

INDEPENDENT TECHNICAL **REVIEW**

Planning Application S26/0710 **Baston Green – Land South of Deeping Road,** **Baston**

Consolidated Technical Review

Chapters 1–8

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INDEPENDENT TECHNICAL REVIEW

Chapter 1

Introduction, Purpose and Scope

Planning Application S26/0710 — Baston Green

Sections 1.1–1.12

1.1 Introduction

This Independent Technical Review considers the transport, highway, drainage, environmental and cumulative effects associated with Planning Application S26/0710, which is an outline application for up to 283 residential dwellings on land fronting Deeping Road, Baston, with all matters reserved apart from access.

The review has been prepared to assist consideration of whether the evidence submitted in support of the application provides a sufficiently robust basis upon which the Local Planning Authority can determine the proposal.

It is not intended to oppose residential development in principle, nor does it seek to replace the statutory responsibilities of South Kesteven District Council, Lincolnshire County Council as Highway Authority, the Lead Local Flood Authority or other technical consultees, rather its purpose is to provide an independent examination of the submitted evidence, considered alongside observed local conditions, relevant planning policy, consultation responses and other reasonably foreseeable changes affecting the local environment.

1.2 Purpose of the Review

The principal purpose of this report is to assess whether the conclusions presented in support of S26/0710 by Bamford remain robust when considered against the actual characteristics of Baston and the wider highway environment.

Attention is given to:

- the scale and distribution of traffic generated by up to 283 dwellings;
- the proposed accesses from Deeping Road/A15 and Greatford Road;
- the character and existing operation of Greatford Road;
- operation of the A15 corridor and Baston crossroads;
- existing visibility and queuing conditions;
- pedestrian movements and the route to Baston Primary School;
- primary-school capacity and the relationship between school-place availability, travel behaviour and school-related traffic;
- walking and cycling infrastructure;
- existing vehicle speeds;
- construction traffic and HGV movements;
- permitted and reasonably foreseeable mineral activity;
- surface-water drainage and observed local flood conditions;
- construction dust, air quality, noise and vibration;
- cumulative effects; and
- the deliverability, timing and enforceability of proposed mitigation.

The review distinguishes throughout between an issue that already exists and the potential effects created by the proposed development.

Where an existing constraint is identified, the relevant question is generally whether additional development would increase the frequency of interactions or exposure to that constraint, rather than attributing the underlying condition itself to the proposed development.

1.3 Development Proposal

Planning Application S26/0710 seeks outline permission for up to 283 residential dwellings.

The site lies on the southern edge of Baston on agricultural land fronting the A15/Deeping Road.

Two principal vehicular access points are proposed:

1. a primary access from the A15/Deeping Road; and
2. a secondary access connecting the development to Greatford Road near King Street.

The proposed Greatford Road connection is particularly relevant because Greatford Road is:

“an established residential street rather than a purpose-built distributor road.”

It accommodates residential frontage, numerous private accesses, pedestrian activity, frontage parking and existing vehicle movements.

The implications of introducing additional development traffic into that environment form an important part of this review.

1.4 Approach to the Evidence

The review adopts an evidence-led approach.

It considers information submitted by the applicant and its consultants together with:

- consultation responses from relevant authorities;
- official Lincolnshire County Council school-capacity and admissions evidence;
- planning and highway policy;
- available traffic and speed information;
- submitted highway drawings;
- site observations;
- original photographic evidence;
- publicly available information concerning relevant mineral development;
- evidence concerning proposed traffic restrictions; and
- observed local drainage and flood conditions.

Where information has not been identified or cannot be independently verified, the report seeks to confirm that rather than substitute an assumption.

Similarly, photographic evidence is used to demonstrate observable physical or operational conditions but is not treated as establishing matters that require measurement or specialist modelling.

For example, a photograph may demonstrate restricted sightlines, pedestrian activity or an existing queue. It does not, by itself, establish a precise visibility distance, traffic-flow rate, queue duration or collision risk.

This distinction is maintained throughout the report.

1.5 Applicant-Appointed Technical Evidence

A substantial part of the transport evidence supporting the application has been prepared by consultants appointed by the applicant.

That is normal planning practice and does not, of itself, reduce the validity of the evidence.

However, applicant-appointed technical evidence remains evidence submitted in support of the planning application rather than independent evidence commissioned by the determining authority.

The important consideration is therefore whether the methodology, assumptions, survey information, modelling and conclusions are sufficiently transparent and reproducible to enable the Local Planning Authority and statutory consultees to test their reliability.

This review prefers to focus upon the evidence and methodology rather than the motivation of those who prepared it.

1.6 Existing Highway Context

The proposed development would interact with an existing village highway environment rather than an unconstrained new road network.

The principal roads considered are:

- the A15/Deeping Road;
- Greatford Road;
- Main Street;
- King Street;
- the wider routes affected by development and mineral traffic.

Attention is given to the Greatford Road/A15 and Main Street/A15 junction environment.

Site evidence demonstrates existing pedestrian interaction, visibility constraints and queuing within parts of this network.

Speed-survey evidence considered later in the report also indicates that approximately 10% of recorded vehicles exceeded the existing 30 mph speed limit on Greatford Road.

None of those observations establishes that the proposed development would itself create an unacceptable highway-safety effect. They simply establish the baseline conditions into which additional vehicle and pedestrian movements would be introduced.

1.7 Wider and Changing Baseline

An important feature of this review is recognition that the future baseline is not static.

The proposed development would be constructed and occupied over several years. During that period other changes may affect the local highway and environmental conditions.

Of relevance is the permitted Thetford House Farm mineral development, which represents a credible component of the future baseline where its operation may overlap with construction or occupation of the proposed housing development.

The future baseline also includes social-infrastructure demand generated by the development. Official Lincolnshire evidence records Baston C of E Primary School with a current Published Admission Number of 25 and a school size of 190. Lincolnshire's 2024 admissions review recorded that Baston had to over-offer 28 Reception places against a PAN of 25. That historic over-offer does not establish the current number of vacancies across all year groups, but it provides objective evidence of capacity pressure and supports verification of the current and forecast school-place position before determination.

The applicant has itself stated that the need for education contributions remains to be discussed with officers and consultees and secured, where required, through the Section 106 process. The education position is therefore relevant both as an infrastructure matter and because any inability to accommodate children locally may affect the credibility of walking-to-school assumptions and school-peak traffic forecasts.

Other quarrying mineral proposals are treated more cautiously according to their planning status.

The review does not assume that every potential quarry will operate simultaneously or at maximum output. Instead, it distinguishes between:

Realistic future baseline — development already permitted or sufficiently committed.

Cumulative assessment — other development requiring consideration through the planning process.

Sensitivity testing — credible but less certain future activity capable of materially altering the assessment conclusions.

This approach avoids both understating foreseeable future change and overstating development which remains uncertain.

1.8 Role of Site and Photographic Evidence

Original site photographs form an important part of this review.

They record, amongst other matters:

- the residential character of Greatford Road;
- private accesses and visibility conditions;
- pedestrian activity;
- conditions around the Greatford Road/A15 junction;
- existing queuing approaching the A15; and
- drainage conditions opposite the proposed development.

The photographs are not presented as substitutes for technical modelling, but their purpose is to provide a real-world check against assumptions used within the technical assessment. Where the observed conditions appear materially different from the presented assumptions or where the submitted evidence does not clearly explain how those assumptions have been represented, the report identifies the matter for further consideration.

1.9 Assessment Principles

Three related but distinct considerations recur throughout this review:

Capacity — whether the highway infrastructure can theoretically accommodate forecast demand.

Operation — how the network actually functions, including queuing, delay, turning movements, visibility and interaction between road users.

Exposure and road character — whether additional traffic or pedestrian movements increase the frequency with which people encounter existing constraints within an established residential environment.

A conclusion that a junction remains within theoretical capacity does not necessarily answer every question concerning operation, pedestrian safety or the character of the route, similarly the existence of an existing constraint does not automatically demonstrate that additional development is unacceptable.

This assessment therefore considers the relationship between the two.

1.10 Structure of the Report

Chapter 2 — Planning Context, Policy Framework and Decision-Making Principles

Establishes the statutory and policy framework against which the evidence should be assessed.

Chapter 3 — Description of the Proposed Development

Describes the site, development proposal, access arrangements, highway context, walking and cycling connections and sensitive receptors.

Chapter 4 — Transport Assessment Methodology

Reviews the applicant's traffic evidence, survey information, trip generation, distribution, junction modelling and treatment of cumulative traffic.

Chapter 5 — Traffic Impact and Highway Operation

Examines development traffic, Greatford Road, the A15 corridor, junction operation, queuing, pedestrian and school-route effects and cumulative highway impacts.

Chapter 6 — Flood Risk, Surface-Water Drainage and Local Drainage Capacity

Considers the applicant's drainage strategy alongside local flood history and photographic evidence of the receiving drainage environment.

Chapter 7 — Air Quality, Dust, Noise and Construction Disturbance

Examines construction and operational environmental effects, sensitive receptors and the interaction with construction and mineral HGV activity.

Chapter 8 — Cumulative Effects, Mitigation and Planning Safeguards

Brings the preceding evidence together, establishes the future-baseline and sensitivity-testing approach, and considers mitigation, planning conditions, obligations, highway agreements and implementation triggers.

1.11 Scope and Limitations

This report is an *Independent Technical review* of the available planning evidence and observed local conditions. It is not presented as a substitute for a Transport Assessment, Road Safety Audit, flood-risk model, air-quality model or other specialist assessment requiring original technical modelling.

Where specialist evidence is required, the report identifies the issue that should be demonstrated or tested rather than claiming to provide that specialist calculation itself.

The review has also sought to distinguish carefully between:

- fact and observation;
- applicant assertion;
- independent evidence;
- reasonable inference;
- committed development;
- future scenarios requiring sensitivity testing.

This is intended to ensure that the conclusions remain proportionate to the evidence available.

1.12 Chapter Conclusion

Planning Application S26/0710 represents a substantial extension to **Baston involving a 47% increase in housing** and would introduce new vehicle, pedestrian and construction activity into an existing village and strategic-road environment.

The central purpose of this review is therefore not simply to determine whether individual technical standards can be met in isolation.

It is to examine whether the evidence demonstrates that the development can be accommodated satisfactorily when existing conditions, reasonable future changes, cumulative effects and the practical delivery of mitigation are considered together.

N.B: Observation

The strength of the planning case should ultimately depend upon the robustness of the evidence. Where existing constraints are demonstrated, the relevant question is not whether the proposed development created those constraints, but whether the additional movements and activities associated with 283 dwellings can be accommodated without producing unacceptable effects when assessed against the realistic future environment.

INDEPENDENT TECHNICAL REVIEW

Chapter 2

Planning Application S26/0710 — Baston Green

Planning Context, Policy Framework and Decision-Making Principles

Purpose

Planning decisions are required to balance the need for sustainable development against the protection of existing communities, infrastructure and the environment. National and local planning policies provide the framework within which those judgements are made. This chapter reviews that framework and identifies the transport principles relevant to the assessment of Planning Application S26/0710.

2.1 Introduction

This chapter establishes the statutory planning context against which the transport and highway evidence accompanying the application should be assessed. It is not intended simply to list planning policies. Instead, it explains how those policies guide the evaluation of transport evidence and assist the Planning Committee in reaching an informed decision.

2.2 The Planning Decision

The Committee's role is to determine the application in accordance with the Development Plan unless material considerations indicate otherwise. The question is therefore not whether every aspect of the proposal is ideal, but whether the available evidence demonstrates that the proposal is acceptable in planning terms.

2.3 Policy Hierarchy

The review has been undertaken with reference to:

- The Statutory Development Plan
- National Planning Policy Framework (NPPF)
- National Planning Practice Guidance (PPG)
- South Kesteven Local Plan
- Relevant Lincolnshire County Council Highway Authority guidance.

2.4 Material Planning Considerations

Transport-related material considerations include highway safety, traffic impact, accessibility, sustainable transport, infrastructure capacity, environmental effects and the advice of statutory

consultees. This report is confined to those matters relevant to the transport and highway aspects of the application.

2.5 National Planning Policy Framework

The NPPF requires developments to provide safe and suitable access for all users and seeks to ensure that unacceptable impacts on highway safety or severe impacts on the road network are avoided.

Throughout the report, individual technical assessments will be considered against the relevant NPPF provisions.

2.6 South Kesteven Local Plan

The adopted Local Plan provides locally specific transport and infrastructure policies. Where local policy adds detail to national policy, both are considered together when evaluating the submitted evidence.

2.7 Role of the Highway Authority

Lincolnshire County Council, as Highway Authority, provides specialist technical advice on matters such as junction design, visibility, traffic modelling and highway safety. Responsibility for determining the planning application, however, remains with South Kesteven District Council acting through its Planning Committee.

2.8 Review Methodology

Each subsequent chapter follows a consistent methodology:

1. Explain the issue.
2. Summarise the submitted evidence.
3. Evaluate the strength of that evidence.
4. Explain its planning significance.

Chapter Summary

Chapter 2 establishes the planning framework against which every subsequent transport assessment in this report should be read. As later chapters introduce evidence and technical analysis, conclusions will be linked back to the national and local planning policies described here.

INDEPENDENT TECHNICAL REVIEW

Chapter 3

Planning Application S26/0710 — Baston Green

Site Description and Development Proposals

3.1 Introduction

This chapter describes the application site, its relationship with the existing settlement of Baston and the principal characteristics of the surrounding highway environment. Its purpose is to establish a clear and objective baseline against which the transport and highway implications of the proposed development can subsequently be assessed.

The description of the existing environment is important because the effect of a development cannot properly be considered solely by reference to predicted traffic volumes or theoretical highway capacity. *The nature of the highway into which additional movements would be introduced, the existing residential frontage, pedestrian activity, private accesses, visibility constraints and the way in which the road currently functions are also relevant considerations.*

Attention is therefore given to Greatford Road. Greatford Road performs a dual function. It is an established residential street providing direct access to existing properties while at the same time accommodating through traffic travelling between Baston and the surrounding highway network.

This distinction is important. Greatford Road should not be characterised simply as a transport corridor through which additional traffic may be routed. It is also part of the residential environment of Baston, where vehicular movement occurs alongside residential access, pedestrian activity, parking, servicing and the everyday activities associated with established homes.

The chapter also identifies the principal components of the proposed development, including the proposed access arrangements from Deeping Road and the additional connection associated with Greatford Road via King Street. The proposed pedestrian connections and their relationship with the existing pedestrian network are considered in the sections that follow.

The purpose of this chapter is not to reach conclusions on the acceptability of the development. Rather, it establishes the factual context and baseline against which the subsequent technical assessment should be undertaken.

The later chapters of this report consider whether the additional vehicular and pedestrian movements generated by the development can be satisfactorily accommodated within that existing environment and whether the applicant's assessment adequately reflects the conditions that exist on the ground.

3.2 Site Location and Surrounding Context

The application relates to land adjoining the existing settlement of Baston, Lincolnshire. The site presently comprises predominantly undeveloped agricultural land and therefore represents a substantial change from the existing open character of the land to a residential development of

approximately 283 dwellings together with associated highways, pedestrian connections, landscaping, drainage and supporting infrastructure.

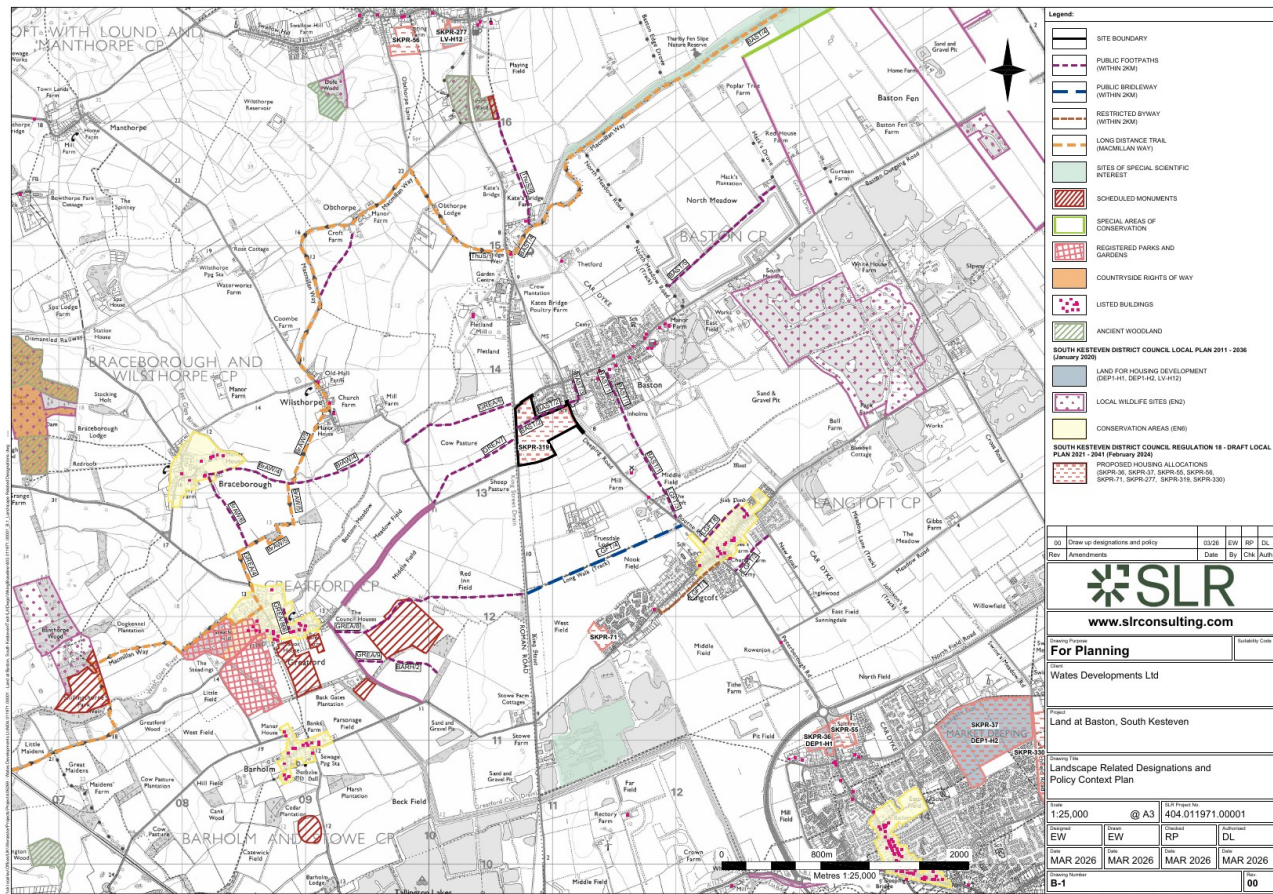


Figure 3.1: Site location and relationship with the existing settlement of Baston.

The application site lies adjacent to the existing built form of the village and is therefore closely related to the established highway network rather than being served by an entirely new or segregated transport corridor.

The relationship between the development and the existing village is particularly important to the highway assessment. Traffic generated by the development would ultimately interact with roads that already perform established residential and local movement functions.

The principal highway connections relevant to the development include Deeping Road and the Greatford Road/King Street corridor. The submitted proposals provide for a principal vehicular access from Deeping Road and a further access arrangement connecting the development with Greatford Road via King Street.

Both access points should therefore be recognised when describing the development. An assessment based principally upon the Deeping Road access would not, by itself, provide a complete description of the proposed relationship between the development and the existing village highway network.



Figure 3.2: Application site boundary and relationship with the existing highway network.

The site's location also means that future residents would not interact with the village solely by motor vehicle. Pedestrian movements between the development, existing residential areas and village facilities will form part of the development's day-to-day operation.

Consequently, the adequacy and continuity of existing and proposed pedestrian routes are relevant to the assessment. References have been made within the application material to improvements to pedestrian provision, including along Greatford Road. At the time of preparation of this assessment, however, the detailed form and extent of all such improvements have not been clearly illustrated in a manner that allows their complete practical effect to be assessed.

That matter is considered in greater detail in Section 3.5 and subsequently within the pedestrian and highway-safety assessment.

The application site itself is currently predominantly greenfield land. The principal highway issues therefore arise not from an existing intensive use of the site but from the change in activity that would result from its development and its connection into the established village network.

This makes the existing highway baseline particularly important. The appropriate comparison is between the conditions that exist today and the conditions likely to arise following construction and occupation of the proposed development.

3.3 Existing Character of Greatford Road

Greatford Road forms an established part of the village highway network. It has a clear residential function, with existing dwellings, private accesses and pedestrian activity located directly alongside the carriageway. It also accommodates through traffic and therefore performs more than one highway function.

For the purposes of this assessment, it would be inappropriate to describe Greatford Road either solely as a residential access road or solely as a through route. Its significance arises from the coexistence of those functions.

Vehicles travelling through the village share the same highway environment as residents entering and leaving their properties, pedestrians using the existing footways, vehicles manoeuvring in connection with residential properties, parked vehicles and routine servicing and delivery activity.

That mixed function is an important component of the existing baseline.

Key Characteristics of Greatford Road:

Greatford Road should be understood as an established residential street which also accommodates through traffic, rather than simply as a purpose-built distributor road.

- established residential frontage;
- numerous private residential accesses;
- pedestrian movements along the corridor;
- interaction between pedestrians and vehicles at accesses;
- on-street parking in places;
- locations where visibility for vehicles emerging from private accesses is constrained;
- through traffic passing through the residential environment;
- the normal servicing, delivery and manoeuvring activity associated with an established residential street.

These characteristics collectively form part of the existing highway baseline against which the effects of additional development-generated traffic and pedestrian activity should be assessed.

The importance of this characterisation is not dependent upon an assertion that Greatford Road presently operates unsafely. The purpose is to identify objectively the environment into which additional activity would be introduced.

A highway may possess sufficient theoretical capacity to accommodate additional vehicles while nevertheless experiencing a material change in the frequency and nature of interactions between road users. Capacity and day-to-day operation are therefore related but distinct considerations.

The photographs obtained from Greatford Road provide useful evidence of these existing conditions and will be incorporated into the subsequent sections dealing specifically with the highway and pedestrian environment. They demonstrate the physical characteristics of the road in a way that cannot always be appreciated from plans or traffic modelling alone.

The existing speed-survey evidence is also relevant to the baseline. That evidence indicates that approximately 10% of recorded vehicles exceeded the existing 30 mph speed limit. This finding is not relied upon in this chapter as evidence that the proposed development would itself create an unacceptable highway-safety impact. Rather, it establishes that non-compliant vehicle speeds already form a measurable component of the existing operating environment.

The implications of vehicle speed, including stopping distance, collision severity and the potential consequences of increased interactions between vehicles and pedestrians, are matters for the subsequent highway-safety assessment.

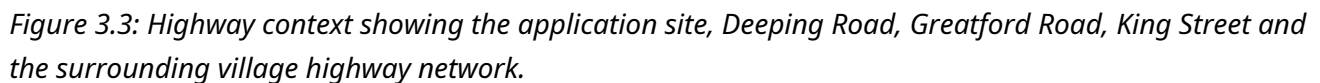
For the purposes of this chapter, the important point is more limited: *additional development traffic would not be introduced onto an abstract or unconstrained highway. It would be introduced into an established residential environment that already accommodates through traffic and within which a measurable proportion of vehicles currently exceed the posted speed limit.*

Accordingly, the existing character and operation of Greatford Road should form an explicit part of the baseline against which the transport effects of the proposed development are assessed.

The following sections examine that baseline in greater detail, including the physical highway environment, pedestrian provision, existing residential accesses and observed visibility constraints.

3.4 Existing Highway Environment

The highway network surrounding the application site forms part of the established village road system and performs a combination of residential access, local movement and through-traffic functions.



Greatford Road is subject to a 30 mph speed limit through the residential area. It carries local residential traffic as well as vehicles travelling through the village.

The practical operation of the carriageway therefore involves repeated interactions between through-moving vehicles and vehicles slowing, turning, entering or emerging from residential accesses.

On-street parking occurs in places and forms part of the normal residential use of the highway. Where vehicles are parked, the effective width available for moving traffic may be reduced and approaching vehicles may need to adjust their position or speed in response to other road users.

These are ordinary characteristics of an established residential street, but they are relevant when establishing the existing highway baseline.

That evidence is recorded here as an existing characteristic of the highway. *The wider implications of speed, traffic growth and increased exposure to potential conflicts are considered in the subsequent highway-safety chapter.*

3.4.2 Existing Through Traffic

Greatford Road also performs a through-route function. This is important because the baseline traffic using the road is not limited to vehicles generated by the properties immediately adjoining it.

The coexistence of through traffic and residential activity means that vehicles with no destination on Greatford Road pass through an environment in which residents are simultaneously entering and leaving properties, pedestrians are using the footway, and vehicles may be parked or manoeuvring.

This mixed operating environment should be recognised when assessing the implications of additional traffic generated by the proposed development.

3.4.3 Wider Traffic Context

The existing highway environment should also be considered within the wider traffic context affecting Baston.

HGV movements associated with mineral extraction in the surrounding area form part of the wider highway background. *The recently approved Thetford Farm gravel extraction operation is therefore relevant to the future traffic baseline insofar as its permitted HGV movements may coincide with traffic associated with the proposed residential development.*

The detailed cumulative implications of quarry-related HGV traffic and development-generated traffic are outside the descriptive purpose of this chapter and will be examined separately within the cumulative-impact assessment.

N.B: It should be recorded therefore that the future operation of the local highway network will not consist solely of existing residential traffic plus traffic generated by the proposed housing development.

3.5 Existing Pedestrian Environment

Pedestrian provision is an important component of the existing baseline because occupation of 283 additional dwellings would inevitably generate pedestrian movements as well as vehicular trips.

Future residents can reasonably be expected to walk between the development and existing parts of Baston, including village facilities and routes associated with school journeys.

The assessment of pedestrian connectivity should therefore consider the complete journey between the development and likely destinations rather than simply the provision of pedestrian infrastructure within the development boundary.

3.5.1 Greatford Road Footways

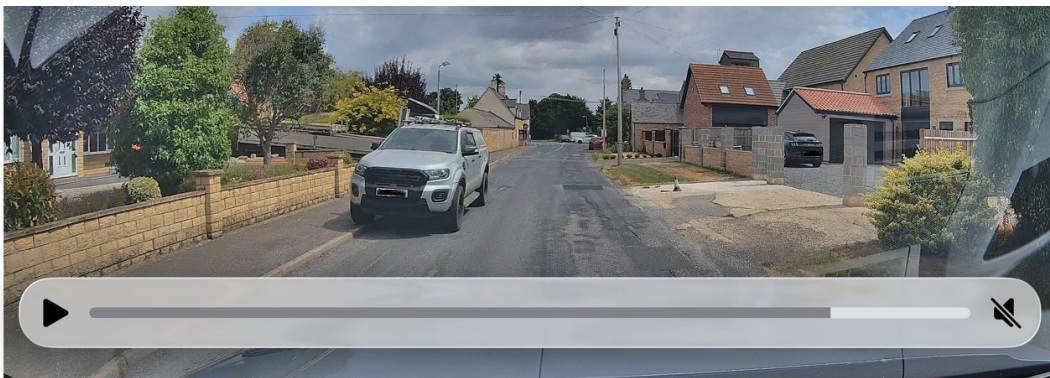
Existing footway provision along Greatford Road is characteristic of an established village environment rather than a newly designed residential development.

The available pedestrian route is affected in places by the relationship between the footway, residential accesses, property boundaries, parked vehicles and the carriageway.

Site observations have identified locations where the practical pedestrian environment is restricted and where pedestrians using the footway necessarily interact with vehicles entering or emerging from private accesses.



Photograph 3.1: Existing highway and pedestrian environment on Greatford Road, looking East.



Photograph 3.2: Further view of the existing Greatford Road corridor, illustrating the relationship between residential frontage, carriageway and pedestrian footpath provision, looking East.

These photographs are important because they record the physical environment experienced by pedestrians rather than representing the highway solely through plan drawings or traffic-flow data.

3.5.2 Continuity of Pedestrian Routes

The continuity and quality of pedestrian routes are particularly important where a development is expected to encourage walking to existing village facilities.

Site observations have identified sections where existing pedestrian provision does not provide the characteristics of a continuous, purpose-designed modern pedestrian corridor.

The presence of a footway in plan form should therefore not, by itself, be taken as evidence that the complete pedestrian journey is convenient, unobstructed or suitable for the additional level of pedestrian activity potentially generated by the development.

This is particularly relevant to journeys involving children and other potentially vulnerable pedestrians.

The detailed assessment of routes to schools and other village facilities is reserved for the later pedestrian-safety chapter. Within this chapter, the purpose is to establish that the existing pedestrian network contains physical constraints that form part of the baseline.

3.5.3 Proposed Improvements

The application material refers to improvements to pedestrian provision associated with the development, including improvements affecting Greatford Road.

However, the detailed physical form, extent and continuity of all such improvements have not yet been demonstrated sufficiently clearly within the material reviewed for this report to enable their practical effect upon the complete pedestrian route to be fully understood.

This distinction is important.

A commitment to provide an improvement is not equivalent to a detailed design demonstrating precisely:

- where the improvement will commence and terminate;
- the available footway width;
- how existing constraints will be treated;
- how private accesses will be crossed;
- how pedestrian continuity will be maintained;
- how the improved route will connect with destinations beyond the immediate development frontage.

The subsequent technical assessment will therefore examine the pedestrian proposals against the conditions observed on the ground.

N.B: OBSERVATION

Pedestrian accessibility should be assessed as a complete journey rather than as isolated sections of footway. The existing Greatford Road corridor contains characteristics that may affect pedestrian convenience and interaction with vehicles. Those characteristics should form part of the baseline when assessing the adequacy of proposed pedestrian improvements and the additional pedestrian demand generated by 283 dwellings.

3.6 Existing Vehicle Accesses and Visibility

Greatford Road contains numerous existing residential accesses. These range from individual driveways to accesses serving more than one dwelling.

The interaction between these accesses and passing traffic forms part of the everyday operation of the street.

Of relevance are locations where boundary treatments, vegetation, buildings or the alignment of adjoining property frontages restrict the view available to drivers emerging from private accesses.

Site observations have identified an example on Greatford Road where vehicles emerging from an access serving three residential properties have restricted visibility towards approaching traffic.

3.6.1 Access Serving Existing Residential Properties

The access illustrated in Photograph 3.3 serves three existing dwellings.

A driver emerging from this access must move forward towards Greatford Road to obtain an adequate view of approaching traffic.

Because of the relationship between the access, the adjoining property boundary and the highway, the vehicle necessarily traverses the existing pedestrian footway during this manoeuvre.



Photograph 3.3: Vehicle emerging from the access serving three dwellings onto Greatford Road, looking West. The photograph illustrates the restricted view available to the driver and the relationship between the vehicle manoeuvre, existing footway and carriageway.

The photograph records an actual vehicle manoeuvre and is therefore useful evidence of the way in which this access onto Greatford Road operates in practice.

The issue is not presented as evidence that the access is presently unsafe or that a collision will occur. Rather, it demonstrates an existing interaction between:

- vehicles emerging from residential properties;
- pedestrians using the footway;
- vehicles travelling along Greatford Road;
- the visibility available to an emerging driver.

These interactions form part of the existing highway baseline.

3.6.2 Relationship with Additional Traffic

An increase in traffic volume does not alter the physical geometry of an existing residential access. It can, however, increase the frequency with which an emerging vehicle encounters another road user while undertaking the same manoeuvre.

That distinction is relevant to the subsequent highway-safety assessment.

The baseline question for this chapter is therefore not whether the existing access is demonstrably dangerous. It is whether existing accesses and their operational characteristics have been adequately recognised when considering the effect of introducing additional traffic onto Greatford Road.

The same principle applies to pedestrian interaction. Where an emerging vehicle must cross a footway before obtaining a satisfactory view of approaching road traffic, the potential interaction involves both pedestrians and vehicles.

This becomes particularly relevant where the proposed development is itself expected to increase pedestrian movements along the same corridor.

3.6.3 Visibility as Part of the Existing Baseline

Visibility should therefore be treated as a physical characteristic of the existing highway environment rather than considered solely in relation to the design of the proposed development accesses.

The proposed accesses from Deeping Road and via King Street require appropriate technical assessment. However, the wider effect of development traffic also depends upon how that traffic interacts with the numerous existing accesses elsewhere on the surrounding network.

The photographs and site observations demonstrate why examination of the existing road environment is necessary alongside consideration of the proposed junction designs.

N.B: OBSERVATION

Existing private accesses form an integral part of the operation of Greatford Road. At some locations, drivers must move forward across the pedestrian footway before achieving an adequate view of approaching road traffic. Additional traffic would not create these physical constraints, but it may increase the frequency of interaction between emerging vehicles, passing traffic and pedestrians. The significance of that increased exposure is considered within the subsequent highway-safety assessment.

3.7 Proposed Development

The application proposes the development of the site for 283 additional dwellings, together with associated highway infrastructure, pedestrian connections, landscaping, drainage and supporting works.

The development would represent a substantial change in the use and activity of the site. Land which is presently predominantly undeveloped agricultural land would become a permanent residential neighbourhood additional generating daily vehicular, pedestrian, servicing and delivery movements.

For the purposes of this chapter, the principal relevance of the development is its relationship with the existing village highway and pedestrian network described in Sections 3.3–3.6.

3.7.1 Development Layout

The submitted illustrative masterplan demonstrates the proposed relationship between the new residential development, its internal highway network and the existing settlement.



Figure 3.4: Illustrative masterplan showing the proposed residential development, internal highway network, access arrangements and pedestrian connections.

The development would contain a network of internal residential streets and pedestrian routes ultimately connecting with the existing highway network surrounding the site.

While the detailed internal layout is relevant to the overall design of the scheme, the principal concern for the purposes of this assessment is how movements generated within the development would transfer onto and interact with the existing village network.

3.7.2 Vehicular Access

The proposals provide for vehicular access to the development from more than one point.

The principal vehicular access is proposed from Deeping Road.

A further connection is proposed between the development and Greatford Road via King Street.

Both connections are material to an understanding of the proposed development because they establish potential routes by which development-generated traffic may enter and leave the existing village highway network.

The existence of the Deeping Road access should therefore not result in the Greatford Road/King Street connection being treated as peripheral to the assessment.

The proposed development would introduce additional traffic into a highway environment which, as established earlier in this chapter, already accommodates residential movements, through traffic, pedestrian activity, private accesses and on-street interactions.

The distribution and quantity of development-generated traffic using the respective access points are matters examined in the subsequent transport assessment chapters.

3.7.3 Pedestrian Connections

The development also proposes pedestrian connections with the surrounding village.

These connections are important because a development of 283 dwellings would generate journeys on foot as residents travel between their homes and existing village facilities.

Pedestrian accessibility should therefore be considered beyond the application boundary.

It is not sufficient merely to demonstrate that footways would be provided within the development. The practical quality and continuity of the route between the development and likely destinations within Baston are also relevant.

The application material refers to pedestrian improvements affecting the surrounding network, including Greatford Road.

As identified in Section 3.5, however, the precise form and continuity of all proposed improvements have not yet been demonstrated in sufficient detail within the material reviewed for this report to allow their complete practical effect to be assessed.

That issue is particularly relevant where existing pedestrian routes encounter residential accesses, changes in footway provision or other physical constraints.

The adequacy of the proposed pedestrian arrangements is therefore considered in greater detail in the subsequent pedestrian and highway-safety assessment.

3.7.4 Change in Intensity of Use

The most important distinction between the existing and proposed situations is not simply the physical development of the agricultural land. It is the change in intensity of activity associated with the site.

At present, the site generates comparatively limited routine residential movement.

Following development, 283 additional dwellings would generate recurring movements associated with:

- residents;
- visitors;
- deliveries;
- servicing;
- refuse collection;

- trades and maintenance;
- pedestrians;
- cyclists;
- other normal activities associated with a residential neighbourhood.

The precise traffic generation attributable to the development is assessed elsewhere in this report.

For the purposes of the baseline description, however, it is important to recognise that the proposal would introduce a permanent new source of activity into the existing village transport environment.

N.B: OBSERVATION

The proposed development should not be considered solely in terms of whether its individual access junctions can operate satisfactorily. The proposal would connect a new residential neighbourhood of 283 dwellings directly into an established village network. Assessment of its transport effects should therefore consider how the resulting vehicular and pedestrian movements interact with the existing conditions documented in this chapter.

3.8 Baseline Assessment

3.8.1 Purpose of the Assessment

Sections 3.1–3.7 have established the physical and operational context within which the proposed development should be considered.

The purpose of this Baseline Assessment is to draw those observations together before the report moves into the detailed technical analysis, it identifies the characteristics of the existing environment which should form the benchmark against which the applicant's transport evidence and the effects of the proposed development are assessed.

3.8.2 Residential and Through-Traffic Function

Greatford Road performs a dual function.

It is an established residential street providing access to existing homes while also accommodating through traffic travelling between Baston and the surrounding highway network.

Neither function should be considered in isolation.

Through-moving vehicles operate within the same environment as residents entering and leaving private accesses, pedestrians using the footways, parked vehicles and routine residential servicing activity.

The residential function of Greatford Road is therefore a defining characteristic of its operation even though the road also carries through traffic.

3.8.3 Existing Highway Interactions

The existing highway environment contains a series of routine interactions between different road users.

These include:

- vehicles entering and emerging from residential accesses;
- vehicles travelling through the village;
- pedestrians crossing private accesses;
- pedestrians moving along existing footways;
- vehicles passing parked cars;
- delivery and servicing activity;
- manoeuvre associated with normal residential occupation.

These interactions are not presented as evidence that Greatford Road is presently unsafe. Rather, they establish the nature of the environment into which additional traffic and pedestrian activity would be introduced.

3.8.4 Existing Speed Environment

The available speed-survey evidence indicates that approximately 10% of recorded vehicles exceeded the existing 30 mph speed limit. This is an important factual component of the baseline.

It demonstrates that additional development traffic would be introduced into an environment where a measurable proportion of existing vehicles already travel above the posted limit.

Its relevance is that vehicle speed forms one component of the existing operating environment alongside traffic volume, pedestrian movements, residential accesses and visibility.

The implications of speed for stopping distance, collision severity and highway safety are considered later in this report.

3.8.5 Existing Pedestrian Environment

The existing pedestrian environment is similarly important.

Pedestrian journeys along Greatford Road occur within an established highway corridor containing residential accesses and other physical constraints.

The proposed development would introduce additional potential pedestrian demand, including journeys between the development and existing village facilities.

Accordingly, assessment of pedestrian accessibility should consider the complete route experienced by a pedestrian rather than simply the existence of footway provision within or immediately adjoining the development.

Where improvements to the existing pedestrian network are relied upon as mitigation, their detailed design, continuity and deliverability should be sufficiently established to demonstrate the practical benefit that would result.

3.8.6 Existing Residential Accesses and Visibility

The site observations and photographic evidence demonstrate that existing private accesses form an integral part of Greatford Road's operation.

At the access illustrated in Photograph 3.3, a vehicle emerging from an access serving three dwellings must move forward across the existing footway before achieving an improved view of approaching road traffic.

However, additional traffic and pedestrian movements have the potential to increase the frequency of interaction occurring at existing locations of this nature.

That distinction between the existence of a constraint and the level of exposure to it is important and is examined further in the subsequent highway-safety assessment.

3.8.7 Wider Traffic Context

The development would also be introduced into a highway network that is not static.

Greatford Road already accommodates through traffic in addition to residential movements.

Furthermore, the future local traffic environment has the potential to be materially influenced by mineral extraction activity in the wider Baston and Greatford area.

Planning permission has recently been granted for the new Thetford Farm quarry, comprising approximately 82 hectares and involving the extraction of approximately 2.4 million tonnes of sand and gravel over an anticipated 8–10-year operational period.

In addition to that permitted development, *the emerging Lincolnshire Minerals and Waste Local Plan identifies further potential mineral extraction in the immediate area*. This includes a proposed extension associated with Thetford Farm and an allocation at Manor Farm, Greatford, adjacent to King Street. *The latter site previously benefited from planning permission for mineral extraction, although that permission subsequently lapsed.*

These matters are relevant to the future baseline because they demonstrate the potential for additional HGV-generating mineral development to occur within the same broad period during which the proposed 283-dwelling residential development would be constructed and occupied.

Their inclusion within this baseline assessment should not be interpreted as assuming that all identified mineral development will necessarily proceed, nor that its effects should automatically be attributed to the housing proposal, but instead it identifies a material change in the wider transport context which should be taken into account where appropriate when determining the future traffic conditions against which the residential development is assessed.

The detailed implications of quarry-related HGV movements, including the recently permitted Thetford Farm quarry, the proposed further mineral allocations, traffic routing and the cumulative interaction with development-generated traffic, are considered separately within the cumulative-impact assessment later in this report.

3.8.8 Capacity, Operation and Character

A distinction should be maintained throughout the subsequent assessment between three related but different considerations:

Capacity – whether a road or junction can theoretically accommodate the predicted volume of traffic.

Operation – how the highway functions in practice when vehicles, pedestrians, residential accesses, parking and other activities interact.

Character – the established nature and function of the street within the residential environment.

A conclusion that a junction or carriageway has theoretical spare capacity does not, by itself, resolve the separate questions of how additional traffic affects the day-to-day operation of the street or whether the resulting change is acceptable within its existing context.

The subsequent technical assessment should therefore consider all three dimensions.

3.8.9 Baseline Conclusion

The baseline established by this chapter can be summarised as follows.

- Greatford Road is an established residential street that also carries through traffic.
- Its existing operation includes residential accesses, pedestrian movements, on-street activity and locations where visibility for emerging vehicles is constrained.
- Approximately 10% of recorded vehicles exceed the existing 30 mph speed limit.
- The existing pedestrian network contains characteristics and constraints which require consideration when assessing additional pedestrian demand and any proposed mitigation.
- The proposed development would introduce 283 additional dwellings and consequently a permanent new source of vehicular and pedestrian activity connected directly with the existing village network through the proposed access arrangements.

The appropriate planning question is therefore broader than whether the surrounding highway network possesses sufficient theoretical capacity to accommodate additional vehicles.

The subsequent assessment should determine whether the additional movements generated by the development can be satisfactorily accommodated within the existing highway environment described in this chapter, having regard to highway safety, pedestrian movement, existing accesses, traffic conditions and the cumulative effect of other relevant traffic-generating development.

This baseline provides the benchmark for that assessment.

3.9 Archaeology and Below-Ground Heritage

3.9.1 New Archaeological Evaluation

A further archaeological evaluation has now been submitted in support of Planning Application S26/0710. The document, Cambridge Archaeological Unit Report 1738, Deeping and Greatford Roads Archaeological Evaluation, was published on the planning register on 10 September 2026. It materially expands the archaeological evidence available at determination stage and should be considered alongside the earlier geophysical work and consultation advice.

The evaluation does not establish that the whole development site is archaeologically sensitive to the same degree. It does, however, identify several distinct concentrations of remains spanning a long period of occupation and land use. The results therefore confirm that below-ground heritage is a genuine site constraint rather than a matter that can be treated as a generic post-permission discovery risk.

3.9.2 Principal Results

The evaluation identifies six principal areas of archaeological activity:

Area	Indicative period	Reported archaeological evidence
1	Early Bronze Age	Ring ditches and an associated pit, indicating prehistoric funerary or ceremonial activity.
2	Early Iron Age	A substantial boundary interpreted as part of an early landscape or ranch-type division.
3	Later Iron Age	A boundary and enclosure complex described as a washing-line arrangement.
4	Roman	Evidence interpreted as the edge of a Roman settlement.
5	Roman	Roadside activity associated with the Roman-period landscape.
6	Medieval	Evidence interpreted as the edge of medieval settlement activity.

No human burials were identified within the investigated ring ditches, and the evaluation indicates that the known Saxon cemetery does not extend into the proposed development area. Those are relevant negative findings, but they do not remove the significance of the prehistoric, Iron Age, Roman and medieval archaeological remains identified elsewhere within the site.

3.9.3 Extent of Further Investigation and Mitigation

The report identifies further investigation or mitigation areas amounting in total to approximately 35,750 square metres, or 3.58 hectares. The identified components are approximately 5,100 square metres at Site 1; 625 and 2,120 square metres at Site 2; 7,330 and 625 square metres at Site 3; 12,370 square metres at Site 4; and 7,580 square metres in the further combined investigation area. This is a material area of the application site and should be understood in relation to the proposed layout, roads, drainage infrastructure, utilities, ground raising, landscaping and construction compounds.

The presence of archaeology does not automatically prevent development. The decision-making issue is whether the significance, extent and physical relationship of the remains have been sufficiently understood before permission is granted, and whether an appropriate and deliverable mitigation strategy is compatible with the development for which permission is sought.

3.9.4 Matters Requiring Resolution

Before determination, the Local Planning Authority should obtain and publish the advice of the County Archaeologist or other competent archaeological adviser on the evaluation and the adequacy of the proposed response. In particular, the authority should be satisfied that:

- the evaluation provides a sufficient understanding of the significance and extent of the remains for the planning decision;
- the identified investigation and mitigation areas are accurately overlaid against the final parameter plans and detailed site layout;
- proposed roads, drainage features, utilities, earthworks and landscaping would not prejudice necessary preservation or investigation;
- the distinction between remains to be preserved in situ and remains to be investigated and recorded is clearly established;
- the required archaeological work, reporting, archiving and public dissemination are secured through an agreed written scheme of investigation; and
- any archaeological requirements are programmed early enough to avoid conflict with construction phasing or pressure to reduce the agreed scope after permission.

3.9.5 Preliminary Finding

The archaeological evaluation is not, on the evidence presently available, a self-contained reason to conclude that the development must be refused. It is nevertheless material new evidence. It confirms multi-period archaeological remains across several parts of the site and identifies approximately 3.58 hectares requiring further investigation or mitigation.

Accordingly, the application should not be determined on the assumption that archaeology can be addressed by a generic condition alone. The County Archaeologist's assessment, the relationship with the final layout and a proportionate mitigation framework should be established before determination. Detailed implementation may then be secured by appropriately worded pre-commencement conditions.

3.10 Summary

The chapter also records the newly submitted archaeological evaluation. That evidence identifies multi-period remains and a substantial further investigation or mitigation footprint which must be reconciled with the final development layout before determination.

This chapter has established the physical and operational context within which the proposed development of 283 additional dwellings should be assessed.

The application site presently comprises predominantly undeveloped agricultural land adjoining the existing settlement of Baston. Its development would create a substantial new residential neighbourhood connected directly with the established village highway and pedestrian network.

The principal vehicular access would be provided from Deeping Road, with a further connection between the development and Greatford Road via King Street. The transport implications of the development must therefore be considered in the context of both access arrangements and the wider network onto which development-generated traffic would be distributed.

Chapter 3 therefore establishes the baseline. The following chapters test the proposed development against it.

Independent Technical Review

Chapter 4

TRANSPORT ASSESSMENT METHODOLOGY

4.1 Purpose and Scope

This chapter reviews the methodology, assumptions and supporting evidence used in the Transport Assessment and subsequent transport submissions prepared for the proposed development of up to 283 dwellings at Baston. Its purpose is not to replace the applicant's modelling with an alternative model, but to test whether the inputs, assumptions and conclusions are sufficiently transparent, representative and robust to support the planning decision.

The Transport Assessment has been prepared by Bancroft Consulting on behalf of Wates Developments in support of the planning application. That is entirely conventional within the planning process. *However, it is applicant-appointed evidence rather than independent evidence.* Accordingly, its assumptions, inputs and conclusions should be sufficiently transparent and reproducible to permit effective scrutiny by the Highway Authorities, planning officers and other interested parties.

The review therefore considers the assessment as a chain of evidence. Baseline traffic data feed into background growth; trip-generation assumptions determine the scale of development traffic; distribution and assignment determine where that traffic is placed; and those flows are then used within junction, safety and sustainable-transport assessments. Uncertainty at an early stage can consequently propagate into later conclusions.

4.2 Applicant Approach and Subsequent Revision

Bancroft's original Transport Assessment was supplemented by a July 2026 formal response to consultee comments. That response records detailed observations from Lincolnshire County Council, Baston Parish Council, Peterborough City Council and Active Travel England, followed by further discussions between the applicant team and highway officers.

The subsequent submission included revised access drawings, additional pedestrian proposals, further explanation of Census data, and a calibrated model for the A15/Main Street/Greatford Road junction. The evolution of the evidence is relevant: A few matters relied upon in the current highway case were refined or introduced after the original Transport Assessment was submitted.

This review therefore distinguishes between the original assessment and the later evidence. Where a conclusion depends upon post-submission clarification or recalibration, that does not automatically invalidate the conclusion, but it is relevant to the weight placed upon the original methodology and to whether the final position is independently reproducible.

Evidence note: *Bancroft's July 2026 response states that the application is for up to 283 dwellings and records revised drawings F20159/03, /06, /07, /08, /10, /11, /12, /13 and /14, together with further Census explanation and A15/Main Street/Greatford Road calibration work.*

4.3 Baseline Traffic Data

4.3.1 Representativeness and Reproducibility

The reliability of any Transport Assessment depends upon the quality of its baseline. Traffic counts should represent normal operating conditions and be reported with sufficient detail to allow an independent reviewer to understand when, where and how the observations were obtained.

Baseline traffic data are not merely descriptive. They form the starting point for growth calculations, development assignment and junction modelling. If the baseline is unrepresentative, subsequent calculations may remain mathematically consistent while still failing to represent normal traffic conditions.

4.3.2 Survey Date and Representativeness

A significant limitation identified during this review concerns the transparency of the baseline traffic surveys.

Within the Bancroft material reviewed, no sufficiently clear statement has been identified confirming the precise date or dates upon which the traffic surveys underpinning the assessment were undertaken.

This omission is material because the representativeness of traffic-survey evidence cannot properly be evaluated without knowing when the observations were made. It is also not possible from the information presently identified to establish independently whether the surveys were undertaken:

- during normal school term-time;
- on a representative weekday;
- during recognised neutral traffic conditions;
- during any period affected by roadworks, abnormal congestion or other disruption; or
- under conditions representative of normal pedestrian and school-related activity within Baston.

The absence of a clearly identifiable survey date does not demonstrate that the surveys themselves were unrepresentative. It does, however, prevent an independent reviewer from verifying that they were representative.

The applicant should therefore identify the precise date, day, survey period and prevailing circumstances for each traffic count relied upon and confirm whether local schools were operating normally at the time. Until that information is provided, an element of uncertainty necessarily

remains over the representativeness of the baseline traffic data and, consequently, the calculations derived from it.

N.B: Observation. *The absence of an identifiable survey date is not a minor administrative omission. Without that information, neither the Planning Authority nor an independent reviewer can verify whether the baseline represents normal operating conditions. Because those flows feed into subsequent growth, distribution and junction modelling, uncertainty at the beginning of the methodology can propagate through the later calculations.*

4.4 Development Trip Generation

The Transport Assessment estimates the number of vehicle movements likely to be generated by the proposed development using trip rates derived from the TRICS database. The use of TRICS is conventional; the important methodological issue is whether the sites selected provide a sufficiently representative comparison with the proposed development at Baston.

The applicant's assessment estimates approximately 176 two-way vehicle trips during the morning peak hour (08:00–09:00) and 125 two-way vehicle trips during the evening peak hour (17:00–18:00). These figures feed directly into the traffic-distribution and junction-capacity assessments. Any underestimate at this stage would therefore carry forward into later elements of the Transport Assessment.

4.4.1 TRICS Selection Methodology

Peterborough City Council accepted the broad residential land-use classification but raised concerns regarding the comparator sites selected. Its review noted that the original TRICS query included Greater London sites and had not been adequately refined by population characteristics. Peterborough suggested deriving average vehicular and multi-modal trip rates from sites with representative location and population characteristics and within an appropriate development size range, approximately 150–400 dwellings.

TRICS is not a database from which a definitive trip rate simply emerges. The resulting rate depends upon the sites selected for comparison. A village-edge development at Baston may exhibit materially different travel characteristics from larger urban locations, particularly in relation to access to employment, retail, education and public transport.

4.4.2 Representativeness of Baston

The proposed development would provide up to 283 dwellings on the edge of an existing Lincolnshire village. The suitability of the TRICS sample should therefore be assessed against settlement size, proximity to employment centres, public-transport availability, accessibility of everyday services, likely car ownership, population characteristics, development scale and the extent to which daily journeys can realistically be undertaken without a private vehicle.

The criticism is not that the applicant's trip rates are necessarily understated. It is that the evidence should demonstrate that the selected comparator sites are sufficiently similar to Baston to provide confidence in the resulting figures. Sensitivity testing using a more representative rural or edge-of-village sample would provide a useful indication of the potential range.

4.4.3 Applicant-Appointed Evidence

The Transport Assessment has been prepared by Bancroft Consulting on behalf of Wates Developments. That is normal within the planning process, *but it reinforces the importance of independent scrutiny. Where alternative reasonable assumptions could materially alter the outcome*, the assessment should demonstrate why the assumptions adopted are the most appropriate rather than relying simply upon the use of a recognised modelling tool.

Peterborough City Council's criticism of the TRICS comparator selection demonstrates that there is a legitimate methodological question concerning the representativeness of the applicant's trip-generation evidence.

4.4.4 Relationship with Travel Behaviour

Trip generation should be considered alongside assumptions regarding future travel behaviour. Active Travel England criticised the submission for a limited trip-generation assessment and unambitious mode-share targets. Bancroft responded that the proposed development trip generation had been agreed with Lincolnshire County Council.

Agreement with the Local Highway Authority is relevant but does not remove the need to consider whether the trip-generation assumptions remain robust when viewed alongside the actual accessibility of Baston, the quality of pedestrian routes, public-transport availability, likely car dependency and the characteristics of the TRICS comparator sites.

4.4.5 Sensitivity of the Transport Assessment

The estimated 176 AM and 125 PM two-way movements are fundamental inputs rather than merely descriptive figures. If the true number of development-generated trips were higher, this could affect flows on Greatford Road and King Street, the A15/Main Street/Greatford Road crossroads, traffic towards Peterborough, junction capacity, queues, pedestrian interaction and the overall highway conclusion.

4.4.6 Preliminary Finding

The use of TRICS is an accepted methodology, *but Peterborough City Council identified specific weaknesses in comparator selection, including Greater London sites and insufficient filtering by population characteristics.* The applicant should disclose the full TRICS sample, explain why the locations are representative of Baston, show the effect of excluding clearly urban comparators, test a more representative sample and demonstrate whether a reasonable higher-trip scenario materially changes the conclusions.

N.B: Observation. *Bancroft's use of TRICS is conventional, but the credibility of the resulting trip rates depends upon the credibility of the comparator sample. Given Peterborough City Council's criticism, the 176 AM and 125 PM figures should be treated as modelling assumptions requiring verification rather than incontrovertible predictions of future demand.*

4.5 Trip Distribution and Assignment

Having estimated total development trips, the Transport Assessment must determine how those trips are distributed across the surrounding network. The predicted effect upon Greatford Road, King Street, the A15 crossroads and the wider highway network depend not simply upon how many trips are generated, but upon where Bancroft assumes those vehicles will travel.

4.5.1 Applicant Distribution and the "Seven Vehicles"

Bancroft's later consultation response states that up to seven vehicles are predicted to emerge from Greatford Road onto the A15 during the morning peak hour. Viewed in isolation, seven vehicles appear a very small increase. However, that figure is not an observed fact: it is the product of assumptions concerning total trip generation, distribution, route choice, allocation between accesses, directional split and the selected peak hour.

4.5.2 Evidence of Travel Towards Peterborough

Peterborough City Council undertook its own analysis of Census 2011 origin/destination data for South Kesteven MSOA 012 and indicated that approximately 36% of car and van commuting trips travel towards Peterborough. It consequently questioned the geographical extent of Bancroft's assessment and identified downstream A15 junctions that might require assessment.

If a substantial proportion of future residents can reasonably be expected to travel towards Peterborough, the Transport Assessment should follow those trips sufficiently far through the network to determine whether they produce material downstream effects.

4.5.3 Greatford Road and King Street

Scrutiny is required of the assignment of development traffic to the Greatford Road/King Street connection. Chapter 3 established Greatford Road as an existing residential street that also accommodates through traffic, residential accesses, pedestrians, parking and routine village activity.

The assessment should identify clearly the number of development vehicles using the route in the AM and PM peaks and across the day, the directional split, the basis for allocation between Deeping Road and Greatford Road/King Street, and whether alternative route choices are reasonably foreseeable.

4.5.4 Percentage Change versus Absolute Traffic

Care should be exercised where significance is expressed principally as a percentage increase over existing flows. Percentage change assists in understanding proportional effect; absolute movements assist in understanding the practical change experienced by residents. For Greatford Road, both should be stated clearly.

4.5.5 Route Choice and Behavioural Uncertainty

Future residents will not necessarily select routes precisely in accordance with a theoretical distribution model. Congestion, destination, school traffic, temporary disruption, navigation applications and perceived journey time can all alter route choice. Where acceptability depends upon only a very small proportion of development traffic using a route, a reasonable higher-assignment sensitivity test is appropriate.

4.5.6 Representativeness of the Underlying Surveys

The prediction of only a small number of additional movements must also be considered in the context of the baseline traffic data upon which the assessment and junction modelling rely. *As identified in Section 4.3, no sufficiently clear survey date has been identified in the Bancroft material reviewed.* Consequently, it cannot presently be independently verified whether the baseline reflects normal school-term conditions or other representative circumstances.

4.5.7 Relationship with the A15 Crossroads

The A15/Main Street/Greatford Road crossroads is particularly important because development traffic using Greatford Road interacts with an existing junction where post-submission work was required to address observed queuing and model calibration. Distribution assumptions and junction modelling therefore cannot sensibly be considered in isolation.

4.5.8 Preliminary Finding

Further clarity is required on the percentage and absolute number of development trips assigned to each principal route, allocation between the accesses, evidence supporting those proportions, relationship with observed Census travel patterns, trips towards Peterborough, the geographical assessment boundary and reasonable sensitivity scenarios for Greatford Road/King Street and the A15 corridor.

N.B: Observation. *The conclusion that only a small number of additional vehicles would use a particular road, or junction is only as robust as the distribution assumptions that produce that number. Bancroft's prediction of up to seven vehicles emerging from Greatford Road onto the A15 in the AM peak should therefore be regarded as a modelled outcome, not an independently established fact.*

4.6 Assessment Years and Background Traffic Growth

The Transport Assessment must establish not only existing traffic conditions but those reasonably expected when the development is operational. This requires appropriate assessment years and

transparent background-growth assumptions. An understated future baseline could understate congestion, queuing and the operational effect of additional development traffic.

4.6.1 Assessment Years

The Bancroft modelling material identifies 2026 as the base year and 2031 as the future design year, with 2031 scenarios both with and without development traffic. Use of a future design year is conventional, but the significance of the 2031 assessment depends upon the reliability of the assumptions used to convert the observed baseline into forecast traffic conditions.

4.6.2 TEMPro Background Growth

Peterborough City Council identified a specific concern: it could not establish clearly which version of TEMPro or growth scenario had been used and was unable to replicate the 2025–2031 AM and PM growth factors shown within the Transport Assessment. Peterborough recommended use of TEMPro 8.1 together with appropriate National Traffic Model growth calculations.

N.B: The concern is therefore not the use of TEMPro itself, but transparency and reproducibility. Where another Highway Authority cannot reproduce the applicant's growth factors, this variance should be explained before the future-year forecasts are relied upon.

4.6.3 Reproducibility and Baseline Interaction

The background-growth factor affects every subsequent future-year calculation. Uncertainty in the starting baseline and uncertainty in the growth factor are separate issues. Applying a technically valid growth factor cannot correct an unrepresentative baseline; equally, a representative baseline does not resolve an unexplained growth factor.

4.6.4 2031 Junction Modelling

Bancroft's later calibration work applied 2031 flows to the revised junction model. The original A15/Main Street/Greatford Road assessment had been criticised for not adequately reproducing existing queues and for the possible influence of adjacent pedestrian signals. The subsequent calibration used 2026 observed turning movements and adjustments to reflect observed queuing, producing a mean maximum Main Street queue of 12.6 PCUs compared with an observed average queue of 17 vehicles between 08:00 and 09:00.

4.6.5 Preliminary Finding

The use of a 2031 future year is not unreasonable. However, the applicant should provide the precise TEMPro version, geographical area, growth scenario, AM/PM factors, National Traffic Model adjustments, opening/completion assumptions and a clear schedule distinguishing general background growth from separately included committed developments.

NB: Observation. *Another Highway Authority has expressly stated that it cannot reproduce the resulting growth factors or establish clearly which TEMPro version and scenario produced them. When combined with the presently unidentified dates of the underlying traffic surveys, this creates uncertainty at both ends of the forecasting exercise: the representativeness of the starting baseline and the derivation of the future baseline.*

4.7 Committed Development and Cumulative Traffic

A Transport Assessment should not consider a major development in isolation where other permitted or sufficiently certain development is expected to alter traffic conditions on the same network during the assessment period. General background growth does not necessarily substitute for identifiable developments generating concentrated flows or materially different vehicle types such as HGVs.

4.7.1 Thetford House Farm – Permitted Development

The permitted Thetford House Farm sand and gravel quarry is a material change to the future transport context. It comprises approximately 2.4 million tonnes of mineral, with an anticipated extraction period of around 8–10 years at approximately 250,000–300,000 tonnes per annum. The permitted operation is associated with approximately 53 HGV trips per working day, equivalent to 106 two-way HGV movements.

Because the quarry is permitted and capable of operating during the same broad period as the residential development, its traffic should be addressed explicitly within the future baseline rather than disappearing within an unexplained general growth allowance.

4.7.2 Thetford Extension and Manor Farm, Greatford

The emerging Minerals and Waste Local Plan identifies a further approximately 2.3 million tonnes at Thetford House Farm. At the same annual extraction range, Lincolnshire County Council's assessment similarly indicates approximately 53 HGV trips, or 106 HGV movements, per working day. If permitted, this would almost double the mineral resource associated with the presently permitted Thetford operation.

Manor Farm, Greatford is also materially different from a wholly speculative new proposal. Approximately 3.0 million tonnes previously benefited from planning permission before that permission lapsed in July 2025, and the site has returned to the proposed mineral allocation framework as a replacement quarry. It should not presently be treated as committed development, but its planning history and renewed allocation make it a credible cumulative sensitivity consideration.

4.7.3 Baston No.2 Quarry – Live Variation and Extension Application

Application PL/0029/26, published on 13 August 2026 and accompanied by an Environmental Statement, concerns Baston No.2 Quarry at Langtoft Outgang Road. It seeks to vary the approved details, duration, restoration and aftercare conditions attached to permission S20/0981, while enabling further sand-and-gravel extraction from land forming an extension to the quarry.

PL/0029/26 is a live application and should not presently be described as permitted or committed development. *It is nevertheless directly relevant to cumulative sensitivity testing because it could extend the period over which quarry activity and HGV movements affect the surrounding highway network.* The applicant's Environmental Statement and transport evidence should therefore be reviewed to

identify the proposed HGV generation, routing, operating period and any temporal overlap with construction and occupation of S26/0710.

4.7.4 Indicative HGV Sensitivity Scenario

The scale of potential cumulative mineral traffic can be illustrated using the traffic-generation assumptions already applied to Thetford House Farm. The permitted quarry represents approximately 106 HGV movements per working day; the proposed Thetford extension is assessed at a further approximately 106 movements per day. Their combined indicative total is therefore approximately 212 HGV movements per working day. No additional movements from PL/0029/26 are included at this stage because its transport assumptions have not yet been verified; *the present sensitivity totals are therefore not a complete forecast of every live quarry scenario.*

For sensitivity purposes only, *applying a further Thetford-equivalent stream to represent a potential Manor Farm scenario produces **approximately 318 HGV movements per working day*** across three equivalent mineral operations. This is not suggested as a definitive forecast that 318 movements will occur. Different extraction rates, operating periods, payloads, routing and commencement dates could produce materially different results. The purpose is to provide a transparent stress test of the 2031 highway conclusions.

Sensitivity scenario	Approx. HGV trips/day	Approx. HGV movements/day
Permitted Thetford	53	106
Thetford-equivalent ×2	106	212
Thetford-equivalent ×3	159	318
PL/0029/26 Baston No.2 (live application)	To be verified from ES	To be verified from ES

4.7.5 HGV Characteristics and Cumulative Effect

Quarry movements differ materially from ordinary residential traffic in vehicle length, acceleration, braking, turning requirements, gap acceptance, interaction with pedestrians and cyclists and potential collision consequence. Their effect cannot necessarily be represented adequately by a generic percentage uplift in total traffic.

The cumulative assessment should therefore identify all committed developments, planning status, traffic flows, vehicle composition, routes, operating hours, treatment within background growth and potential overlap between quarry operation, housing construction and progressive residential occupation.

4.7.6 Preliminary Finding

The permitted Thetford House Farm quarry should form part of the realistic future baseline. The proposed 2.3-million-tonne Thetford extension, the potential return of Manor Farm and live application PL/0029/26 at Baston No.2 Quarry should be treated distinctly as sensitivity considerations rather than as committed traffic. PL/0029/26 should be added to the cumulative-development schedule and its Environmental Statement examined for HGV generation, routing, operating duration and overlap with S26/0710. The scale, location and planning history of these proposals provide a substantive basis for testing whether Bancroft's 2031 conclusions remain robust under a materially higher-HGV environment.

NB: Observation. *A 2031 Transport Assessment for 283 dwellings should demonstrate that its conclusions remain robust not merely against generic background traffic growth, but against the materially changing HGV environment identified by Lincolnshire's own mineral-planning evidence for the Baston–Greatford area. (The “Thetford ×3” scenario is a stress test, not a prediction.)*

4.8 Junction and Network Assessment

This section remains provisional only in respect of final verification of the official collision data. The Greatford Road/A15 visibility evidence has now been supplied and is incorporated into the site-evidence assessment.

4.8.1 Purpose and Geographical Scope

Junction modelling should determine whether additional traffic can be accommodated satisfactorily, considering both quantitative performance and the operational/safety context. Peterborough City Council questioned the geographical scope of the original assessment because a substantial proportion of relevant commuting traffic travels towards Peterborough and identified downstream A15 junctions that might require assessment.

4.8.2 A15/Main Street/Greatford Road Crossroads

The crossroads combines strategic A15 traffic with movements entering and leaving Baston and is directly relevant to development traffic using Greatford Road. Bancroft's original modelling subsequently required further calibration following concerns that it did not adequately reproduce observed queuing. The later exercise produced a mean maximum Main Street queue of 12.6 PCUs compared with an observed average queue of approximately 17 vehicles between 08:00 and 09:00.

The adjacent pedestrian signals were recorded as having been activated 26 times during a morning two-hour survey period. This interaction is relevant because signal activation can interrupt flow and affect gap availability for vehicles attempting to enter or cross the A15.

4.8.3 Greatford Road Right-Turn Visibility and Changing A15 Traffic Composition

Vehicles emerging from Greatford Road and intending to turn right onto the A15 are required to identify and accept a suitable gap in the major-road traffic stream. The visibility available to an emerging driver is constrained by the established built form and residential curtilages adjoining the junction.

The proposed development does not create that existing physical constraint. However, its significance can change where the frequency and nature of traffic interacting with it increases. Additional development traffic affects the frequency with which the manoeuvre is undertaken, while the permitted and reasonably foreseeable mineral scenarios may materially change the HGV composition of the A15 traffic stream into which that manoeuvre must be made.

The Transport Assessment should demonstrate the visibility available from the appropriate driver setback position and identify whether it satisfies relevant design requirements having regard to actual A15 traffic speeds. Where the necessary visibility envelope relies upon land within adjoining residential curtilages, the assessment should establish whether that land is within highway or applicant control and whether the visibility can be maintained for the lifetime of the development.

4.8.4 Collision History, Exposure and HGV Consequence

Historic personal-injury collision data are important but should not be treated as the sole measure of future safety. Recorded data do not capture all damage-only incidents, evasive manoeuvres, emergency braking or near misses. More importantly, a development can increase the frequency of exposure to an existing conflict even where it does not create a new physical defect.

HGVs are not operationally equivalent to private cars. Vehicle length, acceleration, braking, turning requirements, sightline obstruction and collision consequence are particularly relevant at junctions dependent upon gap acceptance. The assessment should therefore distinguish collision probability from collision consequence and test the changing HGV environment identified in Section 4.7.

4.8.5 7.5-Tonne Restriction and Network Resilience

The proposed 7.5-tonne restriction on Greatford Road is relevant to the future network assessment. Until implemented and enforceable, the assessment should not simply assume that prohibited HGV movements cannot occur. Once implemented, potential displacement onto alternative routes should also be recognised. Incident-related diversions, congestion and temporary disruption may similarly alter route choice, reinforcing the value of sensitivity testing rather than reliance upon a single deterministic scenario.

4.8.6 Preliminary Finding

Bancroft's junction and network conclusions require careful scrutiny because of the original limited study area, downstream concerns raised by Peterborough, post-submission calibration of the A15 crossroads, pedestrian-signal interaction, uncertainty in underlying surveys and trip assumptions, the materially changing HGV environment, and the interaction between restricted Greatford Road visibility and additional turning movements.

NB: Observation. *The Greatford Road/A15 junction illustrates why capacity modelling alone is insufficient. The existing visibility constraint is not caused by the proposed development, but the development may increase the frequency with which vehicles undertake the affected manoeuvre while mineral development may materially change the composition of the conflicting A15 traffic stream. The combined effect requires explicit testing.*

4.9 Pedestrian and Sustainable Transport Methodology

The Transport Assessment and Residential Travel Plan rely in part upon future residents undertaking journeys by walking, cycling and public transport rather than by private car. Where reduced car dependency forms part of the justification, the assessment should demonstrate not merely that alternative modes theoretically exist, but that they provide safe, convenient, attractive and realistically usable alternatives.

4.9.1 Active Travel England and Peterborough Concerns

Active Travel England criticised the limited trip-generation assessment and the absence of an adequate qualitative assessment of surrounding routes and considered that the off-site improvements did not adequately prioritise pedestrians and cyclists or comply with LTN 1/20. Bancroft responded that its Transport Assessment already considered the surrounding highway network and access by reasonable modes.

Peterborough City Council separately identified variable-width A15 footways, inadequate crossings, parts of the development more than 400 metres from bus stops, limited amenities within an 800-metre walk and limited segregated cycling infrastructure as factors likely to discourage sustainable travel.

4.9.2 End-to-End Pedestrian Journeys

A route does not become satisfactory merely because individual sections contain a footway. The assessment should consider the complete journey: footway width and condition, interruptions, private accesses, crossings, traffic speed and volume, HGV interaction, parking, lighting, accessibility and the attractiveness of the route for children, older people, wheelchair users and people with pushchairs.

4.9.3 Greatford Road – Revised Drawing versus Site Evidence

Bancroft Drawing F20159/12 proposes a localised extension of the existing southern footway, dropped kerbs and tactile paving in the vicinity of No. 12 Greatford Road. The drawing demonstrates the geometry of a proposed crossing but does not by itself demonstrate the quality or safety of the complete pedestrian journey through the existing residential environment.

The site photographs reviewed for Chapter 3 show residential accesses, frontage constraints, parked vehicles and direct interaction between vehicles emerging from private property and pedestrians using

the footway. In particular, the access serving three existing dwellings requires emerging vehicles to traverse the pedestrian footway before obtaining an improved view of approaching traffic. The proposed crossing does not remove that existing interaction.

Accordingly, dropped kerbs and tactile paving at a single crossing point should not, by themselves, be regarded as demonstrating that the complete Greatford Road route is suitable for additional pedestrian demand.

4.9.4 School Journeys

Bancroft's Travel Plan proposes liaison with local schools to establish a "Walking to School Club" encouraging parents and children to walk from the development to Baston Primary School. If the Travel Plan actively seeks to generate additional child pedestrian journeys, the physical route supporting those journeys must be assessed as safe, continuous and attractive. A behavioural measure cannot substitute for inadequate infrastructure.

N.B: However, as shown in Chapter 5, there is limited availability within the local school to accept a larger number of additional children

4.9.5 A15 as a Pedestrian Barrier

The A15 should be considered not only as a road carrying traffic but as a physical barrier between parts of the village and facilities on opposite sides. Traffic volume, vehicle speed and HGV composition affect the quality and perceived safety of crossing. The cumulative HGV environment identified in Section 4.7 therefore has implications for active travel as well as vehicle capacity.

4.9.6 King Street – High-Speed Environment

Bancroft Drawing F20159/13 describes a potential pedestrian footway link at King Street and contains qualifications regarding final alignment and the highway boundary. Bancroft's consultation response acknowledges notably high vehicle speeds and relies upon approximately 215 metre visibility splays in each direction to support the proposed crossing arrangement.

King Street is a relatively straight, derestricted rural road subject to the National Speed Limit. It is therefore materially different from an uncontrolled crossing in a low-speed residential street. Even where visibility can be demonstrated geometrically, the practical experience of pedestrians crossing a road where vehicles may lawfully travel at substantially higher speeds requires careful consideration.

The appropriateness of the crossing should consider actual operating speeds where evidence exists, traffic volume, HGV frequency, crossing width, waiting position, lighting and the suitability of an uncontrolled crossing. In the absence of measured speed data, this review does not assert that vehicles have been measured regularly travelling at 60 mph.

4.9.7 Predicted Pedestrian Demand

Bancroft's prediction of up to six pedestrian movements per hour towards the King Street/PROW area is a modelled estimate of demand, not a safety threshold. The standard of infrastructure should be appropriate to the road environment and foreseeable users, particularly where the development and Travel Plan are intended to encourage greater walking and cycling over time.

4.9.8 Public Transport, Cycling and Travel Plan Targets

Promotional measures such as public-transport taster tickets may assist initial use but cannot overcome fundamental accessibility limitations. The effectiveness of public transport depends upon walking distance, route quality, frequency, operating hours, destinations and reliability. Similarly, theoretical cycling distance should be distinguished from practical cyclability on routes that users will regard as safe and attractive.

Peterborough records a proposed 10% reduction in single-occupancy car travel but also identifies concerns regarding baseline and target modal splits, monitoring, Travel Plan governance and infrastructure. A target is an intended behavioural outcome, not an evidenced forecast. Where highway conclusions depend materially upon reduced car use, the assessment should test a reasonable higher-car-use scenario.

4.9.9 Preliminary Finding

The sustainable-transport methodology should be considered together with the vehicle-trip assumptions. Active Travel England's criticism, Peterborough's accessibility concerns, the actual Greatford Road environment, the school route, the A15 barrier effect and the high-speed King Street crossing environment provide independent reasons to test whether Bancroft's traffic conclusions remain robust if anticipated modal shift is not achieved.

NB: Observation. Sustainable travel should not be treated as a theoretical exercise in drawing walking and cycling catchments around the site. The relevant test is whether future residents of 283 dwellings are provided with routes and services sufficiently safe, continuous, convenient and attractive to influence actual travel behaviour.

4.10 Highway Safety and Collision Methodology

This section remains provisional only pending final verification of the official collision data. The photographic evidence of visibility at the Greatford Road/A15 junction has now been supplied and is addressed within this review and Chapter 5.

4.10.1 Purpose of the Safety Review

Recorded personal-injury collision data are an important part of highway-safety assessment, but should not be considered in isolation. Historic collision records demonstrate what has occurred

under historic traffic conditions; they do not necessarily establish how a location will perform where traffic volume, turning movements, pedestrian activity or vehicle composition materially change.

4.10.2 Collision Records and Future Exposure

A relatively low historic collision record should not automatically be interpreted as evidence that additional traffic can be accommodated without safety implications. The development changes exposure by introducing additional vehicle movements, turning movements, pedestrian and cycling journeys and interactions between vehicles and vulnerable road users. Mineral development may additionally change traffic composition through increased HGV activity.

4.10.3 Greatford Road and the A15

Vehicles emerging from Greatford Road encounter existing visibility constraints associated with the established built environment and residential curtilages. The development does not create that constraint, but additional traffic can increase the frequency with which vehicles are exposed to it, while additional quarry-related HGVs may change the character of the A15 traffic stream into which those vehicles must turn.

4.10.4 Near Misses and Unrecorded Events

Police-recorded injury statistics do not provide a complete record of damage-only incidents, emergency braking, evasive manoeuvres or near misses. Such matters should not be substituted for verified collision evidence, but neither should the absence of recorded injury collisions automatically be interpreted as demonstrating the absence of an operational safety concern.

4.10.5 Preliminary Finding

Highway safety should combine verified recent collision data with road geometry and visibility, actual speeds where available, development traffic, increased pedestrian/cycling exposure, changing HGV composition and reasonable cumulative sensitivity scenarios. The collision record should inform the assessment but should not determine the conclusion in isolation.

N.B: Observation. *A historic collision record is retrospective evidence, not a prediction of future safety. Where a development increases the number of vehicles and pedestrians interacting with existing constraints, and the surrounding traffic environment may simultaneously experience substantially greater HGV activity, the assessment must consider the resulting change in exposure as well as the number of collisions previously recorded.*

Chapter 4 – Current Position

The cumulative concern here is not that any single Bancroft assumption has been proved wrong. It is that several important stages of the assessment require clarification:

- independent verification or sensitivity testing.
- the date and representativeness of baseline surveys.
- TRICS comparator selection; trip distribution

- the geographical extent of assignment.
- reproducibility of TEMPro growth.
- treatment of committed and emerging mineral traffic.
- post-submission junction calibration
- visibility and HGV interaction.
- the realism of sustainable-travel assumptions.

Taken together, these issues determine the degree of confidence that can reasonably be placed upon the final numerical outputs.

Evidence Sources Used in this chapter

- Bancroft Consulting – Transport Assessment / Residential Travel Plan and July 2026 Formal Response to Consultee Comments for Planning Application S26/0710.
- Lincolnshire County Council highways and mineral-planning material considered during the review.
- Peterborough City Council highways comments on trip generation, distribution, TEMPro growth and sustainable transport.
- Active Travel England comments on trip generation, route quality and active-travel provision.
- Site photographs and Chapter 3 site evidence relating to Greatford Road, pedestrian conditions and visibility constraints.
- Current Chapter 4 working conclusions agreed during the technical review.

INDEPENDENT TECHNICAL REVIEW

CHAPTER 5

TRAFFIC IMPACT AND HIGHWAY OPERATION

Planning Application S26/0710 – Land South of Deeping Road, Baston

5.1 Purpose and Assessment Approach

Chapter 3 established the physical and operational baseline of the highway environment surrounding the proposed development. Chapter 4 examined the methodology and assumptions used within Bancroft Consulting's Transport Assessment and subsequent technical submissions. This chapter considers the practical transport consequences of introducing a development of up to 283 dwellings into that existing environment.

The assessment is deliberately broader than a conventional junction-capacity exercise. A highway network may possess theoretical capacity to accommodate additional vehicles while nevertheless experiencing a material change in traffic frequency, turning movements, pedestrian interaction, access conditions, queuing, traffic composition, exposure to existing visibility constraints and the residential character of streets through which additional traffic passes.

Chapter 3 established that Greatford Road is an established residential street rather than a purpose-built distributor road. It contains residential frontage, numerous private accesses, pedestrian activity, frontage parking, constrained visibility and interactions between pedestrians and vehicles. The speed-survey evidence reviewed also indicates that approximately 10% of recorded vehicles exceeded the existing 30 mph speed limit.

Chapter 4 identified uncertainties within the applicant's traffic evidence, including the absence of clearly identifiable traffic-survey dates, concerns regarding the TRICS comparator sample, uncertainty over trip distribution, questions over growth factors, post-submission recalibration of the A15 crossroads model, treatment of committed quarry traffic and the extent to which sustainable-travel assumptions will reduce private-car use.

These matters do not establish that Bancroft's forecasts are necessarily incorrect. They do mean that the modelled figures should be treated as forecasts dependent upon assumptions rather than as precise predictions of future road use.

Accordingly, this chapter considers three related questions:

- **capacity** – whether the roads and junctions can theoretically accommodate additional demand;
- **operation** – what the additional movements mean in practical terms; and
- **exposure** – whether additional traffic increases the frequency with which road users encounter existing constraints or conflicts.

N.B: Observation

The planning assessment should not be reduced to whether computer modelling predicts that the network continues to operate within numerical capacity. The more complete question is what the additional traffic from 283 dwellings means when introduced into the actual highway environment documented in Chapter 3 and the changing cumulative traffic environment identified in Chapter 4.

5.2 Scale and Nature of Development Traffic

5.2.1 Applicant's Predicted Peak-Hour Generation

Bancroft estimates that the proposed development would generate approximately 176 two-way vehicle movements between 08:00 and 09:00 and 125 two-way vehicle movements between 17:00 and 18:00. These figures are modelled estimates derived from the applicant's trip-generation methodology.

Even taking the applicant's assessment at face value, an AM peak generation of 176 two-way movements equates on average to almost three development-related vehicle movements every minute during that hour. This conversion is illustrative only; movements would not occur uniformly.

The impact is not confined to the two modelled peak hours. A residential development of 283 dwellings will generate movements throughout the day associated with commuting, school journeys, shopping, leisure, deliveries, visitors, servicing, refuse collection, trades, maintenance and evening/weekend activity.

5.2.2 Scale Relative to Baston

The proposal represents a 42% addition to the existing village. This is not a small infill scheme whose traffic would necessarily be absorbed imperceptibly into a much larger settlement. Its permanent travel demand should therefore be assessed against the characteristics of the existing highway network, not solely by expressing additional movements as a small percentage of larger A15 flows.

5.2.3 Percentage Increase versus Actual Movements

Bancroft's later assessment identified up to 55 peak-hour two-way movements associated with Peterborough-related trips and expressed these against observed A15 flows as a relatively small percentage increase. Both the percentage and the absolute movement figure describe different aspects of impact. A relatively small percentage increase can create a meaningful absolute increase in vehicle movements, particularly where the receiving network already experiences congestion or constrained junction operation.

5.2.4 Uncertainty and Sensitivity

The applicant's forecast is sensitive to TRICS comparator selection, sustainable-travel assumptions, route choice, assignment between Deeping Road and Greatford Road, background growth and the treatment of other committed traffic. A reasonable higher-traffic sensitivity scenario is therefore important when judging robustness.

N.B: Observation

Bancroft's peak-hour figures should be understood as modelled estimates rather than fixed limits on future traffic. Even if accepted without adjustment, 176 two-way movements in the AM peak represents a substantial recurring new traffic source. The practical effect of those movements should be considered as well as their percentage contribution to existing flows.

5.3 Impact on Greatford Road

5.3.1 Existing Function

Greatford Road performs two functions simultaneously: it is an established residential street serving existing homes and private accesses, while also accommodating through traffic. The proposed development would connect into this environment through the Greatford Road/King Street access. The relevant impact is therefore not limited to carriageway capacity; it also concerns the frequency of traffic interactions within an existing residential street.

5.3.2 Additional Development Traffic

Bancroft predicts relatively limited development traffic using certain Greatford Road movements, including a small number of additional vehicles emerging from Greatford Road onto the A15 during the morning peak. That figure is a modelled output dependent upon trip generation, distribution and route assignment. It does not describe the total effect upon Greatford Road across all movements and times of day.

5.3.3 Change in Residential Exposure

Each additional vehicle increases the number of occasions on which passing traffic may interact with vehicles emerging from residential drives, vehicles turning into properties, pedestrians crossing accesses, parked vehicles, delivery vehicles, cyclists and residents using the footway. The proposal does not create the physical characteristics of Greatford Road; it increases the number of road users potentially interacting with them.

5.3.4 Existing Speed Environment

Approximately 10% of vehicles recorded in the speed evidence reviewed exceeded the 30 mph limit. This does not imply that development traffic itself will speed. It demonstrates that additional movements will enter an environment in which a measurable proportion of existing traffic already exceeds the posted limit.

5.3.5 Character as well as Capacity

A road can remain below theoretical capacity while nevertheless experiencing more frequent passing traffic, additional turning movements, increased noise associated with acceleration and braking, greater pedestrian/vehicle interaction, more difficult access movements and a perceptible change in residential character. Capacity, operation and character should therefore all inform the planning assessment.

5.3.6 Relationship with Future HGV Traffic

Although the proposed 7.5-tonne restriction is intended to control HGV use of Greatford Road itself, the wider highway environment into which Greatford Road connects may change materially. The interaction between development traffic reaching the A15 and increased mineral-related HGV traffic is considered below.

N.B: Observation

Greatford Road already contains residential accesses, pedestrian interaction, parking and measurable speeding. Introducing additional traffic increases the frequency with which road

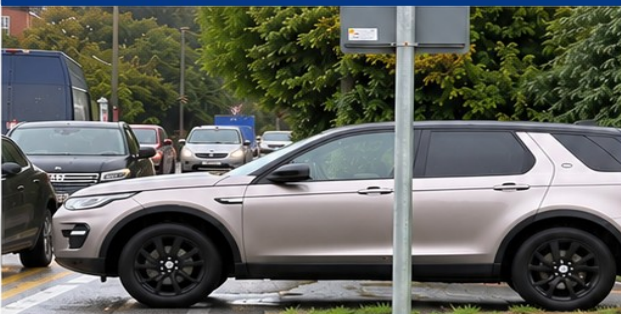
users encounter those existing conditions.

5.4 Greatford Road/A15 Crossroads - Visibility, Gap Acceptance and Cumulative HGV Impact

Figure 5.1 – Aerial View of Greatford Road / A15 Crossroads (Correct Orientation)

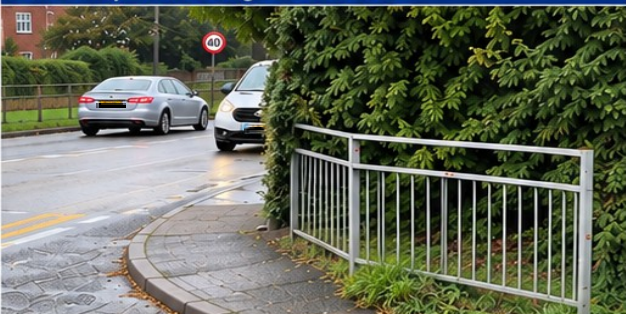


Photograph 1 - Restricted view south towards Langtoft when turning right from Greatford Road onto the A15



View from the Greatford Road junction showing restricted visibility to the south (towards Langtoft and Market Deeping) due to roadside features and passing/queued vehicles on the A15.

Photograph 2 – Pedestrians (including likely school children) from Maltby Drive crossing Greatford Road



Pedestrians approaching from Maltby Drive and seeking to cross Greatford Road towards the A15 pedestrian crossing are partially screened by vegetation and are blind to vehicles heading north on the A15 and turning left into Greatford Road.

Photograph 3 – Existing queuing on Main Street approaching the A15 crossroads



View showing vehicles queuing on Main Street while attempting to reach and merge onto the A15.

Photograph 4 – Extent of Main Street queue towards Church Street



Longer view demonstrating that the queue extended materially back along Main Street towards Church Street.

Figure 5.1 – Aerial orientation of Baston crossroads. Direction labels identify the A15 approaches and the Greatford Road/Main Street east-west axis.

5.4.1 Junction Context

The Greatford Road/A15 crossroads is a critical point at which development-generated traffic from the west interacts with strategic north-south A15 traffic. The junction must therefore be considered in terms of actual visibility, gap acceptance and the changing composition of the A15 traffic stream, rather than capacity modelling alone.

5.4.2 Restricted Southward Visibility

Site evidence demonstrates a restricted southward sightline towards Langtoft and Market Deeping for a driver positioned at the Greatford Road/A15 junction. The photograph should not be used to infer a measured visibility distance, but it illustrates the practical viewing environment experienced by an emerging driver.



Photograph 5.1 – Restricted southward visibility towards Langtoft and Market Deeping from the Greatford Road/A15 junction.

5.4.3 Gap Acceptance

A driver turning onto or crossing the A15 must identify an acceptable gap in the major-road traffic stream. Where visibility is constrained, the judgement becomes dependent upon the time available to observe approaching vehicles and complete the manoeuvre. Additional development traffic increases the frequency with which such judgements are required.

5.4.4 Interaction with HGV Traffic

The future A15 traffic stream may contain materially more HGV movements associated with mineral extraction. HGVs differ from cars in size, acceleration, braking, turning characteristics and the visual space they occupy. The relevant cumulative question is therefore whether the junction remains satisfactory when additional residential movements are introduced into a traffic stream with a potentially greater HGV component.

5.4.5 Police-recorded injury collisions at the crossroads

Lincolnshire Road Safety Partnership supplied individual police-recorded injury-collision records for the parishes of Baston and Langtoft for the five years to 31 August 2026. The return, printed on 17 September 2026, contains 38 collisions across the two parishes: 35 slight, two serious and one fatal. These are distinct locations across a broad area and should not be presented as a collision total for the application junction.

Three records are specifically plotted at or described as the Greatford Road/A15/Main Street crossroads (all classified as slight):

1 July 2023, reference 230404262: a vehicle from Main Street and a southbound A15 vehicle collided at the crossroads; one casualty was recorded. The record also lists alcohol impairment as a contributory factor, which limits any inference about ordinary junction operation.

29 April 2024, reference 240249561: the narrative describes a vehicle proceeding across the crossroads without giving way and colliding with an A15 vehicle; two casualties were recorded. "Driver/rider exceeding speed limit" is listed as possible, not established.

4 July 2024, reference 240395863: a vehicle turning right from the A15 into Main Street collided with another vehicle, with a third vehicle involved; one casualty was recorded. The record lists ineffective observation as a very likely contributory factor.

These three records show actual injury-collision experience involving crossing or turning movements at this junction. They do not establish that restricted visibility caused any of the collisions, quantify present risk, or predict the effect of S26/0710. The site photographs likewise do not provide a measured visibility splay. The recorded history should be considered alongside measured sightlines, observed approach speeds, turning movements and the applicant's proposed mitigation when the highway authority assesses the extra junction use.

The source is Lincolnshire Road Safety Partnership, "5 Years (to 31/08/2026) Injury Collisions in the Parishes of Baston and Langtoft", individual records and associated plot map, data date 31 August 2026, printed 17 September 2026. Police-recorded injury data omit damage-only incidents and

near misses, and their plotted coordinates should be interpreted with the written location descriptions. The earlier supplied return with data date 31 December 2025 overlaps this updated period and has not been added to it.

5.4.6 Preliminary Finding

The available evidence supports further scrutiny of the Greatford Road/A15 junction under a cumulative future scenario. The concern is not that the development creates the existing visibility constraint, but that it increases the number of movements exposed to that constraint while the major-road traffic environment may also become more demanding.

N.B: Observation

The site photograph provides direct evidence of the practical visibility environment at the junction. The planning assessment should test whether the combination of additional development movements, existing sightline constraints and a potentially increased HGV component on the A15 remains operationally robust.

5.5 A15 Corridor Impact and Network Resilience

5.5.1 Strategic Role of the A15

The A15 performs a strategic north-south function through and beyond Baston and carries substantially greater traffic volumes than the surrounding village roads. The proposed development would add traffic to this corridor directly and indirectly through surrounding local routes.

5.5.2 Existing Capacity Pressure and Site Evidence

Existing conditions are important because a development need not create congestion from an uncongested baseline to have a material effect. Where a corridor or junction already operates under pressure, additional demand may increase queue length or duration, reduce reserve capacity, increase sensitivity to disruption and influence alternative route choice.

Photographs 5.2 and 5.3 provide direct site evidence of significant queuing on Main Street by vehicles attempting to reach and merge onto the A15 at Baston crossroads. At the time the photographs were taken, the queue was not confined to the immediate junction area but extended materially back along Main Street towards Church Street.



Photograph 5.2 – Existing queuing on Main Street approaching the A15 crossroads.



Photograph 5.3 – Longer view showing the queue extending back along Main Street towards Church Street.

The photographs do not, in isolation, establish the precise duration, frequency or exclusive cause of the queues. They do demonstrate the existing operational condition into which additional development-generated traffic would be introduced. The relevant question is whether cumulative changes could increase the frequency, duration or physical extent of existing queuing.

5.5.3 Percentage Increase and Operational Significance

A relatively small percentage increase in A15 flow does not automatically establish an insignificant effect. Significance depends upon the operating condition of the receiving junction or link, available reserve capacity, traffic composition, queueing conditions, downstream constraints and whether additional movements coincide with the busiest periods.

5.5.4 Downstream Junctions

Development traffic should be followed sufficiently far through the network to identify where its effect becomes material. The absence of a severe impact immediately adjacent to the site does not necessarily demonstrate the absence of an operational effect further downstream.

5.5.5 HGV Composition and Operational Effect

The A15 is also where residential development traffic interacts most directly with the changing mineral-traffic environment. The significance of HGV movements is not simply numerical: a traffic stream containing a greater proportion of HGVs can affect acceleration and braking patterns, queue discharge, gap availability at side roads, turning times, sightlines, noise and the consequences of a collision.

5.5.6 Interaction with Development Traffic

The residential and mineral traffic streams should not be treated as unrelated. Additional cars and light vehicles join the same corridor on which quarry-related HGV traffic may increase. At gap-acceptance junctions, the size, spacing and speed characteristics of the major-road traffic stream are relevant as well as its total volume.

5.5.7 Network Resilience

A highway network should be capable of accommodating normal variability without becoming disproportionately sensitive to minor disruption. Photographs 5.2 and 5.3 illustrate why resilience matters here: where queues already extend materially along Main Street, additional demand or interruption to A15 flow has the potential to affect the frequency, duration and extent of existing queuing conditions.

5.5.8 Diversion and Route-Choice Risk

Real-world route choice is influenced by congestion and journey time. If the A15 becomes more congested, some drivers may seek alternative routes through the village. This does not establish that substantial rat-running will occur, but route-choice sensitivity should be considered where acceptability depends upon traffic remaining on a preferred strategic route.

5.5.9 Relationship with the 7.5-Tonne Restriction

The intended 7.5-tonne restriction on Greatford Road is relevant to future network operation. However, implementation has been delayed. The assessment should distinguish between the current network, the network once the restriction is operational, and the routes to which HGV traffic may be displaced. A future restriction should not be treated as equivalent to present operational control.

N.B: Observation

A percentage increase should not be considered in isolation from the condition of the network receiving it. On a corridor already experiencing pressure, additional residential traffic combined with a materially changing HGV environment can reduce resilience, increase sensitivity to disruption and alter route choice.

5.6 Pedestrian, School and Cycle Safety Impact

5.6.1 Importance of the School Journey

Baston C of E Primary School is an obvious destination for families occupying the proposed development. The applicant's sustainable-travel strategy anticipates and encourages walking,

making the quality and safety of the complete route between the development and the school particularly important.

5.6.2 Location of the A15 Pedestrian Crossing

The controlled pedestrian crossing used to reach the primary-school side of the A15 is situated south of both the Greatford Road junction and the Maltby Drive entrance. Children approaching through the Maltby Drive area must therefore negotiate Greatford Road close to the A15 junction before reaching the controlled crossing.

5.6.3 Maltby Drive to School – Greatford Road Conflict

Photographic evidence shows the route used by pedestrians approaching from Maltby Drive and seeking to cross Greatford Road to continue towards the controlled A15 crossing. At this location, junction geometry and roadside vegetation restrict advance awareness of vehicles travelling northbound on the A15 and turning left into Greatford Road. A pedestrian may be assessing whether Greatford Road is clear while a vehicle approaching on the A15 subsequently turns into the same crossing environment.



Photograph 5.4 – Pedestrian route from the Maltby Drive side across Greatford Road towards the controlled A15 crossing. The image illustrates the limited advance view towards vehicles turning into Greatford Road.

5.6.4 Alternative Route via King Street and Greatford Road

The alternative route closer to King Street presents a different issue. Where footway continuity is insufficient, pedestrians may need to traverse Greatford Road to continue their journey, and as previously described the footpath is incomplete. A route that appears connected on plan may therefore require additional road-crossing movements in practice, including for children, families and pushchairs.

5.6.5 Increased Traffic and Increased Pedestrian Exposure

The development simultaneously generates additional morning vehicle traffic and additional pedestrian demand. Not all modelled vehicle movements will use Greatford Road or coincide precisely with school journeys, but the interaction between the two streams should be assessed rather than treating highway capacity and pedestrian accessibility as separate exercises.

5.6.6 Walking to School and Infrastructure

Encouraging walking to school is a positive objective, but successful implementation increases the number of children using the surrounding pedestrian network. The more successful the walking initiative becomes, the more important the quality and safety of the route become. Behavioural measures and physical infrastructure should therefore be assessed together.

5.6.7 Cycling and the Absence of Dedicated Cycle Routes

The surrounding network does not provide a continuous system of dedicated or segregated cycle infrastructure giving children and families a clearly protected route between the development and important village destinations. Distance alone does not establish that a route is suitable for cycling, particularly for younger or less confident users. Traffic speed, HGV activity, junction geometry, road crossings and physical separation from motor traffic are material to whether cycling is a realistic alternative to the private car.

5.6.8 Relationship with HGV Traffic

The cumulative HGV environment is also relevant to vulnerable road users. HGVs differ materially from cars in size, braking characteristics, turning requirements, visibility around the vehicle and potential collision consequences. Active-travel assessment should therefore recognise the future traffic environment reasonably expected during the lifetime of the development.

5.6.9 Wider Concern Regarding A15 Speed Environment

Alicia Kearns MP has publicly called for the speed limit on the A15 through Baston and neighbouring villages to be reduced to 30 mph, citing residents' concerns about speeding. This intervention is not technical highway evidence and does not itself establish that the existing speed limit is unsafe. It is nevertheless relevant context demonstrating that the appropriateness of the existing A15 speed environment through Baston is a current matter of public and political concern.

This context reinforces the need for the applicant's assessment to consider the actual pedestrian experience and speed environment rather than treating the existing highway arrangement as an unquestionably satisfactory baseline.

The newly supplied five-year collision return includes the three injury collisions at the Greatford Road/A15/Main Street crossroads described in section 5.4.5. None of those three records identifies a pedestrian casualty or establishes an injury on the particular Maltby Drive to school crossing route. Their relevance here is the demonstrated occurrence of vehicle conflicts at the junction near that route, not proof of a pedestrian collision. The adequacy of the pedestrian route must be judged from its geometry, crossings, actual vehicle movements and prospective exposure, as well as the collision history.

5.6.10 A Safe Route versus an Available Route

An important distinction should be made between an available pedestrian route and an appropriately safe and attractive pedestrian route. It may be physically possible to walk from the development to the school; that does not resolve whether the route is sufficiently continuous, direct, visible, protected, convenient and attractive to support the level of walking upon which the Travel Plan seeks to rely.

N.B: Observation

The school-route issue illustrates a fundamental weakness in assessing sustainable transport principally through connectivity. A route may exist on a plan while requiring children in practice to cross Greatford Road close to the constrained A15 junction, or to negotiate additional road crossings because of incomplete footway provision towards King Street. The appropriate test is not simply whether the school is within walking or cycling distance, but whether the complete journey is sufficiently safe and attractive to justify reliance upon active travel.

5.6.11 Primary-School Capacity and Transport Implications

The availability of local primary-school places is relevant to the transport assessment because the Travel Plan promotes walking to school and the highway assessment necessarily depends upon assumptions about the number and destination of school-related journeys.

Lincolnshire County Council currently records Baston C of E Primary School as having a school size of 190 and a Published Admission Number (PAN) of 25. In its 2024 School Admissions Update, the County Council recorded that Baston was one of 13 primary schools that over-offered places, with 28 Reception offers against a PAN of 25.

For comparison, Langtoft Primary School has a published school size of 210 and PAN of 30. Current publicly available admissions information does not, by itself, establish sufficient spare places across the relevant year groups in Baston, Langtoft, Thurlby or other schools that might reasonably serve the development. The appropriate question is therefore the current and forecast capacity position at the point the 283 dwellings are progressively occupied.

This issue is particularly relevant because Wates has stated in its response to Baston Parish Council that the need for contributions towards education provision will be discussed with officers and consultees during determination and that agreed contributions will be detailed within a Section 106 agreement. The application should therefore identify the expected primary pupil yield, the

schools expected to accommodate that demand, the available and forecast capacity in those schools, and any mitigation or financial contribution required.

If a material proportion of children generated by the development cannot obtain places at Baston Primary School, journeys to schools in surrounding settlements may be required. That could reduce the proportion of school journeys realistically capable of being made on foot and increase car-based school trips on the A15 and surrounding network. This should be reflected in the Transport Assessment and Travel Plan rather than assuming that the availability of a village primary school necessarily equates to the availability of a school place.

N.B: Observation. *A Walking to School strategy (club) is only as credible as the availability of a school place within practical walking distance. Recent evidence that Baston Primary has previously had to over-offer above its PAN provides a reasonable basis for requiring the current and forecast education-capacity position to be established before reliance is placed upon school-related modal-shift assumptions.*

5.7 Cumulative Traffic Impact and Overall Highway Finding

The principal concern identified in this chapter is cumulative rather than singular. Development traffic, existing traffic, quarry-related HGV movements, pedestrians, cyclists and existing highway constraints should not be assessed in separate silos.

Considered individually, several predicted increases may appear relatively modest when expressed as percentages of existing highway flows. Such an approach risks understating their combined effect. The development would introduce a permanent new traffic generator of up to 283 dwellings into a highway environment characterised by residential frontage, existing junction constraints, measurable speeding, incomplete pedestrian infrastructure and an A15 corridor carrying substantial strategic traffic.

At the same time, the future traffic environment is changing. Permitted and proposed mineral activity creates a credible basis for testing materially higher HGV conditions. These changes interact: additional residential traffic increases the frequency of movements through existing junctions and along Greatford Road; increased HGV activity changes the composition of the traffic stream into which those vehicles must enter; and the development simultaneously creates additional pedestrian demand and seeks to encourage children to walk to school through parts of the same environment.

The five-year police-recorded injury history adds three slight-injury collisions at the Greatford Road/A15/Main Street crossroads. This is a location-specific reason to test junction safety and mitigation using current site observations. It does not, on its own, show that the proposed development would cause further collisions.

The photographic evidence strengthens this conclusion. Site evidence demonstrates restricted visibility at the Greatford Road/A15 junction, pedestrian interaction immediately adjacent to that junction, and appreciable existing queuing on Main Street approaching the A15, extending on the observed occasion towards Church Street.

The concerns are therefore not based solely upon theoretical modelling scenarios, but clear and actual evidence of the current constraints with the prospect of increased exposure

The relevant planning question is whether the combined effect of additional residential traffic, increased HGV activity, existing highway constraints and increased vulnerable-road-user exposure can be demonstrated to operate satisfactorily and safely over the lifetime of the development. Further sensitivity testing and clarification are required before that conclusion can be reached with confidence.

N.B: Observation

No single traffic movement, junction, pedestrian crossing or quarry proposal necessarily determines the acceptability of the development. The concern arises from their interaction: a major expansion of the village, additional residential traffic, existing highway constraints, increased pedestrian exposure and a materially changing HGV environment. The robustness of the transport case should therefore be demonstrated against that combined future scenario rather than through a series of isolated assessments.

INDEPENDENT TECHNICAL REVIEW

Chapter 6

Flood Risk, Surface-Water Drainage and Local Drainage Capacity

Planning Application S26/0710 — Baston Green

6.1 Purpose and Scope

This chapter considers flood risk, surface-water drainage and the capacity of the local receiving drainage system in relation to the proposed Baston Green development. It supplements the review of transport and access matters by addressing whether the development's drainage strategy is adequately grounded in observed local conditions.

The central issue is not confined to the site's formal fluvial flood-zone classification. It is whether the proposed attenuation and discharge arrangements would remain effective during severe rainfall when nearby dykes, drains, watercourses and low-lying land are already carrying substantial volumes of water or are approaching capacity.

Scope of the evidence

The photographs reproduced in this chapter are observational evidence of conditions opposite the application site in two separate years. They do not, by themselves, establish hydraulic capacity or prove that the proposed development would cause flooding. They identify real-world conditions that the applicant's modelling and the Lead Local Flood Authority's review should address explicitly.

6.2 The Applicant's Position

The applicant states that the entirety of the proposed development site is within Flood Zone 1 and explains that an earlier indication affecting part of the land arose from an Environment Agency mapping error. The applicant also proposes a sustainable drainage system comprising features such as attenuation basins, swales and rain gardens, with surface-water discharge restricted to existing greenfield runoff rates.

Those measures are relevant and, in principle, can form an appropriate approach to managing runoff from a greenfield development. However, the adequacy of the strategy depends on its design assumptions, the condition and capacity of the receiving system, exceedance arrangements, long-term maintenance and the response of the system during severe or prolonged rainfall.

6.3 Flood Zone 1 Does Not Resolve the Wider Issue

Flood Zone 1 principally describes a low probability of flooding from rivers and the sea. *It does not mean that land is free from all forms of flood risk.* National planning policy requires flood-risk consideration to cover all sources of flooding, including surface water, groundwater and drainage infrastructure, and to ensure that development does not increase flood risk elsewhere.

A Flood Zone 1 designation therefore does not answer the specific concern raised by the local evidence: whether controlled discharge from the development can be accommodated safely when the receiving drainage environment is already full, surcharged or otherwise constrained.

6.4 Recent Flooding in Greatford and the Surrounding Area

Recent local experience demonstrates that flooding is not merely a theoretical concern. South Kesteven District Council's reporting on the January 2024 Storm Henk event records Greatford among the communities significantly affected. The reported consequences included internal flooding to three properties, as well as impacts on farmland, highways and commercial premises.

This evidence does not establish a direct hydrological connection between every affected location and the application site. It does, however, confirm that the wider low-lying drainage environment can experience serious stress during extreme rainfall. That context is material when assessing a large greenfield development whose surface-water strategy relies on attenuation followed by controlled discharge.

6.5 Photographic Evidence

The following original photographs were supplied as local observational evidence. Both views look north along the drainage dyke opposite the proposed Baston Green development site.



Figure 6.1 – Flood conditions during 2024. View looking north along the drainage dyke opposite the proposed Baston Green development site. Water is visibly extending around the bridge structure and beyond the apparent normal confines of the drainage channel into the surrounding land.



Figure 6.2 – Flood conditions during 2025. View looking north along the same drainage corridor opposite the proposed development site. The dyke is carrying a substantial volume of water and extensive areas of the adjoining agricultural land are inundated.

The photographs show high-water and inundation conditions in two separate years. Their value lies in demonstrating that the receiving drainage environment can experience severe conditions repeatedly, rather than documenting only a single isolated event.

The images should be treated as site-specific observational evidence to be considered alongside surveyed levels, drainage records, groundwater information and hydraulic modelling. They warrant a clear technical explanation of how the proposed system would operate under comparable downstream conditions.

6.6 Receiving-System Capacity

The proposed drainage strategy appears to depend on storing runoff on site and releasing it at a controlled rate. Restricting discharge to a greenfield rate can reduce peak flows from the development, but the rate alone is not the whole test. The timing, duration and destination of discharge are also important, particularly during prolonged events when attenuation storage is being used and downstream water levels remain high.

Where a receiving dyke or connected drainage system is already at or approaching capacity, there may be reduced hydraulic head, slower discharge, backing up or a need for water to follow exceedance routes. The planning authority should therefore be satisfied that the strategy has been tested against appropriately conservative downstream boundary conditions and not solely against normal or freely discharging conditions.

N.B: Observation

Has the applicant's drainage model been tested using the observed downstream water levels and drainage conditions experienced during the 2024 and 2025 events and, if not, how has it demonstrated that the development would not increase flood risk elsewhere when the receiving system is already at or approaching capacity?

6.6.1 Attenuation Storage When the Outfall Is Constrained

Attenuation basins do not remove surface water from the catchment. They temporarily store development runoff and release it at a controlled rate into the identified receiving drainage system. Their satisfactory performance therefore depends not only upon the nominal greenfield discharge rate, but also upon the ability of the receiving system to accept that discharge.

Where the receiving dyke or downstream drainage infrastructure is already full or surcharged, the development outfall may become submerged. This may reduce or temporarily prevent discharge from the attenuation system. Water would then continue accumulating within the basins until downstream levels fall, provided sufficient storage capacity and freeboard remain available.

If the available storage were exhausted during a prolonged storm, a succession of storms or a period in which downstream water levels remained high, the system would enter an exceedance condition. Water would then leave the basin through an emergency spillway or other exceedance route. Unless that route has been specifically identified, levelled and modelled, there is a risk that exceedance water could contribute to existing surface-water flooding or flow towards roads, existing properties or proposed dwellings.

Evidence that similar attenuation basins have operated successfully on other developments would not resolve this site-specific question unless those developments had comparable topography, groundwater conditions, receiving-watercourse levels and existing surface-water flooding. The relevant test is whether the Baston system remains safe when assessed against the actual high-water conditions observed locally during 2024 and 2025.

6.7 Matters Requiring Technical Clarification

Receiving watercourse

- Identify the precise outfall location, receiving watercourse or drainage asset, downstream route and responsible authority or riparian owner.
- Confirm the current physical condition, surveyed capacity and any known restrictions, blockages, culverts or maintenance dependencies affecting that route.

Observed flood conditions

- Explain whether the 2024 and 2025 observed conditions have been incorporated into the hydraulic assessment or used to calibrate or sensitivity-test the drainage model.
- State the assumed downstream water levels and demonstrate why those assumptions are suitably precautionary.

Drainage performance

- Demonstrate performance for the full range of required design storms, including the appropriate climate-change allowance and event durations capable of filling attenuation storage.
- Confirm whether the system remains functional where the outfall is submerged, restricted or unable to discharge at the assumed rate.
- Model performance for a temporarily submerged or restricted outfall using both a zero-discharge and a materially reduced-discharge sensitivity scenario.
- State the calculated drawdown time after the critical storm where downstream water levels remain high.
- Test successive storm events occurring before the attenuation storage has fully recovered.

Groundwater and infiltration

- Provide adequate seasonal groundwater monitoring and infiltration testing at the proposed locations and depths of drainage features.
- Demonstrate that high groundwater would not materially reduce available storage or compromise infiltration, conveyance or basin performance.

Exceedance and residual risk

- Identify maximum basin water levels, remaining freeboard and emergency spill levels, and map exceedance routes, maximum flood depths and velocities for events exceeding the design standard and for blockage or system-failure scenarios.
- Show that exceedance water would be directed away from existing and proposed homes, highways and other vulnerable uses without increasing risk elsewhere.

Maintenance

- Provide a secured inspection and maintenance regime for basins, swales, flow controls, culverts and outfalls for the lifetime of the development.
- Identify the adopting or managing body, access arrangements, funding mechanism and response procedure if assets become obstructed or underperform.

6.8 Cumulative and Construction-Phase Effects

The assessment should consider cumulative changes in the local catchment and drainage network rather than treating the application site in isolation. Relevant considerations include other committed development, changes to impermeable area, alterations to field drainage and any works affecting downstream channels or culverts.

The construction phase also requires explicit control. Soil compaction, stripping of vegetation, temporary stockpiles, sediment movement and incomplete drainage infrastructure can increase runoff or obstruct local drains. A construction surface-water and pollution-prevention plan should therefore be agreed before works begin, with temporary attenuation, inspection and emergency arrangements in place throughout the build period.

6.9 Planning Evaluation

The applicant's reliance on Flood Zone 1 and a greenfield discharge rate is not, without the supporting detail identified above, a complete response to the observed local conditions. National policy expects development to be safe for its lifetime, to take account of all sources of flooding and cumulative effects, and not to increase flood risk elsewhere.

The photographs and official record of recent flooding provide a reasonable evidential basis for further scrutiny. They do not justify an unsupported assertion that the development will cause flooding. They do justify requiring the drainage design to demonstrate resilience when the downstream system is already under severe stress.

A planning condition can appropriately secure final technical details only where the planning authority is already satisfied that a feasible and effective drainage solution exists. Fundamental uncertainty about outfall capacity, downstream boundary conditions or the availability of safe exceedance routes should be resolved before determination rather than deferred.

6.10 Preliminary Finding and Requested Action

On the evidence presently available, the proposed drainage approach has not yet been shown transparently to address the severe receiving-system conditions observed locally in 2024 and 2025. Further technical clarification is required before the authority can safely conclude that the proposal would not increase flood risk elsewhere.

It is requested that South Kesteven District Council:

1. provides the original photographs in this chapter to the Lead Local Flood Authority and ensures that they are considered as part of the formal consultation response;
2. requires the applicant to identify and justify the downstream water-level assumptions used in its drainage model;

3. requires sensitivity testing against the observed 2024 and 2025 high-water conditions, including restricted or submerged-outfall scenarios;
4. requires the applicant to demonstrate storage, drawdown and safe exceedance performance during submerged-outfall, reduced- or zero-discharge and successive-storm scenarios;
5. obtains confirmation that adequate attenuation, safe exceedance routes and long-term maintenance arrangements are achievable;
6. requires an appropriate cumulative and construction-phase drainage assessment; and
7. does not determine application S26/0710 until the Lead Local Flood Authority has considered the local evidence and the applicant has provided a satisfactory technical response.

N.B: Observation

The drainage strategy should be assessed against the way the local drainage environment behaves during severe events. The two-year photographic record makes that a specific, evidence-based requirement rather than a generic concern.

INDEPENDENT TECHNICAL REVIEW

Chapter 7

Air Quality, Dust, Noise and Construction Disturbance

7.1 Purpose and Scope

This chapter considers the potential effects of the proposed 283-dwelling Baston Green development arising from construction dust and particulate matter; emissions from construction vehicles and plant; operational traffic emissions; construction noise and vibration; construction traffic, deliveries and working practices; and the cumulative interaction between the development, quarry operations and associated HGV movements.

The purpose is not to suggest that all construction activity is inherently unacceptable. Any development of this scale will create a degree of temporary disturbance. *The relevant planning question is whether the likely effects have been assessed sufficiently before determination and whether effective, measurable and enforceable controls can be secured.*

The development would be constructed over an extended period on the edge of an established village. Potentially sensitive receptors include nearby residential properties, Baston Primary School, community facilities, bus stops, pedestrians and users of established walking routes.

The assessment must therefore distinguish between:

- the temporary but potentially prolonged effects of construction;
- the permanent effects of additional development traffic; and
- cumulative effects where housing construction and operation coincide with quarry extraction, quarry HGV traffic or other committed development.
- The direction of the prevailing winds

National planning policy requires planning decisions to prevent new development from contributing to unacceptable levels of air pollution and to mitigate adverse effects from noise. It also recognises that significant adverse effects on health and quality of life should be avoided.

N.B Observation

The central issue is whether the authority can be satisfied, before permission is granted, that the development's dust, air-quality, noise and construction effects can be kept within acceptable limits throughout a lengthy construction programme.

7.2 Sensitive Receptors and Local Context

The proposed development is not an isolated construction site remote from established activity. It would introduce a major and prolonged construction operation beside an existing village and its local road network.

The receptors requiring consideration include:

- homes close to the development boundary and proposed access routes;
- properties on Deeping Road, Greatford Road, King Street and other roads used by construction traffic;

- Baston Primary School and the routes used by children travelling to and from it;
- pedestrians waiting at bus stops or using local footways;
- residents whose properties are close to junctions where construction vehicles may accelerate, brake or wait; and
- users of neighbouring agricultural land and public routes.

Different receptors may be affected in different ways. Properties closest to the site may be most exposed to earthworks, plant noise and windblown dust. Properties along the construction route may instead experience repeated HGV movements, engine noise, vibration, mud and dust deposited on the highway.

Children are a particularly relevant receptor group because they may spend considerable periods at school or travelling on foot close to affected roads. This does not establish that unacceptable exposure will occur, but it means that receptor selection and the proposed mitigation must reflect actual local behaviour rather than relying only on generic residential assumptions.

The assessment should identify each sensitive receptor or representative receptor location, its distance from the construction activities and access routes, the likely duration of exposure and the particular effect being assessed.

Cumulative local context

The permitted Thetford House Farm quarry represents a realistic component of the future environmental baseline. The proposed Thetford extension, the possible return of mineral working at Manor Farm and live application PL/0029/26 for Baston No.2 Quarry should be treated as appropriate sensitivity scenarios.

Quarry traffic is materially different from ordinary residential traffic. HGVs can generate greater engine and braking noise, road dust, vibration and particulate emissions. The assessment should therefore consider whether residents and school-route users could experience overlapping effects from housing construction traffic, operational traffic from the completed housing development, existing and future quarry HGV activity, and other construction or development taking place during the same period.

Evidential caution

The presence of nearby quarry activity does not itself demonstrate that air-quality or noise limits would be exceeded. It does mean that the environmental baseline should not be treated as fixed or limited to ordinary village traffic.

7.3 Construction Dust and Air Quality

Construction of 283 homes would involve activities capable of generating dust and particulate matter, including:

- site clearance and removal of vegetation;

- excavation and earthworks;
- soil stripping, storage and redistribution;
- movement of construction vehicles over unsealed surfaces;
- loading and unloading of loose materials;
- cutting and handling of construction products;
- demolition or breaking operations, where required;
- wind erosion from stockpiles and exposed ground; and
- mud and material being tracked onto surrounding roads.

The scale and duration of these effects would vary through the construction programme. Earthworks and ground preparation may present different risks from later housebuilding, while dry or windy weather can substantially increase the potential for dust to travel beyond the site boundary, with the direction of the prevailing winds a consideration.

Professional construction-dust guidance uses a risk-based approach which considers the magnitude of the works, the sensitivity and proximity of receptors, local conditions and the effectiveness of mitigation. It does not assume that dust is adequately controlled simply because a future management plan will be prepared.

Matters requiring clarification

Before determination, the applicant's evidence should establish:

- the anticipated construction phases and their likely duration;
- the location and maximum size of soil and material stockpiles;
- the distance between dust-generating activities and sensitive receptors;
- the proposed construction access and haul routes;
- the number and type of construction vehicles and plant;
- whether concrete crushing, material processing or other particularly dusty activities would occur on site;
- the method used to assess the risk of dust soiling and effects on human health;
- the meteorological assumptions used, including prevailing winds;
- the arrangements for wheel washing and cleaning affected roads;
- the circumstances in which dust monitoring would be required; and
- the action thresholds and work-stoppage procedures that would apply if controls are ineffective.

Reliance on a future management plan

A Construction Environmental Management Plan can provide an appropriate mechanism for controlling detailed working practices. However, it should implement an environmental solution

whose feasibility has already been demonstrated; it should not substitute for the assessment needed to decide whether the development is acceptable.

A generic promise to suppress dust, clean roads or respond to complaints would not provide the authority with an assessed level of risk, receptor-specific mitigation, measurable performance standards, monitoring locations, action thresholds or a defined enforcement response.

The principal controls should therefore be established before determination or secured through a sufficiently detailed planning condition. These should include, as appropriate:

- hard-surfaced construction access and internal haul routes;
- effective wheel-washing facilities before vehicles reach the public highway;
- prompt mechanical road cleaning;
- covered or sheeted loads;
- controlled stockpile locations and heights;
- water suppression during dry conditions;
- speed limits for construction vehicles within the site;
- restrictions on particularly dusty activities during strong winds;
- boundary dust or particulate monitoring where justified;
- a named community contact and properly recorded complaint procedure; and
- specified corrective action, including temporary suspension of work where necessary.

N.B: Obervation:

Construction dust is capable of being mitigated, but the effectiveness of mitigation depends upon the site layout, proximity of receptors, construction programme and enforceability of the controls. The authority should not rely solely on a post-permission document containing measures that have not yet been specified.

7.4 Operational Air Quality

Once the development is occupied, its principal potential effect on local air quality would arise from additional road traffic. The relevant pollutants are primarily nitrogen dioxide and fine particulate matter generated directly by vehicle exhausts and indirectly through brake, tyre and road-surface wear.

A development of 283 dwellings would introduce permanent daily vehicle movements onto Deeping Road, Greatford Road, King Street and the surrounding highway network. The effect should be assessed using the development traffic figures established in the Transport Assessment, together with a realistic future baseline.

The fact that Baston may not presently experience a declared statutory air-quality problem would not, by itself, remove the need for an appropriate assessment. *National planning policy requires*

decisions to consider the potential effects of development on air quality and the cumulative impact of individual sites.

Relationship with the Transport Assessment

The reliability of the operational air-quality assessment depends substantially on the reliability of the traffic inputs used within it. If the Transport Assessment understates development traffic, uses an unrepresentative survey period or omits reasonably foreseeable quarry and HGV movements, an air-quality conclusion based on those figures may also be understated.

The assessment should therefore use traffic data which:

- represents ordinary school-term conditions;
- includes the full 283-dwelling development;
- uses appropriate opening and future assessment years;
- reflects realistic traffic distribution across both proposed accesses;
- accounts for congestion, queuing and low-speed operation at constrained junctions;
- includes committed development and the permitted quarry baseline; and
- tests appropriate sensitivity scenarios for additional quarry activity.

The effect of additional traffic should not be assessed solely as a percentage increase across a wide study area. A comparatively modest network-wide increase may be more material at a particular junction or roadside location where vehicles queue, accelerate or operate close to residential properties and pedestrians.

This is particularly relevant at the Greatford Road/A15 junction, Baston crossroads, the Deeping Road access, the Greatford Road/King Street access, the A15 pedestrian-crossing area, the route towards Baston Primary School and residential frontages affected by additional or redistributed traffic.

Cumulative traffic emissions

The permitted Thetford House Farm quarry should form part of the realistic future baseline where its traffic could coincide with the occupied development. The proposed Thetford extension, Manor Farm and PL/0029/26 Baston No.2 Quarry should be considered as sensitivity scenarios where appropriate.

The assessment should recognise that quarry HGVs differ from ordinary cars in their emissions, physical characteristics and operating patterns. The cumulative question is not simply whether the housing development alone would breach a statutory limit. It is whether the combined traffic environment has been represented fairly and whether the development would expose existing or future residents, pedestrians and school-route users to an avoidable deterioration.

Mitigation

The development should incorporate measures capable of reducing reliance on private cars rather than relying solely on predicted improvements in vehicle-engine technology. Relevant measures include:

- safe and continuous pedestrian connections;
- a genuinely usable route to the primary school;
- safe crossing arrangements at Greatford Road and the A15;
- practical cycle infrastructure rather than cycle parking alone;
- accessible public-transport connections;
- electric-vehicle charging provision; and
- a monitored travel plan with defined targets and corrective measures.

The absence of a safe cycle route and the weaknesses already identified in the pedestrian network are relevant to air quality. If walking and cycling routes are unsafe or unattractive, residents will be more likely to use cars for short local journeys.

N.B: Observation:

Operational air quality is unlikely to be the strongest standalone reason for resisting the development unless the technical evidence predicts a material impact or statutory exceedance. Its importance lies in testing whether the applicant has used a sufficiently robust traffic baseline and has provided realistic measures to limit additional car dependence.

7.5 Construction Noise and Vibration

Construction of 283 dwellings would involve an extended programme of site preparation, infrastructure installation and housebuilding. Potential noise and vibration sources include:

- earthmoving plant and excavators;
- piling or other foundation works, if required;
- compaction equipment;
- generators, pumps and compressors;

- concrete deliveries and placement;
- cutting, drilling and mechanical tools;
- loading and unloading;
- reversing alarms;
- construction HGVs;
- road and junction work
- the movement of plant and materials within the site.

The effect on individual properties would vary as construction progresses. Residents close to the development boundary could experience periods during which works take place relatively near their homes, while properties along construction routes could be affected throughout a greater part of the programme.

The relevant question is therefore not merely the highest predicted noise level from an individual activity. The assessment should also consider the duration and repetition of the noise; the time of day; impulsive or tonal characteristics; simultaneous operation of plant; different construction phases; weekend or early-morning working; cumulative activity; and the sensitivity of nearby residential and school receptors.

National planning policy seeks to avoid noise giving rise to significant adverse effects on health and quality of life and to mitigate and reduce other adverse effects as far as possible. It also recognises that existing businesses should not face unreasonable restrictions because later development introduces new sensitive receptors nearby.

Baseline and receptor assessment

A defensible assessment should identify representative receptors and establish the existing noise environment at appropriate times. Monitoring locations should reflect both receptors close to the construction site and receptors beside proposed construction traffic routes.

The baseline should distinguish ordinary local traffic from quarry and HGV activity. Where mineral operations form part of the realistic future environment, the assessment should explain how those sources have been treated and whether periods of overlapping activity have been considered.

The assessment should identify:

- the nearest residential receptors to each major construction phase;
- the relationship between work areas and Baston Primary School;
- the expected noise-producing plant and operating periods;
- predicted noise levels at representative receptors;

- any activities capable of producing perceptible vibration;
- the applicable assessment criteria;
- the duration for which the criteria might be approached or exceeded; and
- the mitigation assumed in reaching the conclusions.

Construction traffic noise

Noise from construction vehicles should not be confined to activity within the red-line boundary. HGVs would enter and leave the site through the local highway network, potentially passing homes, pedestrians, bus stops and school-route users.

Relevant effects include engines and exhaust systems, braking and acceleration, reversing alarms, tailgates and loose equipment, vehicles waiting or idling near the access, early arrivals before the site opens, and vibration or disturbance as heavy vehicles pass close to properties.

A construction logistics plan should specify approved routes, delivery periods and arrangements for preventing vehicles from waiting on local roads. It should prohibit unnecessary idling and ensure that drivers do not arrive before permitted working or delivery hours.

Working hours

The principal working and delivery hours should be established through enforceable planning conditions. They should not be left entirely to a management plan agreed after permission.

Subject to consultation with the Council's environmental-health officers, the controls should distinguish between normal site working, noisy operations, HGV deliveries, activities outside normal hours, emergency works, and work on Sundays and public holidays.

Any exceptional out-of-hours working should require prior approval, except in a genuine emergency, together with advance notification to affected residents.

Noise and vibration controls

The mitigation framework should include:

- selection of quieter plant and working methods;
- proper maintenance of plant and silencers;
- acoustic screening or temporary barriers;
- location of fixed plant away from sensitive boundaries;
- control of reversing alarms, where safe alternatives are available;
- restrictions on simultaneous noisy operations;
- limits on idling;
- prior notification of particularly disruptive works;
- baseline condition surveys where vibration-sensitive properties may be affected;
- attended or continuous monitoring where justified; and
- defined action levels requiring investigation and corrective action.

A complaint procedure is necessary, but it is not a substitute for monitoring and prevention. The plan should identify a named responsible person, response times, record-keeping requirements and escalation arrangements. Complaints, monitoring results and corrective measures should be made available to the planning authority.

Deferring details until after permission

A detailed Construction Environmental Management Plan may legitimately refine working methods as contractors and plant become known. However, the authority should understand the likely magnitude and duration of the effects before deciding whether the development is acceptable.

The following matters should therefore be established before determination or clearly fixed through conditions:

- the principal construction phases;
- anticipated overall construction duration;
- representative noise-sensitive receptors;
- indicative plant and activity assumptions;
- assessment criteria;
- permitted working and delivery hours;
- construction access and routing;
- whether piling or other high-impact operations may be required;
- the basic monitoring framework; and
- the procedure for dealing with exceedances.

N.B: Observation

Construction noise and vibration are potentially significant because of the scale and duration of the development and the proximity of existing village receptors. They are capable of mitigation, but a generic commitment to prepare a future management plan would not demonstrate that acceptable conditions can be maintained throughout the construction programme.

7.6 Cumulative Environmental Effects

The effects of the proposed development should not be assessed solely as if construction and occupation would occur against a static village baseline.

The cumulative assessment should consider the reasonable possibility that some or all of the following activities could overlap:

- construction of the 283-dwelling development;
- occupation of completed homes while construction continues on later phases;
- traffic associated with the permitted Thetford House Farm quarry;
- activity associated with PL/0029/26 at Baston No.2 Quarry;

- the proposed Thetford quarry extension;
- any renewed mineral working at Manor Farm; and
- other committed development or highway works affecting the same local road network.

Overlapping construction and occupation

A phased housing development can create a particular form of cumulative exposure. The first residents may occupy completed homes while earthworks, housebuilding, deliveries and road construction continue elsewhere on the site.

The assessment should therefore address the effects on:

- existing residents around the site;
- future occupants of the first completed phases;
- pedestrians using newly opened routes;
- children travelling between the development and Baston Primary School;
- residents using roads shared with construction and quarry traffic.

The applicant should explain how completed homes would be protected from dust, noise, vibration and construction traffic generated by later phases. Relevant considerations include temporary haul routes, separation distances, screening, sequencing and whether construction vehicles would pass occupied dwellings.

Combined traffic effects

Housing-construction vehicles, quarry HGVs and ordinary residential traffic could use parts of the same highway network. Even where each source may be considered acceptable individually, their combined effect could produce:

- more frequent HGV movements;
- repeated noise events;
- increased braking and acceleration at constrained junctions;
- additional road dust and mud;
- greater pedestrian exposure;
- more periods of queuing and idling; and
- reduced opportunities for quieter intervals during the working day.

A cumulative assessment should not simply add annual or daily vehicle totals. It should consider when the movements would occur, the routes used and whether peak construction, quarry and school-travel periods could coincide.

Relationship with the school route

The cumulative environmental assessment should reflect the route available to children and accompanying adults. As established in Chapter 5, pedestrians from Maltby Drive and the proposed development may need to negotiate Greatford Road and the A15 crossing environment near constrained junctions and incomplete footways.

Additional construction and quarry vehicles could affect this route through noise, diesel emissions, road dust, waiting vehicles and the intimidating physical presence of HGVs. These effects should be considered alongside highway safety rather than being treated as wholly separate matters.

Evidential approach

The existence of several possible developments does not mean that every scheme will proceed simultaneously. The assessment should distinguish carefully between:

- realistic baseline: development and mineral activity already permitted or sufficiently committed;
- cumulative assessment: other development required to be considered under the relevant planning framework; and
- sensitivity testing: credible scenarios which are not yet certain but could materially alter the conclusions.

N.B: Observation

The applicant should not be required to assume that every possible quarry proposal will proceed at its maximum level simultaneously. It should, however, demonstrate that its conclusions remain reliable under a reasonable worst-case combination of housing construction, occupied development and mineral-related HGV activity.

7.7 Required Mitigation, Monitoring and Enforcement

The principal environmental safeguards should be secured through clear planning conditions and, where necessary, legal obligations. A future Construction Environmental Management Plan should

provide the detailed means of implementation, but it should operate within parameters fixed when permission is granted.

The controls must be:

- specific;
- measurable;
- enforceable;
- available before the relevant work begins;
- maintained throughout construction;
- supported by defined corrective action.

Construction programme and phasing

Before development begins, the applicant should provide:

- an indicative construction programme;
- the anticipated duration of each principal phase;
- the expected occupation points for completed phases;
- locations of compounds, stockpiles and haul roads;
- measures separating occupied homes from continuing construction; and
- arrangements for keeping construction vehicles away from residential streets within the development wherever practicable.

Material changes to the approved programme or construction layout should require written approval where they could alter effects on sensitive receptors.

Dust and air-quality controls

The approved scheme should include:

- an appropriate construction-dust risk assessment;
- identified sensitive receptors;
- hard-surfaced access and haul-road sections;
- wheel-washing facilities;

- prompt mechanical cleaning of affected roads;
- covered or sheeted loose loads;
- controlled stockpile locations and heights;
- water suppression during dry conditions;
- restrictions during strong winds;
- prohibition of uncontrolled material burning;
- dust or particulate monitoring where justified;
- action levels capable of triggering additional mitigation or suspension of the relevant activity.

Visible dust beyond the site boundary should prompt immediate investigation rather than reliance on retrospective complaints alone.

Noise and vibration controls

The controls should establish:

- permitted site-working hours;
- permitted delivery hours;
- restrictions on Sundays and public holidays;
- procedures for exceptional out-of-hours working;
- noise-assessment criteria at identified receptors;
- quieter plant and working methods;
- acoustic screening where required;
- controls over idling and reversing alarms;
- advance notification of particularly disruptive activities;
- vibration assessment and property-condition surveys where justified;
- monitoring during high impact works;
- action levels requiring investigation and corrective action.

The authority's environmental-health officers should approve the assessment criteria and monitoring arrangements before the relevant construction activity begins.

Construction traffic controls

A Construction Traffic or Logistics Management Plan should specify:

- the approved construction access;

- permitted HGV routes;
- arrangements preventing HGVs from using unsuitable village roads;
- maximum delivery or vehicle numbers where necessary;
- restrictions during school arrival and departure periods;
- a booking system to prevent vehicle queuing;
- prohibition of waiting or idling on public roads;
- driver instructions;
- arrangements for abnormal loads;
- road-cleaning and inspection procedures;
- a process for investigating route or conduct breaches.

The document should address how construction movements would interact with quarry HGVs and any temporary highway works.

Monitoring and public reporting

Monitoring should be proportionate to the assessed risk but sufficient to demonstrate whether the controls are working. The monitoring framework should identify:

- what will be measured;
- where monitoring will occur;
- the frequency and duration of monitoring;
- applicable trigger and action levels;
- who will review the results;
- how results will be reported to the Council;
- how records can be inspected; and
- what action will follow an exceedance.

Where monitoring identifies repeated failures, the response should progress from investigation and improved controls to restriction or temporary suspension of the relevant activity.

Complaints and community liaison

The developer should appoint a named community-liaison contact before construction begins. Contact details and permitted working hours should be provided to surrounding residents and displayed at the site entrance.

The complaints procedure should record:

- the date, time and nature of the complaint;
- the relevant construction activity;
- prevailing weather conditions where dust is alleged;
- available monitoring information;
- the result of the investigation;

- corrective action taken;
- the response provided to the complainant.

Repeated complaints should be reviewed collectively to identify recurring problems. Each complaint should not be treated as an isolated event where a pattern is developing.

N.B: Observation:

A requirement merely to “comply with the Construction Environmental Management Plan” is only as effective as the plan itself. The approved document must contain identifiable standards, monitoring requirements, responsibilities and consequences when controls fail.

7.8 Preliminary Finding and Requested Action

Construction of the proposed 283-dwelling development would inevitably cause a degree of temporary dust, noise, traffic and general disturbance. These effects do not automatically make the development unacceptable, but the scale, duration and location of the works require a robust assessment and enforceable control framework.

Operational air quality is unlikely to represent the strongest standalone objection unless the applicant's technical assessment predicts a material deterioration or statutory exceedance. Its importance lies principally in the reliability of the traffic baseline, the treatment of constrained roadside locations and the cumulative inclusion of quarry and HGV activity.

Construction dust, noise and vibration require greater scrutiny. The development could be constructed over several years, with effects experienced by existing residents, school-route users and eventually occupants of the development's earlier phases.

A generic commitment to submit a Construction Environmental Management Plan after planning permission would not, by itself, demonstrate that these effects can be controlled. Before determination, the authority should understand the principal construction activities, duration, access arrangements, sensitive receptors, assessment criteria and mitigation framework.

It is requested that South Kesteven District Council:

- requires the applicant to provide an adequate construction-dust and air-quality risk assessment before determination;
- confirms that the operational air-quality assessment uses traffic inputs consistent with the corrected and cumulative scenarios identified in Chapters 4 and 5;
- requires the permitted Thetford House Farm quarry to be included within the realistic future baseline where its traffic could coincide with the development;
- requires proportionate sensitivity testing for PL/0029/26, the proposed Thetford extension, Manor Farm and other credible cumulative activity;

- requires an assessment of construction noise and vibration at representative residential, school and construction-route receptors;
- establishes the principal working hours, delivery periods, construction access and HGV-routing controls through enforceable conditions;
- prevents routine construction deliveries during the principal school arrival and departure periods where those movements would affect the school route;
- requires a detailed Construction Environmental Management Plan and Construction Logistics Plan before development begins;
- ensures those plans include measurable dust, noise and vibration standards, monitoring arrangements, action thresholds and work-suspension procedures;
- requires specific arrangements to protect occupants of completed phases while construction continues elsewhere on the site;
- secures a named community contact, documented complaints procedure and reporting arrangements; and
- does not leave fundamental questions about the acceptability of construction effects to be resolved only after permission has been granted.

N.B: Chapter 7 conclusion

Air quality, dust, noise and construction disturbance are capable of mitigation, but only where the risks have been properly assessed and the principal controls are fixed, measurable and enforceable. On the information reviewed, the authority should require a clearer pre-determination assessment and a substantially defined mitigation framework before concluding that the environmental effects of S26/0710 would be acceptable.

INDEPENDENT TECHNICAL REVIEW

Chapter 8

Cumulative Effects, Mitigation and Planning Safeguards

Planning Application S26/0710 — Baston Green

8.1 Purpose and Assessment Approach

The preceding chapters have considered individual elements of the proposed development, including the existing highway environment, the applicant's Transport Assessment methodology, traffic and highway operation, pedestrian and school-route conditions, and the potential effects of air quality, dust, noise and construction activity.

This chapter considers those matters collectively.

The acceptability of Planning Application S26/0710 should not depend solely upon whether each individual effect can, when considered separately, be described as modest or capable of mitigation. *The planning authority must also consider whether the combined and residual effects remain acceptable when reasonably foreseeable activities occur concurrently.*

This approach is particularly relevant at Baston because the future baseline is not static.

- construction of the housing development;
- occupation of completed phases while later phases remain under construction;
- permanent residential traffic generated by the completed development;
- the permitted Thetford House Farm quarry;
- other mineral proposals or renewed mineral activity where sufficiently advanced or reasonably foreseeable;
- associated changes in HGV movements;
- implementation and consequential traffic redistribution arising from the proposed 7.5-tonne restriction; and
- other committed development or highway works using the same local network.

Chapter 7 has already identified that housing-construction vehicles, quarry HGVs and ordinary residential traffic could use parts of the same highway network, with combined effects including more frequent HGV movements, braking and acceleration, dust, noise, queuing and increased pedestrian exposure.

The assessment should therefore distinguish clearly between:

Realistic future baseline — development and activity already permitted or sufficiently committed to form part of the likely future environment.

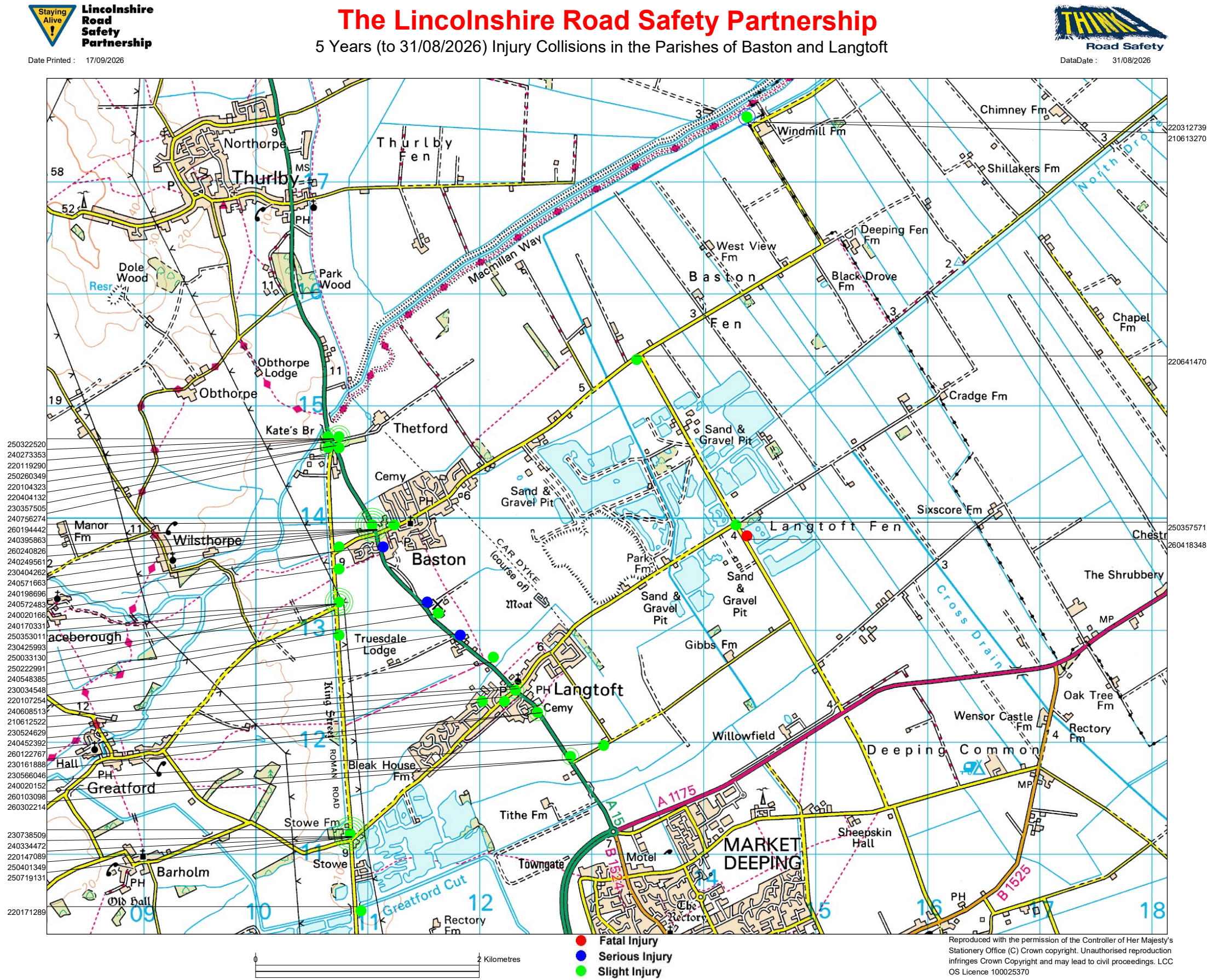
Cumulative assessment — other development which planning policy and assessment practice require to be considered alongside S26/0710.

Sensitivity testing — credible but less certain scenarios which could materially alter the conclusions if they occur.

The purpose is not to assume that every possible development or quarry proposal will proceed simultaneously at its maximum level. It is to determine whether the applicant's conclusions remain sufficiently robust when tested against a reasonable range of foreseeable future conditions.

Figure 8.1 Police recorded injury collision locations in Baston and Langtoft

Lincolnshire Road Safety Partnership. Five years to 31 August 2026; printed 17 September 2026. The map covers both parishes and the wider road network. See Chapter 5 section 5.4.5 for the individual Baston crossroads records; plotted locations do not establish collision causes.



This approach is consistent with the concern raised by Peterborough City Council that the junction-capacity work did not appear to consider a range of plausible scenarios and with the need to consider reasonable future scenarios when assessing residual cumulative impacts.

N.B: Observation

The central cumulative question is not whether every identified development will occur simultaneously. It is whether the conclusions relied upon to grant permission remain robust if the reasonably foreseeable future highway and environmental conditions differ materially from the single forecast scenario adopted by the applicant.

8.2 Realistic Future Baseline

8.2.1 A Changing Baseline

The future baseline against which S26/0710 is assessed should not simply reproduce conditions existing when the original traffic surveys or environmental assessments were undertaken.

A development of this scale would be constructed and occupied over a number of years. Conditions affecting Baston during that period may therefore differ materially from those observed at the time of the applicant's baseline surveys.

This is particularly important in relation to mineral activity.

Chapter 7 concluded that the permitted Thetford House Farm quarry represents a realistic component of the future environmental baseline.

Where permitted quarry operations and their associated HGV movements could coincide with construction or occupation of the proposed housing development, those movements should therefore be incorporated into the appropriate future baseline rather than treated simply as an optional theoretical scenario.

8.2.2 Housing Construction and Occupation

The development itself creates a changing baseline. Construction of 283 dwellings is unlikely to be instantaneous. Completed phases may become occupied while construction continues elsewhere.

Consequently, there may be periods during which:

- existing Baston residents;
- occupants of newly completed dwellings;
- development construction traffic;
- ordinary residential traffic;
- school pedestrians and cyclists; and
- quarry-related HGV traffic all use parts of the same local highway environment.

All use parts of the same local highway environment. *Chapter 7 specifically identified this potential overlap and the need to consider occupants of early phases while later construction activity continues.* This means that assessment of the completed development alone would not represent the complete environmental or highway effect.

8.2.3 The 7.5-Tonne Restriction

The proposed 7.5-tonne restriction affecting Greatford Road and Main Street is also relevant to the future baseline.

The scheme was agreed in 2024 but as established earlier in this review, implementation has been subject to significant delay.

Until the necessary signage and associated works are installed and the restriction becomes operational and enforceable, it should not be treated as though it already controls HGV movements.

Once implemented, it may also alter rather than simply remove HGV traffic, because restricted vehicles will have to use alternative routes.

8.2.4 Baseline Finding

The assessment should therefore be based upon the future environment reasonably expected when the development is being constructed and occupied, rather than treating the existing village as a fixed baseline throughout the assessment period.

N.B: Observation

Planning permission would authorise a development whose effects extend many years beyond the date of the original surveys. A baseline that omits already permitted or sufficiently committed changes risks answering the wrong question: whether the development is acceptable against yesterday's conditions rather than the conditions reasonably expected when its impacts actually occur.

8.3 Cumulative and Reasonable Worst-Case Scenarios

8.3.1 Why Scenario Testing is Required

The existence of uncertainty does not justify assuming that every possible development will proceed. Equally, uncertainty should not automatically justify excluding credible future activity from consideration. A proportionate approach is to test a limited number of scenarios capable of demonstrating whether the conclusions are robust.

Scenario A — Core Future Baseline

The 283-dwelling development; ordinary background traffic growth; committed development; the permitted Thetford House Farm quarry; and other infrastructure or highway changes sufficiently certain to form part of the future baseline. This should be the minimum realistic future case.

Scenario B — Cumulative Planning Case

Relevant development or mineral proposals which have reached a stage at which they properly require cumulative consideration. The precise schemes included should be justified by their planning status rather than selected merely because they produce a favourable or unfavourable result.

Scenario C — Reasonable Sensitivity / Stress Test

Credible additional mineral activity, including the proposed Thetford extension and other quarry activity identified in the preceding chapters where there is a realistic prospect that it could materially alter traffic conditions. This is not a prediction that all quarries will operate simultaneously at maximum capacity.

The purpose of Scenario C is to establish whether, if HGV activity becomes materially greater than the applicant's assumed baseline, the conclusions concerning the A15, Greatford Road junction, queuing, pedestrian exposure, air quality and construction disturbance remain robust.

Chapter 7 reached the same evidential position: the applicant should not be required to assume every possible quarry proceeds at maximum output but should demonstrate that its conclusions remain reliable under a reasonable worst-case combination of housing construction, occupation and mineral-related HGV activity.

8.3.2 What Should Be Tested

- A15 junction operation;
- queue length and delay at Baston crossroads;
- Greatford Road/A15 gap availability;
- HGV proportion as well as total traffic volume;
- construction traffic;
- pedestrian and school-route exposure;
- cycling conditions;
- traffic redistribution;
- air quality;
- dust;
- noise and vibration; and
- the consequences of overlapping construction and quarry activity.

N.B: Observation:

This is particularly important because Chapter 5 site evidence demonstrates existing queuing, visibility constraints and pedestrian interaction. Additional traffic is therefore being introduced into an environment containing existing operational constraints, rather than into an unconstrained theoretical network.

8.3.3 Decision-Making Consequence

If the conclusions remain satisfactory across those scenarios, that will materially strengthen the applicant's transport and environmental case. If they do not, the authority would then be able to identify precisely:

- what mitigation is required;
- whether that mitigation is deliverable;
- whether it must be provided before occupation;
- what should be controlled by condition or legal obligation; and
- whether residual impacts remain unacceptable after mitigation.

That is preferable to attempting to resolve fundamental uncertainty through broadly worded post-permission conditions.

N.B: Observation

Sensitivity testing is not an assertion that the worst case will occur. It is a test of resilience. Where permission would authorise 283 dwellings for the long term within a changing traffic and mineral environment, the authority should understand whether the conclusions remain satisfactory if reasonable future conditions are less favourable than the applicant's central forecast.

8.4 Mitigation Hierarchy and Required Highway Measures

8.4.1 Mitigation Should Follow the Identified Risk

Mitigation should respond directly to the effects identified in the preceding chapters. The appropriate hierarchy is:

- avoid the impact where practicable;
- reduce the impact through design or operational measures;
- control residual effects through enforceable conditions or obligations; and
- monitor performance where uncertainty remains.

Monitoring should not be used as a substitute for resolving fundamental questions before permission is granted. This distinction is especially important where the issue concerns highway safety, junction operation or the deliverability of pedestrian infrastructure. *If the acceptability of the proposal depends upon a particular improvement, that improvement should be sufficiently defined and secured before development proceeds.*

8.4.2 A15 / Greatford Road Junction

The Greatford Road/A15 junction requires particular attention because the review has identified a combination of restricted visibility, additional development traffic, existing queuing and gap-acceptance pressures, pedestrian interaction close to the junction, and a potentially changing HGV environment.

The Lincolnshire Road Safety Partnership return to 31 August 2026 records three slight-injury collisions at this crossroads in 2023–24, involving crossing or turning movements. The highway authority should review the individual narratives and plotted positions, alongside observed speeds and measured visibility, before accepting the applicant's junction-safety conclusion. One record identifies alcohol impairment and the statistics do not establish a common causal mechanism.

The applicant should therefore demonstrate before determination that:

- the relevant visibility splays are achievable;
- the splays are based on appropriate observed speeds;
- any land required for those splays is within highway or applicant control;
- the visibility can be maintained permanently;
- the right-turn and left-turn manoeuvres remain satisfactory under cumulative traffic scenarios; and
- the junction remains acceptable with the permitted quarry traffic included in the future baseline.

NB Observation:

If these matters cannot be demonstrated, they should not be deferred to a general future highway condition.

8.4.3 Pedestrian Route to Baston Primary School

The pedestrian route to the primary school should be treated as a complete route rather than as a collection of isolated improvements. The development should not rely upon increased walking to school unless the route can be demonstrated to be safe, continuous and convenient.

The mitigation package should therefore address:

- the crossing of Greatford Road by pedestrians approaching from Maltby Drive;
- visibility between pedestrians and vehicles turning from the A15;
- continuity of footways along Greatford Road;
- the route towards and from King Street;
- the suitability of crossing points for children and accompanying adults;
- tactile paving and dropped kerbs;

- lighting where necessary; and
- the relationship between the route and the controlled A15 pedestrian crossing.
- The current capacity of Baston C.E School.

Bancroft's proposed Walking to School initiative should operate after the physical route has been demonstrated to be satisfactory, not as a substitute for physical mitigation.

8.4.4 Primary Education Capacity and School-Travel Assumptions

Education capacity should be considered alongside the pedestrian-route and Travel Plan evidence. Baston C of E Primary School has a current PAN of 25 and school size of 190, while Lincolnshire County Council's 2024 admissions review records an over-offer of 28 Reception places against a PAN of 25. This does not establish the present number of vacancies in every year group, but it is sufficient to demonstrate that local capacity cannot simply be assumed.

Before determination, the Local Planning Authority should obtain or confirm from Lincolnshire County Council Children's Services:

- the expected primary-school pupil yield from 283 dwellings;
- current and forecast capacity at Baston C of E Primary School and other schools reasonably likely to serve the development;
- the likely destination of pupils if Baston cannot accommodate the generated demand;
- the resulting implications for walking-to-school assumptions and school-peak vehicle movements; and
- the education contribution, expansion or other mitigation required and the point at which it must be delivered.

Where education mitigation is necessary, it should be secured through the Section 106 agreement with appropriate delivery triggers. *The transport case should also be revisited if the education strategy indicates that a significant proportion of primary pupils would need to travel outside Baston.*

Professional Observation. School capacity and transport are linked in this case. If children generated by the development cannot attend the school within walking distance, the Travel Plan may overstate the practical scope for walking and understate school-related car travel.

8.4.5 Cycling Measures

The absence of continuous dedicated cycle infrastructure limits the credibility of cycling as a significant alternative to private-car travel, particularly for children and less confident users. Where the Travel Plan assumes increased cycling, the applicant should identify:

- the actual routes expected to be used;
- the standard of those routes;
- junction and crossing arrangements;
- interaction with the A15;
- whether the route accords with relevant active-travel guidance; and
- whether improvements are deliverable within land under appropriate control.

If substantial off-site cycle infrastructure cannot be delivered, the traffic assessment should not assume an ambitious cycling mode share without an appropriate higher-car-use sensitivity test.

8.4.6 A15 Speed Environment

A possible reduction of the A15 speed limit through Baston to 30 mph is relevant to the mitigation framework. Bancroft has committed to fund a Traffic Regulation Order for a 30 mph limit past Baston, and Alicia Kearns MP has publicly supported a lower A15 limit. Each forecast should state its speed-limit assumption.

The planning authority should establish:

- the publicly documented status and extent of the proposed limit;
- the Highway Authority's published position;
- the likely timetable for implementation;
- whether the reduction would be operational before occupation of the development;
- whether engineering or enforcement measures are required to achieve meaningful compliance; and
- whether any safety conclusion relies on the lower limit and remains satisfactory at existing observed speeds.

N.B: Observation:

Until a 30 mph restriction is in force, existing speeds remain the operating baseline. A future limit requires a separate scenario with evidence of timing and likely compliance.

8.4.7 7.5-Tonne Restriction

The delayed 7.5-tonne restriction on Greatford Road and Main Street should also be treated carefully. The development assessment should not assume that this restriction already controls HGV movements.

If the future highway conclusions depend upon the restriction, the authority should understand:

- when it will become operational;
- which routes are affected;
- the exemptions that will apply;
- how HGVs will be redistributed; and
- whether the displacement itself creates additional impacts elsewhere.

Given the delays already experienced, the existence of an approved scheme should not be treated as equivalent to a completed and enforceable restriction.

8.4.8 Quarry and HGV Mitigation

The permitted Thetford House Farm quarry should be incorporated into the realistic future baseline. For additional mineral scenarios, the applicant should demonstrate that the housing development remains acceptable under reasonable HGV sensitivity testing.

Where cumulative HGV impacts are material, potential mitigation may include:

- agreed HGV routing;
- restrictions on construction HGVs using sensitive residential streets;
- delivery-time controls;
- avoidance of principal school arrival and departure periods;
- junction improvements where they are justified;
- wheel-washing and road-cleaning controls;
- monitoring of construction vehicle movements; and
- liaison arrangements between major concurrent construction/mineral operators where necessary.

The purpose should be to manage the combined traffic environment, not merely the traffic generated by Wates in isolation.

8.4.9 Main Street and A15 Queuing

The photographic evidence demonstrates that queues can already extend materially along Main Street towards Church Street. The applicant should therefore demonstrate that the proposed development does not materially worsen:

- queue frequency;
- queue duration;
- maximum queue length;
- blocking of side roads or accesses;
- pedestrian crossing conditions; or
- the ability of the junction to recover following temporary disruption.

Where the revised model depends upon calibration assumptions, the mitigation case should be tested against reasonable higher-demand scenarios rather than solely the preferred central forecast.

8.4.10 Construction Traffic Controls

Construction traffic requires a separate and enforceable mitigation package. At a minimum, the Construction Logistics Plan should establish:

- approved construction access routes;
- prohibited routes;
- HGV delivery hours;
- restrictions during school arrival and departure periods;
- vehicle holding arrangements;
- measures preventing vehicles waiting on Greatford Road or Main Street;
- wheel washing and road cleaning;
- mud and debris controls;
- traffic-marshalling arrangements where necessary;
- complaints and enforcement procedures; and
- monitoring of compliance.

These controls should be fixed sufficiently clearly at permission stage to ensure that the later Construction Logistics Plan implements an agreed framework rather than determines fundamental matters for the first time.

8.4.11 Trigger Points and Occupation Controls

Where mitigation is necessary to make the development acceptable, its delivery should be linked to clear trigger points. Examples include:

- highway access works before construction traffic reaches a defined level;
- pedestrian-route improvements before first occupation;
- crossing improvements before occupation of dwellings likely to generate the relevant school movements;
- speed-limit or traffic-regulation measures before a specified occupation threshold;
- Travel Plan implementation from first occupation; and
- monitoring and remedial measures linked to defined traffic or modal-share outcomes.

This avoids a situation in which the development becomes substantially occupied before essential mitigation is operational.

8.4.12 Preliminary Finding

The mitigation package should not rely disproportionately upon future plans, voluntary behavioural change or measures whose delivery remains uncertain. Particular priority should be given to measures addressing:

8. Greatford Road/A15 visibility and junction operation;
9. the school pedestrian route;
10. A15 crossing conditions;
11. realistic cycling provision;
12. cumulative HGV impacts;
13. Main Street/A15 queuing;
14. construction traffic;
15. implementation of the 30 mph A15 proposal where relied upon;
16. the delayed 7.5-tonne restriction; and
17. clear pre-occupation trigger points.

N.B: Observation:

Mitigation is only effective where it is deliverable, timely and enforceable. A measure should not be relied upon to justify planning permission if its design, land control, funding, implementation date or enforcement mechanism remains uncertain. Where the acceptability of S26/0710 depends upon a highway or pedestrian improvement, the authority should ensure that the improvement is defined sufficiently and secured before the relevant phase of development occurs.

8.5 Planning Conditions, Obligations and Highway Agreements

8.5.1 Purpose

If South Kesteven District Council concludes that Planning Application S26/0710 is capable of approval, the mitigation identified in this review should be secured through appropriate and enforceable mechanisms.

The purpose of conditions and obligations should not be to postpone unresolved questions concerning the fundamental acceptability of the development. They should secure the implementation, timing, monitoring and enforcement of measures whose principle and deliverability have already been established.

This distinction is particularly important where the assessment relies upon off-site highway works, pedestrian improvements, traffic restrictions or other measures requiring the involvement of Lincolnshire County Council as Highway Authority.

The appropriate mechanism may therefore include a combination of:

- planning conditions;
- Section 106 planning obligations;
- Section 278 highway agreements;
- Traffic Regulation Orders;
- Travel Plan obligations; and
- other highway approvals or agreements where required.

The final mechanism should be determined by the Local Planning Authority and Highway Authority according to the nature and legal requirements of each measure.

8.5.2 Matters Requiring Resolution Before Determination

Certain matters should, in this review's opinion, be resolved sufficiently before planning permission is granted, rather than being left entirely to post-permission conditions.

Greatford Road/A15 junction

The authority should be satisfied regarding the relevant visibility conditions, junction operation and the implications of realistic cumulative traffic scenarios.

Pedestrian route to Baston Primary School

The complete route should be demonstrated to be suitable, including the Greatford Road crossing environment, connection to the controlled A15 crossing and any necessary improvements.

Cumulative traffic baseline

The permitted Thetford House Farm quarry should be incorporated where appropriate into the realistic future baseline, with proportionate sensitivity testing for credible additional mineral activity.

A15 junction modelling

The authority should be satisfied that the final model adequately reflects observed conditions, including existing queuing, and remains robust under reasonable future scenarios.

Flood risk and constrained-outfall performance

The Lead Local Flood Authority should confirm that the attenuation strategy has been tested against the observed high downstream water levels, including submerged or restricted-outfall conditions, reduced- and zero-discharge sensitivity scenarios, successive storms before storage has recovered, and mapped safe exceedance routes.

Archaeology and layout compatibility

The authority should obtain the County Archaeologist's response to Cambridge Archaeological Unit Report 1738 and be satisfied that the identified archaeological areas and approximately 3.58-hectare investigation or mitigation footprint are compatible with the final layout, drainage, utilities, earthworks and construction phasing.

These are matters capable of affecting whether the development is acceptable in principle and should not simply be transferred into a future management plan.

8.5.3 Recommended Planning Conditions

A. Construction Environmental Management Plan

No relevant phase of development should commence until a detailed Construction Environmental Management Plan has been approved. It should include:

- construction programme and phasing;
- working hours;
- construction access;
- construction HGV routes;
- delivery and collection arrangements;
- vehicle holding areas;
- wheel washing;
- road sweeping and mud removal;
- dust suppression;
- noise and vibration controls;
- location of compounds and stockpiles;
- monitoring and action thresholds;
- complaints procedure;
- named community contact; and
- corrective action where agreed limits or requirements are breached.

Chapter 7 has already concluded that a generic commitment to submit such a plan after permission would not itself demonstrate that the effects can be controlled; the principal framework needs to be established beforehand.

B. Construction Traffic and School Hours

Construction HGV movements should, where practicable and justified by the final logistics assessment, be restricted during the principal periods when children are travelling to and from Baston Primary School. This should be expressed through defined periods rather than a general commitment to “avoid school times”.

C. Construction Routing

Approved construction routes should be identified before commencement. Construction vehicles should not routinely use unsuitable residential roads where an appropriate alternative exists, and the condition or associated logistics plan should provide a mechanism for investigating and correcting repeated non-compliance.

D. Pedestrian Infrastructure

All pedestrian infrastructure required to provide the agreed route between the development and existing village facilities should be completed before the relevant occupation trigger. This should include any agreed footway works, dropped crossings, tactile paving, visibility improvements, A15 crossing-related works and Greatford Road pedestrian improvements.

E. Cycle Infrastructure

Any cycle facilities relied upon within the Transport Assessment or Travel Plan should similarly be delivered before the occupation level at which their modal benefits are assumed.

F. Site Accesses and Visibility

The Deeping Road and Greatford Road accesses should be constructed to approved drawings before the appropriate occupation stage. Required visibility splays should thereafter be maintained free of obstruction, subject to appropriate highway-design requirements.

G. Travel Plan

The Residential Travel Plan should be implemented from first occupation with a named Travel Plan Coordinator, baseline and subsequent travel surveys, defined targets, reporting intervals, remedial measures where targets are not achieved and an appropriate monitoring period. Behavioural measures should supplement rather than substitute for satisfactory physical infrastructure.

8.5.4 Section 106 and Other Obligations

Where mitigation cannot appropriately be secured through a conventional planning condition, an obligation or other agreement may be necessary such as:

Sustainable Transport

Where justified and demonstrated to meet the relevant legal tests, contributions could support measures such as:

- public transport improvements;
- active-travel infrastructure;
- Travel Plan monitoring; and
- other measures directly necessary to mitigate development-generated travel.

Any contribution should be clearly related to the development and supported by an identified purpose rather than being expressed as a general infrastructure payment.

Monitoring and Remedial Measures

Where the authority accepts forecasts containing material uncertainty, consideration should be given to whether monitoring and agreed remedial measures can appropriately be secured. This is particularly relevant to the Travel Plan. However, monitoring should not be relied upon as the solution to a fundamental highway-safety concern: by the time monitoring identifies such a problem, occupation may already have occurred.

8.5.5 Section 278 Highway Works

Physical works within the adopted highway may require a Section 278 agreement with Lincolnshire County Council. Depending upon the final approved scheme, these could include relevant:

- access works;
- junction alterations;
- pedestrian improvements;
- crossing works;
- signs and road markings; and
- other off-site highway mitigation.

Where the planning assessment depends upon such works, permission should contain an appropriate mechanism preventing occupation beyond the relevant trigger until those works have been completed and are operational.

N.B: Observation

Permission should not assume the benefit of an off-site highway improvement without reasonable certainty that the improvement can actually be delivered.

8.5.6 A15 30 mph Speed Limit

If a future 30 mph A15 limit is relied upon, the authority should establish before determination:

- the geographical extent of the proposed restriction;
- the Highway Authority's published position and the status of the order;
- the mechanism by which it would be promoted;
- funding;
- anticipated implementation;
- whether complementary measures are required; and
- the occupation trigger by which it needs to be operational.

Assess safety at existing observed speeds and, where relevant, under a 30 mph limit. A funding commitment does not establish when the new limit will apply or how closely drivers will comply.

8.5.7 7.5-Tonne Restriction

A similar principle applies to the approved but delayed 7.5-tonne restriction affecting Greatford Road and Main Street. Chapter 5 records that implementation has been delayed and concludes that a future restriction should not be treated as equivalent to present operational control.

The planning assessment should therefore avoid relying upon the restriction until there is sufficient certainty regarding:

- implementation;
- signage;
- legal commencement;
- enforcement;
- exemptions; and
- consequential HGV redistribution.

If the restriction becomes operational before relevant stages of the housing development, the cumulative traffic assessment should reflect the resulting network rather than simply assuming that affected HGV movements disappear.

8.5.8 Occupation Triggers

Conditions and obligations should contain specific trigger points. Depending upon the final mitigation package, examples could include:

Before commencement — construction access, Construction Environmental Management Plan, Construction Logistics Plan and principal environmental controls.

Before first occupation — essential pedestrian connections, initial Travel Plan measures and highway work required for safe access.

Before specified occupation thresholds — remaining off-site pedestrian/cycle improvements, junction mitigation and other infrastructure whose need increases with development traffic.

Throughout construction — HGV routing, school-time controls, dust/noise measures, monitoring and complaints arrangements.

Following occupation — Travel Plan monitoring, reporting and agreed remedial measures.

This approach is considerably stronger than requiring infrastructure simply to be provided “prior to completion of the development”, when the majority of the traffic and pedestrian effects may already have arisen.

8.5.9 Enforcement and Monitoring

Conditions are only valuable if compliance can be established. Where appropriate, requirements should therefore specify:

- who is responsible;
- what is monitored;
- monitoring frequency;
- reporting arrangements;
- measurable thresholds;
- corrective actions;
- timescale for corrective action; and
- escalation where repeated non-compliance occurs.

Chapter 7 establishes the appropriate principle: controls should be specific, measurable, enforceable, available before the relevant work begins, maintained throughout construction and supported by defined corrective action.

8.5.10 Archaeological Investigation and Mitigation

The archaeological evaluation published on 10 September 2026 identifies prehistoric, Iron Age, Roman and medieval activity within the application site and recommends further investigation or mitigation across approximately 3.58 hectares. This evidence requires a site-specific response rather than reliance upon a generic archaeological condition.

Before determination, the Local Planning Authority should receive the County Archaeologist’s advice and establish that the proposed layout can accommodate the necessary archaeological response. Where the principle and extent of mitigation are accepted, a pre-commencement

condition should require an approved written scheme of archaeological investigation. That scheme should, as appropriate, secure:

- the agreed areas and methods of further investigation;
- any areas requiring preservation in situ and measures for their protection;
- phasing of archaeological work ahead of relevant construction and infrastructure operations;
- arrangements for excavation, recording, assessment and analysis;
- publication or other public dissemination proportionate to the significance of the results;
- deposition of the archive with an appropriate repository; and
- submission and approval of the required reports before occupation or another clearly defined trigger.

No development, including enabling works, haul roads, drainage, service installation or ground reduction, should begin within an affected archaeological area until the relevant stage of the approved scheme has been completed or protective measures have been implemented.

8.5.11 Preliminary Finding

If S26/0710 is approved, a comprehensive package of conditions, obligations and highway agreements will be required. However, conditions should not be used to compensate for insufficient evidence at determination stage.

The authority should first be satisfied that:

1. safe and suitable access can be achieved;
2. the school pedestrian route is satisfactory or can demonstrably be made satisfactory;
3. the junction assessment is based upon a reliable future baseline;
4. cumulative mineral/HGV effects have been appropriately considered;
5. necessary off-site mitigation is deliverable;
6. the County Archaeologist has confirmed that the archaeological evidence is sufficient for determination and that an appropriate mitigation strategy is deliverable; and
7. the residual effects following mitigation are acceptable.

Only once those principles are established should conditions and obligations be used to secure their detailed implementation.

N.B: Observation

A planning condition can secure an identified solution; it should not be expected to discover the solution after permission has been granted. Where a highway, pedestrian or cumulative traffic issue is fundamental to determining whether the development is acceptable, the authority should establish the principle, feasibility and delivery mechanism of the necessary mitigation before granting permission.

8.6 Chapter Conclusion and Recommendations

This chapter has considered whether the effects identified elsewhere in this review remain acceptable when assessed cumulatively and whether appropriate mitigation can be secured through the planning process.

The principal finding is that the future environment against which S26/0710 should be assessed is not static.

Construction and occupation of the proposed 283 dwellings may overlap with permitted mineral activity, associated HGV movements, changes to the local highway network and, potentially, other sufficiently advanced mineral or development proposals. The assessment should therefore distinguish between the realistic future baseline, developments requiring cumulative consideration and credible sensitivity scenarios.

This does not require the authority to assume that every potential quarry or development will operate simultaneously at maximum capacity. *It does require sufficient testing to establish that the conclusions relied upon to grant permission remain robust under reasonable future scenarios.*

Particular importance should be attached to the interaction between:

- development-generated traffic;
- construction traffic;
- quarry-related HGV movements;
- existing A15 congestion and queuing;
- the Greatford Road/A15 visibility environment;
- pedestrian movements associated with Baston Primary School;
- primary-school capacity and the resulting pattern of school-related journeys;
- incomplete pedestrian and cycle infrastructure; and
- the effectiveness and timing of proposed mitigation.

The evidence considered in earlier chapters demonstrates that several of these constraints already exist. The development does not necessarily create them, but it may increase the frequency and extent of exposure to them.

8.6.1 Recommendations to the Local Planning Authority

Before determining S26/0710, this review recommends that South Kesteven District Council, in consultation with Lincolnshire County Council and other relevant consultees, should be satisfied that:

1. the permitted Thetford House Farm quarry is appropriately incorporated into the realistic future baseline;
2. reasonable cumulative and sensitivity scenarios have been tested;
3. the Greatford Road/A15 junction remains satisfactory under those conditions, with the three recorded injury collisions at the crossroads, individual collision circumstances, observed speeds, sightlines and turning movements expressly considered;
4. the A15 modelling adequately represents observed queuing and realistic future demand;
5. a complete and satisfactory pedestrian route to Baston Primary School can be delivered;
6. current and forecast primary-school capacity, pupil yield and any necessary education mitigation are established, and the transport assessment reflects any pupils likely to travel to schools outside Baston;
7. assumptions concerning walking and cycling are supported by infrastructure capable of delivering the anticipated behavioural change;
8. necessary off-site highway mitigation is technically and legally deliverable;
9. the implications and timing of the proposed A15 30 mph limit and 7.5-tonne restriction are properly understood wherever relied upon;
10. construction traffic, dust, noise and HGV effects are subject to sufficiently defined controls;
11. the attenuation and outfall strategy has been tested against observed high downstream water levels, including reduced- and zero-discharge, successive-storm and safe-exceedance scenarios;
12. the County Archaeologist's advice has been received, the archaeological mitigation areas have been reconciled with the final layout and an enforceable written scheme of investigation can be secured;
13. all mitigation necessary to make the development acceptable is secured through appropriate conditions, obligations, highway agreements and clearly defined delivery triggers.

8.6.2 Overall Finding

The evidence reviewed does not establish that the proposed development is incapable of being made acceptable. It does, however, identify material uncertainties concerning the future traffic baseline, cumulative HGV activity, junction operation, pedestrian safety and the delivery of mitigation.

Those matters should be resolved to an appropriate level before permission is granted rather than relying upon post-permission conditions to determine whether satisfactory solutions can subsequently be found.

N.B: Observation

The appropriate planning test is ultimately one of robustness. A development of 283 dwellings will remain part of Baston for generations. The transport and environmental case should therefore demonstrate that the development can operate satisfactorily not only against the applicant's central forecast, but against the reasonable future conditions in which the development will actually be constructed and occupied.