

---

# **AIR QUALITY ASSESSMENT**

## **Project:**

### **FULL PLANNING APPLICATION FOR THE CONSTRUCTION OF A NEW DWELLING AND DETACHED GARAGE**

## **Proposed Site:**

Land to the West of Chapel Road,  
Old Leake Commonside  
Boston  
Lincolnshire  
PE22 9PP

**Applicant:** Mr. & Mrs. S. Mackay

**Date:** March 2021

Prepared by:

**AF Architecture**

65 Robin Hoods Walk,  
Boston, Lincolnshire PE21 9EX

Tel: 07985635436 E-mail: [adrian@afarchitecture.co.uk](mailto:adrian@afarchitecture.co.uk)



## **1.0 INTRODUCTION –**

This document has been written to support the submission of a full planning application to Boston Borough Council for the proposed construction of a detached dwelling and garage on land to the west of Chapel Road, Old Leake Commonside.

The site obtained outline planning approval under application reference: B/19/0239 for the construction of 2no. dwellings with matters reserved.

## **2.0 SITE APPRAISAL –**

### **2.1 SITE LOCATION & SURROUNDINGS**

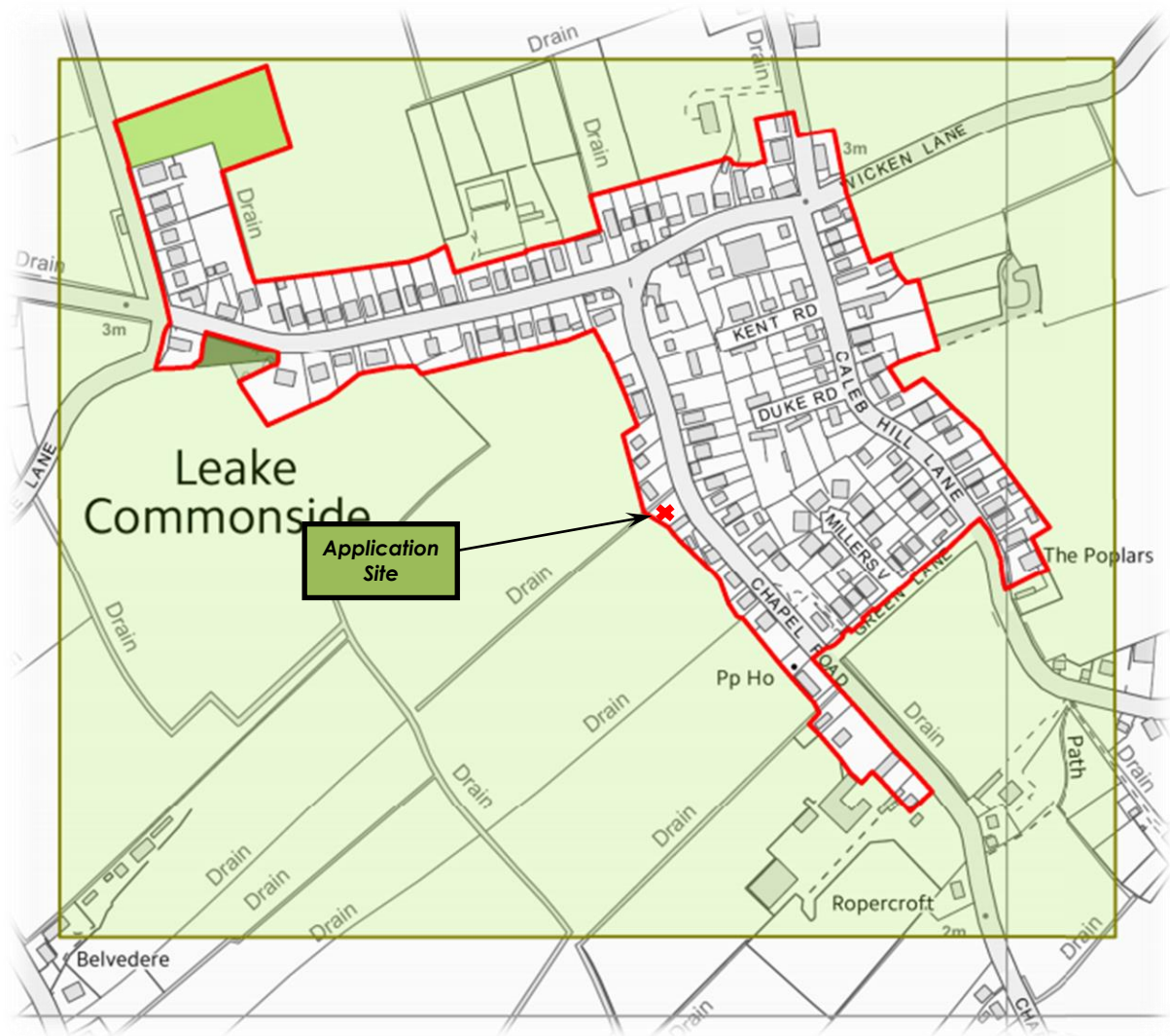
2.1.1 The application site is located off Chapel Road, Old Leake Commonside.

2.1.2 The national grid reference for the site is 539739E 352399N.



2.1.3 The application site is located between existing dwellings to the north and south fronting onto Chapel Road.

2.1.4 Policy 1 of the SELLP, which identifies Leake Commonside as an 'Other service centre or settlement', would generally support the redevelopment of the site for housing as



it is located within the settlement boundary of Leake Commonsides and will help support the settlement's role as a service centre for the settlement itself, helps sustain existing facilities or helps meet the service needs of other local communities. Development in this settlement will normally be limited to infill.

- 2.1.5 The outline approval for two new dwellings on the application site has established the suitability of it for residential development. It is therefore considered that the principle of residential development on this site for a single detached dwelling and garage would be supported.

## 2.2 APPLICATION SITE DESCRIPTION

- 2.2.1 The application site area is a previously developed piece of land within the built form along Chapel Road. It is currently vacant with an array of agricultural buildings on it.
- 2.2.2 The site is not in open countryside but rural in nature. It's location within the village is between existing dwellings alongside Chapel Road. There is a mixture of single storey and dormer bungalows and two storey dwellings in the vicinity.

- 2.2.3 The applicant has purchased the land with planning permission along with approximately 7 acres of agricultural land to the south west of the 'residential curtilage'
- 2.2.4 Given the abutment of the site boundaries with two dwellings, the application site is certainly infill and within the developed footprint of the village.
- 2.2.5 The boundaries are well defined to the NW and SE by boundary fences and fronted by Chapel Road to the NE. The land behind is typically bound as agricultural land by surface water drains.
- 2.2.6 A topographical survey has been carried out on the site by the previous applicants. Average levels on the road are 2.3m ODN. Average levels on the site are in the region of approximately 2 – 2.1m ODN.



- 2.2.7 The Decision Notice for the previous approval confirms that finished floor levels for two storey dwellings shall be set no lower than 500mm above existing ground levels which would set finished floor level for the proposed dwelling at approx. 2.5m ODN.



View SW from public highway





Two storey properties opposite site



Two storey properties opposite site

### **3.0 THE PROPOSAL –**

- 3.0.1 This application seeks approval for the construction of a new two storey detached dwelling and detached Garage
- 3.0.2 The approach in this document seeks to minimise or offset road transport emissions wherever practicable, by securing reasonable emission mitigation while also seeking to counter the cumulative impacts arising from all developments and maximise potential benefits to health and the environment.

### **4.0 CLASSIFICATION OF DEVELOPMENT**

- 4.0.1 Considering the following:

- location of the application site,
- likely increased traffic generation created during the construction phase and by private vehicle movements associated with the new dwellings
- and the overall scale and type of development proposed .....

..... we class the proposal to be of a minor classification. A detailed Air Quality Assessment is therefore not required as part of the application submission.

- 4.0.2 Nevertheless, the impact and potential for mitigation are considered below in accordance with the 'East Midlands Air Quality Network Planning Guidance'.
- 4.0.3 The guidance assumes that minor and medium schemes should not have a significant impact on air quality if the appropriate Type 1 and 2 mitigation, as outlined, is incorporated into development proposals. Where appropriate mitigation has been incorporated, such schemes can be considered as being sustainable in air quality terms. In addition to Type 1 and Type 2 mitigation, major schemes may require additional Type 3 mitigation which is determined in scale by the calculation of emission damage costs associated with the scheme.

### **4.1 ASSESSMENT**

- 4.1.1 The site location is in a rural environment where housing density in the vicinity is relatively high and lines both sides of Chapel Road. The application site is currently an open area with disused and redundant agricultural buildings on it.
- 4.1.2 Construction noise and dust should not be an issue for the neighbouring properties and amenity in close proximity to the site. Boundary fencing will be retained and any activities that could generate adverse levels of noise and dust would be carried out in a considerate way through effective project management.

**Table 3: Summary of the Air Pollution Mitigation Requirements**

Development Classification	Assessment Required	Mitigation	Compensation
Minor	None (other than for exposure)	Type 1	-
Medium	None (other than for exposure)	Type 1 and 2	-
Major	Full AQ Assessment in line with Council Guidance, including evaluation of emission and concentration changes.	Type 1 and 2	Type 3

- 4.1.3 Whilst the majority of the site as proposed is to be developed and occupied by the dwelling, parking and turnings areas, the development will incorporate lawned gardens, supplementation of trees within the landscaping scheme which will serve to balance the impacts of development and emissions. Furthermore the 7 acres of land to the rear of the proposed dwelling will also be landscaped to become an area of conservation to promote and enhance ecological biodiversity through the planting of native trees and hedging to the perimeter with future plans for the excavation of a conservation lake.
- 4.1.4 The generation of construction traffic will be minimal in nature considering the number of units proposed and requirement for heavy plant.
- 4.1.5 The layout of the site should promote an improved air quality for occupants by setting the curtilage of the residential buildings and associated window/door openings back from the roadside and proposed parking. The proposed buffer created by the grass verges and planting and retention of trees alongside the road would also be of benefit for air quality.
- 4.1.6 All private amenity would also be located to the rear away from the road and either screened by buildings and/or tree planting. Chapel Road is not a busy road in any case being in a rural location. The land to the rear will form a natural extension of the rear garden and a haven for wildlife
- 4.1.6 It is not considered however that the level of traffic generation at this location would exceed levels recommended for satisfactory air quality to occupants.

## **4.2 ASSESSMENT**

- 4.2.1 For a minor development of this nature the guidance document recommends three levels of mitigation against air pollution.
- 4.2.2 Type 1 mitigation is relevant in this case.
- 4.2.3 The potential mitigation measures are outlined below.

- 4.2.4 Other than normal good practice and a considerate approach to construction activities, we do not consider the potential emissions during the construction phase to be of sufficient levels for concern or the need for specific protocol to be in place.
- 4.2.5 There is no demolition involved in the project which could otherwise be a contributor to dust and noise and will simply involve the removal and disposal of materials from the dilapidated timber and corrugated aluminium clad outbuildings.
- 4.2.6 The provision of Electric Vehicle Recharging points would be incorporated into the scheme and secured by planning condition if deemed necessary by the Local Authority.

**Table 4: Summary of the Potential Air Pollution Mitigation**

<b>Type 1</b>	The adoption of an agreed protocol to control emissions from construction sites Provision of Electric Vehicle Recharging All gas-fired boilers to meet a minimum standard of 40mgNOx/kWh or consideration of alternative heat sources
<b>Type 2</b>	Practicable mitigation measures supported by the NPPF; Active travel (cycling/walking) infrastructure including, but not limited to: <ul style="list-style-type: none"><li>• Developing cycle routes or pedestrianised areas and infrastructure to support low emission modes of transport;</li><li>• improved facilities to encourage cycling or other non-motorised travel (shower facilities, secure cycle storage etc); and</li><li>• signage;</li></ul>
<b>Type 3</b>	Additional measures that may be required by either planning condition or Planning Obligation by a Section 106 Agreement to make the site acceptable, using reasonable endeavours. The Type 2 & 3 mitigation measures presented in this guidance are not exhaustive lists and should be seen as defaults. Innovative solutions to air quality mitigation are encouraged.

- 4.2.7 The siting of the EV point would be adjacent to the parking area in front of the proposed garage building.
- 4.2.8 The installation of high efficiency boilers is standard in construction and dictated by Building Regulations. This is not a requirement outside of the normal statutory requirements of obtaining Building Regulations approval. But it is the intention to supplement a high efficiency boiler with high levels of quality insulation in order to maximise the thermal efficiency of the proposed dwelling.

### **4.3 CONCLUSION**

- 4.3.1 The potential for air quality pollution as a result of the proposed development has been considered and it is deemed that the development is of a minor nature.
- 4.3.2 Recommendations in the 'East Midlands Air Quality Network Planning Guidance' have been outlined above and should suffice to mitigate and adverse impacts.