site.

Due to the distance from the Reservoir to the site, lack of any direct connectivity between the site and the survey area and the presence of intervening agricultural land **it is considered unlikely that the proposed development will directly impact on this SSSI.**

Although the survey area lies within an Impact Risk Zone for the SSSI, **the proposed residential development does not fall within one of the highlighted risk categories from which adverse effects are likely.**

The Ecological Appraisal acknowledges that there is the potential of indirect impacts from the proposed development e.g. an increase in recreational use of the SSSI, though it should be noted that there is no formal public access to Cropston Reservoir.

However, part of the SSSI site is managed as a Country Park which occupies an extensive area and accommodates upwards of 500,000 visitors annually.

The Ecological Appraisal also notes that there are equally attractive areas of Public Open Space within a 3 km radius of the Thurcaston site e.g. Watermead Country Park.

In addition, the proposed development site will incorporate significant areas of ‘Green and Open Space’ and footpaths offering onsite recreational opportunities and links to additional waymarked footpaths into the surrounding countryside.

Non-Statutory Sites

Ashton Green LWS is located 60 m south of the proposed development site. Although, it is separated from the site by the A46, there is some connectivity via a tunnel beneath the A46 linking the two sites.

In addition, the small watercourse draining through the north-east of the Thurcaston site is linked to Ashton Green LWS, albeit culverted beneath the A46.

It is considered unlikely that there will be any direct impacts to this LWS.

Habitats

Table 6.1 of the PEA summarises the potential impacts on notable habitats that are likely to occur as a result of the construction and operational activities of the proposed development, this includes potential impacts to dense scrub, running water, scattered trees and semi-natural broad-leaved woodland. Impacts of these include habitat loss, damage and fragmentation to trees, water corridors and habitats.

Protected and Notable Species

Table 6.2 summarises the potential impacts on species/species groups that are likely to occur as a result of the construction and operational activities of the proposed development including Aquatic mammals (Otter), Common amphibians, Badger, Bats, Birds, Terrestrial mammals (hedgehog, brown hare, polecat). Impacts include factors such as:

- Killing or injuring species
- Loss and fragmentation of habitats
- Long term risk to commuting and foraging animals (hedgehogs)

Invasive Plant Species

No non-native invasive plant species were recorded during the field survey. However, it is considered possible that some species could occur e.g. Himalayan balsam, particularly along the existing watercourse. In addition, the overgrazed horse paddocks in the north-east/east of the site provide conditions which may be conducive to the presence of non-native plant species.

Recommendations

Section 7 of the PEA makes a number of recommendations based on the findings including:

- 1. Consultation with Statutory/Non-statutory Bodies:** it is considered that there are unlikely to be direct impacts to Bradgate Park and Cropston Reservoir SSSI and Ashton Green LWS, but there is potential from indirect impacts. Therefore, consultation is recommended with the Local Planning Authority and Natural England. Ashton Green LWS is located within 60 m of the proposed development site, though separated from it by the A46, and it considered that construction impacts of the proposed development can be controlled through the implementation of a Construction Ecological Management Plan.
- 2. Ecological Surveys:** given the presence or potential presence of a range of protected and notable species it is recommended that the following species surveys are undertaken:
 - Bats – Preliminary Bat Roost Assessment and Bat Activity Survey
 - Badgers – Presence/absence
 - Birds – Breeding and Wintering Bird Surveys
 - Reptiles – Presence/absence

3. **Scheme Design:** the proposed development should be designed in accordance with the ecological mitigation hierarchy as set out in the National Planning Policy Framework, and Planning Practice Guidance.
4. **Construction Ecological Management Plan (CEcMP):** a CEcMP should be produced for the site setting out the safeguards and appropriate working practices that will be employed to minimise adverse effects on biodiversity and ensure compliance with UK Wildlife Legislation. The details of the CEcMP will be informed by the final site design and ongoing ecological survey works but minimum recommendations are also made.
5. **Landscape and Ecology Management Plan (LEMP):** a LEMP should be produced setting out the detailed establishment and management of all on site compensation and enhancement measures. The LEMP should be submitted to the Local Planning Authority for approval (typically to discharge planning conditions) and should be implemented in full thereafter.

The Council has reviewed the findings of the Preliminary Ecological Appraisal (March 2023) and ecological surveys. In respect of draft strategic policy SL04 it will be necessary to include the following mitigation in the proposed modifications:

- Scheme design in accordance with Design policy DQP01
- Submission of the Construction Ecological Management Plan
- Submission of a Landscape and Ecology Management Plan

Ecological Surveys

Further to the PEA, a number of ecological surveys have been conducted, as listed in the Introduction of this note. Where required, mitigation measures have been recommended to ensure compliance with wildlife legislation and relevant planning policy in relation to bats, badgers, breeding birds and wintering birds.

No reptiles were recorded on site during the presence/absence survey, therefore no recommendations for further work are made.

The council have reviewed the ecological surveys via the pre-application request. These are welcomed by the council, further surveys will be required for species where the surveys are not out of date, to meet with guidance on each survey's life span.

Biodiversity Net Gain

An initial Biodiversity Metric Assessment was prepared in March 2023 by Middlemarch which identifies that the proposed development (as shown in Table 1.2 of the report) would result in a net gain of 9.51 BU and 8.72 BU for habitats and hedgerow features respectively. This net gain exceeds the 10% net gain target for habitats and hedgerows, advocated by the Environment Act 2021.

Findings and recommendations

The Assessment also identifies that the proposed development could result in a net loss of - 1.91 BU for river and stream features.

As part of a planning application, compensation for the residual losses of river and stream features will therefore be required to ensure that the development can achieve an overall net gain for biodiversity and ensure compliance with planning policy.

The Council have reviewed the initial Biodiversity Metric Assessment and accepts their findings and recommendations on the whole. However, the Council would anticipate that DEFRA Metric to be completed in Version 4.0.

Arboriculture

The Arboricultural Assessment prepared by Middlemarch identifies that the proposed development provides the opportunity to achieve high-quality landscapes containing beneficial tree cover within the context of the development infrastructure, residential areas, commercial areas and amenity landscapes.

Findings and recommendations

On balance, it concludes that the outline proposals would be beneficial in terms of arboriculture as all the existing trees of moderate and high-quality will be retained and incorporated into the development alongside new tree planting.

The Council has reviewed the Arboriculture Assessment and accepts the overall findings and recommendations. However, the Council will include a requirement in strategic policy SL04 to retain and incorporate all the existing trees of moderate and high quality into the development alongside new tree planting and maintenance programmes/tree surveys. This is to address the issues raised by the Tree officer in relation to the pre-application advice:

- Suitable tree planting to be implemented, where trees have been removed
- Requirement for an in depth tree protection Plan as part of a planning application.
- Veteran Tree Survey to ascertain if trees meet the criteria.
- A full new Tree planting and maintenance to be considered as part of the planning application.

Landscape and Visual

The Landscape and Visual Appraisal (LVA) states that the site is not covered by any national or local designations. Thurcaston Conservation Area adjoins a section of the site's northern boundary.

The LVA contains an Assessment of the proposed development.

Findings and recommendations

Overall, the LVA concludes that the proposed development represents an extension of Leicester, and the site is visually contained to most of the surrounding area.

Potential views of the site are mitigated through a number of design measures which will create a suitable edge to the development in addition to a range of habitats, vegetation enhancements and connections.

Whilst there would inevitably be some adverse landscape and visual effects at completion, it is judged that the effects of the proposed development would be localised and limited in their geographical extent and will not result in any unacceptable long-term harm.

It also notes that the removal of the application site from the Green Wedge would not harm the function of the wider Green Wedge area.

The Council has reviewed the Landscape and Visual Appraisal's findings and recommendations. The council will amend the policy to include a requirement to consider the setting of Thurcaston Conservation Area through the design of the scheme and landscape features.

Flood Risk and Drainage

The site is located entirely in Flood Zone 1 (Less than a 1 in 1000 annual probability of river or sea flooding).

EA Risk of Flooding from Surface Water mapping shows a low (1 in 1000) to high (1 in 30) risk flow route to bisect the east of the site.

Findings and recommendations

This flow route is considered to be a proxy of the flood extents associated with an Unnamed Ordinary Watercourse (UOW) in this location. The UOW enters the site through a culvert under the A46 and flows in a north-westerly direction into a culvert under Leicester Road before flowing to its confluence with the Rothley Brook approximately 1km downstream of the site.

Due to this pluvial flood risk, a direct rainfall model has been developed to identify flood risk to the site. The model incorporates all floodplain structures of the UOW including culverts under the A46, Leicester Road and an underpass under the A46. Consideration of the latest climate change allowances is included and is detailed in the Hydraulic Modelling Report prepared by BWB Consulting, **the report recommends that the model results are used to inform the site masterplan and as part of a future Flood Risk Assessment for the site.**

The reports prepared by BWB conclude that **the sequential arrangement of development and incorporation of existing flooding routes in and around the site, as well as appropriate management of surface water runoff through a sustainable drainage strategy** will ensure that flood risk could be managed within the proposed development in accordance with NPPF requirements.

The Council has reviewed the findings of the Hydraulic Modelling Report prepared by BWB – December 2022. In respect of draft strategic policy SL04, it will be necessary to include the following mitigation in the proposed modifications the need for a Flood Risk Assessment.

Heritage

The Assessment considers the known and potential historic environment resources within the site and its environs and any potential impacts which may be imposed upon it by the site's development.

Findings and recommendations

The Assessment reaffirms that there are no known designated or non-designated heritage assets within the site boundary.

A search area of 1km surrounding the site for designated and non-designated heritage assets was also carried out. An initial review demonstrated that a total of 18 designated heritage assets lie within the search area and had, in principle, an ability to be indirectly impacted upon by the proposed development in principle. There are no non-designated heritage assets listed within Thurstaston.

An additional 3km buffer was used to assess any other designated heritage assets which, on the grounds of potential inter-visibility and the nature of the heritage assets themselves, also had the potential to be impacted upon.

The Assessment concludes that:

“The proposed development would have a neutral impact upon the setting and significance of the Grade II listed building of the Church of All Saints, the Grade II listed buildings of Coffin Bridge and Numbers 90 and 92 Rectory Lane, and the Scheduled Monument at Beaumont Lees”.*

“The development of part of the southern rural setting of the village of Thurstaston would bring about a degree of less than substantial harm, at the lowest end of the scale, to the setting and significance of the Thurstaston Conservation Area, and the Grade II listed Thurstaston Grange”.

“The impact would be well mitigated by proposed landscaping within the northern edge of the site which integrates well with the established character of the liminal edge of the village”.

“The proposed development would not impact, directly or indirectly on the significance of any other designated or non-designated heritage assets”.

In the 'Recommendations' section of the Assessment at paragraph 4.1.4 the report concludes:

“The masterplan has been generated iteratively in consultation with a number of specialists, and the proposed mitigation planting is considered sufficient to mitigate impacts upon heritage assets. As such, there are no further recommendations.”

The Council has reviewed the findings of the Heritage Assessment. In respect of draft strategic policy SL04 it will be necessary to produce the masterplan with consideration of heritage assets surrounding the sites.

Noise

BWB consulting carried out a baseline noise survey over a period of 24-hours at several locations across the site.

Findings and recommendations

This confirmed that the existing noise climate is dominated by road traffic on the A46, Ashton Road, Anstey Lane and the surrounding road network. As such, recommendations made include:

- **a stand-off is incorporated, and gardens are located on the screened side of dwellings, to ensure recommended external noise levels are achieved in dwellings located closest to the A46 and Ashton Road.**
- **An acoustic barrier along the A46 side of the development may also be required in the form of a bund or fence however this is subject to the final layout.**
- **A suitable glazing and ventilation strategy will be required to ensure recommended internal noise levels are achieved.**

The Engineering Pre-Application Technical Note prepared by BWB confirms that the indicative masterplan shows a development layout that incorporates the above recommendations.

The Council has reviewed the findings of the Engineering Pre-Application Technical Report Note regarding noise implications. In respect of draft strategic policy SL04 it will be necessary to include the following mitigation to incorporate measures to address identified noise levels in the design of the scheme (e.g. acoustic barrier, suitable glazing & ventilation strategy, location of gardens)

Air Quality

The proposed development is not located within, or in the immediate vicinity of, an Air Quality Management Area (AQMA). Local air quality monitoring in the vicinity of the site recorded pollutant concentrations below the current relevant air quality objectives.

Whilst the site is located outside an AQMA, it is noted that it does not currently comprise sensitive uses, and that the A46 Leicester Western Bypass forms the southern boundary of the site.

The A46 is considered to represent the primary emission source in the area and, taking into consideration the prevailing south westerly wind direction in the area, emissions from road traffic on the A46 are considered to be carried into the Site.

Findings and recommendations

There is the potential for elevated pollutant concentrations to be experienced within the Site along the southern boundary adjacent to the A46. However, it is considered unlikely that the current relevant air quality objectives will be exceeded.

To safeguard air quality for future residents of the site, **a detailed air quality assessment is currently being progressed to predict pollutant concentrations within the site and determine the suitable build area for residential dwellings with regard to the current relevant air quality objectives.**

In addition to the influence of existing road traffic on pollutant concentrations within the site, the proposed development will generate additional road traffic which may influence existing air quality.

A detailed assessment of the impact of development generated road traffic is currently being progressed to determine any impacts, and recommended measures to minimise impacts where appropriate will be recommended.

The site is not located in the vicinity of any existing significant sources of dust, odour, industrial emissions or rail emissions and therefore, these sources are not considered to significantly influence air quality within the site.

It is considered that, **with the implementation of any mitigation measures identified in the detailed air quality assessment to minimise operational impacts associated with development-generated traffic and site suitability, air quality** will not represent a significant consideration with regard to planning.

The Council has reviewed the findings of the Engineering Pre-Application Technical Report Note in respect of air quality implications. In respect of draft strategic policy SL04 it will be necessary to include the need for an air quality assessment in the policy.

Indicative Land Use Masterplan

